



## Public Works and Transportation Committee

Anderson Room, City Hall  
6911 No. 3 Road

Thursday, April 20, 2017  
4:00 p.m.

Pg. #      ITEM

### MINUTES

**PWT-5**

*Motion to adopt the **minutes** of the meeting of the Public Works and Transportation Committee held on March 22, 2017.*



### NEXT COMMITTEE MEETING DATE

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

### PLANNING AND DEVELOPMENT DIVISION

1. **INSTALLATION OF DYNAMIC MESSAGE SIGN ON SOUTHBOUND KNIGHT STREET**

(File Ref. No. 01-0150-20-THIG1) (REDMS No. 5338814 v. 2)

**PWT-30**

**See Page PWT-30 for full report**

*Designated Speaker: Victor Wei*

STAFF RECOMMENDATION

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



ENGINEERING AND PUBLIC WORKS DIVISION

2. **2017 NATIONAL PUBLIC WORKS WEEK**

(File Ref. No. 10-6000-01) (REDMS No. 5358882)

PWT-35

See Page PWT-35 for full report

*Designated Speaker: Jatinder Johal*

STAFF RECOMMENDATION

*That the staff report titled “2017 National Public Works Week”, dated April 2, 2017 from the Director, Public Works Operations, be received for information.*



3. **STANDARDIZATION OF CITY'S SINGLE AND TANDEM AXLE VEHICLE FLEET**

(File Ref. No. 02-0735-01) (REDMS No. 5329728 v. 3)

PWT-38

See Page PWT-38 for full report

*Designated Speaker: Suzanne Bycraft*

STAFF RECOMMENDATION

- (1) *That the Peterbilt make be adopted as the standard for future single and tandem axle cab and chassis vehicle requirements;*
- (2) *That staff be authorized to competitively bid directly with Peterbilt dealers to obtain best value; and*
- (3) *That the Peterbilt make standard for the cab and chassis components of the City's single and tandem axle vehicle fleet be reviewed after five years or sooner if the City does not receive competitive bids in order to evaluate suitability in relation to overall best value.*



Pg. #      ITEM

4.      **REPORT 2016: RECYCLING AND SOLID WASTE MANAGEMENT - ON TRACK FOR 80% WASTE DIVERSION**

(File Ref. No. 10-6370-01) (REDMS No. 5352261)

PWT-42

[See Page PWT-42 for full report](#)

*Designated Speaker: Suzanne Bycraft*

STAFF RECOMMENDATION

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



5.      **POST WINTER ROADS AND PAVING PROGRAM UPDATE**

(File Ref. No. 10-6060-05-01) (REDMS No. 5357378 v. 2)

PWT-104

[See Page PWT-104 for full report](#)

*Designated Speaker: Lloyd Bie*

STAFF RECOMMENDATION

- (1)    *That \$202,300 be allocated from the MRN Provision for MRN road rehabilitation and included as an amendment to the 5 Year Consolidated Financial Plan (2017-2021); and*
- (2)    *That \$832,500 be allocated from the Gas Tax Provision for Non MRN road rehabilitation and included as an amendment to the 5 Year Consolidated Financial Plan (2017-2021).*



6.      **METRO VANCOUVER GILBERT TRUNK SEWER NO. 2 UPDATE**

(File Ref. No. 10-6060-03-01) (REDMS No. 5320612 v. 5)

PWT-109

[See Page PWT-109 for full report](#)

*Designated Speaker: Lloyd Bie*

Pg. #      ITEM

STAFF RECOMMENDATION

*That the report titled “Metro Vancouver Gilbert Trunk Sewer No. 2 Update,” dated March 22, 2017 from the Director, Engineering be received for information.*

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7.    **MANAGER’S REPORT**

ADJOURNMENT

☐



## Public Works and Transportation Committee

Date: Wednesday, March 22, 2017

Place: Anderson Room  
Richmond City Hall

Present: Councillor Chak Au, Chair  
Councillor Harold Steves, Vice-Chair  
Councillor Carol Day  
Councillor Alexa Loo

Absent: Councillor Derek Dang

Also Present: Councillor Linda McPhail

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

### MINUTES

It was moved and seconded

*That the minutes of the meeting of the Public Works and Transportation Committee held on February 22, 2017, be adopted as circulated.*

**CARRIED**

### NEXT COMMITTEE MEETING DATE

April 20, 2017, (tentative date) at 4:00 p.m. in the Anderson Room

### PLANNING AND DEVELOPMENT DIVISION

1. **TRANSLINK 2017 CAPITAL PROGRAM COST-SHARE  
SUPPLEMENTAL SUBMISSIONS**  
(File Ref. No. 01-0154-04) (REDMS No. 5298006 v. 2)

**Public Works & Transportation Committee**  
**Wednesday, March 22, 2017**

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It was moved and seconded

- (1) *That the supplemental submission of pedestrian and bicycle improvement projects for cost-sharing as part of the TransLink 2017 Major Road Network and Bicycle Program as described in the report titled, "TransLink 2017 Capital Program Cost-Share Supplemental Submissions" dated February 22, 2017 from the Director, Transportation, be endorsed; and*
- (2) *That, should the above submissions be successful, the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the funding agreements and the 2017 Capital Plan and the 5-Year Financial Plan (2017-2021) be updated accordingly.*

**CARRIED**

**2. ICBC – CITY OF RICHMOND ROAD IMPROVEMENT PROGRAM – PROPOSED PROJECTS FOR 2017**

(File Ref. No. 01-0150-20-ICBC1-01) (REDMS No. 5297022)

It was moved and seconded

- (1) *That the list of proposed road safety improvement projects, as described in Attachment 2 of the staff report titled "ICBC-City of Richmond Road Improvement Program – Proposed Projects for 2017," dated February 15, 2017 from the Director, Transportation be endorsed for submission to the ICBC 2017 Road Improvement Program for consideration of cost sharing funding; and*
- (2) *That should the above applications be successful, the Chief Administrative Officer and General Manager, Planning and Development be authorized to negotiate and execute the cost-share agreements, and that the 5-Year Financial Plan (2017-2021) be amended accordingly.*

**CARRIED**

**ENGINEERING AND PUBLIC WORKS DIVISION**

**3. CLIMATE ACTION – BUILDING ENERGY BENCHMARKING POLICY ADVOCACY**

(File Ref. No. 10-6125-07-02) (REDMS No. 4859414 v.8)

Correspondence items in support of the Climate Action – Building Energy Benchmarking Policy were distributed (attached to and forming part of these minutes as Schedule 1).

