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**General Purposes Committee**

**Anderson Room, City Hall  
6911 No. 3 Road**

**Tuesday, May 21, 2019  
4:00 p.m.**

Pg. #      ITEM

**MINUTES**

**GP-5**      *Motion to adopt the **minutes** of the meeting of the General Purposes Committee held on May 6, 2019.*



**COMMUNITY SERVICES DIVISION**

1. **RICHMOND MUSEUM DEVELOPMENT OPTIONS**  
(File Ref. No. 11-7000-01) (REDMS No. 6155447 v. 4)

**GP-9**

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

*Designated Speaker: Marie Fenwick*

**STAFF RECOMMENDATION**

- (1) *That staff be authorized to proceed with planning for Model B: City Museum as detailed in the staff report titled "Richmond Museum Development Options" dated April 11, 2019 from the General Manager, Community Services; and*
- (2) *That staff report back with a Richmond Museum Master Plan for the purposes of public consultation and the next phase of planning.*



## General Purposes Committee Agenda – Tuesday, May 21, 2019

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### 2. **RICHMOND LAWN BOWLING CLUBHOUSE PROGRAM OPTIONS**

(File Ref. No. 06-2052-25-LBOW1) (REDMS No. 6168707 v. 41)

**GP-95**

[See Page GP-95 for full report](#)

*Designated Speakers: Elizabeth Ayers & Jim Young*

#### STAFF RECOMMENDATION

- (1) *That Program Option 2 be approved, as outlined in the staff report titled “Richmond Lawn Bowling Clubhouse Program Options,” dated April 26, 2019, from the Director, Recreation and Sport Services and the Acting Director, Facilities; and*
- (2) *That the additional amount of \$800,000, as described in the staff report titled “Richmond Lawn Bowling Clubhouse Program Options,” dated April 26, 2019, from the Director, Recreation and Sport Services and the Acting Director, Facilities, be funded by the Capital Building and Infrastructure Reserve (\$710,000) and the Richmond Lawn Bowling Club (\$90,000), and the Consolidated 5 Year Financial Plan (2019-2023) be amended accordingly.*



## ENGINEERING AND PUBLIC WORKS DIVISION

### 3. **2018 CLIMATE ACTION REVENUE INCENTIVE PROGRAM AND CORPORATE CARBON NEUTRAL PROGRESS REPORT**

(File Ref. No. 10-6125-01) (REDMS No. 6171365 v. 2)

**GP-110**

[See Page GP-110 for full report](#)

*Designated Speaker: Peter Russell*

#### STAFF RECOMMENDATION

*That, in accordance with Provincial requirements, the Climate Action Revenue Incentive Program Report and Carbon Neutral Progress Report be posted on the City’s website for public information.*



## General Purposes Committee Agenda – Tuesday, May 21, 2019

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### 4. INTEGRATING CIRCULAR ECONOMY CRITERIA INTO CITY PROCUREMENTS

(File Ref. No. 10-6000-00) (REDMS No. 6167654 v.6)

GP-139

See Page GP-139 for full report

*Designated Speakers: Peter Russell & David Aarons*

#### STAFF RECOMMENDATION

- (1) *That the work plan outlined in the staff report titled, “Integrating Circular Economy Criteria into City Procurements”, dated March 20, 2019 from the Senior Manager, Sustainability and District Energy, be endorsed; and*
- (2) *That expenditures in the amount of \$150,000 be approved, with funding from the Carbon Tax provision, and that the 5-Year Financial Plan (2019-2023) be amended accordingly.*



### 5. SINGLE-USE PLASTIC ITEMS – CITY OF VANCOUVER PROPOSALS

(File Ref. No. 10-6370-01) (REDMS No. 6172192 v. 9)

GP-150

See Page GP-150 for full report

*Designated Speaker: Suzanne Bycraft*

#### STAFF RECOMMENDATION

*That the staff report dated April 25, 2019 titled, “Single-Use Plastic Items – City of Vancouver Proposals” from the Director, Public Works Operations, be received for information.*



### 6. SINGLE-USE PLASTIC ITEMS – PRELIMINARY RESEARCH SCAN

(File Ref. No. 10-6370-01) (REDMS No. 6176240 v. 4)

GP-169

See Page GP-169 for full report

*Designated Speaker: Suzanne Bycraft*

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### STAFF RECOMMENDATION

*That the staff report dated May 2, 2019 titled “Single-Use Plastic Items – Preliminary Research Scan” from the Director, Public Works Operations, be received for information.*

☐

### ADJOURNMENT

☐





## General Purposes Committee

Date: Monday, May 6, 2019

Place: Anderson Room  
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair  
Councillor Kelly Greene  
Councillor Alexa Loo  
Councillor Bill McNulty  
Councillor Linda McPhail  
Councillor Harold Steves  
Councillor Michael Wolfe

Absent: Councillor Chak Au  
Councillor Carol Day

Call to Order: The Chair called the meeting to order at 4:26 p.m.

### MINUTES

It was moved and seconded

*That the minutes of the meeting of the General Purposes Committee held on April 15, 2019, be adopted as circulated.*

**CARRIED**

### COMMUNITY SAFETY DIVISION

1. **STRENGTHENING THE UNSIGHTLY PREMISES REGULATION  
BYLAW RELATED TO VACANT HOMES**

(File Ref. No. 12-8060-02-01; 12-8060-20-009819/9820/9821) (REDMS No. 6129635 v. 3; 5717742; 6152819; 6152828)

In reply to queries from Committee, Carli Williams, Manager, Community Bylaws and Licencing, provided the following information:

- the proposed bylaw amendments will considerably strengthen the City's enforcement tools with regard to nuisance properties;

## General Purposes Committee

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- long form prosecution is when an offence is taken to court and is a separate process from ticketing and the fine amounts for this process are set by the court;
- a maximum fine of \$10,000 may be considered, however, it is recommended that a minimum fine of \$1,000 be added to Unsightly Premises Regulation Bylaw No. 7162; and
- a minimum fine of \$1,000 is recommended as this amount provides the City leverage to arrange guilty pleas; also, staff have found that higher fines are typically reduced by the court.

It was moved and seconded

- (1) *That Unsightly Premises Regulation Bylaw No. 7162, Amendment Bylaw No. 9819, to strengthen the City's approach to unsightly properties and vacant homes, be introduced and given first, second and third readings;*
- (2) *That Municipal Ticket Information Authorization Bylaw No. 7321, Amendment Bylaw No. 9820, to increase fines for unsightly properties, be introduced and given first, second and third readings; and*
- (3) *That Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 9821, to add additional ticketing authority, be introduced and given first, second and third readings.*

**CARRIED**

## COMMUNITY SERVICES DIVISION

### 2. **DRAFT RICHMOND HOMELESSNESS STRATEGY 2019–2029**

(File Ref. No. 08-4057-11-01) (REDMS No. 6153845 v. 3)

In reply to queries from Committee, Kim Somerville, Manager, Community Social Development and Cody Spencer, Program Manager, Affordable Housing, provided the following information with regard to the proposed Draft Richmond Homelessness Strategy 2019–2029:

- the proposed Strategy is a collaborative approach focused on multi-stakeholders including housing and service providers;
- the proposed Strategy introduces several actions to enhance effective collaboration and coordination between a variety of local organizations such as the introduction of a new Leadership Table;
- staff can add language around the housing continuum in the proposed Strategy;

## General Purposes Committee

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- staff's outreach will be broadened to engage with more youth and Indigenous groups in an effort to increase services to these underserved groups;
- staff are examining permanent supportive housing options for youth experiencing homelessness in the community;
- the City liaises with the Richmond School District and Vancouver Coastal Health regularly through its Youth Services team to gain a better understanding of vulnerable youth in the city;
- staff have ongoing discussions with BC Housing regarding upcoming housing opportunities as well as regularly monitoring upcoming developments for other housing opportunities;
- members of the public may provide feedback on the proposed Strategy through LetsTalkRichmond.ca as well as at an open house at the Richmond Cultural Centre;
- staff are actively monitoring *Reaching Home* – Canada's Homelessness Strategy; and
- staff can examine the potential for a renters advisory committee in partnership with the City's Planning and Development Division.

It was moved and seconded

- (1) *That the Draft Richmond Homelessness Strategy 2019–2029, as outlined in Attachment 1 of the staff report titled “Draft Richmond Homelessness Strategy 2019–2029”, dated April 12, 2019, be approved for the purpose of seeking public feedback on the Draft Strategy; and*
- (2) *That the final Richmond Homelessness Strategy, including a summary of public feedback received, be reported back to General Purposes Committee.*

**CARRIED**

## ADJOURNMENT

It was moved and seconded

*That the meeting adjourn (4:50 p.m.).*

**CARRIED**

**General Purposes Committee**  
**Monday, May 6, 2019**

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Certified a true and correct copy of the Minutes of the meeting of the General Purposes Committee of the Council of the City of Richmond held on Monday, May 6, 2019.

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Mayor Malcolm D. Brodie  
Chair

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Hanieh Berg  
Legislative Services Coordinator



# City of Richmond

## Report to Committee

**To:** General Purposes Committee  
**From:** Serena Lusk  
General Manager, Community Services  
**Re:** **Richmond Museum Development Options**

**Date:** April 11, 2019  
**File:** 11-7000-01/2019-Vol  
01

### Staff Recommendation

1. That staff be authorized to proceed with planning for Model B: City Museum as detailed in the report titled "Richmond Museum Development Options" dated April 11, 2019 from the General Manager, Community Services; and
2. That staff report back to Council with a Richmond Museum Master Plan for the purposes of public consultation and the next phase of planning.

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

Att. 3

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

## Staff Report

### Origin

As part of the 2016 budget process, Council approved funding and authorized staff to examine various models for a new museum and prepare a Richmond Museum Master Plan (Master Plan).

Phase 1, the subject of this report, evaluates different museum models for Council's consideration. Pending Council direction, staff will proceed with the second phase of planning which will result in the creation of a Master Plan. The Master Plan will provide a more in-depth analysis of exhibit and program interpretive themes, capital and operating costs, funding strategies, governance options, site selection and co-location opportunities.

The development of the Master Plan will be completed in the context of other related Council approved projects and existing referrals including:

- The City Centre Area Plan which identifies the need for a new museum in the City Centre;
- The 2007 Museum and Heritage Strategy which also identified the need for a new, larger museum to engage the public and interpret the Richmond story in an effective manner;
- The upcoming Cultural Precinct Study, approved as part of the 2019 budget process, which will look at long term plans for the existing and future cultural facilities in Minoru Park;
- The February 2019 Council referral to explore opportunities related to a new Chinese Canadian History Museum currently being considered by the Province of British Columbia; and
- The December 2016 approved Phase 2 Major Facilities Plan.

### Analysis

#### Current Context - Richmond Museum

The vision of the Richmond Museum (the Museum) is to “make the history of Richmond relevant, engaging and accessible.” Through its collections, exhibits and programs, the Richmond Museum aims to inspire curiosity about our community's history while exploring Richmond's place in the world. The Richmond Museum collects, documents, researches, preserves, exhibits and interprets objects of historical and cultural significance to the development and history of Richmond.

The current Richmond Museum opened in 1992 within the Richmond Cultural Centre and is 2,325 square feet, including exhibit and office space. There is no dedicated program space. The Museum draws approximately 45,000 visitors annually through its temporary exhibitions, programs and events. Off-site programs, including Doors Open Richmond, attract an additional 15,000 + participants annually. School and public programs are delivered in the exhibition area or in other shared areas of the Cultural Centre. Artefacts are stored offsite in approximately 12,000 square feet of warehouse storage space in four locations.

Current and past temporary exhibits include:

- *Obsessions: Every Collector Has a Story* which highlights local collectors and their collections;
- *Our Journeys Here* which celebrated Canada's 150th anniversary of Confederation by delving into what it means to be Canadian in Richmond today;
- *Leave Your Mark – Wang Duo: Calligrapher for the Ages* which explored calligraphy through exhibits and interactive activities; and
- *Leave Your Mark* which revealed how people from the past helped to create the Richmond we know today.

The City works with the Richmond Museum Society (the Society) to operate the Museum. The Society was incorporated in 1999 with the mandate to “provide advice, expertise, and community input for policy directives for the operation of the Richmond Museum, its collections, exhibitions, programs, and facilities.” The City and the Society maintain a positive and effective working relationship.

#### Project Background

In June 2007, Council endorsed the *Museum and Heritage Strategy* which identified the need for a new, larger museum to engage the public and interpret the Richmond story in an effective and innovative manner. Also in 2007, a new museum was identified in the Council endorsed *Parks, Recreation and Cultural Services Facilities Strategic Plan*. A *Richmond Museum Feasibility Study* was completed in 2012 which examined the potential for a large, destination museum.

Subsequently, as part of the 2016 budget process, Council approved funding and authorized staff to:

1. Examine various museum options/models;
2. Report back and seek the direction of Council on their preferred option; and
3. Prepare a Master Plan based on the preferred option.

The *Richmond Museum Models Evaluation Study* (Attachment 1) represents the first phase of this work. It provides a community needs and market assessment, evaluation criteria, order-of-magnitude capital and operating costs and details a range of potential options for Council's consideration.

#### Study Process

Under the guidance of a Steering Committee, extensive research and consultation was conducted to better understand the current delivery and future opportunities for museum and heritage services in Richmond.

## Work included:

- A market analysis that included Richmond demographic and tourism industry data (Attachment 1 pages 15-19);
- Visits to and analysis of existing museums and heritage sites to review collections, visitation, and interrelated stories and programs (Attachment 1 pages 20-23);
- Interviews with museum stakeholders to determine how a new museum might relate to and benefit each stakeholder's organization and the museum and heritage network as a whole (Attachment 1 pages 24-26 interview results and page 70 Stakeholder Interviewees); and
- A one-day symposium that engaged a diverse representation of the Richmond community to discuss options for a new museum (Attachment 1 page 69 Symposium Participants).

Based on the initial findings of the above work, and with further review and input from the Steering Committee and the Richmond Museum Society Board of Directors, three museum models were developed; Model A: National Museum, Model B: City Museum and Model C: Community Museum. The models were then reviewed against the defined criteria through a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, with implications and proposed next steps summarized for Council's consideration.

Evaluation Criteria

At the project start-up meeting in January 2017, the Steering Committee discussed and refined the following set of criteria, grouped under three main categories, by which the museum model options would be evaluated:

- *Location-based*
  - Prominent, easily accessible location
- *Audience-based; 'who is it for?'*
  - A gathering place for Richmond's diverse communities to meet, interact, tell their stories and share their cultural traditions
  - Engage diverse Richmond and Lower Mainland audiences (and beyond) long-time residents, recent immigrants, ethnic communities, youth, children
- *Cost-based*
  - Financially feasible to build
  - Financially sustainable annual operations
    - Capable of self-generating revenue to off-set some operating costs
    - Balance of partner or government support
    - Efficiency of administering (staffing, building operations)
    - Appeal to broadest range of funding sources: private philanthropists, all levels of government, corporations, and sponsors



### Summary of Options

Options for a new museum are innumerable therefore the following analysis is based on selecting three points on the continuum of possibilities.

Table 1: Proposed Museum Models

<b>Model</b>	<b>Name</b>	<b>Description and Key Attributes</b>
A	<b>National Museum</b>	<b><i>A national story, rooted in our Richmond experience</i></b> A regional, national and international destination, rooted in our local natural and cultural history, and expanding through a broader story of international significance – a gathering of peoples where the river meets the sea.
B	<b>City Museum</b>	<b><i>The Richmond Story, in a community gathering place</i></b> This City model includes a relocated and expanded museum with a Richmond-focused story, which provides strong connections to all other heritage sites.
C	<b>Community Museum</b>	<b><i>Sharing local, community stories</i></b> An interpretive hub, sharing local community stories, and inviting visits to other sites throughout Richmond.
<i>Each Museum model above includes the provision for:</i>		
	<b>Strengthened Network of Heritage Sites</b>	<b><i>Get out and explore!</i></b> The new Museum, at the centre of an enhanced network of sites, linked by a significant online presence and thematic orientation kiosks at each satellite location. The network encourages visitation to other heritage and contemporary sites and provides a consistent thread between all.

The defining characteristics, order of magnitude financial impact, and relative strengths of each option are detailed in the table below.

Table 2: Quantitative Museum Models Analysis

	<b>Model A: National Museum</b>	<b>Model B: City Museum</b>	<b>Model C: Community Museum</b>
<b>Museum Size</b>	Approximately 60,000 sq.ft.	Approximately 20,000 sq.ft	Approximately 8-10,000 sq.ft.
<b>Strengthened Network of Sites</b>	Additional stories and sites; upgraded and integrated interpretation; web, graphic and seasonal transport methods to encourage visitation.		
<b>MUSEUM LOCATION</b>			
	Must be located in a prominent and easily accessible location, preferably in a cultural / tourism precinct adjacent to other visitor amenities.	Should be located in a prominent and easily accessible location.	Existing museum location or comparable, central location.
<b>CAPITAL COSTS</b>			
<b>Building &amp; Exhibits/Programs</b> ** See note re: cost escalation in the construction industry	\$53,020,000 (2018)	\$17,930,000 (2018)	\$3,400,000 (2018)
<b>Museum Network</b> ** See note re: cost escalation in the construction industry	\$3,500,000 (2018)	\$3,500,000 (2018)	\$3,500,000 (2018)
<b>Funding Eligibility and Potential Partnerships</b>	Municipal funding, private partners and Provincial and Federal Governments. Possibility of private sector cost sharing.	Municipal funding, private partners and Provincial and Federal Governments. Possibility of private sector cost sharing.*	Municipal plus possible local partnerships with suppliers / service providers.
<b>MARKET DEMOGRAPHICS</b>			
<b>Audience Origins:</b> Richmond Metro Vancouver Elsewhere	30% 20% 50%	50% 25% 25%	45% 20% 35%
<b>Audience Appeal to underserved segments</b>	Offers the best opportunity to service recent immigrants and youth.	Offers a good opportunity to service recent immigrants and youth.	Modest opportunities exist to service recent immigrants and youth.
<b>Annual Attendance</b>	195,000	80,000*	45,000*
<b>FINANCIAL OPERATIONS</b>			
<b>Revenue Proportions:</b>	Approximately one-third of revenues self-generated.	Revenues heavily dependent on municipal government.	Revenues heavily dependent on municipal government.
<b>Self-Generated</b>	30%	15%	5%
<b>Government</b>	60%	80%	90%
<b>Private</b>	10%	5%	5%
<b>Additional Operational Expenses</b> (Over current cost)	\$3,575,000	\$1,485,000	\$850,000

\* These items have been adjusted from Att.1 - *Richmond Museum Models Evaluation Study* based on current data found in Att. 2 – *Richmond Museum Models Evaluation Study Addendum*.

\*\* Recent cost escalation in the construction industry throughout the Lower Mainland indicates that escalation should be anticipated in future planning. See Att. 2 - *Richmond Museum Models Evaluation Study Addendum*.

An analysis of the options based on the evaluation criteria, community feedback and current museum best practices is found in the table below.

Table 3: Qualitative Museum Models Analysis

Criteria	Option Analysis
<b>Location</b>	
Prominent, easily accessible location	<p>All models are recommended to be sited in a prominent, easily accessible location.</p> <p>Due to their smaller footprint, a City Museum or a Community Museum may be better suited as a community amenity space contribution through a future development opportunity in central Richmond.</p> <p>In order to attract larger audiences, including tourists, a National Museum would benefit the most from being located in a cultural precinct adjacent to other visitor amenities and good public transportation access.</p>
<b>Audience</b>	
A gathering place for Richmond's diverse communities to meet, interact, tell their stories and share their cultural traditions	<p>While all models are able to provide a gathering place, a City Museum offers more opportunities for Richmond's diverse communities to meet, interact, tell their stories and share their cultural traditions than a Community Museum.</p> <p>Due to a projected larger percentage of visitors from outside Richmond, a National Museum could feel more like a tourist attraction as opposed to a gathering place for local residents.</p> <p>A robust City Museum offers excellent potential to find a balance between serving the needs of local residents and providing engaging exhibits for tourists.</p>
Engage diverse Richmond and Lower Mainland audiences (and beyond), long-time residents, recent immigrants, ethnic communities, youth and children	<p>The City of Richmond has been growing steadily and is predicted to continue to grow. This population growth will include growth in school aged children and seniors – two groups that traditionally patronize museums.</p> <p>Additionally, Richmond is home to a wide variety of amenities that cater to tourists. In 2017, 8 million people visited Richmond (an 8.2% increase from 2015) spending an estimated 1.8 billion dollars in the City (a 22.7% increase from 2015). The completion of the Canada Line and the successful hosting of the 2010 Olympic Games brought Richmond onto the world stage and has contributed to moving Richmond from a gateway to a destination in its own right.</p> <p>A robust City Museum would broaden the range of facilities of interest to visitors from outside of Richmond, thereby encouraging visitation and length of stay, but to a lesser extent than a National Museum.</p>
<b>Cost</b>	
Financially feasible to build	<p>While a Community Museum could be delivered at the lowest total capital cost, it is also the least likely to attract funding from other levels of government and through private philanthropy.</p> <p>Although the total capital cost of a City Museum is higher than that of a Community Museum it is more likely to attract funding support from other levels of government and through private philanthropy.</p> <p>A National Museum, while likely able to attract outside funding support from a variety of sources, is also the highest capital cost.</p>

<p>Financially sustainable annual operations</p> <ul style="list-style-type: none"> <li>• Capable of self-generating revenue to off-set operating costs</li> <li>• Balance of partner or government support</li> <li>• Efficiency of administering (staffing, building operations)</li> </ul>	<p>A Community Museum offers the lowest total operating cost, but also presents the fewest opportunities to generate revenue through sponsorship, memberships, programs and private philanthropy.</p> <p>A robust City Museum is better able to generate revenue through these sources due to higher visitation, increased profile and more programming space.</p> <p>While a National Museum offers the best opportunities for self-generated revenue, as a result of higher operating costs it is likely to incur the most financial risk and require the greatest operating subsidy from the City.</p> <p>Recent data in the museum sector also indicates that while hosting large-scale touring blockbuster exhibits can temporarily boost visitation, due to their high costs they should not be considered as the basis of a sustainable operating plan or as a means to generate surplus revenue.</p>
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Community Feedback (to date)	
<p>In February 2017, the Richmond Museum Society further defined the attributes of a successful Richmond Museum. These attributes include: celebrate the river/island community, sustainable and green, a museum centre for the community, engage youth, present history, stories and progression of all cultures, multi-faceted (history, arts, culture, performance), diversity of experience, a "go-to" resource and part of a network of museums.</p>	<p>In a letter to the City dated April 11, 2019, the Richmond Museum Society indicated their support for "a robust version of Model B, the City Museum" (Attachment 3) as it is able to fulfill their vision for a successful museum.</p>
<p>Numerous individual and group stakeholder interviews were conducted in 2017. (See Attachment 1 Page 70 for a complete list of interviewees).</p> <p>Additionally, a March 2017 Stakeholder Symposium "The Future of History in Richmond" invited members of the community and City staff to meet and explore the pros and cons of different options for a new Richmond Museum. (See Attachment 1 page 69 for a list of Symposium Participants).</p>	<p>Common themes that emerged from the interviews and these sessions included:</p> <ol style="list-style-type: none"> <li>1. A strong heritage district in Steveston and a major attraction in the rest of Richmond that invites tourists from around the world.</li> <li>2. Connecting to current and future Richmond communities (new immigrants, children and youth, community gathering space).</li> <li>3. Exhibits and programs include surprising, missing and currently under-told stories. Museum should tie together existing City museums and heritage sites.</li> <li>4. Importance of partnerships, networks and collaboration.</li> </ol> <p>In a ranking exercise, Stakeholder Symposium participants ranked a National Museum highest, a City Museum second and a Community Museum third.</p>

Best Practices and International Trends	
<p>Today's best museums:</p> <ul style="list-style-type: none"> <li>• strive to engage participants rather than just hosting passive observers. They are people-focused;</li> <li>• have an increased focus on flexibility, storytelling and innovative uses of technology; and</li> <li>• are places to explore current social issues including sustainability, identity, community engagement, social responsibility, urban issues, immigration, indigenous issues.</li> </ul> <p>While artefact collections remain an important component of a museum's operations, there are many opportunities to use these artefacts as the foundation for museums to become a larger community resource.</p>	<p>While best practices and international trends can be applied in a museum of any size, the City Museum and the National Museum offer greater opportunities for exhibiting the City's artefact collection and telling the story of Richmond in innovative and engaging ways.</p>

### Recommendation

A robust City Museum offers the best opportunity to provide a gathering space where Richmond's diverse communities can meet, interact, tell their stories and share their cultural traditions while offering high quality exhibits and programs that will appeal to visitors from outside the city as well. There is good potential for it to be located in central Richmond, with capital costs offset through a development opportunity and both capital and operating costs to be offset through funding from other levels of government, philanthropy, sponsorship and programming. Initial community feedback and current best practices also support this direction for a new Richmond Museum.

Staff recommend proceeding with the next phase of planning for Model B: City Museum. A centrally located Richmond Museum with substantial exhibits and robust, diverse programming, in connection with Richmond's existing network of museums and heritage sites, will meet the needs of the community today and into the future.

### Next Steps

Pending Council approval, staff will begin the next phase of planning for a City Museum in collaboration with the Richmond Museum Society. The second phase of planning will result in the creation of a Richmond Museum Master Plan which will include:

- a **business plan** that would provide a more in-depth analysis of capital and operating costs, governance options, site selection and co-location opportunities;
- a **funding strategy** that will identify potential sources of funding that could reasonably be expected from other levels of government, possible partners, private business and philanthropy; and

- an **architectural and experiential** concept including compelling sketches and reference images that will be suitable for generating financial and community support and for public consultation purposes.

It is proposed that at this stage, staff engage in a broader public consultation to test the concept for a new Richmond Museum more broadly in the community. Necessary adjustments to the conceptual materials will be made, and a project team suitable to the concept implementation will be established to oversee the implementation of the Master Plan.

On December 12, 2016 Council endorsed five priority major facility projects for 2016-2026 as presented in the report “Richmond Major Facilities Projects.” These projects include City Centre Community Centre North, Steveston Community Centre and Branch Library, Lawn Bowling Club House, Britannia Shipyards National Historic Site and Phoenix Net Loft and the Richmond Animal Shelter.

It is proposed that a new Richmond Museum be considered should a developer-funded opportunity arise within this time frame, or for the next phase of major facility planning.

### **Financial Impact**

Funding was approved as part of the 2016 one-time additional expenditures process for the Richmond Museum Master Plan development.

### **Conclusion**

Richmond is a city that proudly celebrates its past, present and future. An enhanced museum in central Richmond will foster a greater awareness of the community’s rich history, and increase civic pride and community connections.



Marie Fenwick  
Manager, Museum and Heritage Services  
(604-247-8330)

- Att. 1: Richmond Museum Models Evaluation Study  
2: Richmond Museum Models Evaluation Study Addendum  
3: Richmond Museum Society Letter of Support



## Richmond Museum Models Evaluation Study

April 2018



**doug munday** design

with  
Economic Planning Group  
Phil Aldrich Consulting Inc.  
Catherine C. Cole & Associates

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## 1.0 Executive Summary

### Purpose

The purpose of this study is to identify and analyze the feasibility of several different museum models for a future City Museum for Richmond.

The current Richmond Museum was opened in 1992 within the Richmond Library/Cultural Centre and is 2,325 square feet, including exhibit space and offices. The loading bay is shared with other facilities in the building, primarily the Richmond Art Gallery. There is no designated program room; programs are either run in the exhibition area or in other shared areas of the Cultural Centre. The Museum also has approximately 6,000 square feet of offsite artefact warehouse storage space.

In June 2007, Richmond City Council endorsed the Richmond Museum and Heritage Strategy, which identified the need for a new, larger museum to engage the public and interpret the Richmond Story in an effective and innovative manner. The strategy recommended that the museum be the hub of a network of satellite museums, historic sites and heritage areas.

In 2013, a Museum Feasibility Study was conducted recommending a large destination museum. This Feasibility Study showed that the concept of a larger museum with an exciting visitor experience would be financially and operationally feasible. This, in part, is predicated on a museum that is large enough to host major touring exhibitions, and is centrally located in Richmond and close to transit. The study stated that a museum of 60-75,000 square feet would be required to act as an attraction for residents and visitors, and to generate earned revenue to contribute to operating costs.

Subsequently City Council has requested an analysis of new, innovative models for delivering museum services.

### ***Scope of this study:***

- Gauge interest and priorities of Richmond's diverse communities for museums, their services and stories
- Sketch a range of potential models that make sense for Richmond
- Provide location criteria, order-of-magnitude capital and operational implications, and clear evaluation criteria, to inform City Council's decision on a direction for a new Richmond Museum

## Museum Models Evaluation Criteria

At the project startup meeting in January 2017, the Steering Committee discussed and refined the following set of criteria by which the developed museum model options would be evaluated.

### *Location-based:*

- **Prominent, easily accessible location**

### *Audience-based; 'who is it for?'*

- **A gathering place for Richmond's diverse communities** to meet, interact, tell their stories and share their cultural traditions
- **Engage diverse Richmond and Lower Mainland audiences (and beyond):** longtime residents, recent immigrants, ethnic communities, youth....

### *Cost-based:*

- **Financially feasible to build**
- **Financially sustainable annual operations**
  - Capable of self-generating revenue to off-set operating costs
  - Balance of partner or government support
  - Efficiency of administering (staffing, building operations)
- **Appeal to broadest range of funding sources:** private philanthropists, all levels of government, corporations, sponsors

## Proposed Museum Models

Model	Name	Description and Key Attributes
A	<b>A National Museum</b>	<p><b><i>A national story, rooted in our Richmond experience</i></b></p> <p>A regional, national and international destination, rooted in our local natural and cultural history, and expanding through a broader story of international significance – a gathering of peoples where the river meets the sea.</p>
B	<b>A City Museum</b>	<p><b><i>The Richmond Story, in a community gathering place</i></b></p> <p>This City model includes a relocated and expanded museum with a Richmond-focused story, which provides strong connections to all other heritage sites.</p>
C	<b>A Community Museum</b>	<p><b><i>Sharing local, community stories</i></b></p> <p>An interpretive hub, sharing local community stories, and inviting visits to other sites throughout Richmond.</p>
<hr/>		
<i>Each Museum model above includes the provision for:</i>		
	<b>A Strengthened Network of Heritage Sites</b>	<p><b><i>Get out and explore!</i></b></p> <p>The new Museum, at the centre of an enhanced network of sites, linked by a significant online presence and thematic orientation kiosks at each satellite location. The network adds missing or under-told parts of Richmond's stories, encourages visitation to other heritage and contemporary sites, and provides a consistent thread between all.</p>
<hr/>		

## Summary of Options

	Model A: A National Museum	Model B: A City Museum	Model C: A Community Museum
Museum Size	Approximately 60,000 sq.ft.	Approximately 20,000 sq.ft.	Existing facility or equivalent ('enhanced status quo'), approximately 8-10,000 sq.ft.
Strengthened Network of Sites	Additional stories and sites; upgraded and integrated interpretation; web, graphic and seasonal transport methods to encourage visitation.		
MUSEUM LOCATION			
	Must be located in a prominent and easily accessible location, preferably in a cultural / tourism precinct adjacent to other visitor amenities.	Should be located in a prominent and easily accessible location..	Existing museum or comparable, central location.
CAPITAL COSTS			
Building & Exhibits/Programs			
Museum	\$53,020,000	\$17,930,000	\$3,400,000
Network	\$3,500,000	\$3,500,000	\$3,500,000
Total	\$56,520,000	\$21,430,000	\$6,900,000
Funding Eligibility and Potential Partnerships	Municipal funding, private partners at local and national level, plus Provincial and Federal Gov'ts (for capital). Possibility of private sector cost sharing.	Municipal funding, private partners and Provincial Government (for projects). Possibility of private sector cost sharing.	Municipal plus possible local partnerships with suppliers / service providers.
MARKET DEMOGRAPHICS			
Audience Origins:			
Richmond	30%	50%	45%
Metro Vancouver	20%	25%	20%
Elsewhere	50%	25%	35%
Audience Appeal to underserved segments	Offers the best opportunity to service recent immigrants & youth.	Offers a good opportunity to service recent immigrants and youth.	Modest opportunities exist to service recent immigrants & youth.
Annual Attendance (Museum only)	195,000	55,000	30,000
FINANCIAL OPERATIONS			
Revenue Proportions:	Approximately one-third of revenues self-generated.	Revenues heavily dependent on municipal government.	Revenues heavily dependent on municipal government.
Self-Generated	30%	15%	5%
Government	60%	80%	90%
Private	10%	5%	5%
Expense Proportions:	Significant increase in all operating departments.	Approximate doubling of staff costs.	Expenses increase for staff coordination and additional sites
Staff	55%	65%	62%
Administration	15%	18%	17%
Building Related	10%	7%	8%
Programming	20%	10%	13%
Additional Operational Expenses (Museum only, over current cost)	\$3,575,000	\$1,485,000	\$850,000

## **Strengths, Weaknesses, Opportunities, Threats**

Ranked against the evaluation criteria, Model A (and to a lesser extent B) offers the greatest potential strengths, providing a gathering place for community, and appealing to both diverse audiences and diverse funding sources. Model A is also likely to incur the most risks (threats), however, due to its higher capital and operating costs.

Model C presents the lowest risks, due to its lesser capital and operating investment, but will perform less strongly in justifying a major, prominent location, and attracting diverse communities and investors.

Model B presents a middle ground, with modest strength against the evaluation criteria, and more modest risk.

Further details may be found in the SWOT table in section 6.1.

## Next Steps

The three options presented here provide clear distinctions in how Richmond may engage its citizens and other audiences in its story; each option has different financial implications for the City. At the more modest scale, it is clear that Richmond will have to carry most of the financial burden for raising both capital and operational funding. At the grander scale with a national story to tell, other sources of funding should be considered for contributions. Assessing this potential will help City Council determine its appetite for proceeding with one option over another. A series of next steps will help City Council come to a commitment on direction are proposed:

1. Present the results of this study to Council and receive direction about which of the three options has the highest comfort level. It is possible that a hybrid alternative may arise from these discussions as a result of gaining insight into the City's priorities.
2. Develop the preferred direction with sufficient detail for the completion of a **Business Plan** that would provide a more detailed picture of the capital and operational cost implications, site selection, and governance model for the project.
3. Complete a **Fundraising Strategy** that would identify potential sources and proportions of funding that could be reasonably expected from the three levels of government, possible partners, private philanthropy and business. This study would thus assess potential financial backing for the project, and would provide a strategic approach for soliciting support.
4. Based on findings above, develop the preferred option into an architectural and experiential **Concept** suitable for solicitation of both financial and community support.
5. Undertake a **public consultation** to acquire feedback from the community. Make any adjustments to the conceptual materials to incorporate any important and widely supported suggestions.
6. Build a project team modeled on the suggested form for funding, governance and operations, and commission a **Museum Master Plan**.

## 2.0 Intro and Study Background

### 2.1 Background and Purpose of this Study

*From Richmond Museum Models Evaluation Study, Request for Proposals, November 2016:*

The purpose of this project is to identify and analyze the feasibility of three or four different museum models for a future City Museum. These include, but are not limited to, a community museum, a destination museum, a series of specialized museums and any other model of museum that would be appropriate and sustainable for the City of Richmond. Museum models proposed may be centralized or decentralized.

The current Richmond Museum was opened in 1992 within the Richmond Library/Cultural Centre and is 2,325 square feet, which includes exhibit space and offices. The loading bay is shared with other facilities in the building, primarily the Art Gallery. There is no designated program room; programs are either run in the exhibition area or in other shared areas of the Cultural Centre. The Museum also has approximately 6,000 square feet of offsite artefact warehouse storage space spread over a number of sites.

In June 2007, Council endorsed the Museum and Heritage Strategy, which identified the need for a new, larger museum to engage the public and interpret the Richmond Story in an effective and innovative manner. The strategy recommended that the museum be the hub of a network of satellite museums, historic sites and heritage areas.

In 2013, a Museum Feasibility Study was conducted recommending a large destination museum. The Feasibility Study showed that the concept of a larger museum with an exciting visitor experience could be financially and operationally feasible. This, in part, is predicated on a museum that is large enough to host large, touring exhibitions, and is centrally located in Richmond and close to transit. The study stated that a museum of 60-75,000 square feet would be required to act as an attraction for residents and visitors and generate earned revenue to contribute to operating costs.

Subsequently City Council has requested a new museum strategy including an analysis of new, innovative models for delivering museum services.

The objective of the project is to evaluate different museum models including size, design, location, operational structure, and staffing. The consultant will also conduct a market analysis and establish community needs for museum services in Richmond considering current and projected demographics. The final report will include projected operational and capital budgets.



## 2.2 Study Process

### Research and background

Interviews with City and Museum Stakeholders were undertaken to understand the current delivery of Heritage Services throughout Richmond, review strengths and limitations of the proposed models in the 2012 Museum Feasibility Study, and determine how a new museum model might benefit and relate to each Stakeholder's organization and the network as a whole (see the Appendix for a detailed list of participants).

Existing heritage sites throughout Richmond were visited to review collections, visitation, and interrelated stories and programs.

A market analysis was built upon data in the 2012 Study to update Richmond demographic data, and visitation at Richmond and other Lower Mainland sites.

### Stakeholder symposium: 'The Future of History in Richmond'

A one-day symposium was held in March 2017, engaging a diverse representation of the Richmond community to discuss the pros and cons of several viable options for a new museum. The outcome of the Symposium was a prioritization of these options, which could then be further developed and tested for cost and operational implications, and evaluated against the established criteria.

