City of Richmond

Agenda

Public Works and Transportation Committee

Anderson Room, City Hall
6911 No. 3 Road

Wednesday, May 17, 2017
4:00 p.m.

Pg. # ITEM

MINUTES

PWT-5 ***Motion to adopt the minutes of the meeting of the Public Works and Transportation Committee held on April 20, 2017.***

NEXT COMMITTEE MEETING DATE

June 21, 2017, (tentative date) at 4:00 p.m. in the Anderson Room

ENGINEERING AND PUBLIC WORKS DIVISION

1. **BC ENERGY STEP CODE FOR NEW PRIVATE BUILDINGS**
(File Ref. No. 10-6125-07-02) (REDMS No. 5367037 v. 8)

PWT-9 See Page **PWT-9** for full report

Designated Speaker: Brendan McEwen

STAFF RECOMMENDATION

(1) That the stakeholder consultation program in the report titled "BC Energy Step Code for New Private Buildings" dated April 11, 2017, from the Director, Engineering, be endorsed for the purpose of gaining feedback on how the Energy Step Code can be implemented in Richmond;

(2) That the air barrier installation training program identified in the report titled "BC Energy Step Code for New Private Buildings" dated April 11, 2017, from the Director, Engineering, be approved with $60,350 funding from the Carbon Tax Provision; and

(3) That the funding for the air barrier installation training program be included as an amendment to the 5 Year Financial Plan (2017-2021).

2. **AWARD OF CONTRACT 5757 EOI – RECYCLING DEPOT CONTAINER COLLECTION AND RECYCLING SERVICES**
(File Ref. No. 10-6370-04-01) (REDMS No. 5374675)

PWT-26 See Page **PWT-26** for full report

Designated Speaker: Suzanne Bycraft

STAFF RECOMMENDATION

(1) That Contract 5757 EOI, Recycling Depot Container Collection and Recycling Services, be awarded as follows:

(a) Cascades Recovery Inc. – the container collection and recycling services for the following commodities at the unit rates quoted: newspaper, mixed paper and cardboard; and

(b) Super Save Group – the container collection and recycling services for the following commodities at the unit rates quoted: tin, scrap metal, aluminium, plastic and yard waste;

(2) That staff be authorized to extend the contract in one-year increments up to five years in total, and if required, extend the contract beyond the five-year term on a month-by-month basis until such time as a new contract can be advertised and awarded; and

(3) That the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to execute the above contracts.

3. **AMENDMENT TO WATER USE RESTRICTION BYLAW**
(File Ref. No. 10-6160-07-06) (REDMS No. 5352786)

PWT-31 See Page **PWT-31** for full report

Designated Speaker: Kimberley Armour

STAFF RECOMMENDATION

That the Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 9704 be introduced and given first, second and third readings.

4. **2016 ANNUAL WATER QUALITY REPORT**
(File Ref. No. 10-6000-01) (REDMS No. 5371641)

PWT-37 See Page **PWT-37** for full report

Designated Speaker: Bryan Shepherd

STAFF RECOMMENDATION

That the staff report titled "2016 Annual Water Quality Report" dated April 13, 2017 from the Director, Public Works Operations, be endorsed and made available to the community through the City's website and through various communication tools including social media and as part of community outreach activities.

5. **2016 CLIMATE ACTION REVENUE INCENTIVE PROGRAM AND CARBON NEUTRAL PROGRESS REPORT**
(File Ref. No. 10-6125-07-03) (REDMS No. 5372171 v. 12)

PWT-129 See Page **PWT-129** for full report

Designated Speaker: Levi Higgs

STAFF RECOMMENDATION

(1) That the 2016 Climate Action Revenue Incentive Program (CARIP) and Carbon Neutral Progress Report from the Director, Engineering dated April 27, 2017, be received for information; and

(2) That, in accordance with Provincial requirements, the CARIP Report and Carbon Neutral Progress Report be posted on the City's website for public access.

Pg. # ITEM

6. **MANAGER'S REPORT**

ADJOURNMENT

City of Richmond

Minutes

Public Works and Transportation Committee

Date:	Thursday, April 20, 2017
Place:	Anderson Room Richmond City Hall
Present:	Councillor Chak Au, Chair Councillor Harold Steves Councillor Carol Day Councillor Alexa Loo
Absent:	Councillor Derek Dang
Also Present:	Councillor Linda McPhail
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 Public Works and Transportation Committee held on March 22, 2017, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

May 17, 2017, (tentative date) at 4:00 p.m. in the Anderson Room

PLANNING AND DEVELOPMENT DIVISION

1. **INSTALLATION OF DYNAMIC MESSAGE SIGN ON SOUTHBOUND KNIGHT STREET**
(File Ref. No. 01-0150-20-THIG1) (REDMS No. 5338814 v. 2)

It was moved and seconded
That the staff report titled "Installation of Dynamic Message Sign on Southbound Knight Street" dated March 27, 2017, from the Director, Transportation, to support regional transportation management in the Metro Vancouver area, be received for information.

CARRIED

ENGINEERING AND PUBLIC WORKS DIVISION

2. **2017 NATIONAL PUBLIC WORKS WEEK**
(File Ref. No. 10-6000-01) (REDMS No. 5358882)

It was moved and seconded
That the staff report titled "2017 National Public Works Week", dated April 2, 2017 from the Director, Public Works Operations, be received for information.

CARRIED

3. **STANDARDIZATION OF CITY'S SINGLE AND TANDEM AXLE VEHICLE FLEET**
(File Ref. No. 02-0735-01) (REDMS No. 5329728 v. 3)

It was moved and seconded
(1) That the Peterbilt make be adopted as the standard for future single and tandem axle cab and chassis vehicle requirements;

(2) That staff be authorized to competitively bid directly with Peterbilt dealers to obtain best value; and

(3) That the Peterbilt make standard for the cab and chassis components of the City's single and tandem axle vehicle fleet be reviewed after five years or sooner if the City does not receive competitive bids in order to evaluate suitability in relation to overall best value.

CARRIED

4. **REPORT 2016: RECYCLING AND SOLID WASTE MANAGEMENT - ON TRACK FOR 80% WASTE DIVERSION**
(File Ref. No. 10-6370-01) (REDMS No. 5352261)

Suzanne Bycraft, Manager, Fleet and Environmental Programs, provided a booklet on recycling and solid waste management (copy on file, City Clerk's Office).

In reply to queries from Committee, Ms. Bycraft noted that the in-ground garbage bins located in parks and public areas have more depth to allow for increased capacity; thus reducing collection frequency needs.

Joe Erceg, General Manager, Planning and Development, advised that the Building Department administers the Demolition Waste and Recyclable Materials Bylaw No. 9516, and that participation and compliance has been well received and staff will provide an update.

In reply to queries from Committee, Ms. Bycraft advised that the Donation Bin Regulation Bylaw 9502 has been effective and all concerns have been handled in a timely manner.

Ms. Bycraft noted that a viewing of the building material recycling process can be scheduled for Council in an effort to demonstrate the procedures.

Discussion ensued in regards to types of materials that are recyclable, and Ms. Bycraft advised that a list of acceptable items is available for the public to reference.

It was moved and seconded
That the annual report titled, "Report 2016: Recycling and Solid Waste Management – On Track for 80% Waste Diversion" be endorsed and Attachment 1 be made available to the community through the City's website and through various communication tools including social media channels and as part of community outreach initiatives.

CARRIED

5. **POST WINTER ROADS AND PAVING PROGRAM UPDATE**
(File Ref. No. 10-6060-05-01) (REDMS No. 5357378 v. 2)

It was moved and seconded

(1) That $202,300 be allocated from the MRN Provision for MRN road rehabilitation and included as an amendment to the 5 Year Consolidated Financial Plan (2017-2021); and

(2) That $832,500 be allocated from the Gas Tax Provision for Non MRN road rehabilitation and included as an amendment to the 5 Year Consolidated Financial Plan (2017-2021).

CARRIED

6. **METRO VANCOUVER GILBERT TRUNK SEWER NO. 2 UPDATE**
(File Ref. No. 10-6060-03-01) (REDMS No. 5320612 v. 5)

In reply to queries from Committee, Lloyd Bie, Manager, Engineering Planning, advised that communication, pedestrian and traffic management plans will be in effect with surrounding businesses during construction to minimize congestion.

It was moved and seconded
That the report titled "Metro Vancouver Gilbert Trunk Sewer No. 2 Update," dated March 22, 2017 from the Director, Engineering be received for information.

CARRIED

7. **MANAGER'S REPORT**

(i) 2017 Capital Construction Projects

John Irving, Director, Engineering, highlighted that the "2017 Capital Construction Projects" Open House is being held in the Atrium at City Hall.

(ii) Recreational Trails and Cycling Map

Victor Wei, Director, Transportation, distributed a new pocketsize trail and cycling map (copy on file, City Clerk's Office).

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 Public Works and Transportation Committee of the Council of the City of Richmond held on Thursday, April 20, 2017.

Councillor Chak Au
Chair

Sarah Kurian
Legislative Services Coordinator

City of Richmond

Report to Committee

To:	Public Works and Transportation Committee	**Date:**	April 11, 2017
From:	John Irving, P.Eng. MPA Director, Engineering	**File:**	10-6125-07-02/2016-Vol 01
Re:	**BC Energy Step Code for New Private Buildings**		

Staff Recommendations

1. That the stakeholder consultation program in the report titled "BC Energy Step Code for New Private Buildings" dated April 11, 2017, from the Director, Engineering, be endorsed for the purpose of gaining feedback on how the Energy Step Code can be implemented in Richmond;

2. That the air barrier installation training program identified in the report titled "BC Energy Step Code for New Private Buildings" dated April 11, 2017, from the Director, Engineering, be approved with $60,350 funding from the Carbon Tax Provision;

3. That the funding for the air barrier installation training program be included as an amendment to the 5 Year Financial Plan (2017-2021).

John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

Att. 2

REPORT CONCURRENCE		
ROUTED TO:	**CONCURRENCE**	**CONCURRENCE OF GENERAL MANAGER**
Law	☑	
Building Approvals	☑	
Development Applications	☑	
Policy Planning	☑	
Finance	☑	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	**INITIALS:**	**APPROVED BY CAO**

Staff Report

Origin

In June 2016, Planning Committee received a report entitled "Energy Policies for New Private Buildings Update," dated May 12, 2016, noting staff's participation in the Energy Efficiency Working Group at the invitation of the Province, with regard to the development of what was then termed a "Stretch Code." The report noted that once outcomes of this process were defined staff would bring forward a report to Council for consideration regarding a High Performance Policy for New Private Buildings for the purposes of stakeholder consultation.

This report supports Council's 2014-2018 Term Goal #4 Leadership in Sustainability:

> *Continue advancement of the City's sustainability framework and initiatives to improve the short and long term livability of our City, and that maintain Richmond's position as a leader in sustainable programs, practices and innovations.*
>
> *4.1. Continued implementation of the sustainability framework.*
>
> *4.2. Innovative projects and initiatives to advance sustainability.*

Background

Community Energy & Emissions

In 2010, Council adopted targets in Richmond's Official Community Plan to reduce community-wide greenhouse gas (GHG) emissions 33% below 2007 levels by 2020, and 80% below 2007 levels by 2050. The 2041 Official Community Plan also includes a target to reduce energy use 10% by 2020 below 2007 levels. Richmond's 2014 Community Energy and Emissions Plan (CEEP) outlines an array of strategies and actions for the City to take to reduce community energy use and GHG emissions, including:

> ***Strategy 2:*** Increase Energy Efficiency in New Developments
>
> - **Action 4:** Promote energy efficiency in all rezoning.
> - **Action 5:** Develop incentives for new development to exceed the building code energy requirements.

Modeling undertaken as part of the CEEP indicates that in order for Richmond to meet its emissions targets, all new buildings will need to be constructed to achieve zero carbon emissions by 2025. Thus, pursuing Carbon Zero Buildings is one of the "Big Breakthroughs" called for in the CEEP.

Current Energy-Related Requirements in Private Developments

A variety of existing City policies support energy performance in new developments, including:

- The "Sustainability Package" in the City Centre Area Plan
    - Leadership in Energy and Environmental Design (LEED™) Silver in City Centre – The 2009 City Centre Area Plan includes a policy that new developments over 2000m^2 undergoing rezoning achieve a minimum of LEED™ Silver performance.
    - District Energy Ready – New mixed use and residential developments located in areas of the City Centre where district energy systems may be established are expected to be developed with mechanical system that can connect into these systems. This requirement allows for provision of heating, cooling and domestic hot water energy to developments using low-carbon sources.

- Townhouse Energy Efficiency and Renewable Energy policy – Section 12.4, Objective 2 of the OCP sets out energy efficiency and renewable energy considerations for new townhouse developments resulting from rezoning applications. This policy was implemented in summer 2014, and was revised in fall 2015. As of January 19, 2017, 558 townhouse units had been approved under this policy, with Building Permits issued for 348 of these units and a number of townhouse projects fully constructed. The policy sets out a choice of four options that each townhouse unit must achieve for compliance:
    - Connect to a district energy utility (e.g. Alexandra District Energy Utility [ADEU] or Oval Village District Energy Utility [OVDEU]); or
    - Achieve an Energuide 82 energy performance rating (i.e. approximately 15% better than minimum BC Building Code performance); or
    - Achieve the requirements of the Energy Star for New Homes standard (i.e. approximately 22% better than minimum BC Building Code performance); or
    - Achieve the majority (at least 51%) of heating, cooling and/or electrical energy load requirements with on-site renewable energy systems (e.g. solar water heating, photovoltaic energy, geo-exchange).

There are currently no energy related requirements or policies applicable to large "Part 3" developments (e.g. buildings that are 4 or more stories or with a building footprint greater than 600 m^2) outside of the City Centre Area Plan. Likewise, there are no energy requirements or policies applicable to detached houses or other small "Part 9" buildings (e.g. buildings of less than four stories and building footprints of less than 600 m^2).

The *Building Act*

In 2015, the provincial government enacted the *Building Act* for the intended purpose of standardizing building regulations and their implementation throughout British Columbia. Section 5 of the Act stipulates that as of December 2017, local government building requirements enacted by means of bylaw will have no effect to the extent that they relate to provincial building regulations such as the BC Building Code. Provincial staff also stated that the

Building Act will not impact local government policies, nor negotiated agreements at time of rezoning secured by legal agreement. Thus, policies that apply to rezoning may be unaffected by the *Building Act*.

Climate Leadership Plan

In September 2015, Council directed that the City send a letter to the Province, outlining important elements that should be included in the Climate Leadership Plan, including action to reduce GHG emissions from buildings. In November 2015, Council directed that the City be a signatory to the "Call for Action on Energy and Climate in the Building Sector", an initiative of the Pembina Institute, Urban Development Institute Pacific Region, and the Royal Architectural Institute of Canada, calling on the Province to establish a roadmap to achieve net zero energy ready new buildings in BC as part of the Climate Leadership Plan.

In the summer of 2016, the Province released the Climate Leadership Plan. While the Plan did not identify measures sufficient to achieve the Province's 2020 and 2050 emission reduction targets, it did include important actions pertaining to the building sector, committing the Province to:

- Accelerating increased energy requirements in the BC Building Code by taking incremental steps to make buildings "net zero ready" by 2032.
- Developing the "BC Energy Step Code", consisting of energy efficiency requirements for new buildings that go beyond those in the BC Building Code that interested local governments could implement in their communities.

Analysis

Issues with Current Energy Requirements for New Developments

Richmond has shown leadership by requiring beyond-code energy and green building performance of new construction. However, further City action is necessary for Richmond's community GHG and energy reduction targets to be achieved. Currently, not all building types are subject to beyond-code energy performance policy, as only developments in the City Centre greater than 2000 m^2 and townhouse rezonings are asked to commit to beyond-code energy requirements. The CEEP makes clear that better energy performance is needed of all new developments.

Achieving the City's goals requires higher performance than what is currently specified in City policy. The minimum energy performance requirements of the BC Building Code have advanced over time to the point where they are almost equivalent to LEED Silver for new large ("Part 3") buildings. Referencing the BC Energy Step Code (described below) is expected to better achieve the City's energy and emissions goals than LEED's means of measuring energy performance.[1]

[1] The City's Sustainable "High Performance" Buildings Policy – City Owned Facilities (Council Policy 2307) requires that City owned facilities achieve LEED Gold certification including at least 10 energy performance credits. This is a higher level of performance than achieved with the minimum LEED pre-requisites and results in improved

The BC Energy Step Code

In response to concerns by local governments that the *Building Act* would prevent local governments from implementing GHG emission reduction measures in the building sector, the Province convened the "Stretch Code Implementation Working Group" (SCIWG) in the spring of 2016 to develop a consistent standard for energy efficiency performance that local governments could reference in requirements and policies, termed the BC Energy Step Code. A variety of stakeholders were represented in the SCIWG, including the Urban Development Institute, Canadian Home Builders Association, Greater Vancouver Home Builders Association, BC Hydro, FortisBC, Architectural Institute of BC, the Association of Professional Engineers and Geoscientists of BC, BC Housing, the Local Government Management Association, and other local governments. City of Richmond staff participated on the SCIWG. In November 2016, the Province released the consensus recommendations of the SCIWG.

On April 11, 2017, the Province announced its adoption of the BC Energy Step Code as a technical regulation. The BC Energy Step Code is a voluntary compliance path within the BC Building Code. It establishes progressive performance targets (or steps) that support market transformation from the current energy-efficiency requirements in the BC Building Code to net zero energy ready buildings by 2032. The Province also updated the *Building Act* General Regulation's unrestricted matters list, allowing local governments to require the Energy Step Code in bylaw and/or reference it in policies and voluntary programs. The Province published a "Provincial Policy: Local Government Implementation of the BC Energy Step Code" document, outlining expectations for local governments' application of the Energy Step Code consistent with the recommendations of the SCIWG. The SCIWG has now been renamed the "Energy Step Code Council," and will continue to advise the provincial government on the further development of, and revisions to, the Energy Step Code going forward. A City staff person is on the Energy Step Code Council.

The BC Energy Step Code aims to provide consistency across BC by setting out a single set of building standards that can be voluntarily adopted by local governments. The BC Energy Step Code empowers local governments to take the lead in advancing building energy efficiency standards above and beyond the minimum requirements of the BC Building Code, as suitable for local development conditions. The BC Energy Step Code also reflects the consensus of stakeholders on the SCIWG on the need to shift away from extensive prescriptive regulations towards a target-based approach when setting energy-efficiency targets, as practiced in Europe.

The Energy Step Code consists of two broad sets of energy standards that respectively cover large "Part 3" buildings, and smaller "Part 9" residential buildings, as represented in Figure 1. Attachments 1 and 2 to this report respectively provide additional information on the technical requirements of the Energy Step Code for "Part 3" and "Part 9" buildings. Broadly, there are five steps for "Part 9", four for "Part 3" residential buildings, and three for "Part 3" commercial and institutional.

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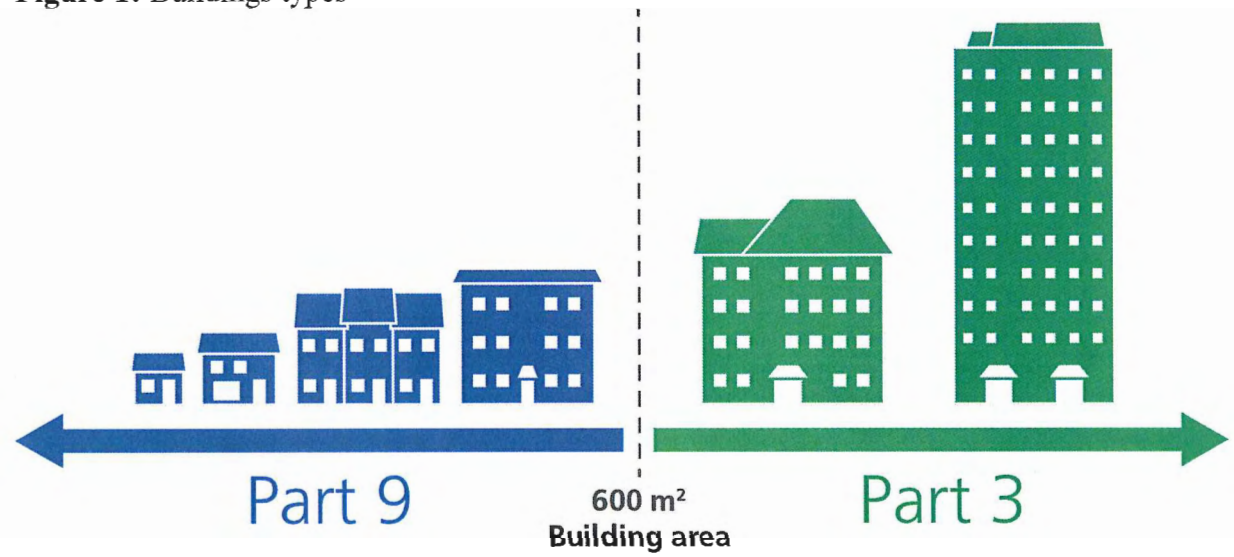
environmental outcomes. Staff are evaluating the impact of other green building standards, including the Energy Step Code, on City owned facilities, as compares to the City's current LEED policy.

Taken together, the "Steps" of the Energy Step Code form a framework by which the construction industry, over time, can incrementally "step up" to constructing new buildings at the near-net zero energy performance level that must be achieved if local, provincial and national GHG reduction targets are to be met. In this respect, the Energy Step Code represents a "Big Breakthrough" that can help enable the City, over time, to achieve the emissions reductions the CEEP identifies as necessary within the new building sector to achieve the City's climate action goals.

Figure 1: Buildings types



The table below summarizes how Richmond's currently policies approximately align with the Energy Step Code.

	Current City Policy	Approximate Energy Step Code Performance Level
Part 9 Townhomes	Energuide 82, Energy Star, district energy, or 51% onsite renewables	~Step 2-3
Part 9 Other	B.C. Building Code	~Step 1
Part 3 (City Centre)[2]	LEED Silver equivalent	~Step 1-2
Part 3 (Outside City Centre)	B.C. Building Code	~Step 1

[2] Greater than 2000m²

How the Energy Step Code can be Used by Local Governments

Recognizing that builders, designers and trades will need to build capacity to construct higher performance buildings, the SCIWG's recommendations and subsequent provincial policy stress that during the early 2017-2020 phase of Energy Step Codes' implementation, local governments cite lower steps when setting bylaw requirements pertaining to all new construction in the community (Steps 1 through 3 for "Part 9" buildings; Steps 1 and 2 for most "Part 3" buildings, with Step 3 potentially also comprising a lower step for multifamily buildings 6 stories and less). The SCIWG recommended that a local government only make reference to higher steps if significant incentives are being offered; however, the City does not offer such incentives for energy performance. In later years, higher levels of performance could be referenced as requirements.

In addition to the type of development process and the level of incentives (broadly defined) available for new development, other aspects for consideration when considering options for implementing the Step Code requirements would include the following:

- **Building type**: Requirements for some Part 9 residential building types (e.g. townhouses) could differ from others. It should also be noted that the Part 9 Step Code has been developed with residential – rather than commercial and industrial – buildings in mind.

- **Size of houses**: Very small houses typically have lower heat retention, but higher occupancy rates per square meter. Conversely, very large homes may have low occupancy rates per square metre, resulting in higher per capita energy use.

The stated expectation of the SCIWG, echoed in the text of the Province's Climate Action Plan, is that as the construction industry familiarizes itself with new energy efficient building designs, methods, materials and technologies, local governments could gradually escalate requirements for new development under the Energy Step Code. Likewise, the BC Building Code will incorporate Steps in the Energy Step Code.

Opportunities to Limit GHGs

In addition to the Energy Step Code, specifying GHG emissions performance targets may support the City's climate objectives. The Energy Step Code encourages energy efficient buildings. Setting GHG targets would also encourage low-carbon energy sources, including renewable energy technologies such as air-source heat pumps or solar, in addition to energy efficiency. This GHG intensity metric is not included in the Energy Step Code. However, the City of Vancouver has adopted this metric as part of their "Zero Emissions Building Plan". The City of Richmond could reference this metric as a consideration of rezoning, which is not anticipated to be restricted by the *Building Act*. However, when applying the Energy Step Code as a requirement in bylaw, GHG intensity cannot be included.

Costs and Benefits

Some analysis has already been completed to develop a better understanding of the cost implications of different Energy Step Code performance levels for new Part 3 development. BC Housing is currently engaged in a detailed study of the costs associated with the Energy Step Code for both Part 3 and Part 9 construction. The results of the BC Housing study are expected in late spring 2017, and staff will use this information in local consultations with stakeholders and in developing recommendations regarding potential Energy Step Code policy regimes, pending Council's support for the recommendations in this report.

Available cost information for both Part 3 and Part 9 buildings is summarized below.

Part 3 Building costs

The City undertook a study to estimate costs associated with the different performance steps. The analysis estimates the cost of construction to the Step Code and GHG intensity targets for different Richmond building archetypes constructed to BC Building Code levels of performance and "district energy ready". The City's study assumed more stringent requirements than what are currently referenced in the BC Energy Step Code regulation; this regulation may be updated, informed by findings from the BC Housing research noted above. Thus, this analysis may over-estimate the costs of achieving different tiers of the Energy Step Code, unless the provincial regulation is updated. Results are summarized in the table below.

	% decrease/increase in construction cost relative to BC Building Code			
	High Rise Residential	**Low Rise Residential (wood frame)**	**Office**	**Retail**
Step 1	N/A – Equivalent to current code			
Step 2	-0.7% to 1.3%	-1.0% to 1.1%	-0.5% to 0.2%	0.2% to 0.3%
Step 3	-0.4% to 1.6%	-0.8% to 1.3%	-0.5% to 0.2%	0.5% to 0.6%
Step 4	2.4 to 3.6%	-0.2% to 1.3%	TBD	0.7% to 1.0%

This analysis suggests that high performance buildings can be achieved at a modest first cost of construction, and often at no or even negative costs. Moreover, the analysis suggests that substantial life cycle savings for occupants from reduced energy costs are expected for a multifamily building; Steps 2 and 3 have lower total costs on a net present value basis than a building built to minimum BC Building Code requirements, when construction, maintenance and energy costs are considered.

Staff recommends that industry be engaged regarding their technical and financial capacity to build to different levels of the Step Code before performance requirements are finalized.

Part 9 Building Costs

While single detached homes are not currently subject to an energy efficiency policy, staff has estimated the cost for new detached homes complying with Step 1 requirements[3] to be less than 0.15% of the cost of an average new detached home, or 0.4% of a new townhouse. Given that the City's existing townhouse energy efficiency policy already results in buildings that are on average 13% more energy efficient than minimum code requirements, staff anticipate the incremental cost of building to Step 3 ("20% better than code") will be only modestly higher than at present. These cost estimates will be updated once the results of the BC Housing study are available.

It should also be noted that the SCIWG intentionally designed Steps 2 through 5 of the Part 9 Step Code to facilitate the use of branded building energy certification standards by builders (i.e. Built Green, Energy Star for New Homes, R-2000 and Passive House standards respectively), in order to assist the construction industry in effectively marketing the increased performance of these better-built buildings.

Additional Benefits of Energy Step Code Buildings

New buildings built to Energy Step Code requirements will not only provide owners and occupants with reduced energy bills, and their communities with community greenhouse gas emissions, but significant additional benefits as well:

- **Comfort** – Buildings with high performance building envelopes typically are more comfortable, being less drafty and warmer near exterior windows and walls.

- **Quiet** – Better insulated buildings better attenuate sound, resulting in quieter indoor conditions. This can help achieve the City's Aircraft Noise policy requirements for achieving CMHC noise standards and ASHRAE internal building thermal comfort levels.

- **Indoor air quality** – Constructing high performance systems requires greater attention to building ventilation. Typically, high performance residential buildings will use either direct to unit ventilation or suite-by-suite heat recovery ventilation. These systems can better deliver fresh air than is typical of current ventilation practices.

- **Simple building systems and ease of maintenance** – Low thermal energy demand can allow for relatively simple building heating strategies. This can reduce the operations and maintenance, as well as the potential for expensive repairs, which are often associated with more complicated mechanical systems. Moreover, attention to quality building envelop construction can increase building durability.

- **Regional economic development** – The Step Code encourages high performance building envelopes. Insulation, windows and wood framing components that are often associated with better envelopes tend to be manufactured locally, providing opportunities for local businesses and jobs.

[3] Using data provided by City of Vancouver, regarding the cost of home energy modelling and blower door tests.

- **Climate change adaptation** – The better building envelope design associated with the proposed approach can help ensure that buildings remain comfortable in the warmer climates anticipated in the future.

Proposed Airtightness training initiative for new Part 9 construction

Achieving improved levels of airtightness in new construction is a key objective of the Energy Step Code, as this is a major determinant of overall building energy efficiency. Staff have secured funding from BC Hydro to provide training to local homebuilders and buildings approvals staff on improved practices for installing air barriers in new home construction. If funded and approved by Council, this project would commence in Summer 2017 and run to the end of the year, prior to the earliest possible start of Step Code requirements in January 2018. This training program would run concurrently with the proposed consultation program in this report.

Preliminary Proposed Policy Approach

As noted above, the City's existing energy related rezoning requirements are inconsistent with the objectives of the *Building Act*. In light of the improved performance associated with the Energy Step Code, it is intended that the City's current requirements be updated to reference the Energy Step Code. Existing reference to LEED Silver in the CCAP would be removed, and the range of options for compliance with the Townhouse Energy Efficiency and Renewable Energy policy would be revised. City-wide OCP rezoning policies and/or bylaw requirements referencing the Energy Step Code would replace these existing requirements. The table below outlines a preliminary proposed regime, for the purposes of stakeholder consultation.

		Preliminary Proposed Step – for Stakeholder Consultation		
	Current Approximate Energy Step Code Performance Level	**2018**	**~2021**	**~2025**
Part 9 townhomes	~Step 2-3	Step 2 or 3	Step 3 or 4	Step 4 or 5
Part 9 detached homes, duplex	BC Building Code	Step 1	Step 3	Step 4
Part 3 residential >6 story	~Step 1-2 (in City Centre) BC Building Code (outside CC)	Step 2	Step 3	Step 4
Part 3 residential ≤ 6 story	~Step 1-2 (in City Centre) BC Building Code (outside CC)	Step 2 or 3	Step 3 or 4	Step 4
Part 3 commercial	~Step 1-2 (in City Centre) BC Building Code (outside CC)	Step 2	Step 3	Step 3

The stakeholder consultation program outlined below will help determine the specific levels of Energy Step Code performance that are to be referenced as part of City requirements and policy.

The "Provincial Policy: Local Government Implementation of the BC Energy Step Code" document requests that local governments that are considering requiring Steps in the Energy Step Code notify the Energy Step Code Council. This is intended to provide the Energy Step Code Council with up-to-date information on Energy Step Code-related activity in the Province, to help ensure an orderly roll-out. Staff will notify the Energy Step Code Council if this report is ratified by Council.

Building Energy Specialist Position and Staffing Requirements

Upon completion of stakeholder consultation, staff will bring forward a report with recommendations regarding Energy Step Code adoption. This report may include a recommendation to create a Building Energy Specialist position to implement the Energy Step Code and related efforts to secure compliance with code energy requirements. This position would be within the Sustainability section in the Engineering Department and will work with the Building Approvals Department. Key tasks will include implementing policy compliance regimes for the Energy Step Code, training staff and industry stakeholders, and administering building reporting databases. BC Hydro offers $50,000 per year to support this position, similar to corporate and community energy manager funding currently received from BC Hydro. Net costs could be offset through permit fees. Impacts on Building Approvals resources will also be evaluated as part of developing the City's Energy Step Code compliance regime.

Stakeholder Consultation Program

It is recommended that Council endorse a stakeholder consultation program to develop options for an Energy Step Code policy regime for Council's consideration, and associated amendments to the City's existing building energy policies. This process will review the Step Code framework and possible policy regime with pertinent stakeholders; review impacts on development form and cost; develop, gather feedback on and refine the policy; and identify complementary supports for more energy efficient development. Staff are proposing stakeholder engagement with the following groups using the following methods:

- Small Builders Group at regularly scheduled meetings with staff;
- Greater Vancouver Home Builders Association as part of the Small Builders meetings;
- Urban Development Institute at regularly scheduled meetings with staff;
- Advisory Committee on the Environment at scheduled meetings with staff;
- Energy utilities (including BC Hydro, FortisBC and Lulu Island Energy Company) through direct engagements;
- Building industry stakeholders, including the Architectural Institute of BC, Association of Professional Engineers and Geoscientists of BC, BC Construction Association, the Homeowners Protection Office, and non-governmental associations (including the Canadian Green Building Council, Lighthouse Sustainable Building Centre, and Pembina Institute) in a large multi-stakeholder workshop;
- Certified Energy Advisors in a focus group meeting.

Following consultation, staff will bring forward proposed amendments to the Official Community Plan and any other bylaws to implement the Energy Step Code policy regime.

Financial Impact

The air barrier training program for Building Approvals staff and local builders will cost $60,350, including $16,000 for materials and project management salary, funded through the City's Carbon Tax Provision that is dedicated for community energy programs and projects. BC Hydro has granted $13,725 toward the cost of this program, which would be returned to the Carbon Tax Provision upon receipt of the grant. Staff shall execute any necessary related agreements to deliver the air barrier installation training program per the City's purchasing policy, and the City's 5 Year Financial Plan (2017-2021) will be amended accordingly.

Following stakeholder consultation, staff will bring forward a report recommending the Energy Step Code policy regime and associated bylaw amendments, and a recommendation on whether to create the Building Energy Specialist position and/or additional Building Approvals resources.

Conclusion

The Energy Step Code is an important development that will enable the City to advance large-scale and cost-effective GHG emission reductions throughout the community. The Energy Step Code provides a pathway by which the construction industry, over time, can incrementally "step up" to the near-net zero energy performance level that must be achieved if local, provincial and national greenhouse gas reduction targets for 2050 are to be achieved. This report proposes an Energy Step Code framework for the purposes of stakeholder consultation. Following public consultation, staff will bring forth a recommended policy package, including required Official Community Plan Bylaw No. 9000 and Bylaw No. 7100 amendments. The report also recommends that staff implement an air barrier installation training initiative for staff and local builders during 2017 to build implementation capacity for a key energy efficiency requirement of new residential construction under the Part 9 Step Code.

Brendan McEwen
Sustainability Manager
(604-247-4676)

Nicholas Heap
Sustainability Project Manager
(604-276-4267)

Peter Russell
Senior Manager,
Sustainability & District Energy
(604-276-4130)

Attachment 1: Energy Step Code for new Part 3 Buildings – Summary of Technical Requirements

Part 3 Construction

The Energy Step Code for large "Part 3" buildings (e.g. buildings that are 4 or more stories and greater than 600m^2) involves a number of technical requirements, including:

Steps 1 to 4 - Adherence to an "Enhanced Compliance Package", involving:

- **Energy modeling for all projects**. All projects will be required to produce an energy model of the building to confirm that it exceeds minimum energy and emissions targets. The Step Code references Energy Modeling Guidelines outlining standardized assumptions, acceptable modeling software, and processes. These Guidelines ensure a fair "apples to apples" evaluation of building performance. Energy models will be professionally signed and sealed. Submission of an energy model to the City is already required as part of district energy connection approvals, and a large percentage of buildings undertake energy modeling for LEED and/or Building Code compliance.

- **Whole building air-tightness testing.** Developments will be required to conduct a test of their air-tightness. At first, testing will be used to baseline performance. In subsequent years, the City may change to require specific air-tightness targets. Various jurisdictions already have mandatory air tightness testing, including the City of Vancouver (for homes), the State of Washington (for all buildings), and many European countries.

- **Energy commissioning requirements.** Commissioning of building equipment and systems is a quality assurance process that ensures that systems are able to operate as designed. The Stretch Code may include requirements for commissioning energy systems; alternately, expectations for commissioning in the BC Building Code may be clarified.

- **Building energy reporting.** Developments will be required to create an Energy STAR Portfolio Manager account used to track energy performance, and share it with the City. This will allow for future policy evaluation. The Portfolio Manager tool is widely used and considered the *de facto* energy reporting and benchmarking system, with over 20% of commercial floor space in Canada using the tool, and over 40% in the USA. The City uses Portfolio Manager to measure performance in its own larger buildings. Participation in the City's Building Energy Challenge program relies on energy reporting with Portfolio Manager, with 95 buildings representing 7.1 million square feet of property currently sharing their account with the City.

Steps 2 to 4 - Exceeding minimum energy performance targets. In addition to the "enhanced compliance package" required of Step 1, developments will be required to exceed minimum energy performance targets. Different performance targets exist for different building types, including residential, office, retail, and hotel. Performance targets for mixed use buildings are pro-rated based on floor area. Targets include:

- **Thermal energy demand intensity (kWh/m^2/year)** – The annual modeled thermal energy required to provide space heating for a development. This target encourages energy efficient building envelope and passive design features, to limit heating requirements.

- **Total energy use intensity (kWh/m^2/year)** – The total annual modeled energy demand of a development. This target encourages all building systems to be energy efficient.

  Additional option for consideration: Greenhouse gas intensity (kg CO_2e/m^2/year) – The total annual greenhouse gas emissions from a development. This metric encourages efficiency, and low-carbon energy sources, including renewable energy. This metric is not included in the Provincial Step Code. However, the City of Vancouver has adopted this metric as part of their "Zero Emissions Building Plan". The City of Richmond could reference this metric as part of policy applied to buildings undergoing rezoning, which is not anticipated to be restricted by the *Building Act*. However, when applying the Stretch Code as a requirement in bylaw, GHG intensity cannot be included.

Energy Step Code performance levels are summarized in the tables below. The specific targets cited in the Energy Step Code may be adjusted over time, as additional information becomes available, notably the BC Housing study now underway.

Energy Step Code Performance Levels for Residential Occupancies

	Equipment and Systems – Maximum Total Energy Use Intensity (kWh/m^2/yr)	Building Envelop – Maximum Thermal Energy Demand Intensity (kWh/m^2/yr)
Step 1		
Step 2	130	45
Step 3	120	30
Step 4	100	15

Energy Step Code Performance Levels for Business and Personal Services or Mercantile Occupancies

	Equipment and Systems – Maximum Total Energy Use Intensity (kWh/m^2/yr)	Building Envelop – Maximum Thermal Energy Demand Intensity (kWh/m^2/yr)
Step 1		
Step 2	170	30
Step 3	120	20

Attachment 2: Energy Step Code for new Part 9 Buildings – Summary of Technical Requirements –

All five steps of the Part 9 Step code require two basic "Enhanced Compliance" measures, which are not required under the BC Building Code:

- Energy modelling of the building is required at the design stage, in order to confirm that the structure as designed will achieve the Step Code targets.
- "Air-tightness" testing is also required once the building has been constructed, in order to measure uncontrolled flows of heat and moisture[4] in and out of the building.

Beyond this, each tier of the Part 9 Step Code sets out three performance targets:

- The air-tightness of the completed building, usually measured in terms of air changes per hour when the home is pressured and depressurized by a defined amount.
- Mechanical energy performance – projects must meet performance thresholds for one of the following two metrics:
    - Mechanical Energy Use Intensity (MEUI) of the building.
    - Percentage reduction in total energy use relative to the same home built to BC Building Code minimum standards as measured by the Energuide Rating System's reference house.
- Building envelope performance – projects must meet performance thresholds for one of the following two metrics:
    - Thermal Energy Demand Intensity (TEDI) which measure annual energy demand for heating a space.
    - Peak Thermal Load (PTL) which measure peak heat loss through the building envelope.

The table below summarizes Part 9 Energy Step Code requirements for Climate Zone 4, which includes Metro Vancouver.

[4] Mostly as water vapour

Part 9 Step Code Requirements for Climate Zone 4 (Lower Mainland and southern Vancouver Island)

	Airtightness (Air changes per hour at 50 Pa Pressure Differential)	Performance Requirements for Building Equipment and Systems	Performance Requirements for Building Envelope
Step 1	NA	EnerGuide Rating % lower than EnerGuide Reference House: not less than 0% lower energy consumption - or - conform to Subsection 9.36.5.	
Step 2	≤ 3.0	EnerGuide Rating % lower than EnerGuide Reference House: not less than 10% lower energy consumption - or - mechanical energy use intensity ≤ 60 kWh/m^2·year	thermal energy demand intensity ≤ 45 kWh/m2·year - or - peak thermal load ≤ 35 W/m^2
Step 3	≤ 2.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 20% lower energy consumption - or - mechanical energy use intensity ≤ 45 kWh/m^2·year	thermal energy demand intensity ≤ 40 kWh/m^2·year - or - peak thermal load ≤ 30 W/m^2
Step 4	≤ 1.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 40% lower energy consumption - or - mechanical energy use intensity ≤ 35 kWh/m^2·year	thermal energy demand intensity ≤ 25 kWh/m2·year or peak thermal load ≤ 25 W/m^2
Step 5	≤ 1.0	mechanical energy use intensity ≤ 25 kWh/m2·year	thermal energy demand intensity ≤ 15 kWh/m2·year or peak thermal load ≤ 10 W/m^2

Viewed together, the five Steps of the Step Code span the large performance gap between current BC Building Code minimum requirements and the highest levels of building energy performance yet achieved in British Columbia.

- **Step 1** is quite literally intended to be a "first step" on the road to improved building energy efficiency performance, for communities and/or segments of the building market with limited previous requirements for building energy efficiency. Step 1 energy performance targets are modest, requiring only that that building achieve the same energy performance as the intended performance of a building built to minimum BC Building Code requirements. As noted above, however, achieving this target requires builders to do energy modeling, and install air-barriers in an effective manner, skills that are essential to achieving success at higher levels of the Step Code. Staff have developed a project leveraging BC Hydro funding to provide training in airtightness construction techniques for home and townhouse builders active in Richmond.

- **Step 2** calls for homes only 10% more efficient than that expected with Building Code minimum requirements, and a required air-tightness of 3.0 ACH50. Step 2 is best characterized a half-step relative to the larger jumps in performance between higher tiers. A home meeting the Step 2 standard would have comparable energy performance to that of a "Built Green"® home.

- A new home built to the **Step 3** standard would have an overall energy performance 20% better than one built to Building Code minimum requirements, and an airtightness of 2.5 ACH – i.e. about half that of the average actual performance of buildings currently built to minimum BC Building Code requirements. The overall energy target for this Step is a close match to two of the four available options under the City's existing townhouse energy efficiency policy. Based on modeling information available to date, townhouses in Richmond designed to achieve an EnerGuide 82 rating are, on average, 13% more efficient than those built to code minimum requirements, while homes built to the Energy Star for New Homes standard are expected to be 22% more energy efficient than a minimally code compliant home.

- The **Step 4** standard is comparable to the energy performance of a home to Natural Resources Canada's R-2000 ® standard. Homes meeting this standard would use 40% less energy than the expected performance of a minimally code compliant home, and have an airtightness of 1.5 ACH50 or better – less than a third of the average new home built to minimum building code requirements

- The **Step 5** standard approaches the performance required by the stringent "Passive House" standard, and broadly matches the level of energy performance that the Climate Leadership Plan has committed to for new construction in 2032. Homes achieving Step 5 would use less than half of the energy of a minimally code compliant home, and an airtightness level of just 1.0 ACH_{50}. At present, achieving this level of energy performance is exceptional: the Passive House database currently lists only 21 buildings in BC (of which 8 are "Passive House" certified). None are located in Richmond.[5]

[5] http://www.passivhausprojekte.de/index.php?lang=en

City of Richmond

Report to Committee

To:	Public Works and Transportation Committee	**Date:**	April 27, 2017
From:	Tom Stewart, AScT. Director, Public Works Operations	**File:**	10-6370-04-01/2017-Vol 01
Re:	**Award of Contract 5757 EOI - Recycling Depot Container Collection and Recycling Services**		

Staff Recommendation

1. That Contract 5757 EOI, Recycling Depot Container Collection and Recycling Services, be awarded as follows:

    a. Cascades Recovery Inc. – the container collection and recycling services for the following commodities at the unit rates quoted: newspaper, mixed paper and cardboard;

    b. Super Save Group – the container collection and recycling services for the following commodities at the unit rates quoted: tin, scrap metal, aluminium, plastic and yard waste;

2. That staff be authorized to extend the contract in one-year increments up to five years in total, and if required, extend the contract beyond the five-year term on a month-by-month basis until such time as a new contract can be advertised and awarded.

3. That the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to execute the above contracts.

Tom Stewart, AScT.
Director, Public Works Operations
(604-233-3301)

REPORT CONCURRENCE		
ROUTED TO:	**CONCURRENCE**	**CONCURRENCE OF GENERAL MANAGER**
Finance Department	☑	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	**INITIALS:**	**APPROVED BY CAO**

Staff Report

Origin

The City contracts for the provision of recycling containers at the City Recycling Depot, including container collection, transportation, and processing and marketing of various recycling materials. The previous contract expired on October 31, 2016 and has been extended on a month-to-month basis pending issuance and review of Expression of Interest (EOI) 5757. This report presents the results of 5757 EOI and recommends award of the contract.

This report supports Council's 2014-2018 Term Goal #4 Leadership in Sustainability:

> *Continue advancement of the City's sustainability framework and initiatives to improve the short and long term livability of our City, and that maintain Richmond's position as a leader in sustainable programs, practices and innovations.*
>
> *4.1. Continued implementation of the sustainability framework.*

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

> *Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.*
>
> *6.2. Infrastructure is reflective of and keeping pace with community need.*

Analysis

5757 EOI is structured as a commodity contract, which allows the City to choose the best value based on each material commodity, and therefore award any one or more components of the work to any one or more respondents. For this reason, the recommendation is to award the contract to Cascades Recovery Inc. and Super Save Group, both of which are existing providers for Recycling Depot services.

Project Description

The scope of work for 5757 EOI includes the following services:

- Container rental charges for bins at the Recycling Depot for various recycling materials including: Newspaper, Mixed Paper, Cardboard, Aluminium, Scrap Metal, Tin, Plastic and Yard Waste.
- Container collection and emptying charges.
- Processing fees associated with recycling material handling and preparation.
- Any proposed marketing revenue to the City associated with the sale of the recycling materials as commodities.

5757 EOI - Recycling Depot Container Collection and Recycling Services

Request for Expression of Interest 5757 EOI was prepared and issued to the marketplace on August 19, 2016 and closed on September 21, 2016. It is proposed to commence the contract on August 1, 2017. The contract is for a three year term, or until July 31, 2020. The contract provides for two additional one-year extensions (up to a maximum of 5 years) upon mutual agreement of the City and the contractor/s. It is further proposed that the award provide for the ability to extend the contract beyond the five-year term on a month-by-month basis until such time as a new contract can be advertised and awarded. Any mutually agreed adjustments will be applied at the beginning of the extension terms.

Public Tendering

Expressions of Interest were received from the following vendors on September 21, 2016 as follows:

- Smithrite Disposal Ltd.
- Super Save Group
- Progressive Waste Solutions
- Emterra Environmental
- Sierra Waste Services Ltd.
- Cascades Recovery Inc.

As this is a component-based contract, bidders did not necessarily bid on all aspects of the work, but rather only those portions of interest to them. As such, each bidder's submission was reviewed for best value by individual recycling material. To achieve best value, it is recommended that the bids be awarded as follows:

- Cascades Recovery Inc. be awarded Newspaper, Mixed Paper and Cardboard
- Super Save Group be awarded Tin, Scrap Metal, Aluminium, Plastic and Yard Waste

This results in the following estimated annual amounts:

Company	Rental/Freight	Processing/Marketing	Net Annual Overall
Cascades Recovery	$25,980	($52,440)	($26,460)
Super Save Group	$158,088	($23,550)	$134,538
Total	$184,068	($75,990)	$108,078

Under the contract, the City pays the cost items and the Contractor pays the City revenues for those recycling materials with commodity market value. This award results in a net positive revenue to the City for the items recommended for award to Cascades Recovery Inc. and a net annual cost for items recommended for award to Super Save Group. Council award of the contract is required to authorize the expenditure portions noted for the recommended contract term/duration.

The amounts noted will vary depending on the actual vs. estimated quantity of recycling materials received, therefore, the recommended award is based on the unit rates quoted by each bidder per material type.

Financial Impact

The total estimated value of the proposed contract award is $184,068 for expenditure items, and $75,990 in anticipated revenues, for an estimated net contract value of $108,078 annually. The proposed contract can be accommodated within the current Sanitation and Recycling utility budget. Commodity revenues received are applied to offset the annual rates charged to residents.

Conclusion

The recommended award of this Request for Expressions of Interest is based on best value to the City for the various recycling material components of this contract. This results in awarding the work to two different contractors. The City has experience with both of the recommended contractors and their services have been satisfactory.

The contract term is from August 1, 2017 – July 31, 2020, with the ability to renew for an additional two, one-year terms upon mutual consent. The award also provides for extensions beyond the five-year term on a month-by-month basis until such time as a new contract can be advertised and awarded. It is further recommended that the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to execute the above contracts.

S. Bycraft

Suzanne Bycraft
Manager – Fleet & Environmental Programs
(604-233-3338)

City of Richmond

Report to Committee

To:	Public Works & Transportation Committee	**Date:**	April 24, 2017
From:	John Irving, P. Eng. MPA Director, Engineering	**File:**	10-6160-07-06/2017- Vol 01
Re:	**Amendment to Water Use Restriction Bylaw**		

Staff Recommendation

That the Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 9704 be introduced and given first, second and third readings.

John Irving, P. Eng. MPA
Director, Engineering
(604-276-4140)

REPORT CONCURRENCE		
ROUTED TO:	**CONCURRENCE**	**CONCURRENCE OF GENERAL MANAGER**
Parks Services	☑	
Water Services	☑	
Community Bylaws	☑	
Law	☑	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	**INITIALS:**	**APPROVED BY CAO**

Staff Report

Origin

In order to limit the damage to lawns associated with European chafer beetle infestations on private and City property, staff propose amendments to the City's Water Use Restriction Bylaw No. 7784. These amendments will allow a more flexible timeframe to apply nematodes, a biological control, in an effort to control European chafer beetles.

Background

Metro Vancouver's Water Shortage Response Plan (WSRP) governs drinking water usage during the summer months to reduce demand on outdoor water use. The WSRP guides municipalities to regulate water use during Stage 1, 2, 3 and 4 water restrictions. The proposed amendments to the City's Water Use Restriction Bylaw are in alignment with Metro Vancouver's WSRP.

The European chafer beetle is an invasive species that can impact lawns in residential, commercial and city landscapes. It was first discovered in New Westminster in 2001 and has subsequently spread to Richmond, Burnaby, Vancouver, Delta and Coquitlam. The European chafer beetle was first observed in Richmond in 2010, and is listed as a moderate risk invasive species under the City's Invasive Species Action Plan.

The European chafer beetle completes their life cycle in one year. Beetles emerge in late spring, and lay approximately 20 to 30 eggs in the soil in early summer. Eggs hatch and the chafer grubs forage on grass roots of turf lawns from mid-summer to late fall, then enter into a dormant stage over the winter, and finally emerge to forage again in the spring. By foraging on turf roots, the beetles can cause lawns to become wilted or dead and urban wildlife such as crows and raccoons can easily pull back the turf to feed on the chafer grubs.

Analysis

While there are pesticides available to control the European chafer beetle, their use is not permitted under the City's Pesticide Use Control Bylaw No. 8514. The Pesticide Use Control Bylaw No. 8514 is a part of the City's Enhanced Pesticide Management Program (EPMP), adopted in 2009 to reduce the exposure of Richmond residents to unnecessary pesticides. Through the EPMP, the City promotes natural yard and garden care methods including the application of nematodes, a biological control used to manage European chafer beetle grubs.