In reply to a query from Committee, Brendan McEwen, Sustainability Manager, acknowledged opportunities to partner with other organizations.

**Public Works & Transportation Committee**  
**Wednesday, March 22, 2017**

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It was moved and seconded

*That, as described in the staff report titled "Climate Action – Building Energy Benchmarking Policy" from Director, Engineering, dated February 23, 2017:*

- (1) a resolution be forwarded to the Lower Mainland Local Government Association and the Union of BC Municipalities calling for the province to establish requirements for energy benchmarking of large buildings;*
- (2) a letter be sent to the Chair of Metro Vancouver's Climate Action Committee calling on Metro Vancouver to lead the development of a regional benchmarking program;*
- (3) the Chief Administrative Officer and the General Manager, Engineering and Public Works be authorized to execute funding and partnership agreements with the Real Estate Foundation of BC and BC Hydro to develop benchmarking policy analysis and automated utility data exchange capabilities, and that amendments to the 5 Year Financial Plan (2017-2021) Bylaw be brought forward for up to \$155,000 in expenditures, subject to successful grant applications up to \$140,000 to be covered by grant funding and a \$15,000 City contribution from the Carbon Tax Provision; and*
- (4) staff be directed to report back to Council options to establish building energy benchmarking policy for larger buildings in Richmond as a pilot measure.*

**CARRIED**

**4. LOWER MAINLAND FLOOD MANAGEMENT STRATEGY UPDATE**  
(File Ref. No. 10-6060-01) (REDMS No. 5329704)

In reply to a query from Committee, Jason Ho, Project Engineer, referenced errors identified in Phase 1 and improvements planned in Phase 2.

Discussion ensued on funding of the flood management strategy.

It was moved and seconded

*That the City of Richmond commits to continue participation in the Lower Mainland Flood Management Strategy for a further two years.*

**CARRIED**

**5. 2017 LIQUID WASTE MANAGEMENT PLAN BIENNIAL REPORT**  
(File Ref. No. 10-6060-03-01) (REDMS No. 5303404)

**Public Works & Transportation Committee**  
**Wednesday, March 22, 2017**

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It was moved and seconded

*That the staff report titled "2017 Liquid Waste Management Plan Biennial Report," dated February 24, 2017, from the Director, Engineering be submitted to Metro Vancouver.*

**CARRIED**

**6. 2017 CLOTHES WASHER REBATE PROGRAM**

(File Ref. No. 10-6060-01) (REDMS No. 5285107)

It was moved and seconded

- (1) *That the City of Richmond partner with BC Hydro to the end of 2017 to offer rebates of up to \$200, equally cost shared between BC Hydro and the City, for the replacement of inefficient clothes washers with new high efficiency clothes washers;*
- (2) *That the scope of the existing Toilet Rebate Program funding be expanded to include clothes washer rebates; and*
- (3) *That the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to execute an agreement with BC Hydro to implement the Clothes Washer Rebate Program.*

**CARRIED**

**7. SERVICING AGREEMENT WITH YYH DEVELOPMENT LTD. FOR 6340 NO. 3 ROAD**

(File Ref. No. 10-6060-01) (REDMS No. 5323478)

It was moved and seconded

- (1) *That the City enter into a servicing agreement with YYH Development Ltd. to remove and replace an ageing City sanitary sewer main located on their property at 6340 No. 3 Road;*
- (2) *That the existing statutory rights-of-way (SRW), Registration No. A18319, 288432C, 288922C, and 52405, registered to 6340 No. 3 Road (Lot 169 Section 9 Block 4N Range 6W New Westminster Plan 41547) be discharged in its entirety; and*
- (3) *That the Chief Administrative Officer and the General Manager, Engineering and Public Works, be authorized to execute the above recommendations.*

**CARRIED**



**Public Works & Transportation Committee**  
**Wednesday, March 22, 2017**

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**8. COMMUNITY ENERGY AND EMISSIONS PLAN – 2017 UPDATE**

(File Ref. No. 10-6125-07-02) (REDMS No. 5322039)

A poster titled “Energy Action in Richmond” was distributed (attached to and forming part of these minutes as Schedule 2).

Peter Russell, Senior Manager, Sustainability and District Energy, highlighted preparations for community outreach initiatives, noting that the “Energy Action in Richmond” posters would be distributed within the community.

Discussion ensued on sharing experiences with other jurisdictions, and communicating progress with the community.

It was moved and seconded

*That the staff report titled "Community Energy and Emissions Plan – 2017 Update," dated February 20, 2017, from the Director, Engineering, be received for information.*

**CARRIED**

Information on the Steveston Waterfront and Britannia Shipyard was distributed (attached to and forming part of these minutes as Schedule 3).

Discussion ensued on access to the Britannia Shipyard.

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

It was moved and seconded

*That staff investigate upgrading Dyke Road to industrial/park standards, from Trites Road around Paramount Pond to the foot of No. 2 Road, sufficient to accommodate tour buses and industrial traffic and report back.*

**CARRIED**

**9. MANAGER’S REPORT**

**(i) Federal Budget 2017**

Victor Wei, Director, Transportation, reported that after staff’s further review of Federal Budget 2017, a memorandum would be distributed to Council highlighting items pertinent to the City.

**ADJOURNMENT**

It was moved and seconded

*That the meeting adjourn (4.35 p.m.).*

**CARRIED**

**Public Works & Transportation Committee**  
**Wednesday, March 22, 2017**

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Certified a true and correct copy of the Minutes of the meeting of the Public Works and Transportation Committee of the Council of the City of Richmond held on Wednesday, March 22, 2017.