### Develop and evaluate model options

With the review and input of the Steering Committee and the Museum Society Board, the three museum models were further developed regarding their relative size, visitor services and experiences offered, projected visitation, relation to the overall network of Richmond heritage sites, and order-of-magnitude capital and operational costs (based on the more extensive calculations and projections made in the 2012 Study). The models were then reviewed against the defined criteria through a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, with implications and proposed next steps summarized for City Council's consideration and decision.

## 2.3 Model Evaluation Criteria

At the project startup meeting in January 2017, the Steering Committee discussed and refined the following set of criteria by which the developed museum model options would be evaluated, grouped under three main categories.

### *Location-based:*

- **Prominent, easily accessible location**

### *Audience-based; 'who is it for?'*

- **A gathering place for Richmond's diverse communities** to meet, interact, tell their stories and share their cultural traditions
- **Engage diverse Richmond and Lower Mainland audiences (and beyond):** longtime residents, recent immigrants, ethnic communities, youth....

### *Cost-based:*

- **Financially feasible to build**
- **Financially sustainable annual operations**
  - Capable of self-generating revenue to off-set operating costs
  - Balance of partner or government support
  - Efficiency of administering (staffing, building operations)
- **Appeal to broadest range of funding sources:** private philanthropists, all levels of government, corporations, sponsors

In February 2017, the Museum Society Board further defined several attributes of 'A successful museum for today's Richmond':

- Celebrate the river / an island city
- Sustainable and green
- A Museum Centre for the community
- Engage youth
- Present history, stories, progression of all cultures
- Multi-faceted: history, arts, culture, performance
- Diversity of experiences
- Food: 'attraction for the senses'
- Museums and Archives – a 'go to resource'
- A network of museums
- Scale: building a museum for the city 20–30–40 years in the future

## 2.4 International Trends in City Museums

*Summarized from the March, 2017 Museum Models Study Stakeholder Symposium, by Catherine C. Cole, Vice Chair, ICOM/CAMOC (the International Council of Museum's committee for the Collections and Activities of Museums of Cities)*

As cities have evolved, notions of museums have also evolved with several different approaches functioning simultaneously: the traditional community museum concept, a single social history museum with collections and exhibitions grounded in the local and active in the community, and facilities intended to attract tourists as places to visit that are not necessarily integrated into their communities. City museums are, by definition, focused on the local. Thematic museums like the Canadian Museum of Immigration at Pier 21 and the Canadian Canoe Museum don't have the economic impact of a Guggenheim Museum Bilbao, but do attract national and international visitors, and provide economic benefits to their communities. It's possible to do both.

Another model that has emerged is that of distributed networks. For example, in Ottawa there is a network of 11 museums, some city owned and operated, others not-for-profit organizations. Ottawa has also discussed establishing a physical 'gateway' museum, but in the meantime the museums form a virtual network. Similarly, Glasgow Museums is a network of 13 museums throughout the city that collectively tell stories of Glasgow life. There is no central museum, but there is a shared storage facility that does innovative programming as well (<http://www.glasgowlife.org.uk>).

The hub museum and network model can be seen in the Helsinki City Museum, which reopened in May 2016 following an 18-month, US\$12.4M redevelopment (<http://www.helsinginkaupunginmuseo.fi/en/>). The 105-year-old museum moved from its former home in Helsinki's historical district to Senate Square, where it occupies five historical buildings (1850s-1920s) surrounding three inner courtyards, and incorporates the Children's Town exhibition at Sederholm House. The museum works with the Hakasalmi Villa, the Burgher's House, the Worker Housing Museum and the Tram Museum, which are part of the City Museum's portfolio, and provides a platform for collective and individual activity that connects the past, present and future Helsinki.

### International Trends

Museum trends are not restricted to museum facilities of a particular size – they're more about mission and programming, and the staff and volunteers dedicated to delivering programs. While the situation in Canada is often a bit different than in other countries, the International Council of Museums, particularly CAMOC, the International Committee for the Collections and Activities of Museums of Cities (<http://network.icom.museum/camoc/>), as well as the Museums Association (UK) (<http://www.museumsassociation.org/home>) and the American Alliance of Museums' annual Trendswatch (<http://www.aam-us.org/resources/center-for-the-future-of-museums/projects-and-reports/trendswatch>) all provide forums to discuss museum issues.

Current trends for city museums include *urban issues, migration and refugees*, and *sustainability*. Museums in Canada generally are particularly focused on *indigenous issues and reconciliation*; museums globally are focused on *migration*. Because *indigenous issues* are front

and centre in Canada, and therefore more familiar and understood to be the primary issue in this country, they are not being discussed here. Museums internationally are generally concerned about *representation and identity, empathy, happiness, community engagement, and social responsibility*. Increased *use of technology* is a huge trend within museums, for a myriad of purposes. Parallel to the increase in technology is a different approach to *collections*, with an increased attention to storytelling, some museums now having no collections at all, and other museums going beyond their four walls into communities.



## 3.0 Community Needs and Market Analysis

### 3.1 Market Assessment

The customer base for whichever museum model is selected will be residents of Richmond and visitors to the municipality. The following information describes Richmond's demographics using descriptors that tend to be predictors of museum visitation. Also presented is information descriptive of the tourist sector in Richmond, again focusing on factors that might have a bearing on museum patronage.

#### DEMOGRAPHIC ANALYSIS<sup>1</sup>

##### Population

Successful museums typically draw heavily on their resident markets. Richmond comprises just over 8% of the Metro Vancouver Region, making it the fourth most populous city within the region, behind, Vancouver (26%), Surrey (21%), and Burnaby (9%).

Richmond grew rapidly through the 1990s, from around 126,000 people in 1990 to over 171,000 in 2000. Growth was more moderate in the next decade, increasing to 196,000 by the year 2010. The current (2017) population is estimated to be 218,000 with projected growth to over 240,000 by 2025. Projecting 20 years out (2035), the population is expected to grow to over 270,000 persons.

#### Richmond Population-Past, Present & Future – Five Year Increments

Year	Population	% Change (5 Year)	Annual % Change
1990	125,854		
1995	149,027	18.4%	3.7%
2000	171,480	15.1%	3.0%
2005	181,087	5.6%	1.1%
2010	195,729	8.1%	1.6%
2015	207,773	6.2%	1.2%
2020	225,757	8.6%	1.7%
2025	241,894	6.6%	1.3%
2030	257,774	6.5%	1.3%
2035	272,085	5.5%	1.1%

Source: BC Stats: Populations, by Richmond Health Unit (same boundary as the municipality)

<sup>1</sup> Demographic information from:

<https://www.richmond.ca/discover/about/demographics.htm>

<http://www.bcstats.gov.bc.ca/apps/PopulationProjections.aspx>

[https://www.richmond.ca/\\_shared/assets/2006\\_Ethnicity20987.pdf](https://www.richmond.ca/_shared/assets/2006_Ethnicity20987.pdf)

<http://www.metrovancouver.org/services/regional-planning/PlanningPublications/2016CensusBulletinPopulation.pdf>

[https://www.richmond.ca/\\_shared/assets/Immigration6252.pdf](https://www.richmond.ca/_shared/assets/Immigration6252.pdf)

## Age

Museum visitation is typically comprised of children (in school tours and with families), plus older, more mature persons. The under 15 population in Richmond (as of 2016) is just over 27,240, which is projected to increase by about 5,000 persons to 32,700 by 2030. As a percentage of the population, this age group is projected to remain fairly constant at around 14% of the total.

The over 65 age group (as of 2016) is just over 33,650. By 2030, this group is projected to consist of approximately 41,200 persons, and represent about 17% of the total population.

## Education

The level of education achieved typically correlates with participation in culture and the arts. Typically, persons with higher education tend to be patrons of the arts, including museums. Richmond has a high proportion of residents with university degrees at 30%, higher than all but four of Metro Vancouver's other municipalities.<sup>2</sup>

## Ethnic Background

Richmond contains a very broad range of backgrounds with over 140 different ethnic origins (as of 2011). The most common group is Chinese representing more than one half of the population (54%). This proportion has grown from 34% in 1996, 40% in 2001, and 45% in 2006, and 49% in 2011. English is the second highest ethnic origin at 10%, although combined with Scottish (6.6%), and Irish (5.0%), the United Kingdom and Ireland approaches 20% of the total. The distribution of the top ten ethnic origins is as follows:

### Ethnic Origin<sup>3</sup>

Country	2016	Percent
Chinese	107,080	54%
English	18,015	9%
Filipino	15,480	7.8%
Canadian	13,540	6.6%
Scottish	12,990	6.6%
East Indian	12,335	6.3%
Irish	9,960	5.0%
German	8,525	4.3%
French	5,445	2.8%
Japanese	4,925	2.5%
<b>Total</b>	<b>196,660</b>	<b>100%</b>

<sup>2</sup> [https://www.richmond.ca/\\_shared/assets/pp\\_hf\\_3022513.pdf](https://www.richmond.ca/_shared/assets/pp_hf_3022513.pdf)

<sup>3</sup> Source: Statistics Canada, 2016 National Household Survey: excerpt from City of Richmond demographics website – [https://www.richmond.ca/\\_shared/assets/2006\\_Ethnicity20987.pdf](https://www.richmond.ca/_shared/assets/2006_Ethnicity20987.pdf)  
Note: Respondents could report more than one ethnic origin so the total is higher than the actual population.

As of the 2016 date of the Household Survey, over two-thirds (70%) of Richmond's population is a visible minority.<sup>4</sup> This is the highest of any municipality in BC, and the second highest in Canada (after Markham, Ontario). The Chinese component is also the highest of any municipality in the province. It is noted that Aboriginal people account for only about 1% of the total municipal population, compared to 1.9% for Metro Vancouver and 6.0% for BC (2016 census).

In terms of immigration, approximately 36.5% of Richmond residents were Canadian by birth, while nearly 60.2% were immigrants.<sup>5</sup>

## **RICHMOND TOURISM<sup>6</sup>**

The tourism sector is a significant component of the Richmond economy. Key elements of the tourism sector are Steveston, River Rock Casino, Gulf of Georgia Cannery, Richmond Centre, and the Olympic Oval. Visitors to Richmond include persons staying overnight (in paid accommodation and staying with friends and relatives), and same-day visitors.

### **Market Size**

The total number of visitors in 2015 was estimated at 7.9 million, including 5.1 million same-day visitors (64%) and 2.8 million overnight visitors (36%).

### **Market Origin**

Of the non-Metro Vancouver visitors to Richmond, the majority of visitors were from Overseas (30%), followed by Other Canada (27%), Other BC (23%), and the USA (20%).

### **Demographics**

People between 18-34 comprised the largest share of the market at 30%. Other large age categories were the 45-54 age group (22%), the 35-44 age group (19%), and the 55-64 age group (18%). In terms of gender, there is a fairly even split of 52% female and 48% male.

The tourist market is well educated and affluent. Approximately one-third (32%) had undergraduate degrees. Over one-quarter (27%) earn between \$100,000 and 150,000, while 20% earn over \$150,000 annually.

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<sup>4</sup> Visible minority is defined for federal employment equity purposes as "persons other than Aboriginal persons, who are non-Caucasian in race or non-white in colour."

<sup>5</sup> [https://www.richmond.ca/\\_shared/assets/Immigration6252.pdf](https://www.richmond.ca/_shared/assets/Immigration6252.pdf)

<sup>6</sup> Tourism Richmond, *2015 Visitor Volume Study & Economic Impact Study*, May 2016.



## Length of Trip

Those visitors staying overnight comprise just over one-third of the market (36%), while day-trippers make up nearly two thirds (64%). The average number of nights spent by the overnighers is 3.6 while the average number of hours spent by day visitors is 4.8 hours.

## Visitor Participation and Activities

The Gulf of Georgia Cannery is a popular facility in Richmond, visited by 14% of survey respondents. The range of attractions and their visitation is as follows:

### Visitor Participation by Activity

Activity	Percent
Steveston Village	44%
Aberdeen Centre	26%
Richmond Centre	22%
Night Markets	21%
<b>Gulf of Georgia Cannery</b>	<b>14%</b>
River Rock Casino	13%
Food Street / Golden Village	10%
Olympic Oval	7%

Broken down by length of stay, three of Richmond's heritage attractions were visited in significant numbers.

### Attraction Participation by Type of Visitor

Attraction	Overnight Paid	Overnight VFR (Visiting Friends & Family)	Day Visitor
Steveston Village	27%	69%	50%
River Rock Casino	23%	20%	8%
Asian Night Markets	18%	17%	24%
Olympic Oval	11%	13%	5%
<b>Gulf of Georgia Cannery</b>	<b>9%</b>	<b>26%</b>	<b>16%</b>
<b>Britannia Shipyards</b>	<b>5%</b>	<b>20%</b>	<b>5%</b>
London Heritage Farm	1%	5%	1%

## Leisure Activities

Sightseeing and shopping are the key leisure activities participated in by visitors to Richmond. However, visiting historical sites and attending cultural activities are also pursued by a significant number of visitors.

**Activities Pursued by Type of Visitor**

<b>Activities in Richmond</b>	<b>Overnight Paid</b>	<b>Overnight VFR</b>	<b>Day Visitor</b>
Sightseeing	37%	58%	54%
Shopping	55%	75%	49%
<b>Visiting Historical Sites</b>	<b>14%</b>	<b>31%</b>	<b>22%</b>
<b>Attending a Festival or Event</b>	<b>12%</b>	<b>19%</b>	<b>13%</b>
<b>Arts &amp; Cultural Activities</b>	<b>5%</b>	<b>11%</b>	<b>7%</b>

**CONCLUSION**

Richmond has been growing steadily for many decades, and growth is projected to continue over the study planning horizon (two decades). This population growth will occur in most age groups, including school aged children and seniors – two groups that traditionally patronize museums.

Richmond caters to a large number of tourists, from broadly disbursed origins including Metro Vancouver, other BC and Canadian origins, plus the US and offshore. The City also has a mix of amenities that cater to tourists – which includes Richmond’s key heritage attractions. Visiting historical sites ranks highly as an activity pursued by visitors to the municipality, and this trend is expected to continue. An enhanced museum offering would broaden the range of facilities – thereby encouraging greater visitation and length of stay – resulting in a greater economic contribution.

### 3.2 Comparable Facility Analysis

The City of Richmond contains a number of heritage sites and facilities. All these facilities are owned by the City except the Gulf of Georgia Cannery National Historic Site, which is operated by a non-profit society on behalf of Parks Canada. Metro Vancouver is also home to several civic museums operated by the respective municipalities. Data is provided below from comparable facilities in Richmond and Metro Vancouver, to provide insights into possible museum models for Richmond.

<u>Museums</u>	<u>Descriptive and Performance Information</u>
<ul style="list-style-type: none"> <li>– Richmond Museum</li> <li>– Museum of Vancouver</li> <li>– Surrey Museum</li> <li>– Burnaby Village</li> <li>– The Reach Gallery Museum (Abbotsford)</li> </ul>	<ul style="list-style-type: none"> <li>Facility Size</li> <li>Admission Fees</li> <li>Staffing</li> <li>Attendance by Year</li> <li>Markets by Origin</li> <li>Revenues</li> <li>Expenses</li> <li>Facility Size</li> </ul>

#### Facility Size

The comparable municipal museums range from 20,000 sq.ft. to over 160,000 sq.ft.

	<b>Richmond Museum</b>	<b>Museum of Vancouver</b>	<b>Surrey Museum</b>	<b>Burnaby Village</b>	<b>Reach Gallery Museum</b>
Built Space (sq. ft.)	3,000	161,000	35,000	10 bldgs.	20,000
Gallery Space (sq.ft.)	2,000	25,200	12,000		6,000

#### Admission Fees

Only one of the five comparable facilities charge an admission fee – the others are free or by donation. The Museum of Vancouver charges an adult rate of \$18.00, and also have rates for seniors, children and families.

#### Staffing

All facilities have a range of paid staff in categories of full-time, part-time and seasonal/casual. Total employment ranges from eight persons at the Richmond Museum to 41 at Museum of Vancouver. It is noted that all facilities maintain volunteer programs that augment the paid staff numbers.

While the Richmond Museum currently has four full-time staff, it should be noted that all perform City-wide functions. The Curator of Collections and the Curatorial Assistant are responsible for collections management City-wide, including at the heritage sites and the ROX. The Curator of Exhibitions coordinates off-site exhibits and is involved in special projects, and the Educational Programs Coordinator provides oversight to school programs at both the Richmond Museum and the heritage sites.

<b>Staff</b>	<b>Richmond Museum</b>	<b>Museum of Vancouver</b>	<b>Surrey Museum</b>	<b>Burnaby Village</b>	<b>Reach Gallery Museum</b>
Full Time	4	21	7	17	7
Part Time	1	13	13		4
Seasonal	3	7	2	14	5
<b>Total</b>	<b>8</b>	<b>41</b>	<b>22</b>	<b>31</b>	<b>16</b>

### Attendance

Annual attendance varies greatly among the facilities. Metro Vancouver civic museums varied from 31,000 at The Reach, to 258,000 at the Burnaby Village. Steady growth in attendance has occurred for most facilities over the past several years (since 2010).

These figures include visitation from general admission, school children, and members. They also include visitation for special events, programs, and facility rentals (listed from most recent to older).

<b>Attendance</b>	<b>Richmond Museum</b>	<b>Museum of Vancouver</b>	<b>Surrey Museum</b>	<b>Burnaby Village</b>	<b>Reach Gallery Museum</b>
2017	34,400	72,667		258,495	31,692
2016	22,000	72,216	50,503	243,457	24,095
2015	28,700	71,857	40,130	250,839	21,345
2014	18,900	64,742	27,709	246,719	21,096
2013		64,491	28,573	251,003	19,520
2012		60,083	30,889	224,038	17,805
2011		64,437	19,402	275,056	20,961
2010			24,489	149,704	16,274

## Geographic Markets

*Richmond facilities market information not available.*

<b>Metro Vancouver Facilities</b>				
<b>Geographic Markets</b>	<b>Museum of Vancouver</b>	<b>Surrey Museum</b>	<b>Burnaby Village</b>	<b>Reach Gallery Museum</b>
Home Community	30%	45%	65%	75%
Metro Vancouver	30%	40%	25%	10%
Elsewhere	<u>40%</u>	<u>15%</u>	<u>10%</u>	<u>15%</u>
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## Financial Performance

### Revenues

Revenues have been tallied in categories as follows:

- Self-Generated                      Programs, Admissions, Ancillary Services
- Government Support              Municipal, Provincial, Federal
- Private Support                      Fundraising, Sponsorships, Partnerships
- Other                                      Endowments, Interest

The largest category of revenue is from government, typically from the host municipality. Other forms of government support are usually specific project related, coming from various federal and provincial programs.

<b>Revenue Categories</b>	<b>Richmond Museum</b>	<b>Museum of Vancouver</b>	<b>Surrey Museum</b>	<b>Burnaby Village</b>	<b>Reach Gallery Museum</b>
Self-Generated	2%	28%	4%	NA	5%
Government Support	98%	62%	78%	NA	81%
Private Support	0%	10%	18%	NA	14%
Other	0%	0%	0%	NA	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## Expenses

Operating expenses have been tallied in the following categories:

- Staff                                      Wages, Salaries, Benefits
- Administration                      Office, Marketing, Insurance, Communications
- Building Related                      Rent, Utilities, Janitorial, Maintenance
- Collections/Programming           Exhibitions, Events, Materials
- Other                                      Miscellaneous

The largest expense category is wages and salaries for staff. Administration costs vary widely from 4% (Museum of Surrey) to 28% (Museum of Vancouver). Cost to operate the building also vary significantly, and depend on whether or not the municipality covers these costs separately.

Expense Categories	Richmond Museum	Museum of Vancouver	Surrey Museum	Burnaby Village	Reach Gallery Museum
Staff	75%	64%	75%	74%	64%
Administration	15%	28%	4%	0%	10%
Building Related	0%	0%	13%	5%	8%
Collection/Programming	10%	8%	5%	5%	18%
Other	0%	0%	0%	7%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## CONCLUSIONS

The Richmond Museum is by far the smallest civic museum in Metro Vancouver based on the comparable facilities used for this analysis. The small size is also reflected in a smaller staff, total averaging about one half of the Reach Gallery Museum and about one-quarter of the Museum of Vancouver staff count.

The Richmond Museum's annual attendance numbers are lower than the other regional comparable facilities.

The Richmond Museum caters to a largely local market. Non-local markets also represent a larger proportion of attendees at the Metro Vancouver comparable facilities.

The Richmond Museum is almost exclusively dependent on municipal government support for its operations. The Metro Vancouver museums generate revenues from a mix of self-generated, government and private sector support.

Salaries are the main expenditure category of all the museums used for comparison, typically ranging from two-thirds to three-quarters of all operation expenses. The Richmond Museum is at the high end at about 75%.

### 3.3 Stakeholder Interviews

Numerous individual and group interviews were conducted with Stakeholders in the Richmond heritage community, including other cultural and heritage attractions, City staff, and community and tourism organizations.

Common themes arising from these interviews, which informed the development of the proposed museum models and strengthened network of heritage sites, are summarized below.

*Interviews included (see Appendix for complete listing):*

Britannia Shipyards Society	Richmond Museum Society
Gulf of Georgia Cannery Society	City staff
Museum of Vancouver	Richmond Nature Park Society
Richmond Gateway Theatre	Royal BC Museum
Richmond Heritage Commission	Steveston Historical Society
Richmond Chamber of Commerce	Tourism Richmond
Richmond Art Gallery Association	YVR - Vancouver Airport

#### Common themes:

Where:

#### 1. A strong district in Steveston and a major attraction in 'the rest of' Richmond

- Steveston heritage district:
  - How to knit separate sites together, into comprehensive heritage experience? We would still need more sites, to tell story of wider Richmond
  - Mystic Connecticut e.g. – coordinated approach to multiple sites
  - Steveston is its own unique thing; that is its strength
- A major Richmond destination:
  - A destination point on way from airport
  - Invite tourists from around the world; make something big
- Links between Steveston and other Richmond sites?
  - A Steveston district and a Richmond museum could be linked, or perhaps quite separate?
  - Work still to be done to further build collaborative relationships between all sites/societies
  - Challenge of transportation between both nearby and dispersed sites

Audience and Relevance:

#### 2. Connecting to present and future Richmond communities

- How to engage locals – 60% new immigrants, with complete history of their own; longer term residents and heritage buffs have a stronger connection
- Historic story is huge maritime influence; today's Richmond is different: 70% immigrants from Asia; trend continuing
- So many are relative newcomers, come from big cities and new to being outside; may be first experience of being off pavement, getting feet wet, getting dirty
- Youth:
  - Important that young kids see what people from their historic communities have done, what their forefathers did to make this a special place; growing sense of pride; "when youth explain the culture, you've got success"
  - Engage people growing up here – how to get kids interested now, in past/present/future; they're the ones who will grow into this

- Engage artists and audiences in discussions around the City, re: Richmond character, development
- Story of cultural diversity, but in a peaceful place; as North Americans we're all immigrants (with the exception of Indigenous Peoples); space to foster dialogue about harmonious communities
- Community gathering space first and foremost; spaces for communities to tell their own stories; need space for groups that don't have resources to tell own story

### 3. Connecting to a wider audience beyond Richmond

- Richmond story is an international story; if told in an authentic way, will appeal to those outside the community as well.
- Invite tourists from around the world; make something big; a Richmond-only story (120 year migration scope) would limit scale

#### Stories:

### 4. Visitors and locals find surprising, little-known stories and heritage

- Origin story of Steveston community, "a potted history of Steveston"; visitors surprised at diversity of history; local Japanese history
- Tourism Richmond: visitors aware of Asian culture in general, and interested in Asian dining; not aware of Asian history of Richmond, and Asian history in its museums
- Generations of Richmond Chinese Canadians coming from Hong Kong don't know the history of Chinese in canneries, etc.

### 5. Missing, under-told stories

- First Nations (some in walking tours); Chinese Canadians (some at Britannia, Chinese Bunkhouse; also Gulf of Georgia Cannery)
- East Indians, cranberry farms; farming, food security; Dettwiler, Canadarm; diversity of religions
- Richmond neighbourhoods – multiple cool neighbourhoods
- Physical, natural landscape as basis for cultural, industrial landscapes

### 6. Something to tie it all together

- We don't lack stories; how/where best to tell? Some are site/building specific; others spread out, or less site specific – can't be told in a specific place.
- Lots of small spaces now; lots of stories, all in different places. What is the connection between all?
- Multitude of historic sites – "gems and jewels" – throughout Steveston, Richmond; need a coordinated approach between them

#### How? – operations:

### 7. Importance of partnerships, networks, collaborations

- Challenge of multiple sites, societies, mandates
  - A big challenge is governance/staffing of multiple heritage sites; volunteer societies may lack time, skills; would need to expand mandates of each museum, to tell larger Richmond story
  - Richmond 2020 group: how to develop coordinated approach, establish priorities
  - Partnership between some sites for school programs; more direct links with some than others
- YVR: possible collaborations if cross-over with YVR long term plan; keen to create connections between YVR and City
- Tourism Richmond: propose three-pronged approach to engage residents, hotels, Metro Vancouver
- Good opportunities of close proximity between Richmond Museum and Richmond Art Gallery: shared spaces, cross pollination; partner projects; able to challenge each other
- RBCM had an MOU with Richmond, could expand on this



### Important Richmond stories to tell

A City and Museum staff workshop further identified the following broad Richmond stories that are important to share, including some well told now at one or multiple sites, and others that could be told better. The horizontal bands below group these into a few common themes. There are multiple ways to tell these stories, including through permanent and temporary exhibits, programs and events.

<i>Themes</i>	<i>Important to tell</i>	<i>Told well now</i>	<i>Could be told better</i>
<b>Steveston waterfront</b> Fishing & canning, boat building, some farming, Japanese contributions.	√	√	
<b>A larger Richmond story</b> that connects and focuses others. A unified & exciting place to 'know' Richmond.	√	√	√ A wide variety of stories – need strategy for linking them.
<b>Celebrate the River: an island city</b> The nature of city and island How and where we came to be	√		√ Fish, farms and cultures drawn to them; human interactions. First Nations' relationships. Current issue: climate, sea levels.
<b>Diverse cultures, past &amp; present</b> diversity + migration + contemporary perspectives	√	√ Britannia's stories of multi-ethnic workforce.	√ Richmond's social fabric, history. Culture & food. Successful local history = a successful international story.
<b>Unique neighbourhoods</b>	√		√ Burkeville and others. Patterns of dev't and community.
<b>Tech</b>	√		√ Farming, fishing, canning to high tech industries, aviation.

## 4.0 Proposed Museum Models

The following pages outline existing conditions for the delivery of Museum and Heritage Services in Richmond, and three proposed models for a revitalized Richmond Museum and a strengthened network of Heritage Sites.

Model	Name	Description and Key Attributes
A	<b>A National Museum</b>	<p><b><i>A national story, rooted in our Richmond experience</i></b></p> <p>A regional, national and international destination, rooted in our local natural and cultural history, and expanding through a broader story of international significance – a gathering of peoples where the river meets the sea.</p>
B	<b>A City Museum</b>	<p><b><i>The Richmond Story, in a community gathering place</i></b></p> <p>This City model includes a relocated and expanded museum with a Richmond-focused story, which provides strong connections to all other heritage sites.</p>
C	<b>A Community Museum</b>	<p><b><i>Sharing local, community stories</i></b></p> <p>An interpretive hub, sharing local community stories, and inviting visits to other sites throughout Richmond.</p>
<i>Each Museum model above includes the provision for:</i>		
	<b>A Strengthened Network of Heritage Sites</b>	<p><b><i>Get out and explore!</i></b></p> <p>The new Museum, at the centre of an enhanced network of sites, linked by a significant online presence and thematic orientation kiosks at each satellite location. The network adds missing or under-told parts of Richmond's stories, encourages visitation to other heritage and contemporary sites, and provides a consistent thread between all.</p>



# Richmond Today: A Network of Heritage Sites

## The Richmond Museum

In Richmond, the City provides and maintains a number of cultural and heritage facilities, including the Library/Cultural Centre which is home to our City's main Library branch, Museum, Arts Centre, Art Gallery, and Archives.

## Other public heritage facilities

throughout Richmond include Britannia Heritage Shipyard, London Farm, Minoru Chapel, Steveston Museum and the Steveston Interurban Tram. The Gulf of Georgia Cannery is a Federal Government facility.

## Additional sites and programs

which collectively tell the diverse story of historic and contemporary Richmond include:

- o The Richmond Olympic Experience
- o Parks and natural history sites, including Iona Beach Regional Park (GVRD), Terra Nova Rural Park, Richmond Nature Park, Flight Path Park, and others
- o Self-guided walking and driving tours of Richmond's agricultural and industrial heritage, Steveston's 'Cannery Row', the South Arm Slough District, Sea Island, Terra Nova, and Brighthouse District





# New Museum, Model A: A National Museum

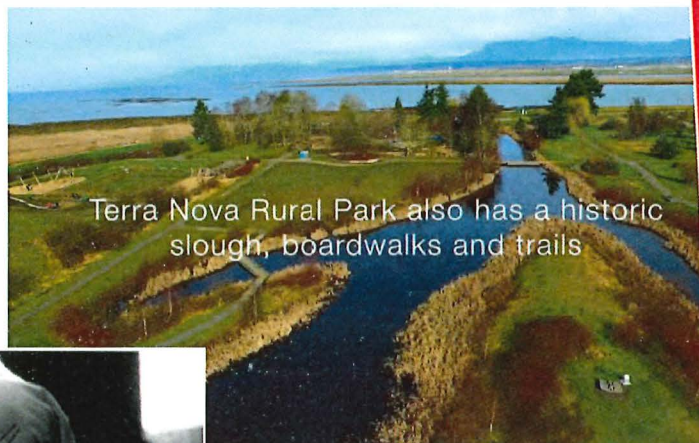
*A national story, rooted in our Richmond experience*

*A regional, national and international destination, rooted in our local natural and cultural history and expanding through a broader story of international significance – a gathering of peoples where the river meets the sea.*

## Key features:

- A permanent exhibit that resonates with local and international visitors, such as: life where river meets the sea, migration and changing communities, changing climates, nature and urbanization

*An island city – people drawn from around the world to the river, salmon and soil*



Terra Nova Rural Park also has a historic slough, boardwalks and trails



*A community continuing to grow, with ties around the Pacific Rim*



## NIKKEI STORIES

NIK-KEI (NEE: KAYI) OF JAPANESE DES

### 8. Boat Builder

Master Craftsmen

For nearly a century, Japanese Can shipwrights built wooden fishing boats for thousands of local fishermen. Using craftsmanship, the family-owned ships were watertight, buoyant and expected to last 50 years. Even during the BC interior, Stoveston shipwrights had them shipped to the o

Watch a short video to be using your mobile device QR Code, or visit our web [www.nikkeistories.com](http://www.nikkeistories.com)

Visit all 10 sites

- 1. Local History
- 2. First Immigrants
- 3. History of the Pacific
- 4. History of the Pacific
- 5. History of the Pacific
- 6. History of the Pacific
- 7. History of the Pacific
- 8. Boat Builder
- 9. History of the Pacific
- 10. History of the Pacific

TELUS

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- o **Strong links to other heritage sites** throughout Richmond
- o **Children's exhibits, galleries, studios**



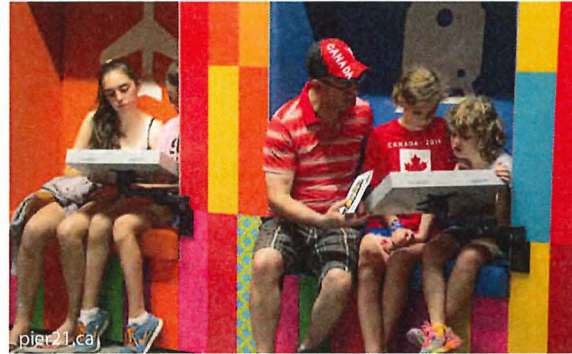
*Red Star Line Museum, Antwerp:  
"an eventful story in the footsteps  
of emigrants"*

## New Museum, Model A: A National Museum

*A national story, rooted in our Richmond experience*

- o **AV theatre** with feature presentations
- o **Major changing exhibit space**
- o Two or three smaller changing exhibit galleries, with **exhibitions developed collaboratively with community partners**

*The Canadian Museum of Immigration at Pier 21*



- o **Multipurpose community gathering, event, program space**





- o **Other complementary amenities** to encourage tourism attraction and increase length of stay, as well as community use and ownership:
  - o Hotel
  - o Retail (multiple venues, shopping districts)
  - o Food (multiple venues from fine dining to informal)
  - o Library, art gallery, archives, performance venues – music, theatre, dance
  - o Outdoor recreational venues, especially water/riverfront



- o **Centralized collection management and storage** (separate project)
- o **Enhanced connection to the Network of Heritage Sites**

## Audience

- o Local to national and international

## Possible Stories

*Richmond and universal themes of natural and cultural history, such as:*

- o The 'nature' of the City, and growing urbanization
- o Peoples drawn for millenia to river, salmon and soil
- o First Nations at the mouth of the Fraser
- o The migration of peoples through a Pacific gateway
- o Continuing contributions of many cultures

## Location

- o A central, easily accessible location with a critical mass of other cultural attractions and amenities nearby

## Size

- o Approximately 60,000 square feet

## Capital cost: \$53M estimate

## Fundraising opportunities

- o This option may be fundable at all three levels of government – municipal, provincial and federal – and nationally from the private sector.



## New Museum, Model B: A City Museum

### *The Richmond Story, in a community gathering place*

*This City model includes a relocated and expanded museum with a Richmond-focused story, which provides strong connections to all other heritage sites.*

*The museum could include theatre presentations, children's galleries, and a 'tourist' function to help both locals and visitors find more at other sites around the City.*

#### **Key features:**

- **A permanent exhibit telling a comprehensive story of Richmond's many places and communities** – past, present and future
- **A 'mini visitor centre' with an overview of satellite locations** throughout Richmond, which extend the story further



*Museum of Brisbane exhibition: personal stories from 100 residents who currently call Brisbane home*



*North Vancouver Museum & Archives' planned new museum, centrally located with other attractions at lower Lonsdale*



*Museum of Liverpool:  
historical and interactive exhibits*

*Museum of History and Industry, Seattle:  
Exhibitions of contemporary and historic communities and industries*

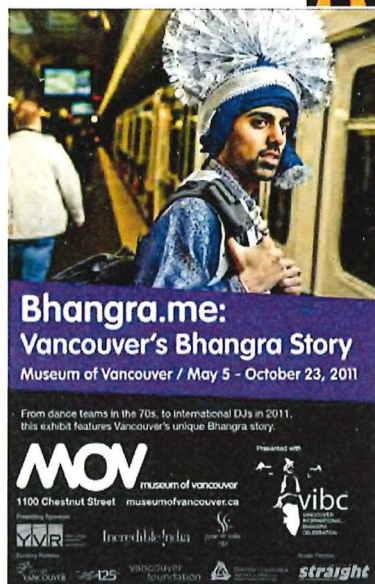


## New Museum, Model B: A City Museum

### *The Richmond Story, in a community gathering place*

- o **AV theatre** with feature presentations
- o **Changing exhibit galleries**, with exhibitions developed collaboratively with community partners
- o **Multipurpose community gathering, event, program spaces** for social interaction

Museum of  
Vancouver's  
'Bhangra.me'  
exhibition



- o **Other complementary amenities** to encourage tourism attraction and increase length of stay, as well as community use and ownership:
  - o Retail
  - o Food
  - o Library, art gallery, archives, as at current Museum site
  - o Performance venues: music, theatre, dance
  - o Outdoor recreational venues, especially water/riverfront



*KidsQuest Children's Museum, Bellevue WA*

- o **Children's exhibits**, galleries, studios
- o **Centralized collection management and storage** (separate project)
- o **Enhanced connection to the Network of Heritage Sites**



## Audience

- o Local and regional communities

## Possible Stories

*Richmond focused:*

- o Original and growing communities
- o First Nations at the mouth of the Fraser River
- o River and landscape as the starting point
- o Fish, farms, and food – the 'horn of plenty'

## Location

- o A central, easily accessible location with a critical mass of other cultural attractions and amenities nearby

## Size

- o Approximately 20,000 square feet
- o Potential for growth

## Capital cost: \$18M estimate

## Fundraising opportunities

- o This may be amenable to provincial as well as municipal and local funding.



## New Museum, Model C: **A Community Museum** *Sharing local, community stories*

*An interpretive hub, sharing local community stories, and inviting visits to other sites throughout Richmond.*

### **Key features:**

- **An intimate space, of the current or similar size to the existing Museum.**  
The Museum may change location, and would likely be co-located with other complementary facilities for collaborative programming
- **Changing exhibitions telling local, community-based stories,** which complement the other heritage sites



- o An interactive media component encourages visits to other sites





# New Museum, Model C: A Community Museum

## *Sharing local, community stories*

- o **Interpretive Programs at other heritage sites** and locations throughout Richmond



Presented by the Richmond Museum

## Textile Conservation Workshop

With Conservator, Rebecca Pavitt of Fine Art Conservation

**November 26, 2015 | 1:00–5:00 p.m.**  
Richmond Cultural Centre Atrium | 7700 Minoru Gate, Richmond, BC

An opportunity for Museum professionals, students, textile artists and enthusiasts to learn about the care, preservation and restoration of textiles through hands-on activities and demonstrations from Conservator, Rebecca Pavitt.

Rebecca Pavitt has worked in textile conservation since 1988. She has a MA in Art Conservation and is an accredited member of the Canadian Association of Professional Conservators. She has provided services for institutions like The Vancouver Art Gallery, Museum of Vancouver, Vancouver Museum, BC and the University of British Columbia Special Collections.