Nematodes are a type of roundworm that naturally occur in soil. They are harmless to human health and the environment, but are parasitic to soil dwelling insects like European chafer beetle grubs. To move through the soil and find the European chafer beetle grubs, the nematodes require a moist lawn throughout the course of the treatment, and may require lawn watering in the summer season when beetle eggs hatch. Under the Water Use Restriction Bylaw No. 7784, residents can obtain a Water Use Restriction Permit (Attachment 1) to water outside of the regulated hours during Stage 1 and Stage 2 water restrictions.

Presently, the Water Use Restriction Bylaw No. 7784 authorizes the issuance of Water Use Restriction Permits for nematode application between July 15 – August 15. Seasonal variations

in weather however, can impact the life cycle of the European chafer beetle and the associated treatment window.

Staff recommend bylaw amendments to remove the nematode application timeframe of July 15 - August 15 from the Water Use Restriction Bylaw No. 7784 and replace it with a permitted treatment window for a period of 21 days during Stage 1 and 2 water restrictions. These bylaw amendments are consistent with neighbouring municipalities including City of Vancouver, Surrey, Burnaby and Corporation of Delta.

Financial Impact

None.

Conclusion

To account for seasonal variation in weather, the associated impacts to the life cycle of the European chafer beetle, and the associated treatment window for nematode application, it is recommended to amend the Water Use Restriction Bylaw No. 7784 to allow residents and City staff to obtain a Water Use Exemption Permit for nematode application during Stage 1 and Stage 2 water restrictions.

Kimberly Armour
Acting Manager, Environmental Sustainability
(604-276-4230)

TH:th

Att. 1: Water Restriction Exemption Permit

City of Richmond

Water Restriction Exemption Permit

Engineering and Public Works Division

Permit Fees

Description	Fee
New lawns or landscaping	$34.25
Nematode application for European Chafer Beetle control (no water meter)	$34.25
Nematode application for European Chafer Beetle control (water metered)	Nil

Application Date: _____
(mm/dd/yyyy)

1. Applicant Information

Applicant Name: _____ **Phone:** _____

❑ Applicant is Property Owner ❑ Applicant is Authorized Agent of Property Owner

Address: _____ **Postal Code:** _____

2. Service Address Information

Service Address: _____

Property No.: _____

3. Terms

This permit and its terms and conditions are governed by the City of Richmond Water Use Restriction Bylaw 7784 and subsequent amendments.

Properties without a water meter will have to accept a water meter installation as part of the permit approval process, where applicable.

Customer Initials: _____

Reasons for exemption:

❑ New lawn or landscaping

❑ Nematode application: (choose one below)
- ❑ Copy of receipt for nematodes is attached; or
- ❑ Copy of invoice from a company to the applicant's address

This permit shall only apply to:

- Installation of new lawns, either by placing sod or turf or by seeding, or new landscaping on a substantial part of the outdoor portion of a property;
- Residents applying nematodes to their lawn to control the spread European Chafer Beetle.

PWT - 34

Permits are only issued under Stage 1 and Stage 2 water restrictions. Permits issued under Stage 2 water restrictions will remain valid under Stage 3 water restrictions within the permits validity period. All permits expire immediately if Stage 4 water restrictions are declared.

Permit requested for the purpose of watering a new lawn or landscaping is valid for a period of 21 days from the date of issue.

Permit requested for the purpose of nematode application may only be valid from July 15 to August 15 for a period of 21 days from the date of issue and permit cannot be renewed.

The City of Richmond reserves the right to revoke and/or cancel a permit for non-compliance with the terms or conditions of the permit.

Start Date: _____ (mm/dd/yyyy) **End Date:** _____ (mm/dd/yyyy)

Permit must be affixed to a post facing the street serving the premises, beside the principal driveway.

4. Signatures

Applicant's Signature: _____

Print Applicant Name: _____ **Date:** _____ (mm/dd/yyyy)

PROCESSED BY:

Staff Name: _____

Office Use Only	
Service	Amount
Permit Fee	

PWT - 35

City of Richmond

Bylaw 9704

Water Use Restriction Bylaw No. *7784* Amendment Bylaw No. 9704

The Council of the City of Richmond enacts as follows:

1. Water Use Restriction Bylaw No. 7784, as amended, is further amended at subsection 3.1.7 by deleting subsection 3.1.7 and replacing it with the following:

   "3.1.7 A **permit** is valid for a period of 21 days from the date of issue."

2. This Bylaw is cited as **"Water Use Restriction Bylaw No. *7784*, Amendment Bylaw No. 9704"**.

FIRST READING	
SECOND READING	
THIRD READING	
ADOPTED	

CITY OF RICHMOND
APPROVED for content by originating Division
APPROVED for legality by Solicitor

MAYOR

CORPORATE OFFICER

5366999

City of Richmond

Report to Committee

To:	Public Works and Transportation Committee	**Date:**	April 13, 2017
From:	Tom Stewart, AScT. Director, Public Works Operations	**File:**	10-6000-01/2017-Vol 01
Re:	**2016 Annual Water Quality Report**		

Staff Recommendation

That the staff report titled "2016 Annual Water Quality Report" dated April 13, 2017 from the Director, Public Works Operations, be endorsed and made available to the community through the City's website and through various communication tools including social media and as part of community outreach activities.

Tom Stewart, AScT.
Director, Public Works Operations
(604-233-3301)

Att. 2

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: CJ
APPROVED BY CAO	

5371641

Staff Report

Origin

In 2001, the Province of British Columbia enacted the Drinking Water Protection Act, which provided the Minister of Health with the authority 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.

This report presents the City's "2016 Annual Water Quality Report" (Attachment 1), which enables the City to meet its obligations for public reporting to comply with applicable requirements in accordance with these regulations. A summary of the 2016 Annual Water Quality Report is also presented as Attachment 2.

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

6.1. Safe and sustainable infrastructure.

This report supports Council's 2014-2018 Term Goal #9 A Well-Informed Citizenry:

9.1. Understandable, timely, easily accessible public communication.

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. The Drinking Water Officer is given 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 Medical Health Officer and the Drinking Water Officer of situations or conditions that render or could render the water unfit to drink;
- Implement and maintain a plan for collecting, shipping and analyzing water samples in compliance with the direction set by the Drinking Water Officer; and
- Implement and maintain a plan for reporting monitoring results to the Drinking Water Officer and to water users.

Richmond thrives on its ability to provide water for not only Richmond Fire-Rescue in the event of a fire, but for residents and businesses. 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 2016, Public Works staff attended to 38 watermain breaks. Repairs for a single watermain break can amount to $100,000 plus damages 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 2016 Annual Water Quality Report include:

- Richmond residents enjoy high-quality, reliable drinking water.
- 2,040 water samples were collected to ensure water quality and each passed with outstanding results.
- Test results confirm high quality water and demonstrate continuous improvement.
- 34.8M cubic metres of water were purchased in 2016 compared to 34.6M cubic metres in 2015.
- Richmond's tap water stations are used in many community events providing potable water to the public and promoting tap water usage.
- The educational program Project WET, where students learn about water conservation, water quality and water distribution, represents the partnership between Richmond School Board and Public Works.

These and many other initiatives are detailed in the attached "2016 Annual Water Quality Report".

Proposed Communication

Subject to Council's approval, the "2016 Annual Water Quality 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 2016 Annual Water Quality 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 2016, the City's water quality met and exceeded the required standards to ensure residents enjoyed high quality, reliable and safe drinking water.

This report has been 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
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Att. 1: 2016 Annual Water Quality Report Summary
2: 2016 Annual Water Quality Report

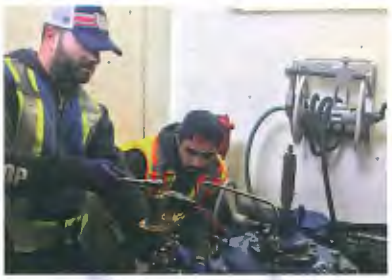
2016 Annual Water Quality Report Summary

In 2016, Richmond residents enjoyed high-quality and reliable drinking water. Water Services staff collected 2,040 water samples from 40 sampling sites to ensure excellent water quality.

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.

Servicing a fire hydrant

Water quality sampling



Pressure management system installation

Testing the sample

Project WET

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 that it's an inhospitable environment for any harmful bacteria or toxins.
- By proactive watermain replacement and maintenance projects.

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 seven pressure reducing valve (PRV) stations;
- weekly microbiological testing;
- system operators that are certified by the Environmental Operators Certification Program of BC;
- maintenance practices that are of the highest standard.

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.

2016 Results

- Provided 34.8 million m^3 of the highest quality drinking water to 218,307 Richmond residents.
- Conducted 2,040 microbiological tests.
- Maintained 13 pressure reducing value (PRV) stations.
- Maintained 4,817 fire hydrants to ensure water is available during an emergency.
- Repaired 38 watermain breaks without compromising the integrity of the water distribution system.
- Discovered and repaired 38 non-visible underground leaks through Richmond's leak detection program.
- Hosted over 300 students from Richmond elementary schools as part of the annual educational program: Project WET.
- Installed 5,000 m of new Capital watermain and 343 water services for new developments.

Summary

Richmond residents will continue to enjoy drinking water that is fresh, reliable and of high-quality. It is without a doubt that the City of Richmond consistently excels at providing tap water of excellent quality!

City of Richmond

2016 Annual Water Quality Report




Richmond

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.

Contents

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 it's an inhospitable environment for any harmful bacteria or toxins. Also, Water Utility funding contributes to proactive watermain replacement and maintenance projects that will ensure the overall health of the system well into the future.

In 2016, the City of Richmond's Water Services staff undertook the following:

- provided 34.8 million m^3 of the highest quality drinking water to nearly 218,307 Richmond residents;
- conducted 2,040 microbiological tests from 40 test locations;
- maintained 13 pressure reducing valve (PRV) stations;
- maintained 4,817 fire hydrants to ensure water is available during an emergency;
- repaired 38 watermain breaks without compromising the integrity of the water distribution system while maintaining positive pressure;
- discovered and repaired 38 non-visible underground leaks through Richmond's leak detection program using noise loggers measuring sound frequencies in the targeted pipe allowing any leaks to be heard and recorded;
- hosted over 300 students and teachers from Richmond elementary schools as part of the annual educational program: Project WET;
- repaired 303 service connections;
- installed 5,000 metres of new Capital watermain;
- installed 343 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.

Introduction

In 2002, the City of Richmond implemented a Drinking Water Quality Monitoring Program. This program was developed with input from the Vancouver Coastal Health Authority and is in accordance with the British Columbia Drinking Water Protection Act (BCDWPA), the Water Quality Monitoring and Reporting Plan for Metro Vancouver and member municipalities and the Guidelines for Canadian Drinking Water Quality (GCDWQ).

An hour of sprinkling uses as much water as 25 toilet flushes, five loads of laundry, and five dishwasher loads combined.

The Vancouver Coastal Health Authority requires the City of Richmond to provide the Annual Drinking Water Quality Report so that Richmond can maintain its operating permit. Richmond's Medical Health Officer reviews the report and upon request, the report is made public. It provides important information concerning Richmond's water distribution system and water quality.

The conditions set out in the British Columbia Drinking Water Protection Act (BCDWPA) require that all water systems in BC be classified as a Level I through IV facility. Richmond's system is classified as a Level III facility so 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 annual training. This is done to ensure that staff are able to respond appropriately and immediately to problems prior to becoming a risk to health or property.

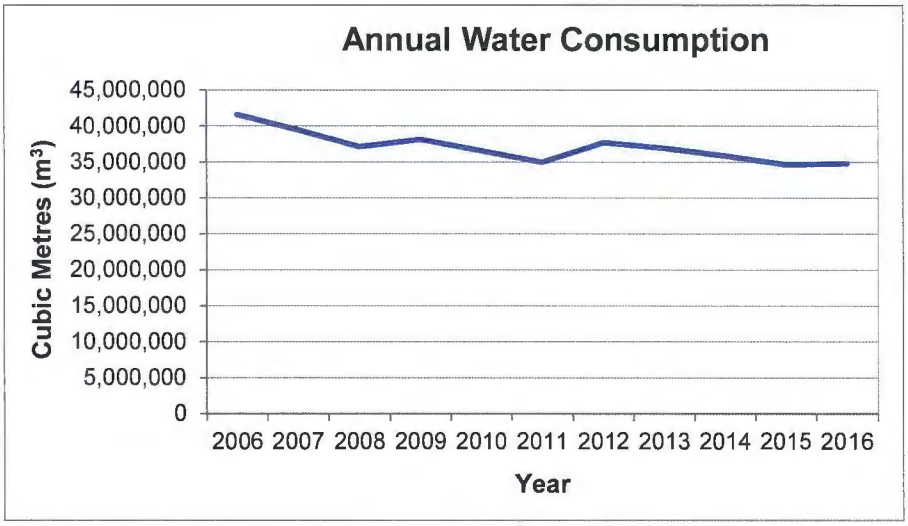
As a water purveyor, Richmond complies with provincial legislation, including the British Columbia Drinking Water Protection Act (BCDWPA), and the British Columbia Drinking Water Protection Regulations (BCDWPR). Information is also compared to the federal Guidelines for Canadian Drinking Water Quality (GCDWQ). Under these various pieces of legislation the City of Richmond is required to:

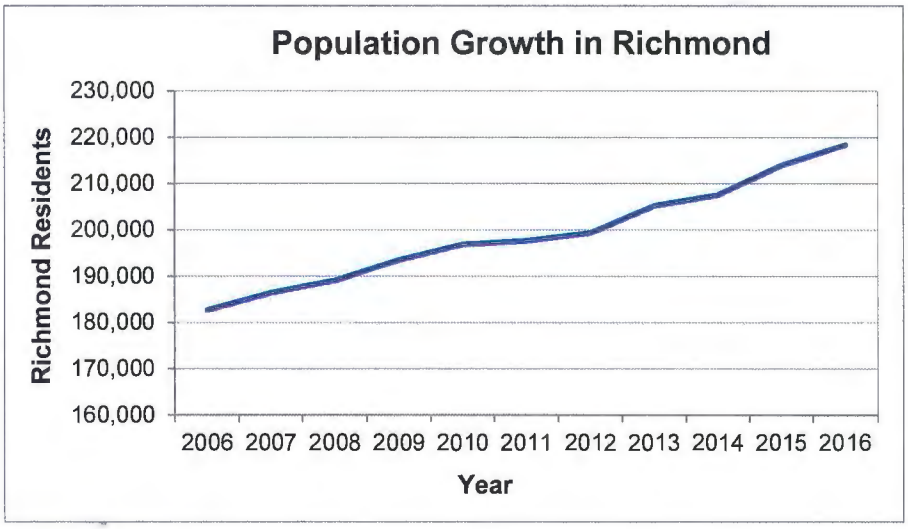
- develop a process to notify the Medical Health Officer of any condition that could render unsafe drinking water;
- implement a sampling program that adequately represents all areas within the City;
- meet the requirements of the British Columbia Drinking Water Protection Act (BCDWPA), and ensure test 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 public report detailing the results of the City's water quality monitoring program.

Each day, Metro Vancouver residents use enough water to fill BC Place.

Metro Vancouver Water District

In 2016, the City of Richmond purchased 34.8 million m^3 of drinking water from the Metro Vancouver Water District.





Three watersheds supply regional water: Capilano Reservoir, Seymour Reservoir, and Coquitlam Reservoir. The Capilano and Seymour Reservoirs combined, supply approximately 70% of the water for the region. The Coquitlam Reservoir supplies the remaining approximate 30%. Richmond receives the majority of its water from the Capilano and Seymour reservoir.

Water from these reservoirs can be directed through a series of valves and transmission watermains to any city or municipality within the Metro Vancouver region. Source water is provided directly from the watersheds by Metro Vancouver. Source water is tested for a number of microbiological, chemical, and physical parameters.

During periods of turbidity (cloudy water), a reservoir may be taken out of service if levels become elevated. Water is then supplied by the remaining reservoirs. The plant has the capacity to filter up to 1.8 billion litres of water per day.

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Metro Vancouver Watersheds

Run full loads in the dishwasher. 84% of homes have an automatic dishwasher. The average cycle uses 23 litres of water, down from older models at 38 litres. A half-full dishwasher uses the same amount of water as a full one.

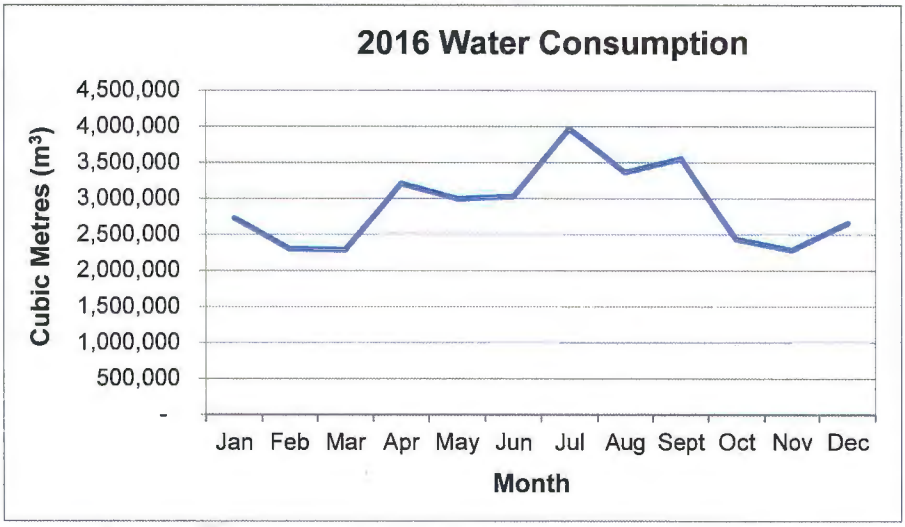
A healthy lawn only needs one hour of water per week. Too much water will drown its roots and encourage weeds.

Water Distribution System Overview

The City of Richmond's water distribution system begins at 13 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.

Table 1 – Overview of Richmond's Water Distribution Network

Water Assets	2016
Hydrants	4,817
Valves	11,109
PRV chambers (active)	13
Pigging chambers	11
End caps	492
Watermains (City)	632.7 km
Service connections	31,397



Pressure Reducing Valves (PRV)

The Water Services section maintains 13 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.

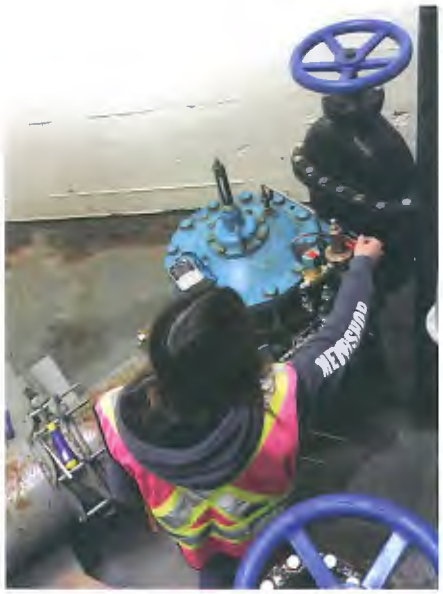
The table indicates the monthly water consumption in Richmond. It is estimated that most municipalities in North America lose anywhere from 12% to 15% of their potable water to undiscovered, underground leakage. The Water Loss Management Program allows City Engineering and Water Services staff to determine the total amount of water consumed through normal operational programs and practices such as single-family residential, multi-family residential and commercial metering programs. While combining these programs with watermain flushing, parks and median irrigation, and Richmond Fire Rescue water usage, it is reasonable to assume that the unidentified portion of the annual water consumption is attributed to water loss within the distribution system.

Data acquisition inside the PRV

Service Renewals

This 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.

Water used in the kitchen for rinsing and cooking can be used again to water house plants.

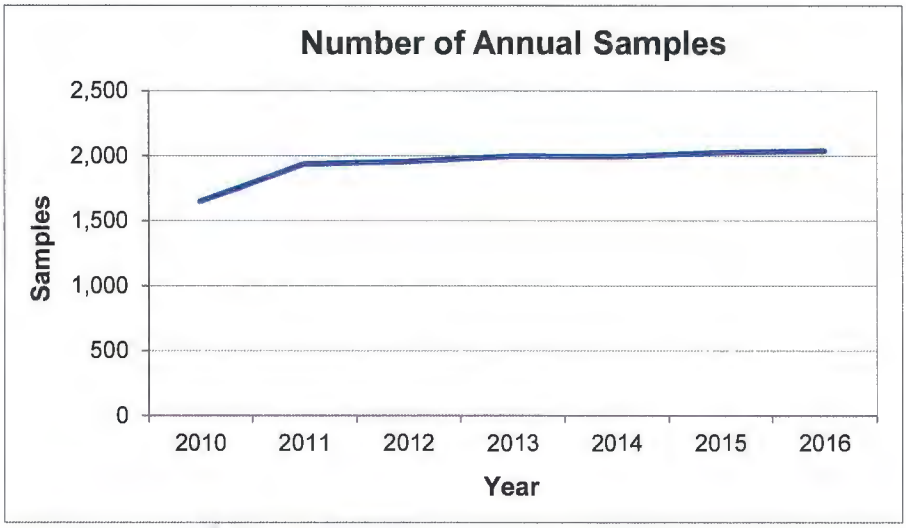


PRV inspection

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.

Water Quality Monitoring

In 2016, the City of Richmond collected samples on a weekly basis at 40 dedicated sampling sites. These sites are strategically located throughout the City to give a good representation of the City's water quality across the distribution network. In 2016, 2,040 water samples were collected by Water Services staff and sent for analysis at Metro Vancouver laboratories. These sample results were reviewed by the Vancouver and Richmond Coastal Health Authority to ensure the drinking water met the standards outlined in the British Columbia Drinking Water Protection Regulations (BCDWPR).



Taking a sample

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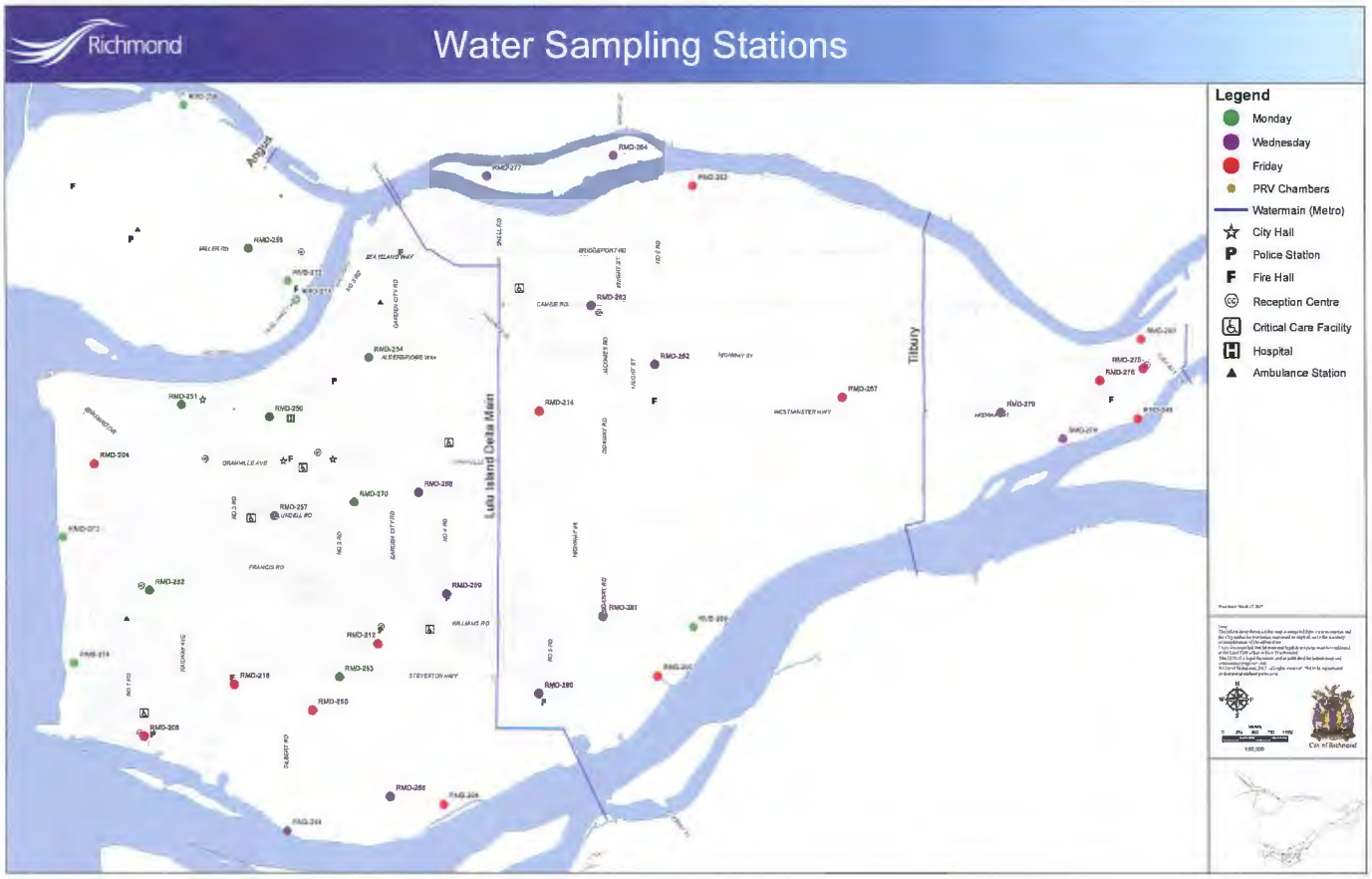

Bacteriological Tests

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 six PRV sites;
- weekly microbiological testing at 40 sites throughout Richmond;
- system operators are certified by Environmental Operators Certification Program (EOCP) of BC;
- maintenance practices that are of the highest standard.

Plants protected by mulch require less watering. Mulch can preserve moisture by reducing soil temperature and slowing evaporation.

Instead of running the tap until the water cools, keep a pitcher of cold drinking water on standby in the fridge.

Testing the sample

Samples for lab analysis

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. In distribution systems where more than 10 samples are collected in a given sampling period, as is the case in Richmond, no consecutive samples from the same site or no more than 10% of samples should show the presence of total coliform bacteria.

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 can contain more than 10 total coliforms per 100 ml, and that 90% of samples in a 30-day period must have zero coliform organisms. In 2016, no coliforms were detected.

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.

2016 Results

In 2016, 2,040 water samples were collected by City staff and analyzed by Metro Vancouver laboratory staff. All final results met drinking water requirements for fecal and total coliforms. The City of Richmond was in compliance with British Columbia Drinking Water Protection Regulations (BCDWPR) for bacteria in 2016.

Heterotrophic Plate Count

Heterotrophic Plate Counts (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 in 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 watermains. 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 in our water also disinfects and eliminates harmful substances within our distribution system. In 2016, none of the 2,040 water samples exceeded regulated levels for HPC's at >500 CFU/mls. In fact, none of the 2,040 water samples exceeded 100 CFU/mls.

Flushing

As part of a five-year program, Water Services successfully executed the annual flushing program. This important maintenance practice ensuring high-quality tap water by moving water through the pipes and eliminating stagnant water at dead-ends. By doing so, the pipes are cleared and the risk of high HPC levels which lead to bacteria re-growth is significantly reduced.

Servicing a fire hydrant

A family of four washes about 300 loads of laundry per year. Running half loads uses more water to do the same amount of laundry. Even with an efficient washer, one load a day uses 340 litres over a week.

Flushing the watermain

Failed samples

The standard response to a failed water sample is:

- re-sample at the site;
- flush the watermain extensively;
- re-sample;
- the watermain is then isolated to one feed until test results confirm compliance with the British Columbia Drinking Water Protection Regulations (BCDWPR).

Watering between 4 AM and 9 AM complies with sprinkling regulations, and reduces the amount of water lost to wind and evaporation.

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 allows for turbidity levels up to 5 NTUs 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 2016, the highest level of turbidity was measured at 3.8 NTU. Only 14 samples had turbidity levels of more than 1 NTU.

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 watermains exist. The increase may be attributed to sediment disturbance in the distribution system. During the year, when sampling indicates a turbidity level greater than >5 NTU's, affected watermains 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. Samples exceeded the aesthetic guideline of 15 °C 205 times out of 2,040; some temperatures as high as 21 °C were recorded. The majority of these elevated temperatures were recorded during the summer months.

Taste and Odour

Taste and odour are only monitored in response to customer complaints. Records indicate that 20 complaints were received regarding taste and three complaints were received regarding odour in 2016. 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

The City of Richmond, in partnership with Metro Vancouver, tests for the following chemical parameters: chlorine residual, trihalomethanes (THM), haloacetic acids (HAA), and pH. Periodic testing is also performed to determine heavy metals levels in the water system.

Free 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.

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 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 0.08 mg/L. In 2016, the City utilized the Metro Vancouver laboratory to perform quarterly tests for HAA's and THM's. These were carried out at representative sampling sites in accordance with a joint Metro Vancouver/ Richmond monitoring plan. In 2016, all results were within acceptable levels as defined in the GCDWQ. (Appendix 5)

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. 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 GCDWQ limits for 2016. Complete test results are included in Appendix 6.

Kitchen sink food grinders require a lot of clean water to flush food scraps down the drain. Instead, compost your food scraps to be used in landscaping.

Taking a sample of the chlorine residual

According to Metro Vancouver, the average person uses 270 litres of water per day.

Toilets 24%
Faucets 20%
Shower 20%
Clothes washers 16%
Leaks 13%
Baths 3%
Other 3%
Dishwashers 2

Mobile Emergency Response Unit

Water Services staff are trained to operate the water treatment trailer for use during a major emergency where Richmond's water is contaminated. The treatment trailer is capable of producing 55,000 litres of potable water per day from non-potable sources. It is maintained and continuously tested by Water Services staff to ensure that the water is safe to serve Richmond residents in an emergency situation.

Public Notification

At the direction of the Medical Health Officer, water quality advisories will be issued to the general public if necessary. Similarly, the notification will be issued to the general public for any work being done that will affect the quality of their drinking water. An example is included in Appendix 7.

Table 2 – Agency Notification for Situations Drinking Water Safety

Situation	Notifying Agency	Agency Notified	Time Frame For Notification
Fecal positive sample	City of Richmond Metro Vancouver Lab	City of Richmond / Medical Health Officer	Immediate
Chemical/biological contamination	City of Richmond Metro Vancouver Lab	City of Richmond / Medical Health Officer	Immediate
Turbidity > 5 NTU	City of Richmond Metro Vancouver Control Centre Metro Vancouver Lab	City of Richmond / Medical Health Officer	Immediate
Disinfection failure primary or secondary disinfection	City of Richmond Metro Vancouver Control Centre Metro Vancouver Lab	City of Richmond / Medical Health Officer	Immediate, where BC DWPR or GCDWQ guidelines may not be met
Loss of pressure due to high demand	City of Richmond Metro Vancouver Control Centre	Medical Health Officer City of Richmond Metro Vancouver Control Centre	Immediate
Watermain break where the pressure drops below 20 psi	City of Richmond Metro Vancouver Control Centre	Medical Health Officer City of Richmond	Immediate

Shorten your shower by two minutes. Reducing your shower by two minutes can save 460 litres of water in one month.

Water meter

Pressure management system installation

Water Conservation Programs

The City of Richmond continues to succeed in reducing annual water consumption despite a growing population. Since 2012, population has grown by approximately 10% and overall water consumption has decreased by 8%. This equates to a total annual savings of over $1,850,000. This can be explained by corporate and community wide initiatives including water metering, pressure management, the toilet rebate program, the clothes washer rebate program and the City's leak reduction program.

Reduction of water system pressure in lower demand periods such as the winter season extends water infrastructure service life and also reduces system water loss.

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.

Universal Single-Family Water Meter Program

The universal single-family water meter program is in progress and will be completed by the end of 2017. Advanced notification is provided to flat rate customers prior to meter installation. Water meters are a fair and equitable way of charging residents for water and will reduce the overall water consumption throughout the City.

Multi-Family Water Meter Program

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. To date, 144 multi-family complexes have been completed, comprising of 9,002 dwelling units.

Pressure Management Program

For the past three years, the City of Richmond has reduced water pressure by 10 PSI between October and 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 and extend the life of our water infrastructure. A decrease in nighttime flows and private leaks has been observed. Richmond is actively pursuing automated pressure management, where fluctuation would happen on a more regular basis through pilot systems on our pressure reducing valve (PRV) stations, which could recognize demand periods. Each one of Richmond's 13 PRV stations is turned down until the operating pressure is reached.

Toilet Rebate Program

The City of Richmond's Toilet Rebate Program provides a utility account rebate of $100.00 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. The purpose of the toilet rebate program is to encourage homeowners to replace high volume toilets with low-flush toilets to conserve water and to reduce costs. Homeowners enjoy a reduction in their utility bill while contributing to a sustainable water conservation initiative. In 2016, there were 749 rebates submitted.

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Clothes Washer Rebate Program

Through a partnership program with BC Hydro, residents could receive a rebate of up to $200, equally cost shared between BC Hydro and the City of Richmond for the replacement of an inefficient clothes washer with a new high efficiency one. The bi-annual rebate program encourages homeowners to conserve water and energy. As of January 1, 2017, 437 clothes washer rebates have been issued to Richmond residents.

Rain Barrels

Rain barrels are excellent outdoor water-saving devices that collect and store rainwater from rooftops for lawn and garden use. Rain water 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 2016, 270 rain barrels were sold; a significant increase from the 207 sold in 2015.

SYSTERN 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 SYSTERN or can be directed away from the house.

Metro Vancouver Water Restrictions

Due to dry and hot weather, continued high water demand and declining reservoir levels, Metro Vancouver imposed water sprinkling restrictions starting May 15th until mid-October. All Public Works sections and Parks Operations were involved in collecting and using recycled water for Richmond's parks, plants, street sweeping and vactor operation.

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.

Rain barrel

Water Education Programs

Project WET

New portable drinking fountain

Project WET

Project WET is an interactive elementary school water education program aimed at teaching students about the importance of water. Largely targeted for Richmond students in grades four through seven, this program is designed to educate students on the importance of water quality and supply.

The acronym "WET" stands for "Water Education Team". Touring from station to station, the objective is to promote higher-level thinking skills while learning about the fundamentals of water. In 2016, over 300 students and teachers participated in the program.

During the tour to the Works Yard, students can expect to learn many exciting areas of water and drainage systems such as:

- Richmond's water distribution system and how water reaches the taps;
- water sampling and water quality testing;
- the importance of fire hydrants and how they work;
- portable drinking fountains and Richmond's high-quality tap water;
- water conservation and what students can do to help;
- the uses of watermains, automatic flushing units, valves and meters;
- inspection camera technology;
- sewerage and drainage pipes and systems;
- the importance of keeping toxic materials out of ditches and storm sewers;
- pump stations and how they work;
- recycling and other environmentally sustainable practices;
- how our dykes help to keep our island afloat;
- Richmond's emergency water treatment trailer.

Tap Water Initiative

In 2010, Metro Vancouver initiated its tap water campaign. The intent of this initiative is 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 water. On April 14th, 2009 Mayor Malcom Brodie endorsed this campaign indicating that the City of 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".

To support this initiative, Richmond's Water Services section is proud to maintain several portable drinking fountains 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 2016, Water Services' portable tap water stations were installed at 39 community events.

The 24 water fountains found on Richmond's dykes and in parks have been maintained by Water Services since 2015. 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. They are turned on in the spring for the public to enjoy. An auto-flushing unit was installed on one of the longer pipes, to a fountain, to turn over the water and maintain an accurate chlorine residual.

Automated drinking fountain

Public Works Open House

The Water Services section plays a large role in the annual Public Works Open House that takes place in May. This is an opportunity for staff to show residents some of the critical services that are provided such as maintaining our infrastructure. Likewise, staff showcase the work that is done on a daily basis to ensure the safety and health of the community. This event draws attention to the importance of public works in community life.


Public Works Open House

"H2Whoa!" Theatrical Presentation by DreamRider Productions

"H2Whoa!" teaches students in grades K-7 all about water, the water cycle and water conservation. The focus is on positive actions and educating family and friends about the use of water, the need to protect it and its importance to everyday living. Several Richmond elementary schools have and will continue to have the opportunity to view this theatrical presentation.

Public Works Open House

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Conclusion

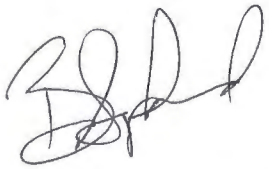
In 2016, Richmond residents enjoyed high-quality drinking water. From the protected watersheds to the local taps, both Metro Vancouver and the City of Richmond focus immensely on safe and high-quality drinking water.

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 it's an inhospitable environment for any harmful 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 source to property line

The City appreciates the good working relationship with Vancouver Coastal Health Authority and acknowledges them as important partners in maintaining high quality drinking water throughout the City of Richmond.

Sincerely,



Bryan Shepherd
Manager, Water Services
City of Richmond
604-233-3334
bshepherd@richmond.ca

Appendices

APPENDIX 1: REFERENCES

APPENDIX 2: WATER SAMPLING SITES

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APPENDIX 7: SAMPLE DRINKING WATER QUALITY ADVISORY

APPENDIX 8: SPECIFIC EMERGENCY RESPONSE PLANS

APPENDIX 1: REFERENCES

1. Health Canada Drinking Water Guidelines
   www.hc-sc.gc.ca/ewh-semt/water-eau/drink-potab/index_e.html
2. Provincial Drinking Water Protection Act (2003)
   www.qp.gov.bc.ca/statreg/reg/D/200_2003.htm#section8
3. Greater Vancouver Regional District – Source Water Quality and Supply
   www.gvrd.ca/water/index.htm
4. Richmond Health Services (Regional Health Authority)
   www.rhss.bc.ca/bins/index.asp
5. British Columbia Water Works Association
   www.bcwwa.org/
6. American Water Works Association
   www.awwa.org/
7. Metro Vancouver
   www.metrovancouver.org/services/water/Pages/default.aspx
8. City of Richmond
   www.richmond.ca/discover/about/demographics.htm
9. City of Richmond
   Richmond GVWD Water Consumption Document No. 555456
10. 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
11. Earth Easy – Solutions for Sustainable Living
    http://eartheasy.com/live_water_saving.htm
12. Metro Vancouver – We Love Water
    http://www.metrovancouver.org/welovewater/Pages/default.aspx

APPENDIX 2: WATER SAMPLING SITES

	SAMPLING STATION NUMBER	WATER SAMPLING SITES
MONDAY	RMD-250	6071 Azure Road
	RMD-251	5951McCallan 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
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	Opposite 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: 2016 WATER QUALITY RESULTS

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
4-Jan-16	GRAB	5951 McCallan Rd.	4-Jan-16	0.89	<1	<2	5	<1	0.12
4-Jan-16	GRAB	5951 McCallan Rd.	4-Jan-16	0.89	<1	<2	5	<1	0.12
4-Jan-16	GRAB	Opp. 8331 Fairfax Place	4-Jan-16	0.76	<1	<2	6	<1	0.26
4-Jan-16	GRAB	9751 Pendleton Rd.	4-Jan-16	0.85	<1	<2	5	<1	0.14
4-Jan-16	GRAB	10920 Springwood Court	4-Jan-16	0.81	<1	<2	5	<1	0.15
4-Jan-16	GRAB	6071 Azure Rd.	4-Jan-16	0.85	<1	<2	5	<1	0.17
4-Jan-16	GRAB	3800 Cessna Drive	4-Jan-16	0.9	<1	2	7	<1	0.13
4-Jan-16	GRAB	751 Catalina Cres.	4-Jan-16	0.93	<1	<2	5	<1	0.11
4-Jan-16	GRAB	6000 Blk. Miller Rd.	4-Jan-16	0.86	<1	<2	6	<1	0.28
4-Jan-16	GRAB	1000 Blk. McDonald Rd.	4-Jan-16	0.43	<1	<2	6	<1	0.65
4-Jan-16	GRAB	5300 No. 3 Rd.	4-Jan-16	0.89	<1	<2	5	<1	0.14
4-Jan-16	GRAB	8200 Jones Rd.	4-Jan-16	0.86	<1	<2	5	<1	0.17
4-Jan-16	GRAB	14951 Triangle Rd.	4-Jan-16	0.76	<1	<2	5	<1	0.11
4-Jan-16	GRAB	11051 No 3 Rd.	4-Jan-16	0.92	<1	<2	5	<1	0.12
6-Jan-16	GRAB	12560 Cambie Rd.	6-Jan-16	0.83	<1	<2	6	<1	0.11
6-Jan-16	GRAB	13100 Mitchell Rd.	6-Jan-16	0.89	<1	<2	5	<1	0.2
6-Jan-16	GRAB	Opp. 11280 Twigg Place	6-Jan-16	0.85	<1	2	5	<1	0.18
6-Jan-16	GRAB	13799 Commerce Pkwy.	6-Jan-16	0.62	<1	<2	6	<1	0.11
6-Jan-16	GRAB	6651 Fraserwood Place	6-Jan-16	0.65	<1	<2	6	<1	0.11
6-Jan-16	GRAB	Opp. 20371 Westminster Hwy.	6-Jan-16	0.67	<1	<2	6	<1	0.08
6-Jan-16	GRAB	9911 Sidaway Rd.	6-Jan-16	0.72	<1	<2	7	<1	0.09
6-Jan-16	GRAB	11111 Horseshoe Way	6-Jan-16	0.54	<1	<2	7	<1	0.12
6-Jan-16	GRAB	10020 Amethyst Ave.	6-Jan-16	0.72	<1	<2	5	<1	0.12
6-Jan-16	GRAB	9380 General Currie Rd.	6-Jan-16	0.63	<1	<2	5	<1	0.11
6-Jan-16	GRAB	13800 No. 3 Rd. (off Garden City)	6-Jan-16	0.77	<1	<2	7	<1	0.11
6-Jan-16	GRAB	7000 Blk. Dyke Rd.	6-Jan-16	0.98	<1	<2	7	<1	0.14
6-Jan-16	GRAB	6640 Blundell Rd.	6-Jan-16	0.87	<1	<2	5	<1	0.25
7-Jan-16	GRAB	3180 Granville Ave.	7-Jan-16	0.95	<1	<2	6	<1	0.82
7-Jan-16	GRAB	4251 Moncton St.	7-Jan-16	0.69	<1	<2	6	<1	0.11
7-Jan-16	GRAB	11080 No. 2 Rd.	7-Jan-16	0.74	<1	<2	7	<1	0.11
7-Jan-16	GRAB	Opp. 8600 Ryan Rd.	7-Jan-16	0.65	<1	<2	7	<1	0.09
7-Jan-16	GRAB	13200 No. 4 Rd.	7-Jan-16	0.68	<1	<2	6	<1	0.13
7-Jan-16	GRAB	13851 Steveston Hwy.	7-Jan-16	0.65	<1	<2	6	<1	0.1
7-Jan-16	GRAB	1500 Valemont Way	7-Jan-16	0.76	<1	<2	5	<1	0.1
7-Jan-16	GRAB	11720 Westminster Hwy.	7-Jan-16	0.76	<1	<2	5	<1	0.12
7-Jan-16	GRAB	17240 Fedoruk	7-Jan-16	0.69	<1	<2	7	<1	0.09
7-Jan-16	GRAB	23000 Blk. Dyke Rd.	7-Jan-16	0.64	<1	2	6	<1	0.1
7-Jan-16	GRAB	22271 Cochrane Drive	7-Jan-16	0.59	<1	<2	7	<1	0.12
7-Jan-16	GRAB	5180 Smith Cres.	7-Jan-16	0.62	<1	<2	7	<1	0.12

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
7-Jan-16	GRAB	23260 Westminster Hwy.	7-Jan-16	0.55	<1	<2	6	<1	0.09
11-Jan-16	GRAB	5951 McCallan Rd.	11-Jan-16	0.93	<1	<2	5	<1	0.07
11-Jan-16	GRAB	Opp. 8331 Fairfax Place	11-Jan-16	0.81	<1	<2	7	<1	0.15
11-Jan-16	GRAB	9751 Pendleton Rd.	11-Jan-16	0.91	<1	<2	7	<1	0.09
11-Jan-16	GRAB	10920 Springwood Court	11-Jan-16	0.9	<1	<2	6	<1	0.09
11-Jan-16	GRAB	6071 Azure Rd.	11-Jan-16	0.92	<1	<2	7	<1	0.11
11-Jan-16	GRAB	3800 Cessna Drive	11-Jan-16	0.92	<1	<2	7	<1	0.08
11-Jan-16	GRAB	751 Catalina Cres.	11-Jan-16	0.98	<1	<2	5	<1	0.08
11-Jan-16	GRAB	6000 Blk. Miller Rd.	11-Jan-16	0.85	<1	<2	6	<1	0.2
11-Jan-16	GRAB	1000 Blk. McDonald Rd.	11-Jan-16	0.54	<1	<2	7	<1	0.45
11-Jan-16	GRAB	5300 No. 3 Rd.	11-Jan-16	0.96	<1	<2	6	<1	0.12
11-Jan-16	GRAB	8200 Jones Rd.	11-Jan-16	0.91	<1	<2	6	<1	0.14
11-Jan-16	GRAB	14951 Triangle Rd.	11-Jan-16	0.17	<1	<2	6	<1	0.07
11-Jan-16	GRAB	11051 No 3 Rd.	11-Jan-16	0.68	<1	<2	7	<1	0.1
13-Jan-16	GRAB	12560 Cambie Rd.	13-Jan-16	0.8	<1	<2	6	<1	0.08
13-Jan-16	GRAB	13100 Mitchell Rd.	13-Jan-16	0.84	<1	<2	7	<1	0.16
13-Jan-16	GRAB	Opp. 11280 Twigg Place	13-Jan-16	0.88	<1	<2	7	<1	0.13
13-Jan-16	GRAB	13799 Commerce Pkwy.	13-Jan-16	0.73	<1	<2	6	<1	0.08
13-Jan-16	GRAB	6651 Fraserwood Place	13-Jan-16	0.56	<1	<2	6	<1	0.13
13-Jan-16	GRAB	Opp. 20371 Westminster Hwy.	13-Jan-16	0.58	<1	<2	6	<1	0.09
13-Jan-16	GRAB	9911 Sidaway Rd.	13-Jan-16	0.7	<1	<2	7	<1	0.08
13-Jan-16	GRAB	11111 Horseshoe Way	13-Jan-16	0.6	<1	<2	7	<1	0.1
13-Jan-16	GRAB	10020 Amethyst Ave.	13-Jan-16	0.8	<1	<2	6	<1	0.08
13-Jan-16	GRAB	9380 General Currie Rd.	13-Jan-16	0.91	<1	2	6	<1	0.08
13-Jan-16	GRAB	13800 No. 3 Rd. (off Garden City)	13-Jan-16	0.87	<1	<2	7	<1	0.08
13-Jan-16	GRAB	7000 Blk. Dyke Rd.	13-Jan-16	0.84	<1	4	6	<1	0.08
13-Jan-16	GRAB	6640 Blundell Rd.	13-Jan-16	0.74	<1	<2	6	<1	0.08
15-Jan-16	GRAB	3180 Granville Ave.	15-Jan-16	0.9	<1	<2	6	<1	0.49
15-Jan-16	GRAB	4251 Moncton St.	15-Jan-16	0.88	<1	<2	5	<1	0.19
15-Jan-16	GRAB	11080 No. 2 Rd.	15-Jan-16	0.74	<1	<2	5	<1	0.14
15-Jan-16	GRAB	Opp. 8600 Ryan Rd.	15-Jan-16	0.79	<1	<2	5	<1	0.31
15-Jan-16	GRAB	13200 No. 4 Rd.	15-Jan-16	0.86	<1	<2	5	<1	0.08
15-Jan-16	GRAB	13851 Steveston Hwy.	15-Jan-16	0.55	<1	<2	6	<1	0.1
15-Jan-16	GRAB	1500 Valemont Way	15-Jan-16	0.75	<1	<2	5	<1	0.1
15-Jan-16	GRAB	11720 Westminster Hwy.	15-Jan-16	0.69	<1	<2	4	<1	0.13
15-Jan-16	GRAB	17240 Fedoruk	15-Jan-16	0.66	<1	<2	5	<1	0.09
15-Jan-16	GRAB	23000 Blk. Dyke Rd.	15-Jan-16	0.64	<1	<2	6	<1	0.09
15-Jan-16	GRAB	22271 Cochrane Drive	15-Jan-16	0.74	<1	<2	5	<1	0.13
15-Jan-16	GRAB	5180 Smith Cres.	15-Jan-16	0.62	<1	<2	6	<1	0.11
15-Jan-16	GRAB	23260 Westminster Hwy.	15-Jan-16	0.64	<1	<2	5	<1	0.12

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
18-Jan-16	GRAB	5951 McCallan Rd.	18-Jan-16	0.86	<1	<2	6	<1	0.26
18-Jan-16	GRAB	Opp. 8331 Fairfax Place	18-Jan-16	0.63	<1	<2	7	<1	0.15
18-Jan-16	GRAB	9751 Pendleton Rd.	18-Jan-16	0.73	<1	<2	6	<1	0.19
18-Jan-16	GRAB	10920 Springwood Court	18-Jan-16	0.92	<1	<2	7	<1	0.13
18-Jan-16	GRAB	6071 Azure Rd.	18-Jan-16	0.9	<1	<2	6	<1	0.11
18-Jan-16	GRAB	3800 Cessna Drive	18-Jan-16	0.91	<1	<2	6	<1	0.15
18-Jan-16	GRAB	751 Catalina Cres.	18-Jan-16	1	<1	<2	5	<1	0.1
18-Jan-16	GRAB	6000 Blk. Miller Rd.	18-Jan-16	0.96	<1	<2	4	<1	0.23
18-Jan-16	GRAB	1000 Blk. McDonald Rd.	18-Jan-16	0.6	<1	<2	6	<1	0.43
18-Jan-16	GRAB	5300 No. 3 Rd.	18-Jan-16	0.94	<1	<2	5	<1	0.13
18-Jan-16	GRAB	8200 Jones Rd.	18-Jan-16	0.86	<1	4	6	<1	0.11
18-Jan-16	GRAB	14951 Triangle Rd.	18-Jan-16	0.73	<1	<2	5	<1	0.13
18-Jan-16	GRAB	11051 No 3 Rd.	18-Jan-16	0.83	<1	<2	4	<1	0.1
20-Jan-16	GRAB	12560 Cambie Rd.	20-Jan-16	0.92	<1	<2	5	<1	0.13
20-Jan-16	GRAB	17240 Fedoruk	20-Jan-16	0.56	<1	<2	7	<1	0.13
20-Jan-16	GRAB	23000 Blk. Dyke Rd.	20-Jan-16	0.66	<1	<2	6	<1	0.17
20-Jan-16	GRAB	13100 Mitchell Rd.	20-Jan-16	0.81	<1	<2	6	<1	0.15
20-Jan-16	GRAB	22271 Cochrane Drive	20-Jan-16	0.48	<1	<2	6	<1	0.21
20-Jan-16	GRAB	Opp. 11280 Twigg Place	20-Jan-16	0.88	<1	<2	5	<1	0.12
20-Jan-16	GRAB	5180 Smith Cres.	20-Jan-16	0.61	<1	4	7	<1	0.12
20-Jan-16	GRAB	13799 Commerce Pkwy.	20-Jan-16	0.73	<1	<2	6	<1	0.15
20-Jan-16	GRAB	23260 Westminster Hwy.	20-Jan-16	0.55	<1	<2	6	<1	0.12
20-Jan-16	GRAB	6651 Fraserwood Place	20-Jan-16	0.69	<1	<2	5	<1	0.14
20-Jan-16	GRAB	1500 Valemont Way	20-Jan-16	0.63	<1	<2	6	<1	0.09
20-Jan-16	GRAB	Opp. 20371 Westminster Hwy.	20-Jan-16	0.65	<1	<2	6	<1	0.08
20-Jan-16	GRAB	9911 Sidaway Rd.	20-Jan-16	0.74	<1	ate spre	5	<1	0.09
20-Jan-16	GRAB	11720 Westminster Hwy.	20-Jan-16	0.82	<1	<2	5	<1	0.13
20-Jan-16	GRAB	11111 Horseshoe Way	20-Jan-16	0.64	<1	<2	5	<1	0.1
20-Jan-16	GRAB	13851 Steveston Hwy.	20-Jan-16	0.54	<1	ate spre	6	<1	0.08
20-Jan-16	GRAB	10020 Amethyst Ave.	20-Jan-16	0.79	<1	<2	5	<1	0.08
20-Jan-16	GRAB	13200 No. 4 Rd.	20-Jan-16	0.74	<1	<2	6	<1	0.11
20-Jan-16	GRAB	9380 General Currie Rd.	20-Jan-16	0.93	<1	<2	6	<1	0.12
20-Jan-16	GRAB	Opp. 8600 Ryan Rd.	20-Jan-16	0.82	<1	<2	6	<1	0.1
20-Jan-16	GRAB	11080 No. 2 Rd.	20-Jan-16	0.62	<1	<2	6	<1	0.17
20-Jan-16	GRAB	13800 No. 3 Rd. (off Garden City)	20-Jan-16	0.9	<1	<2	5	<1	0.1
20-Jan-16	GRAB	4251 Moncton St.	20-Jan-16	0.71	<1	<2	6	<1	0.09
20-Jan-16	GRAB	7000 Blk. Dyke Rd.	20-Jan-16	0.92	<1	<2	5	<1	0.09
20-Jan-16	GRAB	3180 Granville Ave.	20-Jan-16	0.79	<1	ate spre	6	<1	0.08
20-Jan-16	GRAB	6640 Blundell Rd.	20-Jan-16	0.98	<1	<2	5	<1	0.1
25-Jan-16	GRAB	5951 McCallan Rd.	25-Jan-16	1	<1	<2	6	<1	0.15