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Councillor Chak Au  
Chair

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Sarah Kurian  
Legislative Services Coordinator

TO: MAYOR & EACH  
COUNCILLOR  
FROM: CITY CLERK'S OFFICE

## ON TABLE ITEM

Date: March 22, 2017  
Meeting: PWT  
Item: #3

### Mayor and Councillors

**From:** Mayor and Councillors  
**Sent:** Tuesday, 21 March 2017 11:10  
**To:** 'NPegram@morguard.com'  
**Subject:** RE: Building Energy Benchmarking Policy- 10-6125-07-02/2015-Vol 01

**Categories:** - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

Dear Mr. Pegram,

This is to acknowledge and thank you for your correspondence to Richmond City Council. A copy of your email has been forwarded to the Mayor and each Councillor. In addition, your correspondence has also been forwarded to the Public Works and Transportation Committee, and staff.

Thank you for taking the time to write to Richmond City Council.

Sincerely,  
Claudia

Schedule 1 to the Minutes of the Public Works and Transportation Committee meeting of Richmond City Council held on Wednesday, March 22, 2017.

Claudia Jesson  
Manager, Legislative Services  
City Clerk's Office  
City of Richmond, 6911 No. 3 Road, Richmond, BC V6Y 2C1  
Phone: 604-276-4006 | Email: [cjesson@richmond.ca](mailto:cjesson@richmond.ca)

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**From:** CityClerk  
**Sent:** Tuesday, 21 March 2017 10:53  
**To:** Mayor and Councillors  
**Subject:** FW: Building Energy Benchmarking Policy- 10-6125-07-02/2015-Vol 01

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**From:** Neil Pegram [<mailto:NPegram@morguard.com>]  
**Sent:** Friday, 17 March 2017 15:33  
**To:** CityClerk  
**Subject:** Re: Building Energy Benchmarking Policy- 10-6125-07-02/2015-Vol 01

Council Members  
City of Richmond Public Works  
& Transportation Committee  
Richmond, BC, Canada  
[cityclerk@richmond.ca](mailto:cityclerk@richmond.ca)  
Re: 10-6125-07-02/2015-Vol 01

Members,

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PWT<sub>1</sub> - 11



March 17, 2017

Council Members  
City of Richmond Public Works  
& Transportation Committee  
Richmond, BC, Canada  
[cityclerk@richmond.ca](mailto:cityclerk@richmond.ca)  
Re: 10-6125-07-02/2015-Vol 01

Members,

I am writing in support of the recommendations regarding a Building Energy Benchmarking Policy.

Morguard Corporation is a real estate operating company (TSX- MRC) with an owned and managed portfolio of assets valued at more than \$21.5 billion. Morguard operates three diversified lines of business including REITs, Real Estate Advisory Services, and Portfolio Management. Morguard has significant investments and management capabilities in over 50 million sq ft of retail, office, industrial, multi-suite residential and hotels, across Canada and the U.S. Morguard has \$2.2 billion in assets under management and over 6 million sq ft of property in British Columbia.

Since our assets are spread across Canada and the U.S. we are participants in numerous state, provincial, or municipal energy benchmarking initiatives. For consistency and ease of process we have implemented NRCans Energy Star Portfolio Manager (ESPM) in all of our properties. Benchmarking is an important part of Morguard's asset and property management, helping us make informed energy management decisions.

Morguard supports benchmarking requirements when applied consistently across state, provincial and national programs. Increased data benchmarking is a necessary step in reducing our sustainability footprint, increasing the performance of our assets, and providing legislators and regulators with the data to make informed decisions and further improved performance. Consistent and accessible process will encourage all owners to adopt energy management best practice.

We encourage all members to research the current best practices that are being set across Canada and the U.S., and to move forward in supporting building energy benchmarking initiatives.

Sincerely

**NEIL PEGRAM B.Sc. M.Sc.**  
**Sustainability Department Head**  
D 604-602-6433  
E [npegram@morguard.com](mailto:npegram@morguard.com)



Real Estate Potential. Realized.

are crafting plans to curb carbon pollution in light of new commitments under B.C.'s Climate Leadership Plan and the Pan-Canadian Framework on Clean Growth and Climate Change. These measures will also help put Richmond on track to meet its Official Community Plan targets for reducing community-level emissions.

Building energy benchmarking is a key tool for enabling informed and sound decision-making in energy management. Requiring reporting enables governments to prioritize and evaluate policies including regulation and incentives, while public disclosure enables the real estate sector to measure and value high performance buildings. A growing number of municipalities in North America now require benchmarking and disclosure, along with two U.S. states and, recently, the Province of Ontario.

I applaud the vision and commitment of the City of Richmond on climate action and building energy benchmarking, particularly the city's request for the province to consider mandatory benchmarking during development of the Climate Leadership Plan. The city can continue to lead by example by establishing a local benchmarking requirement in Richmond and disclosing energy use for City-owned buildings, as proof of the effectiveness of these policies. Such a requirement would build on progress made to date and accelerate the market transformation already underway in the city.

I support a clear and consistent framework for energy benchmarking and reporting, and believes that a provincial requirement will be the most effective and administratively feasible approach. I support staff's recommendation to bring forward a resolution to the Union of B.C.

Municipalities and Lower Mainland Local Government Association calling on the province to take this step toward meeting B.C.'s commitments under the Pan-Canadian Framework and Pacific Coast Climate Leadership Action Plan. I also support the recommendation that Metro Vancouver's Climate Action Committee be engaged to develop a regional benchmarking requirement in the event of provincial inaction on this file.

Finally, I support staff's recommendation to begin developing the data analysis and communications infrastructure that will underpin a successful benchmarking policy. Utilities are working on implementation of automated data exchange using the Green Button and Portfolio Manager Web Services protocols. At the same time, the Ministry of Energy and Mines has been investigating the creation of a Standard Energy Efficiency Data (SEED) Platform for B.C., which will greatly streamline the collection, analysis and storage of energy performance information.

By partnering with these organizations, the City of Richmond can accelerate the development of B.C.'s benchmarking infrastructure and empower building owners and governments with improved access to data.