Find us on

### To Register

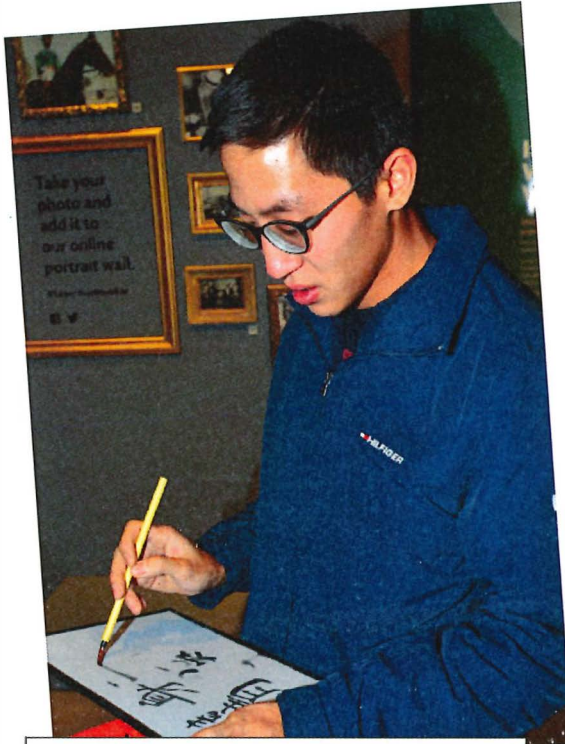
Telephone: 604.276.4300

For online registration: [www.richmondmuseum.ca](http://www.richmondmuseum.ca)

Event #1266608

Cmt \$40





Richmond Museum presents

## Heritage Bus Trip Temples of Faith

**Saturday, April 26, 2014**  
10:15 a.m. – 4:15 p.m.

**MEET AT:**  
Richmond Library/Cultural Centre  
7700 Minoru Gate, Richmond, BC

Experience a sampling of the rich diversity of spiritual and cultural traditions within the Richmond community. Participants visit four local places of worship – Minoru Chapel, Ling Yee Mountain Temple, Vedic Cultural Centre of BC and the Jamil's Mosque – where they receive a tour of the community's history and faith. Vegetarian lunch included.

Register for your Heritage Bus Trip Temples of Faith program #303058 by calling 604 276-4300

**\$40/person      All ages welcome**




Logos for Richmond Museum, Minoru Chapel, Vedic Cultural Centre of BC, and Richmond are at the bottom.

### Audience

- o Local community

### Possible Stories

*Richmond focused:*

- o First Nations at the mouth of the Fraser River
- o Local, community-based stories to complement other Richmond heritage sites

### Location

- o Central location, likely co-located with other cultural facilities

### Size

- o Existing Richmond Museum or similar space (8–10,000 square feet), with new, rotating exhibits

**Capital cost: \$3.4M estimate**

### Fundraising opportunities

- o Local governments and partners



# All Models: A Strengthened Network of Heritage Sites

*Get out and explore!*

*The new Museum at the centre of an enhanced network of sites, linked by a significant online presence and thematic orientation kiosks at each satellite location.*

*The network adds missing or under-told parts of Richmond's stories, encourages visitation to other heritage and contemporary sites, and provides a consistent thread between all.*

## Key features:

- **Create a virtual portal to the network of sites:** website, mobile apps
- **Add common icons and themes** at each site, with overview of a common Richmond theme, and intro and invitation to other sites



Richmond Museum



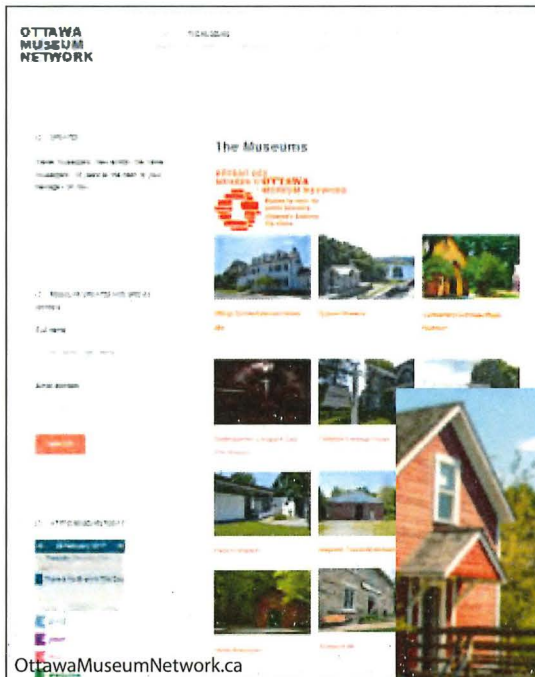
Flight Path Park



London Heritage Farm



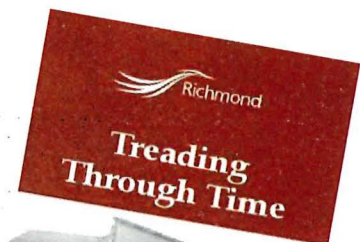
Richmond Olympic Experience



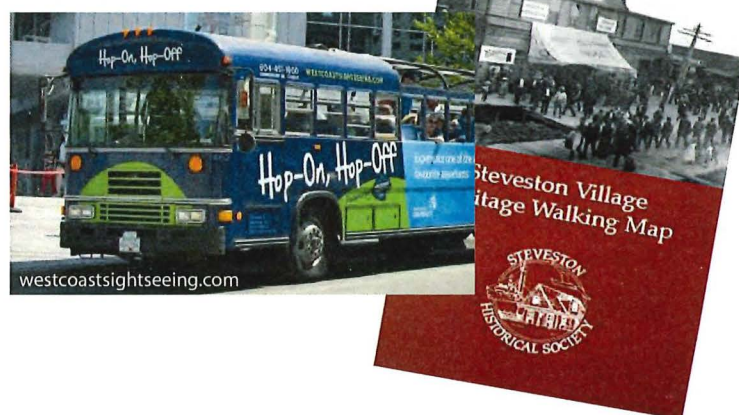
Ottawa Museum Network:  
11 community museums across  
Greater Ottawa

- o **Distribution mechanisms to satellite sites**
  - o Website and mobile app
  - o Self-guided walking/driving/cycle/transit tour publications
  - o Guided walking/cycle/paddle tours

- o Seasonal or special event-based shuttle transports between central museum and satellite sites



Iconic interpretive kiosks:  
Squamish Lil'wat First Nations'  
"Cultural Journey"





# All Models: A Strengthened Network of Heritage Sites

*Get out and explore!*

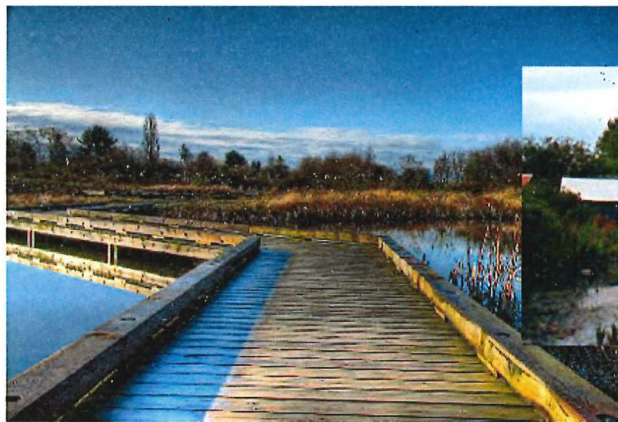
***Potential added themes  
and sites, to tell a fuller  
and contemporary  
Richmond story:***

**First Nations**

- o First Nations sites and interpretive programs, such as Britannia Heritage Shipyards' First Peoples' House

**Natural history of river and island; urbanization and climate change**

- o Iona Beach Regional Park (Metro Vancouver)
- o Other ocean and riverfront sites: West Dyke and Middle Art Dyke Trails, Steveston Greenways, Garry Point Park, Imperial Landing Park, Terra Nova Rural Park & Natural Area, Britannia Heritage Shipyard Park



### **Diverse and harmonious contemporary communities:**

- o Themes of migration to Canada through the west
- o Historic and present Sea Island Communities (Burkeville and others)
- o Finn Slough
- o No.5 Road "Highway to Heaven"

### **Agriculture**

- o Garden City Lands Park Development
- o East and South Richmond farms
- o Cranberry fields

### **Historic and contemporary industries**

- o Aviation: YVR, BCIT Aviation Campus, Boeing
- o Aerospace: MDA / Canadarm & RadarSat
- o Wireless and high tech industries – Norsat International, Sierra Wireless
- o North Arm marine, lumber industries – Mitchell Island



twitter.com/yvrairport

### **Audience**

- o Local community

### **Possible Stories**

- o First Nations at the mouth of the Fraser River
- o Local stories at each site, in the context of larger Richmond themes
- o Invitations to visit other sites to experience more of the Richmond story

### **Size, capital developments**

*An enhanced network of current and new sites:*

- o Graphic kiosks at each satellite location, with common themes, maps of network and offerings at other sites
- o Outdoor themed sculpture and public art, highlighting local stories
- o Some new interpretive exhibits within existing facilities
- o Online portal and guide (website, mobile apps)

### **Capital cost: \$3.5M estimate**

### **Fundraising opportunities**

- o Local governments and partners



## 5.0 Model Comparisons and Financial Analysis

### 5.1 Introduction and Evaluation Process

The purpose of this study is to identify and analyze the feasibility of several different museum models for a future City Museum for Richmond.

The following evaluation draws on the detailed financial analysis presented in the 2012 Richmond Museum Feasibility Study<sup>7</sup>, specifically the Functional Area Estimate prepared by Hanscomb Limited (Appendix F, p.83). Cost escalations have been presented to bring the costs to 2017. This analysis is not a business plan, but is intended to be a first step towards developing the Richmond Museum's Master Plan.

The project Steering Committee directed that the proposed models be evaluated against six individual criteria grouped into three categories, as in section 2.3 above, and repeated here:

*Location-based:*

- **Prominent, easily accessible location**

*Audience-based; 'who is it for?'*

- **A gathering place for Richmond's diverse communities** to meet, interact, tell their stories and share their cultural traditions
- **Engage diverse Richmond and Lower Mainland audiences (and beyond):** longtime residents, recent immigrants, ethnic communities, youth....

*Cost-based:*

- **Financially feasible to build**
- **Financially sustainable annual operations**
  - Capable of self-generating revenue to off-set operating costs
  - Balance of partner or government support
  - Efficiency of administering (staffing, building operations)
- **Appeal to broadest range of funding sources:** private philanthropists, all levels of government, corporations

<sup>7</sup> The Arlington Group, Kinexus Consulting Inc., D.Jensen & Associates Ltd., *Richmond Museum Feasibility Study*, 2012.

In order to translate the Steering Committee criteria into measurable topics, the three evaluation categories have been refined into topics of location, capital costs, market demographics and financial operations. These topics and sub-headings are described below with the linkage to the Steering Committee criteria.

<b>Category</b>	<b>Evaluation Descriptor</b>	<b>Linkage to Steering Committee Criteria</b>
Location	Location	Prominent, easily accessible location
Capital Costs	Building	Financially feasible to build
	Exhibits / Programming	Financially feasible to build
	Funding Eligibility	Appeal to broadest range of funding sources
Market Demographics	Origin	Engage Richmond and Lower Mainland audiences
	Characteristics	A gathering place for Richmond's diverse communities
	Attendance	Engage diverse Richmond and Lower Mainland audiences
Financial Operations	Revenues	Financially sustainable annual operations
	Expenses	Financially sustainable annual operations

## 5.2 Model A: A National Museum

*A national story, rooted in our Richmond experience*

### Location

The preferred site would be prominent and easily accessible. A site with these attributes would enhance the accessibility for both residents and tourists. The preferred location would also benefit from proximity to other cultural and tourist facilities such as hotels, restaurants and other attractions. A site in the City Centre precinct would likely best meet these conditions.

### Building Size

A dedicated museum building of 60,000 sq.ft. based on the functional space as documented in the 2012 Richmond Museum Feasibility Study (Option #2A Destination Museum), are as follows:<sup>8</sup>

Functional Spaces	Functions	Square Feet
Private Space (Back of House)	Mechanical, Loading, Receiving, Workshops, Administration, Staff Services, Community Meeting Space	11,500
Exhibit Spaces	Theatre, Multi-function Areas, Program Space, Sub-dividable Temporary Exhibition & Rentable space, Permanent Exhibition Space	32,500
	<i>Possible configuration of Permanent and Temporary Exhibition spaces above:</i>	
	<i>Permanent (Richmond &amp; national story):</i>	<i>10-15,000</i>
	<i>Orientation to satellite locations:</i>	<i>2,500</i>
	<i>Changing exhibit space:</i>	<i>6-10,000</i>
	Ancillary Services (Options include Gift Shop, Lobby, Coffee Shop and Food Service)	8,000
Circulation		8,000
<b>Total</b>		<b>60,000</b>

<sup>8</sup> Hanscomb Ltd. Appendix A: Functional Area Cost Estimate, Option #1- A Community Museum, p. 35. 2012 Richmond Museum Feasibility Study.



### **Capital Costs**

The 2012 Feasibility Study reported a construction cost of approximately \$803 per square foot.<sup>9</sup> This figure included all private and public spaces, plus exhibits and a 10% allowance for contingencies. It did not include the following items:

- Land acquisition costs and import charges
- Development charges
- Right of way charges
- Easement Costs
- Legal fees and expenses
- Financing costs
- Fundraising costs
- Owner's staff and associated management
- Relocation of existing facilities, including furniture, equipment and exhibits
- Owner furnished material
- Window washing and maintenance equipment
- Contaminated Waste
- Phased Construction Premium
- Construction Contingency (Change Orders)
- Escalation contingency
- Preventative maintenance contracts
- Public transport infrastructure
- Parking and onsite storage
- Sales Tax

The Model A cost estimate is as follows:

#### **Building:**

<b>Capital Cost</b>	<b>Factor</b>	<b>Total</b>
Destination Museum 2012	60,000 sq.ft.	\$48,200,000
2017 Budget Escalation	10%	\$4,820,000
<b>Sub-Total<sup>10</sup></b>		<b>\$53,020,000</b>

#### **Strengthened Network:**

Kiosks, outdoor installations, interpretive media at existing and additional sites (details under Model C, below)	\$3,500,000
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<b>Total Model A</b>	<b>\$56,520,000</b>
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<sup>9</sup> Hanscomb Ltd. Appendix A: Functional Area Cost Estimate, 2012 Richmond Museum Feasibility Study, p. 93.

<sup>10</sup> There are two other national museums in Canada outside of Ottawa – The Museum of Human Rights in Winnipeg and the Canadian Museum of Immigration at Pier 21 in Halifax. The Museum of Human Rights is housed in building of 270,000 square feet with 47,000 square feet of galleries. Pier 21 is approximately 100,000 square feet, with 23,000 square feet of exhibition galleries.

**Exhibits/Programming:**

Model A also incorporates several exhibition spaces – whose capital costs for the design, fabrication and installation of exhibits are included in the buildings capital cost projections above. These are:

- Permanent exhibit telling a national story, rooted in the Richmond location and experience
- AV Theatre presentation
- Overview of satellite locations
- Changing exhibit galleries
- Multipurpose gathering space
- Children’s exhibits, galleries and studios

**Funding Eligibility:**

Municipal funding, possible partnership with suppliers, provincial contributions on a project basis, and federal funding for a ‘national’ story and focus. Federal funding is more likely for capital than for ongoing operations support. A possible option would be to make arrangements with a developer using zoning or density bonuses as an incentive to provide museum space as a public amenity.

(The following sections provide estimates of markets and finances. Comparisons have been made with Models B and C to aid analysis of the three options. Detailed descriptions of Models B and C are provided in the following sections.)

**Market Demographics****Audience Origin:**

Model A (as with Model B) includes most of the elements of Model C, but features a large new museum featuring exhibits of both local and national relevance. Visitor origins for the distributed network of sites would be as described in Model C. The Model A museum is intended to attract a local market, but also cater to a broader provincial, national and international audience.

The projected market origin distribution of Model A, compared to Models B and C, is as follows:

<b>Market Area</b>	<b>Current Distribution</b>	<b>Model A Distribution</b>	<b>Model B Distribution</b>	<b>Model C Distribution</b>
Richmond	37%	30%	50%	45%
Metro Vancouver	26%	20%	25%	20%
Elsewhere	36%	50%	25%	35%

**Audience Characteristics:**

Model A offers the best opportunity to access under-served market segments such as recent immigrants and youth. It also is the only model that would provide a draw for non-BC residents from elsewhere in Canada, the United States, and offshore.

**Attendance:**

A new museum with approximately 32,500 square feet of exhibition space could generate an annual visitation of approximately 195,000.<sup>11</sup> This projection is based on an industry norm of 6.0 visitors per square foot for museum facilities of this size.<sup>12</sup> Numerous factors will influence the actual attendance including the success of marketing, location, proximity to other cultural/commercial facilities, partnerships, and the quality of programming.

Attendance at the other Richmond facilities is projected to increase by about 5% as per Model C.

**Financial Operations****Revenues:**

An admission charge is projected in Model A. This would be set at a rate to provide value to the visitor, but not be a deterrent to visitation. Other self-generated revenues would accrue for programs, food and beverage sales, gift shop sales, membership fees, and facility rentals. Revenues from admissions and these other self-generated sources should be capable of providing a significant proportion of the operations budget.

Substantial government support would also be required with continued reliance on the City of Richmond for a portion of these operations funds. However, given the national story, such as that of Asia-Pacific and wider immigration, a case could be made for involvement by both the Provincial and Federal Governments.

Private support through expanded partnerships is a possibility as in Models B and C.

A comparison of the current and possible projected revenues is as follows:

Category	Current	Model A	Model B	Model C
Self-Generated	3%	30%	15%	5%
Government Support	94%	60%	80%	90%
Private Support	3%	10%	5%	5%
Total	100%	100%	100%	100%

**Expenses:**

The costs to operate a new 60,000 square foot facility – with approximately 32,500 square feet of exhibition space - are estimated at approximately \$3.6 million<sup>13</sup>. Subtracting costs to operate the existing Richmond Museum brings the total museum operating cost to an

<sup>11</sup> Comparable annual attendance for Pier 21 in Halifax was 79,000, and 181,000 for the Museum of Human Rights in Winnipeg (2015-16)

<sup>12</sup> Association of Science-Technology Centers: Science Center and Museum Statistics. Based on reported visitors per square foot of exhibition space of 6.0 for facilities of this proposed size.

<sup>13</sup> Association of Science – Technology Centers, Science Center and Museum Statistics. This publication reports average costs per square foot of gallery space. The average cost for a facility of approximately similar in size to Model A was \$110 per square foot, for a total of \$3.0 million (\$110 x 32,500 = \$3,025,000).

estimated \$3.2 million. Incorporating the incremental Strengthened Network costs from Model C results in a total operation cost of approximately \$3.6 million estimated as follows.

Annual operating cost for Model A National Museum building	\$3,575,000
Plus Strengthened Network incremental operating cost	<u>\$425,000</u>
<b>Total Model A annual operating cost</b>	<b>\$4,000,000</b>
Less current Richmond Museum operating costs	<u>– \$425,000</u>
Total <u>additional</u> operating cost over current	\$3,575,000

Salaries will be the largest expenditure category in Model A, however the relative proportion should be lower than in the other models. Staffing is expected to be in the range of 20 to 30 persons.

The programing allocation is expected to be approximately about 20% and administration about 15%. Building operating costs should be about 10% of expenditures.

Category	Current	Model A	Model B	Model C
Staff Costs	61%	55%	65%	62%
Administration	20%	15%	18%	17%
Building Related	7%	10%	7%	8%
Collections/Programming	11%	20%	10%	13%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### 5.3 Model B: A City Museum

*The Richmond Story, in a community gathering place*

#### Location

As with Model A, the preferred site would be prominent and easily accessible. A site with these attributes would enhance the accessibility for both residents and tourists. The preferred location would also benefit from proximity to other cultural and tourist facilities such as hotels, restaurants and other attractions. A site in the City Centre precinct would likely best meet these conditions.

#### Building Size

A new dedicated community museum of approximately 20,000 sq.ft. based on the functional space as documented in the 2012 Richmond Museum Feasibility Study (Option #1 Community Museum), are as follows:<sup>14</sup>

Functional Spaces	Functions	Square Feet
Private Space (Back of House)	Mechanical, Loading, Receiving, Workshops, Administration, Staff services, Community meeting space	4,000
Public Spaces (Front of House)	Theatre, Multi-function Areas, Program Space, Sub-dividable Temporary Exhibition & Rentable space, Permanent Exhibition Space	11,000
	<i>Possible configuration of Permanent and Temporary Exhibition Spaces above:</i>	
	<i>Permanent (Richmond Story, Children's)</i>	<i>5,000</i>
	<i>Orientation to satellite locations</i>	<i>1,000</i>
	<i>Changing exhibits</i>	<i>2,500</i>
	Ancillary Services (Options include Gift Shop, Lobby, Coffee Shop and Food Service)	2,500
Circulation		2,500
<b>Total</b>		<b>20,000</b>

<sup>14</sup> Hanscomb Ltd. Appendix A: Functional Are Cost Estimate, Option #1- A Community Museum, p. 35. 2012 Richmond Museum Feasibility Study.

### **Capital Costs**

#### **Building:**

The capital cost provided in the 2012 Feasibility Study, for the option of similar size was \$16.3 million.<sup>15</sup> As with cost estimates for the Model A National Museum, the estimates included all the functional area building costs. It also included a 10% contingency allowance. Land acquisition and development cost items not included, as listed in Model A.

Escalating the 2012 cost estimate by 10%, representing an approximate 2% annual increase, results in a 2017 cost estimate of \$17.9 million. Adding Strengthened Network costs from Model C brings the total to \$21.4 million.

<b>Capital Cost</b>	<b>Factor</b>	<b>Total</b>
Community Museum 2012	20,000	\$16,300,000
2017 Budget Escalation	10%	\$1,630,000
<b>Sub Total</b>		<b>\$17,930,000<sup>16</sup></b>
<b>Strengthened Network:</b>		
Kiosks, outdoor installations, interpretive media at existing and additional sites (details under Model C below)		\$3,500,000
<b>Total Model B</b>		<b>\$21,430,000</b>

#### **Exhibits/Programming:**

Model B incorporates several exhibition spaces, whose capital costs for exhibits are included in the buildings capital cost projections above. These include:

- Permanent exhibit telling the Richmond Story
- 'Mini visitor centre' – overview of satellite locations
- Changing exhibit galleries
- Multipurpose gathering space
- Children's exhibits, galleries and studios

#### **Funding Eligibility:**

Municipal funding and possible partnership with suppliers, plus provincial support on a project basis.

<sup>15</sup> Hanscomb Ltd. Appendix A: Functional Area Cost Estimate, Option #1- A Community Museum, p. 92. 2012 Richmond Museum Feasibility Study.

<sup>16</sup> It is noted that this figure is not a feasibility study budget, but a "best-estimate" used for this model evaluation purpose.

## **Market Demographics**

### **Audience Origin:**

Model B includes the distributed sites coordination costs of Model C, plus a new and larger museum. The origins for the distributed network of sites would be as in Model C. The new museum is intended as a “City Museum” and as such would have a local focus reflected in its programming and visitation.

The projected market origin distribution – compared to the current profile and Model C – is as follows:

<b>Market Area</b>	<b>Current Distribution</b>	<b>Model A Distribution</b>	<b>Model B Distribution</b>	<b>Model C Distribution</b>
Richmond	37%	30%	50%	45%
Metro Vancouver	26%	20%	25%	20%
Elsewhere	36%	50%	25%	35%

### **Audience Characteristics:**

Opportunities exist – with dedicated programming and marketing – to increase penetration of currently under-represented segments of the population. This would include the newly arrived resident category plus young people.

### **Attendance:**

Current visitation to the Richmond Museum has ranged between 19,000 and 28,000 over the past three years – averaging 23,000. A new museum of 20,000 sq.ft. gross and 11,000 sq.ft.<sup>17</sup> of gallery space could attract an annual attendance of approximately 55,000.<sup>18</sup>

Attendance at the other Richmond facilities is projected to increase by about 5% as per Model C.

## **Financial Operations**

### **Revenues:**

None of the municipally-owned and operated sites charge admission, and no admission charge is projected in Model B. Self-generated revenues will include program fees, donations in lieu of an admission fee, charges for special events and travelling exhibitions, facility rentals, and ancillary services.

Private support through expanded partnerships is a possibility as in Model C. These revenue generators might result in a tripling of self-generated revenues while the private support category should remain similar to Model C. These sources should result in a reduction in the relative proportion of government (municipal) funding.

<sup>17</sup> 2012 Richmond Museum Study, p.92. Includes space for theatre, program space, major subdividable exhibit space, temporary exhibit space and the Richmond Story space totaling 11,000 sq.ft. (and does not include public spaces for gift shop, ticketing, lobby or coffee shop).

<sup>18</sup> Based on approximately 5 visitors per square foot of exhibit space as per Association of Science and Technology Centers, Science Center and Museum Statistics.

A comparison of the current and possible projected revenues – compared to the current situation and Model C – are as follows:

Category	Current	Model A	Model B	Model C
Self-Generated	3%	30%	15%	5%
Government Support	94%	60%	80%	90%
Private Support	3%	10%	5%	5%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

#### Expenses:

The cost to operate a new 20,000 square foot facility, with approximately 13,500 square feet of exhibition space, is approximately \$1.5 million<sup>19</sup>. The current Richmond Museum annual operating cost is approximately \$425,000. The total net cost to operate Model B (Model B less current costs) would likely be about \$1.1 million. Incorporating the incremental Strengthened Network costs from Model C results in a total operation cost of approximately \$1.5 million, estimated as follows.

Annual operating cost for Model B Community Museum building	\$1,485,000
Plus Strengthened Network incremental operating cost	<u>\$425,000</u>
<b>Total Model B annual operating cost</b>	<b>\$1,910,000</b>
Less current Richmond Museum operating costs	<u>– \$425,000</u>
Total <u>additional</u> operating cost over current	\$1,485,000

Salaries will be the largest expenditure category in Model B also. Staffing is expected to double from the current complement of four to approximately ten. In particular, the stated desire for increased community engagement and involvement will require significant staff increases – for program development, community outreach, and collaborative exhibit development – and could require additional staff. This results in the proportion of expenses dedicated to personnel costs increasing to about 65%.

Administration and building costs should remain approximately the same, while collections / programming would decrease slightly to 10%.

Category	Current	Model A	Model B	Model C
Staff Costs	61%	55%	65%	62%
Administration	20%	15%	18%	17%
Building Related	7%	10%	7%	8%
Collections/Programming	11%	20%	10%	13%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

<sup>19</sup> Association of Science – Technology Centers, *Science Center and Museum Statistics*. This publication reports average costs per square foot of gallery space. The average for a facility of approximately similar size to Model 2 is \$110 per square foot, for a total of \$1.5 million (\$110 x 13,500 = \$1,485,000).



## 5.4 Model C: A Community Museum

*An interpretive hub, sharing local community stories, and inviting visits to other sites throughout Richmond.*

### **Location**

The existing Richmond Museum may continue in its current or an equivalent location – an ‘enhanced status quo’. Other existing – and any additional – heritage facilities are located throughout Richmond and will continue in these sites. Some of these facilities are in prominent and easily accessible locations, while others are more remote. All of these sites would be considered convenient to access for residents arriving by car, but more challenging by transit (and by cycling/walking). Some sites are not particularly convenient for tourists to access by any mode of transportation.

### **Capital Costs**

#### **Building:**

Allowances for Tenant Improvements to a new, City-owned site are estimated below. No allowance is included for site acquisition, or for relocation of Museum holdings or furnishings to the new site.

Development costs for kiosks at satellite locations and at the current Richmond Museum location. Estimate approximately \$3.5 million in a one-time development cost.

<b>Museum:</b>	<b>Description</b>	<b>Budget</b>
New location,	8-10,000 sq.ft. @ \$200 = \$1.6-\$2M	\$2,000,000
Tenant Improvements	4,000 sq.ft. exhibits, est	
(site acquisition and	4,000 sq.ft. back-of-house, est	
relocation NIC)	2,000 sq.ft. reception/admin, est	
Museum exhibits	New exhibits at current or relocated facility (estimate 4,000sq.ft. @ \$350)	\$1,400,000
<b>Subtotal</b>		<b>\$3,400,000</b>

<b>Strengthened Network:</b>	<b>Description</b>	<b>Budget</b>
Kiosks at satellite locations	10-15 sites @ \$25,000-\$50,000	\$500,000
Outdoor themed installations	Allow 3 @ \$500,000-\$1M	\$2,250,000
Interpretive media within existing facilities	Allow 2 @ 500 sq.ft. @ \$250,000	\$500,000
Construction of new small interpretive facility	Not included in this model	NIC
Website and Mobile App	Contract with web development firm	\$100,000

Self-Guided tour publication	Research, develop tours, prepare and print publication	\$100,000
Guided tours	Develop arrangement with existing tour companies to provide land and water tours, plus event-based shuttle transport.	\$50,000
<b>Subtotal</b>		<b>\$3,500,000</b>
<b>Total Model C</b>		<b>\$6,900,000</b>

**Funding Eligibility:**

Municipal funding and possible partnerships with suppliers and service providers (i.e., web/print developers, tour operators, Tourism Richmond).

**Market Demographics****Audience Origin:**

Estimates from the four largest heritage sites have been used to for the following projections, namely Britannia Shipyard National Historic Site, Gulf of Georgia Cannery National Historic Site, Richmond Museum, and Steveston Museum. Market origins currently involve a high proportion of Richmond residents visiting the Richmond Museum, with a much higher non-Richmond customer base at the Steveston sites. Note that the Steveston Museum is somewhat unique as it includes a tourism visitor centre at its site.

Model C will likely skew the origins more toward Richmond residents as the programming expands the focus on the local Richmond story. Also, increased awareness within the City of the other lower profile sites is expected to increase their market draw from residents. However, the two national historic sites are expected to benefit from the increased profile and marketing resulting in increased non-Richmond visitation.

It is expected that this model will increase the profile of the existing facilities resulting in an increase in both Richmond residents and out of region visitors. The projected market origin distribution is as follows:

<b>Market Area</b>	<b>Current Distribution</b>	<b>Model A Distribution</b>	<b>Model B Distribution</b>	<b>Model C Distribution</b>
Richmond	37%	30%	50%	45%
Metro Vancouver	26%	20%	25%	20%
Elsewhere	36%	50%	25%	35%

**Audience Characteristics:**

All facilities cater to a mix of visitors in terms of their age and length of residence in the community. Of particular interest in this analysis is participation by long-time residents versus recent immigrants and among youth. Anecdotal information indicates that the current

facilities are much more popular among existing long-time residents than recent immigrants. Youth are also not a key market segment for heritage sites.

As with Model B, opportunities exist – with dedicated programming and marketing – to increase penetration of the newly-arrived resident category. Programming is expected to also increase the number of young person visits, both school tours and through youth targeted events.

### **Attendance:**

The Strengthened Network's online presence, thematic linkages, visitor programming and additional sites are expected to improve the visitor experience and boost visitation. The addition of tours and event-based transport would allow visitors to be delivered to the facilities, reducing transportation/parking issue for visitors. It would also allow people to visit multiple facilities on one trip. It is noted that this concept is not new and prior attempts have been made including bus trolleys, horse carriages, harbour tours and mini-ferries. Future viability of one or more of these options should improve as the population increases and tourism expands. Testing will be required to assess market demand.

The higher profile facilities are expected to benefit most from this model. Overall it is estimated that attendance might increase modestly (say 5%) on an annual basis. This would likely occur in the first year of full operation and then remain stable until new programs or visitor experiences were added.

The three-year average (2014-2016) attendance total visitation for the four major facilities is estimated at 236,000, including 23,200 for the Richmond Museum. Projecting a 30% increase in visitation for the museum (for an annual estimate of approximately 30,000) plus a 5% increase for the other three facilities results to a total visitation to the four sites of approximately 255,000.<sup>20</sup>

### **Financial Operations**

#### **Revenues:**

None of the municipally owned and operated sites charge admission, and no admission charge is projected in this Model. (The Parks Canada owned Gulf of Georgia Cannery does have an admission fee.) Self-generated revenues will be limited to donations and charges for individual tours, special events and programs, and/or bus transportation among the sites.

Private support through expanded partnerships is a possibility if tangible benefits can be demonstrated for both parties. Examples include arrangements with guided tour companies to provide walking, cycling and/or paddling tours. These revenue generators might result in a doubling of self-generated revenues and the private support category.

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<sup>20</sup> Model C calls for a significant expansion and redevelopment of the Richmond Museum exhibits resulting in a much larger increase than the other facilities.

A comparison of the current and possible projected revenues is as follows:

Category	Current	Model A	Model B	Model C
Self-Generated	3%	30%	15%	5%
Government Support	94%	60%	80%	90%
Private Support	3%	10%	5%	5%
Total	100%	100%	100%	100%

#### Expenses:

Overall operations costs for the key heritage facilities in Richmond are just over \$3 million annually (2016).<sup>21</sup> (This includes the Gulf of Georgia Cannery, with an annual operating budget of just over \$1.0 million, resulting in the municipally run facilities heritage budget of approximately \$2.0 million.) This does not fully reflect building operations costs that are covered by other departments within the Richmond municipal government. It is noted that there are no changes to any buildings/structures, but there would be an increase in staff programming and coordination across the multiple sites.

Salaries and wages are the largest expense category for all the heritage facilities, typically ranging from one-half to three-quarters of total expenses. Increasing the size of the museum from 2,000 sq.ft. to 8,000 to 10,000 sq.ft. will have a significant increase in staffing costs. For analysis purposes, a doubling is projected. (It is noted that some elements of this model such as website development and tour operation would be delivered by contract.)

Administration is the next largest expense component and includes costs to manage and operate the facilities and should not change appreciably. Building costs are projected to remain constant. The blended operating expenses of the four main Richmond facilities, and the projected proportions are as follows:

Category	Current	Model A	Model B	Model C
Staff Costs	61%	55%	65%	62%
Administration	20%	15%	18%	17%
Building Related	7%	10%	7%	8%
Collections/Programming	11%	20%	10%	13%
Total	100%	100%	100%	100%

The existing budget to operate the Richmond owned museum and heritage sites is approximately \$2.0 million of which the Richmond Museum budget is \$425,000 (2016). For analysis purposes, a doubling is projected (or \$425,000) in the Richmond Museum and Heritage sites operating costs, resulting in an annual museum operating budget of \$850,000. This increase reflects an expansion in programming and interpretation costs, as well as increased marketing.

<sup>21</sup> Sources: Financial statements for Richmond facilities and personal communication from the two national historic sites. The \$3 million total includes the Richmond Museum, Steveston Museum, Steveston Tram, Heritage Sites, Minoru Chapel, Britannia Historic Shipyards National Historic Site, and Gulf of Georgia Cannery National Historic Site. Individual expenditures are not reported to maintain confidentiality.

## 5.5 Location

The key requirement for the preferred site of a new Richmond Museum – in any of the proposed Models – is that it be prominent, easily accessible and adjacent to other cultural services and amenities.

The 2012 Feasibility Study considered the following attributes, which remain relevant today, with increasing significance as the Models increase in scale:

*Access by:*

Vehicle

Canada Line (<800 m)

Public Transit (<400 m)

Cycling (near route)

Walking (convenience)

*Surrounding Uses:*

Multi-Family Residential

Retail Shopping

Commercial

Park

Cultural Amenities

Additional considerations for future site consideration and evaluation include:

Availability and cost

Zoning for institutional use

## 5.6 Summary of Options

	Model A: A National Museum	Model B: A City Museum	Model C: A Community Museum
Museum Size	Approximately 60,000 sq.ft.	Approximately 20,000 sq.ft.	Existing facility or equivalent ('enhanced status quo'), approximately 8-10,000 sq. ft.
Strengthened Network of Sites	Additional stories and sites; upgraded and integrated interpretation; web, graphic and seasonal transport methods to encourage visitation.		
MUSEUM LOCATION			
	Must be located in a prominent and easily accessible location, preferably in a cultural / tourism precinct adjacent to other visitor amenities.	Should be located in a prominent and easily accessible location.	Existing museum or comparable, central location.
CAPITAL COSTS			
Building & Exhibits/Programs			
Museum	\$53,020,000	\$17,930,000	\$3,400,000
Network	\$3,500,000	\$3,500,000	\$3,500,000
Total	\$56,520,000	\$21,430,000	\$6,900,000
Funding Eligibility and Potential Partnerships	Municipal funding, private partners at local and national level, plus Provincial and Federal Gov'ts (for capital). Possibility of private sector cost sharing.	Municipal funding, private partners and Provincial Government (for projects). Possibility of private sector cost sharing.	Municipal plus possible local partnerships with suppliers / service providers.
MARKET DEMOGRAPHICS			
Audience Origins:			
Richmond	30%	50%	45%
Metro Vancouver	20%	25%	20%
Elsewhere	50%	25%	35%
Audience Appeal to underserved segments	Offers the best opportunity to service recent immigrants & youth.	Offers a good opportunity to service recent immigrants and youth.	Modest opportunities exist to service recent immigrants & youth.
Annual Attendance (Museum only)	195,000	55,000	30,000
FINANCIAL OPERATIONS			
Revenue Proportions:	Approximately one-third of revenues self-generated.	Revenues heavily dependent on municipal government.	Revenues heavily dependent on municipal government.
Self-Generated	30%	15%	5%
Government	60%	80%	90%
Private	10%	5%	5%
Expense Proportions:	Significant increase in all operating departments.	Approximate doubling of staff costs.	Expenses increase for staff coordination and additional sites
Staff	55%	65%	62%
Administration	15%	18%	17%
Building Related	10%	7%	8%
Programming	20%	10%	13%
Additional Operational Expenses (Museum only, over current cost)	\$3,575,000	\$1,485,000	\$850,000



## 6.0 Models Evaluation and Recommendations

### 6.1 Strengths/Weaknesses/Opportunities/Threats Assessment

A SWOT analysis has been conducted to evaluate each of the three models against the project evaluation criteria in section 2.3 above.