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
25-Jan-16	GRAB	Opp. 8331 Fairfax Place	25-Jan-16	0.76	<1	<2	8	<1	0.11
25-Jan-16	GRAB	9751 Pendleton Rd.	25-Jan-16	0.68	<1	<2	7	<1	0.11
25-Jan-16	GRAB	10920 Springwood Court	25-Jan-16	0.77	<1	<2	8	<1	0.19
25-Jan-16	GRAB	6071 Azure Rd.	25-Jan-16	0.87	<1	<2	8	<1	0.25
25-Jan-16	GRAB	3800 Cessna Drive	25-Jan-16	0.87	<1	<2	8	<1	0.12
25-Jan-16	GRAB	751 Catalina Cres.	25-Jan-16	1	<1	<2	6	<1	0.16
25-Jan-16	GRAB	6000 Blk. Miller Rd.	25-Jan-16	0.84	<1	<2	6	<1	0.3
25-Jan-16	GRAB	1000 Blk. McDonald Rd.	25-Jan-16	0.56	<1	<2	7	<1	1.5
25-Jan-16	GRAB	5300 No. 3 Rd.	25-Jan-16	0.96	<1	<2	7	<1	0.12
25-Jan-16	GRAB	8200 Jones Rd.	25-Jan-16	0.94	<1	2	6	<1	0.11
25-Jan-16	GRAB	14951 Triangle Rd.	25-Jan-16	0.56	<1	<2	7	<1	0.11
25-Jan-16	GRAB	11051 No 3 Rd.	25-Jan-16	0.64	<1	<2	6	<1	0.12
27-Jan-16	GRAB	12560 Cambie Rd.	27-Jan-16	0.77	<1	<2	6	<1	0.12
27-Jan-16	GRAB	13100 Mitchell Rd.	27-Jan-16	0.9	<1	<2	6	<1	0.12
27-Jan-16	GRAB	Opp. 11280 Twigg Place	27-Jan-16	0.96	<1	<2	6	<1	0.11
27-Jan-16	GRAB	13799 Commerce Pkwy.	27-Jan-16	0.73	<1	<2	7	<1	0.11
27-Jan-16	GRAB	6651 Fraserwood Place	27-Jan-16	0.81	<1	<2	6	<1	0.13
27-Jan-16	GRAB	Opp. 20371 Westminster Hwy.	27-Jan-16	0.76	<1	<2	6	<1	0.09
27-Jan-16	GRAB	9911 Sidaway Rd.	27-Jan-16	0.65	<1	<2	7	<1	0.09
27-Jan-16	GRAB	11111 Horseshoe Way	27-Jan-16	0.67	<1	<2	7	<1	0.1
27-Jan-16	GRAB	10020 Amethyst Ave.	27-Jan-16	1	<1	<2	7	<1	0.09
27-Jan-16	GRAB	9380 General Currie Rd.	27-Jan-16	1	<1	<2	6	<1	0.12
27-Jan-16	GRAB	13800 No. 3 Rd. (off Garden City)	27-Jan-16	1	<1	<2	6	<1	0.11
27-Jan-16	GRAB	7000 Blk. Dyke Rd.	27-Jan-16	1	<1	<2	6	<1	0.09
27-Jan-16	GRAB	6640 Blundell Rd.	27-Jan-16	1	<1	<2	7	<1	0.1
29-Jan-16	GRAB	3180 Granville Ave.	29-Jan-16	0.72	<1	2	7	<1	0.11
29-Jan-16	GRAB	4251 Moncton St.	29-Jan-16	0.72	<1	2	7	<1	0.08
29-Jan-16	GRAB	11080 No. 2 Rd.	29-Jan-16	0.81	<1	<2	7	<1	0.08
29-Jan-16	GRAB	Opp. 8600 Ryan Rd.	29-Jan-16	0.63	<1	<2	8	<1	0.19
29-Jan-16	GRAB	13200 No. 4 Rd.	29-Jan-16	0.82	<1	4	7	<1	0.1
29-Jan-16	GRAB	13851 Steveston Hwy.	29-Jan-16	0.65	<1	2	6	<1	0.09
29-Jan-16	GRAB	11720 Westminster Hwy.	29-Jan-16	0.63	<1	<2	6	<1	0.09
29-Jan-16	GRAB	1500 Valemont Way	29-Jan-16	0.62	<1	2	6	<1	0.1
29-Jan-16	GRAB	17240 Fedoruk	29-Jan-16	0.67	<1	<2	6	<1	0.08
29-Jan-16	GRAB	23000 Blk. Dyke Rd.	29-Jan-16	0.61	<1	<2	6	<1	0.09
29-Jan-16	GRAB	22271 Cochrane Drive	29-Jan-16	0.65	<1	<2	6	<1	0.1
29-Jan-16	GRAB	5180 Smith Cres.	29-Jan-16	0.57	<1	<2	6	<1	0.1
29-Jan-16	GRAB	23260 Westminster Hwy.	29-Jan-16	0.56	<1	<2	7	<1	0.11
1-Feb-16	GRAB	5951 McCallan Rd.	1-Feb-16	0.94	<1	<2	6	<1	0.09
1-Feb-16	GRAB	Opp. 8331 Fairfax Place	1-Feb-16	0.79	<1	<2	9	<1	0.1

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
1-Feb-16	GRAB	9751 Pendleton Rd.	1-Feb-16	0.87	<1	<2	6	<1	0.12
1-Feb-16	GRAB	10920 Springwood Court	1-Feb-16	0.87	<1	<2	7	<1	0.1
1-Feb-16	GRAB	6071 Azure Rd.	1-Feb-16	0.84	<1	<2	7	<1	0.11
1-Feb-16	GRAB	3800 Cessna Drive	1-Feb-16	1	<1	<2	7	<1	0.09
1-Feb-16	GRAB	751 Catalina Cres.	1-Feb-16	0.99	<1	<2	7	<1	0.14
1-Feb-16	GRAB	6000 Blk. Miller Rd.	1-Feb-16	0.94	<1	<2	6	<1	0.22
1-Feb-16	GRAB	1000 Blk. McDonald Rd.	1-Feb-16	0.57	<1	<2	8	<1	0.64
1-Feb-16	GRAB	5300 No. 3 Rd.	1-Feb-16	0.91	<1	<2	6	<1	0.18
1-Feb-16	GRAB	8200 Jones Rd.	1-Feb-16	0.86	<1	<2	7	<1	0.14
1-Feb-16	GRAB	14951 Triangle Rd.	1-Feb-16	0.65	<1	<2	6	<1	0.16
1-Feb-16	GRAB	11051 No 3 Rd.	1-Feb-16	0.89	<1	<2	6	<1	0.19
3-Feb-16	GRAB	12560 Cambie Rd.	3-Feb-16	0.86	<1	<2	6	<1	0.12
3-Feb-16	GRAB	13100 Mitchell Rd.	3-Feb-16	0.71	<1	<2	6	<1	0.13
3-Feb-16	GRAB	Opp. 11280 Twigg Place	3-Feb-16	0.67	<1	<2	7	<1	0.2
3-Feb-16	GRAB	13799 Commerce Pkwy.	3-Feb-16	0.61	<1	<2	7	<1	0.12
3-Feb-16	GRAB	6651 Fraserwood Place	3-Feb-16	0.63	<1	2	6	<1	0.15
3-Feb-16	GRAB	Opp. 20371 Westminster Hwy.	3-Feb-16	0.35	<1	<2	6	<1	0.15
3-Feb-16	GRAB	9911 Sidaway Rd.	3-Feb-16	0.67	<1	<2	6	<1	0.15
3-Feb-16	GRAB	11111 Horseshoe Way	3-Feb-16	0.7	<1	2	7	<1	0.21
3-Feb-16	GRAB	10020 Amethyst Ave.	3-Feb-16	0.65	<1	<2	7	<1	0.11
3-Feb-16	GRAB	9380 General Currie Rd.	3-Feb-16	0.86	<1	<2	6	<1	0.13
3-Feb-16	GRAB	13800 No. 3 Rd. (off Garden City)	3-Feb-16	0.81	<1	<2	7	<1	0.12
3-Feb-16	GRAB	7000 Blk. Dyke Rd.	3-Feb-16	0.66	<1	<2	7	<1	0.11
3-Feb-16	GRAB	6640 Blundell Rd.	3-Feb-16	0.77	<1	<2	6	<1	0.13
4-Feb-16	GRAB	3180 Granville Ave.	4-Feb-16	0.83	<1	<2	7	<1	0.41
4-Feb-16	GRAB	4251 Moncton St.	4-Feb-16	0.8	<1	<2	7	<1	0.12
4-Feb-16	GRAB	11080 No. 2 Rd.	4-Feb-16	0.85	<1	<2	7	<1	0.15
4-Feb-16	GRAB	Opp. 8600 Ryan Rd.	4-Feb-16	0.83	<1	<2	7	<1	0.16
4-Feb-16	GRAB	13200 No. 4 Rd.	4-Feb-16	0.89	<1	<2	6	<1	0.16
4-Feb-16	GRAB	13851 Steveston Hwy.	4-Feb-16	0.65	<1	<2	6	<1	0.11
4-Feb-16	GRAB	1500 Valemont Way	4-Feb-16	0.64	<1	<2	5	<1	0.09
4-Feb-16	GRAB	11720 Westminster Hwy.	4-Feb-16	0.75	<1	<2	7	<1	0.12
4-Feb-16	GRAB	17240 Fedoruk	4-Feb-16	0.83	<1	2	7	<1	0.14
4-Feb-16	GRAB	23000 Blk. Dyke Rd.	4-Feb-16	0.66	<1	<2	7	<1	0.11
4-Feb-16	GRAB	22271 Cochrane Drive	4-Feb-16	0.63	<1	<2	7	<1	0.11
4-Feb-16	GRAB	5180 Smith Cres.	4-Feb-16	0.61	<1	<2	7	<1	0.11
4-Feb-16	GRAB	23260 Westminster Hwy.	4-Feb-16	0.74	<1	<2	6	<1	0.12
9-Feb-16	GRAB	5951 McCallan Rd.	9-Feb-16	0.85	<1	<2	6	<1	0.1
9-Feb-16	GRAB	Opp. 8331 Fairfax Place	9-Feb-16	0.76	<1	<2	9	<1	0.71
9-Feb-16	GRAB	9751 Pendleton Rd.	9-Feb-16	0.78	<1	<2	8	<1	0.15

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
9-Feb-16	GRAB	10920 Springwood Court	9-Feb-16	0.79	<1	<2	8	<1	0.11
9-Feb-16	GRAB	6071 Azure Rd.	9-Feb-16	0.83	<1	<2	8	<1	0.15
9-Feb-16	GRAB	3800 Cessna Drive	9-Feb-16	0.87	<1	<2	8	<1	0.08
9-Feb-16	GRAB	751 Catalina Cres.	9-Feb-16	0.94	<1	<2	7	<1	0.1
9-Feb-16	GRAB	6000 Blk. Miller Rd.	9-Feb-16	0.92	<1	<2	7	<1	0.29
9-Feb-16	GRAB	1000 Blk. McDonald Rd.	9-Feb-16	0.52	<1	<2	7	<1	0.33
9-Feb-16	GRAB	5300 No. 3 Rd.	9-Feb-16	0.88	<1	<2	7	<1	0.14
9-Feb-16	GRAB	8200 Jones Rd.	9-Feb-16	0.87	<1	<2	8	<1	0.11
9-Feb-16	GRAB	14951 Triangle Rd.	9-Feb-16	0.69	<1	<2	6	<1	0.13
9-Feb-16	GRAB	11051 No 3 Rd.	9-Feb-16	0.81	<1	<2	6	<1	0.11
10-Feb-16	GRAB	12560 Cambie Rd.	10-Feb-16	0.86	<1	<2	6	<1	0.12
10-Feb-16	GRAB	13100 Mitchell Rd.	10-Feb-16	0.72	<1	<2	8	<1	0.16
10-Feb-16	GRAB	Opp. 11280 Twigg Place	10-Feb-16	0.88	<1	<2	6	<1	0.15
10-Feb-16	GRAB	13799 Commerce Pkwy.	10-Feb-16	0.76	<1	<2	6	<1	0.13
10-Feb-16	GRAB	6651 Fraserwood Place	10-Feb-16	0.75	<1	<2	6	<1	0.15
10-Feb-16	GRAB	Opp. 20371 Westminster Hwy.	10-Feb-16	0.69	<1	<2	6	<1	0.11
10-Feb-16	GRAB	9911 Sidaway Rd.	10-Feb-16	0.71	<1	<2	6	<1	0.42
10-Feb-16	GRAB	11111 Horseshoe Way	10-Feb-16	0.89	<1	<2	6	<1	0.13
10-Feb-16	GRAB	10020 Amethyst Ave.	10-Feb-16	0.81	<1	<2	7	<1	0.34
10-Feb-16	GRAB	9380 General Currie Rd.	10-Feb-16	1	<1	<2	6	<1	0.13
10-Feb-16	GRAB	13800 No. 3 Rd. (off Garden City)	10-Feb-16	0.89	<1	2	6	<1	0.19
10-Feb-16	GRAB	7000 Blk. Dyke Rd.	10-Feb-16	0.88	<1	<2	6	<1	0.18
10-Feb-16	GRAB	6640 Blundell Rd.	10-Feb-16	0.95	<1	<2	7	<1	0.66
12-Feb-16	GRAB	3180 Granville Ave.	12-Feb-16	0.91	<1	<2	7	<1	0.34
12-Feb-16	GRAB	4251 Moncton St.	12-Feb-16	0.91	<1	<2	6	<1	0.14
12-Feb-16	GRAB	11080 No. 2 Rd.	12-Feb-16	0.93	<1	<2	6	<1	0.13
12-Feb-16	GRAB	13200 No. 4 Rd.	12-Feb-16	0.78	<1	<2	7	<1	0.13
12-Feb-16	GRAB	Opp. 8600 Ryan Rd.	12-Feb-16	0.85	<1	<2	6	<1	0.11
12-Feb-16	GRAB	13851 Steveston Hwy.	12-Feb-16	0.77	<1	<2	7	<1	0.12
12-Feb-16	GRAB	1500 Valemont Way	12-Feb-16	0.68	<1	<2	8	<1	0.14
12-Feb-16	GRAB	11720 Westminster Hwy.	12-Feb-16	0.84	<1	<2	6	<1	0.15
12-Feb-16	GRAB	17240 Fedoruk	12-Feb-16	0.78	<1	<2	6	<1	0.11
12-Feb-16	GRAB	23000 Blk. Dyke Rd.	12-Feb-16	0.75	<1	<2	7	<1	0.13
12-Feb-16	GRAB	22271 Cochrane Drive	12-Feb-16	0.76	<1	<2	6	<1	0.1
12-Feb-16	GRAB	5180 Smith Cres.	12-Feb-16	0.78	<1	<2	7	<1	0.11
12-Feb-16	GRAB	23260 Westminster Hwy.	12-Feb-16	0.7	<1	<2	7	<1	0.09
15-Feb-16	GRAB	5951 McCallan Rd.	15-Feb-16	0.94	<1	<2	7	<1	0.21
15-Feb-16	GRAB	Opp. 8331 Fairfax Place	15-Feb-16	0.72	<1	<2	8	<1	0.24
15-Feb-16	GRAB	9751 Pendleton Rd.	15-Feb-16	0.87	<1	<2	7	<1	0.13
15-Feb-16	GRAB	10920 Springwood Court	15-Feb-16	0.81	<1	<2	9	<1	0.12

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
15-Feb-16	GRAB	6071 Azure Rd.	15-Feb-16	0.85	<1	<2	7	<1	0.16
15-Feb-16	GRAB	3800 Cessna Drive	15-Feb-16	0.87	<1	<2	8	<1	0.14
15-Feb-16	GRAB	751 Catalina Cres.	15-Feb-16	0.9	<1	<2	6	<1	0.23
15-Feb-16	GRAB	6000 Blk. Miller Rd.	15-Feb-16	0.85	<1	<2	7	<1	0.33
15-Feb-16	GRAB	1000 Blk. McDonald Rd.	15-Feb-16	0.48	<1	<2	8	<1	0.37
15-Feb-16	GRAB	5300 No. 3 Rd.	15-Feb-16	0.91	<1	<2	7	<1	0.18
15-Feb-16	GRAB	8200 Jones Rd.	15-Feb-16	0.93	<1	<2	7	<1	0.2
15-Feb-16	GRAB	14951 Triangle Rd.	15-Feb-16	0.73	<1	<2	7	<1	0.1
15-Feb-16	GRAB	11051 No 3 Rd.	15-Feb-16	0.86	<1	<2	7	<1	0.23
17-Feb-16	GRAB	12560 Cambie Rd.	17-Feb-16	0.6	<1	<2	7	<1	0.12
17-Feb-16	GRAB	13100 Mitchell Rd.	17-Feb-16	0.88	<1	<2	7	<1	0.13
17-Feb-16	GRAB	Opp. 11280 Twigg Place	17-Feb-16	0.87	<1	<2	7	<1	0.19
17-Feb-16	GRAB	13799 Commerce Pkwy.	17-Feb-16	0.57	<1	<2	7	<1	0.14
17-Feb-16	GRAB	6651 Fraserwood Place	17-Feb-16	0.66	<1	<2	7	<1	0.11
17-Feb-16	GRAB	Opp. 20371 Westminster Hwy.	17-Feb-16	0.66	<1	<2	7	<1	0.08
17-Feb-16	GRAB	9911 Sidaway Rd.	17-Feb-16	0.77	<1	8	7	<1	0.1
17-Feb-16	GRAB	11111 Horseshoe Way	17-Feb-16	1	<1	<2	7	<1	0.13
17-Feb-16	GRAB	10020 Amethyst Ave.	17-Feb-16	0.85	<1	<2	8	<1	0.11
17-Feb-16	GRAB	9380 General Currie Rd.	17-Feb-16	0.79	<1	<2	7	<1	0.15
17-Feb-16	GRAB	13800 No. 3 Rd. (off Garden City)	17-Feb-16	0.94	<1	<2	7	<1	0.13
17-Feb-16	GRAB	7000 Blk. Dyke Rd.	17-Feb-16	0.72	<1	<2	7	<1	0.17
17-Feb-16	GRAB	6640 Blundell Rd.	17-Feb-16	0.77	<1	4	7	<1	0.14
18-Feb-16	GRAB	3180 Granville Ave.	18-Feb-16	1	<1	<2	7	<1	0.31
18-Feb-16	GRAB	4251 Moncton St.	18-Feb-16	0.87	<1	<2	7	<1	0.11
18-Feb-16	GRAB	11080 No. 2 Rd.	18-Feb-16	0.91	<1	<2	7	<1	0.2
18-Feb-16	GRAB	Opp. 8600 Ryan Rd.	18-Feb-16	1	<1	<2	7	<1	0.42
18-Feb-16	GRAB	13200 No. 4 Rd.	18-Feb-16	0.86	<1	<2	6	<1	0.11
18-Feb-16	GRAB	13851 Steveston Hwy.	18-Feb-16	0.72	<1	<2	7	<1	0.13
18-Feb-16	GRAB	1500 Valemont Way	18-Feb-16	0.76	<1	<2	6	<1	0.11
18-Feb-16	GRAB	11720 Westminster Hwy.	18-Feb-16	0.91	<1	<2	8	<1	0.11
18-Feb-16	GRAB	17240 Fedoruk	18-Feb-16	0.72	<1	<2	7	<1	0.12
18-Feb-16	GRAB	23000 Blk. Dyke Rd.	18-Feb-16	0.7	<1	<2	8	<1	0.1
18-Feb-16	GRAB	22271 Cochrane Drive	18-Feb-16	0.74	<1	<2	7	<1	0.1
18-Feb-16	GRAB	5180 Smith Cres.	18-Feb-16	0.64	<1	<2	8	<1	0.11
18-Feb-16	GRAB	23260 Westminster Hwy.	18-Feb-16	0.69	<1	<2	6	<1	0.12
22-Feb-16	GRAB	5951 McCallan Rd.	22-Feb-16	0.85	<1	2	6	<1	0.2
22-Feb-16	GRAB	Opp. 8331 Fairfax Place	22-Feb-16	0.75	<1	2	8	<1	1.3
22-Feb-16	GRAB	9751 Pendleton Rd.	22-Feb-16	0.74	<1	<2	7	<1	0.14
22-Feb-16	GRAB	10920 Springwood Court	22-Feb-16	0.79	<1	<2	6	<1	0.12
22-Feb-16	GRAB	6071 Azure Rd.	22-Feb-16	0.84	<1	<2	8	<1	0.16

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
22-Feb-16	GRAB	3800 Cessna Drive	22-Feb-16	0.82	<1	<2	7	<1	0.14
22-Feb-16	GRAB	751 Catalina Cres.	22-Feb-16	0.94	<1	<2	6	<1	0.1
22-Feb-16	GRAB	6000 Blk. Miller Rd.	22-Feb-16	0.92	<1	<2	7	<1	0.15
22-Feb-16	GRAB	5300 No. 3 Rd.	22-Feb-16	0.9	<1	<2	6	<1	0.17
22-Feb-16	GRAB	8200 Jones Rd.	22-Feb-16	0.91	<1	<2	8	<1	0.16
22-Feb-16	GRAB	14951 Triangle Rd.	22-Feb-16	0.81	<1	<2	6	<1	0.09
22-Feb-16	GRAB	11051 No 3 Rd.	22-Feb-16	0.94	<1	<2	6	<1	0.17
24-Feb-16	GRAB	6640 Blundell Rd.	24-Feb-16	0.99	<1	<2	6	<1	0.13
24-Feb-16	GRAB	9380 General Currie Rd.	24-Feb-16	0.89	<1	<2	6	<1	0.09
24-Feb-16	GRAB	10020 Amethyst Ave.	24-Feb-16	0.66	<1	<2	6	<1	0.13
24-Feb-16	GRAB	11111 Horseshoe Way	24-Feb-16	0.91	<1	<2	6	<1	0.09
24-Feb-16	GRAB	7000 Blk. Dyke Rd.	24-Feb-16	0.83	<1	<2	7	<1	0.12
24-Feb-16	GRAB	13800 No. 3 Rd. (off Garden City)	24-Feb-16	0.92	<1	<2	7	<1	0.1
24-Feb-16	GRAB	9911 Sidaway Rd.	24-Feb-16	0.65	<1	<2	7	<1	0.11
24-Feb-16	GRAB	12560 Cambie Rd.	24-Feb-16	0.88	<1	<2	6	<1	0.16
24-Feb-16	GRAB	13100 Mitchell Rd.	24-Feb-16	0.83	<1	<2	7	<1	0.1
24-Feb-16	GRAB	Opp. 11280 Twigg Place	24-Feb-16	0.86	<1	<2	6	<1	0.1
24-Feb-16	GRAB	13799 Commerce Pkwy.	24-Feb-16	0.62	<1	<2	8	<1	0.33
24-Feb-16	GRAB	Opp. 20371 Westminster Hwy.	24-Feb-16	0.79	<1	<2	7	<1	0.14
24-Feb-16	GRAB	6651 Fraserwood Place	24-Feb-16	0.65	<1	<2	7	<1	0.13
26-Feb-16	GRAB	3180 Granville Ave.	26-Feb-16	1.2	<1	2	7	<1	0.38
26-Feb-16	GRAB	4251 Moncton St.	26-Feb-16	0.81	<1	<2	7	<1	0.13
26-Feb-16	GRAB	11080 No. 2 Rd.	26-Feb-16	0.84	<1	<2	6	<1	0.16
26-Feb-16	GRAB	Opp. 8600 Ryan Rd.	26-Feb-16	0.85	<1	<2	6	<1	0.17
26-Feb-16	GRAB	13200 No. 4 Rd.	26-Feb-16	0.91	<1	30	7	<1	0.14
26-Feb-16	GRAB	13851 Steveston Hwy.	26-Feb-16	0.71	<1	<2	5	<1	0.12
26-Feb-16	GRAB	1500 Valemont Way	26-Feb-16	0.71	<1	<2	6	<1	0.11
26-Feb-16	GRAB	11720 Westminster Hwy.	26-Feb-16	0.81	<1	<2	7	<1	0.12
26-Feb-16	GRAB	17240 Fedoruk	26-Feb-16	0.71	<1	<2	7	<1	0.1
26-Feb-16	GRAB	23000 Blk. Dyke Rd.	26-Feb-16	0.53	<1	<2	7	<1	0.17
26-Feb-16	GRAB	5180 Smith Cres.	26-Feb-16	0.72	<1	<2	7	<1	0.1
26-Feb-16	GRAB	22271 Cochrane Drive	26-Feb-16	0.65	<1	<2	7	<1	0.15
26-Feb-16	GRAB	23260 Westminster Hwy.	26-Feb-16	0.74	<1	<2	6	<1	0.11
29-Feb-16	GRAB	5951 McCallan Rd.	29-Feb-16	0.89	<1	<2	7	<1	0.21
29-Feb-16	GRAB	Opp. 8331 Fairfax Place	29-Feb-16	0.81	<1	<2	7	<1	0.47
29-Feb-16	GRAB	9751 Pendleton Rd.	29-Feb-16	0.87	<1	<2	7	<1	0.12
29-Feb-16	GRAB	10920 Springwood Court	29-Feb-16	0.92	<1	<2	8	<1	0.2
29-Feb-16	GRAB	6071 Azure Rd.	29-Feb-16	0.87	<1	<2	8	<1	0.39
29-Feb-16	GRAB	3800 Cessna Drive	29-Feb-16	0.83	<1	<2	7	<1	0.12
29-Feb-16	GRAB	751 Catalina Cres.	29-Feb-16	0.89	<1	<2	7	<1	0.15

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
29-Feb-16	GRAB	6000 Blk. Miller Rd.	29-Feb-16	0.95	<1	<2	6	<1	0.32
29-Feb-16	GRAB	1000 Blk. McDonald Rd.	29-Feb-16	0.28	<1	<2	8	<1	0.59
29-Feb-16	GRAB	5300 No. 3 Rd.	29-Feb-16	0.88	<1	<2	7	<1	0.15
29-Feb-16	GRAB	8200 Jones Rd.	29-Feb-16	1	<1	<2	7	<1	0.2
29-Feb-16	GRAB	14951 Triangle Rd.	29-Feb-16	0.67	<1	<2	8	<1	0.16
29-Feb-16	GRAB	11051 No 3 Rd.	29-Feb-16	0.93	<1	<2	5	<1	0.17
2-Mar-16	GRAB	12560 Cambie Rd.	2-Mar-16	0.88	<1	<2	7	<1	0.25
2-Mar-16	GRAB	13100 Mitchell Rd.	2-Mar-16	1	<1	6	7	<1	0.14
2-Mar-16	GRAB	Opp. 11280 Twigg Place	2-Mar-16	0.96	<1	2	7	<1	0.19
2-Mar-16	GRAB	13799 Commerce Pkwy.	2-Mar-16	0.68	<1	<2	7	<1	0.15
2-Mar-16	GRAB	6651 Fraserwood Place	2-Mar-16	0.68	<1	<2	8	<1	0.19
2-Mar-16	GRAB	Opp. 20371 Westminster Hwy.	2-Mar-16	0.73	<1	<2	7	<1	0.2
2-Mar-16	GRAB	9911 Sidaway Rd.	2-Mar-16	0.75	<1	<2	6	<1	0.23
2-Mar-16	GRAB	11111 Horseshoe Way	2-Mar-16	0.93	<1	<2	7	<1	0.17
2-Mar-16	GRAB	10020 Amethyst Ave.	2-Mar-16	0.82	<1	<2	7	<1	0.16
2-Mar-16	GRAB	9380 General Currie Rd.	2-Mar-16	0.88	<1	<2	6	<1	0.19
2-Mar-16	GRAB	13800 No. 3 Rd. (off Garden City)	2-Mar-16	0.9	<1	<2	7	<1	0.27
2-Mar-16	GRAB	7000 Blk. Dyke Rd.	2-Mar-16	0.94	<1	<2	7	<1	0.11
2-Mar-16	GRAB	6640 Blundell Rd.	2-Mar-16	0.91	<1	<2	6	<1	0.12
3-Mar-16	GRAB	3180 Granville Ave.	3-Mar-16	0.92	<1	<2	7	<1	0.44
3-Mar-16	GRAB	4251 Moncton St.	3-Mar-16	0.98	<1	2	7	<1	0.13
3-Mar-16	GRAB	11080 No. 2 Rd.	3-Mar-16	0.96	<1	<2	7	<1	0.12
3-Mar-16	GRAB	Opp. 8600 Ryan Rd.	3-Mar-16	1.1	<1	<2	7	<1	0.16
3-Mar-16	GRAB	13200 No. 4 Rd.	3-Mar-16	0.91	<1	<2	8	<1	0.12
3-Mar-16	GRAB	13851 Steveston Hwy.	3-Mar-16	0.87	<1	<2	8	<1	0.12
3-Mar-16	GRAB	1500 Valemont Way	3-Mar-16	0.82	<1	<2	7	<1	0.11
3-Mar-16	GRAB	11720 Westminster Hwy.	3-Mar-16	0.84	<1	2	7	<1	0.11
3-Mar-16	GRAB	17240 Fedoruk	3-Mar-16	0.86	<1	<2	7	<1	0.1
3-Mar-16	GRAB	23000 Blk. Dyke Rd.	3-Mar-16	0.8	<1	<2	7	<1	0.23
3-Mar-16	GRAB	22271 Cochrane Drive	3-Mar-16	0.78	<1	6	8	<1	0.13
3-Mar-16	GRAB	5180 Smith Cres.	3-Mar-16	0.66	<1	<2	7	<1	0.11
3-Mar-16	GRAB	23260 Westminster Hwy.	3-Mar-16	0.9	<1	2	7	<1	0.1
7-Mar-16	GRAB	5951 McCallan Rd.	7-Mar-16	0.82	<1	<2	7	<1	0.21
7-Mar-16	GRAB	Opp. 8331 Fairfax Place	7-Mar-16	0.84	<1	<2	9	<1	2.7
7-Mar-16	GRAB	9751 Pendleton Rd.	7-Mar-16	0.83	<1	<2	8	<1	0.12
7-Mar-16	GRAB	10920 Springwood Court	7-Mar-16	0.8	<1	<2	8	<1	0.14
7-Mar-16	GRAB	6071 Azure Rd.	7-Mar-16	0.77	<1	<2	8	<1	0.1
7-Mar-16	GRAB	3800 Cessna Drive	7-Mar-16	0.98	<1	<2	7	<1	0.12
7-Mar-16	GRAB	751 Catalina Cres.	7-Mar-16	0.89	<1	<2	6	<1	0.15
7-Mar-16	GRAB	6000 Blk. Miller Rd.	7-Mar-16	0.79	<1	<2	7	<1	0.28

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
7-Mar-16	GRAB	1000 Blk. McDonald Rd.	7-Mar-16	0.46	<1	<2	9	<1	0.9
7-Mar-16	GRAB	5300 No. 3 Rd.	7-Mar-16	0.88	<1	<2	8	<1	0.13
7-Mar-16	GRAB	8200 Jones Rd.	7-Mar-16	0.79	<1	8	7	<1	0.16
7-Mar-16	GRAB	14951 Triangle Rd.	7-Mar-16	0.44	<1	<2	7	<1	0.13
7-Mar-16	GRAB	11051 No 3 Rd.	7-Mar-16	0.97	<1	<2	7	<1	0.13
9-Mar-16	GRAB	12560 Cambie Rd.	9-Mar-16	0.91	<1	<2	7	<1	0.14
9-Mar-16	GRAB	13100 Mitchell Rd.	9-Mar-16	1.1	<1	<2	7	<1	0.14
9-Mar-16	GRAB	Opp. 11280 Twigg Place	9-Mar-16	0.85	<1	<2	8	<1	0.19
9-Mar-16	GRAB	13799 Commerce Pkwy.	9-Mar-16	0.74	<1	<2	7	<1	0.17
9-Mar-16	GRAB	6651 Fraserwood Place	9-Mar-16	0.84	<1	<2	6	<1	0.18
9-Mar-16	GRAB	Opp. 20371 Westminster Hwy.	9-Mar-16	0.81	<1	<2	6	<1	0.13
9-Mar-16	GRAB	9911 Sidaway Rd.	9-Mar-16	1.1	<1	<2	7	<1	0.13
9-Mar-16	GRAB	11111 Horseshoe Way	9-Mar-16	0.96	<1	<2	6	<1	0.13
9-Mar-16	GRAB	10020 Amethyst Ave.	9-Mar-16	0.83	<1	<2	8	<1	0.14
9-Mar-16	GRAB	9380 General Currie Rd.	9-Mar-16	1	<1	<2	6	<1	0.14
9-Mar-16	GRAB	13800 No. 3 Rd. (off Garden City)	9-Mar-16	0.83	<1	<2	6	<1	0.12
9-Mar-16	GRAB	7000 Blk. Dyke Rd.	9-Mar-16	1	<1	<2	8	<1	0.26
9-Mar-16	GRAB	6640 Blundell Rd.	9-Mar-16	0.91	<1	<2	7	<1	0.15
11-Mar-16	GRAB	3180 Granville Ave.	11-Mar-16	0.75	<1	<2	6	<1	0.3
11-Mar-16	GRAB	4251 Moncton St.	11-Mar-16	0.91	<1	<2	7	<1	0.12
11-Mar-16	GRAB	11080 No. 2 Rd.	11-Mar-16	0.94	<1	<2	7	<1	0.13
11-Mar-16	GRAB	Opp. 8600 Ryan Rd.	11-Mar-16	0.8	<1	<2	7	<1	0.17
11-Mar-16	GRAB	13200 No. 4 Rd.	11-Mar-16	0.92	<1	<2	7	<1	0.19
11-Mar-16	GRAB	13851 Steveston Hwy.	11-Mar-16	0.72	<1	<2	7	<1	0.14
11-Mar-16	GRAB	11720 Westminster Hwy.	11-Mar-16	0.87	<1	<2	6	<1	0.18
11-Mar-16	GRAB	17240 Fedoruk	11-Mar-16	0.66	<1	<2	8	<1	0.21
11-Mar-16	GRAB	23000 Blk. Dyke Rd.	11-Mar-16	0.65	<1	<2	8	<1	0.16
11-Mar-16	GRAB	22271 Cochrane Drive	11-Mar-16	0.61	<1	<2	7	<1	0.14
11-Mar-16	GRAB	5180 Smith Cres.	11-Mar-16	0.64	<1	<2	7	<1	0.15
14-Mar-16	GRAB	5951 McCallan Rd.	14-Mar-16	0.91	<1	<2	7	<1	0.1
14-Mar-16	GRAB	Opp. 8331 Fairfax Place	14-Mar-16	0.77	<1	<2	7	<1	0.24
14-Mar-16	GRAB	9751 Pendleton Rd.	14-Mar-16	0.9	<1	<2	8	<1	0.11
14-Mar-16	GRAB	10920 Springwood Court	14-Mar-16	0.82	<1	<2	8	<1	0.16
14-Mar-16	GRAB	6071 Azure Rd.	14-Mar-16	0.88	<1	<2	7	<1	0.13
14-Mar-16	GRAB	3800 Cessna Drive	14-Mar-16	0.79	<1	<2	8	<1	0.11
14-Mar-16	GRAB	751 Catalina Cres.	14-Mar-16	0.91	<1	<2	8	<1	0.15
14-Mar-16	GRAB	6000 Blk. Miller Rd.	14-Mar-16	0.92	<1	<2	6	<1	0.25
14-Mar-16	GRAB	1000 Blk. McDonald Rd.	14-Mar-16	0.53	<1	<2	7	<1	0.24
14-Mar-16	GRAB	5300 No. 3 Rd.	14-Mar-16	0.87	<1	2	7	<1	0.12
14-Mar-16	GRAB	8200 Jones Rd.	14-Mar-16	0.93	<1	<2	6	<1	0.11

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
14-Mar-16	GRAB	14951 Triangle Rd.	14-Mar-16	0.69	<1	<2	7	<1	0.1
14-Mar-16	GRAB	11051 No 3 Rd.	14-Mar-16	0.8	<1	2	7	<1	0.12
16-Mar-16	GRAB	12560 Cambie Rd.	16-Mar-16	0.94	<1	<2	6	<1	0.1
16-Mar-16	GRAB	13100 Mitchell Rd.	16-Mar-16	0.79	<1	<2	8	<1	0.1
16-Mar-16	GRAB	Opp. 11280 Twigg Place	16-Mar-16	0.96	<1	<2	7	<1	0.13
16-Mar-16	GRAB	13799 Commerce Pkwy.	16-Mar-16	0.7	<1	<2	7	<1	0.09
16-Mar-16	GRAB	6651 Fraserwood Place	16-Mar-16	0.72	<1	<2	6	<1	0.18
16-Mar-16	GRAB	Opp. 20371 Westminster Hwy.	16-Mar-16	0.8	<1	<2	6	<1	0.18
16-Mar-16	GRAB	9911 Sidaway Rd.	16-Mar-16	0.83	<1	<2	6	<1	0.13
16-Mar-16	GRAB	11111 Horseshoe Way	16-Mar-16	1	<1	<2	6	<1	0.09
16-Mar-16	GRAB	10020 Amethyst Ave.	16-Mar-16	0.74	<1	<2	7	<1	0.18
16-Mar-16	GRAB	9380 General Currie Rd.	16-Mar-16	1	<1	<2	6	<1	0.09
16-Mar-16	GRAB	13800 No. 3 Rd. (off Garden City)	16-Mar-16	0.86	<1	<2	7	<1	0.15
16-Mar-16	GRAB	7000 Blk. Dyke Rd.	16-Mar-16	0.93	<1	<2	7	<1	0.1
16-Mar-16	GRAB	6640 Blundell Rd.	16-Mar-16	0.94	<1	<2	6	<1	0.11
17-Mar-16	GRAB	3180 Granville Ave.	17-Mar-16	0.84	<1	<2	8	<1	0.32
17-Mar-16	GRAB	4251 Moncton St.	17-Mar-16	0.81	<1	<2	7	<1	0.09
17-Mar-16	GRAB	11080 No. 2 Rd.	17-Mar-16	0.83	<1	<2	6	<1	0.12
17-Mar-16	GRAB	Opp. 8600 Ryan Rd.	17-Mar-16	0.97	<1	<2	6	<1	0.12
17-Mar-16	GRAB	13200 No. 4 Rd.	17-Mar-16	0.92	<1	<2	8	<1	0.13
17-Mar-16	GRAB	13851 Steveston Hwy.	17-Mar-16	0.69	<1	<2	7	<1	0.12
17-Mar-16	GRAB	1500 Valemont Way	17-Mar-16	0.73	<1	<2	7	<1	0.15
17-Mar-16	GRAB	11720 Westminster Hwy.	17-Mar-16	0.87	<1	<2	6	<1	0.09
17-Mar-16	GRAB	17240 Fedoruk	17-Mar-16	0.66	<1	<2	7	<1	0.09
17-Mar-16	GRAB	23000 Blk. Dyke Rd.	17-Mar-16	0.64	<1	<2	7	<1	0.12
17-Mar-16	GRAB	22271 Cochrane Drive	17-Mar-16	0.64	<1	<2	7	<1	0.1
17-Mar-16	GRAB	5180 Smith Cres.	17-Mar-16	0.68	<1	<2	7	<1	0.1
17-Mar-16	GRAB	23260 Westminster Hwy.	17-Mar-16	0.64	<1	<2	7	<1	0.14
21-Mar-16	GRAB	5951 McCallan Rd.	21-Mar-16	0.89	<1	<2	7	<1	0.17
21-Mar-16	GRAB	Opp. 8331 Fairfax Place	21-Mar-16	0.78	<1	<2	9	<1	0.25
21-Mar-16	GRAB	9751 Pendleton Rd.	21-Mar-16	0.98	<1	<2	8	<1	0.72
21-Mar-16	GRAB	10920 Springwood Court	21-Mar-16	0.84	<1	<2	9	<1	0.12
21-Mar-16	GRAB	11051 No 3 Rd.	21-Mar-16	0.83	<1	<2	8	<1	0.16
21-Mar-16	GRAB	14951 Triangle Rd.	21-Mar-16	0.71	<1	<2	7	<1	0.24
21-Mar-16	GRAB	8200 Jones Rd.	21-Mar-16	0.86	<1	<2	7	<1	0.29
21-Mar-16	GRAB	5300 No. 3 Rd.	21-Mar-16	0.93	<1	<2	7	<1	0.16
21-Mar-16	GRAB	1000 Blk. McDonald Rd.	21-Mar-16	0.7	<1	<2	8	<1	0.13
21-Mar-16	GRAB	6000 Blk. Miller Rd.	21-Mar-16	0.96	<1	<2	7	<1	0.2
21-Mar-16	GRAB	3800 Cessna Drive	21-Mar-16	0.88	<1	<2	7	<1	0.1
21-Mar-16	GRAB	751 Catalina Cres.	21-Mar-16	0.94	<1	<2	7	<1	0.15

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
21-Mar-16	GRAB	6071 Azure Rd.	21-Mar-16	0.9	<1	<2	7	<1	0.23
23-Mar-16	GRAB	3180 Granville Ave.	23-Mar-16	0.9	<1	<2	8	<1	0.11
23-Mar-16	GRAB	6640 Blundell Rd.	23-Mar-16	0.94	<1	<2	7	<1	0.11
23-Mar-16	GRAB	4251 Moncton St.	23-Mar-16	0.92	<1	<2	7	<1	0.2
23-Mar-16	GRAB	9380 General Currie Rd.	23-Mar-16	0.85	<1	<2	6	<1	0.14
23-Mar-16	GRAB	11080 No. 2 Rd.	23-Mar-16	0.95	<1	<2	7	<1	0.08
23-Mar-16	GRAB	10020 Amethyst Ave.	23-Mar-16	0.73	<1	<2	6	<1	0.12
23-Mar-16	GRAB	Opp. 8600 Ryan Rd.	23-Mar-16	0.95	<1	2	7	<1	0.1
23-Mar-16	GRAB	9911 Sidaway Rd.	23-Mar-16	0.93	<1	<2	7	<1	0.11
23-Mar-16	GRAB	13200 No. 4 Rd.	23-Mar-16	0.99	<1	<2	7	<1	0.1
23-Mar-16	GRAB	11111 Horseshoe Way	23-Mar-16	0.67	<1	<2	7	<1	0.09
23-Mar-16	GRAB	13851 Steveston Hwy.	23-Mar-16	0.71	<1	<2	7	<1	0.08
23-Mar-16	GRAB	13800 No. 3 Rd. (off Garden City)	23-Mar-16	0.86	<1	<2	7	<1	0.11
23-Mar-16	GRAB	1500 Valemont Way	23-Mar-16	0.76	<1	<2	8	<1	0.1
23-Mar-16	GRAB	7000 Blk. Dyke Rd.	23-Mar-16	1	<1	<2	7	<1	0.13
23-Mar-16	GRAB	11720 Westminster Hwy.	23-Mar-16	0.92	<1	<2	7	<1	0.11
23-Mar-16	GRAB	12560 Cambie Rd.	23-Mar-16	0.92	<1	<2	7	<1	0.09
23-Mar-16	GRAB	17240 Fedoruk	23-Mar-16	0.63	<1	<2	8	<1	0.1
23-Mar-16	GRAB	13100 Mitchell Rd.	23-Mar-16	1	<1	2	8	<1	0.13
23-Mar-16	GRAB	23000 Blk. Dyke Rd.	23-Mar-16	0.65	<1	<2	7	<1	0.12
23-Mar-16	GRAB	Opp. 11280 Twigg Place	23-Mar-16	0.96	<1	<2	7	<1	0.26
23-Mar-16	GRAB	13799 Commerce Pkwy.	23-Mar-16	0.74	<1	<2	6	<1	0.11
23-Mar-16	GRAB	5180 Smith Cres.	23-Mar-16	0.63	<1	<2	7	<1	0.11
23-Mar-16	GRAB	Opp. 20371 Westminster Hwy.	23-Mar-16	0.6	<1	<2	7	<1	0.12
23-Mar-16	GRAB	23260 Westminster Hwy.	23-Mar-16	0.67	<1	<2	7	<1	0.11
23-Mar-16	GRAB	6651 Fraserwood Place	23-Mar-16	0.77	<1	<2	7	<1	0.11
29-Mar-16	GRAB	5951 McCallan Rd.	29-Mar-16	0.96	<1	<2	7	<1	0.11
29-Mar-16	GRAB	Opp. 8331 Fairfax Place	29-Mar-16	0.96	<1	<2	10	<1	0.11
29-Mar-16	GRAB	9751 Pendleton Rd.	29-Mar-16	0.85	<1	<2	8	<1	0.16
29-Mar-16	GRAB	10920 Springwood Court	29-Mar-16	0.87	<1	<2	10	<1	0.09
29-Mar-16	GRAB	6071 Azure Rd.	29-Mar-16	0.81	<1	<2	9	<1	0.11
29-Mar-16	GRAB	3800 Cessna Drive	29-Mar-16	0.83	<1	<2	8	<1	0.14
29-Mar-16	GRAB	751 Catalina Cres.	29-Mar-16	0.86	<1	<2	7	<1	0.11
29-Mar-16	GRAB	6000 Blk. Miller Rd.	29-Mar-16	0.87	<1	<2	7	<1	0.43
29-Mar-16	GRAB	1000 Blk. McDonald Rd.	29-Mar-16	0.67	<1	<2	9	<1	0.2
29-Mar-16	GRAB	5300 No. 3 Rd.	29-Mar-16	0.72	<1	<2	8	<1	0.12
29-Mar-16	GRAB	8200 Jones Rd.	29-Mar-16	0.85	<1	<2	8	<1	0.09
29-Mar-16	GRAB	14951 Triangle Rd.	29-Mar-16	0.73	<1	<2	8	<1	0.1
29-Mar-16	GRAB	11051 No 3 Rd.	29-Mar-16	0.73	<1	<2	7	<1	0.11
30-Mar-16	GRAB	12560 Cambie Rd.	30-Mar-16	0.83	<1	<2	7	<1	0.08

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
30-Mar-16	GRAB	13100 Mitchell Rd.	30-Mar-16	0.86	<1	<2	7	<1	0.15
30-Mar-16	GRAB	Opp. 11280 Twigg Place	30-Mar-16	0.81	<1	<2	7	<1	0.16
30-Mar-16	GRAB	13799 Commerce Pkwy.	30-Mar-16	0.68	<1	<2	6	<1	0.12
30-Mar-16	GRAB	6651 Fraserwood Place	30-Mar-16	0.69	<1	<2	7	<1	0.12
30-Mar-16	GRAB	Opp. 20371 Westminster Hwy.	30-Mar-16	0.74	<1	<2	8	<1	0.1
30-Mar-16	GRAB	9911 Sidaway Rd.	30-Mar-16	0.65	<1	<2	7	<1	0.08
30-Mar-16	GRAB	11111 Horseshoe Way	30-Mar-16	0.84	<1	<2	6	<1	0.1
30-Mar-16	GRAB	10020 Amethyst Ave.	30-Mar-16	0.68	<1	<2	7	<1	0.1
30-Mar-16	GRAB	9380 General Currie Rd.	30-Mar-16	0.89	<1	<2	6	<1	0.08
30-Mar-16	GRAB	13800 No. 3 Rd. (off Garden City)	30-Mar-16	0.72	<1	<2	7	<1	0.18
30-Mar-16	GRAB	7000 Blk. Dyke Rd.	30-Mar-16	0.89	<1	<2	7	<1	0.08
30-Mar-16	GRAB	6640 Blundell Rd.	30-Mar-16	0.98	<1	<2	6	<1	0.12
31-Mar-16	GRAB	3180 Granville Ave.	31-Mar-16	0.88	<1	<2	7	<1	0.13
31-Mar-16	GRAB	4251 Moncton St.	31-Mar-16	0.87	<1	<2	7	<1	0.09
31-Mar-16	GRAB	11080 No. 2 Rd.	31-Mar-16	0.91	<1	<2	8	<1	0.1
31-Mar-16	GRAB	Opp. 8600 Ryan Rd.	31-Mar-16	0.86	<1	<2	7	<1	2
31-Mar-16	GRAB	13200 No. 4 Rd.	31-Mar-16	0.85	<1	<2	7	<1	0.09
31-Mar-16	GRAB	13851 Steveston Hwy.	31-Mar-16	0.75	<1	<2	6	<1	0.07
31-Mar-16	GRAB	1500 Valemont Way	31-Mar-16	0.69	<1	<2	6	<1	0.09
31-Mar-16	GRAB	11720 Westminster Hwy.	31-Mar-16	0.93	<1	<2	7	<1	0.08
31-Mar-16	GRAB	17240 Fedoruk	31-Mar-16	0.72	<1	<2	7	<1	0.07
31-Mar-16	GRAB	23000 Blk. Dyke Rd.	31-Mar-16	0.46	<1	<2	7	<1	0.13
31-Mar-16	GRAB	22271 Cochrane Drive	31-Mar-16	0.7	<1	<2	8	<1	0.09
31-Mar-16	GRAB	5180 Smith Cres.	31-Mar-16	0.71	<1	<2	8	<1	0.12
31-Mar-16	GRAB	23260 Westminster Hwy.	31-Mar-16	0.69	<1	<2	7	<1	0.09
4-Apr-16	GRAB	5951 McCallan Rd.	4-Apr-16	0.87	<1	<2	8	<1	0.19
4-Apr-16	GRAB	Opp. 8331 Fairfax Place	4-Apr-16	0.79	<1	<2	11	<1	0.72
4-Apr-16	GRAB	9751 Pendleton Rd.	4-Apr-16	0.75	<1	<2	9	<1	0.17
4-Apr-16	GRAB	10920 Springwood Court	4-Apr-16	0.72	<1	<2	10	<1	0.15
4-Apr-16	GRAB	6071 Azure Rd.	4-Apr-16	0.78	<1	<2	10	<1	0.14
4-Apr-16	GRAB	3800 Cessna Drive	4-Apr-16	0.67	<1	<2	9	<1	0.14
4-Apr-16	GRAB	751 Catalina Cres.	4-Apr-16	0.97	<1	<2	7	<1	0.12
4-Apr-16	GRAB	6000 Blk. Miller Rd.	4-Apr-16	0.86	<1	<2	7	<1	0.24
4-Apr-16	GRAB	1000 Blk. McDonald Rd.	4-Apr-16	0.45	<1	4	10	<1	0.33
4-Apr-16	GRAB	5300 No. 3 Rd.	4-Apr-16	0.7	<1	<2	8	<1	0.18
4-Apr-16	GRAB	8200 Jones Rd.	4-Apr-16	0.71	<1	<2	8	<1	0.17
4-Apr-16	GRAB	14951 Triangle Rd.	4-Apr-16	0.68	<1	<2	8	<1	0.12
4-Apr-16	GRAB	11051 No 3 Rd.	4-Apr-16	0.93	<1	<2	7	<1	0.13
6-Apr-16	GRAB	12560 Cambie Rd.	6-Apr-16	0.75	<1	<2	7	<1	0.18
6-Apr-16	GRAB	13100 Mitchell Rd.	6-Apr-16	0.8	<1	<2	7	<1	0.14