The implementation of a benchmarking and disclosure policy in the City of Richmond (and B.C. as a whole) would provide a low-cost and effective tool to reduce carbon pollution from buildings. Promoting high levels of energy performance will also improve the quality and health of the homes and buildings in which residents live and work, create jobs in the clean economy, and support innovation in the local supply chain.

I commend the City of Richmond for its continued leadership role in green building policy.

Yours sincerely,  
Yours sincerely,  
Robert E. Rutkowski, Esq.

cc:  
U.S. Department of State  
Public Communication Division  
PA/PL, Room 2206  
Washington, DC 20520  
Phone: (202) 647-6575  
E: OIGWebmaster@state.gov

**Mayor and Councillors**

TO: MAYOR & EACH  
COUNCILLOR  
FROM: CITY CLERK'S OFFICE

**ON TABLE ITEM**

Date: March 22, 2017  
Meeting: PWT  
Item: #3

**From:** CityClerk  
**Sent:** Tuesday, 21 March 2017 14:30  
**To:** Mayor and Councillors  
**Subject:** FW: Public Works and Transportation Committee- Submission for circulation  
**Attachments:** City of Richmond- EWRB (March 2017).pdf

**Categories:** - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

**From:** Brooks Barnett [<mailto:BBarnett@realpac.ca>]  
**Sent:** Monday, 20 March 2017 09:27  
**To:** CityClerk  
**Cc:** McEwen, Brendan  
**Subject:** Public Works and Transportation Committee- Submission for circulation



Good Afternoon,

Please find attached a copy of REALPAC's submission on "Climate Action- Building Energy Benchmarking Policy Advocacy" for circulation to members of Public Works and Transportation Committee – which I understand is meeting this week to consider this matter. Please contact me if any questions or concerns with this submission.

With thanks,

Brooks Barnett

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own and operate considerable real estate assets across the country, it is important that jurisdictions discussing energy reporting and benchmarking policies understand the benefit of integration with other established systems. We strongly encourage the City of Richmond and provincial government of British Columbia to consider this matter with the knowledge that Ontario has crafted a system that is progressive, effective, and supported by the industry that it is meant to assist. Should this matter move forward, REALPAC would recommend working with Ontario policy makers to craft a B.C framework built on similar principles.

While progress toward an energy and water reporting and benchmarking policy has been more meaningful in Ontario, the City of Richmond's request to the province of B.C may once again identify this policy as one of the meaningful ways in which energy consumption and carbon emissions may be reduced in the buildings industry. REALPAC and our industry allies are eager to collaborate with the City and Province should there be a policy direction taken on this matter.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Brooks Barnett".

Brooks Barnett  
Manager, Government Relations and Policy  
[bbarnett@realpac.ca](mailto:bbarnett@realpac.ca)  
416-642-2700 X224

You should find attached my letter of support (attached) for item PWT 24 - "Climate Action - Building Energy Benchmarking Policy Advocacy" scheduled to be discussed at tomorrow's (March 22) Public Works and Transportation Committee meeting.

Could you please forward this letter to its Chair and members?

Thanks in advance!

Warm regards,  
Ian Theaker B.Sc. Mech. Eng., P.Eng.

[igtheaker@gmail.com](mailto:igtheaker@gmail.com)

416.414.6388

[Linkedin Profile](#)

"The greatest challenge to any thinker is stating the problem in a way that will allow a solution." Bertrand Russell

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## References

1. plaNYC. (2014). 2014 NYC LL84 Benchmarking Report (NYC LL84 Benchmarking Reports). City of New York. Retrieved from [http://www.nyc.gov/html/planyc/downloads/pdf/publications/2014\\_nyc\\_ll84\\_benchmarking\\_report.pdf](http://www.nyc.gov/html/planyc/downloads/pdf/publications/2014_nyc_ll84_benchmarking_report.pdf)
2. Seattle Office of Sustainability & Environment. (2015). Seattle Building Energy Benchmarking Analysis Report - 2013 Data. Retrieved from <https://www.seattle.gov/Documents/Departments/OSE/EBR-2013-report.pdf>
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7. UK Department for Communities & Local Government. (2012, April). Making energy performance certificate and related data publicly available. Retrieved August 10, 2016, from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/6058/2121729.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6058/2121729.pdf)
8. Institute for Market Transformation. (2016). Building Energy Performance Policy. Retrieved November 13, 2016, from <http://www.imt.org/policy/building-energy-performance-policy>
9. Theaker, I. G. (2015). BC Building Energy Benchmarking Stakeholder Perspectives Report. Vancouver, B.C.: City of Vancouver.

March 20, 2017

*Delivered via e-mail (cityclerk@richmond.ca)*

City of Richmond  
City Clerk's Office  
6911 No. 3 Road  
Richmond, B.C.  
V6Y 2C1

Dear Mayor Brodie, councillors, and members of the Public Works and Transportation Committee:

**Re: Building Energy Benchmarking Policy**

We are writing in support of city staff's recommendations on advancing building energy benchmarking policy in B.C. The actions proposed to the Public Works and Transportation Committee represent an opportunity for the City of Richmond to assert itself as a leader in the transition to healthy, durable, and low emissions buildings. Governments at all levels are crafting plans to curb carbon pollution in light of new commitments under B.C.'s Climate Leadership Plan and the Pan-Canadian Framework on Clean Growth and Climate Change. These measures will also help put Richmond on track to meet its Official Community Plan targets for reducing community-level emissions.

Building energy benchmarking is a key tool for enabling informed and sound decision-making in energy management. Requiring reporting enables governments to prioritize and evaluate policies including regulation and incentives, while public disclosure enables the real estate sector to measure and value high performance buildings. A growing number of municipalities in North America now require benchmarking and disclosure, along with two U.S. states and, recently, the Province of Ontario.

The Pembina Institute applauds the vision and commitment of the City of Richmond on climate action and building energy benchmarking, particularly the city's request for the province to consider mandatory benchmarking during development of the Climate Leadership Plan. The city can continue to lead by example by establishing a local benchmarking requirement in Richmond and disclosing energy use for City-owned buildings, as proof of the effectiveness of these policies. Such a requirement would build on progress made to date and accelerate the market transformation already underway in the city.