Models A and B appear similar in their strengths measured against the evaluation criteria. Model A is likely to incur the most risks (threats) due to its higher capital cost and operating costs.

	Model A	Model B	Model C
<b>Strengths</b>			
prominent/accessible location	Requires a prominent location to maximize visitation	Requires a prominent location to maximize visitation	Variety of locations for visitors to choose
gathering place	A major attraction with event and presentation spaces for the community to share stories with the world	A central City museum, with event and presentation spaces for the community to share stories with one another	Use museum gallery as exhibitions / programs / visitation allow
diverse audience	Local, regional and national / international	Local and regional	Largely local
feasible to build	Most costly...creates the largest visual impact	Less costly than Model A	Least costly to develop
sustainable operations	Most costly to operate	More costly to operate	Least costly to operate
appeal to funding sources	Broadest appeal to all levels of government and private sector	Possible appeal to provincial and corporate sources	Limited appeal to non-municipal sources
<b>Weaknesses</b>			
prominent/accessible location	Availability of most suitable site?	Availability of most suitable site?	Numerous sites, not centralized, some sites are challenging to access
gathering place	–	–	No single, central gathering place
diverse audience	National story could detract from local focus	Limited non-Richmond appeal	Lack of prominence outside Richmond
feasible to build	Very significant investment required	Significant investment required	Least costly to develop
sustainable operations	Very significant increase over Model B and 1	Significant increase over Model C and current operations	Limited ability to provide visitor services
appeal to funding sources	Could take time to arrange non-municipal assistance	Could take time to arrange non-municipal assistance	Limited appeal to non-municipal sources



	<b>Model A</b>	<b>Model B</b>	<b>Model C</b>
<b>Opportunities</b>			
prominent/accessible location	Create linkages with adjacent businesses and cultural amenities	Create linkages with adjacent businesses and cultural amenities	Create improved linkages among heritage sites
gathering place	Create a space for community and visitors to gather	Create a space for community to gather	Very limited space for community to gather
diverse audience	Create partnerships with other civic amenities (art gallery, library)	Create partnerships with other civic amenities (art gallery, library)	Create a range of partnerships with service providers
feasible to build	Provincial and Federal government contributions	Provincial government contributions	Sole source municipal funding could accelerate development
sustainable operations	Greater opportunities for revenue generation through programs, ancillary services, fundraising and sponsorships	Good opportunities for revenue generation through programs, ancillary services, fundraising and sponsorships	Limited opportunities for revenue generation through programs, ancillary services, fundraising and sponsorships
appeal to funding sources	Broadest appeal to levels of government and private sector	Possible appeal to provincial and corporate sources	Limited appeal to non-municipal funders
<b>Threats</b>			
prominent/accessible location	Possible change in neighbouring property uses/zoning	Possible change in neighbouring property uses/zoning	No change
gathering place	National attraction may be perceived as limited local emphasis	Provides central location for community gathering	No single, central gathering place
diverse audience	Not meeting attendance/diversity targets and implications for budgets and community engagement	Not meeting attendance/diversity targets and implications for budgets and community engagement	Not meeting attendance/diversity targets
feasible to build	Cost overruns affecting project timing and viability	Cost overruns affecting project timing and viability	Cost overruns
sustainable operations	Revenue shortfall and/or expense overrun leading to very serious budget implications	Revenue shortfall and/or expense overrun leading to serious budget implications	Revenue shortfall and/or expense overrun
appeal to funding sources	Limited support from local, regional and national sources	Limited support from local and regional sources	Limited support from local sources

## 6.2 Recommendations and Next Steps

The three options presented here provide clear distinctions in how Richmond may engage its citizens and other audiences in its story; each option has different financial implications for the City. At the more modest scale, it is clear that Richmond will have to carry most of the financial burden for raising both capital and operational funding. At the grander scale with a national story to tell, other sources of funding should be considered for contributions. Assessing this potential will help City Council determine its appetite for proceeding with one option over another. A series of next steps will help City Council come to a commitment on direction are proposed:

1. Present the results of this study to Council and receive direction about which of the three options has the highest comfort level. It is possible that a hybrid alternative may arise from these discussions as a result of gaining insight into the City's priorities.
2. Develop the preferred direction with sufficient detail for the completion of a **Business Plan** that would provide a more detailed picture of the capital and operational cost implications, site selection, and governance model for the project.
3. Complete a **Fundraising Strategy** that would identify potential sources and proportions of funding that could be reasonably expected from the three levels of government, possible partners, private philanthropy and business. This study would thus assess potential financial backing for the project, and would provide a strategic approach for soliciting support.
4. Based on findings above, develop the preferred option into an architectural and experiential **Concept** suitable for solicitation of both financial and community support.
5. Undertake a **public consultation** to acquire feedback from the community. Make any adjustments to the conceptual materials to incorporate any important and widely supported suggestions.
6. Build a project team modeled on the suggested form for funding, governance and operations, and commission a **Museum Master Plan**.



## Appendix

### Study participants

#### Steering Committee

Jane Fernyhough, Director, Arts, Culture & Heritage Services  
 Marie Fenwick, Manager, Museum & Heritage Services  
 Connie Baxter, Former Supervisor, Museum & Heritage Services  
 Sheila Hill, Curator of Exhibitions, Museum & Heritage Services  
 Rebecca Clarke, Former Executive Director, Gulf of Georgia Cannery Society  
 Kimberley Baker, Education & Public Programs Coordinator, Britannia Shipyards National Historic Site  
 Dee Bowley, Site Supervisor, Britannia Shipyards National Historic Site  
 Brooke Lees, Heritage Coordinator, Britannia Shipyards National Historic Site  
 Helen Cain, Heritage Planner, Policy Planning

#### Consultant Team

Doug Munday, Doug Munday Design  
 David Hall, Economic Planning Group  
 Phil Aldrich, Phil Aldrich Consulting, Inc.  
 Catherine C. Cole, Catherine C. Cole & Associates

#### Symposium participants

Jane Fernyhough, Director, Arts, Culture and Heritage Services  
 Connie Baxter, Former Supervisor, Museum and Heritage Services  
 Rebecca Forrest, Curator of Collections, Richmond Museum  
 Sheila Hill, Curator of Exhibitions, Richmond Museum  
 Emily Ooi, Educational Programs Coordinator, Richmond Museum  
 Stephanie Fung, Intern, Richmond Museum  
 Camille Owens, Curatorial Assistant, Richmond Museum  
 Loren Slye, Chair, Britannia Heritage Shipyard Society  
 Dee Bowley-Cowan, Site Supervisor, Britannia Heritage Shipyards NHS  
 Kimberly Baker, Education and Public Programs Coordinator, Britannia Shipyards NHS  
 Dave Semple, Chair, Gulf of Georgia Cannery Society  
 Rebecca Clarke, Former Executive Director, Gulf of Georgia Cannery Society  
 Helen Cain, Heritage Planner, Heritage Commission staff liaison  
 Greg Walker, Chair, Richmond Museum Society Board  
 John Roston, Treasurer, Richmond Museum Society Board  
 Jack Wong, Richmond Museum Society Board  
 Winnie Cheung, Past President, Pacific Canada Heritage Centre, Museum of Migration  
 Tineke Hellwig, Director, Pacific Canada Heritage Centre, Museum of Migration  
 Lori S. Gelz, Visitor Services Manager, Tourism Richmond  
 Leanne McColl, Richmond School District  
 Ella Huang, Executive Director, Richmond Centre for Disabilities  
 Sanzida Habib, Richmond Multicultural Community Services (RMCS)  
 Norman Sung, Past President, Richmond Chinese Community Society (RCCS)  
 Kristina Macdonald, Program Manager, Richmond Olympic Experience

## Stakeholder interviews

### **Steveston Museum, Tram**

Gabrielle Sharp, Coordinator  
Linda Barnes, Steveston Historical Society  
Chair

### **YVR**

Anne Murray, VP Marketing and  
Communications

### **Tourism Richmond**

Carol Yeh, Interim General Manager

### **Gulf of Georgia Cannery NHS**

Dave Semple, Chair

### **Gulf of Georgia Cannery NHS**

Rebecca Clarke, ED

### **Britannia Shipyards NHS**

Dee Bowley, Supervisor  
Brooke Lees, Heritage Coordinator  
Loren Slye, Chair

### **Richmond Art Gallery**

Shaun Dacey, Director  
Nan Capogna, Curator

### **Richmond Heritage Commission**

Leo Mol, Chair

### **Richmond Museum and City staff**

Connie Baxter, Supervisor  
Emily Ooi, Education Programs, Richmond  
Museum  
Rebecca Forrest, Collections, Richmond  
Museum  
Kimberley Baker, Education & Public  
Programs, Britannia Heritage Shipyards  
Marie Fenwick, Manager, Parks Programs  
Helen Cain, Heritage Planning, Heritage  
Commission staff liaison  
Jane Fernyhough, Director, Cultural and  
Heritage Services  
Alan Hill, Richmond Intercultural Advisory  
Committee, staff liaison

### **Richmond Chamber of Commerce**

Matt Pitcairn, President & CEO (Speaking as  
resident, not from Chamber; no Chamber  
policy/position on museums.)

### **Royal British Columbia Museum**

Jack Lohman, CEO

### **Richmond Nature Centre**

Kris Bauder, Coordinator

### **Gateway Theatre**

Jovanni Sly, Artistic Director

### **Museum of Vancouver**

Viviane Gosselin, Curator of Contemporary  
Culture



## **Richmond Museum Models Evaluation Study Addendum**

10 April 2019

The Models Evaluation Study was undertaken in 2017 for the purpose of identifying three or four different museum models for a future City Museum, and evaluating the models in terms of size, design, location, operational structure, and staffing. The Study included a market analysis to establish community needs for museum services in Richmond, considering current and projected demographics, and included operational and capital budget projections. The Study was completed and submitted to the City of Richmond in April, 2018.

With the plan to bring the Study to Richmond City Council for consideration in Q2 2019, this brief Addendum outlines a number of the report's projections which may have reasonably evolved in the interim, given changes in museum visitation patterns, funding sources at comparable institutions, and regional construction climate over the past year.

While Council should be made aware of these, the three model options presented in the Study are still believed to be valid, and the general implications of each still hold true. Specific capital and operational costing for the preferred model should be developed further in the next stages of planning, specifically the completion of a Business Plan as proposed in the report's Executive Summary, 'Next Steps', pg.8.

*Factors in the 2018 Study which may require adjustment in future planning:*

### **1. Increased visitation projections for the new Richmond Museum**

Attendance projection for each of the proposed models were made based on then-current market data, and visitation at Richmond Museum and comparable facilities in the region (Summary of Options, pg.6; Section 3.0 Community Needs and Market Analysis; 5.0 Model Comparison and Financial Analysis).

***Significant increases in the above data, which could reasonably increase visitation projections for the proposed models, include:***

- Attendance at Richmond Museum has increased 30%, from 34,400 in 2017 to 44,708 in 2018. This increase in visitation was linked to a number of factors, including increased awareness in the local tourism industry through participation in the Tourism Challenge program and

the popularity of the *Our Journeys Here* exhibit.

- Current Richmond Museum visitation is now better understood, from 2018 Visitor Survey results (390 responses), relative to that at other regional comparables:  
53% Richmond  
23% Metro Vancouver  
24% Elsewhere
- The Museum of Surrey (one of the comparable facilities referenced in the Study) opened a 12,000 square foot expansion in September 2018, for a new total of 36,000 square feet, which includes collections storage space. The Museum anticipated increased visitation of 80,000 – from 50,500 in 2016 – but is so far exceeding expectations with approximately 20,000 visitors per month. The new facility includes temporary exhibition space, a dedicated children's gallery, and community spaces, which are among the significant features of the proposed Richmond models.

## 2. Potential federal funding for a City Museum

The Study anticipated that each of the three proposed models – A) National Museum, B) City Museum, and C) Community Museum – would attract varying levels of funding support, with only the National Museum attracting federal government capital funding, by nature of its scale, breadth of story, and attraction potential (Summary of Options, pg.6).

However, two regional city museum projects have received significant federal funding in the past few years: the new, expanded North Vancouver Museum and Archives (\$3M federal funding), and the Museum of Surrey's 12,000 square foot expansion (\$4.9M federal funding).

***This suggests that the proposed model B) City Museum could also be a candidate for federal funding.***

Again, the Study recommends in 'Next Steps' that a Fundraising Strategy be developed upon completion of a Business Plan for the preferred model, to identify potential sources and proportions of funding that could be reasonably expected from the three levels of government, possible partners, private philanthropy and business.

### 3. Escalation of construction costs in Lower Mainland

The terms for the Museum Models Study allowed for the projection of capital costs for the proposed models based on the costing factors used in the Museum's 2012 Museum Feasibility Study, escalated to the date of the current report. A factor of 2% per year was used in these calculations, referenced in the Summary of Options (pg.6).

Recent cost escalation in the construction industry throughout the Lower Mainland shows that greater escalation should be anticipated in further planning:

- City of Richmond Project Development noting 7% cost escalation prediction for 2019
- The North Vancouver Museum is carrying 5% escalation contingency escalated to mid-point of construction, January 2020
- City of North Vancouver construction projects planning for 9% escalation for 2019–2020



**April 11, 2019**

**Mayor Malcolm Brodie,  
Members of Council  
City of Richmond  
6911 No. 3 Road  
Richmond, B.C.  
V6Y 2C1**

**Dear Mayor Brodie:**

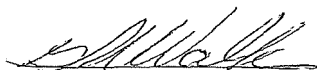
Since January 2017, the Board members of the Richmond Museum Society have been pleased to participate in a stimulating and community-minded project which develops a vision and direction for a new Richmond Museum. The exciting result, the *Richmond Museum Models Evaluation Study*, responds to City Council's request for an analysis of new, innovative models for delivering museum services in the City of Richmond.

The three options in the *Study* provide significantly different approaches to meeting the future museum needs of the City while ensuring the history of Richmond is relevant, engaging and accessible. Each option surveys the many features of a successful and sustainable museum operation, such as capacity, size and costs – and most importantly, begins the all important discussion about the stories of Richmond that its museum should tell – and preserve.

It is the hope of the Board of the Richmond Museum Society that the *Richmond Museum Models Evaluation Study* becomes the touchstone of a new and purposeful direction for heritage services for Richmond, and the foundation of community engagement in the journey ahead.

To that end, the Richmond Museum Society is pleased to support a robust version of Model B, the City Museum. The Society eagerly anticipates Council's review and debate – and ultimately its direction - on the future of Richmond's museum services. We greatly look forward to the second phase of planning – and community participation – in the creation of the Richmond Museum Concept Plan.

Respectfully submitted,



Greg Walker  
Chair  
Richmond Museum Society



# City of Richmond

## Report to Committee

**To:** General Purposes Committee  
**From:** Elizabeth Ayers  
Director, Recreation and Sport Services  
Jim V. Young, P.Eng.  
Acting Director, Facilities  
**Date:** April 26, 2019  
**File:** 06-2052-25-  
LBOW1/Vol 01  
**Re:** Richmond Lawn Bowling Clubhouse Program Options

### Staff Recommendation

1. That Council approve Program Option 2, as outlined in the staff report titled "Richmond Lawn Bowling Clubhouse Program Options," dated April 26, 2019, from the Director, Recreation and Sport Services and the Acting Director, Facilities; and
2. That the additional amount of \$800,000, as described in the report titled "Richmond Lawn Bowling Clubhouse Program Options," dated April 26, 2019, from the Director, Recreation and Sport Services and the Acting Director, Facilities, be funded by the Capital Building and Infrastructure Reserve (\$710,000) and the Richmond Lawn Bowling Club (\$90,000), and the Consolidated 5 Year Financial Plan (2019-2023) be amended accordingly.

Elizabeth Ayers  
Director, Recreation and Sport Services  
(604-247-4669)

Jim V. Young, P. Eng.  
Acting Director, Facilities  
(604-247-4610)

Att. 5

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Finance Department	<input checked="" type="checkbox"/>	
Parks Services	<input checked="" type="checkbox"/>	
Facility Services	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

GP - 95

## Staff Report

### Origin

On March 30, 2016, at the Parks, Recreation and Cultural Services Committee meeting, the Richmond Lawn Bowling Club made a presentation requesting a new clubhouse and pledged \$90,000 towards the cost of a new facility. The Club also annually contributes to the Artificial Turf Replacement Fund, which, as of 2018, amounts to \$102,000 plus an additional \$20,000 expected in 2019.

On December 12, 2016, Council approved a budget of \$2.0 million for the Advanced Planning and Design for Phase 2 Major Facilities Projects, including the Richmond Lawn Bowling Clubhouse. Capital funding in the amount of \$4.0 million (2016 dollars) for the replacement of the Richmond Lawn Bowling Clubhouse was subsequently approved on December 4, 2017.

On December 19, 2018, Council approved that the lawn bowling greens remain in their current location, and that the replacement facility be located between those two greens. Staff also received the following referral:

*That staff report back on additional options for the size of the Lawn Bowling Green Clubhouse and program.*

The purpose of this report is to address the referral and obtain Council approval of a program option for the Richmond Lawn Bowling Clubhouse replacement facility, as well as a funding source should Council approve a program option that exceeds the \$4.0 million budget. This report will also respond to comments at the General Purposes Committee meeting on December 17, 2018, in relation to the public pathway between the greens, renovating the existing Richmond Lawn Bowling Clubhouse, as well as building the replacement facility over two storeys.

This report supports the following action from the Recreation and Sport Strategy:

*Provide inclusive, safe and welcoming facilities and spaces for recreation and sport programs and services.*

This report supports the following focus areas from the City of Richmond Community Wellness Strategy 2018-2023:

*Foster healthy, active and involved lifestyles for all Richmond residents with an emphasis on physical activity, healthy eating and mental wellness.*

*Enhance physical and social connectedness within and among neighbourhoods and communities.*

This report supports the following vision and action item in the Seniors Service Plan 2015-2020:

*Richmond is a nurturing, connected community that promotes health and active aging.*

*Explore and respond to opportunities to increase dedicated space available for seniors to socialize and gather in City buildings*

This report supports the following vision and objective in the Richmond Sport Hosting Strategy 2016-2020:

*To be the premiere sport hosting community in Canada for provincial, national and international sporting events, while growing and integrating our local sport community.*

*Maximize new and renovated sport hosting facilities coming online in the City and be flexible to adapt to priorities adopted by Council in the future.*

## **Analysis**

### **Background**

The Richmond Lawn Bowling Clubhouse was constructed in 1963 and is located in the northeast corner of Minoru Park. The clubhouse is an approximately 1,920 sq. ft., single-storey, “Pan-Abode” log home style building that consists of a multipurpose room, washrooms, kitchen, lockers, and interior and exterior storage. The clubhouse supports two regulation-sized, artificial turf lawn bowling greens which are maintained by the City.

The Richmond Lawn Bowling Club (the “Club”) has approximately 250 members, with an average age of 65 years old, and projects membership to reach 400 in the next five years. Membership peaked in 2010 with 300 members. The club is responsible for the day-to-day costs of managing the clubhouse while the City of Richmond pays for ongoing building maintenance and utilities. These terms are expected to continue in the replacement facility as the Club’s existing User Agreement with the City of Richmond will be updated in conjunction with the building process.

The Club has hosted provincial and national level tournaments including the 2015 National Senior Triples which drew teams from across Canada. The Club would like to continue to host tournaments in the future and has a dedicated group of volunteers willing to bring tournaments to Richmond. On average, five national tournaments are awarded annually to clubs across Canada along with eight provincial tournaments.

The size and amenities within the existing clubhouse have made it challenging for the Club to accommodate their membership, and has limited the number of provincial and national level tournaments the facility is capable of hosting.

### **Analysis of Building Configurations**

In response to the discussion at the General Purposes Committee meeting on December 17, 2018, staff examined renovation and expansion of the existing clubhouse, as well as building the facility over two floors to minimize footprint. Staff met with the Building Committee to review and elicit feedback on each option.

### ***Renovation and Expansion of Existing Clubhouse – Not Recommended***

The existing Richmond Lawn Bowling Clubhouse is a “Pan-Abode” log home structure typically used for simplified, do-it-yourself residential recreational properties. In order to renovate and

expand the existing clubhouse, significant upgrades to the foundation, envelope and building systems would be required in order to meet current building code requirements. This would involve selective demolition and complicated integration of the exterior envelope and building systems, combined with adding a new, expanded structure to meet the recommended program. While possible, the cost of this work is greater than a new build, with project costs in the range of \$4.3 to \$5.9 million (2020 dollars), thus exceeding the budget of \$4.0 million.

Based on the complexity and high costs, as well as the challenges associated with achieving a functional program within the boundaries of the reused structure, this option is not recommended.

An alternative to renovating and expanding the existing structure would be to provide updates to the existing structure only. This could include building components such as windows, doors, flooring, washroom fixtures, kitchen millwork, kitchen appliances, lighting, interior paint, lockers and furniture. This simplified renovation scope would carry an order of magnitude cost of \$700,000 (2020 dollars) but would not result in additional program space and is not recommended.

#### ***New Two-Storey Clubhouse – Not Recommended***

A two-storey clubhouse would result in a smaller building footprint but additional total square footage due to the requirement for an elevator and stairwells, and potential duplication of program areas on the second floor, such as washrooms and storage areas, thus resulting in increased capital and Operating Budget Impact (OBI). Although the second floor would provide elevated views of the lawn bowling greens, this was not important to the Building Committee as it would impact the ability to conveniently access program areas and conduct the Club's operations in a safe and efficient manner. All program options with this building configuration exceed the budget of \$4.0 million. Costs are estimated to be between \$4.5 and \$5.7 million (2020 dollars).

Based on the high costs of constructing a two-storey clubhouse, the increased OBI when compared to single-storey configurations, as well as the lack of functionality from a program perspective, this option is not recommended.

#### ***New Single-Storey Clubhouse – Recommended***

A single-storey clubhouse is the most cost-effective building configuration with regards to both capital and OBI, and best meets user needs, as it facilitates the most functional program for users and enables safe and efficient building operations. This option achieves connectivity to both greens by providing effective access and good sightlines, resulting in increased service levels and quality of play, and provides opportunities to improve upon current operational and programmatic challenges experienced with the current Richmond Lawn Bowling Clubhouse. All program options within this building placement meet or exceed the budget of \$4.0 million included in the 2018 Capital Building Program and are estimated to be between \$4.0 and \$5.3 million (2020 dollars).

A single-storey facility is recommended by staff and is strongly preferred by the Richmond Lawn Bowling Club's Building Committee.

### Program Review

To address the December 17, 2018, referral from the General Purposes Committee, staff reviewed the proposed program in relation to:

- Demographic trends and projections for the City of Richmond's older adult population;
- Precedent review of 22 lawn bowling clubs in the Metro Vancouver area, including a comparison of facility sizes; and
- Research and analysis of Bowls Canada membership trends and projections by province.

In addition, several meetings were held with the Building Committee to review program and building placement options. The committee confirmed their priorities for the replacement facility are connectivity, access and sightlines to the lawn bowling greens.

While lawn bowling is a valued sport for the adult and older adult populations, key findings of the review, as outlined in Attachment 1, confirmed that significant growth in participation is not anticipated and the proposed program will meet both the current and projected long term needs of the sport.

### Proposed Program Options and Costs

As a result of the program review, staff have confirmed that the three program options provided to the General Purposes Committee on December 17, 2018, best meet the needs of the Richmond Lawn Bowling Club while considering the \$4.0 million budget approved by Council.

The proposed program options for a single-storey clubhouse are outlined in Table 1 on the following page, with order of magnitude costs for each and a comparison to the existing Richmond Lawn Bowling Clubhouse areas. A detailed program chart, outlining program room uses, is provided in Attachment 2.

Table 1: Program Options for the Richmond Lawn Bowling Clubhouse

Program Area		Existing Facility	Program Option 1 \$4.0M  Meets Budget	Recommended	Program Option 3 \$5.3M  Exceeds Budget by \$1.3M
				Program Option 2 \$4.8M  Exceeds Budget by \$800K	
		1,920 sq. ft.	3,160 sq. ft.	4,300 sq. ft.	4,900 sq. ft.
1.	Multipurpose Room	970 sq. ft. (approx. 60 people)	1,250 sq. ft. (approx. 125 people)	2,260 sq. ft. (approx. 216 people)	2,500 sq. ft. (approx. 240 people)
2.	Kitchen	150 sq. ft.	200 sq. ft.	250 sq. ft.	300 sq. ft.
3.	Changeroom and Lockers	165 sq. ft. (190 lockers)	350 sq. ft. (approx. 250 lockers)	400 sq. ft. (approx. 275 lockers)	500 sq. ft. (approx. 400 lockers)
4.	Washrooms	175 sq. ft.	350 sq. ft.	350 sq. ft.	400 sq. ft.
5.	Storage	150 sq. ft.	400 sq. ft.	400 sq. ft.	500 sq. ft.
6.	Main Entry	0 sq. ft.	150 sq. ft.	150 sq. ft.	150 sq. ft.
7.	Admin	0 sq. ft.	75 sq. ft.	100 sq. ft.	100 sq. ft.
8.	Circulation and Support – corridors, service areas	310 sq. ft.	385 sq. ft.	390 sq. ft.	450 sq. ft.

In addition to the program areas, an outdoor covered viewing area with seating will be incorporated as part of the new building during detailed design to provide bowlers with a sheltered area to view the greens and gather during Club events.

***Program Option 1 (3,160 sq. ft., \$4.0 million) – Not Recommended***

Program Option 1 is 65 per cent larger than the current Richmond Lawn Bowling Clubhouse. It is not recommended by staff as it meets current membership needs but does not allow for growth as projected by the Club. Although it better positions the Club to host local tournaments, this option would make it challenging to host provincial and national level tournaments without requiring several temporary structures on-site. The proposed multipurpose room can accommodate up to 125 people seated cafeteria-style which would accommodate functions for local tournaments and the Club's day-to-day operations.



Program Option 1 can be achieved for \$4.0 million (2020 dollars), which meets the budget in the 2018 Capital Building Program.

***Program Option 2 (4,300 sq. ft., \$4.8 million) – Recommended***

More than two times the size of the existing clubhouse, Program Option 2 provides a larger multipurpose room that will allow the Club to host tournaments and club events with cafeteria-style seating for up to 216 people. For occasional, larger functions, the neighbouring Minoru Centre for Active Living's Main Hall could be utilized as it provides space for approximately 240 people. The sizes of the kitchen, storage room and changeroom have also been increased in this option, the latter which can accommodate approximately 275 lockers. This option could be designed in a way that provides potential for expansion of select program areas, should growth in membership exceed the building capacity.

Program Option 2 is recommended as it meets the current needs of the Club, will accommodate growth in membership, and better positions the Club to attract provincial and national level tournaments.

Program Option 2 can be achieved for \$4.8 million (2020 dollars), which exceeds the budget in the 2018 Capital Building Program by \$800,000.

***Program Option 3 (4,900 sq. ft., \$5.3 million) – Not Recommended***

Program Option 3 provides the largest program and includes a multipurpose room for up to 240 people seated cafeteria-style, a changeroom with capacity for 400 lockers, and a kitchen that provides ample space for the numerous volunteers that support food services at functions. In addition to Program Options 1 and 2, this program option also includes additional storage for tables, chairs and other Club belongings.

Although this option meets current and future needs, this option provides a higher level of service than membership and overall participation in lawn bowling suggests. This option is not recommended by staff.

Program Option 3 can be achieved for \$5.3 million (2020 dollars), which exceeds the budget in the 2018 Capital Building Program by \$1.3 million. Program Option 3 is the option preferred by the Richmond Lawn Bowling Club as outlined in Attachment 3.

**Site Layout**

On December 19, 2018, Council approved the replacement clubhouse to be located between the existing lawn bowling greens, similar to the current clubhouse layout. The facility will be configured so that the public pathway between the greens is retained, as shown in Attachment 4, which accomplishes the following:

- Meets the overall needs of park users by providing efficient circulation throughout Minoru Park;
- Provides a functional program to enhance service delivery; and
- Achieves secure and well-organized lawn bowling operations.

This site layout supports the draft Minoru Park Vision Plan by maintaining and enhancing a primary east-west public connection across Minoru Park to the lakes and beyond. A major circulation node exists at the south end of the parking lot at the junction with Gollner Avenue where pedestrians and those arriving in vehicles enter the park. It is also part of a link between destinations adjacent to the park, such as from Richmond Hospital to Minoru Boulevard. This connection between the greens is a distance of 69 metres from the Gollner Avenue park entrance to the lakes crossing.

While a public pathway currently runs adjacent to the existing clubhouse, the Building Committee has raised this as a concern and, therefore, prefers the building to be configured so that there is no public circulation between the greens, as outlined in Attachment 5. Their perspective is that this site layout would provide lawn bowling participants with exclusive use of the area thus leading to smoother operations and a higher level of facility security. However, it would provide a lower level of service for general park users due to diversion of public access around both greens to the main north-south pathway around Minoru Lakes, a distance of 232 metres, or 163 metres more than travelling the more direct route between the greens. The route around the south green presents challenges due to poor sightlines and would result in the removal and replacement of five additional trees and several shrubs to achieve an appropriate path width. This pedestrian diversion around the greens would require new and enhanced connections to be built for an estimated cost of \$80,000.

While the Building Committee's preferred option is possible, the Club's operational concerns will be addressed by staff working with the Club to provide solutions such as temporary closure of the public pathway and temporary fencing and/or outdoor tents during high traffic special events and tournaments.

In both site layouts, the location of the replacement clubhouse would result in approximately four trees being replaced or relocated as follows:

- One medium retention value (Douglas fir) – replaced at a ratio of 2:1; and
- Three high retention value (one Sequoia, two Cherry) – replaced at a ratio of 3:1.

### Financial Analysis

Should Council endorse Program Option 2, which exceeds the previously approved budget of \$4.0 million in the 2018 Capital Building Program by \$800,000, the budget would need to be amended. The Richmond Lawn Bowling Club has indicated that they will pledge \$90,000 towards the construction of the replacement clubhouse. Staff recommend that the additional amount be funded by the Capital Building and Infrastructure Reserve (\$710,000), and the contribution from the Richmond Lawn Bowling Club (\$90,000); and that the Consolidated 5 Year Financial Plan (2019-2023) be amended accordingly.

The preliminary Facility Operating Budget Impact (OBI) for the replacement clubhouse is projected to be \$15,000 to \$25,000 (in 2021 dollars) when the facility is anticipated to be operational. The OBI has not been included as part of the Richmond Lawn Bowling Clubhouse project as refinement of the OBI will be developed and submitted to Council for consideration as part of the 2020 Operating Budget.

If the public pathway between the greens is removed, funding to construct new and enhanced connections around the greens to the Minoru Lakes and Richmond Hospital could be submitted for Council consideration through the 2020 Capital Budget process within the Minoru Park Lakes Renewal project, independent of the previously approved \$4.0 million Richmond Lawn Bowling Clubhouse replacement project. The cost for this work is estimated to be approximately \$80,000 and is proposed to be funded through Parks Development Cost Charges. If approved, the proposed aforementioned capital project will be included accordingly in the Consolidated 5 Year Financial Plan (2020-2024).

### ***Construction Cost Escalation and Schedule***

The current uncertainty within the local construction market, coupled with industry volatility, has led to difficulties commencing construction projects due to high bids and/or receipt of little interest on tendered projects. Some of the main reasons are noted below. These conditions are anticipated to continue for the foreseeable future.

- Current market conditions are such that there is an overabundance of work so contractors/trades are unwilling to commit to more; and
- Tariffs on various construction-related materials have contributed to significant cost escalation.

Recent discussions with consultants in the building industry have indicated cost escalation is up to 18 per cent in some areas of construction. Staff have included an allowance of 8 per cent cost escalation as recommended by a Professional Quantity Surveyor for costing on the Richmond Lawn Bowling Club replacement facility program options.

### **Next Steps**

Should Council approve the recommended program for the replacement clubhouse, staff will proceed with the design process. Staff will report back with form and character prior to completing the detailed design. Depending on Council's preferred options, Parks staff will design new and/or enhanced public pathway connections from the Gollner Avenue park entrance to the Minoru Lakes crossing in parallel with the facility design process.

With the current timelines for approvals, design and construction, the new facility will not be completed in time for the 2020 55+ Games. Should Council approve this report, the detailed design process can commence and will take approximately six months to complete. Construction is anticipated to take up to one year to complete.

Staff will work with the Club to maintain basic operations during the construction process which may include a temporary construction trailer for on-site administration and a shipping container for storage. The Building Committee supports this in order to achieve the most functional program and building placement for the replacement clubhouse.

### **Financial Impact**

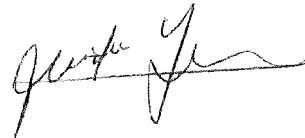
The additional cost of \$800,000 will be funded by the Capital Building and Infrastructure Reserve (\$710,000), and the Richmond Lawn Bowling Club (\$90,000). The total budgeted costs for the Richmond Lawn Bowling Clubhouse replacement project will be increased from \$4.0 million to \$4.8 million and the Consolidated 5 Year Financial Plan (2019-2023) will be amended accordingly.

### **Conclusion**

The proposed program options and building placements for the replacement Richmond Lawn Bowling Clubhouse meet the needs of the Club and support a sport that serves our older adult population. The replacement clubhouse will help to reinvigorate the north portion of the Minoru Park as the Minoru Vision Plan unfolds over the next decade and beyond.



Gregg Wheeler  
Manager, Sport and Community Events  
(604-244-1274)



Martin Younis  
Acting Senior Manager,  
Capital Buildings Project Development  
(604-204-8501)

- Att. 1: Lawn Bowling Environmental Scan  
2: Program Details for the Richmond Lawn Bowling Clubhouse Replacement Facility  
3: Letter from Richmond Lawn Bowling Club  
4: Site Layout with Pathway Between the Greens Retained  
5: Site Layout with Pathway Between the Greens Removed

## Lawn Bowling Environmental Scan

### **Local Demographic Profile for Older Adults**

According to the 2016 Statistics Canada census, 32,410 of Richmond's residents are over the age of 65, representing a 25 per cent increase from the 2011 Census and 16 per cent of the total population. City of Richmond projections with Urban Futures Inc. project the older adult population to increase to 43,844 people by 2020, and 52,305 people by 2024.

The City of Richmond's 2015-2020 Seniors Service Plan also highlights the following key findings:

- Projection reports estimate that there will be a 195 per cent increase in seniors living in Richmond by 2036;
- The largest concentration of older residents (almost a quarter) live in the City Centre where the Richmond Lawn Bowling Club is located;
- Seniors in Richmond have the highest life expectancy in Canada and are living an average of 84.9 years, almost four years longer than the national average of 81.

Since the average age of Richmond Lawn Bowling Club members is 65 years old, demographic trends and projections for the City of Richmond's older adult population support the potential growth of lawn bowling participation and have influenced the program for the replacement clubhouse.

### **Metro Vancouver Clubhouse Comparisons**

A review of relevant precedents for the Richmond Lawn Bowling Clubhouse was conducted as part of the process in establishing the proposed program options and building placements. This review included comparisons of lawn bowling clubhouse sizes for 22 lawn bowling facilities across Metro Vancouver. Average clubhouse square footage of the 22 Metro Vancouver clubs surveyed was under 2,500 sq. ft. Of these 22 clubhouses, 16 had one green and five had two greens similar to Richmond, the latter of which were approximately 2,600 sq. ft. in size.

### **Hosting of National Tournaments**

Staff contacted seven other lawn bowling clubs across Canada that have hosted national tournaments in the last four years to see how they managed the large number of participants at their tournament receptions. Each club surveyed addressed hosting their receptions differently. Depending on clubhouse size, number of participants and type of event being hosted, some clubs were able to accommodate the tournament reception in their existing facilities. Others opted to rent local banquet halls, restaurants or community arenas to accommodate their tournament reception needs.

### **Membership Trends – Richmond Lawn Bowling Club and Bowls Canada**

The Richmond Lawn Bowling Club currently has approximately 250 members and reached its peak of 300 members in 2010. The Club projects membership to reach 400 in the next five years. The *Bowls Canada Annual Report 2017-2018*, states that, in the last six years, membership of lawn bowlers across British Columbia was at its lowest in 2017 and has fluctuated by only 86 members, or two per cent overall.

Program Details for Richmond Lawn Bowling Clubhouse Replacement Facility

<b>Program Area</b>	<b>Key Ideas/Uses</b>
Multipurpose Room	Dividable space for group meetings, special events, tournaments and viewing of greens.
Kitchen	Support space to serve and prepare food for tournaments and club events.
Changeroom and Lockers	Accessible change / shower facility; secure lockers to keep personal bowls, shoes and other belongings.
Washrooms	Washrooms to be easily accessible from both greens.
Storage	Folding tables, chairs, tents, BBQ, maintenance equipment and other sundry items.
Main Entry	Foyer and gathering area; space to display trophies and club information.
Admin	Office with one workspace and secure storage for files and records.
Circulation and Support Spaces	Corridors; mechanical, electrical, and communications rooms; janitorial closet.
Outdoor Viewing Decks	Covered outdoor area to provide wide viewing angles and protection from weather elements; includes bench seating.