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
6-Apr-16	GRAB	Opp. 11280 Twigg Place	6-Apr-16	0.79	<1	<2	7	<1	0.16
6-Apr-16	GRAB	13799 Commerce Pkwy.	6-Apr-16	0.61	<1	<2	7	<1	0.13
6-Apr-16	GRAB	6651 Fraserwood Place	6-Apr-16	0.62	<1	<2	9	<1	0.14
6-Apr-16	GRAB	Opp. 20371 Westminster Hwy.	6-Apr-16	0.71	<1	<2	8	<1	0.09
6-Apr-16	GRAB	9911 Sidaway Rd.	6-Apr-16	0.6	<1	2	8	<1	0.11
6-Apr-16	GRAB	11111 Horseshoe Way	6-Apr-16	0.71	<1	<2	8	<1	0.25
6-Apr-16	GRAB	10020 Amethyst Ave.	6-Apr-16	0.76	<1	<2	7	<1	3
6-Apr-16	GRAB	9380 General Currie Rd.	6-Apr-16	0.79	<1	<2	7	<1	0.16
6-Apr-16	GRAB	13800 No. 3 Rd. (off Garden City)	6-Apr-16	0.73	<1	<2	8	<1	0.17
6-Apr-16	GRAB	7000 Blk. Dyke Rd.	6-Apr-16	0.78	<1	<2	8	<1	0.26
6-Apr-16	GRAB	6640 Blundell Rd.	6-Apr-16	0.83	<1	<2	7	<1	0.17
8-Apr-16	GRAB	3180 Granville Ave.	8-Apr-16	0.78	<1	<2	9	<1	0.09
8-Apr-16	GRAB	4251 Moncton St.	8-Apr-16	0.76	<1	2	8	<1	0.16
8-Apr-16	GRAB	11080 No. 2 Rd.	8-Apr-16	0.77	<1	<2	8	<1	0.11
8-Apr-16	GRAB	Opp. 8600 Ryan Rd.	8-Apr-16	0.76	<1	<2	9	<1	0.11
8-Apr-16	GRAB	13200 No. 4 Rd.	8-Apr-16	0.75	<1	<2	8	<1	0.1
8-Apr-16	GRAB	13851 Steveston Hwy.	8-Apr-16	0.61	<1	<2	9	<1	0.09
8-Apr-16	GRAB	1500 Valemont Way	8-Apr-16	0.67	<1	<2	8	<1	0.08
8-Apr-16	GRAB	11720 Westminster Hwy.	8-Apr-16	0.88	<1	<2	8	<1	0.11
8-Apr-16	GRAB	17240 Fedoruk	8-Apr-16	0.69	<1	<2	9	<1	0.08
8-Apr-16	GRAB	23000 Blk. Dyke Rd.	8-Apr-16	0.67	<1	<2	9	<1	0.09
8-Apr-16	GRAB	22271 Cochrane Drive	8-Apr-16	0.6	<1	<2	8	<1	0.08
8-Apr-16	GRAB	5180 Smith Cres.	8-Apr-16	0.6	<1	<2	8	<1	0.1
8-Apr-16	GRAB	23260 Westminster Hwy.	8-Apr-16	0.64	<1	<2	9	<1	0.08
11-Apr-16	GRAB	5951 McCallan Rd.	11-Apr-16	1.08	<1	<2	8	<1	0.23
11-Apr-16	GRAB	Opp. 8331 Fairfax Place	11-Apr-16	0.86	<1	<2	13	<1	0.13
11-Apr-16	GRAB	9751 Pendleton Rd.	11-Apr-16	1.01	<1	<2	10	<1	0.18
11-Apr-16	GRAB	10920 Springwood Court	11-Apr-16	0.99	<1	<2	10	<1	0.15
11-Apr-16	GRAB	6071 Azure Rd.	11-Apr-16	0.94	<1	<2	10	<1	0.14
11-Apr-16	GRAB	3800 Cessna Drive	11-Apr-16	1.02	<1	<2	9	<1	0.1
11-Apr-16	GRAB	751 Catalina Cres.	11-Apr-16	1.06	<1	<2	8	<1	0.23
11-Apr-16	GRAB	6000 Blk. Miller Rd.	11-Apr-16	1.1	<1	<2	8	<1	0.12
11-Apr-16	GRAB	1000 Blk. McDonald Rd.	11-Apr-16	0.91	<1	<2	8	<1	0.72
11-Apr-16	GRAB	5300 No. 3 Rd.	11-Apr-16	1.17	<1	<2	8	<1	0.16
11-Apr-16	GRAB	8200 Jones Rd.	11-Apr-16	1.03	<1	<2	8	<1	0.11
11-Apr-16	GRAB	14951 Triangle Rd.	11-Apr-16	0.88	<1	<2	8	<1	0.12
11-Apr-16	GRAB	11051 No 3 Rd.	11-Apr-16	0.97	<1	<2	8	<1	0.11
13-Apr-16	GRAB	12560 Cambie Rd.	13-Apr-16	1.13	<1	<2	8	<1	0.1
13-Apr-16	GRAB	13100 Mitchell Rd.	13-Apr-16	1	<1	<2	9	<1	0.1
13-Apr-16	GRAB	Opp. 11280 Twigg Place	13-Apr-16	1.03	<1	<2	10	<1	0.11

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
13-Apr-16	GRAB	13799 Commerce Pkwy.	13-Apr-16	0.97	<1	<2	8	<1	0.15
13-Apr-16	GRAB	6651 Fraserwood Place	13-Apr-16	0.89	<1	<2	8	<1	0.12
13-Apr-16	GRAB	Opp. 20371 Westminster Hwy.	13-Apr-16	0.95	<1	<2	8	<1	0.13
13-Apr-16	GRAB	9911 Sidaway Rd.	13-Apr-16	0.76	<1	<2	8	<1	0.09
13-Apr-16	GRAB	11111 Horseshoe Way	13-Apr-16	0.97	<1	<2	8	<1	0.1
13-Apr-16	GRAB	10020 Amethyst Ave.	13-Apr-16	0.93	<1	<2	9	<1	0.12
13-Apr-16	GRAB	9380 General Currie Rd.	13-Apr-16	1.08	<1	<2	8	<1	0.1
13-Apr-16	GRAB	13800 No. 3 Rd. (off Garden City)	13-Apr-16	1.01	<1	2	8	<1	0.11
13-Apr-16	GRAB	7000 Blk. Dyke Rd.	13-Apr-16	0.99	<1	<2	8	<1	0.1
13-Apr-16	GRAB	6640 Blundell Rd.	13-Apr-16	1.02	<1	<2	8	<1	0.15
14-Apr-16	GRAB	3180 Granville Ave.	14-Apr-16	0.85	<1	<2	9	<1	0.14
14-Apr-16	GRAB	4251 Moncton St.	14-Apr-16	0.78	<1	<2	9	<1	0.11
14-Apr-16	GRAB	11080 No. 2 Rd.	14-Apr-16	0.61	<1	<2	9	<1	0.09
14-Apr-16	GRAB	Opp. 8600 Ryan Rd.	14-Apr-16	0.72	<1	<2	9	<1	0.15
14-Apr-16	GRAB	13200 No. 4 Rd.	14-Apr-16	0.84	<1	4	9	<1	0.09
14-Apr-16	GRAB	13851 Steveston Hwy.	14-Apr-16	0.72	<1	<2	9	<1	0.1
14-Apr-16	GRAB	1500 Valemont Way	14-Apr-16	0.73	<1	<2	9	<1	0.09
14-Apr-16	GRAB	11720 Westminster Hwy.	14-Apr-16	0.9	<1	<2	9	<1	0.09
14-Apr-16	GRAB	17240 Fedoruk	14-Apr-16	0.68	<1	<2	9	<1	0.08
14-Apr-16	GRAB	23000 Blk. Dyke Rd.	14-Apr-16	0.69	<1	<2	9	<1	0.09
14-Apr-16	GRAB	22271 Cochrane Drive	14-Apr-16	0.68	<1	<2	9	<1	0.12
14-Apr-16	GRAB	5180 Smith Cres.	14-Apr-16	0.62	<1	<2	9	<1	0.11
14-Apr-16	GRAB	23260 Westminster Hwy.	14-Apr-16	0.61	<1	<2	9	<1	0.14
18-Apr-16	GRAB	5951 McCallan Rd.	18-Apr-16	0.92	<1	<2	9	<1	0.19
18-Apr-16	GRAB	Opp. 8331 Fairfax Place	18-Apr-16	0.73	<1	<2	13	<1	0.14
18-Apr-16	GRAB	9751 Pendleton Rd.	18-Apr-16	0.84	<1	<2	10	<1	0.2
18-Apr-16	GRAB	10920 Springwood Court	18-Apr-16	0.8	<1	<2	10	<1	0.15
18-Apr-16	GRAB	6071 Azure Rd.	18-Apr-16	0.81	<1	<2	11	<1	0.15
18-Apr-16	GRAB	3800 Cessna Drive	18-Apr-16	0.75	<1	<2	10	<1	0.13
18-Apr-16	GRAB	751 Catalina Cres.	18-Apr-16	0.87	<1	<2	9	<1	0.12
18-Apr-16	GRAB	6000 Blk. Miller Rd.	18-Apr-16	0.82	<1	<2	9	<1	0.19
18-Apr-16	GRAB	1000 Blk. McDonald Rd.	18-Apr-16	0.65	<1	<2	10	<1	0.21
18-Apr-16	GRAB	5300 No. 3 Rd.	18-Apr-16	0.88	<1	<2	9	<1	0.13
18-Apr-16	GRAB	8200 Jones Rd.	18-Apr-16	0.86	<1	<2	9	<1	0.17
18-Apr-16	GRAB	14951 Triangle Rd.	18-Apr-16	0.65	<1	<2	9	<1	0.14
18-Apr-16	GRAB	11051 No 3 Rd.	18-Apr-16	0.83	<1	<2	9	<1	0.16
20-Apr-16	GRAB	12560 Cambie Rd.	20-Apr-16	0.89	<1	<2	10	<1	0.12
20-Apr-16	GRAB	13100 Mitchell Rd.	20-Apr-16	0.94	<1	2	12	<1	0.09
20-Apr-16	GRAB	Opp. 11280 Twigg Place	20-Apr-16	0.8	<1	<2	12	<1	0.13
20-Apr-16	GRAB	13799 Commerce Pkwy.	20-Apr-16	0.81	<1	<2	9	<1	0.38

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
20-Apr-16	GRAB	6651 Fraserwood Place	20-Apr-16	0.54	<1	<2	9	<1	0.34
20-Apr-16	GRAB	Opp. 20371 Westminster Hwy.	20-Apr-16	0.78	<1	<2	9	<1	0.36
20-Apr-16	GRAB	9911 Sidaway Rd.	20-Apr-16	0.76	<1	<2	10	<1	0.27
20-Apr-16	GRAB	11111 Horseshoe Way	20-Apr-16	1.06	<1	<2	10	<1	0.1
20-Apr-16	GRAB	10020 Amethyst Ave.	20-Apr-16	0.82	<1	<2	10	<1	0.13
20-Apr-16	GRAB	9380 General Currie Rd.	20-Apr-16	0.96	<1	<2	11	<1	0.1
20-Apr-16	GRAB	13800 No. 3 Rd. (off Garden City)	20-Apr-16	0.79	<1	<2	11	<1	0.12
20-Apr-16	GRAB	7000 Blk. Dyke Rd.	20-Apr-16	0.96	<1	<2	10	<1	0.08
20-Apr-16	GRAB	6640 Blundell Rd.	20-Apr-16	0.93	<1	2	10	<1	0.08
22-Apr-16	GRAB	3180 Granville Ave.	22-Apr-16	0.85	<1	<2	10	<1	0.12
22-Apr-16	GRAB	4251 Moncton St.	22-Apr-16	0.81	<1	<2	10	<1	0.12
22-Apr-16	GRAB	11080 No. 2 Rd.	22-Apr-16	0.88	<1	<2	10	<1	0.13
22-Apr-16	GRAB	11500 McKenzie Rd.	22-Apr-16	0.65	<1	<2	12	<1	0.15
22-Apr-16	GRAB	Opp. 8600 Ryan Rd.	22-Apr-16	0.82	<1	<2	10	<1	0.1
22-Apr-16	GRAB	13200 No. 4 Rd.	22-Apr-16	1.18	<1	<2	10	<1	0.12
22-Apr-16	GRAB	13851 Steveston Hwy.	22-Apr-16	0.82	<1	2	10	<1	0.16
22-Apr-16	GRAB	1500 Valemont Way	22-Apr-16	0.41	<1	<2	10	<1	0.14
22-Apr-16	GRAB	11720 Westminster Hwy.	22-Apr-16	0.81	<1	<2	10	<1	0.1
22-Apr-16	GRAB	17240 Fedoruk	22-Apr-16	0.73	<1	<2	10	<1	0.13
22-Apr-16	GRAB	23000 Blk. Dyke Rd.	22-Apr-16	0.65	<1	<2	10	<1	0.13
22-Apr-16	GRAB	22271 Cochrane Drive	22-Apr-16	0.66	<1	<2	10	<1	0.13
22-Apr-16	GRAB	5180 Smith Cres.	22-Apr-16	0.56	<1	<2	10	<1	0.2
22-Apr-16	GRAB	23260 Westminster Hwy.	22-Apr-16	0.84	<1	<2	10	<1	0.13
25-Apr-16	GRAB	5951 McCallan Rd.	25-Apr-16	0.84	<1	<2	9	<1	0.14
25-Apr-16	GRAB	Opp. 8331 Fairfax Place	25-Apr-16	0.77	<1	<2	14	<1	0.13
25-Apr-16	GRAB	9751 Pendleton Rd.	25-Apr-16	0.89	<1	<2	11	<1	0.16
25-Apr-16	GRAB	10920 Springwood Court	25-Apr-16	0.74	<1	<2	13	<1	0.14
25-Apr-16	GRAB	6071 Azure Rd.	25-Apr-16	0.86	<1	<2	11	<1	0.15
25-Apr-16	GRAB	3800 Cessna Drive	25-Apr-16	0.78	<1	<2	11	<1	0.16
25-Apr-16	GRAB	751 Catalina Cres.	25-Apr-16	0.86	<1	<2	11	<1	0.1
25-Apr-16	GRAB	6000 Blk. Miller Rd.	25-Apr-16	0.92	<1	<2	8	<1	0.13
25-Apr-16	GRAB	1000 Blk. McDonald Rd.	25-Apr-16	0.68	<1	<2	11	<1	0.46
25-Apr-16	GRAB	5300 No. 3 Rd.	25-Apr-16	0.9	<1	<2	9	<1	0.12
25-Apr-16	GRAB	8200 Jones Rd.	25-Apr-16	0.86	<1	<2	10	<1	0.11
25-Apr-16	GRAB	14951 Triangle Rd.	25-Apr-16	0.71	<1	<2	10	<1	0.22
25-Apr-16	GRAB	11051 No 3 Rd.	25-Apr-16	0.78	<1	<2	9	<1	0.14
27-Apr-16	GRAB	12560 Cambie Rd.	27-Apr-16	0.89	<1	4	10	<1	0.14
27-Apr-16	GRAB	13100 Mitchell Rd.	27-Apr-16	0.88	<1	<2	10	<1	0.13
27-Apr-16	GRAB	Opp. 11280 Twigg Place	27-Apr-16	0.86	<1	<2	10	<1	0.15
27-Apr-16	GRAB	13799 Commerce Pkwy.	27-Apr-16	0.79	<1	<2	10	<1	0.18

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
27-Apr-16	GRAB	6651 Fraserwood Place	27-Apr-16	0.73	<1	<2	10	<1	0.16
27-Apr-16	GRAB	Opp. 20371 Westminster Hwy.	27-Apr-16	0.79	<1	<2	10	<1	0.13
27-Apr-16	GRAB	9911 Sidaway Rd.	27-Apr-16	0.78	<1	<2	11	<1	0.28
27-Apr-16	GRAB	11111 Horseshoe Way	27-Apr-16	0.8	<1	<2	10	<1	0.13
27-Apr-16	GRAB	10020 Amethyst Ave.	27-Apr-16	0.84	<1	<2	10	<1	0.15
27-Apr-16	GRAB	9380 General Currie Rd.	27-Apr-16	1.01	<1	<2	10	<1	0.11
27-Apr-16	GRAB	13800 No. 3 Rd. (off Garden City)	27-Apr-16	0.91	<1	<2	10	<1	0.13
28-Apr-16	GRAB	3180 Granville Ave.	28-Apr-16	0.73	<1	<2	10	<1	0.12
28-Apr-16	GRAB	4251 Moncton St.	28-Apr-16	0.71	<1	<2	9	<1	0.14
28-Apr-16	GRAB	11080 No. 2 Rd.	28-Apr-16	0.76	<1	<2	9	<1	0.45
28-Apr-16	GRAB	11500 McKenzie Rd.	28-Apr-16	0.54	<1	<2	12	<1	0.1
28-Apr-16	GRAB	Opp. 8600 Ryan Rd.	28-Apr-16	0.84	<1	<2	10	<1	0.13
28-Apr-16	GRAB	13200 No. 4 Rd.	28-Apr-16	0.78	<1	<2	11	<1	0.13
28-Apr-16	GRAB	13851 Steveston Hwy.	28-Apr-16	0.81	<1	2	10	<1	0.21
28-Apr-16	GRAB	1500 Valemont Way	28-Apr-16	0.72	<1	<2	9	<1	0.21
28-Apr-16	GRAB	11720 Westminster Hwy.	28-Apr-16	0.85	<1	<2	9	<1	0.14
28-Apr-16	GRAB	17240 Fedoruk	28-Apr-16	0.64	<1	<2	12	<1	0.14
28-Apr-16	GRAB	23000 Blk. Dyke Rd.	28-Apr-16	0.59	<1	<2	11	<1	0.16
28-Apr-16	GRAB	22271 Cochrane Drive	28-Apr-16	0.63	<1	<2	11	<1	0.13
28-Apr-16	GRAB	5180 Smith Cres.	28-Apr-16	0.58	<1	<2	12	<1	0.21
28-Apr-16	GRAB	23260 Westminster Hwy.	28-Apr-16	0.6	<1	<2	10	<1	0.15
2-May-16	GRAB	5951 McCallan Rd.	2-May-16	0.94	<1	<2	10	<1	0.13
2-May-16	GRAB	Opp. 8331 Fairfax Place	2-May-16	0.93	<1	<2	14	<1	0.14
2-May-16	GRAB	9751 Pendleton Rd.	2-May-16	0.9	<1	<2	11	<1	0.15
2-May-16	GRAB	10920 Springwood Court	2-May-16	0.88	<1	<2	12	<1	0.11
2-May-16	GRAB	3800 Cessna Drive	2-May-16	0.8	<1	<2	11	<1	0.13
2-May-16	GRAB	751 Catalina Cres.	2-May-16	0.93	<1	<2	10	<1	0.13
2-May-16	GRAB	6000 Blk. Miller Rd.	2-May-16	0.89	<1	<2	9	<1	0.17
2-May-16	GRAB	1000 Blk. McDonald Rd.	2-May-16	0.7	<1	<2	12	<1	0.6
2-May-16	GRAB	5300 No. 3 Rd.	2-May-16	0.95	<1	<2	10	<1	0.14
2-May-16	GRAB	8200 Jones Rd.	2-May-16	0.94	<1	<2	10	<1	0.13
2-May-16	GRAB	14951 Triangle Rd.	2-May-16	0.78	<1	<2	10	<1	0.11
2-May-16	GRAB	11051 No 3 Rd.	2-May-16	0.9	<1	<2	10	<1	0.11
4-May-16	GRAB	13800 No. 3 Rd. (off Garden City)	4-May-16	0.98	<1	<2	10	<1	0.14
4-May-16	GRAB	7000 Blk. Dyke Rd.	4-May-16	0.92	<1	<2	10	<1	0.13
4-May-16	GRAB	6640 Blundell Rd.	4-May-16	0.92	<1	<2	10	<1	0.13
4-May-16	GRAB	10020 Amethyst Ave.	4-May-16	0.82	<1	<2	11	<1	0.14
4-May-16	GRAB	9380 General Currie Rd.	4-May-16	0.96	<1	<2	9	<1	0.12
4-May-16	GRAB	9911 Sidaway Rd.	4-May-16	0.76	<1	<2	10	<1	0.15
4-May-16	GRAB	11111 Horseshoe Way	4-May-16	0.95	<1	<2	9	<1	0.12

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
4-May-16	GRAB	12560 Cambie Rd.	4-May-16	1	<1	<2	10	<1	0.15
4-May-16	GRAB	13100 Mitchell Rd.	4-May-16	0.92	<1	<2	10	<1	0.17
4-May-16	GRAB	Opp. 11280 Twigg Place	4-May-16	0.89	<1	<2	9	<1	0.25
4-May-16	GRAB	13799 Commerce Pkwy.	4-May-16	0.81	<1	<2	10	<1	0.14
4-May-16	GRAB	Opp. 20371 Westminster Hwy.	4-May-16	0.78	<1	<2	10	<1	0.26
4-May-16	GRAB	6651 Fraserwood Place	4-May-16	0.74	<1	<2	10	<1	0.15
6-May-16	GRAB	3180 Granville Ave.	6-May-16	0.98	<1	2	11	<1	0.22
6-May-16	GRAB	4251 Moncton St.	6-May-16	0.83	<1	<2	10	<1	0.44
6-May-16	GRAB	11080 No. 2 Rd.	6-May-16	0.86	<1	<2	9	<1	0.43
6-May-16	GRAB	11500 McKenzie Rd.	6-May-16	0.51	<1	8	12	<1	0.19
6-May-16	GRAB	Opp. 8600 Ryan Rd.	6-May-16	0.87	<1	<2	10	<1	0.11
6-May-16	GRAB	13200 No. 4 Rd.	6-May-16	0.84	<1	<2	10	<1	0.14
6-May-16	GRAB	13851 Steveston Hwy.	6-May-16	0.76	<1	<2	9	<1	0.79
6-May-16	GRAB	1500 Valemont Way	6-May-16	0.72	<1	<2	9	<1	0.57
6-May-16	GRAB	11720 Westminster Hwy.	6-May-16	0.81	<1	<2	9	<1	1.1
6-May-16	GRAB	17240 Fedoruk	6-May-16	0.71	<1	<2	11	<1	0.54
6-May-16	GRAB	23000 Blk. Dyke Rd.	6-May-16	0.75	<1	<2	11	<1	0.59
6-May-16	GRAB	22271 Cochrane Drive	6-May-16	0.72	<1	<2	10	<1	0.7
6-May-16	GRAB	5180 Smith Cres.	6-May-16	0.57	<1	<2	12	<1	0.18
6-May-16	GRAB	23260 Westminster Hwy.	6-May-16	0.73	<1	<2	10	<1	0.51
9-May-16	GRAB	5951 McCallan Rd.	9-May-16	0.88	<1	2	9	<1	0.22
9-May-16	GRAB	Opp. 8331 Fairfax Place	9-May-16	0.7	<1	<2	14	<1	0.14
9-May-16	GRAB	9751 Pendleton Rd.	9-May-16	0.74	<1	<2	11	<1	0.13
9-May-16	GRAB	10920 Springwood Court	9-May-16	0.69	<1	<2	12	<1	0.19
9-May-16	GRAB	6071 Azure Rd.	9-May-16	0.75	<1	6	10	<1	0.36
9-May-16	GRAB	3800 Cessna Drive	9-May-16	0.72	<1	<2	11	<1	0.14
9-May-16	GRAB	751 Catalina Cres.	9-May-16	0.83	<1	<2	11	<1	0.21
9-May-16	GRAB	1000 Blk. McDonald Rd.	9-May-16	0.69	<1	<2	11	<1	0.63
9-May-16	GRAB	5300 No. 3 Rd.	9-May-16	0.68	<1	<2	11	<1	0.2
9-May-16	GRAB	8200 Jones Rd.	9-May-16	0.79	<1	<2	11	<1	0.13
9-May-16	GRAB	14951 Triangle Rd.	9-May-16	0.73	<1	<2	10	<1	0.21
9-May-16	GRAB	11051 No 3 Rd.	9-May-16	0.73	<1	<2	10	<1	0.17
11-May-16	GRAB	12560 Cambie Rd.	11-May-16	0.79	<1	<2	10	<1	0.17
11-May-16	GRAB	13100 Mitchell Rd.	11-May-16	0.82	<1	2	12	<1	0.22
11-May-16	GRAB	Opp. 11280 Twigg Place	11-May-16	0.67	<1	<2	11	<1	0.28
11-May-16	GRAB	13799 Commerce Pkwy.	11-May-16	0.88	<1	<2	10	<1	0.22
11-May-16	GRAB	6651 Fraserwood Place	11-May-16	0.73	<1	<2	11	<1	0.41
11-May-16	GRAB	Opp. 20371 Westminster Hwy.	11-May-16	0.84	<1	<2	10	<1	0.21
11-May-16	GRAB	9911 Sidaway Rd.	11-May-16	0.85	<1	<2	10	<1	0.27
11-May-16	GRAB	11111 Horseshoe Way	11-May-16	0.8	<1	<2	10	<1	0.17

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
11-May-16	GRAB	10020 Amethyst Ave.	11-May-16	0.79	<1	<2	12	<1	0.15
11-May-16	GRAB	9380 General Currie Rd.	11-May-16	1.05	<1	2	10	<1	0.16
11-May-16	GRAB	13800 No. 3 Rd. (off Garden City)	11-May-16	0.81	<1	<2	10	<1	0.17
11-May-16	GRAB	7000 Blk. Dyke Rd.	11-May-16	0.81	<1	<2	12	<1	0.11
11-May-16	GRAB	6640 Blundell Rd.	11-May-16	0.8	<1	24	10	<1	0.13
12-May-16	GRAB	3180 Granville Ave.	12-May-16	0.83	<1	<2	12	<1	0.22
12-May-16	GRAB	4251 Moncton St.	12-May-16	0.98	<1	<2	10	<1	0.33
12-May-16	GRAB	11080 No. 2 Rd.	12-May-16	0.87	<1	<2	10	<1	0.27
12-May-16	GRAB	11500 McKenzie Rd.	12-May-16	0.5	<1	4	10	<1	0.27
12-May-16	GRAB	Opp. 8600 Ryan Rd.	12-May-16	0.8	<1	<2	10	<1	0.24
12-May-16	GRAB	13200 No. 4 Rd.	12-May-16	0.79	<1	<2	10	<1	0.46
12-May-16	GRAB	13851 Steveston Hwy.	12-May-16	0.84	<1	<2	10	<1	0.2
12-May-16	GRAB	1500 Valemont Way	12-May-16	0.89	<1	<2	10	<1	0.27
12-May-16	GRAB	11720 Westminster Hwy.	12-May-16	0.93	<1	<2	10	<1	0.26
12-May-16	GRAB	17240 Fedoruk	12-May-16	0.87	<1	<2	12	<1	0.35
12-May-16	GRAB	23000 Blk. Dyke Rd.	12-May-16	0.82	<1	<2	10	<1	0.34
12-May-16	GRAB	22271 Cochrane Drive	12-May-16	0.82	<1	<2	10	<1	0.2
12-May-16	GRAB	5180 Smith Cres.	12-May-16	0.7	<1	<2	12	<1	0.24
12-May-16	GRAB	23260 Westminster Hwy.	12-May-16	0.83	<1	or sprea	12	<1	0.31
16-May-16	GRAB	5951 McCallan Rd.	16-May-16	0.65	<1	<2	10	<1	0.51
16-May-16	GRAB	Opp. 8331 Fairfax Place	16-May-16	0.67	<1	<2	14	<1	0.3
16-May-16	GRAB	9751 Pendleton Rd.	16-May-16	0.67	<1	<2	12	<1	0.15
16-May-16	GRAB	10920 Springwood Court	16-May-16	0.68	<1	<2	14	<1	0.18
16-May-16	GRAB	6071 Azure Rd.	16-May-16	0.66	<1	<2	13	<1	0.23
16-May-16	GRAB	3800 Cessna Drive	16-May-16	0.91	<1	2	11	<1	0.13
16-May-16	GRAB	751 Catalina Cres.	16-May-16	0.73	<1	<2	10	<1	0.13
16-May-16	GRAB	1000 Blk. McDonald Rd.	16-May-16	0.64	<1	<2	13	<1	2.4
16-May-16	GRAB	5300 No. 3 Rd.	16-May-16	0.83	<1	<2	11	<1	0.23
16-May-16	GRAB	8200 Jones Rd.	16-May-16	0.88	<1	<2	11	<1	0.42
16-May-16	GRAB	14951 Triangle Rd.	16-May-16	0.91	<1	<2	10	<1	0.23
16-May-16	GRAB	11051 No 3 Rd.	16-May-16	0.76	<1	<2	10	<1	0.19
18-May-16	GRAB	12560 Cambie Rd.	18-May-16	0.88	<1	<2	10	<1	0.2
18-May-16	GRAB	13100 Mitchell Rd.	18-May-16	0.98	<1	<2	10	<1	0.24
18-May-16	GRAB	Opp. 11280 Twigg Place	18-May-16	0.85	<1	<2	11	<1	0.26
18-May-16	GRAB	13799 Commerce Pkwy.	18-May-16	0.86	<1	<2	10	<1	0.23
18-May-16	GRAB	6651 Fraserwood Place	18-May-16	0.84	<1	<2	10	<1	0.32
18-May-16	GRAB	Opp. 20371 Westminster Hwy.	18-May-16	0.96	<1	<2	9	<1	0.28
18-May-16	GRAB	9911 Sidaway Rd.	18-May-16	0.7	<1	<2	11	<1	0.29
18-May-16	GRAB	11111 Horseshoe Way	18-May-16	0.83	<1	<2	10	<1	0.19
18-May-16	GRAB	10020 Amethyst Ave.	18-May-16	0.85	<1	<2	11	<1	0.17

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
18-May-16	GRAB	9380 General Currie Rd.	18-May-16	0.91	<1	<2	9	<1	0.21
18-May-16	GRAB	13800 No. 3 Rd. (off Garden City)	18-May-16	0.81	<1	<2	11	<1	0.19
18-May-16	GRAB	7000 Blk. Dyke Rd.	18-May-16	0.83	<1	<2	11	<1	0.16
18-May-16	GRAB	6640 Blundell Rd.	18-May-16	0.78	<1	<2	10	<1	0.29
20-May-16	GRAB	4251 Moncton St.	20-May-16	0.78	<1	<2	10	<1	0.17
20-May-16	GRAB	11080 No. 2 Rd.	20-May-16	0.94	<1	<2	10	<1	0.16
20-May-16	GRAB	11500 McKenzie Rd.	20-May-16	0.65	<1	8	14	<1	0.15
20-May-16	GRAB	Opp. 8600 Ryan Rd.	20-May-16	0.85	<1	<2	10	<1	0.17
20-May-16	GRAB	13200 No. 4 Rd.	20-May-16	0.86	<1	8	10	<1	0.15
20-May-16	GRAB	13851 Steveston Hwy.	20-May-16	0.88	<1	<2	10	<1	0.23
20-May-16	GRAB	1500 Valemont Way	20-May-16	0.88	<1	<2	10	<1	0.21
20-May-16	GRAB	11720 Westminster Hwy.	20-May-16	0.88	<1	<2	10	<1	0.16
20-May-16	GRAB	17240 Fedoruk	20-May-16	0.83	<1	<2	11	<1	0.25
20-May-16	GRAB	23000 Blk. Dyke Rd.	20-May-16	0.69	<1	2	11	<1	0.21
20-May-16	GRAB	22271 Cochrane Drive	20-May-16	0.76	<1	<2	11	<1	0.2
20-May-16	GRAB	5180 Smith Cres.	20-May-16	0.71	<1	<2	11	<1	0.15
20-May-16	GRAB	23260 Westminster Hwy.	20-May-16	0.79	<1	<2	11	<1	0.23
24-May-16	GRAB	5951 McCallan Rd.	24-May-16	0.75	<1	4	11	<1	0.18
24-May-16	GRAB	Opp. 8331 Fairfax Place	24-May-16	0.7	<1	<2	16	<1	0.34
24-May-16	GRAB	9751 Pendleton Rd.	24-May-16	0.78	<1	<2	12	<1	0.18
24-May-16	GRAB	10920 Springwood Court	24-May-16	0.79	<1	<2	13	<1	0.14
24-May-16	GRAB	6071 Azure Rd.	24-May-16	0.79	<1	<2	12	<1	0.14
24-May-16	GRAB	3800 Cessna Drive	24-May-16	0.81	<1	spreadir	12	<1	0.16
24-May-16	GRAB	751 Catalina Cres.	24-May-16	0.84	<1	6	12	<1	0.14
24-May-16	GRAB	1000 Blk. McDonald Rd.	24-May-16	0.62	<1	<2	13	<1	0.79
24-May-16	GRAB	5300 No. 3 Rd.	24-May-16	0.88	<1	<2	12	<1	0.14
24-May-16	GRAB	8200 Jones Rd.	24-May-16	1.02	<1	4	12	<1	0.19
24-May-16	GRAB	14951 Triangle Rd.	24-May-16	0.85	<1	<2	11	<1	0.19
24-May-16	GRAB	11051 No 3 Rd.	24-May-16	0.86	<1	<2	10	<1	0.18
25-May-16	GRAB	12560 Cambie Rd.	25-May-16	0.84	<1	<2	10	<1	0.23
25-May-16	GRAB	13100 Mitchell Rd.	25-May-16	0.73	<1	<2	10	<1	0.27
25-May-16	GRAB	Opp. 11280 Twigg Place	25-May-16	0.71	<1	<2	11	<1	0.24
25-May-16	GRAB	13799 Commerce Pkwy.	25-May-16	0.93	<1	<2	10	<1	0.31
25-May-16	GRAB	6651 Fraserwood Place	25-May-16	0.83	<1	<2	10	<1	0.37
25-May-16	GRAB	Opp. 20371 Westminster Hwy.	25-May-16	0.79	<1	<2	11	<1	0.35
25-May-16	GRAB	9911 Sidaway Rd.	25-May-16	0.77	<1	<2	12	<1	0.24
25-May-16	GRAB	11111 Horseshoe Way	25-May-16	0.99	<1	<2	10	<1	0.21
25-May-16	GRAB	10020 Amethyst Ave.	25-May-16	0.7	<1	<2	11	<1	0.16
25-May-16	GRAB	9380 General Currie Rd.	25-May-16	0.74	<1	<2	11	<1	0.13
25-May-16	GRAB	13800 No. 3 Rd. (off Garden City)	25-May-16	0.87	<1	<2	10	<1	0.17

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
25-May-16	GRAB	7000 Blk. Dyke Rd.	25-May-16	0.82	<1	<2	10	<1	0.17
25-May-16	GRAB	6640 Blundell Rd.	25-May-16	0.73	<1	<2	11	<1	0.19
26-May-16	GRAB	4251 Moncton St.	26-May-16	0.8	<1	<2	11	<1	0.23
26-May-16	GRAB	11080 No. 2 Rd.	26-May-16	0.96	<1	<2	10	<1	0.18
26-May-16	GRAB	11500 McKenzie Rd.	26-May-16	0.68	<1	6	14	<1	0.18
26-May-16	GRAB	Opp. 8600 Ryan Rd.	26-May-16	0.91	<1	<2	10	<1	0.24
26-May-16	GRAB	13200 No. 4 Rd.	26-May-16	0.89	<1	<2	12	<1	0.26
26-May-16	GRAB	13851 Steveston Hwy.	26-May-16	0.92	<1	<2	11	<1	0.21
26-May-16	GRAB	1500 Valemont Way	26-May-16	0.79	<1	<2	12	<1	0.17
26-May-16	GRAB	11720 Westminster Hwy.	26-May-16	0.87	<1	<2	9	<1	0.27
26-May-16	GRAB	17240 Fedoruk	26-May-16	0.77	<1	<2	12	<1	0.19
26-May-16	GRAB	23000 Blk. Dyke Rd.	26-May-16	0.9	<1	<2	11	<1	0.29
26-May-16	GRAB	22271 Cochrane Drive	26-May-16	0.84	<1	2	11	<1	0.31
26-May-16	GRAB	5180 Smith Cres.	26-May-16	0.73	<1	<2	12	<1	0.34
26-May-16	GRAB	23260 Westminster Hwy.	26-May-16	0.83	<1	<2	10	<1	0.32
30-May-16	GRAB	5951 McCallan Rd.	30-May-16	0.7	<1	<2	10	<1	0.12
30-May-16	GRAB	Opp. 8331 Fairfax Place	30-May-16	0.75	<1	<2	16	<1	0.36
30-May-16	GRAB	9751 Pendleton Rd.	30-May-16	0.77	<1	<2	11	<1	0.17
30-May-16	GRAB	10920 Springwood Court	30-May-16	0.75	<1	<2	14	<1	0.19
30-May-16	GRAB	6071 Azure Rd.	30-May-16	0.71	<1	<2	12	<1	0.17
30-May-16	GRAB	3800 Cessna Drive	30-May-16	0.78	<1	<2	11	<1	0.22
30-May-16	GRAB	751 Catalina Cres.	30-May-16	0.93	<1	<2	11	<1	0.22
30-May-16	GRAB	1000 Blk. McDonald Rd.	30-May-16	0.35	<1	<2	15	<1	0.21
30-May-16	GRAB	5300 No. 3 Rd.	30-May-16	0.81	<1	<2	11	<1	0.19
30-May-16	GRAB	8200 Jones Rd.	30-May-16	0.74	<1	<2	11	<1	0.16
30-May-16	GRAB	14951 Triangle Rd.	30-May-16	0.84	<1	<2	11	<1	0.23
30-May-16	GRAB	11051 No 3 Rd.	30-May-16	0.69	<1	<2	11	<1	0.18
1-Jun-16	GRAB	12560 Cambie Rd.	1-Jun-16	0.88	<1	<2	10	<1	0.17
1-Jun-16	GRAB	13100 Mitchell Rd.	1-Jun-16	0.85	<1	<2	11	<1	0.19
1-Jun-16	GRAB	Opp. 11280 Twigg Place	1-Jun-16	0.91	<1	<2	11	<1	0.29
1-Jun-16	GRAB	13799 Commerce Pkwy.	1-Jun-16	0.77	<1	<2	10	<1	0.25
1-Jun-16	GRAB	6651 Fraserwood Place	1-Jun-16	0.65	<1	<2	11	<1	0.24
1-Jun-16	GRAB	Opp. 20371 Westminster Hwy.	1-Jun-16	0.96	<1	<2	10	<1	0.27
1-Jun-16	GRAB	9911 Sidaway Rd.	1-Jun-16	0.76	<1	<2	10	<1	0.16
1-Jun-16	GRAB	11111 Horseshoe Way	1-Jun-16	0.88	<1	<2	10	<1	0.16
1-Jun-16	GRAB	10020 Amethyst Ave.	1-Jun-16	0.82	<1	<2	11	<1	0.15
1-Jun-16	GRAB	9380 General Currie Rd.	1-Jun-16	0.92	<1	<2	10	<1	0.16
1-Jun-16	GRAB	13800 No. 3 Rd. (off Garden City)	1-Jun-16	0.76	<1	<2	12	<1	0.16
1-Jun-16	GRAB	6640 Blundell Rd.	1-Jun-16	0.82	<1	<2	10	<1	0.17
1-Jun-16	GRAB	7000 Blk. Dyke Rd.	1-Jun-16	0.86	<1	<2	12	<1	0.14

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
3-Jun-16	GRAB	3180 Granville Ave.	3-Jun-16	0.77	<1	<2	12	<1	0.2
3-Jun-16	GRAB	4251 Moncton St.	3-Jun-16	0.82	<1	<2	11	<1	0.12
3-Jun-16	GRAB	11080 No. 2 Rd.	3-Jun-16	0.84	<1	<2	12	<1	0.15
3-Jun-16	GRAB	11500 McKenzie Rd.	3-Jun-16	0.54	<1	2	16	<1	0.2
3-Jun-16	GRAB	Opp. 8600 Ryan Rd.	3-Jun-16	0.86	<1	<2	11	<1	0.11
3-Jun-16	GRAB	13200 No. 4 Rd.	3-Jun-16	0.92	<1	<2	11	<1	0.11
3-Jun-16	GRAB	13851 Steveston Hwy.	3-Jun-16	0.72	<1	<2	11	<1	0.33
3-Jun-16	GRAB	1500 Valemont Way	3-Jun-16	0.92	<1	<2	11	<1	0.27
3-Jun-16	GRAB	11720 Westminster Hwy.	3-Jun-16	0.88	<1	2	10	<1	0.28
3-Jun-16	GRAB	17240 Fedoruk	3-Jun-16	0.82	<1	<2	13	<1	0.25
3-Jun-16	GRAB	23000 Blk. Dyke Rd.	3-Jun-16	0.92	<1	<2	13	<1	0.21
3-Jun-16	GRAB	5180 Smith Cres.	3-Jun-16	0.51	<1	<2	13	<1	0.22
3-Jun-16	GRAB	22271 Cochrane Drive	3-Jun-16	0.96	<1	<2	12	<1	0.3
3-Jun-16	GRAB	23260 Westminster Hwy.	3-Jun-16	0.98	<1	2	10	<1	0.41
6-Jun-16	GRAB	5951 McCallan Rd.	6-Jun-16	0.82	<1	<2	11	<1	0.12
6-Jun-16	GRAB	Opp. 8331 Fairfax Place	6-Jun-16	0.76	<1	<2	17	<1	0.14
6-Jun-16	GRAB	9751 Pendleton Rd.	6-Jun-16	0.84	<1	<2	13	<1	0.16
6-Jun-16	GRAB	10920 Springwood Court	6-Jun-16	0.86	<1	2	14	<1	0.19
6-Jun-16	GRAB	6071 Azure Rd.	6-Jun-16	0.72	<1	<2	13	<1	0.42
6-Jun-16	GRAB	3800 Cessna Drive	6-Jun-16	0.86	<1	<2	13	<1	0.19
6-Jun-16	GRAB	751 Catalina Cres.	6-Jun-16	0.87	<1	<2	13	<1	0.14
6-Jun-16	GRAB	6000 Blk. Miller Rd.	6-Jun-16	0.87	<1	<2	10	<1	0.17
6-Jun-16	GRAB	1000 Blk. McDonald Rd.	6-Jun-16	0.46	<1	<2	14	<1	0.29
6-Jun-16	GRAB	5300 No. 3 Rd.	6-Jun-16	0.74	<1	<2	12	<1	0.17
6-Jun-16	GRAB	8200 Jones Rd.	6-Jun-16	0.88	<1	2	13	<1	0.13
6-Jun-16	GRAB	14951 Triangle Rd.	6-Jun-16	1.01	<1	<2	12	<1	0.23
6-Jun-16	GRAB	11051 No 3 Rd.	6-Jun-16	0.82	<1	<2	11	<1	0.14
8-Jun-16	GRAB	12560 Cambie Rd.	8-Jun-16	0.9	<1	<2	12	<1	0.13
8-Jun-16	GRAB	13100 Mitchell Rd.	8-Jun-16	0.85	<1	2	12	<1	0.21
8-Jun-16	GRAB	Opp. 11280 Twigg Place	8-Jun-16	0.82	<1	<2	13	<1	0.24
8-Jun-16	GRAB	13799 Commerce Pkwy.	8-Jun-16	0.85	<1	<2	12	<1	0.17
8-Jun-16	GRAB	6651 Fraserwood Place	8-Jun-16	0.8	<1	<2	13	<1	0.27
8-Jun-16	GRAB	Opp. 20371 Westminster Hwy.	8-Jun-16	0.78	<1	<2	13	<1	0.26
8-Jun-16	GRAB	9911 Sidaway Rd.	8-Jun-16	0.84	<1	<2	12	<1	0.22
8-Jun-16	GRAB	11111 Horseshoe Way	8-Jun-16	0.94	<1	2	12	<1	0.12
8-Jun-16	GRAB	10020 Amethyst Ave.	8-Jun-16	0.91	<1	<2	13	<1	0.13
8-Jun-16	GRAB	9380 General Currie Rd.	8-Jun-16	0.97	<1	<2	13	<1	0.13
8-Jun-16	GRAB	13800 No. 3 Rd. (off Garden City)	8-Jun-16	0.8	<1	<2	14	<1	0.13
8-Jun-16	GRAB	7000 Blk. Dyke Rd.	8-Jun-16	0.83	<1	<2	13	<1	0.11
8-Jun-16	GRAB	6640 Blundell Rd.	8-Jun-16	0.7	<1	<2	11	<1	0.13

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
9-Jun-16	GRAB	3180 Granville Ave.	9-Jun-16	0.62	<1	<2	12	<1	0.18
9-Jun-16	GRAB	4251 Moncton St.	9-Jun-16	0.7	<1	<2	12	<1	0.15
9-Jun-16	GRAB	11080 No. 2 Rd.	9-Jun-16	0.84	<1	<2	11	<1	0.2
9-Jun-16	GRAB	11500 McKenzie Rd.	9-Jun-16	0.54	<1	10	15	<1	0.25
9-Jun-16	GRAB	Opp. 8600 Ryan Rd.	9-Jun-16	0.78	<1	<2	12	<1	0.18
9-Jun-16	GRAB	13200 No. 4 Rd.	9-Jun-16	0.88	<1	<2	13	<1	0.25
9-Jun-16	GRAB	13851 Steveston Hwy.	9-Jun-16	0.97	<1	<2	11	<1	0.25
9-Jun-16	GRAB	1500 Valemont Way	9-Jun-16	0.79	<1	<2	12	<1	0.24
9-Jun-16	GRAB	11720 Westminster Hwy.	9-Jun-16	1.04	<1	<2	11	<1	0.15
9-Jun-16	GRAB	17240 Fedoruk	9-Jun-16	0.72	<1	<2	14	<1	0.24
9-Jun-16	GRAB	23000 Blk. Dyke Rd.	9-Jun-16	0.86	<1	<2	12	<1	0.26
9-Jun-16	GRAB	22271 Cochrane Drive	9-Jun-16	0.82	<1	<2	12	<1	0.22
9-Jun-16	GRAB	5180 Smith Cres.	9-Jun-16	0.74	<1	<2	14	<1	0.15
9-Jun-16	GRAB	23260 Westminster Hwy.	9-Jun-16	0.93	<1	<2	12	<1	0.24
13-Jun-16	GRAB	5951 McCallan Rd.	13-Jun-16	0.82	<1	<2	11	<1	0.13
13-Jun-16	GRAB	Opp. 8331 Fairfax Place	13-Jun-16	0.43	<1	<2	17	<1	0.26
13-Jun-16	GRAB	9751 Pendleton Rd.	13-Jun-16	0.77	<1	<2	13	<1	0.18
13-Jun-16	GRAB	10920 Springwood Court	13-Jun-16	0.87	<1	<2	15	<1	0.12
13-Jun-16	GRAB	11051 No 3 Rd.	13-Jun-16	1.13	<1	<2	11	<1	0.11
13-Jun-16	GRAB	14951 Triangle Rd.	13-Jun-16	1.16	<1	<2	11	<1	0.16
13-Jun-16	GRAB	8200 Jones Rd.	13-Jun-16	1.01	<1	<2	13	<1	0.12
13-Jun-16	GRAB	5300 No. 3 Rd.	13-Jun-16	0.85	<1	<2	12	<1	0.11
13-Jun-16	GRAB	1000 Blk. McDonald Rd.	13-Jun-16	0.31	<1	<2	16	<1	0.26
13-Jun-16	GRAB	6000 Blk. Miller Rd.	13-Jun-16	0.83	<1	<2	11	<1	0.18
13-Jun-16	GRAB	751 Catalina Cres.	13-Jun-16	0.87	<1	<2	12	<1	0.14
13-Jun-16	GRAB	3800 Cessna Drive	13-Jun-16	0.77	<1	<2	13	<1	0.13
13-Jun-16	GRAB	6071 Azure Rd.	13-Jun-16	0.66	<1	<2	13	<1	0.15
15-Jun-16	GRAB	12560 Cambie Rd.	15-Jun-16	0.81	<1	<2	12	<1	0.11
15-Jun-16	GRAB	13100 Mitchell Rd.	15-Jun-16	0.85	<1	<2	11	<1	0.12
15-Jun-16	GRAB	Opp. 11280 Twigg Place	15-Jun-16	0.82	<1	<2	12	<1	0.12
15-Jun-16	GRAB	13799 Commerce Pkwy.	15-Jun-16	0.84	<1	<2	14	<1	0.2
15-Jun-16	GRAB	6651 Fraserwood Place	15-Jun-16	0.81	<1	<2	14	<1	0.3
15-Jun-16	GRAB	Opp. 20371 Westminster Hwy.	15-Jun-16	0.85	<1	2	13	<1	0.25
15-Jun-16	GRAB	9911 Sidaway Rd.	15-Jun-16	0.9	<1	<2	13	<1	0.23
15-Jun-16	GRAB	11111 Horseshoe Way	15-Jun-16	0.85	<1	<2	12	<1	0.14
15-Jun-16	GRAB	10020 Amethyst Ave.	15-Jun-16	0.67	<1	<2	12	<1	0.13
15-Jun-16	GRAB	9380 General Currie Rd.	15-Jun-16	0.73	<1	<2	12	<1	0.22
15-Jun-16	GRAB	13800 No. 3 Rd. (off Garden City)	15-Jun-16	0.83	<1	<2	12	<1	0.11
15-Jun-16	GRAB	7000 Blk. Dyke Rd.	15-Jun-16	0.83	<1	<2	13	<1	0.11
15-Jun-16	GRAB	6640 Blundell Rd.	15-Jun-16	0.8	<1	<2	11	<1	0.1