The Pembina Institute supports a clear and consistent framework for energy benchmarking and reporting, and believes that a provincial requirement will be the most effective and administratively feasible approach. We support staff's recommendation to bring forward a resolution to the Union of B.C. Municipalities and Lower Mainland Local Government Association calling on the province to take this step toward meeting B.C.'s commitments under the Pan-Canadian Framework and Pacific Coast Climate Leadership Action Plan. We also support the recommendation that Metro Vancouver's Climate Action Committee be engaged to develop a regional benchmarking requirement in the event of provincial inaction on this file.

Finally, we support staff's recommendation to begin developing the data analysis and communications infrastructure that will underpin a successful benchmarking policy. Utilities are working on implementation of automated data exchange using the Green Button and Portfolio

## Mayor and Councillors

TO: MAYOR & EACH  
COUNCILLOR  
FROM: CITY CLERK'S OFFICE

ON TABLE ITEM

MARCH 22/17 PWT  
ITEM 3

**From:** Mayor and Councillors  
**Sent:** Tuesday, 21 March 2017 09:31  
**To:** 'Jayson Antonoff'  
**Subject:** RE: Letter of Support - City of Richmond - Building Energy Benchmarking Report to Committee

**Categories:** - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

Dear Mr. Antonoff,

This is to acknowledge and thank you for your correspondence to Richmond City Council. A copy of your email has been forwarded to the Mayor and each Councillor. In addition, your correspondence has also been forwarded to the Public Works and Transportation Committee, and staff.

Thank you for taking the time to write to Richmond City Council.

Sincerely,  
Claudia

Claudia Jesson  
Manager, Legislative Services  
City Clerk's Office  
City of Richmond, 6911 No. 3 Road, Richmond, BC V6Y 2C1  
Phone: 604-276-4006 | Email: [cjesson@richmond.ca](mailto:cjesson@richmond.ca)

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**From:** Jayson Antonoff [<mailto:jayson@imt.org>]  
**Sent:** Monday, 20 March 2017 16:11  
**To:** CityClerk  
**Cc:** Mayor and Councillors; Cliff Majersik  
**Subject:** Letter of Support - City of Richmond - Building Energy Benchmarking Report to Committee

Dear Mayor Brodie, Councillors, and Members of the Public Works and Transportation Committee:

I am submitting the attached letter on behalf of the Institute for Market Transformation, to express our support for the recommendations of the "Climate Action – Building Energy Benchmarking Policy Advocacy" report being presented to the City of Richmond's Public Works and Transportation Committee. We believe that establishing requirements for energy benchmarking of large buildings, both at the local level and at the provincial level, would be an important step in helping the City of Richmond achieve its sustainability and GHG emissions reductions targets, and hope that the City will demonstrate leadership by implementing all of the recommendations of the report.

Sincerely

Jayson Antonoff  
Associate Technical Director, Building Performance Policy

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MAR 21 2017

PWT - 19





1707 L St. NW | Suite 1050  
Washington, DC 20036  
202.525.2883  
IMT.org

**To:** City of Richmond Public Works and Transportation Committee &  
Richmond City Council

**RE: Climate Action – Building Energy Benchmarking Policy  
Advocacy**

I am writing on behalf of the Institute for Market Transformation to support the recommendations of the “Climate Action – Building Energy Benchmarking Policy Advocacy” report being presented to the City of Richmond’s Public Works and Transportation Committee.

The Institute for Market Transformation (IMT) is a non-profit organization that for more than 20 years has worked toward a future in which all buildings are highly efficient. IMT assists North American cities, states, and provinces in developing energy efficiency initiatives. A key focus of IMT’s work is building energy benchmarking reporting and transparency policies.

With IMT’s help, benchmarking reporting requirements have to date been enacted in the province of Ontario, the states of Washington and California, and 25 cities across North America, with more jurisdictions currently considering such requirements. These policies now cover more than 10 percent of all space in large commercial and multifamily buildings in the U.S.

IMT has seen first-hand how benchmarking can reduce energy costs and emissions. Benchmarking allows owners and occupants to understand their building’s relative energy performance, and helps identify opportunities to cut energy waste. A recent analysis by the U.S. Environmental Protection Agency showed that buildings that were benchmarked saved on average 7 percent in energy over three years.

Moreover, benchmarking requirements allow cities and their partners to better target programs to help buildings save energy. Once jurisdictions establish benchmarking requirements, they are able to deliver superior educational programming in partnership with utilities and local building owners and managers associations. Such assistance can be particularly powerful for Class B and C office and multifamily buildings, which typically do not have access to dedicated energy management support. In our experience, mandatory benchmarking requirements are one of the most

TO: MAYOR & EACH  
COUNCILLOR  
FROM: CITY CLERK'S OFFICE

ON TABLE ITEM

MARCH 22/17 PWT  
ITEM 3

**Mayor and Councillors**

**From:** Mayor and Councillors  
**Sent:** Tuesday, 21 March 2017 09:34  
**To:** 'Akua Schatz'  
**Subject:** RE: Letter of Support - Building Energy Benchmarking Initiatives  
**Categories:** - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

Dear Akua Schatz,

This is to acknowledge and thank you for your correspondence to Richmond City Council. A copy of your email has been forwarded to the Mayor and each Councillor. In addition, your correspondence has also been forwarded to the Public Works and Transportation Committee, and staff.

Thank you for taking the time to write to Richmond City Council.

Sincerely,  
Claudia

Claudia Jesson  
Manager, Legislative Services  
City Clerk's Office  
City of Richmond, 6911 No. 3 Road, Richmond, BC V6Y 2C1  
Phone: 604-276-4006 | Email: [cjesson@richmond.ca](mailto:cjesson@richmond.ca)

---

**From:** Akua Schatz [<mailto:aschatz@cagbc.org>]  
**Sent:** Monday, 20 March 2017 15:40  
**To:** CityClerk  
**Cc:** Mayor and Councillors  
**Subject:** Letter of Support - Building Energy Benchmarking Initiatives

Dear City of Richmond Council Members,

Please find attached a letter of support from the Canada Green Building Council in advance of your discussions regarding energy benchmarking initiatives on March 22 and 27<sup>th</sup>. We are thrilled with the steps being considered by the City of Richmond and we wholeheartedly applaud the leadership role it has undertaken by championing energy benchmarking policy.