**RICHMOND LAWN BOWLING CLUB**  
**6131 Bowling Green Road**  
**Minoru Park North, Richmond, BC**

To:

The City Council  
City of Richmond

April 03, 2019

Dear Mayor and Councillors,

We sincerely hope that Mayor Malcolm Brodie and all Councillors would endorse our request for a 5,000 sq. feet new clubhouse to meet our needs.

Our existing clubhouse is aging. It was built in 1968 with a total area of 1,900 sq. feet (including storage). At that time, it was intended for a maximum capacity of 75 people. Since then, our membership has grown. It is insufficient for our growing membership. At present, we have 280 members and it is still growing. Besides, the senior citizens require more space to move around.

We need a bigger clubhouse for the purposes of :

- a bigger multi-function room for our membership and guests in big events.
- a bigger kitchen to prepare food for tournaments and social events.
- more storage for tools and equipment.
- more lockers and larger locker space for storing members' bowls and shoes.
- an office for administrative and meeting.

Our membership has increased almost 4 times since our club was established. This shows Richmond residents have become more and more interested in lawn bowling.

Most importantly, our members have continuously made some outstanding achievements in both provincial and national levels. This is not just an honor to our Richmond Lawn Bowling Club, but a credit to the City of Richmond. Now we have a golden opportunity to rebuild a clubhouse that would enable us, with the help of Richmond Sport Hosting team, to host such provincial and national events. This for sure will bring economic benefits to the City.

We sincerely wish our Mayor and Councillors to take our request into consideration and we look forward to hearing good news from you.

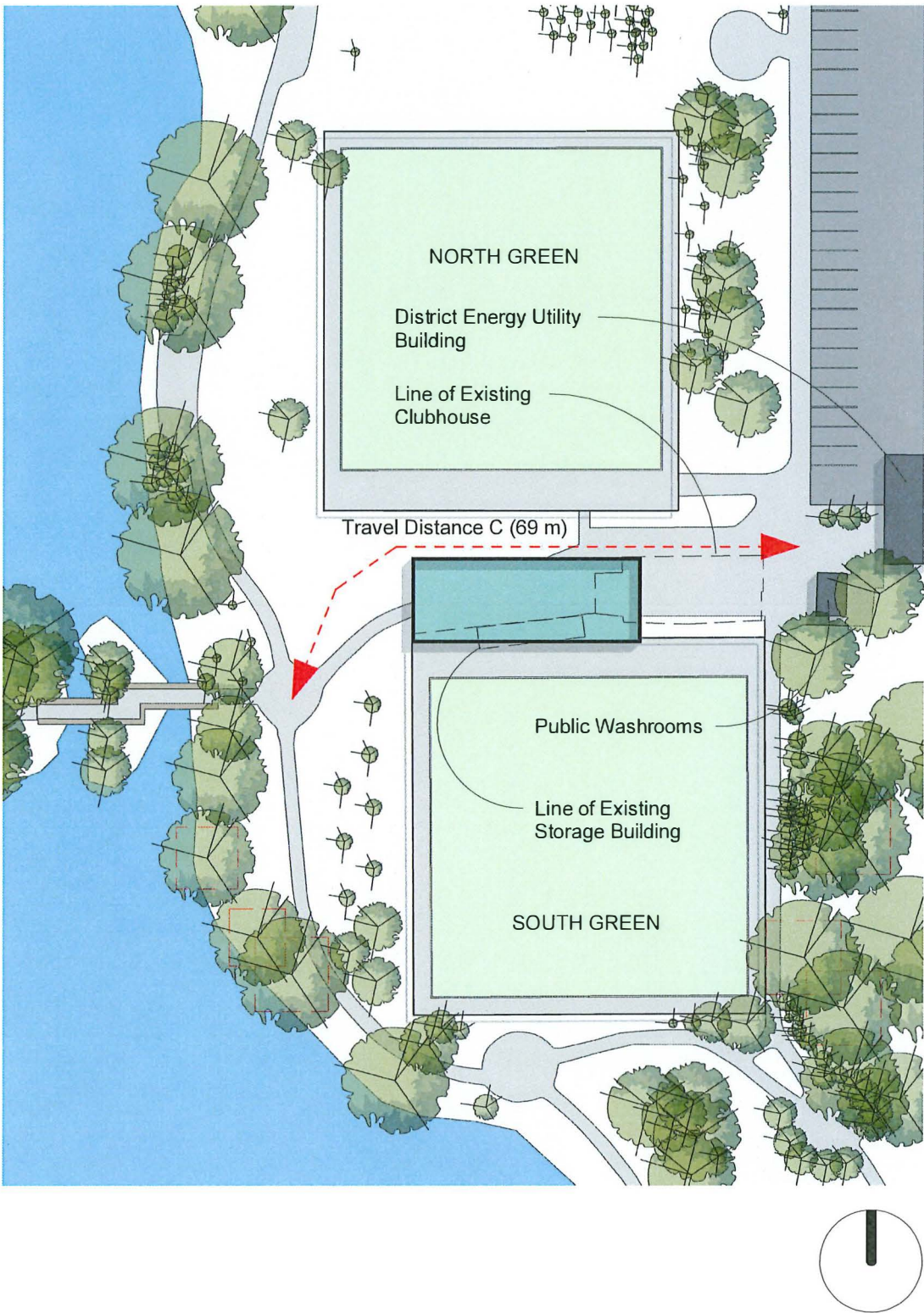
Regards,

A handwritten signature in black ink, appearing to read "Kion Wong", is written over a horizontal line.

Kion Wong (Mr.)  
President



Site Layout with Pathway Between the Greens Retained



O4

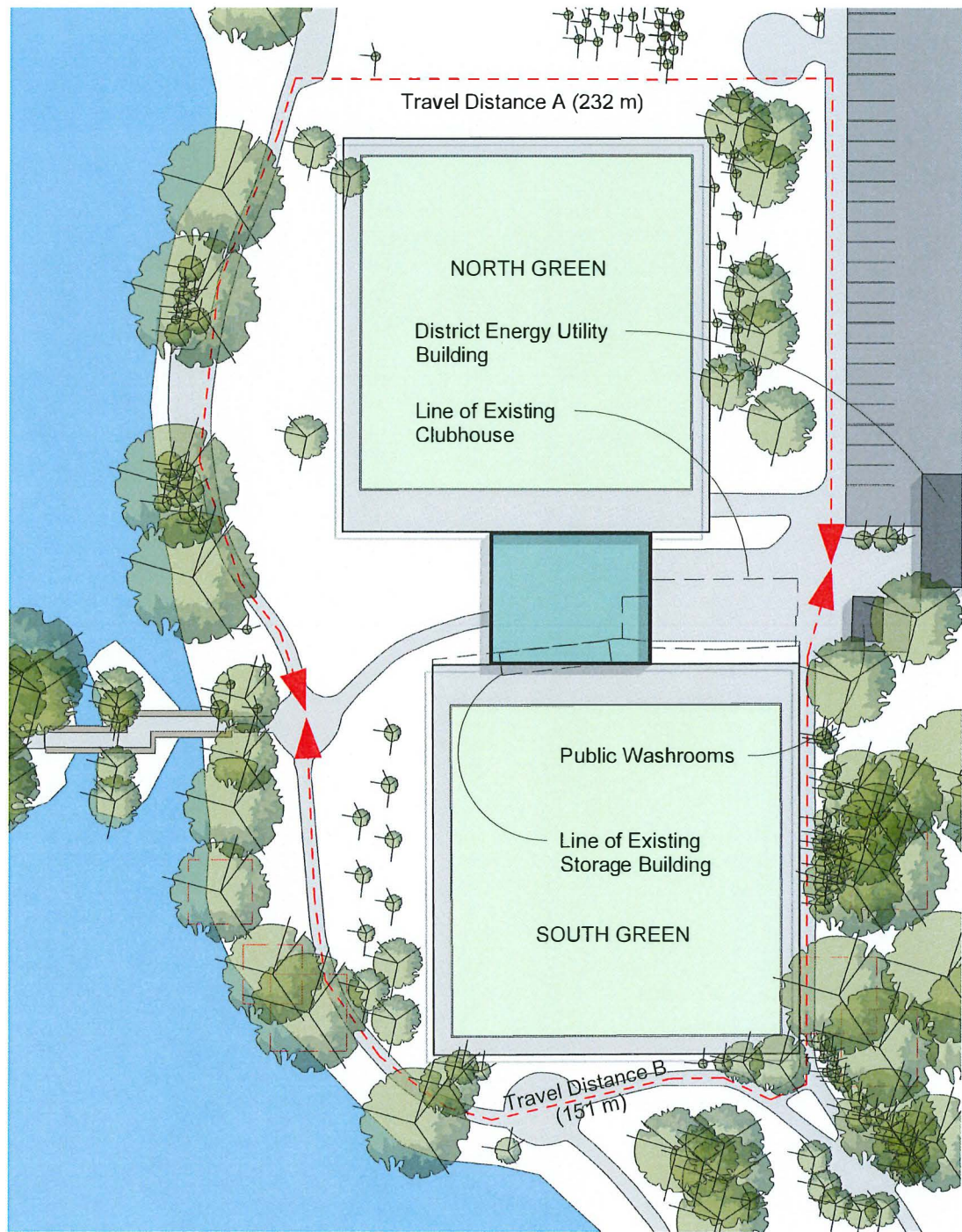
PROJECT  
Richmond Lawn Bowling Clubhouse

DRAWING TITLE  
Site Layout Option  
**GP - 108**

DATE  
April 26, 2019



Site Layout with Pathway Between the Greens Removed



O4

PROJECT  
Richmond Lawn Bowling Clubhouse

DRAWING TITLE  
Site Layout Option  
**GP - 109**

DATE  
April 26, 2019



# City of Richmond

## Report to Committee

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**To:** General Purposes Committee **Date:** April 18, 2019  
**From:** Peter Russell **File:** 10-6125-01/2019-Vol  
Senior Manager, Sustainability and District 01  
Energy  
**Re:** **2018 Climate Action Revenue Incentive Program and Corporate Carbon  
Neutral Progress Report**

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### Staff Recommendation

That, in accordance with Provincial requirements, the Climate Action Revenue Incentive Program Report and Carbon Neutral Progress Report be posted on the City's website for public information.

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

Att. 3

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Communications	<input checked="" type="checkbox"/>	
Finance Department	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b>	<b>APPROVED BY CAO</b>

## 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 2018 corporate greenhouse gas (GHG) emissions and on the City's carbon neutrality strategy and activities.

### 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 (RCM) program to purchase offsets from Richmond-based projects.

The City is reducing GHG emissions through the implementation of the 2013 Green Fleet Action Plan, Energy Management Program (for buildings and infrastructure), and other initiatives. 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 five reporting years (2013-2017). Based on this year's review and findings, the City will be eligible to achieve carbon neutral corporate operations for the 2018 calendar year. Due to the City's completion of several emissions reduction projects since 2013, the City is carrying forward a surplus of verified emission credits. As per Provincial reporting protocol, this surplus has been allocated to future reporting years. Based on the continued work to reduce fleet and corporate building related emissions, the continued diversion of community organics from the waste stream, and the ongoing accumulation and preservation of select verified emission credits, staff are projecting that carbon neutral operations will be maintained indefinitely.

### 2018 Corporate Carbon Emissions and Offsets

For 2018, staff anticipate that the City will again be eligible for a "Level 3 Achievement of Carbon Neutrality" through the Climate Action Recognition Program. A formal announcement is expected from the Province at the Union of British Columbia Municipalities' annual conference later this year. It is estimated that the City will carry forward approximately 7,566 tonnes of GHG (tCO<sub>2</sub>e) emission offsets for use in future reporting years.

The reported corporate emissions 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 2018 total includes GHG emissions associated with traditional municipal

services, including those that are contracted out (e.g. community recycling collection). Corporate emissions in 2018 were approximately 17% lower than in 2007. This reduction was achieved despite an increase in population of approximately 20% and corresponding increases in corporate services that are associated with this growth.

Through the replacement of aging facilities with less GHG emission intensive infrastructure and the continued operational improvements at key facilities, it is anticipated that emissions at corporate buildings will continue to be reduced as planned projects are implemented over the coming few years.

**Table 1: 2018 Corporate Emission Sources**

	<b>Tonnes CO<sub>2</sub>e</b>	<b>Quantification Method</b>
Emissions from services delivered directly by the City	6,713	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	1938	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.
<b>TOTAL</b>	<b>8651</b>	

#### 2018 Corporate and Community Carbon Credits (Offset Projects)

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

- **Diverted Organics Credits:** Emission credits from diverted household organic waste contributed significantly to offsetting the City's corporate emissions footprint in 2018. The estimated total diverted organics for 2018 corresponds to 6,267 tonnes of avoided GHG emissions, which represents 72% of the City's 2018 total corporate emissions.
- **Sun Hor Lum Conservation Area Credits:** The City will also be achieving emissions credits for the 2011 purchase and preservation of the Sun Hor Lum Conservation Area in Northeast Richmond. Preserving this natural habitat and ensuring that the land was not developed for agricultural purposes preserves the carbon stored in the peat soil. By completing required analysis and quantification of the carbon storage and sequestration benefits that the Sun Hor Lum Conservation Area provides the City and region, the City of Richmond will be claiming 3,244 tonnes of avoided GHG emissions for the period of time the City has owned the site, between 2012 and 2018. The carbon storage and sequestration benefits that were quantified as part of the City's due diligence and conservation management planning are in addition to the ecological benefits that the City and region enjoy from the preservation of this ecosystem. It is believed that this work will

help to inform other jurisdictions in the region on the importance of conserving and enhancing this type of ecosystem. After 2018 the City will be able to claim emissions credit for the carbon sequestration that the Sun Hor Lum Conservation provides, if the area is preserved and maintained in its natural state.

### Richmond Carbon Market

Council endorsed the Richmond Carbon Market (RCM) program in 2017. The program is designed to reduce GHG emissions and build community resilience by re-investing Climate Action Revenue Incentive Program funds in Richmond-based emissions reduction projects.

After quantifying the first project with Pacific Gateway Hotel in 2017, the City of Richmond solicited project plan submissions for a second time from local businesses. Three proponents submitted project plans for Council consideration in early 2018; Pacific Gateway Hotel for its building energy efficiency project completed in 2015, Lafarge Canada for its asphalt recycling operations at Mitchell Island, Richmond in 2016, and Panevo Services for upcoming energy efficiency and equipment upgrade projects in Richmond. Council approved the execution of purchase and transfer agreements with each of the proponents, and transfer and purchase agreements were completed with Pacific Gateway Hotel and Lafarge Canada. These credits were used by the City to offset corporate emissions for the 2017 reporting year. Panevo Services remains a potential participant in the RCM program, but has yet to complete the necessary project identification and development work to execute a transfer and purchase agreement due to implementation delays.

The City remains committed to identifying potential community partners with quantifiable GHG emissions reduction projects through the RCM program as it has been an effective tool.

**Table 2: Anticipated Emission Credits (Offsets)**

<b>Offsets</b>	<b>Tonnes CO<sub>2</sub>e</b>	<b>Quantification Method</b>
Household Organic Waste Composting – Municipally Collected	6,267*	BC Government Option 1 GHG Reduction Projects reporting method.
Sun Hor Lum Conservation Area preservation (2012-2018)	3,244	BC Government Option 2 GHG Reduction Projects reporting methods
Surplus GHG emission credits from 2017 Reporting Year	6,705	As per BC Government reporting protocol.
<b>Total projected credits</b>	<b>16,216*</b>	
Estimated surplus carry forward for 2019	7,566	

\* Current estimates, project data to be confirmed by Metro Vancouver

### Public Reporting

Staff will carry out public reporting on the City's website (Climate Action Charter related reports Attachments 1-3) and highlight the report through social media and public engagement activities throughout the year. 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.

### **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 and strategic implementation of the *Towards Carbon Neutrality – Implementation Strategy*, the City has focused on completing projects that maximize the reduction of natural gas and fuel use by City operations. 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.



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

MD:md

- Att. 1: Carbon Emissions Provincial Reporting Worksheet - 2018
- Att. 2: Climate Action Revenue Incentive Public Report - 2018
- Att. 3: Contracted Emissions Estimates (Hired Equipment and Cascade) - 2018



<b>Local Government Name:</b>	<b>The City of Richmond</b>
<b>Year:</b>	<b>2018</b>
<b>Contact Information:</b>	
<b>Name:</b>	<b>Andrew Nazareth</b>
<b>Position:</b>	<b>General Manager of Finance and Corporate Services</b>
<b>Telephone Number:</b>	<b>604-276-4095</b>
<b>Email address:</b>	<a href="mailto:anazareth@richmond.ca">anazareth@richmond.ca</a>

<b>Stationary Emission Sources:</b>			
<b>Building and Infrastructure Fuel</b>	<b>Unit of Measure</b>	<b>Quantity</b>	<b>Emissions (tCO2e)</b>
Electricity	KWH	39,161,338.53	417.85
Natural Gas	GJ	77,761.15	3,877.95

<b>Mobile Emission Sources: Estimated</b>				
<b>Vehicle Class</b>	<b>Vehicle Fuel</b>	<b>Unit of Measure</b>	<b>Quantity</b>	<b>Emissions (tCO2e)</b>
Light Duty Vehicle	Gasoline	L	34,138	76.13
Light Duty Vehicle	Diesel	L	441	1.16
Light Duty Truck	Gasoline	L	216,229	489.33
Light Duty Truck	Diesel	L	7,743	20.31
Heavy Duty Truck	Gasoline	L	246,695	529.41
Heavy Duty Truck	Diesel	L	353,092	919.10
Off Road Vehicle	Gasoline	L	18,232	39.51
Off Road Vehicle	Diesel	L	107,642	310.44
Off Road Vehicle	Propane	L	20,523	31.58
Marine	Gasoline	L	32	0.07
Light Duty Truck - Contractor	Gasoline	L	10,724	24.27
Heavy Duty Truck - Contractor	Diesel	L	533,289	1,388.15
Heavy Duty Truck - Contractor	Natural Gas	GJ	38	1.90
Estimated Contractor	Diesel/Gas	L	-	523.20

<b>Total Emissions (all Sources)</b>	<b>8,650.34</b>
--------------------------------------	-----------------

<b>Credits: Estimated</b>			
<b>Organic Waste Diversion</b>	<b>Baseline</b>	<b>Estimated tonnes</b>	<b>Estimated credits</b>
Diverted Household Organic	7,783	20,466	6,267
Diverted Organic Waste (Waste Drop off Service)	4,709	4,500	0
2017 Surplus Carbon Credits			6,705
NE Bog Forest Conservation (Cumulative savings 2012-2018)			3,244
<b>Total Estimated Credits</b>			<b>16,216.30</b>

<b>Total Estimated Balance</b>	<b>7,565.97</b>
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## Climate Action Revenue Incentive (CARIP) Public Report for 2018

### Local Government:

City of Richmond

### Report Submitted by:

Peter Russell

Senior Manager, Sustainability & District Energy

[prussell2@richmond.ca](mailto:prussell2@richmond.ca)

Phone: 604-276-4130



The City of Richmond has completed the 2018 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2018 and proposed for 2019 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG), as well as general sustainability related initiatives.

**April 18, 2019**

### General Information

<b>Name of Local Government</b>	City of Richmond
<b>Member of Regional District (RD)</b>	Metro Vancouver
<b>Regional Growth Strategy (RGS) in region</b>	Yes
<b>Population</b>	219,000

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## 1. GENERAL REPORT INFORMATION

This 2018 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 is also an Innovative Actions category, which the City has inputted items. The categories are further divided into community and corporate 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 support of GHG emissions and energy use reduction, but does not cover all sustainability related initiatives that the City conducts or supports. The report represents a “snapshot” of City activities in the past year, and proposed actions for 2019.

## 2. BROAD PLANNING ACTIONS

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) 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 2018 and planned in 2019.

General Questions - Broad Planning	
<b>What is (are) your current GHG reduction target(s)?</b>	GHG reduction targets of 33% by 2020, and 80% by 2050, below 2007 levels. Reduce energy use by 10%.
<b>Are you familiar with your local government's community energy and emissions inventory (e.g. <a href="#">CEEI</a> or another inventory)?</b>	Yes
<b>What plans, policies or guidelines govern the implementation of climate mitigation in your community?</b> <ul style="list-style-type: none"> <li>Community Energy and Emissions Plan</li> <li>Integrated Community Sustainability Plan</li> <li>Community-Wide Climate Action Plan</li> <li>Official Community Plan</li> <li>Regional Growth Strategy</li> <li>Other: Ecological Network Management Plan, Riparian Response Strategy, Invasive Species Action Plan</li> </ul>	Yes Yes Yes Yes Yes Yes
<b>Does your local government have a corporate GHG reduction plan?</b>	Yes

<b>Community-Wide Broad Planning Actions Taken in 2018</b>	
	Council approved amendments to both the OCP and Zoning Bylaw to allow and regulate secondary suites in zones that allow two-unit dwellings (duplexes).
	OCP policies were updated to encourage zero emissions development and identify planned future Step Code considerations.
	The OCP and Area Plans were revised to reference the BC Energy Step Code as requirements in the Building Regulation Bylaw to help reduce community GHG emissions.
	The Zoning Bylaw was amended to include floor area exemptions for green building systems installed within the principal building, to encourage more renewable energy system development.
	Council adopted bylaw amendments to limit the maximum size of a dwelling on land in the ALR and limit the number of dwellings to 1 per parcel, to help preserve land for agriculture.
	Continued to implement OCP and CCAP policies as new development applications are processed which direct the majority of Richmond's urban growth to the City Centre, near major transit stations, and along arterial roads.
<b>Community-Wide Broad Planning Actions Proposed for 2019</b>	
	Investigate the City's single-family lot size policy to explore other multi-family ground oriented housing forms (e.g., duplex, triplex, row housing), and tools that could be used to address affordability in Richmond's single family neighbourhoods.
	Work with YVR's proposed Airport Zoning Regulations (AZR) to ensure consideration is given to maximizing energy efficiency through increased density in the City Centre area.
	Continue to implement OCP and CCAP policies as new development applications are processed which direct the majority of Richmond's urban growth to the City Centre, near major transit stations, and along arterial roads.
<b>Corporate Broad Planning Actions Taken in 2018</b>	
	Continued to advance District Energy Utility ready and connected development in the West Cambie, City Centre, and Oval Village neighbourhoods.
	Consulted regularly with Richmond's Small Home Builders Group and the Urban Development Institute when preparing new community building related sustainability initiatives.
<b>Corporate Broad Planning Actions Proposed for 2019</b>	
	Continue to regularly review and monitor the OCP and various Area Plans, and work with Sustainability staff to incorporate policies that target community GHG emissions reductions.
	Continue to consult with Richmond's Small Home Builders Group and the Urban Development Institute when preparing new community building related sustainability initiatives.

### 3. BUILDINGS AND LIGHTING ACTIONS

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 2018 and planned for 2019.

General Questions - Building and Lighting	
The Province has committed to taking incremental steps to increase energy-efficiency requirements in the BC Building Code to make buildings net-zero energy ready by 2032. The BC Energy Step Code--a part of the BC Building Code--supports that effort	
Is your local government aware of the <a href="#">BC Energy Step Code</a> ?	Yes
Is your local government implementing the <a href="#">BC Energy Step Code</a> ?	Yes

Community-Wide Building and Lighting Actions Taken in 2018	
	Adopted parking standards for new residential buildings requiring 100% of new residential parking spaces to be supplied with EV charging infrastructure, a first in North America.
	Continued consultation with the City's construction sector stakeholders regarding local implementation of the BC Energy Step Code Policy for Part 3 and 9 buildings. Bylaws were adopted in September 2018 to enact the Step Code in Richmond.
	Continued with the following EnergySave Richmond suite of programs. <ul style="list-style-type: none"> <li>Richmond Carbon Market program, which supports community based GHG emissions reduction projects through facilitation and funding;</li> <li>Mailing incentives to residents with property tax letters.</li> </ul>
	Supported implementation of the Cool It! Climate education program in 20 Richmond Grades 4-7 classrooms.
Community-Wide Building and Lighting Actions Proposed for 2019	
	Update the City's implementation of the BC Energy Step Code, with the application of the step code to hotels and potentially increasing the requirements to step 3 for single family homes.
	Continue to implement EnergySave Richmond suite of programs. <ul style="list-style-type: none"> <li>Climate Smart program for businesses.</li> <li>Water and energy saving programs.</li> <li>Richmond Carbon Market program to Richmond businesses as needed.</li> </ul>
	Implement electric vehicle direct current fast charging stations in the City and EV residential parking standard requirements for new buildings, to further encourage the use of electrical vehicles.



<b>Corporate Building and Lighting Actions Taken in 2018</b>	
	Completed the upgrade of the building automation systems at Fire Hall No.4 and No.5 to reduce energy use, improve building performance monitoring, improve overall occupant comfort, and better manage equipment schedules.
	Secured funding for Phase 3 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.
	Continued 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.
<b>Corporate Building and Lighting Actions Proposed for 2019</b>	
	Complete major mechanical upgrades at Richmond Ice Centre and Library Cultural Centre.
	Complete lighting retrofits at Watermania Aquatic Centre and Thompson Community Centre.
	Complete recreational lighting improvements at Hugh Boyd and Steveston Park North tennis courts.
	Complete Phase 3 of the street lighting conversion project, replacing approximately 1,000 inefficient street light fixtures with more efficient LED fixtures.
	Complete the upgrade of the building automation systems at the Community Safety Building to reduce energy use, improve building performance monitoring, improve overall occupant comfort, and better manage equipment schedules.
	Continued 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 ACTIONS

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 (e.g. from biogas and biomass), 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 2018 and planned in 2019.

General Questions - Energy Generation	
<b>Is your local government developing, or constructing a</b> <ul style="list-style-type: none"> <li>• district energy system</li> <li>• renewable energy system</li> <li>• none of the above</li> </ul>	<b>Yes</b> <b>Yes</b>
<b>Is your local government operating a</b> <ul style="list-style-type: none"> <li>• district energy system</li> <li>• renewable energy system</li> <li>• none of the above</li> </ul>	<b>Yes</b> <b>Yes</b>
<b>Is your local government connected to a district energy system that is operated by another energy provider?</b>	<b>No</b>
<b>Are you familiar with the 2018 <a href="#">List of Funding Opportunities for Clean Energy Projects Led by First Nations and Local Governments?</a></b>	<b>Yes</b>

Community-Wide Energy Generation Actions Taken in 2018 + Additional Actions	
	Continued to expand and connect the Alexandra District Energy Utility (ADEU) to new customers in the West Cambie neighbourhood. In 2018, 260 meters of new distribution piping were installed, and 240,000 ft <sup>2</sup> of residential floor space were connected to the system. Total space now connected to ADEU = over 1,400,000 ft <sup>2</sup> of residential space and over 335,000 ft <sup>2</sup> non-residential space.
	Completed the design of the next phase of ADEU's geoexchange capacity expansion. Once in operation, this will almost double the existing renewable heating and cooling capacity to the West Cambie neighbourhood.
	Continued to develop and operate the Oval Village District Energy Utility (OVDEU) in the Oval Village area. Through-out 2018, the OVDEU had 8 connected buildings receiving energy. This totals 1,892,000 ft <sup>2</sup> and over 1,600 apartment units.
	Worked with a private utility partner to develop plans and complete due diligence, feasibility analysis, and implementation plan for the design, finance, construction and operation of a City Centre District Energy Utility (CCDEU) which would encompass the entire city centre core.
	Created an interim servicing strategy in the City Centre area requiring developments to provide on-site low carbon energy generation plants designed for interconnection with the future City Centre District Energy Utility (CCDEU). To-date, six developments have been committed, totalling approximately 4,451,000 ft <sup>2</sup> . These developments are currently working through various stages of the development process and are estimated to obtain occupancy between 2021-2023.
	Continued to implement DEU infrastructure and developments using dedicated DEU operating funds and capital program, financed through ratepayer funds.

<b>Community-Wide Energy Generation Actions Proposed for 2019</b>	
	Continue to connect buildings and expand the ADEU distribution system as development requires. Three new residential buildings (480,000 ft <sup>2</sup> ) are scheduled for connection in 2019-2020.
	The pipes and vault connections that will allow for the future installation of the new geoexchange fields at ADEU will be installed.
	Continue Oval Village District Energy Utility construction and planning in partnership with a private utility partner, with continuous operational improvement and the design for a third interim energy centre.
	Design and planning for the upcoming connection of four new developments with a total of over 1,000,000 ft <sup>2</sup> of building gross floor area to the OVDEU system.
	Continue securing on-site low carbon energy generation plants designed for interconnection with the future CCDEU system. Development schedules indicate that seven applicable developments in the City Centre will go through rezoning in 2019. The seven developments are estimated to total approximately 1,910,000 ft <sup>2</sup> .

<b>Corporate Energy Generation Actions Taken in 2018</b>	
	Secured funding to complete major equipment replacement and upgrades at Thompson Community Centre, including the revitalization of the geo-exchange field on-site.
<b>Corporate Energy Generation Actions Proposed for 2019</b>	
	Continue to target renewable energy integration, a key component of the City's High Performance Building Policy, during design and development of new corporate facilities.
	Complete the installation of photovoltaic system at the new Fire Hall No.1 to offset electrical demand.
	Complete the mechanical upgrades at the Cultural Centre, which includes the integration of highly efficient heat pump technology.

## 5. GREENSPACE/NATURAL RESOURCE PROTECTION ACTIONS

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. Below are the City of Richmond responses to the Provincial inquiry regarding "greenspace" management in the City, and summary of community initiatives conducted in 2018 and planned in 2019.

<b>General Questions - Greenspace</b>	
<b>Does your local government have urban forest policies, plans or programs?</b>	<b>Yes</b>
<b>Does your local government have policies, plans or programs to support local food production?</b>	<b>Yes</b>



Community-Wide Greenspace Actions Taken in 2018	
	Planted 518 trees on City streets as a result of urban redevelopment agreements.
	Partnership with Tree Canada to secure grant funding from local businesses. Volunteer tree planting events included: <b>TD Tree Days</b> <ul style="list-style-type: none"> <li>• Terra Nova Rural Park</li> <li>• 171 Volunteers</li> <li>• 790 trees and shrubs planted</li> </ul> <b>IKEA Tree Plant</b> <ul style="list-style-type: none"> <li>• Garden City Lands</li> <li>• 20 volunteers</li> <li>• 900 shrubs</li> </ul> <b>Siemens Tree Plant</b> <ul style="list-style-type: none"> <li>• Garden City Lands</li> <li>• 9 volunteers</li> <li>• 300 trees</li> </ul> <b>BC Hydro Community Tree Plant</b> <ul style="list-style-type: none"> <li>• Richmond Nature park, Rideau Neighbourhood Park, Paulik Park</li> <li>• 37 large trees</li> </ul>
	Updated the City's Riparian Response Strategy, which has formalized the City's designated Riparian Management Areas in the Zoning Bylaw.
	Updated the City's Watercourse Protection and Crossing Bylaw and other related Bylaws, which have streamlined reviews of single family development applications based on a City lead stewardship approach. These updates have bolstered the mechanisms for City staff to better address non-compliance activities within riparian areas.
	Enhanced approximately 1.0 ha (10,000 m <sup>2</sup> ) of disturbed riparian habitat with native plantings through residential, commercial and industrial development approvals.
Community-Wide Greenspace Actions Proposed for 2019	
	Continue work on Phase 2 updates of the Riparian Response Strategy to better address multifamily, commercial and industrial development impacts adjacent to riparian areas.
	Complete the initial development of Wildlife Sensitive Design Guidelines aimed at achieving partnerships in the agricultural and development communities with the goal of achieving more wildlife friendly development throughout both urban and rural areas of the City.

<b>Corporate Greenspace Actions Taken in 2018</b>	
	Completed the GIS inventory of parks assets including trees in parks and other City-owned lands and road right-of ways.
	Planted 1,756 trees in City parks.
	Completed the Middle Arm Waterfront Park Brownfield Remediation Study to identify Areas of Concern on 28 acres of industrial properties that will be developed as the Lulu Island Waterfront Park beginning in 2024.
	Opened the 4 acre Aberdeen Neighbourhood Park, which includes a large number of trees, a pollinator meadow, native planting and a rain garden.
	Completed the upgrades to a 100 metre section of the Middle Arm Waterfront Greenway that includes native, riparian planting along the dike face and dike crest, and separated cycling and pedestrian paths.
	Completed a 250 metre section of the Gilbert Road Greenway that includes a mixed use trail and tree planting.
<b>Corporate Greenspace Actions Proposed for 2019</b>	
	Complete the City Tree Management Strategy that will set direction for the Canopy Growth Model, for implementation of new urban street tree standards and for a preventative maintenance program for all trees on City-owned land.
	Begin implementation of the Canopy Growth Model for tree planting in parks that were identified in the 2017 Lidar data as being low in canopy coverage.
	Complete Phase 1 of the 1.5 acre Capstan Village Park.
	Complete the construction of Phase 1 of the 6 acre Alexandra Neighbourhood Park that will include a wetland, a 2 acre meadow and 82 trees.
	Complete the improvements to 6 acres of London Steveston Park including the planting of 285 trees.
	Complete the initial development of a habitat banking strategy to address habitat offsets required as part of the City's climate adaptation/flood mitigation strategies.

## 6. SOLID WASTE ACTIONS

Reducing, reusing, recycling, recovering and managing the disposal of the residual 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 2018 and planned in 2019.

General Questions - Solid Waste	
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

Community-Wide Solid Waste Actions Taken in 2018 + Additional Actions	
	Served over 165,000 residents at the Richmond Recycling Depot, providing drop off recycling for materials such as small & large appliances, batteries, lights, cell phones, paint and solvents, Styrofoam, plastic bags and added flexible plastic packaging as a new item.
	Installed 22 new public space recycling containers that are of newer design and implemented standard signage guidelines.
	Completed approximately 90 community engagement activities, including Recycling Depot tours, information sessions, workshops and outreach displays at community events.
	Developed outreach materials for the Green Ambassadors to increase recognition of the program at community events.
	Promoted recycling and environmental initiatives through the Green Ambassadors program and participating in 24 special events, and volunteering 3,210 hours.
	Introduced the Recycling Challenge Game and online supply ordering tool to provide residents with access to more tools to improve recycling efforts.
	Provided over 250 recycling stations at 76 special events to improve waste diversion.
	Published user-friendly commercial and multi-family development guidelines to assist in design of garbage and recycling spaces to support increased diversion.
	Completed the "Let's Recycle Correctly" campaign to engage with residents directly to increase awareness of the importance of proper recycling.
	Introduced the House Moving and Salvage Program to promote opportunities for moving or salvage of the home rather than demolition.

<b>Community-Wide Solid Waste Actions Proposed for 2019</b>	
	Expand items at the Recycling Depot to include upholstered furniture, electronics, propane tanks, butane cylinders, tires, smoke and CO alarms, fire extinguishers, motor oil and antifreeze and lead acid batteries.
	Extend days of operation at the Recycling Depot from five to six days per week.
	Expand the Large Item Pick Up program from four to six items per year and add tires as an eligible item.
	Develop and implement a communication plan and campaign to achieve 80% waste diversion.
	Design and implement a one month awareness campaign in partnership with the Richmond School District for recycling and collection of flexible plastic packaging from participating schools.
	Raise awareness on the issues of marine plastics and how to reduce plastic litter in Richmond. Research and stay current on policies and actions around the world.
	Incorporate Green Ambassador program information on the City's website to increase program recognition.

<b>Corporate Solid Waste Actions Taken in 2018 + Additional Actions</b>	
	Supported Community Services department with their Annual Purge Event to properly recycle paper, small appliances, batteries, electronics and hazardous materials.
	Updated signage on existing recycling containers and installed recycling stations at new City facilities to represent the materials accepted in the recycling program.
	Increased awareness of recycling options and provided tips for staff through the We Recycle campaign on the intranet.
<b>Corporate Solid Waste Actions Proposed for 2019</b>	
	Develop a series of reduce, reuse, recycle workshops to provide staff with information on opportunities to reduce their carbon footprint.
	Continue to install recycling containers with standard signage to ensure consistency for staff at all City facilities.
	Conduct visual audits at all major City facilities and provide feedback relating to their recycling and waste management.
	Participate in review of purchasing policies in relation to enhancing circular economy concepts.

## 7. TRANSPORTATION ACTIONS

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 and public transit, can contribute to reductions in GHG 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 2018 and planned in 2019.



General Questions - Transportation	
<b>Does your local government have policies, plans or programs to support:</b> <ul style="list-style-type: none"> <li>• Walking</li> <li>• Cycling</li> <li>• Transit Use</li> <li>• Electric Vehicle Use</li> <li>• Other (please specify)</li> </ul>	Yes Yes Yes Yes Yes
<b>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 behaviour)?</b>	Yes
<b>Does your local government integrate its transportation and land use planning?</b>	Yes

Community-Wide Transportation Actions Taken in 2018	
	Facilitated expansion of car-sharing services in Richmond.
	Facilitated two workshops and several electric vehicle outreach displays to provide information of electric vehicles and charging infrastructure for residents.
Community-Wide Transportation Actions Proposed for 2019	
	Continue to facilitate additional car-sharing service hubs in other areas of Richmond.
	Increase workshops and outreach displays for staff and the public to provide information of electric vehicles and charging infrastructure. Develop volunteers and train the trainer sessions to be able to offer more outreach support.