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
17-Jun-16	GRAB	3180 Granville Ave.	17-Jun-16	0.78	<1	<2	12	<1	0.19
17-Jun-16	GRAB	4251 Moncton St.	17-Jun-16	0.86	<1	<2	11	<1	0.18
17-Jun-16	GRAB	11080 No. 2 Rd.	17-Jun-16	0.83	<1	<2	10	<1	0.22
17-Jun-16	GRAB	11500 McKenzie Rd.	17-Jun-16	0.64	<1	4	16	<1	0.22
17-Jun-16	GRAB	Opp. 8600 Ryan Rd.	17-Jun-16	0.9	<1	<2	10	<1	0.25
17-Jun-16	GRAB	13200 No. 4 Rd.	17-Jun-16	0.81	<1	<2	11	<1	0.34
17-Jun-16	GRAB	13851 Steveston Hwy.	17-Jun-16	0.99	<1	2	11	<1	0.23
17-Jun-16	GRAB	1500 Valemont Way	17-Jun-16	0.97	<1	<2	11	<1	0.17
17-Jun-16	GRAB	11720 Westminster Hwy.	17-Jun-16	0.9	<1	<2	10	<1	0.12
17-Jun-16	GRAB	17240 Fedoruk	17-Jun-16	0.97	<1	<2	13	<1	0.15
17-Jun-16	GRAB	23000 Blk. Dyke Rd.	17-Jun-16	0.86	<1	<2	12	<1	0.17
17-Jun-16	GRAB	22271 Cochrane Drive	17-Jun-16	0.94	<1	100	12	<1	0.16
17-Jun-16	GRAB	5180 Smith Cres.	17-Jun-16	0.68	<1	<2	14	<1	0.17
17-Jun-16	GRAB	23260 Westminster Hwy.	17-Jun-16	1.03	<1	<2	10	<1	0.23
20-Jun-16	GRAB	5951 McCallan Rd.	20-Jun-16	0.68	<1	<2	10	<1	0.15
20-Jun-16	GRAB	Opp. 8331 Fairfax Place	20-Jun-16	0.74	<1	<2	17	<1	0.2
20-Jun-16	GRAB	9751 Pendleton Rd.	20-Jun-16	0.71	<1	<2	11	<1	0.15
20-Jun-16	GRAB	10920 Springwood Court	20-Jun-16	0.77	<1	<2	12	<1	0.23
20-Jun-16	GRAB	11051 No 3 Rd.	20-Jun-16	0.87	<1	2	11	<1	0.11
20-Jun-16	GRAB	14951 Triangle Rd.	20-Jun-16	0.89	<1	<2	12	<1	0.19
20-Jun-16	GRAB	8200 Jones Rd.	20-Jun-16	0.63	<1	<2	12	<1	0.13
20-Jun-16	GRAB	5300 No. 3 Rd.	20-Jun-16	0.71	<1	<2	10	<1	0.19
20-Jun-16	GRAB	1000 Blk. McDonald Rd.	20-Jun-16	0.28	<1	<2	15	<1	0.33
20-Jun-16	GRAB	6000 Blk. Miller Rd.	20-Jun-16	1.06	<1	<2	10	<1	0.19
20-Jun-16	GRAB	751 Catalina Cres.	20-Jun-16	0.75	<1	<2	12	<1	0.12
20-Jun-16	GRAB	3800 Cessna Drive	20-Jun-16	1.03	<1	<2	15	<1	0.12
20-Jun-16	GRAB	6071 Azure Rd.	20-Jun-16	0.75	<1	<2	12	<1	0.12
22-Jun-16	GRAB	12560 Cambie Rd.	22-Jun-16	0.9	<1	2	10	<1	0.15
22-Jun-16	GRAB	13100 Mitchell Rd.	22-Jun-16	0.74	<1	<2	11	<1	0.16
22-Jun-16	GRAB	13799 Commerce Pkwy.	22-Jun-16	0.92	<1	<2	11	<1	0.19
22-Jun-16	GRAB	Opp. 11280 Twigg Place	22-Jun-16	0.73	<1	<2	13	<1	0.23
22-Jun-16	GRAB	9911 Sidaway Rd.	22-Jun-16	0.88	<1	2	10	<1	0.41
22-Jun-16	GRAB	11111 Horseshoe Way	22-Jun-16	0.84	<1	<2	11	<1	0.18
22-Jun-16	GRAB	10020 Amethyst Ave.	22-Jun-16	0.78	<1	<2	12	<1	0.15
22-Jun-16	GRAB	9380 General Currie Rd.	22-Jun-16	0.89	<1	<2	12	<1	0.11
22-Jun-16	GRAB	13800 No. 3 Rd. (off Garden City)	22-Jun-16	0.8	<1	<2	11	<1	0.14
22-Jun-16	GRAB	7000 Blk. Dyke Rd.	22-Jun-16	0.72	<1	<2	11	<1	0.11
22-Jun-16	GRAB	6640 Blundell Rd.	22-Jun-16	0.8	<1	<2	11	<1	0.16
23-Jun-16	GRAB	3180 Granville Ave.	23-Jun-16	0.64	<1	<2	13	<1	0.11
23-Jun-16	GRAB	4251 Moncton St.	23-Jun-16	0.82	<1	<2	11	<1	0.11

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
23-Jun-16	GRAB	11080 No. 2 Rd.	23-Jun-16	0.84	<1	2	11	<1	0.09
23-Jun-16	GRAB	11500 McKenzie Rd.	23-Jun-16	0.49	<1	<2	15	<1	0.16
23-Jun-16	GRAB	Opp. 8600 Ryan Rd.	23-Jun-16	0.72	<1	<2	10	<1	0.09
23-Jun-16	GRAB	13200 No. 4 Rd.	23-Jun-16	0.88	<1	<2	12	<1	0.09
23-Jun-16	GRAB	13851 Steveston Hwy.	23-Jun-16	0.99	<1	<2	11	<1	0.19
23-Jun-16	GRAB	1500 Valemont Way	23-Jun-16	1.01	<1	<2	11	<1	0.2
23-Jun-16	GRAB	11720 Westminster Hwy.	23-Jun-16	0.82	<1	<2	10	<1	0.13
23-Jun-16	GRAB	17240 Fedoruk	23-Jun-16	1.03	<1	<2	13	<1	0.16
23-Jun-16	GRAB	23000 Blk. Dyke Rd.	23-Jun-16	0.93	<1	<2	12	<1	0.22
23-Jun-16	GRAB	22271 Cochrane Drive	23-Jun-16	0.98	<1	<2	11	<1	0.24
23-Jun-16	GRAB	5180 Smith Cres.	23-Jun-16	0.73	<1	<2	13	<1	0.18
23-Jun-16	GRAB	23260 Westminster Hwy.	23-Jun-16	0.96	<1	<2	12	<1	0.19
27-Jun-16	GRAB	5951 McCallan Rd.	27-Jun-16	0.86	<1	<2	10	<1	0.17
27-Jun-16	GRAB	Opp. 8331 Fairfax Place	27-Jun-16	0.75	<1	<2	17	<1	0.6
27-Jun-16	GRAB	9751 Pendleton Rd.	27-Jun-16	0.59	<1	2	13	<1	0.14
27-Jun-16	GRAB	10920 Springwood Court	27-Jun-16	0.79	<1	<2	15	<1	0.17
27-Jun-16	GRAB	11051 No 3 Rd.	27-Jun-16	0.74	<1	<2	11	<1	0.33
27-Jun-16	GRAB	5300 No. 3 Rd.	27-Jun-16	0.77	<1	<2	11	<1	0.16
27-Jun-16	GRAB	14951 Triangle Rd.	27-Jun-16	0.87	<1	<2	11	<1	0.26
27-Jun-16	GRAB	8200 Jones Rd.	27-Jun-16	0.81	<1	<2	13	<1	0.19
27-Jun-16	GRAB	6071 Azure Rd.	27-Jun-16	0.62	<1	<2	14	<1	0.12
27-Jun-16	GRAB	3800 Cessna Drive	27-Jun-16	0.73	<1	<2	14	<1	0.16
27-Jun-16	GRAB	751 Catalina Cres.	27-Jun-16	0.82	<1	<2	12	<1	0.16
27-Jun-16	GRAB	6000 Blk. Miller Rd.	27-Jun-16	0.76	<1	<2	12	<1	0.16
27-Jun-16	GRAB	1000 Blk. McDonald Rd.	27-Jun-16	0.51	<1	<2	14	<1	0.53
29-Jun-16	GRAB	12560 Cambie Rd.	29-Jun-16	0.89	<1	4	12	<1	0.12
29-Jun-16	GRAB	13100 Mitchell Rd.	29-Jun-16	0.88	<1	<2	13	<1	0.15
29-Jun-16	GRAB	Opp. 11280 Twigg Place	29-Jun-16	0.82	<1	<2	12	<1	0.22
29-Jun-16	GRAB	13799 Commerce Pkwy.	29-Jun-16	0.8	<1	<2	12	<1	0.19
29-Jun-16	GRAB	6651 Fraserwood Place	29-Jun-16	0.85	<1	<2	11	<1	0.27
29-Jun-16	GRAB	Opp. 20371 Westminster Hwy.	29-Jun-16	0.91	<1	<2	11	<1	0.31
29-Jun-16	GRAB	9911 Sidaway Rd.	29-Jun-16	0.8	<1	<2	12	<1	0.34
29-Jun-16	GRAB	11111 Horseshoe Way	29-Jun-16	0.81	<1	<2	11	<1	0.14
29-Jun-16	GRAB	10020 Amethyst Ave.	29-Jun-16	0.82	<1	<2	10	<1	0.19
29-Jun-16	GRAB	9380 General Currie Rd.	29-Jun-16	0.88	<1	<2	12	<1	0.16
29-Jun-16	GRAB	13800 No. 3 Rd. (off Garden City)	29-Jun-16	0.82	<1	2	12	<1	0.2
29-Jun-16	GRAB	7000 Blk. Dyke Rd.	29-Jun-16	0.8	<1	<2	12	<1	0.24
29-Jun-16	GRAB	6640 Blundell Rd.	29-Jun-16	0.75	<1	<2	11	<1	0.12
30-Jun-16	GRAB	3180 Granville Ave.	30-Jun-16	0.73	<1	<2	13	<1	0.19
30-Jun-16	GRAB	4251 Moncton St.	30-Jun-16	0.75	<1	<2	12	<1	0.15

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
30-Jun-16	GRAB	11080 No. 2 Rd.	30-Jun-16	0.87	<1	<2	11	<1	0.16
30-Jun-16	GRAB	11500 McKenzie Rd.	30-Jun-16	0.65	<1	6	15	<1	0.19
30-Jun-16	GRAB	Opp. 8600 Ryan Rd.	30-Jun-16	0.86	<1	<2	10	<1	0.17
30-Jun-16	GRAB	13200 No. 4 Rd.	30-Jun-16	0.89	<1	2	12	<1	0.16
30-Jun-16	GRAB	13851 Steveston Hwy.	30-Jun-16	0.94	<1	<2	12	<1	0.43
30-Jun-16	GRAB	1500 Valemont Way	30-Jun-16	0.89	<1	<2	11	<1	0.31
30-Jun-16	GRAB	11720 Westminster Hwy.	30-Jun-16	0.97	<1	<2	11	<1	0.16
30-Jun-16	GRAB	17240 Fedoruk	30-Jun-16	0.92	<1	2	13	<1	0.35
30-Jun-16	GRAB	23000 Blk. Dyke Rd.	30-Jun-16	0.95	<1	<2	13	<1	0.31
30-Jun-16	GRAB	22271 Cochrane Drive	30-Jun-16	0.91	<1	<2	13	<1	0.3
30-Jun-16	GRAB	5180 Smith Cres.	30-Jun-16	0.76	<1	<2	15	<1	0.25
30-Jun-16	GRAB	23260 Westminster Hwy.	30-Jun-16	0.71	<1	<2	13	<1	0.36
4-Jul-16	GRAB	5951 McCallan Rd.	4-Jul-16	0.74	<1	<2	12	<1	0.15
4-Jul-16	GRAB	Opp. 8331 Fairfax Place	4-Jul-16	0.72	<1	4	19	<1	0.36
4-Jul-16	GRAB	9751 Pendleton Rd.	4-Jul-16	0.71	<1	<2	11	<1	0.14
4-Jul-16	GRAB	10920 Springwood Court	4-Jul-16	0.9	<1	<2	15	<1	0.12
4-Jul-16	GRAB	6071 Azure Rd.	4-Jul-16	0.73	<1	<2	13	<1	0.17
4-Jul-16	GRAB	3800 Cessna Drive	4-Jul-16	0.83	<1	<2	13	<1	0.2
4-Jul-16	GRAB	751 Catalina Cres.	4-Jul-16	1.02	<1	<2	11	<1	0.13
4-Jul-16	GRAB	6000 Blk. Miller Rd.	4-Jul-16	0.85	<1	<2	12	<1	0.27
4-Jul-16	GRAB	1000 Blk. McDonald Rd.	4-Jul-16	0.41	<1	<2	16	<1	0.26
4-Jul-16	GRAB	5300 No. 3 Rd.	4-Jul-16	0.82	<1	2	12	<1	0.17
4-Jul-16	GRAB	8200 Jones Rd.	4-Jul-16	0.87	<1	2	13	<1	0.16
4-Jul-16	GRAB	14951 Triangle Rd.	4-Jul-16	0.97	<1	2	13	<1	0.21
4-Jul-16	GRAB	11051 No 3 Rd.	4-Jul-16	0.8	<1	<2	12	<1	0.16
6-Jul-16	GRAB	12560 Cambie Rd.	6-Jul-16	0.91	<1	<2	11	<1	0.13
6-Jul-16	GRAB	13100 Mitchell Rd.	6-Jul-16	0.81	<1	<2	11	<1	0.16
6-Jul-16	GRAB	Opp. 11280 Twigg Place	6-Jul-16	0.79	<1	<2	13	<1	0.15
6-Jul-16	GRAB	13799 Commerce Pkwy.	6-Jul-16	0.9	<1	<2	12	<1	0.13
6-Jul-16	GRAB	6651 Fraserwood Place	6-Jul-16	0.97	<1	<2	13	<1	0.21
6-Jul-16	GRAB	Opp. 20371 Westminster Hwy.	6-Jul-16	0.93	<1	<2	12	<1	0.17
6-Jul-16	GRAB	9911 Sidaway Rd.	6-Jul-16	1.01	<1	<2	12	<1	0.2
6-Jul-16	GRAB	11111 Horseshoe Way	6-Jul-16	0.86	<1	<2	11	<1	0.13
6-Jul-16	GRAB	10020 Amethyst Ave.	6-Jul-16	0.95	<1	<2	14	<1	0.14
6-Jul-16	GRAB	9380 General Currie Rd.	6-Jul-16	0.82	<1	<2	10	<1	0.16
6-Jul-16	GRAB	13800 No. 3 Rd. (off Garden City)	6-Jul-16	0.83	<1	<2	12	<1	0.12
6-Jul-16	GRAB	7000 Blk. Dyke Rd.	6-Jul-16	0.83	<1	<2	13	<1	0.17
6-Jul-16	GRAB	6640 Blundell Rd.	6-Jul-16	0.65	<1	<2	11	<1	0.12
7-Jul-16	GRAB	3180 Granville Ave.	7-Jul-16	0.73	<1	<2	12	<1	0.14
7-Jul-16	GRAB	4251 Moncton St.	7-Jul-16	0.83	<1	<2	12	<1	0.12

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
7-Jul-16	GRAB	11080 No. 2 Rd.	7-Jul-16	0.86	<1	<2	11	<1	0.13
7-Jul-16	GRAB	11500 McKenzie Rd.	7-Jul-16	0.37	<1	2	16	<1	0.21
7-Jul-16	GRAB	Opp. 8600 Ryan Rd.	7-Jul-16	0.83	<1	<2	12	<1	0.15
7-Jul-16	GRAB	13200 No. 4 Rd.	7-Jul-16	0.72	<1	<2	11	<1	0.11
7-Jul-16	GRAB	13851 Steveston Hwy.	7-Jul-16	1.11	<1	<2	11	<1	0.22
7-Jul-16	GRAB	1500 Valemont Way	7-Jul-16	0.9	<1	<2	13	<1	0.22
7-Jul-16	GRAB	11720 Westminster Hwy.	7-Jul-16	0.93	<1	<2	10	<1	0.11
7-Jul-16	GRAB	17240 Fedoruk	7-Jul-16	1.04	<1	<2	13	<1	0.21
7-Jul-16	GRAB	22271 Cochrane Drive	7-Jul-16	1.03	<1	<2	12	<1	0.22
7-Jul-16	GRAB	5180 Smith Cres.	7-Jul-16	0.76	<1	<2	14	<1	0.19
7-Jul-16	GRAB	23000 Blk. Dyke Rd.	7-Jul-16	1.02	<1	<2	13	<1	0.18
7-Jul-16	GRAB	23260 Westminster Hwy.	7-Jul-16	0.91	<1	<2	11	<1	0.2
11-Jul-16	GRAB	5951 McCallan Rd.	11-Jul-16	0.68	<1	<2	13	<1	0.1
11-Jul-16	GRAB	Opp. 8331 Fairfax Place	11-Jul-16	0.67	<1	<2	17	<1	0.36
11-Jul-16	GRAB	9751 Pendleton Rd.	11-Jul-16	0.61	<1	4	15	<1	0.1
11-Jul-16	GRAB	10920 Springwood Court	11-Jul-16	0.65	<1	<2	15	<1	0.11
11-Jul-16	GRAB	6071 Azure Rd.	11-Jul-16	0.71	<1	2	15	<1	0.13
11-Jul-16	GRAB	3800 Cessna Drive	11-Jul-16	0.78	<1	<2	13	<1	0.1
11-Jul-16	GRAB	751 Catalina Cres.	11-Jul-16	0.93	<1	<2	12	<1	0.1
11-Jul-16	GRAB	6000 Blk. Miller Rd.	11-Jul-16	0.75	<1	<2	11	<1	0.13
11-Jul-16	GRAB	1000 Blk. McDonald Rd.	11-Jul-16	0.41	<1	<2	15	<1	0.53
11-Jul-16	GRAB	5300 No. 3 Rd.	11-Jul-16	0.72	<1	<2	12	<1	0.11
11-Jul-16	GRAB	8200 Jones Rd.	11-Jul-16	0.86	<1	2	13	<1	0.11
11-Jul-16	GRAB	14951 Triangle Rd.	11-Jul-16	0.91	<1	<2	12	<1	0.17
11-Jul-16	GRAB	11051 No 3 Rd.	11-Jul-16	0.79	<1	<2	11	<1	0.09
13-Jul-16	GRAB	12560 Cambie Rd.	13-Jul-16	0.87	<1	<2	11	<1	0.1
13-Jul-16	GRAB	13100 Mitchell Rd.	13-Jul-16	0.86	<1	<2	12	<1	0.11
13-Jul-16	GRAB	Opp. 11280 Twigg Place	13-Jul-16	0.78	<1	2	12	<1	0.13
13-Jul-16	GRAB	13799 Commerce Pkwy.	13-Jul-16	0.92	<1	<2	13	<1	0.22
13-Jul-16	GRAB	6651 Fraserwood Place	13-Jul-16	0.97	<1	<2	13	<1	0.23
13-Jul-16	GRAB	Opp. 20371 Westminster Hwy.	13-Jul-16	0.99	<1	<2	12	<1	0.19
13-Jul-16	GRAB	9911 Sidaway Rd.	13-Jul-16	0.95	<1	<2	13	<1	0.19
13-Jul-16	GRAB	11111 Horseshoe Way	13-Jul-16	0.79	<1	<2	11	<1	0.2
13-Jul-16	GRAB	10020 Amethyst Ave.	13-Jul-16	0.86	<1	<2	14	<1	0.13
13-Jul-16	GRAB	9380 General Currie Rd.	13-Jul-16	0.85	<1	<2	12	<1	0.11
13-Jul-16	GRAB	13800 No. 3 Rd. (off Garden City)	13-Jul-16	0.87	<1	<2	12	<1	0.12
13-Jul-16	GRAB	7000 Blk. Dyke Rd.	13-Jul-16	0.86	<1	<2	13	<1	0.11
13-Jul-16	GRAB	6640 Blundell Rd.	13-Jul-16	0.72	<1	<2	10	<1	0.1
15-Jul-16	GRAB	3180 Granville Ave.	15-Jul-16	0.85	<1	<2	13	<1	0.14
15-Jul-16	GRAB	4251 Moncton St.	15-Jul-16	0.93	<1	<2	12	<1	0.1

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
15-Jul-16	GRAB	11080 No. 2 Rd.	15-Jul-16	0.84	<1	<2	12	<1	0.21
15-Jul-16	GRAB	11500 McKenzie Rd.	15-Jul-16	0.42	<1	52	17	<1	0.24
15-Jul-16	GRAB	Opp. 8600 Ryan Rd.	15-Jul-16	0.96	<1	<2	12	<1	0.12
15-Jul-16	GRAB	13200 No. 4 Rd.	15-Jul-16	0.74	<1	2	12	<1	0.12
15-Jul-16	GRAB	13851 Steveston Hwy.	15-Jul-16	1	<1	<2	12	<1	0.2
15-Jul-16	GRAB	1500 Valemont Way	15-Jul-16	1.15	<1	<2	13	<1	0.18
15-Jul-16	GRAB	11720 Westminster Hwy.	15-Jul-16	0.92	<1	2	11	<1	0.13
15-Jul-16	GRAB	17240 Fedoruk	15-Jul-16	0.99	<1	<2	14	<1	0.23
15-Jul-16	GRAB	23000 Blk. Dyke Rd.	15-Jul-16	1.18	<1	<2	13	<1	0.22
15-Jul-16	GRAB	22271 Cochrane Drive	15-Jul-16	1.02	<1	<2	13	<1	0.21
15-Jul-16	GRAB	5180 Smith Cres.	15-Jul-16	0.7	<1	2	16	<1	0.21
15-Jul-16	GRAB	23260 Westminster Hwy.	15-Jul-16	1.13	<1	<2	14	<1	0.25
18-Jul-16	GRAB	5951 McCallan Rd.	18-Jul-16	0.97	<1	2	12	<1	0.1
18-Jul-16	GRAB	Opp. 8331 Fairfax Place	18-Jul-16	0.6	<1	<2	19	<1	0.39
18-Jul-16	GRAB	9751 Pendleton Rd.	18-Jul-16	0.77	<1	<2	15	<1	0.25
18-Jul-16	GRAB	10920 Springwood Court	18-Jul-16	0.89	<1	<2	17	<1	0.15
18-Jul-16	GRAB	6071 Azure Rd.	18-Jul-16	0.87	<1	<2	13	<1	0.13
18-Jul-16	GRAB	3800 Cessna Drive	18-Jul-16	1.03	<1	<2	14	<1	0.16
18-Jul-16	GRAB	751 Catalina Cres.	18-Jul-16	0.89	<1	<2	13	<1	0.13
18-Jul-16	GRAB	6000 Blk. Miller Rd.	18-Jul-16	1.13	<1	<2	13	<1	0.18
18-Jul-16	GRAB	1000 Blk. McDonald Rd.	18-Jul-16	0.44	<1	<2	17	<1	0.32
18-Jul-16	GRAB	5300 No. 3 Rd.	18-Jul-16	0.85	<1	<2	13	<1	0.17
18-Jul-16	GRAB	8200 Jones Rd.	18-Jul-16	0.95	<1	<2	13	<1	0.18
18-Jul-16	GRAB	14951 Triangle Rd.	18-Jul-16	1	<1	<2	13	<1	0.25
18-Jul-16	GRAB	11051 No 3 Rd.	18-Jul-16	0.99	<1	<2	11	<1	0.16
20-Jul-16	GRAB	12560 Cambie Rd.	20-Jul-16	0.76	<1	<2	11	<1	0.39
20-Jul-16	GRAB	13100 Mitchell Rd.	20-Jul-16	0.78	<1	<2	12	<1	0.22
20-Jul-16	GRAB	Opp. 11280 Twigg Place	20-Jul-16	0.74	<1	<2	12	<1	0.21
20-Jul-16	GRAB	13799 Commerce Pkwy.	20-Jul-16	0.82	<1	<2	12	<1	0.3
20-Jul-16	GRAB	6651 Fraserwood Place	20-Jul-16	0.68	<1	<2	13	<1	0.33
20-Jul-16	GRAB	Opp. 20371 Westminster Hwy.	20-Jul-16	0.91	<1	<2	11	<1	0.42
20-Jul-16	GRAB	9911 Sidaway Rd.	20-Jul-16	0.86	<1	4	13	<1	0.29
20-Jul-16	GRAB	10020 Amethyst Ave.	20-Jul-16	0.73	<1	<2	15	<1	0.22
20-Jul-16	GRAB	11111 Horseshoe Way	20-Jul-16	0.87	<1	<2	13	<1	0.34
20-Jul-16	GRAB	9380 General Currie Rd.	20-Jul-16	0.77	<1	<2	12	<1	0.27
20-Jul-16	GRAB	13800 No. 3 Rd. (off Garden City)	20-Jul-16	0.85	<1	<2	13	<1	0.13
20-Jul-16	GRAB	7000 Blk. Dyke Rd.	20-Jul-16	0.76	<1	2	14	<1	0.17
20-Jul-16	GRAB	6640 Blundell Rd.	20-Jul-16	0.81	<1	<2	11	<1	0.18
21-Jul-16	GRAB	3180 Granville Ave.	21-Jul-16	0.85	<1	<2	13	<1	0.23
21-Jul-16	GRAB	4251 Moncton St.	21-Jul-16	0.9	<1	2	12	<1	0.22

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
21-Jul-16	GRAB	11080 No. 2 Rd.	21-Jul-16	0.94	<1	<2	13	<1	0.21
21-Jul-16	GRAB	11500 McKenzie Rd.	21-Jul-16	0.79	<1	6	17	<1	0.23
21-Jul-16	GRAB	Opp. 8600 Ryan Rd.	21-Jul-16	1.23	<1	<2	11	<1	0.24
21-Jul-16	GRAB	13200 No. 4 Rd.	21-Jul-16	1.14	<1	<2	12	<1	0.27
21-Jul-16	GRAB	13851 Steveston Hwy.	21-Jul-16	1.15	<1	<2	12	<1	0.19
21-Jul-16	GRAB	1500 Valemont Way	21-Jul-16	0.92	<1	<2	14	<1	0.19
21-Jul-16	GRAB	11720 Westminster Hwy.	21-Jul-16	1	<1	<2	12	<1	0.16
21-Jul-16	GRAB	17240 Fedoruk	21-Jul-16	1.35	<1	<2	15	<1	0.23
21-Jul-16	GRAB	23000 Blk. Dyke Rd.	21-Jul-16	1.34	<1	<2	13	<1	0.24
21-Jul-16	GRAB	22271 Cochrane Drive	21-Jul-16	0.98	<1	<2	14	<1	0.22
21-Jul-16	GRAB	5180 Smith Cres.	21-Jul-16	0.56	<1	<2	14	<1	0.21
21-Jul-16	GRAB	23260 Westminster Hwy.	21-Jul-16	1.08	<1	<2	12	<1	0.22
25-Jul-16	GRAB	5951 McCallan Rd.	25-Jul-16	0.61	<1	<2	12	<1	0.14
25-Jul-16	GRAB	Opp. 8331 Fairfax Place	25-Jul-16	0.54	<1	<2	18	<1	0.63
25-Jul-16	GRAB	9751 Pendleton Rd.	25-Jul-16	0.53	<1	<2	14	<1	0.2
25-Jul-16	GRAB	10920 Springwood Court	25-Jul-16	0.38	<1	<2	15	<1	0.12
25-Jul-16	GRAB	11051 No 3 Rd.	25-Jul-16	0.52	<1	2	12	<1	0.18
25-Jul-16	GRAB	14951 Triangle Rd.	25-Jul-16	0.69	<1	<2	12	<1	0.15
25-Jul-16	GRAB	5300 No. 3 Rd.	25-Jul-16	0.64	<1	2	14	<1	0.14
25-Jul-16	GRAB	8200 Jones Rd.	25-Jul-16	0.58	<1	<2	15	<1	0.12
25-Jul-16	GRAB	6071 Azure Rd.	25-Jul-16	0.6	<1	<2	14	<1	0.22
25-Jul-16	GRAB	3800 Cessna Drive	25-Jul-16	0.53	<1	2	14	<1	0.15
25-Jul-16	GRAB	751 Catalina Cres.	25-Jul-16	0.61	<1	<2	13	<1	0.19
25-Jul-16	GRAB	6000 Blk. Miller Rd.	25-Jul-16	0.58	<1	<2	12	<1	0.16
25-Jul-16	GRAB	1000 Blk. McDonald Rd.	25-Jul-16	0.46	<1	<2	15	<1	0.58
27-Jul-16	GRAB	12560 Cambie Rd.	27-Jul-16	0.85	<1	<2	12	<1	0.19
27-Jul-16	GRAB	13100 Mitchell Rd.	27-Jul-16	0.78	<1	<2	14	<1	0.18
27-Jul-16	GRAB	Opp. 11280 Twigg Place	27-Jul-16	0.81	<1	<2	14	<1	0.21
27-Jul-16	GRAB	13799 Commerce Pkwy.	27-Jul-16	0.91	<1	<2	12	<1	0.17
27-Jul-16	GRAB	6651 Fraserwood Place	27-Jul-16	0.72	<1	<2	14	<1	0.13
27-Jul-16	GRAB	Opp. 20371 Westminster Hwy.	27-Jul-16	0.65	<1	<2	13	<1	0.13
27-Jul-16	GRAB	9911 Sidaway Rd.	27-Jul-16	0.65	<1	<2	14	<1	0.1
27-Jul-16	GRAB	11111 Horseshoe Way	27-Jul-16	0.86	<1	<2	12	<1	0.14
27-Jul-16	GRAB	10020 Amethyst Ave.	27-Jul-16	0.8	<1	<2	15	<1	0.12
27-Jul-16	GRAB	9380 General Currie Rd.	27-Jul-16	0.87	<1	2	11	<1	0.13
27-Jul-16	GRAB	13800 No. 3 Rd. (off Garden City)	27-Jul-16	0.85	<1	<2	14	<1	0.13
27-Jul-16	GRAB	7000 Blk. Dyke Rd.	27-Jul-16	0.84	<1	<2	14	<1	0.32
27-Jul-16	GRAB	6640 Blundell Rd.	27-Jul-16	0.79	<1	<2	14	<1	0.12
29-Jul-16	GRAB	3180 Granville Ave.	29-Jul-16	0.81	<1	<2	14	<1	0.13
29-Jul-16	GRAB	4251 Moncton St.	29-Jul-16	1.09	<1	<2	13	<1	0.15

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
29-Jul-16	GRAB	11080 No. 2 Rd.	29-Jul-16	1.16	<1	2	12	<1	0.15
29-Jul-16	GRAB	11500 McKenzie Rd.	29-Jul-16	1.13	<1	14	19	<1	0.15
29-Jul-16	GRAB	Opp. 8600 Ryan Rd.	29-Jul-16	1.23	<1	<2	12	<1	0.14
29-Jul-16	GRAB	13200 No. 4 Rd.	29-Jul-16	0.75	<1	<2	14	<1	0.12
29-Jul-16	GRAB	13851 Steveston Hwy.	29-Jul-16	0.89	<1	<2	13	<1	0.13
29-Jul-16	GRAB	1500 Valemont Way	29-Jul-16	0.74	<1	<2	14	<1	0.13
29-Jul-16	GRAB	11720 Westminster Hwy.	29-Jul-16	0.77	<1	<2	13	<1	0.12
29-Jul-16	GRAB	23000 Blk. Dyke Rd.	29-Jul-16	0.73	<1	<2	14	<1	0.13
29-Jul-16	GRAB	17240 Fedoruk	29-Jul-16	0.68	<1	<2	14	<1	0.12
29-Jul-16	GRAB	22271 Cochrane Drive	29-Jul-16	0.68	<1	2	13	<1	0.16
29-Jul-16	GRAB	5180 Smith Cres.	29-Jul-16	0.57	<1	<2	15	<1	0.12
29-Jul-16	GRAB	23260 Westminster Hwy.	29-Jul-16	0.63	<1	<2	13	<1	0.15
2-Aug-16	GRAB	5951 McCallan Rd.	2-Aug-16	0.92	<1	2	13	<1	0.11
2-Aug-16	GRAB	Opp. 8331 Fairfax Place	2-Aug-16	0.89	<1	<2	19	<1	0.81
2-Aug-16	GRAB	9751 Pendleton Rd.	2-Aug-16	0.81	<1	<2	14	<1	0.11
2-Aug-16	GRAB	10920 Springwood Court	2-Aug-16	0.64	<1	<2	17	<1	0.15
2-Aug-16	GRAB	6071 Azure Rd.	2-Aug-16	0.91	<1	2	14	<1	0.12
2-Aug-16	GRAB	3800 Cessna Drive	2-Aug-16	0.69	<1	<2	15	<1	0.15
2-Aug-16	GRAB	751 Catalina Cres.	2-Aug-16	1.02	<1	<2	12	<1	0.12
2-Aug-16	GRAB	6000 Blk. Miller Rd.	2-Aug-16	1.15	<1	<2	13	<1	0.17
2-Aug-16	GRAB	1000 Blk. McDonald Rd.	2-Aug-16	0.42	<1	<2	15	<1	0.32
2-Aug-16	GRAB	5300 No. 3 Rd.	2-Aug-16	0.86	<1	<2	14	<1	0.16
2-Aug-16	GRAB	8200 Jones Rd.	2-Aug-16	0.91	<1	<2	14	<1	0.14
2-Aug-16	GRAB	14951 Triangle Rd.	2-Aug-16	0.74	<1	<2	12	<1	0.2
2-Aug-16	GRAB	11051 No 3 Rd.	2-Aug-16	0.72	<1	<2	12	<1	0.2
3-Aug-16	GRAB	6640 Blundell Rd.	3-Aug-16	0.89	<1	4	12	<1	0.15
3-Aug-16	GRAB	7000 Blk. Dyke Rd.	3-Aug-16	0.85	<1	<2	14	<1	0.13
3-Aug-16	GRAB	13800 No. 3 Rd. (off Garden City)	3-Aug-16	0.77	<1	<2	15	<1	0.16
3-Aug-16	GRAB	9380 General Currie Rd.	3-Aug-16	0.91	<1	2	12	<1	0.16
3-Aug-16	GRAB	10020 Amethyst Ave.	3-Aug-16	0.88	<1	2	14	<1	0.14
3-Aug-16	GRAB	11111 Horseshoe Way	3-Aug-16	1.05	<1	<2	14	<1	0.18
3-Aug-16	GRAB	9911 Sidaway Rd.	3-Aug-16	0.71	<1	2	13	<1	0.13
3-Aug-16	GRAB	12560 Cambie Rd.	3-Aug-16	0.78	<1	<2	13	<1	0.1
3-Aug-16	GRAB	13100 Mitchell Rd.	3-Aug-16	0.82	<1	<2	14	<1	0.1
3-Aug-16	GRAB	Opp. 11280 Twigg Place	3-Aug-16	0.8	<1	<2	20	<1	0.16
3-Aug-16	GRAB	13799 Commerce Pkwy.	3-Aug-16	0.71	<1	<2	14	<1	0.13
3-Aug-16	GRAB	Opp. 20371 Westminster Hwy.	3-Aug-16	0.95	<1	2	12	<1	0.11
3-Aug-16	GRAB	6651 Fraserwood Place	3-Aug-16	0.93	<1	<2	13	<1	0.2
4-Aug-16	GRAB	3180 Granville Ave.	4-Aug-16	0.6	<1	2	14	<1	0.11
4-Aug-16	GRAB	4251 Moncton St.	4-Aug-16	0.54	<1	<2	12	<1	0.16

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
4-Aug-16	GRAB	11080 No. 2 Rd.	4-Aug-16	0.79	<1	<2	13	<1	0.11
4-Aug-16	GRAB	11500 McKenzie Rd.	4-Aug-16	0.32	<1	10	19	<1	0.17
4-Aug-16	GRAB	Opp. 8600 Ryan Rd.	4-Aug-16	0.63	<1	<2	13	<1	0.15
4-Aug-16	GRAB	13200 No. 4 Rd.	4-Aug-16	0.68	<1	<2	13	<1	0.14
4-Aug-16	GRAB	13851 Steveston Hwy.	4-Aug-16	0.62	<1	<2	13	<1	0.1
4-Aug-16	GRAB	1500 Valemont Way	4-Aug-16	0.5	<1	2	14	<1	0.12
4-Aug-16	GRAB	11720 Westminster Hwy.	4-Aug-16	0.63	<1	<2	12	<1	0.14
4-Aug-16	GRAB	17240 Fedoruk	4-Aug-16	0.59	<1	spreadir	15	<1	0.1
4-Aug-16	GRAB	23000 Blk. Dyke Rd.	4-Aug-16	0.62	<1	<2	19	<1	0.11
4-Aug-16	GRAB	22271 Cochrane Drive	4-Aug-16	0.61	<1	8	15	<1	0.22
4-Aug-16	GRAB	5180 Smith Cres.	4-Aug-16	0.48	<1	<2	14	<1	0.12
4-Aug-16	GRAB	23260 Westminster Hwy.	4-Aug-16	0.68	<1	spreadir	15	<1	0.1
8-Aug-16	GRAB	5951 McCallan Rd.	8-Aug-16	0.72	<1	<2	12	<1	0.15
8-Aug-16	GRAB	Opp. 8331 Fairfax Place	8-Aug-16	0.6	<1	<2	20	<1	0.27
8-Aug-16	GRAB	9751 Pendleton Rd.	8-Aug-16	0.62	<1	<2	15	<1	0.15
8-Aug-16	GRAB	10920 Springwood Court	8-Aug-16	0.66	<1	4	16	<1	0.15
8-Aug-16	GRAB	6071 Azure Rd.	8-Aug-16	0.64	<1	<2	14	<1	0.14
8-Aug-16	GRAB	3800 Cessna Drive	8-Aug-16	0.77	<1	2	15	<1	0.15
8-Aug-16	GRAB	751 Catalina Cres.	8-Aug-16	0.83	<1	<2	12	<1	0.2
8-Aug-16	GRAB	6000 Blk. Miller Rd.	8-Aug-16	0.73	<1	<2	12	<1	0.14
8-Aug-16	GRAB	1000 Blk. McDonald Rd.	8-Aug-16	0.38	<1	<2	18	<1	1.3
8-Aug-16	GRAB	5300 No. 3 Rd.	8-Aug-16	0.76	<1	<2	14	<1	0.2
8-Aug-16	GRAB	8200 Jones Rd.	8-Aug-16	0.6	<1	2	15	<1	0.19
8-Aug-16	GRAB	14951 Triangle Rd.	8-Aug-16	0.62	<1	<2	13	<1	0.12
8-Aug-16	GRAB	11051 No 3 Rd.	8-Aug-16	0.64	<1	<2	12	<1	0.15
10-Aug-16	GRAB	12560 Cambie Rd.	10-Aug-16	0.62	<1	<2	13	<1	0.13
10-Aug-16	GRAB	13100 Mitchell Rd.	10-Aug-16	0.79	<1	<2	14	<1	0.23
10-Aug-16	GRAB	Opp. 11280 Twigg Place	10-Aug-16	0.76	<1	<2	14	<1	0.18
10-Aug-16	GRAB	13799 Commerce Pkwy.	10-Aug-16	0.61	<1	<2	14	<1	0.12
10-Aug-16	GRAB	6651 Fraserwood Place	10-Aug-16	0.63	<1	<2	14	<1	0.13
10-Aug-16	GRAB	Opp. 20371 Westminster Hwy.	10-Aug-16	0.7	<1	<2	13	<1	0.1
10-Aug-16	GRAB	9911 Sidaway Rd.	10-Aug-16	0.68	<1	<2	13	<1	0.11
10-Aug-16	GRAB	11111 Horseshoe Way	10-Aug-16	0.81	<1	<2	14	<1	0.14
10-Aug-16	GRAB	10020 Amethyst Ave.	10-Aug-16	0.66	<1	<2	14	<1	0.11
10-Aug-16	GRAB	9380 General Currie Rd.	10-Aug-16	0.75	<1	2	14	<1	0.1
10-Aug-16	GRAB	13800 No. 3 Rd. (off Garden City)	10-Aug-16	0.79	<1	<2	14	<1	0.12
10-Aug-16	GRAB	7000 Blk. Dyke Rd.	10-Aug-16	0.75	<1	<2	14	<1	0.15
10-Aug-16	GRAB	6640 Blundell Rd.	10-Aug-16	0.7	<1	<2	12	<1	0.13
12-Aug-16	GRAB	3180 Granville Ave.	12-Aug-16	0.69	<1	<2	12	<1	0.1
12-Aug-16	GRAB	4251 Moncton St.	12-Aug-16	0.74	<1	2	14	<1	0.08

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
12-Aug-16	GRAB	11080 No. 2 Rd.	12-Aug-16	0.81	<1	<2	14	<1	0.09
12-Aug-16	GRAB	11500 McKenzie Rd.	12-Aug-16	0.41	<1	32	19	<1	0.1
12-Aug-16	GRAB	Opp. 8600 Ryan Rd.	12-Aug-16	0.81	<1	<2	14	<1	0.08
12-Aug-16	GRAB	13200 No. 4 Rd.	12-Aug-16	0.78	<1	<2	15	<1	0.1
12-Aug-16	GRAB	13851 Steveston Hwy.	12-Aug-16	0.73	<1	2	13	<1	0.07
12-Aug-16	GRAB	1500 Valemont Way	12-Aug-16	0.72	<1	<2	14	<1	0.13
12-Aug-16	GRAB	11720 Westminster Hwy.	12-Aug-16	0.8	<1	<2	13	<1	0.07
12-Aug-16	GRAB	17240 Fedoruk	12-Aug-16	0.68	<1	<2	15	<1	0.08
12-Aug-16	GRAB	23000 Blk. Dyke Rd.	12-Aug-16	0.46	<1	8	14	<1	0.13
12-Aug-16	GRAB	22271 Cochrane Drive	12-Aug-16	0.69	<1	6	14	<1	0.08
12-Aug-16	GRAB	5180 Smith Cres.	12-Aug-16	0.68	<1	<2	15	<1	0.09
12-Aug-16	GRAB	23260 Westminster Hwy.	12-Aug-16	0.58	<1	<2	15	<1	0.12
15-Aug-16	GRAB	5951 McCallan Rd.	15-Aug-16	0.73	<1	<2	14	<1	0.1
15-Aug-16	GRAB	Opp. 8331 Fairfax Place	15-Aug-16	0.65	<1	4	20	<1	0.08
15-Aug-16	GRAB	9751 Pendleton Rd.	15-Aug-16	0.63	<1	4	14	<1	0.08
15-Aug-16	GRAB	10920 Springwood Court	15-Aug-16	0.73	<1	<2	16	<1	0.08
15-Aug-16	GRAB	6071 Azure Rd.	15-Aug-16	0.72	<1	2	15	<1	0.17
15-Aug-16	GRAB	3800 Cessna Drive	15-Aug-16	0.81	<1	<2	15	<1	0.11
15-Aug-16	GRAB	751 Catalina Cres.	15-Aug-16	0.81	<1	<2	15	<1	0.1
15-Aug-16	GRAB	6000 Blk. Miller Rd.	15-Aug-16	0.9	<1	2	13	<1	0.11
15-Aug-16	GRAB	1000 Blk. McDonald Rd.	15-Aug-16	0.53	<1	<2	15	<1	0.53
15-Aug-16	GRAB	5300 No. 3 Rd.	15-Aug-16	0.79	<1	<2	NA	<1	0.09
15-Aug-16	GRAB	8200 Jones Rd.	15-Aug-16	0.74	<1	<2	14	<1	0.11
15-Aug-16	GRAB	14951 Triangle Rd.	15-Aug-16	0.71	<1	<2	14	<1	0.2
15-Aug-16	GRAB	11051 No 3 Rd.	15-Aug-16	0.68	<1	<2	14	<1	0.16
17-Aug-16	GRAB	12560 Cambie Rd.	17-Aug-16	0.78	<1	2	14	<1	0.18
17-Aug-16	GRAB	13100 Mitchell Rd.	17-Aug-16	0.75	<1	<2	14	<1	0.21
17-Aug-16	GRAB	Opp. 11280 Twigg Place	17-Aug-16	0.7	<1	<2	15	<1	0.23
17-Aug-16	GRAB	13799 Commerce Pkwy.	17-Aug-16	1.19	<1	2	15	<1	0.39
17-Aug-16	GRAB	6651 Fraserwood Place	17-Aug-16	0.82	<1	<2	15	<1	0.35
17-Aug-16	GRAB	Opp. 20371 Westminster Hwy.	17-Aug-16	0.76	<1	<2	15	<1	0.23
17-Aug-16	GRAB	9911 Sidaway Rd.	17-Aug-16	0.71	<1	<2	15	<1	0.25
17-Aug-16	GRAB	11111 Horseshoe Way	17-Aug-16	0.72	<1	<2	15	<1	0.13
17-Aug-16	GRAB	10020 Amethyst Ave.	17-Aug-16	0.71	<1	<2	15	<1	0.15
17-Aug-16	GRAB	9380 General Currie Rd.	17-Aug-16	0.78	<1	<2	15	<1	0.16
17-Aug-16	GRAB	13800 No. 3 Rd. (off Garden City)	17-Aug-16	0.7	<1	<2	15	<1	0.11
17-Aug-16	GRAB	7000 Blk. Dyke Rd.	17-Aug-16	0.73	<1	<2	15	<1	0.13
17-Aug-16	GRAB	6640 Blundell Rd.	17-Aug-16	0.74	<1	<2	14	<1	0.11
18-Aug-16	GRAB	3180 Granville Ave.	18-Aug-16	0.37	<1	<2	15	<1	0.13
18-Aug-16	GRAB	4251 Moncton St.	18-Aug-16	0.8	<1	<2	14	<1	0.21

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
18-Aug-16	GRAB	11080 No. 2 Rd.	18-Aug-16	0.72	<1	<2	14	<1	0.14
18-Aug-16	GRAB	11500 McKenzie Rd.	18-Aug-16	0.49	<1	40	19	<1	0.14
18-Aug-16	GRAB	Opp. 8600 Ryan Rd.	18-Aug-16	0.65	<1	<2	14	<1	0.13
18-Aug-16	GRAB	13200 No. 4 Rd.	18-Aug-16	0.73	<1	2	14	<1	0.1
18-Aug-16	GRAB	13851 Steveston Hwy.	18-Aug-16	0.67	<1	2	15	<1	0.28
18-Aug-16	GRAB	1500 Valemont Way	18-Aug-16	0.68	<1	<2	14	<1	0.17
18-Aug-16	GRAB	11720 Westminster Hwy.	18-Aug-16	0.73	<1	<2	14	<1	0.14
18-Aug-16	GRAB	17240 Fedoruk	18-Aug-16	0.65	<1	<2	17	<1	0.22
18-Aug-16	GRAB	23000 Blk. Dyke Rd.	18-Aug-16	0.73	<1	<2	16	<1	0.41
18-Aug-16	GRAB	22271 Cochrane Drive	18-Aug-16	0.96	<1	<2	16	<1	0.71
18-Aug-16	GRAB	5180 Smith Cres.	18-Aug-16	0.55	<1	2	15	<1	0.16
18-Aug-16	GRAB	23260 Westminster Hwy.	18-Aug-16	1.14	<1	<2	15	<1	0.55
22-Aug-16	GRAB	5951 McCallan Rd.	22-Aug-16	0.83	<1	<2	14	<1	0.11
22-Aug-16	GRAB	Opp. 8331 Fairfax Place	22-Aug-16	0.74	<1	<2	19	<1	0.39
22-Aug-16	GRAB	9751 Pendleton Rd.	22-Aug-16	0.65	<1	<2	14	<1	0.09
22-Aug-16	GRAB	10920 Springwood Court	22-Aug-16	0.72	<1	<2	18	<1	0.12
22-Aug-16	GRAB	6071 Azure Rd.	22-Aug-16	0.79	<1	<2	15	<1	0.1
22-Aug-16	GRAB	3800 Cessna Drive	22-Aug-16	0.92	<1	<2	15	<1	0.12
22-Aug-16	GRAB	751 Catalina Cres.	22-Aug-16	0.85	<1	<2	14	<1	0.09
22-Aug-16	GRAB	6000 Blk. Miller Rd.	22-Aug-16	0.86	<1	<2	14	<1	0.15
22-Aug-16	GRAB	1000 Blk. McDonald Rd.	22-Aug-16	0.42	<1	<2	17	<1	0.16
22-Aug-16	GRAB	5300 No. 3 Rd.	22-Aug-16	0.83	<1	<2	15	<1	0.12
22-Aug-16	GRAB	8200 Jones Rd.	22-Aug-16	0.84	<1	<2	16	<1	0.11
22-Aug-16	GRAB	14951 Triangle Rd.	22-Aug-16	0.62	<1	<2	15	<1	0.14
22-Aug-16	GRAB	11051 No 3 Rd.	22-Aug-16	0.79	<1	<2	15	<1	0.12
24-Aug-16	GRAB	12560 Cambie Rd.	24-Aug-16	0.76	<1	<2	15	<1	0.14
24-Aug-16	GRAB	13100 Mitchell Rd.	24-Aug-16	0.7	<1	<2	15	<1	0.12
24-Aug-16	GRAB	Opp. 11280 Twigg Place	24-Aug-16	0.67	<1	2	17	<1	0.12
24-Aug-16	GRAB	13799 Commerce Pkwy.	24-Aug-16	0.8	<1	<2	15	<1	0.13
24-Aug-16	GRAB	6651 Fraserwood Place	24-Aug-16	0.66	<1	<2	17	<1	0.15
24-Aug-16	GRAB	Opp. 20371 Westminster Hwy.	24-Aug-16	0.74	<1	<2	17	<1	0.15
24-Aug-16	GRAB	9911 Sidaway Rd.	24-Aug-16	0.68	<1	<2	16	<1	0.14
24-Aug-16	GRAB	11111 Horseshoe Way	24-Aug-16	0.65	<1	<2	15	<1	0.12
24-Aug-16	GRAB	10020 Amethyst Ave.	24-Aug-16	0.79	<1	<2	15	<1	0.12
24-Aug-16	GRAB	9380 General Currie Rd.	24-Aug-16	0.77	<1	<2	17	<1	0.12
24-Aug-16	GRAB	13800 No. 3 Rd. (off Garden City)	24-Aug-16	0.56	<1	<2	15	<1	0.08
24-Aug-16	GRAB	7000 Blk. Dyke Rd.	24-Aug-16	0.71	<1	<2	17	<1	0.07
24-Aug-16	GRAB	6640 Blundell Rd.	24-Aug-16	0.7	<1	<2	16	<1	0.12
26-Aug-16	GRAB	3180 Granville Ave.	26-Aug-16	0.72	<1	<2	15	<1	0.08
26-Aug-16	GRAB	4251 Moncton St.	26-Aug-16	0.67	<1	2	15	<1	0.09