Sincerely,

Akua

Akua Schatz  
Director, Advocacy and Development  
Canada Green Building Council  
1021 West Hastings Street, Suite 550, BC, V6E 0C3

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PWT<sub>1</sub> - 21



Canada Green Building Council

Conseil du bâtiment durable du Canada

March 20, 2017

**RE: Building Energy Benchmarking Policy**

Dear City of Richmond Council Members,

We congratulate the City of Richmond for the leadership role it has taken to advance energy benchmarking and reporting programs for the municipality and the Province of British Columbia.

Energy benchmarking regulations are a critical component to reducing GHG emissions from the built environment. While there is a good deal of momentum toward energy conservation in the Province, the lack of data is a consistent challenge that can inhibit the success of energy efficiency interventions. We know that buildings can be designed and operated more efficiently, however we lack information about which buildings are performing badly and why.

Energy benchmarking, reporting and disclosure requirements help overcome the data transparency challenge. Building owners use a common tool to calculate energy use and compare their building's consumption against other buildings, and against themselves over time. Reporting energy use to a government body ensures that policy makers have the information they need to make significant improvements and address inefficiencies. Disclosure of data provides information to owners and tenants and can help guide investment decisions.

Energy benchmarking regulations have served to improve the performance of buildings in over 30 jurisdictions (cities and states) across the United States for several years. The connection between energy benchmarking data and improvements to buildings is closely linked. For example, through its energy benchmarking program, NYC Office of Sustainability identified steam heat as a key opportunity under its Retrofit Accelerator Program, estimating that five percent of GHGs can be reduced from the NYC's annual emissions, with building owners saving 15 percent in energy costs.

In Canada, many building owners already participate in energy benchmarking efforts for their building portfolios and have acquired the skills necessary to collect, monitor and assess performance data. Recently benchmarking policies have made entry into the Canadian context with the Province of Ontario being the first jurisdiction to implement

## ON TABLE ITEM

### Mayor and Councillors

TO: MAYOR & EACH  
COUNCILLOR  
FROM: CITY CLERK'S OFFICE

MARCH 22/17 PWT  
ITEM 3

**From:** Mayor and Councillors  
**Sent:** Tuesday, 21 March 2017 09:38  
**To:** 'dale littlejohn'  
**Subject:** RE: Support for energy benchmarking for large buildings  
**Categories:** - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

Dear Mr. Littlejohn,

This is to acknowledge and thank you for your correspondence to Richmond City Council. A copy of your email has been forwarded to the Mayor and each Councillor. In addition, your correspondence has also been forwarded to the Public Works and Transportation Committee, and staff.

Thank you for taking the time to write to Richmond City Council.

Sincerely,  
Claudia

**Claudia Jesson**  
Manager, Legislative Services  
City Clerk's Office  
City of Richmond, 6911 No. 3 Road, Richmond, BC V6Y 2C1  
Phone: 604-276-4006 | Email: [cjesson@richmond.ca](mailto:cjesson@richmond.ca)

---

**From:** dale littlejohn [<mailto:dlittlejohn@communityenergy.bc.ca>]  
**Sent:** Monday, 20 March 2017 10:51  
**To:** CityClerk  
**Cc:** Mayor and Councillors  
**Subject:** Support for energy benchmarking for large buildings

Mayor and Council,  
I have attached a short letter expressing CEA's support for energy benchmarking for large buildings. If this exciting initiative goes forward, I also encourage City of Richmond to apply for CEA's Climate and Energy Action Award for 2017.  
<http://communityenergy.bc.ca/climate-and-energy-action-awards/>

...Dale.

**Dale Littlejohn**, Executive Director, Community Energy Association  
[www.communityenergy.bc.ca](http://www.communityenergy.bc.ca) [dlittlejohn@communityenergy.bc.ca](mailto:dlittlejohn@communityenergy.bc.ca)  
T: 604-628-7076 C: 604-785-5130

QUALIFY TO BECOME A CERTIFIED COMMUNITY ENERGY MANAGER: VISIT [WWW.COMMUNITYENERGY.BC.CA/EDU](http://WWW.COMMUNITYENERGY.BC.CA/EDU) TO REGISTER

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# ENERGY ACTION IN RICHMOND

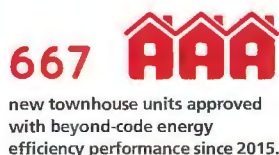
The City of Richmond is committed to making our community a healthy and vibrant place to live, learn, work, and play. To achieve this, Richmond's 2041 Official Community Plan (OCP) commits the City to reduce greenhouse gas (GHG) emissions by 33% by 2020, and 80% by 2050, below 2007 levels. The City's Community Energy and Emissions Plan (CEEP) defines strategies and actions organized around the five themes below to help realize these targets.

## How are we doing overall?

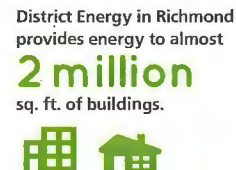
City's population increased by 7% but overall GHG emissions decreased by 6% over the same time period.



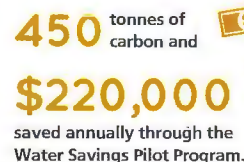
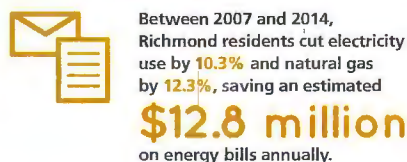
## Neighbourhoods and Buildings



## Sustainable Infrastructure and Resources



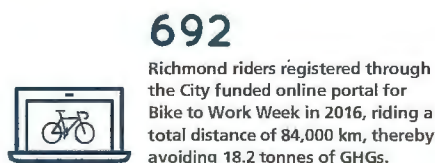
## Resilient Economy



## Climate Action Leadership



## Mobility and Access





Referral to Public Works and Transportation  
Submitted by Harold Steves

In 1985 Richmond Council adopted the Steveston Waterfront Conservation Plan prepared by Norman Hotson and Associates.