Corporate Transportation Actions Taken in 2018	
	Initiated a capital project to expand public electric vehicle charging stations, including level III charging stations that are owned and operated by the City.
	Completed feasibility study at four major City sites to determine electrical capacity for all parking stall to be potentially electrified to support EV expansion.
	Increased membership of car-sharing services for corporate use by 33 users.
	Installed seven EV charging stations for Fleet and public use.
	Replaced 7 Internal combustion type vehicles with 4 fully Electric Chevy Bolt and 3 plug in Hybrid Volts as part of Fleet replacement plan.
	Purchased smaller more fuel-efficient pick up trucks for fleet replacements.
	Installed 42 dedicated shore power trickle chargers in the Works Yard to charge onboard batteries on Fleet vehicles, helping to avoid unnecessary idling or the use of diesel generators.
	Prepared Auntie Idle newsletters for Staff to promote new technologies, programs and tips on anti-idling techniques and the operation of City of Richmond's Vehicle Procedures, Policies and Expectations.

Corporate Transportation - Actions Proposed for 2019	
	Expand electric vehicles charging stations for fleet vehicles at City facilities using current infrastructure and explore future expansion requirements.
	Support technical aspects of new installations for DC Fast charge and Level 2 dual port electric vehicle charging stations.
	Explore and install an automatic stop and start idle timer on Fleet vehicles so units can be automatically triggered by low battery voltage, applying the service brake or user restart requests to reduce idling, fuel consumption and wear on engine and vehicle components.
	Upgrade and install the infrastructure to support up to 32 ports total (Level 2) on a power share basis at the City Hall annex location.
	Complete installation of approximately 10 propane conversion kits on high use City trucks and a propane fuelling station at Works yard as part of the Propane Pilot program to reduce GHG emissions and increased fuel savings.
	Continue to expand on-going training of operational staff and new hires in fuel efficient and safe driving techniques to reduce idling, fuel consumption and care of the City's Fleet.
	Install a Solar EV ARC for electric vehicle charging.
	Promote and expand membership for Car-sharing program for corporate use.
	Install solar panels on larger work vehicles to charge auxiliary batteries used for lighting.
	Continue to replace gas combustion engines with plug-in, Hybrid or 100% electric passenger vehicles as technology and charging infrastructure become available.
	Start to explore electric and hybrid trucks as replacements for the City's pickup truck Fleet.

## 8. WATER AND WASTEWATER ACTIONS

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 GHG 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 2018 and planned in 2019.

General Questions - Water Conservation	
Does your local government have water conservation policies, plans or programs?	Yes

Community-Wide Water and Wastewater Actions Taken in 2018 + Additional Actions	
	Issued 728 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 2018 was \$72,800.
	Partnered with BC Hydro in spring and fall 2018 to provide a clothes washer rebate program to reduce home water use and electricity. To date, 914 rebates have been issued to homeowners who replace their less efficient (water and electricity) washer for a new efficient model at a total cost of \$66,300 to the City. It is estimated that this program achieved annual savings in water and energy of 3,442,000 litres per year and 88,110 kilowatt hours per year, respectively.
	Installed usage meters under the Volunteer Multi-Family Water Meter Program in 146 complexes (comprising 9,119 multi-family dwelling units) including 61 apartment complexes (6,577 units) and 85 townhouse complexes (2,542 units). It is mandatory for new multi-family residences to have a water meter. A total of 46% of multi-family units in Richmond are water metered.
	Assessed and helped to reduce water waste at single-family homes by providing notification on properties with consumption greater than 250 m3 quarterly.
	Reduced water pressure during from October to May to reduce the volume of leakage and extend the life of our water infrastructure. In 2017, the City introduced a new timer-based pressure management program during off-peak hours in the summer months, further reducing leakage volume and extending the life of water infrastructure.
	Sold 108 rain barrels through the City's Rain Barrel Program to Richmond residents, to help promote the use of rain water for gardening purposes and reduce the use of potable water in gardens.
	Hosted a series of Works on Wheels bus tours for the public to learn about water and wastewater infrastructure maintained by the City.



<b>Community-Wide Water and Wastewater Actions Proposed for 2019</b>	
	Continue the volunteer Multi-Family water meter program.
	Continue the toilet rebate program (\$100,000 in funding for 2018).
	Continue offering the water saving kits 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 2018 (pending Council approval).
	Continue the City's Rain Barrel Program and promote the use of rain water for gardening and irrigation purposes.
	Distribute, if necessary, educational brochures on water restrictions, describing the stages and what they entail.
	Maintain updated water conservation information on the City's website for public use.
	Continue to organize and host the Public Works Open House for the public to learn about all of Richmond's operations and sustainable programs.
	Continue to host Project WET, an interactive elementary school program that teaches classes about water consumption, conservation, quality and supply.
	Continue to provide community events with the portable drinking fountains to encourage tap water consumption.
	Deploy a universal Fixed Based Network for water meter reading in order for leaks to be identified earlier and to decrease manual reading of water meters.

<b>Corporate Water and Wastewater Actions Taken in 2018 + Additional Actions</b>	
	Participated in the Metro Vancouver Regional Engineers Advisory Committees. The meetings revolve around networking with other municipalities and discussing initiatives, progresses, updates in policies and results.
	Implemented a timer-based pressure management program to decrease system pressures during off-peak hours in the summer months to reduce water loss to system leakage.
	Initiated grease management pilot projects to combat fats, oils, and grease buildup in the sanitary system.
	Participated in Metro Vancouver's local government working group in the Regional Assessment of Residential Water Metering project to assess the costs and benefits of water metering and share Richmond's experience and expertise with regards to successes in water metering.
<b>Corporate Water and Wastewater Actions Proposed for 2019</b>	
	Continue to take part in the Metro Vancouver Regional Engineers Advisory Committees.
	Coordinate with the Metro Vancouver Residential Indoor and Outdoor Uses of Water Monitoring Study.

## 9. CLIMATE ADAPTION ACTIONS

This section of the CARIP survey is designed to collect information related to the types of climate impacts local governments are experiencing and how they are being addressed. Below are the City of Richmond responses to the Provincial inquiries regarding climate change adaption, and summary of initiatives conducted in 2018 and planned in 2019.

Please identify the THREE climate impacts that are most relevant to your Local Government.	
<ul style="list-style-type: none"> <li>• Warmer winter temperatures reducing snowpack</li> <li>• Changing temperatures influencing species migration and ecosystem shifts</li> <li>• Sea level rise and storms causing coastal flooding and/or erosion</li> </ul>	
In 2018 has your local government addressed the impacts of a changing climate using any of the following?	
Risk and Vulnerability Assessments	Yes
Risk Reduction Strategies	Yes
Emergency Response Planning	Yes
Asset Management	Yes
Natural/Eco Asset Management Strategies	Yes
Infrastructure Upgrades (e.g. stormwater system upgrades)	Yes
Beach Nourishment Projects	No
Economic Diversification Initiatives	Yes
Strategic and Financial Planning	Yes
Cross-Department Working Groups	Yes
Official Community Plan Policy Changes	Yes
Changes to Zoning and other Bylaws and Regulations	Yes
Incentives for Property Owners (e.g. reducing storm water run-off)	Yes
Public Education and Awareness	Yes
Research	Yes
Mapping	Yes
Partnerships	Yes

### Climate Change Adaptation Actions Taken in 2018

Please elaborate on key actions and/or partnerships your local government has engaged in to prepare for, and adapt to a changing climate. Add links to key documents and information where appropriate.

	Continued work on Dike Master Plan Phases 3, 4, and 5 which provide the long term planning strategies for dike improvements.
	Continued detailed design of the South dike raising project from Gilbert Rd to No.3 Rd.
	Initiated detailed design of the South dike raising project from No.3 Rd to Finn Slough excluding the frontage of 13911 Garden City Road.
	Initiated work on the Flood Protection Management Strategy 2019.
	Initiated the Drainage Pump Station Condition Assessment.
	Initiated evaluation of soil densification strategies for flood protection infrastructure.
	Completed Dike Master Plan Phase 2.
	Completed a drainage pump station upgrade.
	Raised 125m of dike.

### Climate Change Adaptation Actions Proposed for 2019

	Complete the Steveston Island Flood Protection Investigation to evaluate flood protection alignments and options for the South Dike.
	Complete the Flood Protection Management Strategy 2019.
	Complete Dike Master Plan Phases 3, 4, and 5.
	Complete the Drainage Pump Station Condition Assessment.
	Commence construction of the South Dike raising from Gilbert Rd to No 3 Rd.
	Commence testing for soil densification technologies.
	Upgrade 5 drainage pump stations and re-construct 1 drainage pump station.
	Complete construction of the South dike raising project from Gilbert Rd to No.3 Rd.

The following are key resources that may be helpful to your local government in identifying climate impacts, as well as, strategies, actions and funding to deal with them. For those resources that you have used, please indicate whether they were useful in advancing your work in climate change adaptation?

<a href="#">Indicators of Climate Change for British Columbia</a>	Haven't Used
<a href="#">Plan2Adapt</a>	Haven't Used
<a href="#">Climate Projections for Metro Vancouver</a>	Useful
<a href="#">Climate Projections for the Capital Region</a>	Haven't Used
<a href="#">Climate Projections for the Cowichan Valley Regional District</a>	Haven't Used
<a href="#">Province of BC's BC Adapts Video Series</a>	Haven't Used
<a href="#">Preparing for Climate Change: Implementation Guide for Local Governments</a>	Haven't Used
<a href="#">Public Infrastructure and Engineering Vulnerability Committee's (PIEVC)</a>	Haven't Used
<a href="#">Sea Level Rise Adaptation Primer</a>	Haven't Used
<a href="#">BC Regional Adaptation Collaborative Webinars</a>	Haven't Used
<a href="#">Retooling for Climate Change</a>	Haven't Used
<a href="#">Water Balance Model</a>	Haven't Used
<a href="#">Water Conservation Calculator</a>	Haven't Used
<b>Funding:</b>	
<a href="#">National Disaster Mitigation Program (NDMP)</a>	Haven't Used
<a href="#">Community Emergency Preparedness Fund (CEPF)</a>	Haven't Used
<a href="#">Municipalities for Climate Innovation Program (MCIP)</a>	Useful
<a href="#">Climate Adaptation Partner Grants (FCM)</a>	Haven't Used
<a href="#">Infrastructure Planning Grants (MAH)</a>	Haven't Used
<a href="#">Federal Gas Tax Fund</a>	Useful

## 10. INNOVATIVE ACTIONS

This section provides the opportunity to showcase an innovative *Corporate and/or Community-Wide* GHG reduction and/or climate change adaptation activity that your local government has undertaken. Below is summary of two of the innovated initiatives that the City implemented in 2018.

### Community-Wide Innovation Action

- The Dike Master Plan sets a goal of increasing the height of Richmond's 49 km long dike system to 4.7m in order to adequately prepare and adapt for future conditions caused by climate change. The 4.7m dike elevation is derived from a 200-year flood elevation of 2.9m, a freeboard of 0.6m above the 200-year flood standard, a 1m allowance for sea level rise, and a 0.2m allowance for geologic subsidence through the year 2100. The Dike Master Plan further requires that the structural design of the upgraded diking system be able to accommodate a further lift to 5.5m to accommodate possible additional sea level rise in future years. The City will be considering habitat offset and enhancement opportunities through the works associated with the Dike Master Plan.



#### Corporate Innovation Action

- All new staff orientation sessions also include a session on Green Fleet Driving techniques and our Green Fleet Policy.
- All new drivers are assessed by our Fleet training officer and are required to study and sign off on the requirements defined in our Driver's program, which includes everything outlined in the course materials before they can operate a City owned vehicle.
- Monthly analytic reports are produced to identify idling levels of vehicles and these figures are used to educate and also to find innovative methods of reducing idling on high idling units, for instance solar panels, LED Lighting and auxiliary power.

## 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 separated by a forward slash (e.g. program1/program2).

#### Mitigation

##### Mitigation Programs, Partnerships and Funding

- The City received \$750,000 from the Federation of Canadian Municipalities' to complete the Cultural Center equipment renewal and GHG emissions reduction project.
- The City entered into a \$100,000 funding agreement with BC Hydro to support the new Building Energy Specialist position following the implementation of the BC Energy Step Code.
- The City received \$19,800 from BC Hydro in 2018 as a part of an ongoing partnership to provide Air Tightness Training and Blower Door Testing programs for builders as they adapt to the new BC Energy Step Code requirements.
- The Provincial organization Trans Link: provides funding support towards cycling education and promotion initiatives including Bike to Work/School Week, cycling education courses for elementary students, cycling education courses for adults, and community bike ride.
- The Provincial organization Trans Link: provides capital funding on a 50-50 cost-share basis for the construction of pedestrian and cycling-related infrastructure including way finding, and for the upgrade of existing bus stops to become fully accessible.
- BikeBC (Ministry of Transportation & Infrastructure): provides capital funding on a 50-50 costshare basis for the construction of cycling-related infrastructure.
- ICBC: provides funding support towards the construction of pedestrian-related infrastructure including pathways and crosswalks.

## Adaptation

### Adaptation Programs, Partnerships and Funding

- Partnered with Emily Carr University to establish a new 2,500 m<sup>2</sup> pollinator meadow at Terra Nova Rural Park.
- Worked with the Richmond Butterflyway Rangers who are responsible for planting pollinator patches in 21 locations throughout Richmond, including City Hall.
- The City received federal and provincial funding from the National Disaster Mitigation Program for the Flood Mitigation Strategy Update, which consists of three projects: Dike Master Plan Phase 3, Flood Management Strategy Update and Pump Station Condition Assessment.
- The City received federal and provincial funding from the National Disaster Mitigation Program for the Steveston Island Flood Risk Investigation Project.
- The City received funding from UBCM for Dike Master Plan Phase 5.

## 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, livable and well-managed community in Canada”.

## CARIP/Carbon Neutral Progress Report Reporting Year 2018

### Supporting Documentation Contracted Emissions Template

<b>LOCAL GOVERNMENT</b>
City of Richmond 6911 No. 3 Road Richmond, BC V6Y 2C1
<b>PROJECT DESIGNATE</b>
Levi Higgs, Principal Consultant, Agile Energy Management Direct 604-788-4538 LeviHiggs@AgileEM.ca
<b>RATIONALE</b>
<p>An estimation methodology for hired equipment contractor emissions is being utilized for 2018, as actual emissions for some contracts over \$25,000 have not provided fuel usage values.</p> <p>The City has identified four main contract areas that deliver traditional municipal services:</p> <ol style="list-style-type: none"> <li>1. Cascades Recovery Inc. and Supersave Disposal provide recycling depot container collection and recycling services;</li> <li>2. Sierra Waste Services provide residential solid waste and recycling services;</li> <li>3. Maple Leaf Disposal provides waste and recycling collection services at City facilities;</li> <li>4. Smithrite (GFL) provides waste collection services at the Public Works Yard;</li> <li>5. Waste Connections provide waste and recycling collection services for special events; and</li> <li>6. Individual Hired Equipment.</li> </ol> <p>Contractor emissions associated with the delivery of traditional municipal services by Sierra Waste Services, Supersave Disposal, Maple Leaf, Waste Connections, and Smithrite have been included in our mobile fleet emissions reporting spreadsheet, as fuel usage and vehicle type information was provided for 2018. Contractor emissions associated with the delivery of services by Cascades Recovery and Hired Equipment were estimated by from total kilometers and hours driven, respectively.</p> <p>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.</p> <p>Option 3 is the estimation methodology used:</p> <ol style="list-style-type: none"> <li>1. Hired equipment records sorted to exclude out of scope contracts;</li> <li>2. City equipment operating records assessed to determine average consumption factors in litres per charge hour or kilometers driven for each equipment family;</li> <li>3. Consumption factors used to estimated fuel consumption for contractor or hired equipment;</li> <li>4. BC GHG emissions factors applied to calculate GHG emissions.</li> </ol>



<b>CONTRACTED EMISSIONS</b>	
<b>Option 3: Vehicle/Equipment Type and Kilometers or Hours of Usage</b>	
<b>Traditional Service Area</b>	<b>Estimated Annual GHGs (tonnes)</b>
Drinking, Storm and Wastewater	409
Solid Waste Collection, Transportation and Diversion	7.3
Roads and Traffic Operations	85.5
Parks, Recreation, Arts, and Cultural Services	16.9
Corporate Operations	4.5
<b>Total</b>	<b>523.2</b>



# City of Richmond

## Report to Committee

**To:** General Purposes Committee  
**From:** Peter Russell, MCIP RPP  
Senior Manager, Sustainability and District  
Energy

**Date:** March 20, 2019  
**File:** 10-6000-00/Vol 01

Jerry Chong, CPA CA, Director, Finance

**Re:** Integrating Circular Economy Criteria into City Procurements

### Staff Recommendation

1. That the work plan outlined in the staff report titled, "Integrating Circular Economy Criteria into City Procurements", dated March 20, 2019 from the Senior Manager, Sustainability and District Energy, be endorsed.
2. That expenditures in the amount of \$150,000 be approved, with funding from the Carbon Tax provision, and that the 5-Year Financial Plan (2019-2023) be amended accordingly.

Peter Russell, MCIP RPP  
Senior Manager, Sustainability and District Energy  
(604-276-4130)

Jerry Chong, CPA CA  
Director, Finance  
(604-276-4064)

Att. 3

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Parks Services	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Public Works	<input checked="" type="checkbox"/>	
Facilities	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

This report is in response to a referral from the February 21, 2019 Public Works and Transportation Committee Meeting, which requested:

*That staff review the City's current purchasing practices for ways to support the circular economy.*

### Background

#### Sustainable Procurement at the City

Council originally adopted an Environmental Purchasing Policy and guide to increase the use of environmentally-sound products and services in 2000. In 2015, the City rescinded the Environmental Purchasing Policy by consolidating sustainability related objectives within a revised Purchasing Policy. A Purchasing Guidelines document was issued in November 2015 to provide staff with general guidance on incorporating Policy principles into practice. The current approach to purchasing goods, services and construction services by City staff is directed by the following Council policies and guidelines:

- Bylaw 8215 –Officer and General Manager (2007)
- Policy 3104 - Procurement Policy
- Policy 3709 - Financial Signing Authorities Policy
- City of Richmond - Purchasing Guidelines and Procedures (Nov 2015)
- Policy 2020 - Sustainable Green Fleet Policy (acquisition criteria)
- Policy 2307 - Sustainable “High Performance” Building Policy – City Owned Facilities
- Capital Projects Ranking Criteria Model
- A number of City plans and policies also support circular economy objectives, a summary can be found in Attachment 1.

#### City Achievements

The City has undertaken many sustainable initiatives which have incorporated circular economy consideration, including:

- **Recycling Depot:** The City continues to introduce new services and programs as part of our goal to achieve 80% waste diversion by 2020, such as the most recent expansion of materials accepted at the City's Recycling Depot, which commenced in January, 2019.
- **Organic Waste Processing Service:** Enviro-Smart provides organic recycling services for the City. The City receives back 3,000 kg/year of finished product as defined in the agreement the City holds with the company for using on civic projects and parks.
- **Residential Solid Waste & Recycling Collection:** The City's current solid waste and recycling programs are arguably among those leading the region, with 78% waste diversion achieved for single-family residential waste. The City's contractor uses a mix of propane and diesel which will reduce emissions by up to 45% CO<sub>2</sub>e per litre of mix fuel consumed.

- **Demolition Waste and Recyclable Materials Bylaw No 9516:** This Bylaw outlines the target of 70% waste diversion from landfill to increase reuse and recycling of waste from single-family home demolition. The City also encourages homeowners to post their houses on the City's House Moving and Salvage List prior to applying for a demolition permit.
- **Green Buildings:** The City receives credits for "Recycled Content" and "Regional Materials" in the Leadership in Energy and Environmental Design® (LEED) rating system for new civic buildings per Sustainable "High Performance" Building Policy.
- **District Energy:** The City's Lulu Island Energy Company's Alexandra District Energy Utility uses geo-exchange technology for heating and cooling connected buildings. The Oval District Energy Utility intends to harvest heat from the Gilbert Rd sewer forcemain to heat buildings.
- **Corporate Hazardous Materials Management Program:** The City's Corporate Hazardous Materials Management Program (HMMP) identifies legal requirements that apply to the Hazardous Materials used by the City in its operations, and the best management practices that should be followed to reduce risks associated with hazardous materials.
- **Waste Heat Recovery:** The City currently operates sewer heat recovery equipment at the Gateway Theatre and aims to expand this approach through the Lulu Island Energy Company's Oval Village District Energy Utility. The new Minoru Centre for Active Living recovers heat from the pool facilities for heating community use space within the building.
- **Resource Recovery:** The City worked closely with Metro Vancouver to complete an Integrated Resource Recovery Strategy for the Lulu Island Wastewater Treatment Plant to assess available resources, such as heat and nutrients that can be economically recovered.
- **Concrete and Asphalt Recycling:** The City's annual paving program already includes 10% recycled asphalt products. Richmond is also leading, in partnership with the National Zero Waste Council, a pilot certification program for asphalt and concrete pavement products as a tool to build confidence in product quality and to increase the use of these products.
- **Richmond Sustainable Event Guide and Toolkit:** The City developed a Sustainable 7 Step Quick Guide and Toolkit to benefit events through the planning cycle, as well as reduce the environmental, social and economic impacts of events.
- **National Zero Waste Council pilot – Increase diversion rate of wood from construction, renovation and demolition (CR&D):** Staff are participating in the working group to reduce the disposal of CR&D wood waste at the landfill with a focus on alternatives uses such as energy regeneration, recycling, reuse or reduction.
- **Capital Projects Ranking Criteria:** Staff use the Capital Ranking Criteria Model to assess risk management, social, environmental and economic criteria to support decision making.

#### Circular Economy Definition

The Ellen MacArthur Foundation, an emerging and respected thought leader working to accelerate the transition to a circular economy, defines the circular economy as "an economic and industrial system that is restorative and regenerative by design, and which aims to keep

products, components and materials at their highest utility and value at all time.” Looking beyond the current take-make-waste extractive industrial model, a circular economy aims to redefine growth, focusing on positive society-wide benefits. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital. A number of best practice resources are available, a summary can be found in Attachment 2.

### Trade Agreements

Trade agreements impact municipal government in British Columbia and commit government entities to a comprehensive set of rules for public procurements that are meant to promote open procurement practices; that include:

- a) the Canadian Free Trade Agreement (CFTA) (2017)
- b) the Canada-European Union Comprehensive Economic Trade Agreement (CETA) (2017).
- c) the New West Partnership Trade Agreement (NWPTA) (2010).

The Canadian Free Trade Agreement lists a number of expressly prohibited practices that conflict with the open procurement obligations. These include specific prohibitions against preference for local goods, services, or suppliers; to scheduling events in tendering process or specifying requirements or delivery schedules that limit participation of suppliers; to providing selective information to suppliers to create an unfair advantage; to using registration or qualification systems that create unnecessary obstacles to participation.

### Scale of City Procurement Activities

The Purchasing Department at the City is responsible for facilitating the procurement of an extremely wide range of goods, services and construction-related services. The overall expenditure can be broadly segmented into five general categories (Table 1), where certain categories potentially offer greater opportunities for circularity in their specifications, use and disposal than other categories.

**Table 1 - Overall expenditure segmented into general areas of corporate operations**

	Examples
<b>Construction</b>	Road construction, utility infrastructure works, paving, building renovations, demolition, pools, roofing projects, replacement of mechanical systems, parks projects
<b>Professional services</b>	Engineering design, architectural services, consulting, HR related services, event management services
<b>Fleet</b>	Vehicles, vehicle rentals and heavy equipment
<b>Maintenance, Repairs and Operations (MRO)</b>	General materials for public works and parks, park operations, furniture and office management services, office supplies, janitorial supplies, repair and preventative maintenance services, equipment.
<b>IT</b>	Software licenses and hardware, IT maintenance and support services, IT equipment

## Analysis

There are important considerations for developing circular economy criteria in the City procurement policy considering the information above, summarized as follows:

- The City's current policy is effectively delivering sustainability projects;
- The City's procurement process and policy would benefit from clear guidelines, toolkits and indicators in order to realize circular economy outcomes;
- The City needs to be cognizant of its obligations as they relate to procurements that are detailed within the relevant Trade Treaties,
- Each procurement area of the City has unique issues, costs and opportunities that can enable circularity in the procurement of goods and services;
- Circular economy considerations in procurement policies can accelerate the transition towards more sustainable patterns of consumption and production.

The City's procurements also outlined above are proof that purchases support the City's sustainability goals. The City, however, does not have a common approach in the procurement process for achieving circular economy outcomes, common circular economy elements in the procurement processes could include:

- Supporting economic and ecosystem regeneration
- Sourcing lower impact materials
- Resource efficiency maximization and waste generation reduction (life cycle product or service considerations)
- Reducing GHG emissions, energy use and harmful chemicals
- Designing out waste and pollution

### Recommended approach for integrating circular economy elements in the City policy

Multiple approaches and innovative solutions can enhance circularity in the City procurement policy and practices. Further definition of specific circular economy cost considerations, criteria, guidelines, standards, toolkits and indicators will lead the City to sustainable results. Staff also reviewed best practices of other leading cities (Attachment 3) to inform the approach below. The inclusion of circular economy elements in the City procurement policy for circular economy outcomes requires collaboration and dialogue with all the City departments to build structural capacity to develop a common approach for circular practices in the purchases of goods, services and construction-related services. The recommended work plan below incorporates best processes to identify cost considerations, guidelines, standards, toolkits and indicators:

1. Assess procurement processes in the Construction, Professional Services, Fleet, MRO and IT areas for:
  - a. establishing a well-defined framework that integrates circular economy criteria specific to Richmond activities and procurements;
  - b. developing indicators for measuring results and impacts (e.g. GHG emissions, materials and resources, job training opportunities, product and service lifecycle, etc.).
  - c. assessing cost implications for circular economy considerations.

2. Initiate an interdepartmental engagement program to identify innovative solutions and specifications based on circular economy criteria and anticipated cost considerations.
3. Initiate external stakeholder engagement with vendors and local businesses to:
  - a. inform vendors of the City's circular economy initiatives and expectations for their participation;
  - b. identify and explore opportunities among stakeholders along the entire supply chain for products, services and solutions that address circular economy criteria;
  - c. promote potential partnerships and work closer with industry that could interact and exchange with staff market knowledge and solutions providers.

After one year, staff will report back with a set of procurement policy enhancements with circular economy criteria supported by costing information, guidelines, toolkits and indicators to implement the policy.

### **Financial Impact**

The cost to develop the proposed approach is estimated at \$150,000. This cost includes technical support for assessing the procurement process, undertaking the internal and external engagement processes, assessing financial and cost/benefit impacts as well as a temporary coordination staff member to manage the project. If approved by Council, funding can be provided from the Carbon Tax provision, requiring an amendment to the 5-Year Financial Plan (2019-2023).

### **Conclusion**

Without change, the current overdraft approach to the world's finite natural resource bank will mean a lack of ability to support future population growth in a sustainable manner. Governments and businesses have already started to include circularity requirements in the corporate procurement decisions. Sustainable procurement is about "internalising the externalities" and leading by example. It is about driving behaviour change by the City taking the lead and showing what can be done. The recommended work plan and commitment to return to Council with policy revisions will build a unified approach in all City procurements.



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



David Aarons  
Manager, Purchasing  
(604-276-4061)

mb:MB



## Attachment 1 – City’s polices, plans and strategies

The City of Richmond is a recognized leader in many sustainability-focused areas ranging from robust waste management programs, to leading district energy initiatives, and greenhouse gas emissions reduction programs designed to achieve carbon neutral operations. Richmond City Council has adopted policies and plans to undertake a number of initiatives which directly align with the circular economy agenda. These policies and plans include:

- **Resilient Economy Strategy:** The Strategy purpose is to retain fundamental sectors of the Richmond economy and grow sectors well suited to Richmond’s infrastructure, workforce and other labour assets. It was developed with an emphasis on actions that can be undertaken by the City; enable a diversified economy while focusing on Richmond’s growth potential industries, and concentrate on implementing a few high priority initiatives.
- **Community Energy and Emissions Plan (CEEP):** It is a strategic plan that furthers Richmond’s efforts to manage energy use and reduce community carbon emissions. It defines the municipality’s role— working in partnership with others—in facilitating energy efficiency in the community, developing local energy sources, and reducing the greenhouse gas (GHG) emissions that form our “carbon footprint.” An energy strategy will assist Richmond in achieving the sustainable community vision defined in its 2041 Official Community Plan (OCP).
- **Ecological Network Management Strategy:** The Ecological Network (EN) is the long-term ecological blueprint for the collaborative management and enhancement of the natural and built environments throughout the city, within neighbourhoods, and across land-uses and development types in order to achieve ecologically connected, livable and healthy places in which residents thrive. In support of that vision, the Ecological Network Management Strategy (the Strategy) outlines detailed actions and initiatives developed under four focus areas: Green Infrastructure and Development, Vegetation, Habitat and Wildlife, Parks and Public Spaces and Stewardship and Collaboration.
- **Green Fleet Action Plan:** The City has been implementing sustainable fleet management initiatives for more than 10 years. Through Richmond’s Green Fleet Action Plan, the City has targeted the fleet to expand on this ongoing shift towards “green” operations, which includes applying strategies to purchase vehicles that have lower emissions and explore options to cut fuel consumption. When Richmond developed the Green Fleet Action Plan as a key opportunity to reduce GHG emissions by making changes to its fleet vehicle program, a few key goals were identified: reduce GHG emission, improve fuel efficiency and reduce fuel cost, and continue to provide enhanced City services and maintain service excellence.
- **Smart Cities:** The City of Richmond has developed a transformative and ground-breaking proposal for the Smart Cities Challenge. It will minimize community impacts from major disasters, while also enhancing our quality of life in day-to-day activities. Working together with other levels of government and the private and academic sectors, the City will integrate their mutual technology and data to protect the island city against the impacts of climate change emergency response, integrate communications and strengthen community resilience.

## Attachment 2 - Organizations addressing Sustainable Procurement with circular economy criteria

Several organizations have acknowledged the critical role of public procurement in achieving smart, sustainable and inclusive growth of the business, community and economy, while significantly reducing negative impacts on the environment. Several examples of new strategies, tools and innovative approaches to public procurement with circular economy criteria are emerging to drive change, and include:

- **The Ellen MacArthur Foundation (EMF)** Circular Economy 100 (CE100) programme and publications. The programme provides toolkits and guidelines for how to include Circular Economy criteria in the public procurement of products and services. Cities governments can set criteria in their procurement tendering processes that challenge the market to develop innovative product solutions - from increasing the durability of a product to ensuring that the materials used are non-harmful, repairable, and reusable.
- **The United Nations Environment Programme (UNEP)** publication in 2018 titled “Building Circularity into our Economies through Sustainable Procurement”. The document is part of UNEP has been created as a contribution to – and in close collaboration with the Platform for Accelerating the Circular Economy (PACE), a project accelerator and convening mechanism dedicated to decoupling resource use from economic growth.
- **The International Council for Local Environmental Initiatives (ICLEI)** program named “the Sustainable procurement programme,” which provides a number of initiatives to assist local governments in introducing sustainable procurement policies and processes.
- **The European Commission** publication in 2018 titled “Public Procurement for a Circular Economy”, 2018, which contains a range of good practice case studies as well as guidance on integrating circular economy principles into public procurements to leverage support for a transition to a circular economy.
- **The Smart Cities Stakeholder Platform** publications since 2013 analyzing models and opportunities for implementing public procurement. The publications provide practical advice for public authorities on how to procure in an “innovation-friendly” way. It will help to achieve the most innovative, energy efficient and cost-effective solutions for needs of lower costs, less CO<sub>2</sub> footprint and improvement of operations and services.

### Attachment 3 – Examples of best practices in other leading cities

**City of London**, in line with the City Corporation's core values and in the spirit of the 'four Rs', its Responsible Procurement Strategy aims to ensure every item, service and works project procured leads to reliable outputs and responsible outcomes. It has been made relevant to international, national, regional and organizational policies and regulations, and is radical in terms of the extent of positive change it intends to drive.

Member of the CE100 by EMF, the City of London issued the Responsible Procurement (RP) Strategy 2016 – 2019 which aims to further transform the existing procurement service to a high performing one. The RP Strategy details how City Procurement intends to help the City Corporation strengthen its pursuit of these goals, grouped into three key pillars of Responsible Procurement, with the golden thread of value for money applying throughout:

- *Social Value* – Leveraging service and works contracts to protect and enhance the health and wellbeing of local people and the local environment, providing skills and employment opportunities and promoting the local economy.
- *Environmental Sustainability* – Minimising environmental impacts, promoting animal welfare and improving efficiency throughout the supply chains of all goods, services and works procured by the City Corporation.
- *Ethical Sourcing* – Ensuring that human rights and employment rights are protected throughout the City's supply chains and encouraging responsible business practices.

Working in partnership with businesses, local authorities and social sector organisations, the City Corporation has a commitment to economic and social regeneration in London, with a particular focus on the City and its neighbouring regions. The procurement pillars are broken down into three policy areas, each with a number of specific objectives. Every objective has been expanded upon within the RP Strategy in terms of a brief background to the issue, followed by relevant international, national or corporate regulations and policy, finalized with a concrete commitment as to the actions to be taken to effectively implement the RP Strategy.

**City of Portland** updated in 2018 its Sustainable Procurement Policy that contributes to the City's social responsibility, local economic development goals, and preservation of natural resources. This Policy demands cleaner, greener, fairer, smarter, and safer products and services procurement activities which range from small scale actions such as buying recycled paper or less-toxic cleaning products, to the retrofitting of public buildings to meet high energy-efficiency standards or developing an electric vehicle fleet.

All City employees shall utilize the City's sustainable procurement guiding principles and follow sustainable procurement best practices when:

- planning and designing projects,
- developing project and operations budgets,
- developing asset management plans,
- writing product and service specifications or standards,
- selecting materials,
- making purchasing or supplier decisions, and

- developing and managing City contracts and price agreements as applicable to their roles and responsibilities and/or to a specific project.

The Sustainable Procurement Guiding Principles in its Policy are the following:

- **Everything is connected.** All life depends on healthy natural systems. Humanity depends on vibrant and fair social systems. Our purchasing decisions impact these systems on all levels.
- **Conserve.** Reuse first. Buy only what we need second. Acknowledge real limits of natural resources.
- **Think in 3D.** Consider all 3 dimensions—environmental, social, and economic— when evaluating options. Look for hidden costs to people and planet not included in the price.
- **Take a Life Cycle Perspective.** All purchases have impacts over the life of the product or service. Think about long-term costs to people, planet, and the City.
- **Provide Fair Opportunities.** Ensure suppliers have a full and fair chance to compete. Promote transparency in decision making and actively mitigate bias.
- **Ensure Health and Safety.** Take precautions. Avoid toxins that recirculate in air, water, soils and materials to harm people and animals.
- **Uphold Accountability.** Reinforce responsibility and ethical behaviour throughout our supply chain, upstream and downstream.
- **Support Innovation.** Increase demand and build market capacity for sustainable solutions. Change the status quo for the better.
- **Full Integration.** Utilize 3D thinking in all planning, purchasing, and contract management practices. Respect the interests of all stakeholders.
- **Lead the Way.** Seek continuous improvement and collaborate with other agencies to make a positive difference. Together, many small actions add up to big change.

As a procurement strategy, the City of Portland’s Sustainable Procurement Policy promotes fiscal responsibility and smart risk management. Long-term, sustainable procurement contributes to the City’s social responsibility, local economic development goals, and preservation of natural resources. Sustainable procurement activities at the City of Portland range from small scale actions such as buying recycled paper or less-toxic cleaning products, to the retrofitting of public buildings to meet high energy-efficiency standards or developing an electric vehicle fleet. With such a large market share public buyers can have a big influence in driving the market towards sustainable solutions. The Policy applies to all types of City-funded procurements and to all City divisions and employees.

**In Denmark,** the main actors are the Ministry of Environment and Food (MEF) and the local municipalities. Some years ago MEF took the initiative to promote green procurement, and is now expanding the focus to circular procurement. The ministry has established a Partnership for Public Green Procurement, including twelve municipalities, two regions and a water supply company. They have established common goals for increasing green procurement, and several green procurement examples are available, some of which could also be called circular procurement. The partnership accounts for 17% of all public procurement in Denmark, or DKK 50 billion in total. Besides this, circular procurement is a topic of the Forum on Sustainable Procurement – a national network established by MEF to share knowledge and keep procurers from public and private organisations updated on best practice, methods and tools for green procurement. Under the auspices of the forum there is work going on to develop examples of

criteria for the procurement of circular solutions as well as advice on the procurement process. Best practice cases related to procurement to promote the circular economy are shared through a website, newsletters and events. Furthermore, MEF has developed guidelines and tools for Total Cost of Ownership (TCO) for selected product areas. The tools are available on a website where procurers can find green criteria ready to copy and paste into tender documents for a number of product areas. They do not all explicitly state circular procurement, but several of them include circular economy objectives.

**In Finland**, there is a national focus on public procurement in the fields of clean technology, resource efficiency, circular economy and bioeconomy. The authorities in charge of GPP policies include the Ministry of the Environment, the Ministry of Economic Affairs and Employment and the Ministry of Finance. A government decision in-principle on the promotion of sustainable environmental and energy solutions (clean tech solutions) in public procurement was published on 13 June 2013, which states that in all government procurements, the goal is a comprehensive solution that promotes energy and environmental goals and utilises clean tech solutions in the most economically advantageous way. Although there is no explicit reference to the circular economy in the document, specific attention is paid to sectors such as food and catering, vehicles and transport, construction, energy, services and energy-related products (Finnish Government, 2013). In Finland, cities and municipalities have set their own strategies, in which the circular economy is one pillar. This will increasingly be implemented in their procurement strategies and programmes in the near future. Circular investments and procurement is seen as important in the municipalities' strategies due to the fact that the public sector can, through circular procurement and investments, reach their environmental targets, gain financial benefits, and increase business and employment. The strategies do not, however, always explicitly state circular procurement but rather include circular economy objectives into the broader climate mitigation target. In the strategies, investments in infrastructure and building construction are referred to as a means to increase the reuse and recyclability of materials, and as a reference to the circular economy in the municipality. In addition, many pilot projects that aim at improved circularity of materials and resources have been undertaken in the fields of construction, biogas and catering.