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
26-Aug-16	GRAB	11080 No. 2 Rd.	26-Aug-16	0.76	<1	<2	15	<1	0.07
26-Aug-16	GRAB	11500 McKenzie Rd.	26-Aug-16	0.34	<1	12	18	<1	0.12
26-Aug-16	GRAB	Opp. 8600 Ryan Rd.	26-Aug-16	0.81	<1	<2	14	<1	0.08
26-Aug-16	GRAB	13200 No. 4 Rd.	26-Aug-16	0.75	<1	<2	15	<1	0.08
26-Aug-16	GRAB	13851 Steveston Hwy.	26-Aug-16	0.87	<1	<2	15	<1	0.25
26-Aug-16	GRAB	1500 Valemont Way	26-Aug-16	0.81	<1	<2	16	<1	0.14
26-Aug-16	GRAB	11720 Westminster Hwy.	26-Aug-16	0.74	<1	<2	15	<1	0.09
26-Aug-16	GRAB	17240 Fedoruk	26-Aug-16	0.8	<1	<2	15	<1	0.18
26-Aug-16	GRAB	23000 Blk. Dyke Rd.	26-Aug-16	0.92	<1	<2	17	<1	0.19
26-Aug-16	GRAB	5180 Smith Cres.	26-Aug-16	0.89	<1	<2	16	<1	0.2
26-Aug-16	GRAB	22271 Cochrane Drive	26-Aug-16	0.68	<1	<2	16	<1	0.18
26-Aug-16	GRAB	23260 Westminster Hwy.	26-Aug-16	0.85	<1	2	16	<1	0.22
29-Aug-16	GRAB	5951 McCallan Rd.	29-Aug-16	0.74	<1	<2	15	<1	0.11
29-Aug-16	GRAB	Opp. 8331 Fairfax Place	29-Aug-16	0.61	<1	<2	21	<1	0.42
29-Aug-16	GRAB	9751 Pendleton Rd.	29-Aug-16	0.66	<1	<2	17	<1	0.14
29-Aug-16	GRAB	10920 Springwood Court	29-Aug-16	0.64	<1	<2	19	<1	0.13
29-Aug-16	GRAB	11051 No 3 Rd.	29-Aug-16	0.76	<1	<2	16	<1	0.18
29-Aug-16	GRAB	14951 Triangle Rd.	29-Aug-16	0.83	<1	<2	16	<1	0.24
29-Aug-16	GRAB	8200 Jones Rd.	29-Aug-16	0.77	<1	<2	17	<1	0.18
29-Aug-16	GRAB	5300 No. 3 Rd.	29-Aug-16	0.78	<1	<2	17	<1	0.12
29-Aug-16	GRAB	1000 Blk. McDonald Rd.	29-Aug-16	0.47	<1	<2	19	<1	0.87
29-Aug-16	GRAB	6000 Blk. Miller Rd.	29-Aug-16	0.82	<1	4	16	<1	0.24
29-Aug-16	GRAB	3800 Cessna Drive	29-Aug-16	0.76	<1	<2	16	<1	0.19
29-Aug-16	GRAB	751 Catalina Cres.	29-Aug-16	0.84	<1	<2	15	<1	0.14
29-Aug-16	GRAB	6071 Azure Rd.	29-Aug-16	0.69	<1	4	17	<1	0.11
31-Aug-16	GRAB	12560 Cambie Rd.	31-Aug-16	0.74	<1	<2	16	<1	0.11
31-Aug-16	GRAB	13100 Mitchell Rd.	31-Aug-16	0.76	<1	<2	16	<1	0.42
31-Aug-16	GRAB	Opp. 11280 Twigg Place	31-Aug-16	0.7	<1	2	16	<1	0.32
31-Aug-16	GRAB	13799 Commerce Pkwy.	31-Aug-16	0.78	<1	<2	17	<1	0.18
31-Aug-16	GRAB	6651 Fraserwood Place	31-Aug-16	0.69	<1	<2	16	<1	0.19
31-Aug-16	GRAB	Opp. 20371 Westminster Hwy.	31-Aug-16	0.74	<1	<2	16	<1	0.11
31-Aug-16	GRAB	9911 Sidaway Rd.	31-Aug-16	0.69	<1	2	16	<1	0.19
31-Aug-16	GRAB	11111 Horseshoe Way	31-Aug-16	0.76	<1	<2	15	<1	0.14
31-Aug-16	GRAB	10020 Amethyst Ave.	31-Aug-16	0.68	<1	<2	17	<1	0.11
31-Aug-16	GRAB	9380 General Currie Rd.	31-Aug-16	0.76	<1	<2	15	<1	0.09
31-Aug-16	GRAB	13800 No. 3 Rd. (off Garden City)	31-Aug-16	0.73	<1	<2	16	<1	0.17
31-Aug-16	GRAB	7000 Blk. Dyke Rd.	31-Aug-16	0.75	<1	6	16	<1	0.17
31-Aug-16	GRAB	6640 Blundell Rd.	31-Aug-16	0.77	<1	<2	16	<1	0.14
1-Sep-16	GRAB	3180 Granville Ave.	1-Sep-16	0.99	<1	<2	17	<1	0.1
1-Sep-16	GRAB	4251 Moncton St.	1-Sep-16	0.78	<1	<2	15	<1	0.11

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
1-Sep-16	GRAB	11080 No. 2 Rd.	1-Sep-16	0.76	<1	<2	15	<1	0.14
1-Sep-16	GRAB	11500 McKenzie Rd.	1-Sep-16	0.54	<1	8	18	<1	0.1
1-Sep-16	GRAB	Opp. 8600 Ryan Rd.	1-Sep-16	0.79	<1	<2	15	<1	0.13
1-Sep-16	GRAB	13200 No. 4 Rd.	1-Sep-16	0.75	<1	2	17	<1	0.1
1-Sep-16	GRAB	13851 Steveston Hwy.	1-Sep-16	0.69	<1	<2	17	<1	0.11
1-Sep-16	GRAB	1500 Valemont Way	1-Sep-16	0.73	<1	<2	16	<1	0.12
1-Sep-16	GRAB	11720 Westminster Hwy.	1-Sep-16	0.76	<1	<2	15	<1	0.15
1-Sep-16	GRAB	17240 Fedoruk	1-Sep-16	0.44	<1	<2	16	<1	0.08
1-Sep-16	GRAB	23000 Blk. Dyke Rd.	1-Sep-16	0.63	<1	<2	19	<1	0.14
1-Sep-16	GRAB	22271 Cochrane Drive	1-Sep-16	0.74	<1	<2	16	<1	0.07
1-Sep-16	GRAB	5180 Smith Cres.	1-Sep-16	0.63	<1	<2	17	<1	0.13
1-Sep-16	GRAB	23260 Westminster Hwy.	1-Sep-16	0.68	<1	<2	16	<1	0.1
6-Sep-16	GRAB	5951 McCallan Rd.	6-Sep-16	0.72	<1	<2	16	<1	0.15
6-Sep-16	GRAB	Opp. 8331 Fairfax Place	6-Sep-16	0.66	<1	<2	20	<1	0.25
6-Sep-16	GRAB	9751 Pendleton Rd.	6-Sep-16	0.59	<1	<2	17	<1	0.11
6-Sep-16	GRAB	10920 Springwood Court	6-Sep-16	0.7	<1	<2	18	<1	0.23
6-Sep-16	GRAB	6071 Azure Rd.	6-Sep-16	0.68	<1	<2	17	<1	0.3
6-Sep-16	GRAB	3800 Cessna Drive	6-Sep-16	0.69	<1	<2	18	<1	0.11
6-Sep-16	GRAB	751 Catalina Cres.	6-Sep-16	0.77	<1	<2	17	<1	0.12
6-Sep-16	GRAB	6000 Blk. Miller Rd.	6-Sep-16	0.52	<1	2	16	<1	0.23
6-Sep-16	GRAB	1000 Blk. McDonald Rd.	6-Sep-16	0.42	<1	<2	18	<1	1.2
6-Sep-16	GRAB	5300 No. 3 Rd.	6-Sep-16	0.44	<1	<2	17	<1	0.13
6-Sep-16	GRAB	8200 Jones Rd.	6-Sep-16	0.71	<1	2	16	<1	0.13
6-Sep-16	GRAB	14951 Triangle Rd.	6-Sep-16	0.68	<1	<2	18	<1	0.11
6-Sep-16	GRAB	11051 No 3 Rd.	6-Sep-16	0.74	<1	<2	17	<1	0.16
7-Sep-16	GRAB	12560 Cambie Rd.	7-Sep-16	0.8	<1	<2	16	<1	0.17
7-Sep-16	GRAB	13100 Mitchell Rd.	7-Sep-16	0.83	<1	2	17	<1	0.15
7-Sep-16	GRAB	Opp. 11280 Twigg Place	7-Sep-16	0.65	<1	2	17	<1	0.19
7-Sep-16	GRAB	13799 Commerce Pkwy.	7-Sep-16	0.82	<1	<2	17	<1	0.37
7-Sep-16	GRAB	6651 Fraserwood Place	7-Sep-16	0.77	<1	<2	18	<1	0.14
7-Sep-16	GRAB	Opp. 20371 Westminster Hwy.	7-Sep-16	0.83	<1	<2	16	<1	0.16
7-Sep-16	GRAB	9911 Sidaway Rd.	7-Sep-16	0.71	<1	<2	17	<1	0.18
7-Sep-16	GRAB	11111 Horseshoe Way	7-Sep-16	0.81	<1	<2	17	<1	0.17
7-Sep-16	GRAB	10020 Amethyst Ave.	7-Sep-16	0.78	<1	<2	17	<1	0.09
7-Sep-16	GRAB	9380 General Currie Rd.	7-Sep-16	0.74	<1	<2	18	<1	0.13
7-Sep-16	GRAB	13800 No. 3 Rd. (off Garden City)	7-Sep-16	0.74	<1	<2	17	<1	0.12
7-Sep-16	GRAB	7000 Blk. Dyke Rd.	7-Sep-16	0.79	<1	12	17	<1	0.1
7-Sep-16	GRAB	6640 Blundell Rd.	7-Sep-16	0.76	<1	<2	17	<1	0.09
9-Sep-16	GRAB	3180 Granville Ave.	9-Sep-16	0.71	<1	<2	17	<1	0.1
9-Sep-16	GRAB	4251 Moncton St.	9-Sep-16	0.77	<1	2	16	<1	0.15

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
9-Sep-16	GRAB	11080 No. 2 Rd.	9-Sep-16	0.72	<1	<2	17	<1	0.12
9-Sep-16	GRAB	11500 McKenzie Rd.	9-Sep-16	0.87	<1	20	17	<1	0.08
9-Sep-16	GRAB	Opp. 8600 Ryan Rd.	9-Sep-16	0.81	<1	2	17	<1	0.12
9-Sep-16	GRAB	13200 No. 4 Rd.	9-Sep-16	0.86	<1	<2	17	<1	0.12
9-Sep-16	GRAB	13851 Steveston Hwy.	9-Sep-16	0.79	<1	<2	17	<1	0.11
9-Sep-16	GRAB	1500 Valemont Way	9-Sep-16	0.74	<1	<2	17	<1	0.12
9-Sep-16	GRAB	11720 Westminster Hwy.	9-Sep-16	0.74	<1	<2	17	<1	0.11
9-Sep-16	GRAB	17240 Fedoruk	9-Sep-16	0.78	<1	<2	17	<1	0.1
9-Sep-16	GRAB	23000 Blk. Dyke Rd.	9-Sep-16	0.69	<1	<2	18	<1	0.11
9-Sep-16	GRAB	22271 Cochrane Drive	9-Sep-16	0.73	<1	<2	18	<1	0.14
9-Sep-16	GRAB	5180 Smith Cres.	9-Sep-16	0.59	<1	<2	18	<1	0.11
9-Sep-16	GRAB	23260 Westminster Hwy.	9-Sep-16	0.71	<1	2	18	<1	0.11
12-Sep-16	GRAB	5951 McCallan Rd.	12-Sep-16	0.67	<1	<2	15	<1	0.16
12-Sep-16	GRAB	Opp. 8331 Fairfax Place	12-Sep-16	0.69	<1	<2	18	<1	0.27
12-Sep-16	GRAB	9751 Pendleton Rd.	12-Sep-16	0.6	<1	<2	16	<1	0.16
12-Sep-16	GRAB	10920 Springwood Court	12-Sep-16	0.67	<1	<2	18	<1	0.15
12-Sep-16	GRAB	6071 Azure Rd.	12-Sep-16	0.75	<1	<2	16	<1	0.22
12-Sep-16	GRAB	3800 Cessna Drive	12-Sep-16	0.67	<1	2	16	<1	0.11
12-Sep-16	GRAB	751 Catalina Cres.	12-Sep-16	0.82	<1	<2	17	<1	0.2
12-Sep-16	GRAB	6000 Blk. Miller Rd.	12-Sep-16	0.77	<1	<2	16	<1	0.26
12-Sep-16	GRAB	1000 Blk. McDonald Rd.	12-Sep-16	0.41	<1	<2	18	<1	0.21
12-Sep-16	GRAB	5300 No. 3 Rd.	12-Sep-16	0.63	<1	2	16	<1	0.17
12-Sep-16	GRAB	8200 Jones Rd.	12-Sep-16	0.55	<1	<2	16	<1	0.2
12-Sep-16	GRAB	14951 Triangle Rd.	12-Sep-16	0.6	<1	<2	14	<1	0.22
12-Sep-16	GRAB	11051 No 3 Rd.	12-Sep-16	0.62	<1	<2	16	<1	0.29
14-Sep-16	GRAB	12560 Cambie Rd.	14-Sep-16	0.75	<1	<2	16	<1	0.21
14-Sep-16	GRAB	13100 Mitchell Rd.	14-Sep-16	0.77	<1	<2	17	<1	0.25
14-Sep-16	GRAB	Opp. 11280 Twigg Place	14-Sep-16	0.68	<1	<2	18	<1	0.19
14-Sep-16	GRAB	13799 Commerce Pkwy.	14-Sep-16	1	<1	<2	16	<1	0.46
14-Sep-16	GRAB	6651 Fraserwood Place	14-Sep-16	0.86	<1	<2	18	<1	0.25
14-Sep-16	GRAB	Opp. 20371 Westminster Hwy.	14-Sep-16	1.1	<1	<2	17	<1	0.31
14-Sep-16	GRAB	9911 Sidaway Rd.	14-Sep-16	0.86	<1	<2	16	<1	0.25
14-Sep-16	GRAB	11111 Horseshoe Way	14-Sep-16	0.69	<1	<2	17	<1	0.19
14-Sep-16	GRAB	10020 Amethyst Ave.	14-Sep-16	0.71	<1	<2	17	<1	0.14
14-Sep-16	GRAB	9380 General Currie Rd.	14-Sep-16	0.75	<1	<2	17	<1	0.19
14-Sep-16	GRAB	13800 No. 3 Rd. (off Garden City)	14-Sep-16	0.75	<1	<2	18	<1	0.16
14-Sep-16	GRAB	7000 Blk. Dyke Rd.	14-Sep-16	0.61	<1	<2	17	<1	0.16
14-Sep-16	GRAB	6640 Blundell Rd.	14-Sep-16	0.67	<1	<2	16	<1	0.21
15-Sep-16	GRAB	3180 Granville Ave.	15-Sep-16	0.83	<1	<2	17	<1	3.8
15-Sep-16	GRAB	4251 Moncton St.	15-Sep-16	0.79	<1	<2	17	<1	0.36

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
15-Sep-16	GRAB	11080 No. 2 Rd.	15-Sep-16	0.88	<1	<2	16	<1	0.33
15-Sep-16	GRAB	11500 McKenzie Rd.	15-Sep-16	0.69	<1	4	17	<1	0.12
15-Sep-16	GRAB	Opp. 8600 Ryan Rd.	15-Sep-16	0.82	<1	<2	16	<1	0.24
15-Sep-16	GRAB	13200 No. 4 Rd.	15-Sep-16	0.91	<1	<2	17	<1	0.23
15-Sep-16	GRAB	13851 Steveston Hwy.	15-Sep-16	1	<1	2	16	<1	0.36
15-Sep-16	GRAB	1500 Valemont Way	15-Sep-16	0.92	<1	<2	16	<1	0.33
15-Sep-16	GRAB	11720 Westminster Hwy.	15-Sep-16	0.96	<1	<2	17	<1	0.19
15-Sep-16	GRAB	17240 Fedoruk	15-Sep-16	0.82	<1	<2	18	<1	0.23
15-Sep-16	GRAB	23000 Blk. Dyke Rd.	15-Sep-16	0.96	<1	<2	17	<1	0.27
15-Sep-16	GRAB	22271 Cochrane Drive	15-Sep-16	1.02	<1	<2	17	<1	0.24
15-Sep-16	GRAB	5180 Smith Cres.	15-Sep-16	0.99	<1	<2	17	<1	0.2
15-Sep-16	GRAB	23260 Westminster Hwy.	15-Sep-16	0.99	<1	<2	17	<1	0.2
19-Sep-16	GRAB	5951 McCallan Rd.	19-Sep-16	0.76	<1	<2	17	<1	0.11
19-Sep-16	GRAB	Opp. 8331 Fairfax Place	19-Sep-16	0.61	<1	<2	18	<1	0.18
19-Sep-16	GRAB	9751 Pendleton Rd.	19-Sep-16	0.62	<1	<2	18	<1	0.09
19-Sep-16	GRAB	10920 Springwood Court	19-Sep-16	0.52	<1	2	20	<1	0.17
19-Sep-16	GRAB	11051 No 3 Rd.	19-Sep-16	0.68	<1	<2	17	<1	0.14
19-Sep-16	GRAB	14951 Triangle Rd.	19-Sep-16	1.05	<1	2	16	<1	0.26
19-Sep-16	GRAB	5300 No. 3 Rd.	19-Sep-16	0.77	<1	<2	18	<1	0.38
19-Sep-16	GRAB	8200 Jones Rd.	19-Sep-16	0.75	<1	<2	17	<1	0.11
19-Sep-16	GRAB	6071 Azure Rd.	19-Sep-16	0.55	<1	<2	17	<1	0.12
19-Sep-16	GRAB	6000 Blk. Miller Rd.	19-Sep-16	0.76	<1	4	17	<1	0.28
19-Sep-16	GRAB	1000 Blk. McDonald Rd.	19-Sep-16	0.4	<1	<2	18	<1	0.18
21-Sep-16	GRAB	12560 Cambie Rd.	21-Sep-16	0.86	<1	<2	16	<1	0.16
21-Sep-16	GRAB	13100 Mitchell Rd.	21-Sep-16	0.79	<1	<2	17	<1	0.17
21-Sep-16	GRAB	Opp. 11280 Twigg Place	21-Sep-16	0.74	<1	<2	17	<1	0.17
21-Sep-16	GRAB	13799 Commerce Pkwy.	21-Sep-16	0.98	<1	<2	16	<1	0.25
21-Sep-16	GRAB	6651 Fraserwood Place	21-Sep-16	0.78	<1	<2	17	<1	0.25
21-Sep-16	GRAB	Opp. 20371 Westminster Hwy.	21-Sep-16	0.9	<1	<2	16	<1	0.21
21-Sep-16	GRAB	9911 Sidaway Rd.	21-Sep-16	0.99	<1	<2	17	<1	0.26
21-Sep-16	GRAB	11111 Horseshoe Way	21-Sep-16	0.71	<1	2	16	<1	0.15
21-Sep-16	GRAB	10020 Amethyst Ave.	21-Sep-16	0.76	<1	<2	17	<1	0.15
21-Sep-16	GRAB	9380 General Currie Rd.	21-Sep-16	0.78	<1	<2	17	<1	0.12
21-Sep-16	GRAB	13800 No. 3 Rd. (off Garden City)	21-Sep-16	0.71	<1	<2	17	<1	0.18
21-Sep-16	GRAB	7000 Blk. Dyke Rd.	21-Sep-16	0.75	<1	<2	17	<1	0.11
21-Sep-16	GRAB	6640 Blundell Rd.	21-Sep-16	0.73	<1	2	17	<1	0.13
23-Sep-16	GRAB	3180 Granville Ave.	23-Sep-16	0.58	<1	<2	16	<1	0.16
23-Sep-16	GRAB	4251 Moncton St.	23-Sep-16	0.74	<1	<2	16	<1	0.17
23-Sep-16	GRAB	11080 No. 2 Rd.	23-Sep-16	0.88	<1	<2	15	<1	0.16
23-Sep-16	GRAB	11500 McKenzie Rd.	23-Sep-16	0.87	<1	<2	16	<1	0.14

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
23-Sep-16	GRAB	Opp. 8600 Ryan Rd.	23-Sep-16	0.72	<1	<2	16	<1	0.12
23-Sep-16	GRAB	13200 No. 4 Rd.	23-Sep-16	0.82	<1	<2	15	<1	0.18
23-Sep-16	GRAB	13851 Steveston Hwy.	23-Sep-16	0.72	<1	<2	15	<1	0.28
23-Sep-16	GRAB	1500 Valemont Way	23-Sep-16	0.93	<1	<2	15	<1	0.13
23-Sep-16	GRAB	11720 Westminster Hwy.	23-Sep-16	0.73	<1	<2	15	<1	0.17
23-Sep-16	GRAB	17240 Fedoruk	23-Sep-16	0.68	<1	<2	17	<1	0.22
23-Sep-16	GRAB	23000 Blk. Dyke Rd.	23-Sep-16	0.89	<1	<2	15	<1	0.23
23-Sep-16	GRAB	22271 Cochrane Drive	23-Sep-16	0.89	<1	<2	15	<1	0.27
23-Sep-16	GRAB	5180 Smith Cres.	23-Sep-16	0.67	<1	<2	16	<1	0.2
23-Sep-16	GRAB	23260 Westminster Hwy.	23-Sep-16	0.85	<1	<2	15	<1	0.2
26-Sep-16	GRAB	5951 McCallan Rd.	26-Sep-16	0.57	<1	<2	14	<1	0.12
26-Sep-16	GRAB	Opp. 8331 Fairfax Place	26-Sep-16	0.42	<1	4	17	<1	0.39
26-Sep-16	GRAB	9751 Pendleton Rd.	26-Sep-16	0.56	<1	<2	15	<1	0.12
26-Sep-16	GRAB	10920 Springwood Court	26-Sep-16	0.47	<1	<2	16	<1	0.11
26-Sep-16	GRAB	11051 No 3 Rd.	26-Sep-16	0.44	<1	<2	14	<1	0.14
26-Sep-16	GRAB	14951 Triangle Rd.	26-Sep-16	0.59	<1	<2	15	<1	0.25
26-Sep-16	GRAB	5300 No. 3 Rd.	26-Sep-16	0.55	<1	<2	15	<1	0.15
26-Sep-16	GRAB	8200 Jones Rd.	26-Sep-16	0.47	<1	<2	16	<1	0.21
26-Sep-16	GRAB	6071 Azure Rd.	26-Sep-16	0.68	<1	<2	16	<1	0.39
26-Sep-16	GRAB	3800 Cessna Drive	26-Sep-16	0.52	<1	<2	16	<1	0.11
26-Sep-16	GRAB	751 Catalina Cres.	26-Sep-16	0.85	<1	<2	14	<1	0.2
26-Sep-16	GRAB	6000 Blk. Miller Rd.	26-Sep-16	0.68	<1	<2	15	<1	0.14
26-Sep-16	GRAB	1000 Blk. McDonald Rd.	26-Sep-16	0.39	<1	<2	15	<1	0.85
28-Sep-16	GRAB	12560 Cambie Rd.	28-Sep-16	0.6	<1	2	14	<1	0.24
28-Sep-16	GRAB	13100 Mitchell Rd.	28-Sep-16	0.59	<1	<2	14	<1	0.51
28-Sep-16	GRAB	Opp. 11280 Twigg Place	28-Sep-16	0.61	<1	<2	14	<1	0.13
28-Sep-16	GRAB	13799 Commerce Pkwy.	28-Sep-16	0.89	<1	<2	15	<1	0.22
28-Sep-16	GRAB	6651 Fraserwood Place	28-Sep-16	0.72	<1	<2	15	<1	0.2
28-Sep-16	GRAB	Opp. 20371 Westminster Hwy.	28-Sep-16	0.74	<1	<2	14	<1	0.19
28-Sep-16	GRAB	9911 Sidaway Rd.	28-Sep-16	0.72	<1	<2	14	<1	0.2
28-Sep-16	GRAB	11111 Horseshoe Way	28-Sep-16	0.63	<1	<2	15	<1	0.2
28-Sep-16	GRAB	10020 Amethyst Ave.	28-Sep-16	0.63	<1	<2	15	<1	0.2
28-Sep-16	GRAB	9380 General Currie Rd.	28-Sep-16	0.65	<1	<2	15	<1	0.21
28-Sep-16	GRAB	13800 No. 3 Rd. (off Garden City)	28-Sep-16	0.64	<1	<2	15	<1	0.54
28-Sep-16	GRAB	7000 Blk. Dyke Rd.	28-Sep-16	0.65	<1	6	15	<1	0.19
28-Sep-16	GRAB	6640 Blundell Rd.	28-Sep-16	0.64	<1	<2	14	<1	0.12
29-Sep-16	GRAB	3180 Granville Ave.	29-Sep-16	0.87	<1	<2	14	<1	0.16
29-Sep-16	GRAB	4251 Moncton St.	29-Sep-16	0.59	<1	<2	14	<1	0.17
29-Sep-16	GRAB	11080 No. 2 Rd.	29-Sep-16	0.71	<1	<2	14	<1	0.13
29-Sep-16	GRAB	11500 McKenzie Rd.	29-Sep-16	0.35	<1	<2	15	<1	0.15

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
29-Sep-16	GRAB	Opp. 8600 Ryan Rd.	29-Sep-16	0.52	<1	<2	14	<1	0.23
29-Sep-16	GRAB	13200 No. 4 Rd.	29-Sep-16	0.6	<1	4	15	<1	0.11
29-Sep-16	GRAB	13851 Steveston Hwy.	29-Sep-16	0.8	<1	<2	14	<1	0.13
29-Sep-16	GRAB	1500 Valemont Way	29-Sep-16	0.78	<1	6	13	<1	0.16
29-Sep-16	GRAB	11720 Westminster Hwy.	29-Sep-16	0.73	<1	2	13	<1	0.15
29-Sep-16	GRAB	17240 Fedoruk	29-Sep-16	0.5	<1	<2	14	<1	0.12
29-Sep-16	GRAB	23000 Blk. Dyke Rd.	29-Sep-16	0.57	<1	<2	13	<1	0.13
29-Sep-16	GRAB	22271 Cochrane Drive	29-Sep-16	0.74	<1	<2	14	<1	0.14
29-Sep-16	GRAB	5180 Smith Cres.	29-Sep-16	0.62	<1	<2	15	<1	0.16
29-Sep-16	GRAB	23260 Westminster Hwy.	29-Sep-16	0.62	<1	<2	14	<1	0.14
3-Oct-16	GRAB	5951 McCallan Rd.	3-Oct-16	0.68	<1	<2	13	<1	0.37
3-Oct-16	GRAB	Opp. 8331 Fairfax Place	3-Oct-16	0.56	<1	<2	16	<1	0.46
3-Oct-16	GRAB	9751 Pendleton Rd.	3-Oct-16	0.48	<1	<2	14	<1	0.13
3-Oct-16	GRAB	10920 Springwood Court	3-Oct-16	0.45	<1	<2	15	<1	0.12
3-Oct-16	GRAB	11051 No 3 Rd.	3-Oct-16	0.68	<1	<2	13	<1	0.23
3-Oct-16	GRAB	14951 Triangle Rd.	3-Oct-16	0.8	<1	<2	14	<1	0.21
3-Oct-16	GRAB	5300 No. 3 Rd.	3-Oct-16	0.69	<1	<2	15	<1	0.27
3-Oct-16	GRAB	8200 Jones Rd.	3-Oct-16	0.65	<1	<2	14	<1	0.72
3-Oct-16	GRAB	6071 Azure Rd.	3-Oct-16	0.71	<1	<2	14	<1	0.39
3-Oct-16	GRAB	3800 Cessna Drive	3-Oct-16	0.73	<1	<2	14	<1	0.14
3-Oct-16	GRAB	751 Catalina Cres.	3-Oct-16	0.85	<1	<2	13	<1	0.13
3-Oct-16	GRAB	6000 Blk. Miller Rd.	3-Oct-16	0.77	<1	<2	13	<1	0.16
3-Oct-16	GRAB	1000 Blk. McDonald Rd.	3-Oct-16	0.65	<1	<2	15	<1	1.3
5-Oct-16	GRAB	12560 Cambie Rd.	5-Oct-16	0.64	<1	<2	15	<1	0.14
5-Oct-16	GRAB	13100 Mitchell Rd.	5-Oct-16	0.62	<1	<2	15	<1	0.12
5-Oct-16	GRAB	Opp. 11280 Twigg Place	5-Oct-16	0.7	<1	<2	16	<1	0.23
5-Oct-16	GRAB	13799 Commerce Pkwy.	5-Oct-16	0.8	<1	<2	15	<1	0.15
5-Oct-16	GRAB	6651 Fraserwood Place	5-Oct-16	0.71	<1	<2	15	<1	0.17
5-Oct-16	GRAB	Opp. 20371 Westminster Hwy.	5-Oct-16	0.92	<1	<2	15	<1	0.16
5-Oct-16	GRAB	9911 Sidaway Rd.	5-Oct-16	0.73	<1	<2	15	<1	0.15
5-Oct-16	GRAB	11111 Horseshoe Way	5-Oct-16	0.66	<1	<2	15	<1	0.19
5-Oct-16	GRAB	10020 Amethyst Ave.	5-Oct-16	0.69	<1	<2	15	<1	0.1
5-Oct-16	GRAB	9380 General Currie Rd.	5-Oct-16	0.81	<1	<2	15	<1	0.11
5-Oct-16	GRAB	13800 No. 3 Rd. (off Garden City)	5-Oct-16	0.74	<1	4	16	<1	0.83
5-Oct-16	GRAB	7000 Blk. Dyke Rd.	5-Oct-16	0.81	<1	16	15	<1	0.11
5-Oct-16	GRAB	6640 Blundell Rd.	5-Oct-16	0.7	<1	<2	15	<1	0.22
7-Oct-16	GRAB	3180 Granville Ave.	7-Oct-16	0.63	<1	<2	14	<1	0.11
7-Oct-16	GRAB	4251 Moncton St.	7-Oct-16	0.71	<1	<2	16	<1	0.12
7-Oct-16	GRAB	11080 No. 2 Rd.	7-Oct-16	0.67	<1	8	15	<1	0.11
7-Oct-16	GRAB	11500 McKenzie Rd.	7-Oct-16	0.36	<1	36	15	<1	0.25

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
7-Oct-16	GRAB	Opp. 8600 Ryan Rd.	7-Oct-16	0.72	<1	<2	14	<1	0.1
7-Oct-16	GRAB	13200 No. 4 Rd.	7-Oct-16	0.68	<1	4	16	<1	0.11
7-Oct-16	GRAB	13851 Steveston Hwy.	7-Oct-16	0.68	<1	<2	15	<1	0.2
7-Oct-16	GRAB	1500 Valemont Way	7-Oct-16	0.7	<1	<2	15	<1	0.15
7-Oct-16	GRAB	11720 Westminster Hwy.	7-Oct-16	0.67	<1	<2	15	<1	0.17
7-Oct-16	GRAB	17240 Fedoruk	7-Oct-16	0.71	<1	<2	16	<1	0.15
7-Oct-16	GRAB	23000 Blk. Dyke Rd.	7-Oct-16	0.68	<1	<2	16	<1	0.23
7-Oct-16	GRAB	22271 Cochrane Drive	7-Oct-16	0.74	<1	<2	15	<1	0.15
7-Oct-16	GRAB	5180 Smith Cres.	7-Oct-16	0.66	<1	<2	16	<1	0.22
7-Oct-16	GRAB	23260 Westminster Hwy.	7-Oct-16	0.71	<1	<2	15	<1	0.17
11-Oct-16	GRAB	5951 McCallan Rd.	11-Oct-16	0.61	<1	4	15	<1	0.18
11-Oct-16	GRAB	Opp. 8331 Fairfax Place	11-Oct-16	0.46	<1	<2	14	<1	0.2
11-Oct-16	GRAB	9751 Pendleton Rd.	11-Oct-16	0.53	<1	<2	12	<1	0.22
11-Oct-16	GRAB	10920 Springwood Court	11-Oct-16	0.55	<1	<2	14	<1	0.16
11-Oct-16	GRAB	11051 No 3 Rd.	11-Oct-16	0.79	<1	2	15	<1	0.19
11-Oct-16	GRAB	14951 Triangle Rd.	11-Oct-16	0.67	<1	<2	13	<1	0.2
11-Oct-16	GRAB	5300 No. 3 Rd.	11-Oct-16	0.72	<1	<2	13	<1	0.29
11-Oct-16	GRAB	8200 Jones Rd.	11-Oct-16	0.7	<1	<2	13	<1	0.16
11-Oct-16	GRAB	6071 Azure Rd.	11-Oct-16	0.63	<1	2	13	<1	0.12
11-Oct-16	GRAB	3800 Cessna Drive	11-Oct-16	0.54	<1	<2	14	<1	0.22
11-Oct-16	GRAB	751 Catalina Cres.	11-Oct-16	0.62	<1	<2	12	<1	0.15
11-Oct-16	GRAB	6000 Blk. Miller Rd.	11-Oct-16	0.75	<1	2	12	<1	0.29
11-Oct-16	GRAB	1000 Blk. McDonald Rd.	11-Oct-16	0.51	<1	2	14	<1	0.41
12-Oct-16	GRAB	12560 Cambie Rd.	12-Oct-16	0.66	<1	<2	12	<1	0.18
12-Oct-16	GRAB	13100 Mitchell Rd.	12-Oct-16	0.7	<1	ading err	13	<1	0.2
12-Oct-16	GRAB	Opp. 11280 Twigg Place	12-Oct-16	0.68	<1	<2	14	<1	0.17
12-Oct-16	GRAB	13799 Commerce Pkwy.	12-Oct-16	0.71	<1	10	13	<1	0.22
12-Oct-16	GRAB	6651 Fraserwood Place	12-Oct-16	0.68	<1	<2	14	<1	0.21
12-Oct-16	GRAB	Opp. 20371 Westminster Hwy.	12-Oct-16	0.8	<1	<2	13	<1	0.17
12-Oct-16	GRAB	9911 Sidaway Rd.	12-Oct-16	0.6	<1	<2	14	<1	0.14
12-Oct-16	GRAB	11111 Horseshoe Way	12-Oct-16	0.61	<1	<2	14	<1	0.14
12-Oct-16	GRAB	10020 Amethyst Ave.	12-Oct-16	0.67	<1	<2	14	<1	0.12
12-Oct-16	GRAB	9380 General Currie Rd.	12-Oct-16	0.64	<1	<2	14	<1	0.14
12-Oct-16	GRAB	13800 No. 3 Rd. (off Garden City)	12-Oct-16	0.64	<1	<2	14	<1	0.51
12-Oct-16	GRAB	7000 Blk. Dyke Rd.	12-Oct-16	0.59	<1	14	14	<1	0.16
12-Oct-16	GRAB	6640 Blundell Rd.	12-Oct-16	0.69	<1	<2	14	<1	0.15
13-Oct-16	GRAB	3180 Granville Ave.	13-Oct-16	0.58	<1	2	12	<1	0.11
13-Oct-16	GRAB	4251 Moncton St.	13-Oct-16	0.56	<1	<2	12	<1	0.13
13-Oct-16	GRAB	11080 No. 2 Rd.	13-Oct-16	0.62	<1	2	13	<1	0.14
13-Oct-16	GRAB	11500 McKenzie Rd.	13-Oct-16	0.41	<1	4	14	<1	0.13

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
13-Oct-16	GRAB	Opp. 8600 Ryan Rd.	13-Oct-16	0.67	<1	2	12	<1	0.12
13-Oct-16	GRAB	13200 No. 4 Rd.	13-Oct-16	0.64	<1	<2	12	<1	0.12
13-Oct-16	GRAB	13851 Steveston Hwy.	13-Oct-16	0.59	<1	<2	13	<1	0.16
13-Oct-16	GRAB	1500 Valemont Way	13-Oct-16	0.58	<1	<2	13	<1	0.15
13-Oct-16	GRAB	11720 Westminster Hwy.	13-Oct-16	0.79	<1	<2	12	<1	0.19
13-Oct-16	GRAB	17240 Fedoruk	13-Oct-16	0.78	<1	<2	13	<1	0.17
13-Oct-16	GRAB	23000 Blk. Dyke Rd.	13-Oct-16	0.74	<1	2	13	<1	0.17
13-Oct-16	GRAB	22271 Cochrane Drive	13-Oct-16	0.61	<1	<2	14	<1	0.17
13-Oct-16	GRAB	5180 Smith Cres.	13-Oct-16	0.64	<1	<2	13	<1	0.22
13-Oct-16	GRAB	23260 Westminster Hwy.	13-Oct-16	0.63	<1	<2	13	<1	0.14
17-Oct-16	GRAB	5951 McCallan Rd.	17-Oct-16	0.63	<1	<2	10	<1	0.11
17-Oct-16	GRAB	Opp. 8331 Fairfax Place	17-Oct-16	0.39	<1	2	14	<1	0.11
17-Oct-16	GRAB	9751 Pendleton Rd.	17-Oct-16	0.43	<1	<2	13	<1	0.17
17-Oct-16	GRAB	10920 Springwood Court	17-Oct-16	0.48	<1	<2	15	<1	0.1
17-Oct-16	GRAB	11051 No 3 Rd.	17-Oct-16	0.74	<1	<2	11	<1	0.1
17-Oct-16	GRAB	14951 Triangle Rd.	17-Oct-16	0.75	<1	2	12	<1	0.15
17-Oct-16	GRAB	8200 Jones Rd.	17-Oct-16	0.55	<1	2	13	<1	0.11
17-Oct-16	GRAB	5300 No. 3 Rd.	17-Oct-16	0.66	<1	<2	13	<1	0.16
17-Oct-16	GRAB	1000 Blk. McDonald Rd.	17-Oct-16	0.4	<1	<2	12	<1	1.4
17-Oct-16	GRAB	6000 Blk. Miller Rd.	17-Oct-16	0.77	<1	<2	12	<1	0.18
17-Oct-16	GRAB	3800 Cessna Drive	17-Oct-16	0.7	<1	<2	12	<1	0.11
17-Oct-16	GRAB	751 Catalina Cres.	17-Oct-16	0.77	<1	<2	12	<1	0.12
17-Oct-16	GRAB	6071 Azure Rd.	17-Oct-16	0.68	<1	2	12	<1	0.14
19-Oct-16	GRAB	6640 Blundell Rd.	19-Oct-16	0.73	<1	<2	11	<1	0.12
19-Oct-16	GRAB	7000 Blk. Dyke Rd.	19-Oct-16	0.59	<1	12	11	<1	0.12
19-Oct-16	GRAB	13800 No. 3 Rd. (off Garden City)	19-Oct-16	0.55	<1	<2	12	<1	0.12
19-Oct-16	GRAB	9380 General Currie Rd.	19-Oct-16	0.73	<1	<2	11	<1	0.13
19-Oct-16	GRAB	10020 Amethyst Ave.	19-Oct-16	0.61	<1	<2	12	<1	0.12
19-Oct-16	GRAB	11111 Horseshoe Way	19-Oct-16	0.64	<1	<2	13	<1	0.1
19-Oct-16	GRAB	9911 Sidaway Rd.	19-Oct-16	0.72	<1	<2	11	<1	0.1
19-Oct-16	GRAB	12560 Cambie Rd.	19-Oct-16	0.66	<1	<2	11	<1	0.12
19-Oct-16	GRAB	13100 Mitchell Rd.	19-Oct-16	0.62	<1	<2	11	<1	0.12
19-Oct-16	GRAB	Opp. 11280 Twigg Place	19-Oct-16	0.71	<1	<2	11	<1	0.39
19-Oct-16	GRAB	13799 Commerce Pkwy.	19-Oct-16	0.63	<1	<2	11	<1	0.21
19-Oct-16	GRAB	Opp. 20371 Westminster Hwy.	19-Oct-16	0.68	<1	<2	11	<1	0.17
19-Oct-16	GRAB	6651 Fraserwood Place	19-Oct-16	0.68	<1	2	12	<1	0.36
21-Oct-16	GRAB	3180 Granville Ave.	21-Oct-16	0.48	<1	<2	11	<1	0.13
21-Oct-16	GRAB	4251 Moncton St.	21-Oct-16	0.64	<1	<2	11	<1	0.12
21-Oct-16	GRAB	11080 No. 2 Rd.	21-Oct-16	0.67	<1	<2	11	<1	0.11
21-Oct-16	GRAB	11500 McKenzie Rd.	21-Oct-16	0.46	<1	<2	12	<1	0.13

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
21-Oct-16	GRAB	Opp. 8600 Ryan Rd.	21-Oct-16	0.56	<1	<2	11	<1	0.12
21-Oct-16	GRAB	13200 No. 4 Rd.	21-Oct-16	0.49	<1	<2	12	<1	0.11
21-Oct-16	GRAB	13851 Steveston Hwy.	21-Oct-16	0.51	<1	<2	11	<1	0.14
21-Oct-16	GRAB	1500 Valemont Way	21-Oct-16	0.59	<1	<2	11	<1	0.15
21-Oct-16	GRAB	11720 Westminster Hwy.	21-Oct-16	0.74	<1	<2	11	<1	0.16
21-Oct-16	GRAB	17240 Fedoruk	21-Oct-16	0.56	<1	<2	11	<1	0.11
21-Oct-16	GRAB	23000 Blk. Dyke Rd.	21-Oct-16	0.57	<1	<2	11	<1	0.16
21-Oct-16	GRAB	22271 Cochrane Drive	21-Oct-16	0.53	<1	<2	11	<1	0.14
21-Oct-16	GRAB	5180 Smith Cres.	21-Oct-16	0.58	<1	<2	11	<1	0.14
21-Oct-16	GRAB	23260 Westminster Hwy.	21-Oct-16	0.57	<1	<2	11	<1	0.15
24-Oct-16	GRAB	5951 McCallan Rd.	24-Oct-16	0.56	<1	<2	11	<1	0.15
24-Oct-16	GRAB	Opp. 8331 Fairfax Place	24-Oct-16	0.61	<1	<2	13	<1	0.19
24-Oct-16	GRAB	9751 Pendleton Rd.	24-Oct-16	0.51	<1	2	13	<1	0.17
24-Oct-16	GRAB	10920 Springwood Court	24-Oct-16	0.7	<1	<2	12	<1	0.14
24-Oct-16	GRAB	11051 No 3 Rd.	24-Oct-16	0.64	<1	4	10	<1	0.12
24-Oct-16	GRAB	14951 Triangle Rd.	24-Oct-16	0.64	<1	<2	10	<1	0.13
24-Oct-16	GRAB	5300 No. 3 Rd.	24-Oct-16	0.62	<1	<2	13	<1	0.13
24-Oct-16	GRAB	8200 Jones Rd.	24-Oct-16	0.69	<1	<2	11	<1	0.17
24-Oct-16	GRAB	6071 Azure Rd.	24-Oct-16	0.73	<1	<2	11	<1	0.15
24-Oct-16	GRAB	3800 Cessna Drive	24-Oct-16	0.71	<1	<2	12	<1	0.14
24-Oct-16	GRAB	751 Catalina Cres.	24-Oct-16	0.73	<1	<2	10	<1	0.2
24-Oct-16	GRAB	6000 Blk. Miller Rd.	24-Oct-16	0.7	<1	<2	12	<1	0.19
24-Oct-16	GRAB	1000 Blk. McDonald Rd.	24-Oct-16	0.35	<1	<2	10	<1	0.63
26-Oct-16	GRAB	12560 Cambie Rd.	26-Oct-16	0.42	<1	<2	12	<1	0.17
26-Oct-16	GRAB	13100 Mitchell Rd.	26-Oct-16	0.72	<1	2	12	<1	0.23
26-Oct-16	GRAB	Opp. 11280 Twigg Place	26-Oct-16	0.7	<1	<2	12	<1	0.32
26-Oct-16	GRAB	13799 Commerce Pkwy.	26-Oct-16	0.61	<1	<2	12	<1	0.15
26-Oct-16	GRAB	Opp. 20371 Westminster Hwy.	26-Oct-16	0.64	<1	<2	11	<1	0.14
26-Oct-16	GRAB	9911 Sidaway Rd.	26-Oct-16	0.6	<1	<2	11	<1	0.2
26-Oct-16	GRAB	6651 Fraserwood Place	26-Oct-16	0.59	<1	<2	12	<1	0.1
26-Oct-16	GRAB	11111 Horseshoe Way	26-Oct-16	0.66	<1	<2	11	<1	0.15
26-Oct-16	GRAB	10020 Amethyst Ave.	26-Oct-16	0.59	<1	<2	11	<1	0.11
26-Oct-16	GRAB	9380 General Currie Rd.	26-Oct-16	0.93	<1	<2	10	<1	0.27
26-Oct-16	GRAB	13800 No. 3 Rd. (off Garden City)	26-Oct-16	0.62	<1	<2	10	<1	0.41
26-Oct-16	GRAB	7000 Blk. Dyke Rd.	26-Oct-16	0.7	<1	6	12	<1	0.22
26-Oct-16	GRAB	6640 Blundell Rd.	26-Oct-16	0.78	<1	<2	10	<1	0.2
27-Oct-16	GRAB	3180 Granville Ave.	27-Oct-16	0.8	<1	2	12	<1	0.16
27-Oct-16	GRAB	4251 Moncton St.	27-Oct-16	0.86	<1	<2	12	<1	0.2
27-Oct-16	GRAB	11080 No. 2 Rd.	27-Oct-16	0.9	<1	<2	12	<1	0.15
27-Oct-16	GRAB	11500 McKenzie Rd.	27-Oct-16	0.42	<1	<2	12	<1	0.16

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
27-Oct-16	GRAB	Opp. 8600 Ryan Rd.	27-Oct-16	0.71	<1	<2	12	<1	0.14
27-Oct-16	GRAB	13200 No. 4 Rd.	27-Oct-16	0.64	<1	32	12	<1	0.13
27-Oct-16	GRAB	13851 Steveston Hwy.	27-Oct-16	0.7	<1	<2	11	<1	0.15
27-Oct-16	GRAB	1500 Valemont Way	27-Oct-16	0.63	<1	<2	11	<1	0.26
27-Oct-16	GRAB	11720 Westminster Hwy.	27-Oct-16	0.92	<1	<2	10	<1	0.15
27-Oct-16	GRAB	17240 Fedoruk	27-Oct-16	0.63	<1	<2	10	<1	0.11
27-Oct-16	GRAB	23000 Blk. Dyke Rd.	27-Oct-16	0.59	<1	<2	12	<1	0.11
27-Oct-16	GRAB	22271 Cochrane Drive	27-Oct-16	0.62	<1	<2	12	<1	0.12
27-Oct-16	GRAB	5180 Smith Cres.	27-Oct-16	0.65	<1	<2	11	<1	0.16
27-Oct-16	GRAB	23260 Westminster Hwy.	27-Oct-16	0.69	<1	<2	11	<1	0.12
31-Oct-16	GRAB	5951 McCallan Rd.	31-Oct-16	0.7	<1	2	8	<1	0.13
31-Oct-16	GRAB	Opp. 8331 Fairfax Place	31-Oct-16	0.62	<1	<2	12	<1	0.29
31-Oct-16	GRAB	9751 Pendleton Rd.	31-Oct-16	0.73	<1	<2	10	<1	0.12
31-Oct-16	GRAB	10920 Springwood Court	31-Oct-16	0.7	<1	<2	10	<1	0.18
31-Oct-16	GRAB	11051 No 3 Rd.	31-Oct-16	0.77	<1	<2	9	<1	0.1
31-Oct-16	GRAB	14951 Triangle Rd.	31-Oct-16	0.68	<1	<2	10	<1	0.08
31-Oct-16	GRAB	5300 No. 3 Rd.	31-Oct-16	0.78	<1	<2	10	<1	0.12
31-Oct-16	GRAB	8200 Jones Rd.	31-Oct-16	0.77	<1	4	10	<1	0.13
31-Oct-16	GRAB	3800 Cessna Drive	31-Oct-16	0.86	<1	<2	10	<1	0.1
31-Oct-16	GRAB	751 Catalina Cres.	31-Oct-16	0.92	<1	<2	10	<1	0.1
31-Oct-16	GRAB	6000 Blk. Miller Rd.	31-Oct-16	0.98	<1	<2	9	<1	0.16
31-Oct-16	GRAB	1000 Blk. McDonald Rd.	31-Oct-16	0.58	<1	<2	9	<1	0.3
31-Oct-16	GRAB	6071 Azure Rd.	31-Oct-16	0.79	<1	<2	9	<1	0.13
2-Nov-16	GRAB	12560 Cambie Rd.	2-Nov-16	0.86	<1	4	9	<1	0.26
2-Nov-16	GRAB	13100 Mitchell Rd.	2-Nov-16	0.98	<1	<2	10	<1	0.2
2-Nov-16	GRAB	Opp. 11280 Twigg Place	2-Nov-16	0.89	<1	<2	9	<1	0.18
2-Nov-16	GRAB	13799 Commerce Pkwy.	2-Nov-16	0.73	<1	<2	10	<1	0.14
2-Nov-16	GRAB	6651 Fraserwood Place	2-Nov-16	0.75	<1	4	11	<1	0.09
2-Nov-16	GRAB	Opp. 20371 Westminster Hwy.	2-Nov-16	0.76	<1	<2	11	<1	0.07
2-Nov-16	GRAB	9911 Sidaway Rd.	2-Nov-16	0.83	<1	<2	11	<1	0.09
2-Nov-16	GRAB	11111 Horseshoe Way	2-Nov-16	0.69	<1	<2	11	<1	0.14
2-Nov-16	GRAB	10020 Amethyst Ave.	2-Nov-16	0.83	<1	<2	11	<1	0.14
2-Nov-16	GRAB	9380 General Currie Rd.	2-Nov-16	0.97	<1	<2	10	<1	0.15
2-Nov-16	GRAB	13800 No. 3 Rd. (off Garden City)	2-Nov-16	0.79	<1	<2	11	<1	0.15
2-Nov-16	GRAB	7000 Blk. Dyke Rd.	2-Nov-16	0.84	<1	2	11	<1	0.11
2-Nov-16	GRAB	6640 Blundell Rd.	2-Nov-16	0.8	<1	<2	10	<1	0.13
4-Nov-16	GRAB	3180 Granville Ave.	4-Nov-16	0.67	<1	<2	9	<1	0.08
4-Nov-16	GRAB	4251 Moncton St.	4-Nov-16	0.79	<1	2	9	<1	0.08
4-Nov-16	GRAB	11080 No. 2 Rd.	4-Nov-16	0.82	<1	<2	10	<1	0.07
4-Nov-16	GRAB	11500 McKenzie Rd.	4-Nov-16	0.74	<1	12	12	<1	0.09

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
4-Nov-16	GRAB	Opp. 8600 Ryan Rd.	4-Nov-16	0.9	<1	<2	11	<1	0.1
4-Nov-16	GRAB	13200 No. 4 Rd.	4-Nov-16	0.8	<1	<2	12	<1	0.09
4-Nov-16	GRAB	13851 Steveston Hwy.	4-Nov-16	0.66	<1	<2	10	<1	0.07
4-Nov-16	GRAB	1500 Valemont Way	4-Nov-16	0.7	<1	<2	10	<1	0.09
4-Nov-16	GRAB	11720 Westminster Hwy.	4-Nov-16	1.07	<1	<2	10	<1	0.09
4-Nov-16	GRAB	17240 Fedoruk	4-Nov-16	0.76	<1	<2	12	<1	0.08
4-Nov-16	GRAB	23000 Blk. Dyke Rd.	4-Nov-16	0.68	<1	<2	11	<1	0.07
4-Nov-16	GRAB	22271 Cochrane Drive	4-Nov-16	0.69	<1	<2	10	<1	0.08
4-Nov-16	GRAB	5180 Smith Cres.	4-Nov-16	0.65	<1	<2	12	<1	0.14
4-Nov-16	GRAB	23260 Westminster Hwy.	4-Nov-16	0.7	<1	<2	11	<1	0.09
7-Nov-16	GRAB	5951 McCallan Rd.	7-Nov-16	0.74	<1	2	9	<1	0.59
7-Nov-16	GRAB	Opp. 8331 Fairfax Place	7-Nov-16	0.66	<1	<2	13	<1	0.35
7-Nov-16	GRAB	9751 Pendleton Rd.	7-Nov-16	0.72	<1	<2	10	<1	0.25
7-Nov-16	GRAB	10920 Springwood Court	7-Nov-16	0.84	<1	<2	12	<1	0.25
7-Nov-16	GRAB	11051 No 3 Rd.	7-Nov-16	0.93	<1	<2	10	<1	0.43
7-Nov-16	GRAB	14951 Triangle Rd.	7-Nov-16	0.71	<1	<2	9	<1	0.38
7-Nov-16	GRAB	8200 Jones Rd.	7-Nov-16	0.74	<1	2	10	<1	0.12
7-Nov-16	GRAB	5300 No. 3 Rd.	7-Nov-16	0.82	<1	<2	10	<1	0.16
7-Nov-16	GRAB	1000 Blk. McDonald Rd.	7-Nov-16	0.46	<1	<2	10	<1	0.5
7-Nov-16	GRAB	6000 Blk. Miller Rd.	7-Nov-16	0.81	<1	<2	9	<1	0.42
7-Nov-16	GRAB	3800 Cessna Drive	7-Nov-16	0.84	<1	14	11	<1	0.24
7-Nov-16	GRAB	751 Catalina Cres.	7-Nov-16	0.87	<1	<2	9	<1	0.49
7-Nov-16	GRAB	6071 Azure Rd.	7-Nov-16	0.84	<1	<2	10	<1	0.2
8-Nov-16	GRAB	12560 Cambie Rd.	8-Nov-16	0.88	<1	2	9	<1	0.1
8-Nov-16	GRAB	13100 Mitchell Rd.	8-Nov-16	0.89	<1	<2	10	<1	0.08
8-Nov-16	GRAB	Opp. 11280 Twigg Place	8-Nov-16	0.7	<1	<2	12	<1	0.17
8-Nov-16	GRAB	13799 Commerce Pkwy.	8-Nov-16	0.68	<1	2	10	<1	0.09
8-Nov-16	GRAB	6651 Fraserwood Place	8-Nov-16	0.67	<1	<2	10	<1	0.11
8-Nov-16	GRAB	Opp. 20371 Westminster Hwy.	8-Nov-16	0.69	<1	2	10	<1	0.1
8-Nov-16	GRAB	9911 Sidaway Rd.	8-Nov-16	0.84	<1	24	10	<1	0.13
8-Nov-16	GRAB	11111 Horseshoe Way	8-Nov-16	0.79	<1	<2	11	<1	0.07
8-Nov-16	GRAB	10020 Amethyst Ave.	8-Nov-16	0.84	<1	<2	10	<1	0.09
8-Nov-16	GRAB	9380 General Currie Rd.	8-Nov-16	0.9	<1	<2	10	<1	0.1
8-Nov-16	GRAB	13800 No. 3 Rd. (off Garden City)	8-Nov-16	0.55	<1	<2	11	<1	0.15
8-Nov-16	GRAB	7000 Blk. Dyke Rd.	8-Nov-16	0.78	<1	6	10	<1	0.09
8-Nov-16	GRAB	6640 Blundell Rd.	8-Nov-16	0.78	<1	<2	11	<1	0.1
9-Nov-16	GRAB	3180 Granville Ave.	9-Nov-16	0.71	<1	<2	9	<1	0.11
9-Nov-16	GRAB	4251 Moncton St.	9-Nov-16	0.75	<1	4	10	<1	0.1
9-Nov-16	GRAB	11080 No. 2 Rd.	9-Nov-16	0.8	<1	<2	9	<1	0.08
9-Nov-16	GRAB	11500 McKenzie Rd.	9-Nov-16	0.61	<1	4	11	<1	0.15