The report concluded that:

“As an overall strategy for tourism for the community of Steveston ... this development is one of a number of ‘beads on a string’ interconnected with roads, walkways, bike ways and a possible ferry route. In this fashion, a number of public use areas from London Farm in the east to Garry Point in the west are made part of the overall system.”

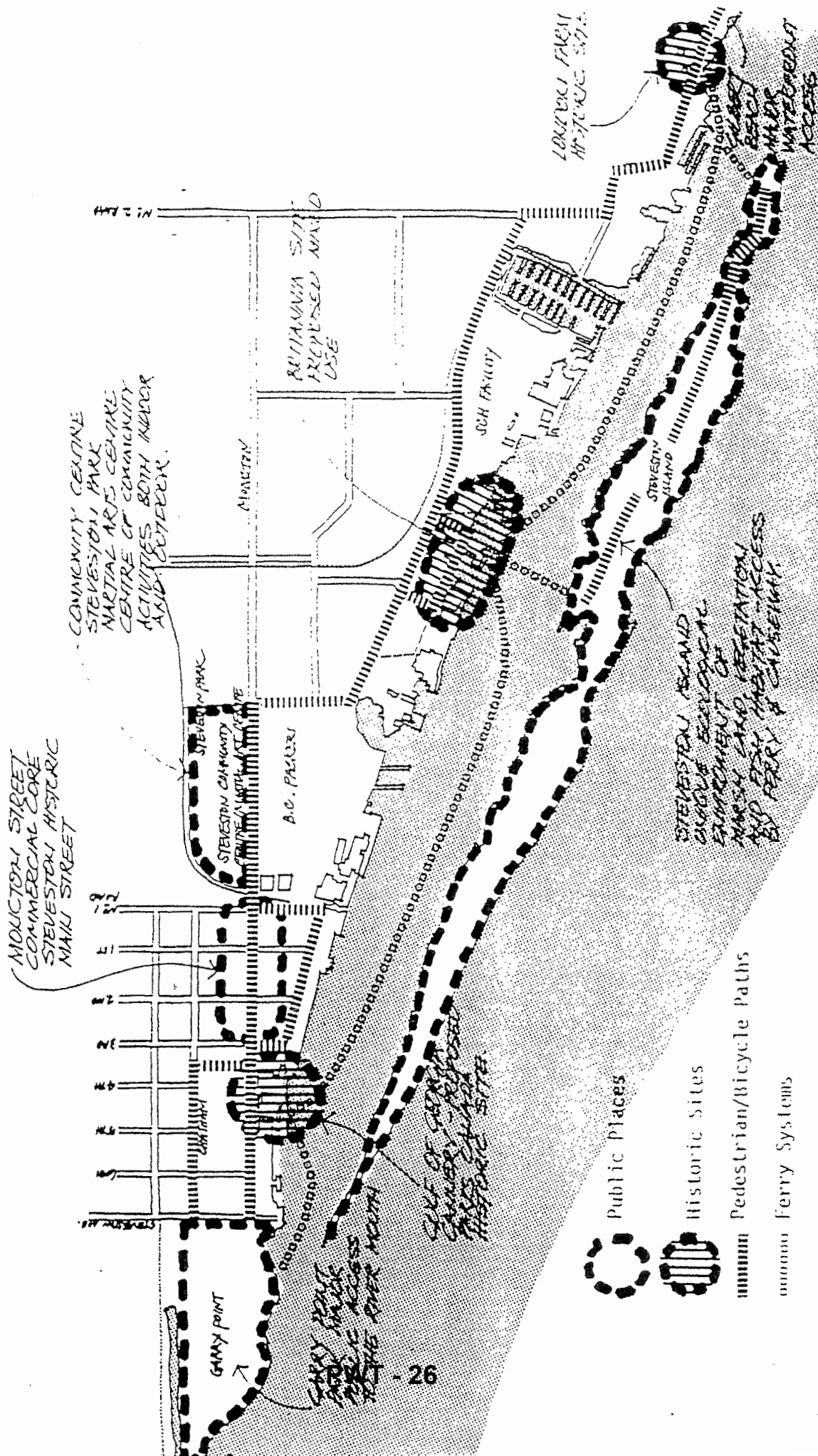
The accompanying map shows three major nodes on the waterfront, London Farm, Britannia Shipyard and Gulf of Georgia Cannery. (1)(Steveston Waterfront Conservation – adopted 1985)

Another map from a previous report by Hotson shows the recommended road access with two major access roads to the waterfront from No 2 Rd. not Trites Rd. (2)(Steveston Waterfront Development Sites)

The 1993 Britannia Heritage Shipyard Park Concept Plan provided tour bus parking in a widened portion of Westwater Drive/Dyke Road and proposed reconstruction of the road to industrial/park standards to avoid curb and gutter and concrete sidewalks. (3)(4)

In 1997 the Steveston Harbour Authority asked that the road be closed around Paramount Pond. (5)(Paramount Site)

The City was interested in expanding the Britannia shipyard property further east in trade for any land lost around the pond. City staff suggested that the road could continue north of Paramount Pond directly to No. 2 Rd. as recommended by Norman Hotson.



# STEVESTON WATERFRONT CONSERVATION - ADOPTED 1985

PUBLIC PLACES AND LINKAGES

## 4.0 SITE PLAN AND RATIONALE

The site concept plan for the Britannia Heritage Shipyard Park appears as a two-part fold-out at the back of this report. The rationale for and features of the plan are described below.

### 4.1 Road Access and Parking

The general configuration of the park road was determined at the time the site was obtained by the City and zoned for park purposes. The road leaves the current alignment on the dyke at the foot of Railway Avenue to loop around the multiple family development site which was retained in private ownership. The intention for relocating the road in the western portion of the site was to bring drivers closer to views of the waterfront. To the east of the development site, the road rejoins the dyke alignment and follows it to Trites Road.