**In Sweden**, the National Agency for Public Procurement is the central agency that is responsible for public procurement, including aspects related to the circular economy, suggesting criteria to be used for sustainable procurement for all relevant goods and services. SKL Kommentus is another important agency working in this field, but which focuses more on offering municipalities and county councils framework agreements, including recommended environmental criteria and follow-up activities. The Swedish Ministry of the Environment is active in the ongoing dialogue on the circular economy on an EU-wide basis. The National Agency for Public Procurement offers a "criteria wizard", which includes almost 900 suggestions for environmental criteria for all types of goods and services relevant for public procurement. These recommendations for procurement criteria make a distinction between three levels of details and ambition: basic level, advanced level and spearhead level. The National Agency for Public Procurement offers a daily helpdesk service, a tool for life cycle costing (LCC), and has established a national network (Think tank) for innovation procurement.



# City of Richmond

## Report to Committee

**To:** General Purposes Committee  
**From:** Tom Stewart, ASCT.  
Director, Public Works Operations  
**Date:** May 12, 2019  
**File:** 10-6370-01/2019-Vol  
01  
**Re:** Single-Use Plastic Items – City of Vancouver Proposals

### Staff Recommendation

That the staff report dated May 12, 2019 titled, “Single-Use Plastic Items – City of Vancouver Proposals” from the Director, Public Works Operations, be received for information.

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

Att. 3

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Recreation Services	<input checked="" type="checkbox"/>	
Sustainability	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

This report responds to a referral to staff at the April 15, 2019 General Purposes Committee meeting where the staff report, “Single-Use Plastic Items – Proposed Consultation” was considered. The referral is as follows:

*That the matter be referred back to staff to outline suggested options for potential changes similar to those found in the City of Vancouver’s bylaw regarding single-use plastics items such as bags, straws, and polystyrene food containers including exceptions, timeline, education, enforcement and consultation and report back to staff at the next General Purposes Committee meeting.*

### Analysis

#### Background

The scope of this report relates to single-use plastics, including:

- a. Plastic shopping bags
- b. Polystyrene foam cups and foam take-out containers
- c. Disposable hot and cold drink cups
- d. Take-out food containers
- e. Straws
- f. Single-use utensils

The Canadian Council of Ministers of the Environment notes other single-use plastics can also include items such as cigarettes, razors and beverage containers. In the broader context of waste reduction, single-use items can include the above-listed items made of other materials, including paper.

#### *Producer Responsibility as it Relates to Single-Use Plastics*

Disposable packaging from the residential sector is currently regulated through Extended Producer Responsibility programs. Recycle BC administers the Packaging and Paper Product Extended Producer Responsibility Plan on behalf of industry. Of the items listed above, all except straws and single-use utensils are captured through Recycle BC’s program.

As a contractor to Recycle BC, the City accepts plastic shopping bags, polystyrene foam cups and foam take-out containers, disposable hot and cold drink cups, and take-out food containers in its recycling programs. Many of these items are accepted in curbside or multi-family blue box/blue cart programs, whereas others are designated for drop off at the City’s Recycling Depot. While Recycle BC’s program is limited to materials generated from the residential sector, the City will accept these items at the City Recycling Depot (in reasonable quantities) from businesses.



### Referral Discussion

In addition to the referral, there was additional discussion at the April 15, 2019 General Purposes Committee meeting relating to health considerations for some items requiring liaison with Vancouver Coastal Health. Staff were also asked to consider the City's practices at City events relating to single-use plastics.

#### *Vancouver Coastal Health (Environmental Health)*

Vancouver Coastal Health (Environmental Health) has indicated they support waste reduction initiatives in general, with their principal focus relating to food safety under the B.C. Food Premises Regulation. Vancouver Coastal Health's concern would be for food safety in reusable containers brought by residents to food operators/establishments or any reusable containers provided by the food operator. Food operators are responsible, under their food safety and sanitation plans, to ensure that containers used to hold food are cleaned and sanitized. Further, they must ensure there is no opportunity for reverse contamination from the handling process when placing food into a reusable container. In relation to reusable straws, Vancouver Coastal Health's concern would be that these are difficult to clean to ensure food safety.

Vancouver Coastal Health maintains that the responsibility for food safety lies solely with the operator/establishment and that any procedures relating to this issue are reflected in the operator's sanitation and food safety plans which are reviewed and approved by Vancouver Coastal Health inspectors. These plans require that all food containers and related items be cleaned and sanitized. Vancouver Coastal Health staff have advised that they have only just begun development of an internal guidance document to support their review of the issue of reusable food safety containers/items. City staff understand that it will not be prepared for some time even for their internal use and nothing on this is available to other agencies or the public at this time.

The above reflects comments received from the Environmental Health section of Vancouver Coastal Health. It does not reflect comments or input from the Health Care section of Vancouver Coastal Health.

#### *City Practices at City Events*

On June 13, 2016, Council approved the "Sustainable Food Service Quick Guide". This document was endorsed as a tool to promote the use of sustainable food service items in City facilities and on City-owned land. In approving the guide, Council also directed staff to examine options for incremental restrictions on the use of plastic and foam materials and report back. Community Services staff are currently reviewing this matter and will report to Council separately on this referral in Spring of 2019.

#### *Other Agencies – Related Actions*

The issue of marine plastic pollution has garnered significant public attention, prompting action and commitments from various organizations, as discussed in the initial staff report. Two cities where action has been taken or is contemplated are reviewed in this report for Council's consideration – the cities of Vancouver and Victoria.

City of Vancouver – Single-Use:

The City of Vancouver commenced an initial review of single-use items in February, 2016 and has undertaken three phases of public consultation on the matter (reference Attachment 1). The initial target dates for regulatory actions in Vancouver, as outlined in the Richmond staff report titled “Single-Use Plastic Items – Proposed Consultation”, are now being delayed based on consultation feedback from industry. This is due to the complexity of issues raised during consultation necessitating further review, and business stakeholder feedback that the most meaningful support Vancouver can provide is enough time for businesses to find convenient, affordable and accessible alternatives. A lead time of 18-22 months was indicated by the Retail Council of Canada for businesses to effectively comply with the bylaw and adapt to the change.

The City of Vancouver aims to ban foam cups and foam take-out containers effective January 1, 2020. This will be followed by a ban on unnecessary use of plastic straws effective April, 2020. Options for plastic and paper shopping bags, disposable cups and utensils will be reported back to Vancouver Council no later than November 30, 2019. Vancouver Council directed their staff to report back on new options for a plastic bag ban that considers Victoria’s plastic bag ban, and the growing interest among neighbouring municipalities to collaborate on a plastic bag ban. Table 1 summarizes the City of Vancouver’s upcoming bylaw amendments:

Table 1: City of Vancouver: Summary of Upcoming Bylaw Requirements

Single-Use Item	Vancouver Bylaw requirement	Date of Vancouver Council Consideration	Vancouver Bylaw Effective Date	Enforcement
<b>Foam Cups</b>	<b>Ban</b> – applicable to business license holders	April 29, 2019	January 1, 2020	<ul style="list-style-type: none"> <li>• Education/outreach</li> <li>• Warning letters</li> <li>• Issuing tickets that could result in fines - \$250.00</li> <li>• Referral to prosecution for non-compliant operators</li> </ul>
<b>Foam Take-out Containers</b>	<b>Exemptions</b> – temporary for charitable food providers until January 1, 2020			
<b>Plastic Straws</b>	<b>Ban</b> – phased in approach to the unnecessary use of plastic straws, while requiring bendable plastic straws to be available upon request for accessibility	November, 2019	April, 2020	
<b>Plastic and Paper Shopping Bags</b>	Further details on the bylaw requirements for these items will be presented to Council no later than November 30, 2019			
<b>Disposable Cups Utensils</b>				

Additional actions noted by the City of Vancouver to support the transition of banning single-use polystyrene foam cups and take-out containers include educating the general public of the bylaw and effective dates, providing information on alternative materials and how to recycle, compost or otherwise dispose of these items, and awareness materials that can be used in-store to inform customers of the City’s bylaw.

Key issues of note from the City of Vancouver's consultation and findings into this issue are noted below:

- Single-use reduction is a complex undertaking that affects all food related businesses. Completing a fulsome engagement program that allows those affected to provide their comments and feedback, and to work with them on requirements, timing and alternatives is essential to achieving sustainable success. Due to a culturally diverse food service sector, engagement in alternative languages is necessary to ensure an inclusive process.
- The significant concerns around marine plastics go beyond single-use items to cover all types of material that are littered and disposed.
- Support from the City is needed to help the business community transition through facilitating information sharing between businesses and providing communication and education materials around alternatives.
- The challenges with single-use items extend beyond municipal jurisdiction. Consistent policy at the broadest geographic scale is needed. The City of Vancouver is urging provincial action to create a Provincial Single-Use Item Reduction Strategy that aligns with federal goals for reduction of plastic waste.
- The foam cup and foam take-out container ban concept for Vancouver is generally supported by stakeholders; however, affected businesses strongly indicated they need enough time to transition after enacting the bylaw (18 – 22 months). There are higher costs associated with transitioning away from foam cups and foam take-out containers. Vancouver staff intend to provide charitable food providers, hospitals and care facilities in Vancouver with an exemption of one year, with the exemption being repealed for charitable food providers on January 1, 2021 to respond to these concerns. This exemption was extended to include charitable food providers as the nature of the community service does not allow them to recover the cost of more expensive alternatives from clients. The one year exemption allows time for more affordable alternatives to become available.
- A study undertaken on the state of composting single-use plastic items was undertaken in Vancouver. The results indicate there is significant concern from commercial compost facilities relating to what is and is not compostable. Currently, any plastic bags, cups, take-out containers and utensils marked as biodegradable or compostable are considered contaminants in composting programs. Compostable plastics do not break down quickly enough in the composting process and it is too difficult to tell compostable plastics from non-compostable plastics. Richmond staff note that compostable plastics are not a permitted material under the provincial Organic Matter Recycling Regulation. A provincial approach to the issue of compostable plastics that addresses scientific and regulatory requirements will be important in the future and the City of Vancouver will pursue resolutions for provincial action via the 2019 UBCM convention. Richmond staff suggest this review also include non-plastic compostable single-use items as significant quantities of these items could also impact commercial compost facilities.

- Additional consultation on plastic straws is needed to work with individuals with accessibility challenges who rely on straws. In response, Vancouver staff are recommending that regulations that would require businesses to provide a bendable plastic straw when requested for accessibility, but otherwise prohibit businesses from giving out plastic straws, including compostable plastic straws. Vancouver is also engaging with bubble tea, smoothies and to-go drink businesses with a view to allowing time for industry to develop appropriate substitutes. This could include a phased approach, to allow business the opportunity to identify appropriate alternatives.
- Other proposed bylaw amendments for single-use involve complex issues, requiring additional consultation. Questions relating to supply chains, appropriate substitutes, support for small businesses, affordability and the need for consumer education to prepare for the changes is needed.

*Potential Richmond Actions Modelled on the Vancouver Approach:*

Should Council wish to mirror the actions being taken by the City of Vancouver to create consistency for residents and businesses between Richmond and Vancouver, staff recommend that the following resolutions be considered:

1. That:
  - a. Staff be directed to bring forward appropriate bylaw amendments to the Business Regulation Bylaw No. 7360 to ban foam cups and foam take-out containers effective January 1, 2020, with exceptions provided for charitable organizations, hospital/care facilities and food brought from other locations.
  - b. Staff be directed to bring forward appropriate bylaw amendments to the Municipal Ticket Information Bylaw No. 7321 to incorporate a ticketing provision for those businesses who violate Business Regulation Bylaw 7360 as amended per item a., above, effective January 1, 2020.
  - c. Staff be directed to bring forward appropriate bylaw amendments to the Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122 to incorporate a fine of \$250 for each instance where a business violates Business Regulation Bylaw 7360 as amended per item a., above, effective January 1, 2020.
2. That funding in the amount of \$300,000 be approved to support implementation of a foam cups and foam take-out containers ban as outlined in Attachment 2, with funding from the Sanitation and Recycling provision.
3. That funding for ongoing support, education and bylaw enforcement be included for Council's consideration in the 2020 and future Sanitation and Recycling utility budget and rates.
4. That staff bring forward two resolutions for the 2019 Union of British Columbia Municipalities convention requesting the provincial government's support to address single-use items by:

- a. Adopting a comprehensive provincial single-use item reduction strategy, and
  - b. Developing provincial standards for compostable single-use items ensuring they are designed to fully biodegrade if littered in the natural environment, that any standards and certifications for compostability are aligned with provincial composting infrastructure, and that compostable single-use items are collected and managed through an extended producer responsibility program that covers the residential and commercial sectors as well as materials from the public realm.
5. That the Mayor write the Chair of the Greater Vancouver Sewerage and Drainage District Board and the Ministry of Environment and Climate Change Strategy to develop a provincial single-use item reduction strategy.
  6. That staff monitor the City of Vancouver's actions relating to plastic straws and other single-use items and bring forward similar bylaw amendments at times which correspond with actions by the City of Vancouver.

An implementation summary which identifies key actions, exceptions, timelines, education/consultation and enforcement is contained in Attachment 2.

#### City of Victoria – Single-Use Checkout Bags:

The City of Victoria started their review of single-use checkout bags in May, 2016 and undertook two phases of engagement, leading to a phased ban starting July 1, 2018 and a full ban effective January 1, 2019 (reference Attachment 1). Details of Victoria's program are outlined below.

The Checkout Bag Regulation Bylaw applies to all businesses and restaurants in Victoria and intends to reduce plastic bag litter and waste in the community and landfill. The bylaw also regulates the distribution of alternative bags by charging a fee of \$0.15 for paper bags and \$1.00 for reusable bags. Staff note these fees are slated to increase to \$0.25 and \$2.00 respectively on July 1, 2019.

Table 2: City of Victoria: Summary of Checkout Bag Regulation Bylaw

Single-Use Item	Victoria Bylaw requirement	Victoria Bylaw effective date	Exemptions	Enforcement
<b>Checkout Bags</b>	Prohibit the sale or distribution of plastic bags  Must ask if the customer needs a bag – provide a paper or reusable bag for \$0.15 or \$1 respectively  No checkout bag is provided free of charge	July 1, 2018 (permitted use of existing plastic bag stock, no fine)  January 1, 2019 (no plastic bags permitted, fines permitted)	Does not apply to Small Paper Bags or bags used to: <ul style="list-style-type: none"> <li>Package loose bulk items such as fruit, vegetables, nuts, grains, candy, small hardware items</li> <li>Contain or wrap frozen foods, meat, poultry or fish, whether pre-packaged or not</li> <li>Wrap flowers or potted plants</li> <li>Protect prepared foods or bakery goods that are not pre-packaged</li> <li>Contain prescription drugs</li> </ul>	Emphasis on education and awareness – provided businesses with a “toolkit” of materials to bring awareness to their customers of the City bylaw  Extended period to allow business to use stock of plastic bag without penalty until January 1, 2019

Single-Use Item	Victoria Bylaw requirement	Victoria Bylaw effective date	Exemptions	Enforcement
			<ul style="list-style-type: none"> <li>from a pharmacy</li> <li>• Transport live fish</li> <li>• Protect linens, bedding or other similar large items that cannot easily fit in a reusable bag</li> <li>• Protect newspapers or other printed material intended to be left at the customer's residence or place of businesses, protect clothes after professional laundering or dry cleaning</li> </ul>	Use a three strike system: (1) Sustainability team member visits business in non-compliance – focus on education and awareness, (2) Bylaw officer to visit giving formal warning, (3) Bylaw officer tickets with fine of \$100 if found in non-compliance

*Potential Richmond Actions Modelled on the Victoria Approach:*

Should Council wish to regulate the distribution of checkout bags under its business regulation authority similar to that of the City of Victoria, staff could be directed to bring forward appropriate bylaw amendments to prohibit plastic checkout bags and regulate paper and reusable bags with incremental fees effective January 1, 2020 (with appropriate exemptions as listed in Table 2, above). A six month grace period to permit the use of existing plastic bag stock that was purchased by a business prior to the first reading of the bylaw should also be included.

An implementation plan similar to that outlined for foam cups and take-out containers (Attachment 2) would be required to prohibit plastic checkout bags.

**Summary of Local Government Tools**

There are various tools which can be considered either in isolation or in combination to support efforts to reduce single-use items and promote responsible environmental behaviours. The menu of options is summarized below:

*1. Education:*

To help increase general understanding of how residents and businesses can reduce the use of single-use items and gain community buy-in, focused efforts through outreach campaigns, community workshops, development of program materials and guides can be undertaken. This can include a focus on ways to limit the use of single-use items, provide helpful information on considerations for alternatives and incorporate renewed focus on anti-littering and anti-dumping campaigns. Examples include:

- a. Targeted behaviour change campaigns.
- b. Amplify existing education by working with non-profits and community groups.
- c. Best practices and business case development with business associations to develop and disseminate this information to the business community.

- d. Promotion to encourage reusable mugs, water bottles, etc. as well as reusable shopping bags and related actions.
- e. Pursue partnerships with local businesses and institutions to broaden awareness and develop showcase demonstration projects.
- f. Public art programs to bring awareness to the impacts of single-use plastic products in high profile locations.

2. *Regulation:*

There are a variety of methods that can be considered through regulation. Different options may be considered for different types of single-use items when considering issues of accessibility, health, safety or security. These are summarized below:

- a. Mandatory fees. Businesses can be required to charge fees for distribution of single-use items. The fee structure can fluctuate to promote the desired or preferred behaviour. Fees can be a good first phase of regulation or a complement to bans to avoid unintended consequences of businesses switching from one material to another.
- b. By request only. Businesses can be required to hand out single-use items to customers only if they ask for them. This can be a softer approach which respects accessibility and health issues. This could slow operations for businesses (taking more time to ask customers for their preferences).
- c. Mandatory discounts. As opposed to a disincentive through fees, businesses can be required to provide discounts to customers who, for example, bring their own drinking mugs or bags.
- d. Bans. Businesses can be required to not distribute specific single-use items.
- e. Require reuse/reduction targets. This approach allows businesses the flexibility to select their approach, giving them time to transition their staff and customers to adapt. Targets can be established that businesses must meet and report on. This could lead to innovative approaches, but could also be difficult to monitor from a performance perspective.

3. *Implement Reuse/Reduce Programs:* Cup and container sharing exchanges could be established, such as that used in Portland where the company 'GO Box' has eliminated the need for single-use disposables by providing a reusable take-out container service to 75+ food vendors in the city. With a monthly subscription (\$3.95/month or \$21.95/year), individuals may order a meal to go in a reusable container from any participating food vendor. Once finished, individuals return the dirty container to a designated drop-off location where the GO Box team will then collect and have them professionally cleaned, sanitized and redistributed to vendors.



### Legislative Framework

The *Community Charter* provides broad powers to local governments to regulate in relation to business. Municipalities however are obliged to provide, to persons affected by proposed business regulations, notice and an opportunity to make representation on the regulations. The notice requirements permit Council to determine the form and manner of notice that Council considers reasonable. This opportunity to provide representations must be provided before adoption of the bylaw.

### Retail Perspective

As highlighted in the City of Vancouver's consultation process, the issue of single-use plastics extends beyond municipal jurisdictions. Policy at the broadest geographic scale is needed, the mandate for which lies at provincial and federal government levels. While the City can undertake to regulate business, environmental protection policy actions require provincial and/or federal directives and/or endorsement.

The need for harmonization across jurisdictions is highlighted by the Retail Council of Canada (RCC) in their May 1, 2019 letter to Premier Horgan, contained in Attachment 3. RCC's letter provides a broader perspective of the complexities for business in adhering to varying regulations across jurisdictions, the challenges facing retailers in this landscape, action already being undertaken by retailers to reduce the distribution of single-use items, as well as recommendations for a province-wide action plan to achieve greater environmental outcomes.

### **Financial Impact**

Funding for actions directed by Council can be accommodated in 2019 from the General Solid Waste and Recycling provision, requiring an amendment to the 5-Year Financial Plan (2019-2023). Funding requirements in 2020 and future years would be incorporated into the sanitation and recycling utility budgets and rates.

### **Conclusion**

This report presents a summary of actions being undertaken by the cities of Vancouver and Victoria relating to single-use plastic items. A draft framework for the City of Richmond to follow a similar approach is also outlined. A summary of local government tools is also provided for Council's consideration.

The City of Richmond is able to regulate this matter under the provisions of the *Community Charter*, and is obliged to provide persons affected the opportunity to make representation on the regulations.

A key consideration in reviewing regulatory options to ban or restrict single-use plastics is the need to create consistency for business across multiple jurisdictions for a wider geographic impact. Undertaking fulsome engagement with the business community and providing adequate time to transition to new regulatory requirements is needed, as is educational support from the City. Ensuring sound information on alternatives which take into account life cycle impacts to

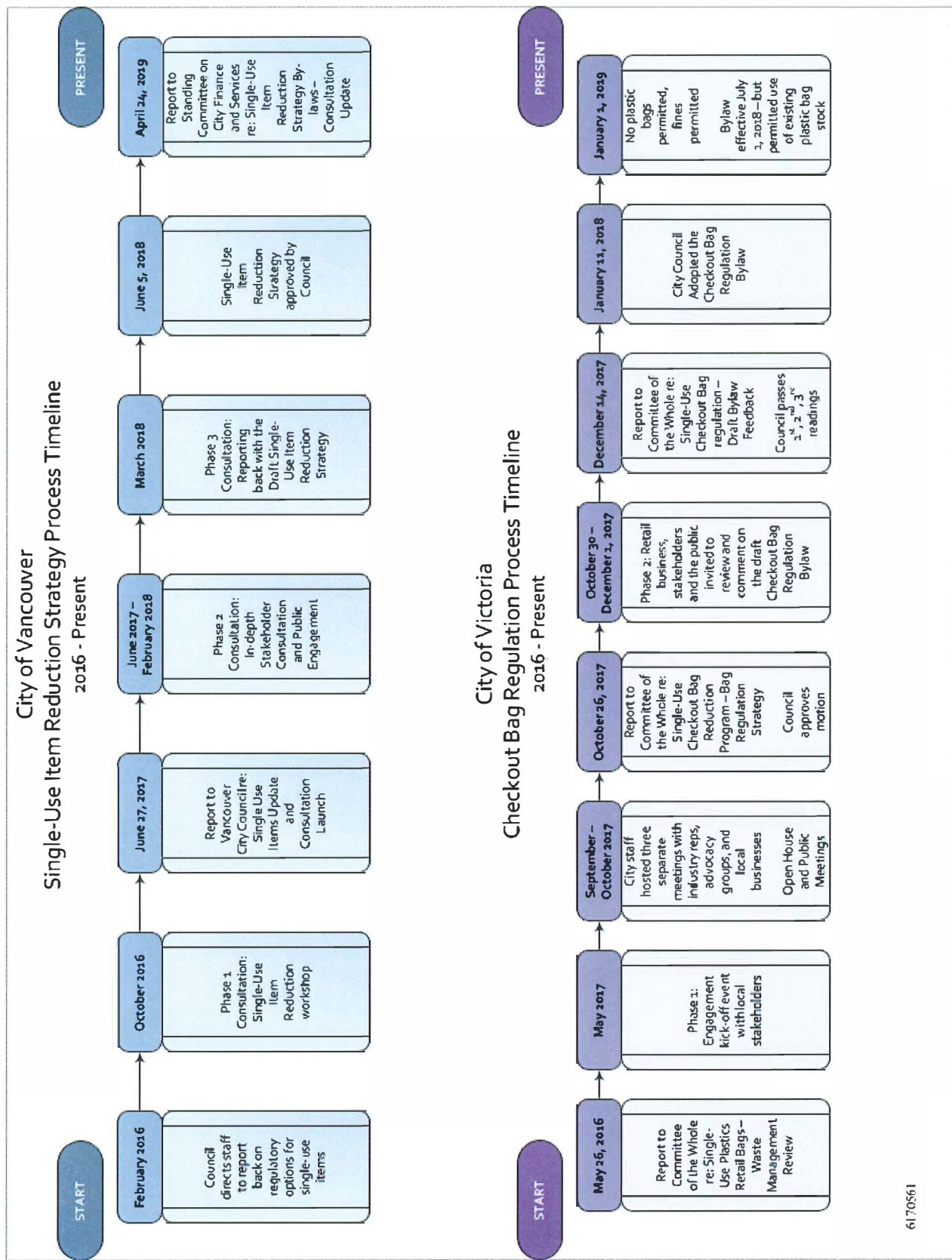
avoid unintended consequences is another consideration. Provincial and/or federal standards in this area would be beneficial for all stakeholders.



Suzanne Bycraft  
Manager, Fleet and Environmental Programs  
(604-233-3338)

SJB

- Att. 1: Summary of Regulatory Process Timelines (Vancouver and Victoria)  
2: Projected Implementation Plan Measures and Costs  
3: Retail Council of Canada May 1, 2019 letter to Premier John Horgan



## City of Richmond: Projected Implementation Plan Measures and Costs

## A. Foam Cups and Foam Take-Out Containers

		Timelines	2019 Implementation Cost
<b>1.</b>	<b>Bylaw Development</b>		
	<ul style="list-style-type: none"> <li>a) Amend <i>Business License Bylaw No. 7360</i> to include a ban on food vendors from providing prepared food in any food service ware that contains polystyrene foam.</li> <li>b) Amend <i>Municipal Ticket Information Authorization Bylaw No. 7321</i> to add ticketing provisions for foam cups and foam take-out containers.</li> <li>c) Amend <i>Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122</i> to incorporate fines.</li> </ul> <p><u>Exemptions:</u></p> <ul style="list-style-type: none"> <li>d) Hospital or licensed community care facility</li> <li>e) Charitable society or organization</li> <li>f) Prepared food containers that have been filled and sealed outside of the City</li> </ul>	<p>Amended bylaws to July 22, 2019 Council meeting for approval.</p> <p>Effective date for bylaw January 1, 2020.</p> <p><i>Exemption repealed for charitable organizations January 1, 2021.</i></p>	
<b>2.</b>	<b>Resource Toolkit</b>		\$85,000
	<ul style="list-style-type: none"> <li>a) Engage a technical expert to support development of an alternative/suitable materials options guide in English, Mandarin and Cantonese languages</li> <li>b) Develop a bylaw awareness toolkit for businesses with printed materials to be used in-store to inform employees and customers about the City bylaw changes</li> <li>c) Plain language descriptions of the bylaw requirements and effective dates</li> <li>d) Frequently Asked Questions for business employees to answer public questions in-store</li> <li>e) Roll out toolkit with affected businesses</li> </ul>	<p>Commence development on Council approval.</p> <p>Deliver/provide information through effective date of bylaw and beyond, as required.</p>	
<b>3.</b>	<b>Education</b>		\$125,000
	<p>Engage consulting support to assist with development and delivery of an outreach program and related materials to raise awareness about new requirements and the need to reduce single-use plastics:</p> <p><u>Phase 1: Business</u></p> <ul style="list-style-type: none"> <li>a) Workshops and communication through the Chamber of Commerce and other business associations, including non-English speaking business owners</li> <li>b) Direct mail to affected businesses</li> <li>c) Bill insert with business license renewal/tax notice to affected businesses</li> <li>d) Bylaw Bulletin (English, Mandarin and Cantonese languages)</li> <li>e) Guide outlining alternative materials and answers to frequently asked questions</li> </ul> <p><u>Phase 2: General Public</u> (English, Mandarin and Cantonese languages)</p> <ul style="list-style-type: none"> <li>f) News Release</li> <li>g) Media Event</li> <li>h) Social Media</li> <li>i) Website</li> <li>j) Designated email and hotline</li> <li>k) Information display highlighting alternative materials – use at events and in City facilities</li> <li>l) Bill insert in utility notice</li> </ul>	<p>Commence upon Council approval.</p> <p>Deliver through effective date of bylaw and on-going in 2020.</p> <p>Deliver through effective date of bylaw and on-going in 2020.</p>	

		Timelines		2019 Implementation Cost
<b>4. Enforcement</b>				
Define an enforcement/tracking process with City Bylaws Department. It is estimated that an additional resource/officer position would be required for first year (approximately \$100,000) with on-going enforcement costs evaluated for future funding requirements.  General enforcement approach is outlined below: a) Distribute warning letter to food vendor found in non-compliance b) If food vendor remains in non-compliance - issue a fine of \$250.00 under the bylaw c) Referral to prosecution for non-compliant food vendors			January 1, 2020 <i>Exemption repealed for charitable organizations January 1, 2021.</i>	Cost to be included in 2020 budget allocations.
<b>5. Advocacy</b>				
Write to the Chair of the Greater Vancouver Sewer and Drainage District Board and the Ministry of Environment and Climate Change Strategy requesting support for the development of a Provincial Single-Use Item Reduction Strategy.		Undertaken upon Council approval of approach.	UBCM Resolution: September 23 – 27, 2019	
<b>6. Administration</b>				\$90,000
a) Dedicated coordination b) Outreach support; i.e. call representative				
Total 2019 Estimated Cost (on-going costs to be identified in 2020 and subsequent budgets)				\$300,000



410-890 Pender St W  
Vancouver, BC V6C 1J9  
(604) 736-0368  
1 (800) 663-5135

1 May 2019

Premier John Horgan  
PO Box 9041, Stn Prov Govt  
Victoria, B.C. V8W 9E1

**By electronic mail to: [premier@gov.bc.ca](mailto:premier@gov.bc.ca)**

Dear Premier Horgan,

**Subject: Harmonized province-wide action on single-use item reduction**

*Retail is Canada's largest private sector employer with over 2.1 million Canadians working in our industry. The sector annually generates over \$76 billion in wages and employee benefits. Core retail sales (excluding vehicles and gasoline) were \$375 billion in 2018. Retail Council of Canada (RCC) members represent more than two-thirds of core retail sales in the country. RCC is a not-for-profit industry-funded association that represents small, medium and large retail businesses in every community across the country. As the Voice of Retail™ in Canada, we proudly represent more than 45,000 storefronts in all retail formats, including department, grocery, specialty, discount, independent retailers and online merchants.*

RCC is writing to encourage the Government of British Columbia to undertake province-wide harmonized action with respect to the reduction of plastic single-use items. Provincial action is critical to provide: (a) improved environmental outcomes, (b) lower operational and cost impacts for business, and, (c) lower cost impacts for consumers.

We are cognizant that this is a matter currently under discussion with the Federal government and other provinces, including through the Canadian Council of Ministers of the Environment. Prince Edward Island has already instituted harmonized action on plastic check-out bags; the Government of Newfoundland and Labrador has indicated that they intend to take similar action; and, New Brunswick's Minister of Environment has indicated that he is open to harmonized action.

In every Canadian province, retail is one of the most competitive sectors of the economy. Retailers are in constant competition for customers. Even in small towns, retail competition is no longer limited to the brick-and-mortar retailer, as competition now includes online retailers from the United States and overseas. In such a competitive environment, customer demands have increased, profit margins have decreased, and customer service is more important than ever. It is critical that any action taken by the Province not unintentionally tilt the balance to retailers from outside the Province.

On March 13, 2019, Metro Vancouver wrote the Province to encourage harmonized action on single-use items. Metro Vancouver argues that "a provincial single-use item reduction strategy is essential to reducing the volume of plastic entering the waste stream in the Province of B.C." RCC concurs with Metro Vancouver.

Retail is urging British Columbia to act expeditiously because harmonized action is greatly preferable to hundreds of municipalities taking a myriad of different approaches to solutions. A harmonized

approach will provide better environmental outcomes, have lower operational impacts on business, and will be less costly to consumers.

The existing situation, where one local government has already passed a bylaw, at least 28 other local governments have discussed enacting bylaws, and virtually all B.C. municipalities have had a discussion on this subject, is creating a landscape where operating a retail business in British Columbia is becoming overly complex.

### **Retail Action To Date**

RCC members have already taken significant actions to reduce the distribution of single-use items. Ours is a very competitive industry and we are reliant upon Government to maintain a level playing-field. A situation where a store on one side of a major arterial road is subject to one set of rules, and their competitor on the other side of the street is not, is inherently uneven.

1. Retail has already, on a widespread basis, instituted fees for checkout bags. These bag fees have an immediate impact on reduction of bag distribution. However, imposition of the fees has reduced the service we are providing to our customers, and impacted affordability for those consumers of limited means, and, those with disabilities.
2. Retail, working with manufacturers, built and funded a blue box system that collects packaging and paper products. Unfortunately, it is less practical to collect soft plastic and small single-use plastics through the blue box and therefore the system is reliant upon depots and return-to-retail to collect many single-use plastics.
3. Retail is a member of the non-profit corporation that operates Encorp Pacific. Encorp is one of the world's most successful used beverage container recovery programs and is the "gold standard" for British Columbia's extended producer responsibility programs.
4. Retail actively participates in 26 different product stewardship programs in British Columbia – the most extensive producer responsibility regime in North America. B.C.'s stewardship programs, in aggregate, already cost British Columbian consumers more than \$500 million annually.
5. For many decades, individual retail stores have voluntarily accepted the return of packaging and products and ensured that end-of-first-life material was managed appropriately.

### **Recommendations**

Civil society continues to press for action to reduce the proliferation of plastic single-use items. The City of Vancouver has undertaken a significant effort and produced very worthwhile recommendations on how to proceed. That work can form the basis of solutions province-wide.

From our experience in jurisdictions with bag bans, mandatory bag fees and other bylaw parameters, we have some relevant learnings for a province-wide action plan:



1. Phased approach: The retail industry's preference would be to start with a two-year mandatory minimum single-use plastic bag fee prior to the introduction of a ban to move consumers along the path to meaningful reduction. If this is not an option Government is willing to consider, only a mandatory single-use plastic bag ban will produce the result that communities demand.
2. Simple fee structures: if the government does choose to institute fees for plastic single-use items, we note that each of these fees will require reprogramming point-of-sale equipment to charge that fee, or staff training to charge those fees. This reprogramming and training is particularly more onerous and unaffordable for small business. Accordingly, we favour one standard flat fee over various plastic single-use items that remains constant – to simplify the operational impacts for small business.
3. Retailers do not support single-use item fees remitted to the Government due to the significant administrative and cost burdens. Moreover, this could have an unintended impact of reducing the retailers' interest in providing the best environmental outcome in favour of the lowest cost.
4. A standardized list of exemptions will simplify consumer-citizens' understanding of the system, and greatly simplify the impacts on retail operations. Common exemptions include plastic bags used to:
  - package or contain loose bulk items such as fruit, vegetables, nuts, grains, or candy
  - package or contain loose small hardware items such as nails, screws, nut and bolts
  - package or contain or wrap frozen foods, meat, poultry, or fish, whether pre-packaged or not
  - wrap flowers or potted plants
  - protect prepared foods or bakery goods that are not pre-packaged
  - contain prescription drugs and over-the-counter medications
  - transport live fish
  - protect household linens such as draperies, bedding, and other similar items that cannot easily fit in a reusable bag
  - protect fragile and breakable items such as glassware, ceramics, ornaments and lighting products
  - protect newspapers or other printed material intended to be left at the customer's residence or place of business
  - protect clothes after professional laundering or dry cleaning
  - protect tires that cannot easily fit in a reusable bag
5. Standardized definitions of plastic and reusable bags will also simplify consumer-citizens' understanding of the system and greatly simplify the impacts upon retail operations. The most common definitions of these are:

"single-use plastic bag" means any bag made with plastic, including biodegradable plastic or compostable plastic, but does not include a reusable plastic bag;

"reusable plastic bag" means a bag with handles that is

- (i) intended to be used for transporting items purchased or received by the customer from a business, and
- (ii) designed and manufactured to be capable of at least 100 uses.

6. Environmental impact must be considered. While we recommend that there be a minimum cost for reusable plastic bags, we note that there is a significant difference between the environmental impact of several bag types. We prefer that the creation of environmentally-benign reusable bags be encouraged.

One municipality initially included language mandating that reusable bags be machine-washable – which would have excluded jute bags. Other municipalities considered mandating cloth bags, although polyester textiles may contribute a significant volume of micro-plastic to our natural environment. Cotton production not only uses significant water resources, but traceability becomes critical to avoid purchase from jurisdictions with poor labour practices.

7. It is critical that any law be written in a manner that is respectful of both those with disabilities, and, those of limited income. (We need to identify ways of answering the needs of those with disabilities and those without stable homes. One unintended consequence of a ban is that people on crutches or using medical devices find it hard to use a paper bag versus a plastic bag with handles. Another is that people living on the street prefer plastic over paper because plastic helps keep belongings dry.)
8. Affordability and outcomes must be considered together. The majority of plastic bags distributed by retailers are reused by consumer-citizens for disposing household trash. These are replaced by consumers through the purchase of packages of plastic bags designed for household trash. This has a significant negative impact upon low-income households (and does not provide any meaningful environmental benefit). The province and local government must prioritize actions to reduce consumer demand of plastic bags used to store and transport household trash.
9. We advocate for language which is flexible enough to permit a retailer to waive any fee for the paper bags (and other paper-fibre single-use items) that will inevitably replace a portion of those plastic bags (and other plastic single-use items) to provide business with the discretion to not charge the disabled, seniors or low-income members of their communities. The fine provisions also can limit a retailers' ability to appropriately compete in the retail marketplace – for example, offering branded reusable bags for Earth Day.
10. Great care must be taken when drafting compliance provisions. Several existing bylaw compliance proposals provide for fines to retail workers who fail to comply with the bylaw. In some cases, the cause of non-compliance may be for a bona fide customer service cause – for example, to replace a low-income consumer's reusable bag

RCC accepts that in the present day there are two outcomes that will replace single-use items – reusable products that may also be made of plastic, and paper products. We are dissatisfied with these outcomes. For example, paper bags are significantly heavier. Their manufacture and transport produce significantly more greenhouse gases. Reusable plastic products are most often comprised of more plastic fibre than single-use items. Only a significant number of reuses of reusable plastic products produces a better environmental outcome.