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
9-Nov-16	GRAB	Opp. 8600 Ryan Rd.	9-Nov-16	0.79	<1	<2	9	<1	0.08
9-Nov-16	GRAB	13200 No. 4 Rd.	9-Nov-16	0.74	<1	<2	10	<1	0.09
9-Nov-16	GRAB	13851 Steveston Hwy.	9-Nov-16	0.61	<1	<2	9	<1	0.07
9-Nov-16	GRAB	1500 Valemont Way	9-Nov-16	0.68	<1	2	8	<1	0.08
9-Nov-16	GRAB	11720 Westminster Hwy.	9-Nov-16	0.81	<1	<2	9	<1	0.1
9-Nov-16	GRAB	17240 Fedoruk	9-Nov-16	0.71	<1	<2	10	<1	0.11
9-Nov-16	GRAB	23000 Blk. Dyke Rd.	9-Nov-16	0.59	<1	2	10	<1	0.08
9-Nov-16	GRAB	22271 Cochrane Drive	9-Nov-16	0.73	<1	4	10	<1	0.08
9-Nov-16	GRAB	5180 Smith Cres.	9-Nov-16	0.68	<1	<2	10	<1	0.09
9-Nov-16	GRAB	23260 Westminster Hwy.	9-Nov-16	0.71	<1	<2	10	<1	0.09
14-Nov-16	GRAB	5951 McCallan Rd.	14-Nov-16	0.84	<1	<2	8	<1	0.07
14-Nov-16	GRAB	Opp. 8331 Fairfax Place	14-Nov-16	0.67	<1	<2	12	<1	0.24
14-Nov-16	GRAB	9751 Pendleton Rd.	14-Nov-16	0.73	<1	<2	10	<1	0.08
14-Nov-16	GRAB	10920 Springwood Court	14-Nov-16	0.78	<1	2	10	<1	0.11
14-Nov-16	GRAB	11051 No 3 Rd.	14-Nov-16	0.81	<1	<2	10	<1	0.09
14-Nov-16	GRAB	14951 Triangle Rd.	14-Nov-16	0.61	<1	<2	10	<1	0.08
14-Nov-16	GRAB	8200 Jones Rd.	14-Nov-16	0.73	<1	<2	10	<1	0.08
14-Nov-16	GRAB	5300 No. 3 Rd.	14-Nov-16	0.82	<1	<2	9	<1	0.08
14-Nov-16	GRAB	1000 Blk. McDonald Rd.	14-Nov-16	0.58	<1	<2	10	<1	0.16
14-Nov-16	GRAB	6000 Blk. Miller Rd.	14-Nov-16	0.91	<1	<2	10	<1	0.17
14-Nov-16	GRAB	3800 Cessna Drive	14-Nov-16	0.89	<1	<2	9	<1	0.08
14-Nov-16	GRAB	751 Catalina Cres.	14-Nov-16	0.95	<1	<2	9	<1	0.1
14-Nov-16	GRAB	6071 Azure Rd.	14-Nov-16	0.86	<1	<2	9	<1	0.12
16-Nov-16	GRAB	12560 Cambie Rd.	16-Nov-16	0.79	<1	<2	9	<1	0.13
16-Nov-16	GRAB	13100 Mitchell Rd.	16-Nov-16	0.76	<1	<2	10	<1	0.12
16-Nov-16	GRAB	Opp. 11280 Twigg Place	16-Nov-16	0.95	<1	<2	10	<1	0.15
16-Nov-16	GRAB	13799 Commerce Pkwy.	16-Nov-16	0.68	<1	<2	10	<1	0.1
16-Nov-16	GRAB	6651 Fraserwood Place	16-Nov-16	0.65	<1	<2	10	<1	0.09
16-Nov-16	GRAB	Opp. 20371 Westminster Hwy.	16-Nov-16	0.69	<1	<2	10	<1	0.12
16-Nov-16	GRAB	9911 Sidaway Rd.	16-Nov-16	0.77	<1	<2	8	<1	0.1
16-Nov-16	GRAB	11111 Horseshoe Way	16-Nov-16	0.71	<1	<2	10	<1	0.14
16-Nov-16	GRAB	10020 Amethyst Ave.	16-Nov-16	0.79	<1	<2	10	<1	0.11
16-Nov-16	GRAB	9380 General Currie Rd.	16-Nov-16	0.84	<1	<2	9	<1	0.13
16-Nov-16	GRAB	13800 No. 3 Rd. (off Garden City)	16-Nov-16	0.71	<1	<2	9	<1	0.12
16-Nov-16	GRAB	7000 Blk. Dyke Rd.	16-Nov-16	0.82	<1	4	9	<1	0.32
16-Nov-16	GRAB	6640 Blundell Rd.	16-Nov-16	0.72	<1	<2	10	<1	0.12
18-Nov-16	GRAB	3180 Granville Ave.	18-Nov-16	0.54	<1	<2	9	<1	0.15
18-Nov-16	GRAB	4251 Moncton St.	18-Nov-16	0.64	<1	<2	9	<1	0.27
18-Nov-16	GRAB	11080 No. 2 Rd.	18-Nov-16	0.76	<1	<2	9	<1	0.13
18-Nov-16	GRAB	11500 McKenzie Rd.	18-Nov-16	0.57	<1	<2	10	<1	0.17

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
18-Nov-16	GRAB	Opp. 8600 Ryan Rd.	18-Nov-16	0.73	<1	2	10	<1	0.24
18-Nov-16	GRAB	13200 No. 4 Rd.	18-Nov-16	0.74	<1	<2	10	<1	0.17
18-Nov-16	GRAB	13851 Steveston Hwy.	18-Nov-16	0.56	<1	<2	10	<1	0.24
18-Nov-16	GRAB	1500 Valemont Way	18-Nov-16	0.57	<1	<2	10	<1	0.19
18-Nov-16	GRAB	11720 Westminster Hwy.	18-Nov-16	0.92	<1	<2	8	<1	0.19
18-Nov-16	GRAB	17240 Fedoruk	18-Nov-16	0.6	<1	<2	9	<1	0.27
18-Nov-16	GRAB	23000 Blk. Dyke Rd.	18-Nov-16	0.62	<1	<2	10	<1	0.13
18-Nov-16	GRAB	22271 Cochrane Drive	18-Nov-16	0.66	<1	64	9	<1	0.15
18-Nov-16	GRAB	5180 Smith Cres.	18-Nov-16	0.55	<1	<2	10	<1	0.11
18-Nov-16	GRAB	23260 Westminster Hwy.	18-Nov-16	0.55	<1	<2	9	<1	0.14
21-Nov-16	GRAB	5951 McCallan Rd.	21-Nov-16	0.72	<1	<2	10	<1	0.15
21-Nov-16	GRAB	Opp. 8331 Fairfax Place	21-Nov-16	0.53	<1	<2	10	<1	0.23
21-Nov-16	GRAB	9751 Pendleton Rd.	21-Nov-16	0.68	<1	<2	10	<1	0.23
21-Nov-16	GRAB	10920 Springwood Court	21-Nov-16	0.72	<1	<2	10	<1	0.12
21-Nov-16	GRAB	11051 No 3 Rd.	21-Nov-16	0.91	<1	<2	9	<1	0.16
21-Nov-16	GRAB	14951 Triangle Rd.	21-Nov-16	0.65	<1	<2	10	<1	0.1
21-Nov-16	GRAB	5300 No. 3 Rd.	21-Nov-16	0.79	<1	<2	10	<1	0.14
21-Nov-16	GRAB	8200 Jones Rd.	21-Nov-16	0.74	<1	<2	10	<1	0.16
21-Nov-16	GRAB	6071 Azure Rd.	21-Nov-16	0.74	<1	<2	10	<1	0.13
21-Nov-16	GRAB	3800 Cessna Drive	21-Nov-16	0.85	<1	<2	10	<1	0.16
21-Nov-16	GRAB	751 Catalina Cres.	21-Nov-16	0.87	<1	<2	9	<1	0.15
21-Nov-16	GRAB	6000 Blk. Miller Rd.	21-Nov-16	0.83	<1	<2	10	<1	0.17
21-Nov-16	GRAB	1000 Blk. McDonald Rd.	21-Nov-16	0.52	<1	<2	10	<1	0.61
23-Nov-16	GRAB	12560 Cambie Rd.	23-Nov-16	0.78	<1	<2	8	<1	0.13
23-Nov-16	GRAB	13100 Mitchell Rd.	23-Nov-16	0.6	<1	<2	8	<1	0.11
23-Nov-16	GRAB	Opp. 11280 Twigg Place	23-Nov-16	0.75	<1	<2	9	<1	0.15
23-Nov-16	GRAB	13799 Commerce Pkwy.	23-Nov-16	0.66	<1	<2	9	<1	0.11
23-Nov-16	GRAB	6651 Fraserwood Place	23-Nov-16	0.57	<1	<2	9	<1	0.21
23-Nov-16	GRAB	Opp. 20371 Westminster Hwy.	23-Nov-16	0.67	<1	<2	8	<1	0.19
23-Nov-16	GRAB	9911 Sidaway Rd.	23-Nov-16	0.68	<1	<2	10	<1	0.14
23-Nov-16	GRAB	11111 Horseshoe Way	23-Nov-16	0.59	<1	ntamina	10	<1	0.12
23-Nov-16	GRAB	10020 Amethyst Ave.	23-Nov-16	0.74	<1	<2	8	<1	0.1
23-Nov-16	GRAB	9380 General Currie Rd.	23-Nov-16	0.77	<1	<2	10	<1	0.12
23-Nov-16	GRAB	13800 No. 3 Rd. (off Garden City)	23-Nov-16	0.72	<1	<2	9	<1	0.12
23-Nov-16	GRAB	7000 Blk. Dyke Rd.	23-Nov-16	0.73	<1	<2	9	<1	0.15
23-Nov-16	GRAB	6640 Blundell Rd.	23-Nov-16	0.63	<1	<2	8	<1	0.11
24-Nov-16	GRAB	3180 Granville Ave.	24-Nov-16	0.5	<1	<2	8	<1	0.1
24-Nov-16	GRAB	4251 Moncton St.	24-Nov-16	0.66	<1	<2	9	<1	0.12
24-Nov-16	GRAB	11080 No. 2 Rd.	24-Nov-16	0.76	<1	4	9	<1	0.11
24-Nov-16	GRAB	11500 McKenzie Rd.	24-Nov-16	0.38	<1	<2	10	<1	0.11

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
24-Nov-16	GRAB	Opp. 8600 Ryan Rd.	24-Nov-16	0.68	<1	<2	10	<1	0.13
24-Nov-16	GRAB	13200 No. 4 Rd.	24-Nov-16	0.67	<1	<2	9	<1	0.08
24-Nov-16	GRAB	13851 Steveston Hwy.	24-Nov-16	0.4	<1	<2	10	<1	0.16
24-Nov-16	GRAB	1500 Valemont Way	24-Nov-16	0.53	<1	<2	10	<1	0.14
24-Nov-16	GRAB	11720 Westminster Hwy.	24-Nov-16	0.8	<1	<2	10	<1	0.11
24-Nov-16	GRAB	17240 Fedoruk	24-Nov-16	0.55	<1	<2	9	<1	0.12
24-Nov-16	GRAB	23000 Blk. Dyke Rd.	24-Nov-16	0.52	<1	<2	10	<1	0.16
24-Nov-16	GRAB	22271 Cochrane Drive	24-Nov-16	0.5	<1	<2	9	<1	0.17
24-Nov-16	GRAB	5180 Smith Cres.	24-Nov-16	0.54	<1	<2	9	<1	0.18
24-Nov-16	GRAB	23260 Westminster Hwy.	24-Nov-16	0.54	<1	<2	9	<1	0.14
28-Nov-16	GRAB	5951 McCallan Rd.	28-Nov-16	0.68	<1	<2	9	<1	0.23
28-Nov-16	GRAB	Opp. 8331 Fairfax Place	28-Nov-16	0.44	<1	<2	9	<1	0.19
28-Nov-16	GRAB	9751 Pendleton Rd.	28-Nov-16	0.64	<1	<2	9	<1	0.15
28-Nov-16	GRAB	10920 Springwood Court	28-Nov-16	0.69	<1	<2	9	<1	0.14
28-Nov-16	GRAB	11051 No 3 Rd.	28-Nov-16	0.79	<1	<2	8	<1	0.11
28-Nov-16	GRAB	14951 Triangle Rd.	28-Nov-16	0.58	<1	<2	10	<1	0.13
28-Nov-16	GRAB	5300 No. 3 Rd.	28-Nov-16	0.76	<1	<2	9	<1	0.14
28-Nov-16	GRAB	8200 Jones Rd.	28-Nov-16	0.75	<1	<2	9	<1	0.19
28-Nov-16	GRAB	6071 Azure Rd.	28-Nov-16	0.73	<1	<2	9	<1	0.1
28-Nov-16	GRAB	3800 Cessna Drive	28-Nov-16	0.82	<1	2	9	<1	0.16
28-Nov-16	GRAB	751 Catalina Cres.	28-Nov-16	0.92	<1	<2	9	<1	0.18
28-Nov-16	GRAB	6000 Blk. Miller Rd.	28-Nov-16	1	<1	<2	8	<1	0.22
28-Nov-16	GRAB	1000 Blk. McDonald Rd.	28-Nov-16	0.47	<1	6	9	<1	0.42
30-Nov-16	GRAB	12560 Cambie Rd.	30-Nov-16	0.78	<1	<2	10	<1	0.11
30-Nov-16	GRAB	13100 Mitchell Rd.	30-Nov-16	0.63	<1	<2	8	<1	0.19
30-Nov-16	GRAB	Opp. 11280 Twigg Place	30-Nov-16	0.64	<1	<2	8	<1	0.2
30-Nov-16	GRAB	13799 Commerce Pkwy.	30-Nov-16	0.61	<1	6	8	<1	0.14
30-Nov-16	GRAB	6651 Fraserwood Place	30-Nov-16	0.54	<1	<2	9	<1	0.14
30-Nov-16	GRAB	Opp. 20371 Westminster Hwy.	30-Nov-16	0.58	<1	<2	9	<1	0.21
30-Nov-16	GRAB	9911 Sidaway Rd.	30-Nov-16	0.63	<1	2	9	<1	0.12
30-Nov-16	GRAB	11111 Horseshoe Way	30-Nov-16	0.58	<1	<2	9	<1	0.13
30-Nov-16	GRAB	10020 Amethyst Ave.	30-Nov-16	0.62	<1	<2	9	<1	0.1
30-Nov-16	GRAB	9380 General Currie Rd.	30-Nov-16	0.66	<1	<2	9	<1	0.13
30-Nov-16	GRAB	13800 No. 3 Rd. (off Garden City)	30-Nov-16	0.64	<1	<2	10	<1	0.1
30-Nov-16	GRAB	7000 Blk. Dyke Rd.	30-Nov-16	0.6	<1	2	9	<1	0.08
30-Nov-16	GRAB	6640 Blundell Rd.	30-Nov-16	0.73	<1	<2	8	<1	0.12
2-Dec-16	GRAB	3180 Granville Ave.	2-Dec-16	0.84	<1	<2	7	<1	0.09
2-Dec-16	GRAB	4251 Moncton St.	2-Dec-16	0.76	<1	<2	7	<1	0.1
2-Dec-16	GRAB	11080 No. 2 Rd.	2-Dec-16	0.8	<1	48	7	<1	0.11
2-Dec-16	GRAB	11500 McKenzie Rd.	2-Dec-16	0.49	<1	<2	7	<1	0.2

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
2-Dec-16	GRAB	Opp. 8600 Ryan Rd.	2-Dec-16	0.66	<1	<2	8	<1	0.08
2-Dec-16	GRAB	13200 No. 4 Rd.	2-Dec-16	0.71	<1	<2	8	<1	0.09
2-Dec-16	GRAB	13851 Steveston Hwy.	2-Dec-16	0.52	<1	<2	7	<1	0.09
2-Dec-16	GRAB	1500 Valemont Way	2-Dec-16	0.57	<1	<2	8	<1	0.1
2-Dec-16	GRAB	11720 Westminster Hwy.	2-Dec-16	0.67	<1	<2	9	<1	0.08
2-Dec-16	GRAB	17240 Fedoruk	2-Dec-16	0.61	<1	<2	9	<1	0.09
2-Dec-16	GRAB	23000 Blk. Dyke Rd.	2-Dec-16	0.56	<1	<2	8	<1	0.15
2-Dec-16	GRAB	22271 Cochrane Drive	2-Dec-16	0.51	<1	<2	9	<1	0.1
2-Dec-16	GRAB	5180 Smith Cres.	2-Dec-16	0.38	<1	2	9	<1	0.11
2-Dec-16	GRAB	23260 Westminster Hwy.	2-Dec-16	0.51	<1	<2	9	<1	0.11
5-Dec-16	GRAB	5951 McCallan Rd.	5-Dec-16	0.67	<1	<2	8	<1	0.16
5-Dec-16	GRAB	Opp. 8331 Fairfax Place	5-Dec-16	0.63	<1	<2	8	<1	0.2
5-Dec-16	GRAB	9751 Pendleton Rd.	5-Dec-16	0.66	<1	<2	8	<1	0.14
5-Dec-16	GRAB	10920 Springwood Court	5-Dec-16	0.64	<1	<2	9	<1	0.11
5-Dec-16	GRAB	11051 No 3 Rd.	5-Dec-16	0.69	<1	<2	9	<1	0.2
5-Dec-16	GRAB	14951 Triangle Rd.	5-Dec-16	0.58	<1	2	8	<1	0.19
5-Dec-16	GRAB	5300 No. 3 Rd.	5-Dec-16	0.72	<1	<2	9	<1	0.21
5-Dec-16	GRAB	8200 Jones Rd.	5-Dec-16	0.7	<1	<2	9	<1	0.11
5-Dec-16	GRAB	6071 Azure Rd.	5-Dec-16	0.71	<1	<2	9	<1	0.17
5-Dec-16	GRAB	3800 Cessna Drive	5-Dec-16	0.74	<1	<2	9	<1	0.11
5-Dec-16	GRAB	751 Catalina Cres.	5-Dec-16	0.76	<1	<2	9	<1	0.17
5-Dec-16	GRAB	6000 Blk. Miller Rd.	5-Dec-16	0.8	<1	<2	8	<1	0.31
5-Dec-16	GRAB	1000 Blk. McDonald Rd.	5-Dec-16	0.53	<1	<2	9	<1	0.36
7-Dec-16	GRAB	3180 Granville Ave.	7-Dec-16	0.65	<1	<2	5	<1	0.11
7-Dec-16	GRAB	12560 Cambie Rd.	7-Dec-16	0.83	<1	<2	8	<1	0.11
7-Dec-16	GRAB	4251 Moncton St.	7-Dec-16	0.71	<1	<2	4	<1	0.15
7-Dec-16	GRAB	13100 Mitchell Rd.	7-Dec-16	0.75	<1	2	7	<1	0.09
7-Dec-16	GRAB	11080 No. 2 Rd.	7-Dec-16	0.73	<1	<2	4	<1	0.08
7-Dec-16	GRAB	Opp. 11280 Twigg Place	7-Dec-16	0.76	<1	<2	7	<1	0.19
7-Dec-16	GRAB	11500 McKenzie Rd.	7-Dec-16	0.62	<1	<2	7	<1	0.13
7-Dec-16	GRAB	13799 Commerce Pkwy.	7-Dec-16	0.68	<1	<2	8	<1	0.13
7-Dec-16	GRAB	13200 No. 4 Rd.	7-Dec-16	0.74	<1	<2	6	<1	0.09
7-Dec-16	GRAB	9911 Sidaway Rd.	7-Dec-16	0.75	<1	<2	8	<1	0.15
7-Dec-16	GRAB	Opp. 8600 Ryan Rd.	7-Dec-16	0.75	<1	<2	6	<1	0.1
7-Dec-16	GRAB	11111 Horseshoe Way	7-Dec-16	0.48	<1	2	8	<1	0.14
7-Dec-16	GRAB	13851 Steveston Hwy.	7-Dec-16	0.63	<1	<2	6	<1	0.12
7-Dec-16	GRAB	10020 Amethyst Ave.	7-Dec-16	0.77	<1	<2	8	<1	0.08
7-Dec-16	GRAB	9380 General Currie Rd.	7-Dec-16	0.79	<1	<2	7	<1	0.11
7-Dec-16	GRAB	1500 Valemont Way	7-Dec-16	0.62	<1	<2	6	<1	0.09
7-Dec-16	GRAB	13800 No. 3 Rd. (off Garden City)	7-Dec-16	0.75	<1	<2	8	<1	0.15

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
7-Dec-16	GRAB	7000 Blk. Dyke Rd.	7-Dec-16	0.69	<1	2	8	<1	0.09
7-Dec-16	GRAB	17240 Fedoruk	7-Dec-16	0.61	<1	<2	7	<1	0.1
7-Dec-16	GRAB	6640 Blundell Rd.	7-Dec-16	0.76	<1	<2	8	<1	0.17
7-Dec-16	GRAB	23000 Blk. Dyke Rd.	7-Dec-16	0.67	<1	<2	7	<1	0.11
7-Dec-16	GRAB	22271 Cochrane Drive	7-Dec-16	0.71	<1	<2	7	<1	0.13
7-Dec-16	GRAB	5180 Smith Cres.	7-Dec-16	0.59	<1	<2	7	<1	0.12
7-Dec-16	GRAB	23260 Westminster Hwy.	7-Dec-16	0.54	<1	4	6	<1	0.1
7-Dec-16	GRAB	6651 Fraserwood Place	7-Dec-16	0.65	<1	<2	8	<1	0.1
7-Dec-16	GRAB	Opp. 20371 Westminster Hwy.	7-Dec-16	0.61	<1	<2	8	<1	0.18
13-Dec-16	GRAB	5951 McCallan Rd.	13-Dec-16	0.64	<1	<2	3	<1	0.26
13-Dec-16	GRAB	Opp. 8331 Fairfax Place	13-Dec-16	0.74	<1	<2	4	<1	0.12
13-Dec-16	GRAB	9751 Pendleton Rd.	13-Dec-16	0.65	<1	<2	5	<1	0.1
13-Dec-16	GRAB	10920 Springwood Court	13-Dec-16	0.59	<1	<2	6	<1	0.11
13-Dec-16	GRAB	14951 Triangle Rd.	13-Dec-16	0.67	<1	<2	6	<1	0.17
13-Dec-16	GRAB	8200 Jones Rd.	13-Dec-16	0.74	<1	<2	6	<1	0.11
13-Dec-16	GRAB	5300 No. 3 Rd.	13-Dec-16	0.78	<1	2	5	<1	0.1
13-Dec-16	GRAB	1000 Blk. McDonald Rd.	13-Dec-16	0.25	<1	<2	6	<1	0.57
13-Dec-16	GRAB	6000 Blk. Miller Rd.	13-Dec-16	0.74	<1	<2	6	<1	0.5
13-Dec-16	GRAB	3800 Cessna Drive	13-Dec-16	0.77	<1	<2	6	<1	0.14
13-Dec-16	GRAB	751 Catalina Cres.	13-Dec-16	0.72	<1	<2	5	<1	0.28
14-Dec-16	GRAB	12560 Cambie Rd.	14-Dec-16	0.74	<1	<2	5	<1	0.11
14-Dec-16	GRAB	13100 Mitchell Rd.	14-Dec-16	0.59	<1	<2	4	<1	0.09
14-Dec-16	GRAB	Opp. 11280 Twigg Place	14-Dec-16	0.69	<1	<2	5	<1	0.11
14-Dec-16	GRAB	13799 Commerce Pkwy.	14-Dec-16	0.67	<1	2	5	<1	0.13
14-Dec-16	GRAB	6651 Fraserwood Place	14-Dec-16	0.64	<1	<2	5	<1	0.13
14-Dec-16	GRAB	9911 Sidaway Rd.	14-Dec-16	0.73	<1	<2	5	<1	0.14
14-Dec-16	GRAB	11111 Horseshoe Way	14-Dec-16	0.67	<1	2	5	<1	0.11
14-Dec-16	GRAB	10020 Amethyst Ave.	14-Dec-16	0.73	<1	<2	5	<1	0.13
14-Dec-16	GRAB	9380 General Currie Rd.	14-Dec-16	0.8	<1	<2	5	<1	0.14
14-Dec-16	GRAB	13800 No. 3 Rd. (off Garden City)	14-Dec-16	0.58	<1	<2	5	<1	0.12
14-Dec-16	GRAB	6640 Blundell Rd.	14-Dec-16	0.72	<1	<2	5	<1	0.11
16-Dec-16	GRAB	3180 Granville Ave.	16-Dec-16	0.44	<1	<2	7	<1	0.12
16-Dec-16	GRAB	4251 Moncton St.	16-Dec-16	0.51	<1	<2	7	<1	0.14
16-Dec-16	GRAB	11500 McKenzie Rd.	16-Dec-16	0.72	<1	<2	4	<1	0.13
16-Dec-16	GRAB	Opp. 8600 Ryan Rd.	16-Dec-16	0.65	<1	<2	4	<1	0.12
16-Dec-16	GRAB	13200 No. 4 Rd.	16-Dec-16	0.7	<1	<2	4	<1	0.17
16-Dec-16	GRAB	11720 Westminster Hwy.	16-Dec-16	0.67	<1	<2	5	<1	0.12
16-Dec-16	GRAB	17240 Fedoruk	16-Dec-16	0.59	<1	<2	5	<1	0.1
16-Dec-16	GRAB	23000 Blk. Dyke Rd.	16-Dec-16	0.66	<1	<2	5	<1	0.35
16-Dec-16	GRAB	22271 Cochrane Drive	16-Dec-16	0.46	<1	<2	5	<1	0.11

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
16-Dec-16	GRAB	5180 Smith Cres.	16-Dec-16	0.64	<1	<2	6	<1	0.13
16-Dec-16	GRAB	23260 Westminster Hwy.	16-Dec-16	0.63	<1	<2	5	<1	0.12
19-Dec-16	GRAB	5951 McCallan Rd.	19-Dec-16	0.65	<1	<2	4	<1	0.07
19-Dec-16	GRAB	Opp. 8331 Fairfax Place	19-Dec-16	0.56	<1	<2	5	<1	0.09
19-Dec-16	GRAB	9751 Pendleton Rd.	19-Dec-16	0.47	<1	<2	5	<1	0.07
19-Dec-16	GRAB	10920 Springwood Court	19-Dec-16	0.56	<1	<2	7	<1	0.1
19-Dec-16	GRAB	14951 Triangle Rd.	19-Dec-16	0.63	<1	<2	5	<1	0.13
19-Dec-16	GRAB	8200 Jones Rd.	19-Dec-16	0.64	<1	<2	6	<1	0.12
19-Dec-16	GRAB	5300 No. 3 Rd.	19-Dec-16	0.69	<1	<2	5	<1	0.09
19-Dec-16	GRAB	3800 Cessna Drive	19-Dec-16	0.65	<1	<2	6	<1	0.07
19-Dec-16	GRAB	751 Catalina Cres.	19-Dec-16	0.69	<1	<2	5	<1	0.09
19-Dec-16	GRAB	6000 Blk. Miller Rd.	19-Dec-16	0.75	<1	<2	4	<1	0.16
19-Dec-16	GRAB	1000 Blk. McDonald Rd.	19-Dec-16	0.49	<1	<2	6	<1	0.13
19-Dec-16	GRAB	6071 Azure Rd.	19-Dec-16	0.75	<1	<2	4	<1	0.08
21-Dec-16	GRAB	12560 Cambie Rd.	21-Dec-16	0.73	<1	<2	4	<1	0.12
21-Dec-16	GRAB	13100 Mitchell Rd.	21-Dec-16	0.7	<1	<2	5	<1	0.16
21-Dec-16	GRAB	Opp. 11280 Twigg Place	21-Dec-16	0.67	<1	<2	4	<1	0.22
21-Dec-16	GRAB	13799 Commerce Pkwy.	21-Dec-16	0.63	<1	<2	5	<1	0.39
21-Dec-16	GRAB	6651 Fraserwood Place	21-Dec-16	0.65	<1	<2	5	<1	0.18
21-Dec-16	GRAB	Opp. 20371 Westminster Hwy.	21-Dec-16	0.61	<1	<2	4	<1	0.19
21-Dec-16	GRAB	9911 Sidaway Rd.	21-Dec-16	0.61	<1	<2	5	<1	0.11
21-Dec-16	GRAB	11111 Horseshoe Way	21-Dec-16	0.66	<1	<2	5	<1	0.16
21-Dec-16	GRAB	10020 Amethyst Ave.	21-Dec-16	0.68	<1	<2	6	<1	0.29
21-Dec-16	GRAB	9380 General Currie Rd.	21-Dec-16	0.72	<1	<2	5	<1	0.12
21-Dec-16	GRAB	13800 No. 3 Rd. (off Garden City)	21-Dec-16	0.65	<1	4	5	<1	0.1
21-Dec-16	GRAB	7000 Blk. Dyke Rd.	21-Dec-16	0.62	<1	<2	6	<1	0.15
21-Dec-16	GRAB	6640 Blundell Rd.	21-Dec-16	0.68	<1	<2	5	<1	0.18
22-Dec-16	GRAB	3180 Granville Ave.	22-Dec-16	0.75	<1	<2	5	<1	0.1
22-Dec-16	GRAB	4251 Moncton St.	22-Dec-16	0.67	<1	<2	5	<1	0.14
22-Dec-16	GRAB	11080 No. 2 Rd.	22-Dec-16	0.63	<1	<2	5	<1	0.12
22-Dec-16	GRAB	11500 McKenzie Rd.	22-Dec-16	0.45	<1	<2	6	<1	0.08
22-Dec-16	GRAB	Opp. 8600 Ryan Rd.	22-Dec-16	0.6	<1	<2	5	<1	0.17
22-Dec-16	GRAB	13200 No. 4 Rd.	22-Dec-16	0.6	<1	<2	5	<1	0.22
22-Dec-16	GRAB	13851 Steveston Hwy.	22-Dec-16	0.56	<1	<2	5	<1	0.1
22-Dec-16	GRAB	1500 Valemont Way	22-Dec-16	0.56	<1	<2	5	<1	0.14
22-Dec-16	GRAB	11720 Westminster Hwy.	22-Dec-16	0.67	<1	<2	5	<1	0.15
22-Dec-16	GRAB	17240 Fedoruk	22-Dec-16	0.6	<1	<2	5	<1	0.12
22-Dec-16	GRAB	23000 Blk. Dyke Rd.	22-Dec-16	0.56	<1	4	5	<1	0.1
22-Dec-16	GRAB	22271 Cochrane Drive	22-Dec-16	0.56	<1	<2	5	<1	0.12
22-Dec-16	GRAB	5180 Smith Cres.	22-Dec-16	0.51	<1	<2	5	<1	0.16

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
22-Dec-16	GRAB	23260 Westminster Hwy.	22-Dec-16	0.55	<1	<2	5	<1	0.12
28-Dec-16	GRAB	5951 McCallan Rd.	28-Dec-16	0.71	<1	NA	4	<1	0.14
28-Dec-16	GRAB	Opp. 8331 Fairfax Place	28-Dec-16	0.63	<1	NA	5	<1	0.11
28-Dec-16	GRAB	9751 Pendleton Rd.	28-Dec-16	0.67	<1	NA	4	<1	0.22
28-Dec-16	GRAB	10920 Springwood Court	28-Dec-16	0.71	<1	NA	4	<1	0.18
28-Dec-16	GRAB	11051 No 3 Rd.	28-Dec-16	0.69	<1	NA	4	<1	0.18
28-Dec-16	GRAB	14951 Triangle Rd.	28-Dec-16	0.64	<1	NA	4	<1	0.13
28-Dec-16	GRAB	8200 Jones Rd.	28-Dec-16	0.7	<1	NA	4	<1	0.19
28-Dec-16	GRAB	5300 No. 3 Rd.	28-Dec-16	0.74	<1	NA	4	<1	0.16
28-Dec-16	GRAB	6071 Azure Rd.	28-Dec-16	0.73	<1	NA	5	<1	0.12
28-Dec-16	GRAB	3800 Cessna Drive	28-Dec-16	0.69	<1	NA	5	<1	0.12
28-Dec-16	GRAB	751 Catalina Cres.	28-Dec-16	0.73	<1	NA	4	<1	2
28-Dec-16	GRAB	6000 Blk. Miller Rd.	28-Dec-16	0.83	<1	NA	5	<1	1.3
28-Dec-16	GRAB	1000 Blk. McDonald Rd.	28-Dec-16	0.6	<1	NA	4	<1	0.16
29-Dec-16	GRAB	3180 Granville Ave.	29-Dec-16	0.8	<1	NA	5	<1	0.09
29-Dec-16	GRAB	6640 Blundell Rd.	29-Dec-16	0.57	<1	NA	4	<1	0.08
29-Dec-16	GRAB	4251 Moncton St.	29-Dec-16	0.6	<1	NA	5	<1	0.09
29-Dec-16	GRAB	7000 Blk. Dyke Rd.	29-Dec-16	0.59	<1	NA	4	<1	0.11
29-Dec-16	GRAB	11080 No. 2 Rd.	29-Dec-16	0.74	<1	NA	5	<1	0.1
29-Dec-16	GRAB	13800 No. 3 Rd. (off Garden City)	29-Dec-16	0.66	<1	NA	5	<1	0.11
29-Dec-16	GRAB	11111 Horseshoe Way	29-Dec-16	0.56	<1	NA	5	<1	0.1
29-Dec-16	GRAB	11500 McKenzie Rd.	29-Dec-16	0.61	<1	NA	5	<1	0.12
29-Dec-16	GRAB	Opp. 8600 Ryan Rd.	29-Dec-16	0.68	<1	NA	4	<1	0.1
29-Dec-16	GRAB	10020 Amethyst Ave.	29-Dec-16	0.63	<1	NA	5	<1	0.12
29-Dec-16	GRAB	13200 No. 4 Rd.	29-Dec-16	0.72	<1	NA	5	<1	0.1
29-Dec-16	GRAB	9380 General Currie Rd.	29-Dec-16	0.67	<1	NA	5	<1	0.09
29-Dec-16	GRAB	13851 Steveston Hwy.	29-Dec-16	0.53	<1	NA	5	<1	0.08
29-Dec-16	GRAB	9911 Sidaway Rd.	29-Dec-16	0.68	<1	NA	5	<1	0.09
29-Dec-16	GRAB	12560 Cambie Rd.	29-Dec-16	0.59	<1	NA	5	<1	0.13
29-Dec-16	GRAB	1500 Valemont Way	29-Dec-16	0.65	<1	NA	5	<1	0.1
29-Dec-16	GRAB	13100 Mitchell Rd.	29-Dec-16	0.7	<1	NA	5	<1	0.13
29-Dec-16	GRAB	11720 Westminster Hwy.	29-Dec-16	0.74	<1	NA	5	<1	0.09
29-Dec-16	GRAB	Opp. 11280 Twigg Place	29-Dec-16	0.56	<1	NA	5	<1	0.17
29-Dec-16	GRAB	17240 Fedoruk	29-Dec-16	0.64	<1	NA	6	<1	0.15
29-Dec-16	GRAB	13799 Commerce Pkwy.	29-Dec-16	0.62	<1	NA	5	<1	0.12
29-Dec-16	GRAB	23000 Blk. Dyke Rd.	29-Dec-16	0.62	<1	NA	5	<1	0.12
29-Dec-16	GRAB	Opp. 20371 Westminster Hwy.	29-Dec-16	0.58	<1	NA	5	<1	0.1
29-Dec-16	GRAB	22271 Cochrane Drive	29-Dec-16	0.63	<1	NA	5	<1	0.11
29-Dec-16	GRAB	5180 Smith Cres.	29-Dec-16	0.58	<1	NA	5	<1	0.13
29-Dec-16	GRAB	6651 Fraserwood Place	29-Dec-16	0.56	<1	NA	5	<1	0.1

Sampling Point	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
29-Dec-16	GRAB	23260 Westminster Hwy.	29-Dec-16	0.67	<1	NA	5	<1	0.09

* The lab did not perform HPC analysis from December 28th to 29th.

APPENDIX 4: SCADA AND PRESSURE TESTING SITES

	STATION NAME	STATION TYPE	INSTALLATION
216	SHELL & STEVESTON PRV	WATER PRV	PERMANENT
217	NELSON & BLUNDELL PRV	WATER PRV	PERMANENT
218	SHELL & BLUNDELL PRV	WATER PRV	PERMANENT
219	SHELL & WILLIAMS PRV	WATER PRV	PERMANENT
220	SHELL & BIRD PRV	WATER PRV	PERMANENT
251	NELSON & WESTMINSTER PRV	WATER PRV	WIP
252	FERGUSON PRV	WATER PRV	PERMANENT
253	GRAUER PRV	WATER PRV	PERMANENT
254	OAKSTREET PRV	WATER PRV	PERMANENT
	NELSON NORTH PRV	WATER PRV	PERMANENT
	CAMBIE PRV	WATER PRV	NO SCADA
	OAK & RIVER	WATER PRV	NO SCADA
	SHELL &MONTEITH	WATER PRV	NO SCADA
	SHELL & WESTMINSTER	WATER PRV	NO SCADA
1	**PRESSURE SITES**		
5	QUEENSBOROUGH	DRAINAGE	PERMANENT
40	NO 6 ROAD SOUTH	DRAINAGE	PERMANENT
48	STEVESTON	SANI PUMPS	PERMANENT
80	BARNARD	SANI PUMPS	PERMANENT
106	LYNAS	SANI PUMPS	PERMANENT
167	BRIGHOUSE	SANI PUMPS	PERMANENT
206	EDGEMERE	SANI PUMPS	PERMANENT
42	GRAYBAR	SANI PUMPS	PERMANENT
110	RICHMOND PARK	SANI PUMPS	PERMANENT
174	LESLIE	SANI PUMPS	PERMANENT
189	SIMPSON	SANI PUMPS	PERMANENT
193	BURROWS	SANI PUMPS	PERMANENT
190	BURKEVILLE	SANI PUMPS	PERMANENT
119	TWIGG	SANI PUMPS	PERMANENT
180	RICHMOND CENTRE	SANI PUMPS	PERMANENT
89	WOODHEADEAST	SANI PUMPS	PERMANENT
122	MAPLE	SANI PUMPS	PERMANENT
	ROBINSON	SANI PUMPS	PERMANENT

APPENDIX 5: 2016 THM AND HAA TEST RESULTS

Sample	Date Sampled	THM (ppb)						HAA (ppb)						
		Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	Total THM Quarterly Average (Guileline Limit 100ppb/mL)	Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	Total HAA Quarterly Average Guileline Limit 80ppb/mL)
RMD-250	2015/05/20	<1	<1	<1	24	25.1		<0.5	8	<1	4	5.8	18.6	
RMD-250	2015/08/19	<1	<1	<1	16	16.9		<0.5	12	<1	10	11.9	34.7	
RMD-250	2015/11/25	<1	<1	<1	26	27.6		<0.5	10	<1	9	9.8	30.5	
RMD-250	2016/03/02	<1	<1	<1	25	26.1	**24**	<0.5	9	<1	3	11.3	25.3	**27**
RMD-250	2016/06/01	<1	<1	<1	21	21.7	**23**	<0.5	8	<1	4	6	18.9	**27**
RMD-250	2016/08/31	1	<1	<1	21	24	**25**	<0.5	9	<1	4	7.3	20.9	**24**
RMD-250	2016/10/19	<1	<1	<1	24	26	**24**	<0.5	9	<1	5	12.7	27.3	**23**
RMD-251	2015/05/20	<1	<1	<1	22	22.9		<0.5	10	<1	4	10.3	25.3	
RMD-251	2015/08/19	2	<1	<1	27	28.6		<0.5	14	<1	10	15	40.1	
RMD-251	2015/11/25	<1	<1	<1	23	24.2		<0.5	9	<1	7	7.2	23.9	
RMD-251	2016/03/02	<1	<1	<1	23	24.3	**25**	<0.5	9	<1	4	10.9	25.5	**29**
RMD-251	2016/06/01	<1	<1	<1	20	20.6	**24**	<0.5	8	<1	4	6.4	18.6	**27**
RMD-251	2016/08/31	1	<1	<1	26	28	**24**	<0.5	9	<1	3	7	20.4	**22**
RMD-251	2016/10/19	<1	<1	<1	23	25	**24**	<0.5	9	<1	6	10.9	26.2	**23**
RMD-258	2015/05/20	<1	<1	<1	25	25.4		<0.5	10	<1	5	13.2	29.1	
RMD-258	2015/08/19	2	<1	<1	29	30.5		<0.5	18	<1	8	16.7	43.6	
RMD-258	2015/11/25	<1	<1	<1	25	26.6		<0.5	10	<1	9	9.1	29.7	
RMD-258	2016/03/02	<1	<1	<1	23	23.8	**27**	<0.5	9	<1	9	10.4	29	**33**
RMD-258	2016/06/01	<1	<1	<1	21	21	**25**	<0.5	7	<1	5	5.6	18	**30**
RMD-258	2016/08/31	1	<1	<1	26	28	**25**	<0.5	10	<1	4	7.9	22.8	**25**
RMD-258	2016/10/19	1	<1	<1	24	26	**25**	<0.5	11	<1	7	17	35.7	**26**
							25							
RMD-259	2015/05/20	<1	<1	<1	14	14.3		<0.5	10	<1	4	11.8	26.7	
RMD-259	2015/08/19	1	<1	<1	34	35.1		<0.5	19	<1	9	20.2	48.9	
RMD-259	2015/11/25	<1	<1	<1	25	26.3		<0.5	10	<1	7	10.7	29.7	
RMD-259	2016/03/02	<1	<1	<1	24	25.5	**25**	<0.5	9	<1	3	10.8	23.5	**32**
RMD-259	2016/06/01	<1	<1	<1	26	26.8	**28**	<0.5	12	<1	6	14.1	33.2	**34**
RMD-259	2016/08/31	2	<1	<1	29	32	**28**	<0.5	12	<1	5	10.1	27.7	**29**
RMD-259	2016/10/19	1	<1	<1	27	29	**28**	<0.5	12	<1	7	17.2	36.4	**30**

Sample	Sample Reported Name	Date Sampled	THM (ppb)					HAA (ppb)						Extras
			Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	pH units pH
RMD-250	6071 Azure Rd.	19-Oct-16	<1	<1	<1	24	**26**	<0.5	9	<1	5	12.7	**27.3**	
RMD-251	5951 McCallan Rd.	19-Oct-16	<1	<1	<1	23	**25**	<0.5	9	<1	6	10.9	**26.2**	
RMD-258	7000 Blk. Dyke Rd.	19-Oct-16	1	<1	<1	24	**26**	<0.5	11	<1	7	17	**35.7**	
RMD-259	10020 Amethyst Ave.	19-Oct-16	1	<1	<1	27	**29**	<0.5	12	<1	7	17.2	**36.4**	7.2

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APPENDIX 6: 2016 HEAVY METAL AND VINYL CHLORIDE TESTING RESULTS

Semi Annual Metals Analysis - 2016

Metal		RMD-250	RMD-257	RMD-263
	Sample Description	6071 Azure Rd.	6640 Blundell Rd.	12560 Cambie Rd.
	Sample Date	2016/10/26 15:20	2016/10/26 15:10	2016/10/26 15:35
	Sample Type	GRAB	GRAB	GRAB
Aluminum Total	µg/L	41	41	39
Antimony Total	µg/L	<0.5	<0.5	<0.5
Arsenic Total	µg/L	<0.5	<0.5	<0.5
Barium Total	µg/L	3.1	3.2	3.1
Boron Total	µg/L	<10	<10	<10
Cadmium Total	µg/L	<0.2	<0.2	<0.2
Calcium Total	µg/L	2920	2890	2860
Chromium Total	µg/L	0.13	0.28	0.32
Cobalt Total	µg/L	<0.5	<0.5	<0.5
Copper Total	µg/L	1.2	1.0	2.0
Iron Total	µg/L	<5	<5	5
Lead Total	µg/L	<0.5	<0.5	<0.5
Magnesium Total	µg/L	153	153	148
Manganese Total	µg/L	4.6	4.6	7.0
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	186	194	186
Selenium Total	µg/L	<0.5	<0.5	<0.5
Silver Total	µg/L	<0.5	<0.5	<0.5
Sodium Total	µg/L	1660	1590	1720
Zinc Total	µg/L	<3.0	<3.0	<3.0

Vinyl Chloride Testing Results

Sample Site Number	Sample Reported Name	Sampled Date	Vinyl Chloride (mg/L)
RMD-205	13851 Steveston Hwy.	7-Dec-16	<0.0010
RMD-206	4251 Moncton St.	7-Dec-16	<0.0010
RMD-253	11051 No 3 Rd.	7-Dec-16	<0.0010
RMD-256	1000 Blk. McDonald Rd.	7-Dec-16	<0.0010
RMD-263	12560 Cambie Rd.	7-Dec-16	<0.0010

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	health
Barium Total (µg/L)	1000	health
Boron Total (µg/L)	5000	health
Cadmium Total (µg/L)	5	health
Calcium Total (µg/L)	none	
Chromium Total (µg/L)	50	health
Cobalt Total (µg/L)	none	
Copper Total (µg/L)	≤1000	aesthetic
Iron Total (µg/L)	≤ 300	aesthetic
Lead Total (µg/L)	10	health
Magnesium Total (µg/L)	none	
Manganese Total (µg/L)	≤ 50	aesthetic
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

*Checked June 2016

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APPENDIX 7: SAMPLE DRINKING WATER QUALITY ADVISORY

CITY OF RICHMOND ANNUAL WATERMAIN FLUSHING NOTIFICATION

On Sunday, February 21, the Water Services section will begin the annual watermain flushing program. To minimize disruptions, this work will be conducted from Sunday to Friday, 9:00 p.m. to 6:30 a.m. for the duration of approximately nine weeks.

Flushing watermains is required to maintain water quality. Your water will not be turned off; however, during this time you may experience water pressure fluctuation or discolouration. This is not a health concern and should only last for a short time. It is recommended that you run the cold water until the discolouration clears.

If you have any questions, please contact 604-270-8721. For more information on Richmond's high-quality tap water and other water education programs, visit: www.richmond.ca/water.

APPENDIX 8: SPECIFIC EMERGENCY RESPONSE PLANS

Positive Response for Fecal or E. coli

If a water sample tests positive for fecal coliform, the following response plan will occur:

- The municipality's water quality personnel 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.
- The chlorine residual for the sample noted on the sampler's Water Sample Data Sheet will be reviewed to determine if a localized loss of disinfectant occurred.
- All water utility personnel 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 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.

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.

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 both, 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 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 conjunction with Vancouver Coastal Health, has 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.

During turbidity events of >1 NTU the 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.
- Issue a public communication in consultation with the regional Health Authority.
- If necessary, 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 demands management techniques and by supplementing supply to problem areas.
- Metro Vancouver 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 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
6911 No. 3 Road, Richmond, BC V6Y 2C1
Telephone: 604-276-4000
www.richmond.ca

City of Richmond

Report to Committee

To:	Public Works and Transportation Committee	**Date:**	April 27, 2017
From:	John Irving, P .Eng., MPA Director, Engineering	**File:**	10-6125-07-03/2017- Vol 01
Re:	**2016 Climate Action Revenue Incentive Program and Carbon Neutral Progress Report**		

Staff Recommendation

1. That the 2016 Climate Action Revenue Incentive Program (CARIP) and Carbon Neutral Progress Report from the Director, Engineering dated April 27, 2017, be received for information.

2. That, in accordance with Provincial requirements, the CARIP Report and Carbon Neutral Progress Report be posted on the City's website for public access.

John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

Att. 3

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: CJ
APPROVED BY CAO	

Staff Report

Origin

The City of Richmond is committed to maintaining carbon neutral corporate operations, first achieved in 2013. The purpose of this report is to update Council on the 2016 corporate greenhouse gas (GHG) emissions and on the City's carbon neutrality strategy and activities.

This report supports Council's 2014-2018 Term Goal #4 Leadership in Sustainability:

4.1. Continued implementation of the Sustainability Framework.

4.2. Innovative projects and initiatives to advance sustainability.

Background

In September 2008, Council signed the BC Climate Action Charter, voluntarily committing the City to annual corporate GHG emissions reporting and to achieving carbon neutral operations. In 2013, Richmond City Council adopted the *"Towards Carbon Neutrality: Implementation Strategy,"* which put in place an effective framework defined by four key steps for meeting carbon neutrality commitments: measure, reduce, compensate (or offset) and report.

Key mechanisms identified in the 2013 strategy to address the need for compensation included assessing and quantifying beyond "business as usual" corporate activities that reduce GHG emissions and the implementation of the Richmond Carbon Market pilot program to purchase offsets from Richmond-based projects.

Guided by the City's 2013 Green Fleet Action Plan and Energy Management Program for buildings and infrastructure, the City is constantly working on reducing its corporate GHG emissions footprint and energy use. To meet the City's community commitment of 33% reduction from 2007 levels by 2020, Council has endorsed a 20% GHG emissions reduction target for Fleet by 2020 from 2011 levels and a 65% reduction for corporate buildings by 2020 from 2007 levels.