Retail Council of Canada | Conseil canadien du commerce de détail

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Accordingly, we urge Government to promote innovation in packaging and product design and caution Government not to inadvertently promote a path that leads to lesser environmental outcomes.

RCC and our members welcome discussions with your Government on the issue of single-use plastic items as we continue those discussions with other Provinces. Thank you for taking the views of British Columbia's retail sector into consideration on this issue. Should you have any questions, concerns or comments regarding this letter, please feel free to contact me.

Yours truly,



Greg Wilson  
Director of Government Relations (B.C.)

Copy: Hon. George Heyman, MLA, Minister of Environment and Climate Change Strategy  
Andrew Wilkinson, MLA, Leader of the Official Opposition  
Members of the Legislative Assembly  
Metro Vancouver Regional District  
Local governments considering plastic ban bylaws  
Retail Council of Canada members operating stores, and employing people, in B.C.



# City of Richmond

## Report to Committee

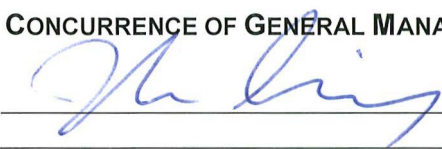


**To:** General Purposes Committee  
**From:** Tom Stewart, AScT.  
Director, Public Works Operations  
**Date:** May 2, 2019  
**File:** 10-6370-01/2019-Vol  
01  
**Re:** **Single-Use Plastic Items – Preliminary Research Scan**

### Staff Recommendation

That the staff report dated May 2, 2019 titled “Single-Use Plastic Items – Preliminary Research Scan” from the Director – Public Works Operations, be received for information.

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

Att. 1

REPORT CONCURRENCE		
<b>ROUTED TO:</b>  Sustainability	<b>CONCURRENCE</b>  <input checked="" type="checkbox"/>	<b>CONCURRENCE OF GENERAL MANAGER</b> 
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

A staff report titled, “Single-Use Plastic Items – Proposed Consultation” (Attachment 1), dated April 2, 2019 was considered at the April 15, 2019 General Purposes Committee meeting. This report provides additional information to support Council’s review of the matter of single-use plastic packaging. Potential waste and emission impacts relating to the life cycle assessment process of alternatives and the importance of evaluating City-specific current and potential challenges are provided to help frame a well-informed decision.

### Analysis

Further research into the issue of single-use plastic packaging has highlighted the complexities of the issue, particularly as it relates to the viability and impacts of alternatives, existing supply chain management issues, life cycle assessment and industry and user stakeholder considerations. Within the City’s mandate of business regulation, it is important to draw parallels to actions taken by the City in support of overall waste management objectives and emissions reduction targets. A better understanding of these issues is important to more fully support any transition from single-use packaging items. This is particularly important to avoid unintended consequences of substituting alternatives that could create more waste or generate greater emissions when life cycles are considered.

### Life Cycle Assessment Considerations

The International Standards Organization (ISO) defines life cycle analysis as a comprehensive impact assessment of a product or service throughout its life cycle, from extraction of raw materials to end of life. All phases including acquisition of resources, production, distribution, use and end of life impacts are considered. Consideration of life cycle impacts of various single-use items can help to avoid unintended negative consequences when considering policy changes.

The following presents preliminary review findings for checkout bags and compostable packaging, as well as considers study findings related to human behaviour.

### *Disposable Shopping Bags*

There are generally five different types of single-use disposable shopping bags:

1. Conventional plastic;
2. Oxodegradable plastic;
3. Compostable bioplastic;
4. Thick plastic; and
5. Paper.

Table 1 summarizes early research findings relating to the life cycle of these various disposable bags.

Table 1: Comparison of Disposable Shopping Bags - Life Cycle Considerations

	Material	Life Cycle Considerations/General
<b>Conventional Plastic Bags</b>	<ul style="list-style-type: none"> <li>High density polyethylene</li> <li>17 microns thick</li> </ul>	<ul style="list-style-type: none"> <li>Low environmental impact for extraction, production, distribution and use.</li> <li>More impact when abandoned in the environment.</li> <li>Lowest overall environmental impact when recycled.</li> </ul>
<b>Oxodegradable Plastic Bags</b>	<ul style="list-style-type: none"> <li>High density polyethylene</li> <li>17 microns thick</li> </ul>	<ul style="list-style-type: none"> <li>Low environmental impact for extraction, production, distribution and use.</li> <li>Designed to only degrade when exposed to oxygen.</li> <li>Same impact as conventional plastic when abandoned in the environment.</li> <li>Not accepted for recycling in conventional programs as they contaminate recycling and composting streams.</li> </ul>
<b>Compostable Bioplastic Bags</b>	<ul style="list-style-type: none"> <li>Cellulosic materials – wood, plant fibers and several types of plastic (PLA, PHA, HDPE, LDPE, PET, TPS)<sup>1</sup></li> <li>20 microns thickness</li> </ul>	<ul style="list-style-type: none"> <li>High amount of fossil fuels used in production – agricultural, fertilizers, milling, fermentation, etc.</li> <li>Replace fossil fuel-based inputs with renewable inputs.</li> <li>Biodegradable does not mean bio-based.</li> <li>Not all bio-based materials are compostable.</li> <li>Not accepted for recycling in conventional programs as they contaminate recycling streams.</li> <li>Not accepted in commercial composting operations.</li> </ul>
<b>Thick Plastic Bags (shopping mall type)</b>	<ul style="list-style-type: none"> <li>Low density polyethylene</li> <li>50 microns thickness</li> </ul>	<ul style="list-style-type: none"> <li>Uses higher amounts of fossil fuels in production, distribution and use (due to thickness).</li> <li>When used four or more times, impact is equal to that of a conventional plastic bag.</li> <li>More impact when abandoned in the environment.</li> </ul>
<b>Paper Bags</b>	<ul style="list-style-type: none"> <li>Unbleached kraft paper</li> </ul>	<ul style="list-style-type: none"> <li>High impacts on resource and energy use, and water contamination during processing.</li> <li>Causes 14 times the impact on water quality and consumes 4 times more water than a conventional plastic bag.</li> <li>Low impact if abandoned in the environment.</li> </ul>

<sup>1</sup> polylactic acid (PLA), polyhydroxyalkanoates (PHA), high-density polyethylene (HDPE), low-density polyethylene (LDPE), laminated films (variety of feedstocks), polyethylene terephthalate (PET) and thermoplastic starch (TPS).

A preliminary scan of environmental life cycle assessment studies for single-use items from Quebec, the United Kingdom, and Oregon indicated that conventional plastic bags have the least environmental impact when considering resource extraction, production, distribution, and use. The conventional plastic bag has more environmental impact when discarded directly into the environment. Oxodegradable bags should be avoided entirely due to the fact that oxodegradable bags do not decompose, but rather fragment into tiny fragments of plastic only when exposed to oxygen. Thick plastic bags need to be used four or more times to be more environmentally beneficial. Paper bags are considered least performing as they cause 14 times the impact on water quality, consume 4 times the water, generate 3 times the amount of waste, and 3 times the greenhouse gas emissions when compared to conventional plastic bags.

### *Reusable Shopping Bags*

There are three types of typical reusable bags:

1. Woven plastic,
2. Non-woven plastic, and
3. Cotton

**Table 2: Comparison of Reusable Shopping Bags - Life Cycle Considerations**

	<b>Material</b>	<b>Life Cycle Considerations/General</b>
<b>Woven Plastic Bags</b>	<ul style="list-style-type: none"> <li>• Polypropylene (PP)</li> <li>• Thin plastic strips woven together (e.g. rice bags)</li> </ul>	<ul style="list-style-type: none"> <li>• Uses higher amounts of fossil fuels in production, distribution and use (due to thickness).</li> <li>• When used 16-98 times, impact is equivalent to that of a conventional plastic bag.</li> </ul>
<b>Non-Woven Plastic Bags</b>	<ul style="list-style-type: none"> <li>• Polypropylene (PP)</li> <li>• Melted PP granules, transformed into fibres and hot pressed into a textile (reusable material bags)</li> </ul>	<ul style="list-style-type: none"> <li>• Uses higher amounts of fossil fuels in production, distribution and use (due to thickness).</li> <li>• When used 11-59 times, impact is equivalent to that of a conventional plastic bag.</li> </ul>
<b>Cotton Bags</b>	<ul style="list-style-type: none"> <li>• 100% natural fibre</li> </ul>	<ul style="list-style-type: none"> <li>• High amount of resources and fossil fuels used in production – land use, fertilizers, energy use, etc.</li> <li>• Replace fossil fuel-based inputs with renewable inputs.</li> <li>• When used 131 times, impact is equivalent to that of a conventional plastic bag.</li> <li>• Low impact if abandoned in the environment.</li> </ul>

As shown in Table 2, when comparing these different bag types, studies have shown that woven and non-woven polypropylene bags need to be used numerous times to outperform the lifecycle of a conventional plastic bag. If reused a sufficient number of times, these woven and non-woven plastic bags pose the least overall environmental impact. A cotton bag has to be reused 131 times to match the equivalent greenhouse gas emissions from a conventional plastic bag. These types of bags are typically disposed at end of life, with no current options for recycling.

A 2019 University of Sydney School of Economics study indicated that while disposable shopping bag bans have the effect of significantly reducing or eliminating their production and use, sales of garbage bags typically increase. The study showed that the purchase of store bought garbage bags increased by 120% for small trash bags following implementation of a ban on the distribution of conventional plastic bags. Even with this increase, there is still a net reduction of the overall plastic film produced.

### Compostable Packaging

There are similar complicating factors to be considered when evaluating compostable materials as a substitute for traditional plastic packaging.

1. *Compostable Plastics*: All commercial composting operations licensed in British Columbia do not accept compostable or bio-plastics. These materials are not permitted under the provincial *BC Organic Matter Recycling Regulation*. Key issues include:



- a. Compostable bio-plastics generally showed higher degradability in soil environments, but many do not degrade in fresh water and marine environments. For this reason, they are considered comparable to conventional plastics in terms of their potential to harm fresh water and marine ecosystems.
  - b. There is a risk of spreading compounds and other materials from the composting process into the soil environment.
2. *Compostable Packaging*: Early research into other/paper compostable packaging items indicates:
- a. Compostable products exhibited significantly higher impacts in a large majority of comparisons due to resource extraction and other life cycle considerations.
  - b. Some paper based packaging can be treated with lining compounds for moisture resistance. The make-up of these compounds needs to be reviewed from a safety perspective, as these compounds can accumulate in the human body.
  - c. There are risks of spreading compounds and other materials from the composting process into the soil environment.

Consultation with composting facility operators is required as part of evaluating their ability to accept the array of new products being introduced into the marketplace which are being labelled as “compostable”. Certification standards, look-a-like products, and increased quantities of materials for handling are issues that need to be reviewed with composting facility operators. Otherwise, they risk added financial cost (e.g. removing look-a-likes and other non-compostables at the tipping/sorting stations) and potentially lower value for the finished compost if quality is impacted.

### Consumer Trend Behaviours

A 2014 life cycle assessment study of grocery bags commonly used in the United States was conducted by Clemson University. It revealed the following trends in check-out bag usage:

- 28% of people had acquired a reusable grocery bag;
- 87% of those had used reusable bags for groceries;
- Consumers forgot to bring their reusable bags 40% of the time;
- Low density polyethylene bags are designed for approximately 125 uses, but are used on average only 3.1 times which poses greater consumption rates and higher environmental impacts than a conventional plastic bag;
- Less than 10% of people use the low density polyethylene bag the recommended number of times (125);
- Between 25-40% of people are reusing their non-woven polypropylene bags enough times to warrant the per-bag environmental impact; and
- 15% of consumers wash their reusable bags, and 23% never wash them.

### *Summary Context*

This discussion highlights that a greater understanding of the complexities would be helpful in supporting the business community and residents in substituting appropriate alternatives. A technical study to scan and summarize relevant studies to guide the use of alternatives is suggested.

### **Other Considerations**

There are a variety of other issues that would need to be understood and considered as part of technical analysis and consultation on this issue, including:

- *Impacts to food spoilage.* Plastic packaging extends product shelf life by restricting oxygen exposure to the packaged food item. For example, a plastic wrapped cucumber typically lasts more than three times as long as an unwrapped one. There are direct impacts to waste generated from food spoilage.
- *Cost impacts.* There are higher costs associated with transitioning from plastic packaging, although these could balance over time as industry adapts.
- *Business model impacts.* The current industry supply chain has been built around existing packaging types. Understanding the impacts and adjustments needed would be an important aspect of implementing change. Those industrial businesses most impacted through their manufacturing processes are likely to want their input considered.
- *Geographic Impacts.* This issue is broad-based and crosses multiple municipal jurisdictions. Action at higher levels of government to create a level playing field for businesses and residents alike is needed to avoid confusion. This should include consistent standards to avoid false-marketing of products labelled as environmentally-preferred when these products could have even greater negative environmental impacts.

### Richmond Business Scan

There are approximately 2,096 businesses in Richmond that may be affected by regulation, including 839 licenced food vendors and 1,257 retail trading businesses. Based on the experience of other jurisdictions, many will require support from the City in understanding alternatives, and in providing outreach materials each can use to convey the regulatory nature of the change to their customers. Preparing educational materials in multiple languages will be an important aspect of any outreach program.

### Detailed Approach to Review Single-Use Packaging Issues – Technical Review/Consultation

An approach based on technical research and community consultation would involve:

#### *1. Additional Technical Research*

The scope of this work would include a more detailed technical review of the life-cycle impacts of single-use packaging and preferred alternatives. The review would consider the impacts of various single-use packaging material items, industrial considerations,

impacts of alternatives, regulatory tools and precedents, implementation considerations and specific engagement strategies. This document would be used to frame a discussion paper for use during consultation and would ultimately formulate into an information guide for use by businesses and residents on banned items with suggested alternatives, pitfalls to be avoided, etc.

The review will also attempt to quantify the impacts of single-use packaging for litter operations and other operational impacts (street sweeping, drainage system) specific to Richmond, as part of establishing indicators to measure the effectiveness of single-use policy changes.

Timeframe: Three months.

Estimated Cost: \$35,000

## 2. *Discussion Paper*

Stemming from the work done on the technical research, the discussion paper would include an informed discussion on life cycle issues, provide guidance on alternate products and frame the rationale to support the need for policy change. The Discussion Paper would inform the consultation program designed to gauge community support for bans or other policy levers to reduce or eliminate single-use packaging, including those most impactful for Richmond. Based on input received and findings through the consultation process, the Discussion Paper would evolve into a Reference Guide for alternative materials for businesses and stakeholders.

Timeframe: Two months

Estimated Cost: Included in above.

## 3. *Stakeholder and Community Consultation*

Two phases of consultation would be undertaken. The first being with business and stakeholder industry organizations to review the impacts of regulating single-use packaging, how business would be involved in supporting the regulations and resources they would require, practicality and preferred methods of regulation, as well as methods to evaluate evolving research and development in this area. This work would include engagement with other local regional governments to determine if a regional approach could be developed.

The second phase would involve consultation with residents as part of raising awareness, obtaining public opinion on problematic items, educating on alternatives and gauging public opinion on policy approaches.

Timeframe: Five months.

Estimated Cost: \$90,000

#### *4. Coordination/Administration*

A dedicated resource would administer the technical review, community consultation process, and engage internal City stakeholders. Development of a policy approach and strategy document for implementation as well as on-going support requirements in future years, would be the deliverable.

Timeframe: Six months

Estimated cost: \$60,000

The above is a general overview of the expected effort to effectively deliver a proposed strategy based on a consultative approach. Specific aspects may vary as the process unfolds. Total estimated costs for the technical research and consultative approach are \$185,000.

#### Options

There are a number of options Council can consider to advance actions on single-use packaging and single-use plastics. These range from direct policy actions to ban single-use plastic packaging, to requesting action by provincial and federal authorities, who have the direct mandate to regulate for environment protection purposes.

A summary of potential options include:

1. Implement policy actions to mirror those of the City of Vancouver, as outlined in the April 25, 2019 staff report titled “Single-Use Packaging”.
2. Undertake technical review and consultation, as outlined above and in the staff report dated April 2, 2019 titled, “Single-Use Plastic Items – Proposed Consultation”.
3. Advocate to provincial and federal authorities to take appropriate action to create a level playing field in relation to single-use packaging and creation of clear compost ability standards for packaging that is compostable.

#### **Financial Impact**

None.

## **Conclusion**

This report provides additional information to support Council's review of single-use packaging. Information relating to considerations for environmental life cycle assessments of alternative products is presented for consideration. More detailed information on the approach for a technical review/consultative approach, as outlined in the April 2, 2019 "Single-Use Plastic Items – Proposed Consultation" staff report, is provided.

Given the complexities of the issue of single-use packaging, need for clear standards and a level playing field across multiple jurisdictions, a coordinated approach which includes policy actions at provincial and federal government levels is required.



Suzanne Bycraft  
Manager, Fleet and Environmental Programs  
(604-233-3338)

SJB:

Att. 1: April 2, 2019 "Single-Use Plastic Items – Proposed Consultation" staff report




# City of Richmond

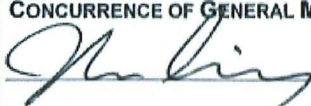


## Report to Committee

**To:** General Purposes Committee **Date:** April 2, 2019  
**From:** Tom Stewart, AScT. **File:** 10-6370-01/2019-Vol 01  
 Director, Public Works Operations  
**Re:** Single-Use Plastic Items – Proposed Consultation

### Staff Recommendation

1. That Option 2 as outlined in the staff report titled, "Single-Use Plastic Items – Proposed Consultation", dated April 2, 2019 from the Director, Public Works Operations, be endorsed.
2. That expenditures in the amount of \$185,000 be approved, with funding from the General Solid Waste and Recycling provision, and that the 5-Year Financial Plan (2019-2023) be amended accordingly.

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

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Law	<input checked="" type="checkbox"/>	
Recreation Services	<input checked="" type="checkbox"/>	
Sustainability	<input checked="" type="checkbox"/>	
Finance	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

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### Staff Report

#### Origin

This report responds to a referral to staff at the February 19, 2019 General Purposes Committee meeting where Committee endorsed the following referral motion:

*"Whereas plastic pollution is a major threat to our environment and it is estimated that approximately three billion plastic bags are used annually in Canada. The average plastic bag is used for 20 minutes and takes more than 400 years to break down;*

*Whereas Canada is a signatory of the Ocean Plastics Charter in September 2018 and more than 60 countries have taken action to fight plastic pollution;*

*Whereas in September 2018 a motion was unanimously passed at the UBCM Convention to call for a provincial ban on plastic bags and some cities, such as Victoria and Salmon Arm, already have bylaws to ban single-use plastic bags; and*

*Whereas Vancouver has voted to ban the distribution of plastic drinking straws as well as foam containers and cups commencing June 1, 2019;*

*Therefore be it resolved that staff be directed to study the merits and practicability of banning single-use plastic items including plastic bags and plastic drinking straws in Richmond and report back with recommendations in 60 days."*

This report also provides broader information concerning the challenges associated with plastics in the environment. The report outlines a suggested strategy to be developed through a community consultation and engagement program.

#### Background

##### Richmond's Current Solid Waste and Recycling Programs

The City has implemented a number of programs and services which provide for sound and responsible waste management. These initiatives have established the City as a leader in achieving 78% waste diversion by residents in single-family homes. These services include recycling programs for plastic materials, including many single-use items.

- **City Recycling Depot:** A wide range of materials are accepted at the Recycling Depot, and these services are being expanded in 2019. In relation to plastics, the depot accepts plastic bags and overwrap, and flexible plastics were added in 2018. Single-use plastic items are accepted at the Recycling Depot and include polystyrene foam materials such as cleaned meat trays, cups, take-out containers, and polystyrene used for packaging.
- **Blue Box/Blue Cart Programs:** These services provide for recycling of mixed paper, containers, glass bottles and glass jars. Single-use plastic items accepted in the Blue Box include food containers (including those used for take-out), plastic drink cups and lids, microwavable plastic bowls, aseptic boxes/cartons, and similar single-use plastic items.

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- **Green Cart Program:** Food scraps and yard trimmings are recycled through this program, including any containers that are made of 100% paper materials.
- **Garbage Cart Program:** Regular collection of non-recyclable items is provided to residents, with subscription service based on cart size. This service is supplemented with a large item collection program, where residents can have up to six items collected per year. These programs help to reduce dumping and abandoned litter in the community.
- **Public Spaces Recycling and Litter Collection:** This service is operated seven days per week to ensure waste and recycling collection from public spaces and parks. There are approximately 4,500 containers in the community serviced over 25,000 times every month. Litter and abandoned waste collection services, coupled with operational programs such as street sweeping, are important to help prevent litter and waste from entering the environment through storm drains or by becoming wind-blown.
- **Education and Outreach:** Community engagement programs are undertaken to involve youth in environmental protection activities and educate the public in general about programs and services. Responsible recycling and waste management practices are integrated into these outreach programs. The City also has the Partners for Beautification program, which encourages public engagement in taking ownership for keeping areas clean and litter free through park/open space adoption.

These programs and services position Richmond as a responsible and forward-thinking City in minimizing the impact of waste on the environment. Continued focus on these programs and services is required as part of any future change management solution. Many of the significant challenges and concerns with plastics and waste in the environment originate in areas where sound waste management and recycling programs are not provided, and where plastic and other waste is dumped directly into the ocean.

#### Environmental Impacts from Plastic Waste

Plastic waste and its impact on the environment has garnered increased public attention as the negative environmental impacts, particularly in oceans, are becoming increasingly evident. Plastic was initially introduced in the 1950's as a lighter alternative to traditional materials such as glass, paper and metal. However, the durability and inorganic nature of plastic is proving problematic when these materials enter the environment in unintended ways. It is estimated that over 8.3 billion tonnes of plastic has been produced around the world. In Canada, only 11%-12% of the roughly 3.84 million tonnes of plastic used annually is collected for recycling.

Plastic is lightweight, durable and impervious. This makes it an ideal material for reducing shipping costs and product loss. These are the same qualities that create challenges when it comes to end of life management. The lightweight nature of plastic materials also makes it easy for various items to become windblown and ultimately enter ecological systems. Polystyrene foam, which is also plastic, is particularly light. This makes it susceptible to entering the environment by becoming blown or scattered. While polystyrene foam may break apart more

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easily into smaller particles, it remains a plastic material that takes hundreds if not thousands of years to break down.

Plastic including polystyrene foam is particularly problematic in oceans, as its characteristics such as its colour, texture and absorbed odours cause it to resemble food typically ingested by marine life. It is estimated that between 1.15 million and 2.41 million tonnes of plastic waste currently enter the world's oceans every year from rivers alone. Ingested plastics lead marine life to feel satiated since the plastic remains in their digestive system, leading ultimately to starvation. Micro plastics (or those broken down into minute particles) transfer to the flesh of sea life. These micro plastics are transferring to humans as marine life enters the food chain. Left unabated, the Ellen MacArthur Foundation has estimated that the ocean will contain more plastic than fish by weight by the year 2050. Negative impacts to human health will be inevitable as plastic and other waste takes a chokehold on the oceanic and overall ecological landscape.

### **Analysis**

The effect that plastics are having on the environment is a pivotal issue, which has prompted a range of commitments and actions by governments and private industry. Key actions relevant to our region are summarized below. More detailed information on these as well as international and private industry actions are further discussed in this report. While plastics in many different forms are creating negative environmental impacts, single-use plastics including polystyrene foam have been the principle focus of many governments, agencies and businesses since it is estimated that 26% of plastic created world-wide is designed to be used once and then discarded. Without robust systems to collect, recycle and/or properly manage these single-use plastics, the amount of single-use plastic items being discarded every minute is increasing.

### National, International and Local Commitments/Actions

#### *Government of Canada*

In June 2016, the Government of Canada added “plastic microbeads that are  $\leq 5$  mm in size” to the *List of Toxic Substances in Schedule 1 of Canadian Environmental Protection Act*, which prohibits the manufacture, import and sale of toiletries that contain plastic microbeads as of June, 2017.

The federal government updated the *Greening Government Strategy* with three new commitments to reduce plastic waste. Canada intends to:

1. divert at least 75% of plastic waste by 2030 from federal operations,
2. eliminate the unnecessary use of single-use plastics in government operations, events and meetings, and
3. when procuring products that contain plastics, promote the procurement of sustainable plastic products and the reduction of associated plastic packaging waste.

Convening in Charlevoix in June 2018, the Leaders of the G7 Summit brought forward the *Ocean Plastics Charter* in which Canada, France, Germany, Italy, the United Kingdom and the

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European Union committed to taking action toward a more resource-efficient and sustainable lifecycle management approach for plastics. Further, the Government of Canada opened the *Dialogue on Plastic Waste* in 2018, which found that “Canadians are aware that plastic pollution, waste, and heavy consumption of single-use items is an issue that needs to be addressed promptly in Canada and around the world”.

*Canadian Council of Ministers of the Environment*

In November 2018, the Canadian Council of Ministers of the Environment (CCME) approved in principle a Canada-wide strategy on zero plastic waste which outlines a vision to keep all plastics in the economy and out of the environment. The CCME is to develop an action plan and report back for consideration in 2019.

*Federation of Canadian Municipalities*

The Federation of Canadian Municipalities called on the Government of Canada to develop a national strategy that seeks to eliminate plastic pollution and identify if plastics and plastic additives are toxic or cannot feasibly be collected and recycled and ban or regulate their import, use and/or sale.

*Union of BC Municipalities*

The Union of BC Municipalities (UBCM) Resolutions Committee endorsed that the Province of British Columbia should engage the packaging industry to develop a provincial Single-Use Item Reduction Strategy as a part of the provincial *Zero Waste Strategy*. UBCM notes that this could include single-use items such as plastic and paper shopping bags, polystyrene foam cups and containers, other hot and cold drink cups and take-out containers, as well as straws and utensils.

*Metro Vancouver*

The Greater Vancouver Sewerage & Drainage District (GVSD) Board directed Metro Vancouver staff in October 2017 to determine actions to reduce waste from single-use items that are best done on a regional level. The Board approved initiating consultation on a regional single-use item reduction strategy in February 2018. The outcome of the regional approach is expected to be a toolkit for local governments, since there are limitations on regional authority in relation to this issue.

The potential Metro Vancouver actions include:

1. Education and promotion for business and residents – development and dissemination of education and behaviour change resources including guides and best practices.
2. Reusable dishware, containers and cup exchanges – explore options to increase use of reusable items. Could include programs, pilots and/or policies to encourage reuse and/or exchange programs for containers and cups.
3. Fees, discounts or deposits – identify options to implement fees, discounts, or deposits on single-use items.
4. Disposal ban – implement a disposal ban for single-use items.
5. Require recyclable or compostable items – consider requirements for use of recyclable and/or compostable materials for single-use items.

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6. Restrict sale and use – explore options to restrict sale of specific single-use items.

On February 8, 2019, the GVS&DD Board approved recommendations to write the Minister of Municipal Affairs and Housing and the Minister of Environment and Climate Change Strategy expressing support for the UBCM resolution requesting that a provincial single-use item reduction strategy be put in place.

*City of Vancouver*

As a priority action in Zero Waste 2040, Vancouver City Council approved the Single-Use Item Reduction Strategy on June 5, 2018, which outlines aggressive steps to reduce the use and impact of single-use items in Vancouver. Vancouver held three phases of consultation with stakeholders and members of the public to receive comments, ideas and suggestions to develop the strategy. Additional consultation will continue to be undertaken. The strategy's priority actions include bylaw amendments to prohibit plastic straws, polystyrene cups and take out containers, and require reduction plans to reduce the use of plastic and paper shopping bags and disposable cups.

Potential City of Vancouver Bylaw Actions:

1. Plastic straws – Implemented through an amendment to the License Bylaw, business license holders will be prohibited from distributing single-use plastic straws beginning June 1, 2019.
2. Polystyrene cups and take out containers – Implemented through an amendment to the License Bylaw, business license holders will be prohibited from selling or otherwise providing prepared food in polystyrene foam cups or take-out containers beginning June 1, 2019.
3. Plastic and paper shopping bags and disposable cups – Target 2019-2020 – Implemented through the creation of a reduction plan bylaw (modelled after the flexible approach in the Solid Waste Bylaw No. 8417), business license holders that use disposable cups and plastic and paper bags will be required to significantly reduce the amount of these items they distribute. Businesses can choose their own approach for achieving reduction by one of the following options:
  - a. Distribute no disposable cups or plastic/paper shopping bags.
  - b. Do not distribute disposable cups or plastic/paper shopping bags for free.
  - c. Other mechanisms that achieve a reduction target to be proposed and finalized through consultation.

Further anticipated bylaw amendments include: requiring food vendors to offer single-use utensils only upon request, and, once composting and recycling markets are strengthened, requiring single-use items to be recyclable or compostable, and collected in commercial establishments and office buildings for recycling or composting. To support this transition, Vancouver City Council has directed staff to conduct a communications and engagement campaign on the proposed bylaw amendments. The strategy also notes that there are opportunities for Vancouver to provide more tools, information and training, to support businesses and organizations in the transition away from polystyrene foam cups and containers. The strategy also identifies actions for Vancouver to reduce single-use items in its own operations.

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*Private Sector*

A variety of larger companies such as Starbucks, A&W, McDonald's, Unilever and Ikea are tackling the issue of single-use and plastic packaging in their commercial enterprises. Their various actions include commitments to increase recycling rates of plastic packaging, reduction of packaging consumption, phasing out of plastic straws and other single-use plastics. With this increased awareness of waste from plastic packaging and single-use plastics, there are opportunities to address this issue on a local, regional, provincial, federal and global scale.

Recommended Scope Material Scope

Due to the tremendous variety and types of various plastic packaging and single-use items, including plastic bags, polystyrene foam containers and plastic straws, it is recommended that a discussion paper be developed as a first step. This would help to identify the various types of materials to be targeted in a potential ban or reduction strategy. Such a discussion paper could focus on the following:

1. *Plastic Bags:* Consideration is needed in relation to the wide variety and type of bags to be considered in the scope of a ban, such as:
  - Check-out plastic bags (grocery style only or also include shopping mall bags);
  - Vegetable bags and other bags designed to hold food for safe transport (i.e. bread bags);
  - Dry cleaning bags;
  - Garbage bags; and
  - Consideration of material thickness (i.e. if a thicker plastic bag is used, would it be considered a reusable bag).

The list is not exhaustive, but the key point is to give consideration to the types of plastic bags to be targeted in any ban, and to seek consultation accordingly. Business and industry also need time to adjust to alternatives, and the discussion paper could help to address environmentally-friendly alternatives such as reusable only or alternative products such as paper. The discussion paper could also help to identify potential unintended consequences to consider, such as whether paper is a better alternative or if it is considered less beneficial due to the natural resources required to produce it.

2. *Single-Use Plastics:* Similar points can be made for single-use plastic items. While straws have received considerable public attention, there are many other single-use plastics that can have harmful effects on marine life, including:
  - Balloons;
  - Coffee and drink cups, including polystyrene foam cups;
  - Polystyrene foam take out containers;
  - Stir sticks; and
  - Cutlery, plates, etc.

The discussion paper could similarly help to identify alternatives and a potential phased approach for implementation. It could also help guide the City's own practices in its

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corporate operations and at events held on City-owned land. This would be considered an important first step and early action to set a leadership example.

#### Jurisdictional Issues

Municipalities in British Columbia have been provided authority to regulate the use of single-use plastic bags through the *Community Charter's* business regulation provision. This authority was recently affirmed in the case of *Canadian Plastic Bag Association v. The Corporation of the City of Victoria*. In this case, a Victoria bylaw prohibited businesses from providing plastic bags to customers. Canadian Plastic Bag Association (CPBA) argued that Victoria was relying on the 'protection of natural environment' clause in enacting the Bylaw, and in doing so, had a duty to consult with the provincial government prior to enacting the Bylaw. Since Victoria did not consult, CPBA argued the Bylaw should be rendered of no force or effect. Victoria argued that it was relying on the business regulation provision and as such had the authority to enact the bylaw without consulting with the Provincial Government. The Court decided that while there may have been environmental considerations in enacting the bylaw, so long as Council has been granted some authority to enact the particular bylaw then the bylaw should be upheld. Further authority for regulating single-use plastics can be found in such cases as *International Bio Research v. Richmond* where the Court determined that the municipal regulation of the conduct of a business, including prohibiting certain types of transactions, is an established aspect of valid business regulation.

#### Considerations and Unintended Consequences of Bans

There would be impacts to residents and businesses associated with any type of plastic packaging ban. These impacts should be considered and addressed as part of community engagement and consultation. In relation to a plastic straw ban, consideration of the impacts to those businesses that serve specialty drinks such as bubble tea, smoothies, and milkshakes would be required. This is similarly true for accessibility issues for institutions/families caring for elderly or infirm individuals who are physically unable to drink other than through a straw. Businesses that currently use foam containers for take-out items may have concerns regarding leakage for sauce-based food items. Based on community feedback, time may be needed to source alternatives and/or Council may wish to opt for a reduction strategy instead as part of a phased-in approach (i.e. items only provided on request).

There could also be health considerations associated with banning single-use items, such as those used for take out containers. Consultation with Vancouver Coastal Health is suggested as part of the recommended consultation process. There remain questions about the practicality of allowing individuals to bring their own take out containers. Some businesses, such as Starbucks, will use personal refillable coffee mugs where they do not handle the lid portion, as they are able to ensure the mug portion is disinfected before filling. These and related potential health and safety considerations would be included in the discussion paper for public engagement and consultation.

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Options

There are a number of avenues the City could use to approach the issue of plastic packaging including single-use plastics and polystyrene foams. These range from independent actions to ban materials or otherwise reduce packaging waste in the immediate term, to an approach which facilitates greater community involvement.

*Option 1 – Implement Policy Amendments to Restrict Plastic Bags, Polystyrene Foams and Plastic Straws (not recommended):* One option would be to direct staff to bring forward policy changes to restrict plastic shopping bags (check out bags only), polystyrene foams and plastic straws in Richmond in the more immediate term. Community engagement would be limited to providing a notice period for effective dates of the intended bans. At the same time, the City could review and amend its own internal practices and implement policies which establish clear criteria relating to single-use plastics (including plastic bags, polystyrene foams and plastic straws) in City facilities and at events on City owned land.

This option, while more immediate, could be met with resistance due to the lack of consultation and education needed to effectively implement and obtain community buy-in and compliance. Additional internal resource capacity for administration and enforcement implementation measures, supported by external assistance, would be needed to effectively administer this approach, estimated at \$125,000. This option is not recommended as it does not provide for sufficient community input in advance of introducing such a significant policy change that has direct impact to residents and businesses.

*Option 2 – Community Consultation and Engagement (recommended):* This approach involves scoping the issues more broadly as noted above to more clearly identify the types of items to be targeted and methods in which to reduce use, regulate or ban. These would be assembled into a discussion paper which allows for a more robust review of items to be considered (those with the greatest environmental benefit), available alternatives, desired outcomes and impacts as well as other related considerations. The discussion paper could include a review of potential actions best undertaken at different levels (local government, provincial government, business/industry, individuals, etc.) in order to effect meaningful change. The discussion paper would be used as a starting basis to guide community engagement and consultation.

This discussion paper would frame the materials to be targeted. The consultation approach allows for community education to take place as well to provide greater clarity and scope to the range of materials to be targeted for policy actions. At the same time, the City would review its own corporate practices and ensure these are reflective of the direction being pursued for the community to establish a leadership example.

Staff would report back with the discussion paper and proposed community consultation method prior to the commencing the community engagement process. This is the recommended option as it not only allows for community input, but also provides for a more well-rounded approach to ensure impactful change over the longer term.

Following execution of the engagement program, staff will report back with policy, infrastructure, program and regulatory options. Staff expect over this intervening period other

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jurisdictions will also be further along in their work creating the opportunity for regional and/or provincial approaches to managing issues related to single-use plastics.

**Financial Impact**

The cost to develop the proposed approach outlined under Option 2 is estimated at \$185,000. This cost includes technical and facilitator support for developing the discussion paper and undertaking the stakeholder engagement process, as well as temporary internal coordination/staffing resource support to manage the project/approach. If approved by Council, funding can be provided from the General Solid Waste and Recycling provision, requiring an amendment to the 5-Year Financial Plan (2019-2023).

**Conclusion**

Increasing amounts of plastic waste in the environment, and in particular the negative impact this is having on ocean life, has sparked a multitude of actions and commitments by individuals, businesses and governments. Measures are needed to substantially reduce or eliminate plastics from entering the environment.

As the issue is broad in scale and will impact residents, businesses and others in Richmond, a well-rounded approach is suggested to secure meaningful actions that are supported and embraced by the community. Staff recommend that a discussion scoping document be developed to better establish meaningful community dialogue to not only educate, but help to engage community input to frame policy decisions by Council in this regard.



Suzanne Bycraft  
Manager, Fleet and Environmental Programs  
(604-233-3338)

SJB:kn

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