Analysis

The City has achieved carbon neutral operations for the past four reporting years, including 2016. Achieving carbon neutrality for corporate operations entails that the City reduces corporate emissions where possible and offsets corporate emissions as necessary. Due to the City's involvement in and completion of several emissions reduction projects since 2013, the City has been carrying forward a surplus of credits. The surplus has been allocated to following years as needed to achieve carbon neutrality. Based on the ongoing work to reduce corporate emissions and the ongoing accumulation of verified emission credits, the City is projecting that carbon neutrality will be maintained through to the 2019 reporting year, as shown below in Figure 1. The source of credits that the City has achieved and projects to achieve up to 2019 is shown below in Figure 2.

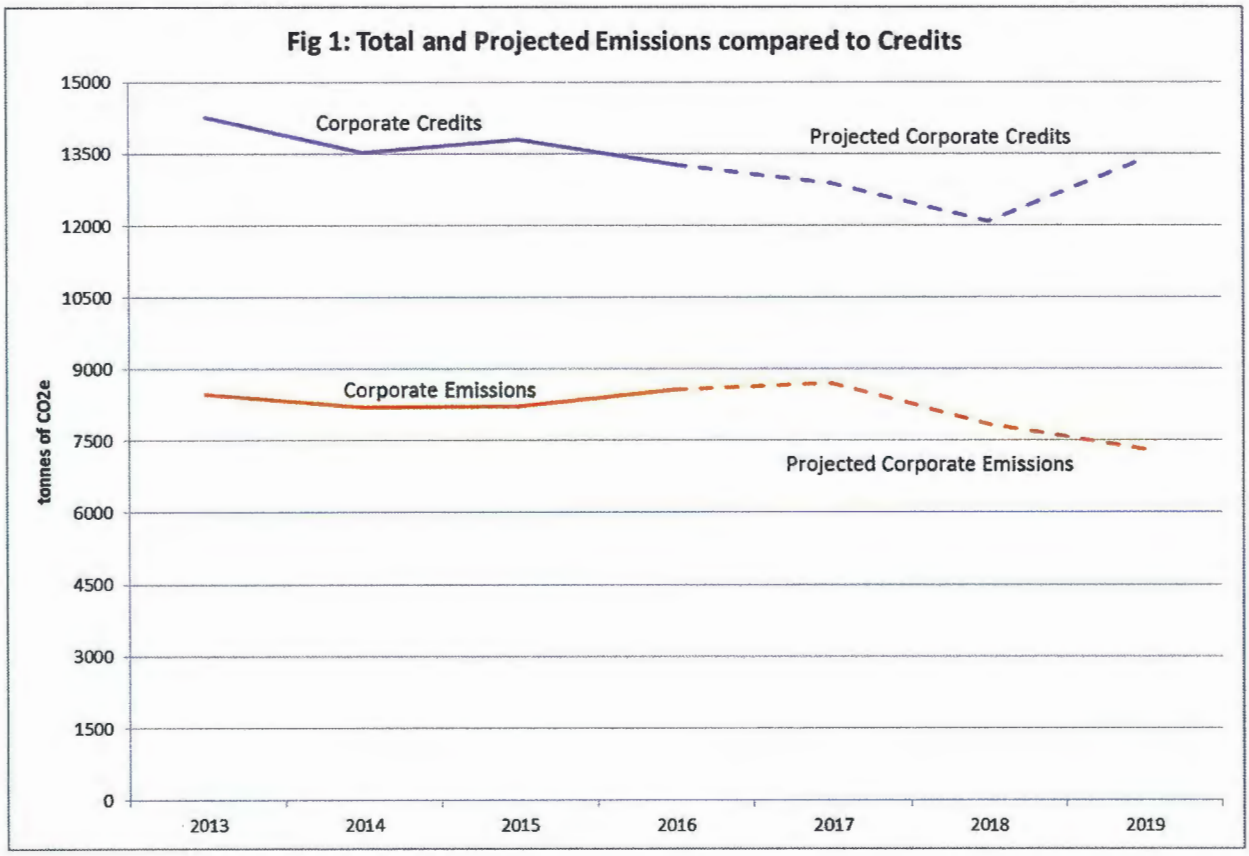
Fig 1: Total and Projected Emissions compared to Credits
15000
13500
12000
10500
9000
7500
6000
4500
3000
1500
0
tonnes of CO2e
Corporate Credits
Projected Corporate Credits
Corporate Emissions
Projected Corporate Emissions
2013
2014
2015
2016
2017
2018
2019

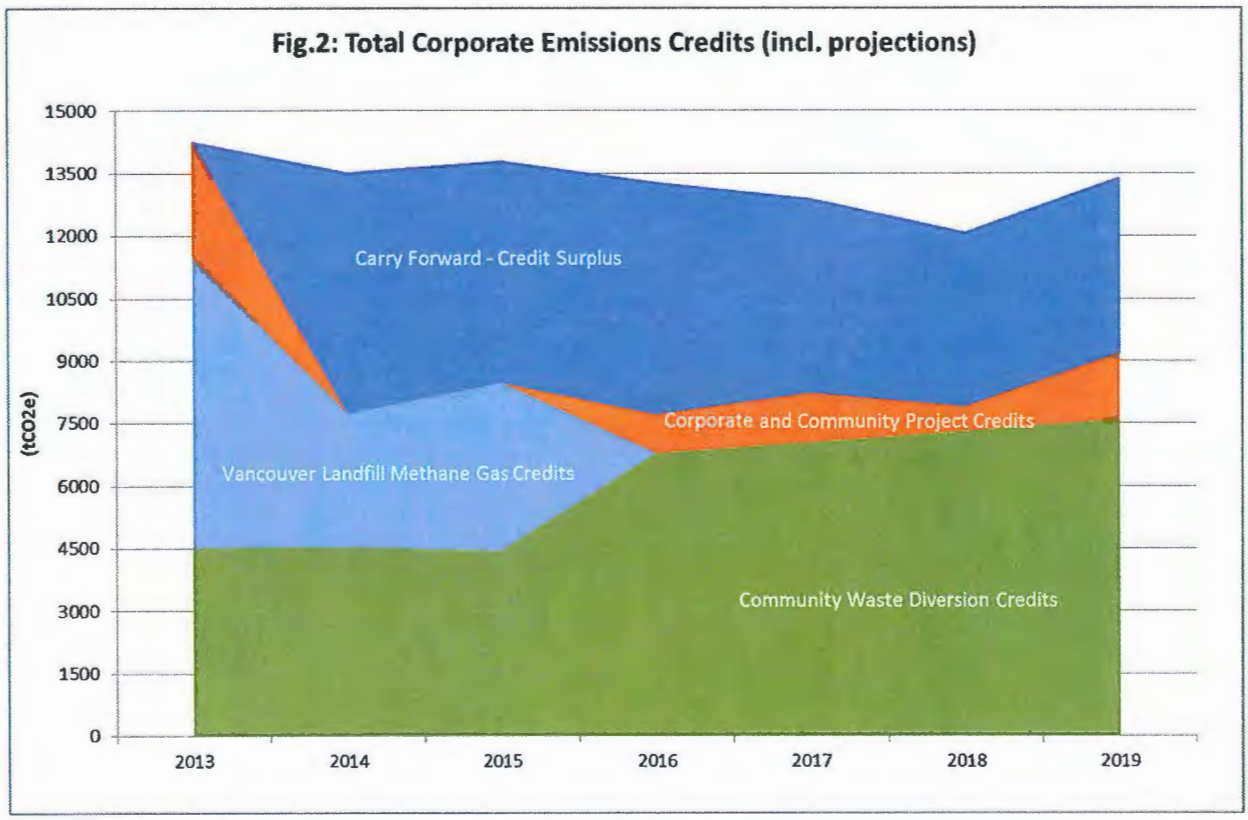
Fig.2: Total Corporate Emissions Credits (incl. projections)
15000
13500
12000
10500
9000
7500
6000
4500
3000
1500
0
(tCO2e)
Carry Forward - Credit Surplus
Corporate and Community Project Credits
Vancouver Landfill Methane Gas Credits
Community Waste Diversion Credits
2013
2014
2015
2016
2017
2018
2019

2016 Corporate Carbon Emissions and Offsets

Based on the figures in Table 1 and 2 below, outlining GHG emissions associated with corporate operations in City buildings, civic infrastructure and fleet activities for 2016 and the associated credits to offset these emissions, staff anticipate that the City will again be eligible for a "Level 3: Achievement of Carbon Neutrality" in 2016 through the Climate Action Recognition Program. A formal announcement is expected to be provided at the Union of British Columbia Municipalities' annual conference. It is estimated that the City will carry forward approximately 4,669 tonnes of GHG (tCO_2e) emission offsets for use in future years. Table 2 also includes future credits that are currently being quantified and will be used in future reporting years once completed.

The reported corporate figures adhere to the BC Ministry of Environment's reporting methodology, and include GHG reductions resulting from the City's purchase of renewable natural gas. The 2016 total includes GHG emissions associated with "traditional municipal services," including those that are contracted out (community waste collection). Compared to the year prior to the City signing the BC Climate Action Charter, corporate emissions in 2016 were approximately 20% lower than in 2007. This reduction was achieved despite an increase in population of approximately 17% and corresponding increases in corporate services that are associated with this growth.

Table 1: 2016 Emission Sources

	Tonnes CO2e	**Quantification Method**
Emissions from services delivered directly by the City	6,688	Derived from metered energy consumption and associated GHG emissions from stationary sources (buildings, lighting, and pumps – except police services energy use) and corporate mobile sources (fleet – except construction related fuel use) used directly by the City
Emissions from contracted services delivering services on the City's behalf	1,877	The BC government standard methodology and guidance for estimated contracted emissions. Fuel usage values and Option 3 (Vehicle/Equipment Type and Hours of Usage) were used to determine the contracted emissions value.
TOTAL	**8,565**	

Table 2: Anticipated Emission Credits (Offsets)

Offsets	Tonnes CO2e	Quantification Method
Household Organic Waste Composting – Municipally Collected	6,765	BC Government Option 1 GHG Reduction Projects reporting method.
Corporate concrete and asphalt recycling – Sidaway Yard	831	BC Government Option 2 GHG Reduction Projects reporting methods (for 2014-2016).
Richmond Carbon Market – Pacific Gateway Hotel energy efficiency credits	106	BC Government Option 1 GHG Reduction Projects reporting method.
Surplus GHG emission credits from 2015 Reporting Year	5,575[a]	As per BC Government reporting protocol.
Alexandra District Energy Utility (2017)	500-700*	BC Government Option 2 GHG Reduction Projects reporting methods (for 2013-2016)
Northeast Bog (2018)	Over 1,000*	BC Government Option 2 GHG Reduction Projects reporting methods (for 2011-2016)
Total projected credits	**14,777-14,977***	
Estimated surplus carry forward for 2017	4,712	
Anticipated additional surplus credits	1,500-1,700*	

[a]) In 2015, based on previous reporting years it was anticipated that the City's carry forward credit surplus would be 6,004 tCO_2e. As a result of unexpected changes to Metro Vancouver conversion factors for waste diversion, the carry forward surplus dropped to 5,575 tCO_2e. This change made no difference in the City' carbon neutrality status for 2015.

*) current estimates, projects to still be quantified

2016 Corporate and Community Carbon Credits (Offset Projects)

As shown above in Table 2, emission credits from diverted household organic waste contributed significantly to offsetting the City's corporate emissions footprint. As compared to 2015, the total amount of diverted organic waste from the City's community collection program increased 16% to 21,477 tonnes in 2016. The total diverted organics for 2016 corresponds to avoided GHG emissions of 6,765 tonnes of CO_2e, representing 79% of the City's 2016 total corporate emissions.

In accordance with BC Government Carbon Neutral reporting protocol, the City completed the necessary reporting, quantification and verification of two corporate projects outside of the City's traditional services boundary.

1. Concrete/Asphalt Recycling: Since 2014, the City has been periodically recycling concrete and asphalt at its Sidaway Yard, which is then used as road base material on City construction sites. This activity helps to displace the use of mined and processed virgin road base material. A third-party certifier reviewed the GHG emissions reductions associated with this recycling activity. Since the corporate recycling activity began in 2014, 831 tonnes of emissions have been avoided from the reduction of virgin road base use through to the end of 2016. As further recycling and reprocessing is conducted in the future, emissions reductions associated with this activity will continue to be used to offset corporate emissions.

2. Building Energy Efficiency Retrofit: Through the Richmond Carbon Market pilot program, the City worked with Pacific Gateway Hotels to assess and quantify the emissions reductions the facility achieved from various energy efficiency upgrades completed prior to 2015. By upgrading mechanical equipment and improving the building envelope, Pacific Gateway reduced its GHG emissions by 106 tonnes in 2015. This project was the first project the City completed through the Richmond Carbon Market program, with the credits being transferred to the City through a purchase and transfer agreement. The City is the first municipality in the Lower Mainland to utilize this method to support emissions reductions in the community while at the same time reducing its own emissions footprint. For future reporting years, the City will have the opportunity to continue purchasing these annual credits from Pacific Gateway through this program. Further detail on the Richmond Carbon Market pilot program is presented below.

"Non-Traditional" Corporate GHG Emissions Reduction Projects

The quantification and verification of two non-traditional municipal service projects that are "beyond business as usual" are on-going (described below in Table3), and it is expected that the associated credits from these projects will be used to offset corporate emissions in 2017 and 2018 respectively.

Table 3: Corporate GHG Emissions Reduction Quantification Projects

		Status	**Estimated GHG (tCO_2e)**
1. Alexandra District Energy Utility	Renewable energy transfer for community housing, displacing natural gas and electricity	A verification consultant has engaged to complete the quantification of this project and final verification is expected to be completed in July 2017 – in time for 2017 reporting	500-700*
2. Northeast Bog	Conservation purchase and enhancement of a bog ecosystem to maintain its carbon storage capacity	Undergoing carbon assessment and hydrogeological study – quantification project is in initial stages and final verification is expected to be completed in May 2018 – in time for 2018 reporting	Over 1,000
*Estimated credits include reduction actions for 2016 and prior years		**Total**	**1,500-1,700**

Since operations and assets at Alexandra District Energy Utility (ADEU) were transferred to the City's Lulu Island Energy Corporation (LIEC) on January 1, 2017, emission reduction credits from past ADEU operations (2014-2016) will be quantified and verified, and will be used to offset 2017 reported corporate emissions.

As the City works to shift its energy systems to use more sustainable sources, the City has identified district energy utilities (DEUs) as a key component of sustainable energy systems that can be implemented in neighbourhoods undergoing redevelopment. Some of the key benefits of implementing DEU systems include; using energy more wisely with less waste, increasing energy security and reliance, providing cost effective energy to the community, and reducing the associated GHG emissions. As the City's DEU operations grow through LIEC, so too will the associated GHG emissions reductions that are derived from the displacement of conventional energy sources with renewable systems. Since LIEC is a separate corporation, it will have the

opportunity to continue to quantify and verify emissions reduction on a yearly basis for ADEU, as well as for other district utility systems. Based on Provincial reporting protocols, those reduction credits could be transferred back to the City through a purchase agreement or sold to a third party, if desired.

The GHG emission offsets associated with the Northeast Bog can be pursued since the City intends to conserve the land and maintain the carbon storage capacity of the bog. The carbon storage amount of the Northeast Bog is compared to the scenario where the land would have otherwise been developed for agricultural purposes. The conserving of the Northeast Bog is expected to result in significant GHG emission reduction credits. This quantification project is very unique, in terms of the type of ecosystem being assessed, the focus on carbon storage capacity of the Site, and the development of a carbon quantification methodology. It is believed that this work will help to inform the City and the region on the importance of conserving and enhancing this type of ecosystem.

Richmond Carbon Market

Council endorsed the Richmond Carbon Market is a program designed to reduce GHG emissions and build community resilience by re-investing Climate Action Revenue Incentive Program funds in Richmond-based emissions reduction projects.

- Phase 1: Determine the Potential for Local GHG Reduction Projects (through outreach)
- Phase 2: Identify Potential Local GHG Reduction / Offset Projects, and complete pre-feasibility assessments
- Phase 3: Complete final assessments and quantify the RCM submissions, and enter into agreements with proponents to offset corporate GHG emissions
- Phase 4: Maintain corporate carbon neutrality
- Phase 5: Continue to help grow the City's low carbon economy

Staff have completed Phases 1 to 3 of this initial round of the pilot project, and finalized its first agreement with Pacific Gateway Hotels through this program. Unfortunately due to unexpected circumstances, three of the proponents identified in the original request for projects are not able to complete the quantification of their projects for inclusion in the RCM program. One original RCM project remains a potential source of future corporate credits, Ecowaste Industries' enhanced landfill re-vegetation and carbon sequestration project. Quantification of emissions reductions from the Ecowaste project has been delayed due to alterations to the original project parameters. The City remains committed to trying to reach an agreement with Ecowaste Industries if possible, although the project is not expected to be re-stabilized for another year or two. The funding for the RCM pilot program, allocated from the Provincial Climate Action Revenue Incentive Program grant, was previously approved in the 2014 operating budget process and remains in place to fulfill the completion of a potential Ecowaste purchase and funding agreement.

The City remains committed to identifying additional potential community partners with quantifiable GHG emissions reduction projects for inclusion in the program. Through an upcoming round of request for projects, Staff expects that further community projects can be brought forward for Council consideration, and further carbon credits can be accumulated to support the City's carbon neutral status.

Public Reporting

Another tool to build community awareness regarding the importance of GHG emissions reduction is through public reporting. The City will carry out public reporting on the City's website (Climate Action Charter related reports Attachments 1-3). Staff will continue to use the City's Richmond Carbon Market as a means to engage Richmond business to develop potential credits, and promote its general objectives to the business community to encourage greater awareness and focus on overall community GHG emissions reductions.

Financial Impact

None at this time.

Conclusion

The City of Richmond is a leader amongst BC municipalities through its innovative corporate projects and programs to reduce community and corporate GHG emissions. Through the continued strategic implementation of the *Towards Carbon Neutrality – Implementation Strategy*, the City is well positioned to maximize corporate and community benefits of transitioning towards a low carbon community and maintain carbon neutral corporate operations in the long term.

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Senior Manager, Sustainability and
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LH:lh

Att. 1: Carbon Emissions Provincial Reporting Worksheet - 2016
Att. 2: Climate Action Revenue Incentive Public Report - 2016
Att. 3: Contracted Emissions Estimates (Hired Equipment and Cascade) - 2016

2016 Carbon Neutral Progress Report

Emissions/Offsets	Tonnes CO2e
Annual City of Richmond corporate emissions (as per Provincial reporting protocol)	**8,565**
Emissions from services delivered directly by the local government	6,688
Emissions from contracted services	1,877
Less: GHG reductions being claimed for this reporting year from Option 1 - GHG reduction project	**6,871**
Household Organic Waste Composting	6,765
Solar Thermal	
Energy Efficient Building Retrofits and Fuel Switching (Pacific Gateway Hotels)	106
Low Emissions Vehicles	
Forest Conservation	
Less: *GHG reductions* being claimed for this reporting year from Option 2 - GHG reduction projects	**6,406**
Option 2 Project A –Corporate Concrete and Asphalt Recycling at Sidaway Yard	831
Option 2 Project B – Surplus Carbon Credits from 2015 Reporting Year	5,575
Less: *Offsets purchased for this reporting year (Option 3). Please identify your offset provider in the offset provider information section below.*	n/a
Total GHG emissions reductions claimed for 2016	**13,277**
Balance of corporate emissions for this reporting year. *(If the corporate emissions balance is zero or negative, your local government is carbon neutral for this reporting year)*	**-4,712**

Climate Action Revenue Incentive Program (CARIP) Public Report

Climate Action Revenue Incentive (CARIP) Public Report for YEAR 2016

City of Richmond

Metro Vancouver

Report Submitted by
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The City of Richmond has completed the 2016 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2016 and proposed for 2017 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG), as well as general sustainability related initiatives.

April 19, 2017

General Information

Name of Local Government	City of Richmond
Member of Regional District (RD)	Metro Vancouver
Regional Growth Strategy (RGS) in region	Yes
Population	218,000

Table of Contents

1. GENERAL REPORT INFORMATION

This 2016 Climate Action Revenue Incentive Program (CARIP) Public Report documents the actions that the City of Richmond has taken corporately and in the community to support the reduction of greenhouse gas (GHG) emissions and energy use, as well as other sustainability related initiatives. The actions are separated into seven main categories; Broad Planning, Buildings and Lighting, Energy Generation, Greenspace/Natural Resource Protection, Solid Waste, Transportation, Water and Wastewater, and Climate Adaptation. There are also is an Innovation category, which the City has inputted action items. The categories are further divided into corporate and community related actions, with general climate action questions at the beginning of each category.

This report encompasses a majority of the action items that the City is involved in to support GHG and energy reduction, but does not cover all sustainability related initiatives that the City conducts or supports. The report represents a "snapshot" of City activities over the past year, and proposed actions for 2017.

2. BROAD PLANNING

Broad planning refers to high level planning that sets the stage for GHG emissions reductions, including plans such as Official Community Plans, Integrated Community Sustainability Plans, Climate Action Plans or Community Energy Emissions Plans. Land use planning that focuses on Smart Growth principles (compact, complete, connected, and centred). Broad Planning plays an especially important role in energy and GHG reduction. Summarized below are the City of Richmond's responses to the Provincial inquiries regarding broad planning issues, and summary of initiatives conducted in 2016 and planned in 2017.

General Climate Action Questions	
What is (are) your current GHG reduction target(s)?	GHG reduction targets of 33% by 2020, and 80% by 2050, below 2007 levels. Reduce energy use by 10%.
Has your local government used the Community Energy and Emissions Inventory (CEEI) to measure progress?	Yes
Which of the following does your local government use to guide climate action implementation? • Community Energy and Emissions Plan • Integrated Community Sustainability Plan • Community-Wide Action Plan	 Yes Yes Yes
Does your local government have a corporate GHG reduction plan?	Yes
Does your local government have a climate reserve fund or something similar?	Yes

2.1. Community Actions

Community-Wide Actions Taken in 2016	
	The City's OCP was amended to incorporate the Arterial Road Land Use Policy, which identifies areas along the City's Arterial Roads that are appropriate for more energy efficient housing types such as duplex, triplex and row house development.
	Continued to implement the OCP and City Centre Area Plan (CCAP) directives as new development applications are processed. The plans direct the majority of Richmond's urban growth to the City Centre and near major transit stations.
	Continued to ensure new developments within the City Centre Area were "District Energy Utility (DEU) Ready" for future connection to a district energy system, as per the City by-law.
	Worked with Translink in developing the Southwest Area Transport Plan to define Richmond's long-term transportation network and priorities, which also encompasses, South Delta and Tsawwassen First Nation.
	Met regularly with Richmond's Small Home Builders and Urban Development Institute when preparing new community building related sustainability initiatives

Community-Wide Actions Proposed for 2017	
	Revise zoning regulations on the size of homes on agricultural land to ensure farmland is protected.
	Continue to implement OCP and CCAP policies as new development applications are processed.
	Continue to meet with Richmond's Small Home Builders and Urban Development Institute when preparing new community building related sustainability initiatives.
	Revise the Steveston Area Plan and include measures that promote a more compact, sustainable, energy efficient, and pedestrian friendly built environment
	Continue development of the Southwest Area Transport Plan.
	Implement and support the installation electric vehicle charging infrastructure in select new private developments.
	Continue to follow City by-law requirements and implement "DEU" ready development in the City Centre and West Cambie neighborhood areas

2.2. Corporate Actions

Corporate Wide Actions Taken in 2016	
	Continued to implement the corporate High Performance Building Sustainability Policy. This policy sets targets for the construction of energy efficient new corporate buildings and sets in place processes to ensure that energy and resources are used efficiently in existing buildings.
	Continued to implement action items from the City's Green Fleet Action Plan, to reduce GHG emissions associated with the City's vehicle and equipment use.
	Continued to adhere to the Corporate Building, Equipment, Monitoring, and Integration Requirements, which sets out guidelines for equipment energy efficiency, energy and GHG emissions monitoring requirements, and the integration of buildings and equipment into the City's network.

Corporate Wide Actions Proposed for 2017	
	Review the incorporation of a step code for new corporate buildings, with the goal of effectively improving building energy and sustainability performance
	Continue to implement the corporate High Performance Building Sustainability Policy.
	Continue to implement action items from the City's Green Fleet Action Plan
	Continue to implement Corporate Building, Equipment, Monitoring, and Integration Requirements

3. BUILDINGS AND LIGHTING

Low-carbon buildings use the minimum amount of energy needed to provide comfort and safety for their inhabitants and tap into renewable energy sources for heating, cooling and power. These buildings can save money, especially when calculated over the long term. This category also includes reductions realized from energy efficient street lights and lights in parks or other public spaces. Below are the City of Richmond's responses to the Provincial inquiries regarding building and lighting initiatives conducted in 2016 and planned for 2017.

General Climate Action Questions	
Does your local government have green building/construction policies, plans or programs?	Yes

3.1. Community Actions

Community-Wide Actions Taken in 2016	
	Continued to implement building and district energy policies. Secured commitments from new development in the City Centre to achieve LEED Silver, and townhome developments city-wide to build to EnerGuide 82 standard.
	Established a "Solar Friendly Richmond Framework", outlining actions to better enable solar energy system implementation in Richmond.
	Continued with the following EnergySave Richmond suite of programs. • Building Energy Challenge, a friendly competition to save energy use over the course of the year, 2016 was the second year of the program that now has over 95 buildings involved and over 7.0 million square feet of property. • Richmond Carbon Marketplace pilot program, which supports community based GHG emissions reduction projects through facilitation and funding • Smart Thermostat Pilot Program involved 150 participants, providing a $125 rebate on a smart thermostat. • Climate Smart program that provides coaching to Richmond-based businesses on cost-effective opportunities to reduce GHG emissions, energy use, and waste generation
	Through a water and energy save program, installed efficient spray-valves and water fixture aerators, and conducted energy and water savings assessments at 99 food service facilities. The program is projected to save 73 million litres of water and over 500 tonnes CO_2e annually.
	Supported implementation of the Climate Change Showdown in 20 Richmond Grades 4-7 classrooms.

Community-Wide Actions Proposed for 2017	
	Implement electric vehicle direct current fast charging stations in the City, to further encourage the use and development of electrical vehicles.
	Implement new BC Energy Step Code requirements for new developments through bylaw requirements and policies applied at rezoning.
	Implement a benchmarking, reporting and disclosure bylaw for buildings.
	Continue to implement EnergySave Richmond suite of programs. • Host Year 3 of Building Energy Challenge. • Continue to provide the Smart Thermostat Program. • Continue to host Climate Smart program for businesses. • Continue to implement water and energy saving programs. • Continue to offer the Richmond Carbon Marketplace pilot program to Richmond businesses.
	Continue to support climate change education in up to 20 Richmond classrooms.

3.2. Corporate Actions

Corporate Wide Actions Taken in 2016	
	Completed energy efficiency upgrades at City Hall, Steveston Community Centre, Fire Halls, and other corporate facilities that will reduce energy use by approximately 1.3 GWh, or equal to annual energy use of 30 single family homes in Richmond
	Completed Phase 1 of the City of Richmond street lighting conversion project, with the replacement of approximately 1,050 less energy efficient street light fixtures with new more efficient LED technology, for an estimated energy savings of over 240,000 kWh annually
	Initiated the internal Energy Statement reporting functionality to further engage City staff in corporate energy reduction initiatives.
	Initiated the upgrade of the mechanical building automation system at the Library Cultural Centre to help improve overall occupant comfort and equipment scheduling and monitoring

Corporate Wide Actions Proposed for 2017	
	Complete mechanical upgrades at Watermania, Richmond Ice Centre, and at Library Cultural Centre
	Complete the upgrade of the building automation systems at Fire Hall No.4 and No.5, and at the Community Safety Building to improve overall occupant comfort and equipment scheduling and monitoring
	Complete Phase 2 of the City of Richmond street lighting conversion project, with the replacement of approximately 1,000 less energy efficient street light fixtures with new more efficient LED technology
	Continue to work towards achieving key targets in the City's High Performance Building Policy for new and existing facilities, with focus on energy efficiency, reduced resource use, and environmental sustainability.

4. ENERGY GENERATION

A transition to renewable or low-emission energy sources for heating, cooling and power supports large, long-term GHG emissions reductions. Renewable energy including waste heat recovery, geo-exchange, micro hydroelectric, solar thermal and solar photovoltaic, heat pumps, tidal, wave, and wind energy can be implemented at different scales, e.g. in individual homes, or integrated across neighbourhoods through district energy or co-generation systems. Below are the City of Richmond's responses to the Provincial inquiries regarding energy generation, and summary of initiatives conducted in 2016 and planned in 2017.

General Climate Action Questions	
Is your local government currently developing or constructing new district energy projects?	Yes
Is your local government currently developing or constructing a new renewable energy system?	Yes
Is your local government operating a district energy centre?	Yes
Is your local government operating a renewable energy system?	Yes
Is your local government connected to a district energy system that is operated by another energy provider?	No
Are you aware of the integrated resource recovery (IRR) guidance page on the BC Climate Action Toolkit?	Yes

4.1. Community Actions

Community-Wide Actions Taken in 2016	
	Completed Phase 4 of the Alexandra District Energy Utility (ADEU), which included the construction of a new energy centre to service the ADEU's first commercial customers, new residential customers, and a connection to the new Fire Hall No.3. The expansion increased ADEU's service totals to 1,200,000 ft2 of residential space and 335,000 ft^2 non-residential space.
	Increased the floor space serviced by the Oval Village District Energy Utility (OVDEU), in partnership with a private utility, to 1,413,000 ft2 (a total of 1,343 units).
	Issued a request for proposals to find a partner to design, finance, build and operate City Centre North District Energy Utility (CCNDEU).

Community-Wide Actions Proposed for 2017	
	Continue to connect buildings and expand the ADEU distribution system as development requires. Currently, one new residential building (115,000 ft^2) is scheduled for connection.
	Continue OVDEU construction in partnership with private utility partner. Install additional distribution piping and connect two new developments with a total of 480,000 ft^2 of building gross floor area.
	Negotiate a partnership agreement to design, finance, build and operate CCNDEU with a private utility partner.
	Complete a feasibility study on the potential of micro sewer heat recovery infrastructure to be included as part of new multi-family and commercial development.

4.2. Corporate Actions

Corporate Wide Actions Taken in 2016	
	Completed a feasibility study on the installation of solar photovoltaic array at the new Minoru Complex and Fire Hall No.1
	Completed the connection of the new Fire Hall No.3 to the corporate Alexandra District Energy Utility Centre, which provides heating and cooling through a renewable geoexchange system.

Corporate Wide Actions Proposed for 2017	
	Continue to target renewable energy integration, a key component of the City's High Performance Building Policy, during design development of new corporate facilities.
	Install solar photovoltaic array at Fire Hall No.1 to offset electrical demand.

5. GREENSPACE/NATURAL RESOURCE PROTECTION

Greenspace/Natural Resource Protection refers to the creation of parks and greenways, boulevards, community forests, urban agriculture, riparian areas, gardens, recreation/school sites, and other green spaces, such as remediated brownfield/contaminated sites as well as the protection of wetlands, waterways and other naturally occurring features. Greenspaces support climate change mitigation (reducing emissions by absorbing and sequestering GHG) and adaptation (providing shade, cooling, deflecting strong wind, and improving air quality). Below are the City of Richmond responses to the Provincial inquiry regarding "greenspace" management in the City, and summary of community initiatives conducted in 2016 and planned in 2017.

General Climate Action Questions	
Does your local government have urban forest policies, plans or programs?	Yes

5.1. Community Actions

Community-Wide Actions Taken in 2016	
	Adopted an Invasive Species Action Plan (ISAP), which is a strategic, risk based approach to guide and prioritized invasive species management in Richmond.
	Integrated the Ecological Network Management Strategy (ENMS) directives in over 15 projects, increasing native planting, connecting areas, and protecting sensitive habitat in the City.
	Planted 590 trees on City streets and parks, as per the City's Tree Management Plan
	In partnership with the David Suzuki Foundation and the Richmond School District, the City mentored the Richmond's Green Ambassadors who developed and delivered the 5th annual ReaDY Summit – a youth led conference promoting environmental awareness and action. The theme for the 2016 summit was "Change Happens Now: The World is Rooted in our Backyard"
	Began development of the 136 acre Garden City Lands Conservation Area and Farm site that is within the ALR and is a remnant of the former Greater Lulu Island Bog.

Community-Wide Actions Proposed for 2017	
	Complete the Urban Forest Management Strategy and begin implementation of the Strategy's recommendations.
	Continue to advance the actions and initiatives identified in the City's ENMS to protect, restore and connect the City's Ecological Network in the following focus areas: - Green infrastructure and development; - Vegetation, habitat and wildlife; - Parks and public spaces; and stewardship and collaboration.
	At the Garden City Lands Conservation Area and Farm, complete the construction of the 900m seepage barrier to protect the bog, complete tree and shrub planting around the perimeter of the site including 935 trees and 55,224 shrubs, grasses, perennials, etc., and prepare a 5 acre farm area to facilitate Kwantlen Polytechnic University's Sustainable Agriculture degree program
	Continue to work in partnership with the David Suzuki Foundation and Richmond School District to mentor Richmond's Green Ambassadors to develop and deliver the 6th annual Ready Summit –where the 2017 theme is "Going toward another 150."
	Host 29 free community workshops under the Enhanced Pesticide Management Program to reduce pesticide use and create a more sustainable community.

5.2. Corporate Actions

Corporate-Wide Actions Taken in 2016	
	Initiated a carbon assessment of the Northeast Bog Conservation Area, to model the carbon storage implications of the land as compared to agricultural development.
	Undertook a riparian compliance review to inform regulatory changes to protect and enhance the riparian area in accordance with the Riparian Area Regulation.
	Undertook a multi-year program to manage Japanese Knotweed infestations in and around City infrastructure and sensitive habitat.
	Developed a planting plan and completed site preparation for native species and shrubs planting along the City's new 5 km Railway corridor greenway, which is intended to function as an ecological corridor.
	At the City owned Terra Nova Rural Park Pollinator Pasture, planted 60 trees and 160 shrubs and forbes to enhance pollinator habitat and assist the agricultural production of the Sharing Farm's farming programs in the park.
	Established two demonstration lawns, one at City Hall, the other at Garden City to showcase alternative ground covers that utilize pollinator attracting/native grass species to mitigate infestations of European Chaffer Beatles.

Corporate Wide Actions Proposed for 2017	
	Complete a hydrological assessment of the City's Northeast Bog conservation area, to help finalize the City's carbon assessment.
	Complete the development of the Garden City Lands Water and Ecological Resource Management Strategy including recommendations for construction and management practices and long-term monitoring of the bog ecosystem.
	Complete the planned planting of native trees and shrubs along the Railway Greenway Corridor for Phase 2 of the project.
	Continue to detect and respond to invasive species encroachment on City property effectively

6. SOLID WASTE

Reducing, reusing, recycling, recovering and managing the disposal of solid waste minimizes environmental impacts and supports sustainable environmental management, greenhouse gas reductions, and improved air and water quality. Below are the City of Richmond responses to the Provincial inquiries regarding solid waste management in the City, and summary of initiatives conducted in 2016 and planned in 2017.

General Climate Action Questions	
Does your local government have construction and demolition waste reduction policies, plans or programs?	Yes
Does your local government have organics reduction/diversion policies, plans or programs?	Yes

6.1. Community Actions

Community-Wide Actions Taken in 2016	
	Introduced Bylaw 9516, which effective April 1, 2016, requires that 70% of waste from single-family home demolitions to be diverted from disposal – Contractors are assessed a $2.00 per square foot refundable fee if they meet the 70% waste diversion requirement.
	Served approximately 145,000 customers at the Recycling Depot, using the facility to recycle material such as; large appliances, batteries, cell phones, and Styrofoam.

Community-Wide Actions Taken in 2016	
	Conducted numerous community engagement and information on waste reduction, recycling and avoiding food wastage. • Delivered 38 recycling and waste reduction workshops with approximately 860 attendees • Organized 10 DreamRider theatrical shows for Zero Heroes with more than 3,710 attendees • Provided five Recycling Depot tours for 105 students/teachers • Participated in in six community events to promote waste reduction and recycling initiatives.
	Green Ambassadors contributed 2,327 hours to promote waste diversion at special events and participated in community outreach and invasive plant removals.
	Introduced Donation Bin Regulation Bylaw No. 9502 that established approved locations for non-profit group to place bins for clothing or other household items throughout the community.
	Supported recycling and waste reduction at over 50 community events.

Community-Wide Actions Proposed for 2017	
	Review and report progress on Demolition and Recycling Material Bylaw.
	Update the Multi-Family and Commercial Guidelines to ensure multi-family and commercial developments are designed with accessible and adequate space for garbage and recycling services.
	Install in-ground containers in high traffic and/or remote public spaces to increase waste capacity concerns and reduce service frequency.
	Continue public engagement through workshops, depot tours, community displays, and theatrical shows.
	Continue to increase awareness of the expanded range of materials accepted in the Blue Box and Blue Cart recycling programs, including proper recycling practices under the MMBC partnership, to reduce contamination and increase recycling levels.

6.2. Corporate Actions

Corporate Wide Actions Taken in 2016	
	Continued to expand in-house recycling to more City facilities through the City's WeRecycle program, which includes organics collection and expanded the range of materials accepted for recycling.
	Supported Community Services department with their Annual Purge Event to properly recycle paper, large/small appliances, batteries, electronics and hazardous materials.
	Assisted with the implementation of the Sustainable Food Service Quick Guide to ensure all facilities are using sustainable dinnerware that can be recycled/composted through Richmond recycling programs.

Corporate Wide Actions Proposed for 2017	
	Conduct corporate site and visual audits of the garbage and recycling stations to ensure that staff are disposing of materials in the correct receptacles and develop a renewed communication plan based on its results.
	Conduct a waste reduction lunch and learn event for City staff to inform them of community and corporate opportunities to reduce waste
	Continue promoting the corporate WeRecycle program, to encourage staff to increase corporate waste diversion

7. TRANSPORTATION

Transportation actions that increase transportation system efficiency, emphasize the movement of people and goods, and give priority to more efficient modes, e.g. walking, cycling, ridesharing, and public transit, can contribute to reductions in greenhouse gas emissions and more livable communities. Below are the City of Richmond responses to the Provincial inquiries regarding transportation system management in the City, and summary of initiatives conducted in 2016 and planned in 2017.

General Climate Action Questions	
Does your local government have policies, plans or programs to support: • Walking • Cycling • Transit Use • Electric Vehicle Use • Other: car-sharing, carpooling	 Yes Yes Yes Yes Yes
Does your local government have a transportation demand management (TDM) strategy (e.g. to reduce single-vehicle occupancy trips, increase travel options, provide incentives to encourage individuals to modify travel behavior)?	Yes
Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?	Yes

7.1. Community Actions

Community-Wide Actions Taken in 2016	
	Completed multiple projects to improve transit, biking, and pedestrian accessibility including: • Upgraded two special crosswalks on arterial roads (No. 2 Road and Gilbert Road) to pedestrian signals to support the implementation of the Crosstown local street bikeway • Completed the Parkside local street bikeway along Ash Street (Williams Road-Granville Ave) • Upgraded special crosswalk on arterial road (Westminster Hwy) as part of northern extension of the Railway Greenway multi-use pathway to the Middle Arm Dyke Trail • Upgraded 24 bus stops to improve accessibility, • Initiated construction of off-street multi-use pathway on Dyke Road • Rehabilitated off-street multi-use pathway on Shell Road • Constructed sidewalk and pathways on 7th Avenue and Bridgeport Rd to support walking and access to nearby transit services. • Upgraded 27 signalized intersections to include accessible pedestrian signal features
	Staged 16th annual "Island City, by Bike" tour for the community to encourage cycling as a mode of transportation.
	Supported education and encouragement programs for cycling and walking (e.g., Bike to Work/School Week, cycling education courses for students and adults, Walk Richmond program, school travel planning partnership with TransLink)
	Continued partnership with TransLink to identify and encourage alternative travel modes to decrease single occupant vehicles trips to/from business parks and industrial areas in Richmond

Community-Wide Actions Proposed for 2017	
	As part of the approved Transportation Capital Budget, the following improvements and enhancements are planned to be completed in 2017: • Construct or enhance eight new sidewalks/pathways to encourage alternative modes of transportation • Install 2 special crosswalks and 3 new pedestrian signals including one to support access to new Minoru Complex, which includes aquatic centre and older adult's centre • Complete the construction of road improvement projects on Lansdowne Road (Minoru Blvd-Alderbridge Way) and Westminster Hwy (Nelson Rd-McMillan Way), which will include off-street multi-use pathways. • Install new transit shelters
	Continue to support expansion of car-share services in Richmond
	Stage 17th annual "Island City, by Bike" tour for the community to encourage cycling as a mode of transportation.
	Continue to support education and encouragement programs for cycling and walking.

7.2. Corporate Actions

Corporate Actions Taken in 2016	
	Continued the City's vehicle replacement program to replace older, less fuel-efficient vehicles with newer, more fuel-efficient vehicles and with best in class fuel efficiency, where possible. In 2016, 37 units were replaced and 12 more units were ordered for 2017.
	Implemented a GPS system Fleet vehicle tracking project in 60 select vehicles to help with route planning and weather response, to improve fuel efficiency and reduce emissions.
	Developed and delivered a unique "Auntie"-idling and driver awareness campaign for staff, along with newsletters, t-shirts, key chains, message boards and posters
	Continued other operational improvements as described in the Green Fleet Action Plan, including reducing growth and downsizing the Fleet, incorporation of more electric and hybrid vehicles where possible, and right sizing of existing and new assets. The Green Fleet Action Plan target is to reduce the City's overall Fleet emissions by 20% in 2020 from 2011 levels.
	Implemented a car sharing pilot program for City Hall and City Center Community staff
	Completed a Fleet usage audit by the Finance department that reviewed the usage of the Fleet to see where reductions in the fleet size could be accomplished.
	Continued existing initiatives that encourage the use of alternative modes of transportation for commuting to and from work and corporate travel such as sponsorship and promotion of Bike to Work week, use of corporate bike fleet, pilot use of pedal-electric bike, and promotion of transit fare passes for work travel

Corporate Actions Proposed for 2017	
	Continue replacing older less efficient City fleet vehicles with newer, more fuel- efficient vehicles, where possible.
	Evaluate the results of the Fleet's GPS tracking project involving 60 select vehicles to and institute routing efficiency initiatives to reduce Fleet vehicle trip times and fuel use
	Continue corporate subsidy of City Employee Carpool Program
	Continue with the Auntie Idling Campaign and newsletter and focusing on what staff have done to reduce emissions and highlighting why they care
	Continue to support use of alternative modes of transportation for work related travel, including cycling, providing transit passes for work trips, and carpooling.
	Continue to explore alternative fuelling options for Fleet vehicles that will reduce emissions and operational issues

8. WATER AND WASTEWATER

Managing and reducing water consumption and wastewater is an important aspect of developing a sustainable built environment that supports healthy communities, protects ecological integrity, and reduces greenhouse gas emissions. Below are the City of Richmond responses to the Provincial inquiry regarding water and wastewater management in the City, and summary of initiatives conducted in 2016 and planned in 2017.

General Climate Action Questions	
Does your local government have water conservation policies, plans or programs?	Yes

8.1. Community Actions

Community-Wide Actions Taken in 2016	
	Installed 2,225 water meters at single-family residences (approximately 93% of single-family homes in the City of Richmond are now metered)
	Issued 748 toilet rebates to homeowners that replaced old toilets with a low-flush toilet to reduce residential water use. The total incentive paid to homeowners through this program in 2016 was $74,800.
	Partnered with BC Hydro to provide a clothes washer rebate program to reduce home water and electricity use. In 2016, 294 rebates were issued to homeowners who replaced their less efficient (water and electricity) washer for a new efficient model at a total cost to the City of $20,200. This program in 2016 is expected to result in an estimated annual savings in water and energy of 1,655,600 liters per year and 53,800 kilowatt hours per year, respectively.
	Installed meters for 141 existing multi-family residential complexes (comprising 8,585 dwelling units) through the volunteer water meter program. It is mandatory for new multi-family residences to have a water meter. A total of 40% of the multi-family units in Richmond now have a water meter.
	Provided 150 free water saving kits to Richmond households that included a low-flow showerhead, kitchen and bathroom tap aerators and a pop-flush device for toilets.

Community-Wide Actions Proposed for 2017	
	Continue the single family and multi-family water meter installation programs
	Continue the toilet rebate program ($100,000 in funding for 2017)
	Continue offering the water saving kits and free leak audits to homeowners with a newly installed water meter.
	Continue to participate in the clothes washer rebate joint program in May/June and October/November with BC Hydro in 2017.
	Continue the City's Rain Barrel Program and promote the use of rain water for gardening and irrigation purposes.

8.2. Corporate Actions

Corporate Actions Taken in 2016	
	Continued to participate in the Metro Vancouver Municipal Water Conservation Coordinator Committee. The meetings revolve around networking with other municipalities and discussing initiatives, progresses, updates in policies and results through group communication.
	The City of Richmond corporately supported Metro Vancouver's We Love Water campaign by utilizing their comprehensive assortment of Twitter and Facebook digital graphics, internally and in the community.
	Installed further recommended conservation measures at the ten previously water audited buildings

Corporate Actions Proposed for 2017	
	Continue to take part in the Metro Vancouver Municipal Water Conservation Coordinator Committee.
	Continue to follow the City's landscaping best practices, which emphasize planting grasses and plants at corporate facilities that require little or no irrigation water.
	Replace all domestic hot and water copper mains in the City Hall building with Aquatherm pipe to address pin hole leaks

9. CLIMATE ADAPTION

For local governments, adaptation to a changing climate can take the form of changes in policy, management, technology and behaviour that minimize negative impacts or exploit opportunities. It can involve both "hard" and "soft" solutions, including: changes in infrastructure engineering, planning, zoning, bylaws and public education. Below are the City of Richmond responses to the Provincial inquiries regarding climate change adaption, and summary of initiatives conducted in 2016 and planned in 2017.

General Climate Action Questions	
Are you familiar with the Plan2Adapt guidance located on the Climate Action Toolkit Website?	Yes
Are you familiar with "Preparing for Climate Change - An Implementation Guide for Local Governments in BC?	Yes
Have you visited the climate change adaptation guidance page on the BC Climate Action Toolkit?	Yes

9.1. Community Actions

Community-Wide Actions Taken in 2016	
	Continued development of Dike Master Plan Phase 2, which is a blue print for dike improvements in advance of Climate Change Induced Sea Level Rise.
	Continued implementing the 2008-2031 Richmond Flood Protection Strategy
	Established the Integrated Rainwater Resource Management Strategy that aims to protect and enhance the City's stormwater conveyance infrastructure and ecological assets under more frequent rainfall events and considers rainwater as a resource to be utilized, by promoting its conservation and public re-use where possible.

Community-Wide Actions Proposed for 2017	
	Complete the design for Phase 3 of the Dike Master Plan, which includes raising the South Dike from Gilbert Rd to No.3 Rd to 4.7m geodectic
	Continue implementing the 2008-2031 Richmond Flood Protection Strategy
	Engage and communicate with locals about the tsunami risks in Richmond using the simulation model developed by DFO through the City's website and at public events.

10.INNOVATION

This section is intended to give the opportunity to describe any innovative Corporate and/or Community-Wide GHG reduction or climate change adaptation activity that have been undertaken over the past year(s) that your local government is particularly proud of and would like to share with other local governments. Below is summary of two of the innovated initiatives that the City implemented in 2016.

Community-Wide Innovative Action	
	Implemented and supported a free City workshop, entitled "An Introduction to Electric Vehicles", that was offered to residences to try to reduce any misconceptions about owning an electric car and to answer any questions residents might have. The course was delivered by a Richmond resident that owns an electric vehicle.

Corporate Innovative Action	
	Completed the Fraser Basin Councils Fleet certification program, called E3 Fleet, which awarded the City's Fleet Operations a Platinum rating, the highest rating that can be awarded. Through its efficient operation and detailed reporting the City has successfully implemented its Green Fleet Action Plan, to help reduce Fleet fuel use, improve drive training, down size and right size vehicles, and reduce idling.

11. PROGRAMS, PARTNERSHIPS AND FUNDING OPPORTUNITIES

Local governments often rely on programs, partnerships and funding opportunities to achieve their climate action goals. Please share the names of programs and organizations that have supported your local government's climate actions by listing each entry in the box below.

Programs and Funding	
	Through BC Hydro's Commercial and Community Energy Savings Programs, the City has partnered and received support from BC Hydro on numerous infrastructure and community engagement related projects, including, lighting upgrades, electrical vehicle infrastructure and engagement, and policy initiatives.
	In conjunction with Municipal programs and funding, TransLink provides funding to support a variety of alternative modes of transportation initiatives and community engagement activities towards cycling education and promotion initiatives including; • Bike to Work/School Week • cycling education courses for elementary students and adults • construction of pedestrian and cycling-related infrastructure
	Additional support for transportation related infrastructure was received by the City from BikeBC (BC Ministry of Transportation & Infrastructure) and ICBC.
	In conjunction with BC Hydro's clothes washer rebate program, the City further increased the rebates received by local residents and promoted this program through City mailouts.
	The City was successful in securing support funding from the Federation of Canadian Municipalities to complete feasibility studies researching the cost and opportunity to install solar PV systems at two new facilities, and the cost and opportunity to extract energy from community wastewater during re-development.

12. CONCLUSION

This report highlights a wide range of initiatives that the City is undertaking to continue to advance sustainability corporately and in the community, with focus on reducing greenhouse gas emissions, and energy and resource use. This report does not encompass all of the sustainability related initiatives and actions that the City is involved in, but simply provides a "snapshot" of some of the key areas and work that the City has completed and is planning on completing. These efforts help to position the City as a leader in our region and beyond. The City has set aggressive sustainability targets on a range of fronts, including for greenhouse gas emissions reduction and waste diversion. The City will continue to pursue best practices and innovation to achieve its sustainability related goals, which are recognized as critical to Richmond's Vision of "being the most appealing, liveable and well-managed community in Canada".

CARIP/Carbon Neutral Progress Report Reporting Year 2016

Supporting Documentation
Contracted Emissions Template

LOCAL GOVERNMENT
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RATIONALE

An estimation methodology for hired equipment contractor emissions is being utilized for 2016 since actual emissions for some contracts over $25,000 have not provided fuel usage values.

The City has identified four main contract areas that deliver traditional municipal services:

1. Cascades Recovery Inc. and BFI provide recycling depot container collection and recycling services
2. Sierra Waste Services provide residential solid waste and recycling services;
3. Progressive Waste Solutions provides waste and recycling collection services at City facilities.
4. Individual Hired Equipment.

Contractor emissions associated with the delivery of traditional municipal services by Sierra Waste Services and Progressive Waste Solutions have been included in our mobile fleet emissions reporting spreadsheet, as fuel usage and vehicle type information was provided for 2016. Contractor emissions associated with the delivery of services by Cascades Recovery and Hired Equipment were estimated by from total kilometers and hours driven, respectively.
The hired equipment contracted emissions, with the exception of equipment used outside of the defined traditional service boundaries or for construction rather than maintenance activities, is listed in the table below by traditional service area.

Option 3 is the estimation methodology used:

1. Hired equipment records sorted to exclude out of scope contracts;
2. City equipment operating records assessed to determine average consumption factors in litres per charge hour or kilometers driven for each equipment family;
3. Consumption factors used to estimated fuel consumption for contractor or hired equipment;
4. BC GHG emissions factors applied to calculate GHG emissions.

CONTRACTED EMISSIONS Option 3: Vehicle/Equipment Type and Kilometers or Hours of Usage	
Traditional Service Area	**Estimated Annual GHGs (tonnes)**
Drinking, Storm and Wastewater	331.6
Solid Waste Collection, Transportation and Diversion	10.3
Roads and Traffic Operations	83.4
Parks, Recreation, Arts, and Cultural Services	26.7
Corporate Operations	3.0
Total	**455.0**