At the west end of the site, the new road will be built to City of Richmond standards for a local road southward to the gate to B.C. Packers' Phoenix property in order to accommodate industrial truck traffic. Once east of this gate, the road will be constructed to a narrower park configuration suited to the rural, historical appearance desired for the park. The road is intended to be without curbs and surfaced in asphalt. Swales will be used along the south edge of the road to control vehicles at the edge, where there is sufficient space to accommodate them. Where the road is too close to existing buildings for a swale to be used, an alternate form of vehicular control will be needed, preferably made of wood.

Parking will be provided for approximately 30 cars in a lot south of the park road in the eastern portion of the park. Access to this lot will be provided by a driveway shared with the access route into the outdoor boat yard. These areas will also be without curbs and paved in asphalt.

Some additional parking for a few vehicles will be available in the boat yard, especially for the convenience of people working on boats for easy access to tools and equipment in their vehicles.

Overflow parking will be available on the gravel shoulders of the park road in the portion of the site where the road is on the dyke. It will also be feasible to use parking on adjacent collector roads such as Railway Avenue and Trites Road and in the parking lot of the T. Homma Elementary School on weekends, holidays, and during the summer.

Two temporary parking spaces for tour buses have been provided in a lay-by on the south side of the park road immediately west of the entrance to the parking lot. It is intended that these spaces will be used for dropping off and picking up passengers only and that the buses will move to suitable longer-term parking elsewhere in the vicinity while the tours are conducted.



February 1, 2017

- 4 -

Attachment 1



PWT - 29  
PWT - 46



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee  
**From:** Victor Wei, P. Eng.  
Director, Transportation  
**Date:** March 27, 2017  
**File:** 01-0150-20-  
THIG1/2017-Vol 01  
**Re:** Installation of Dynamic Message Sign on Southbound Knight Street

### Staff Recommendation

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

Victor Wei, P. Eng.  
Director, Transportation  
(604-276-4131)

Att. 1

| REPORT CONCURRENCE   |                                     |                                       |
|--|-------------------------------------|---------------------------------------|
| <b>ROUTED TO:</b>  | <b>CONCURRENCE</b>                  | <b>CONCURRENCE OF GENERAL MANAGER</b> |
| Engineering  | <input checked="" type="checkbox"/> |                                       |
| Real Estate Services   | <input checked="" type="checkbox"/> |                                       |
| <b>REVIEWED BY STAFF REPORT /<br/>AGENDA REVIEW SUBCOMMITTEE</b> | <b>INITIALS:</b><br>                | <b>APPROVED BY CAO</b><br>            |



## Staff Report

### Origin

At the March 18, 2015 meeting of the Public Works and Transportation Committee, members received a staff report for information regarding the installation of a dynamic message sign by the Ministry of Transportation & Infrastructure (the Ministry) to provide northbound road users on Knight Street with up-to-date travel information. Installation of this sign is currently proceeding.

Continuing the expansion of Intelligent Transportation Systems (ITS) that benefit Richmond's road users by allowing for more effective monitoring and management of traffic incidents, as well as the provision of real-time information to the public, this report describes the forthcoming installation of a complementary dynamic message sign by the Ministry to provide southbound road users on Knight Street with current travel information.

### Analysis

#### Dynamic Message Signs

The Ministry has installed a number of dynamic message signs (DMS) along provincial highways in Metro Vancouver that provide travellers with real-time information on road conditions such as travel times and wait times at Canada-US border crossings. Figure 1 is an example of a DMS sign on southbound Highway 99 mounted north of the Cambie Road overpass.



Figure 1: DMS on Southbound Highway 99

#### Alex Fraser Bridge Capacity Improvement Project

On January 19, 2017, the Ministry announced the Alex Fraser Bridge Capacity Improvement Project that will add a seventh counter-flow lane to the bridge by slightly narrowing the six existing lanes and removing the shoulders. A moveable barrier will allow four lanes of traffic northbound during the morning peak period and four lanes southbound for the afternoon peak period where it will remain for the rest of the day. The project also includes adding 13 dynamic message signs placed at key decision points on highways throughout the Lower Mainland (see Attachment 1). The signs will provide commuters with real-time information about crossing delays for four Fraser River crossings (i.e., Massey Tunnel, Alex Fraser Bridge, Queensborough Bridge, and Port Mann Bridge) to allow drivers to make timely decisions about which route to travel. Completion is anticipated in Spring 2018.

#### Proposed DMS on Southbound Knight Street

Of the 13 new dynamic message signs to be located throughout Metro Vancouver, one is proposed in Richmond, along southbound Knight Street near Bridgeport Road. The proposed location of the sign is within the City right-of-way of southbound Knight Street approximately

200 m south of the Bridgeport Road overpass (see Figures 2 and 3). Preliminary work is underway and 50 per cent of the design drawings are targeted to be completed by the end of April 2017.



Figure 2: Aerial View of Proposed DMS on Southbound Knight Street 200 m south of Bridgeport Road



Figure 3: Proposed DMS Concept on Southbound Knight Street 200 m south of Bridgeport Road



The new sign will expand the breadth of information on current travel conditions available to residents, commuters and visitors of Richmond. The DMS will display weather, traffic congestion, safety, and road condition messages for the general public, as well as Amber Alerts when required. Staff would also have the opportunity to input information such as unscheduled traffic incidents. The shared information will help both the City and the Ministry to better manage any traffic issues that may impact roadways under the jurisdiction of both agencies.

### **Financial Impact**

None. The Ministry is funding the installation and maintenance costs associated with the dynamic message sign. Staff time to facilitate its installation is expected to be absorbed within regular resources.

### **Conclusion**

The installation of a dynamic message sign on southbound Knight Street will further enhance the ability of both the Ministry of Transportation & Infrastructure and the City to more effectively manage traffic operations and improve the safety and reliability of transportation routes that, in turn, will enhance the flow of people, goods and services within and beyond Richmond.



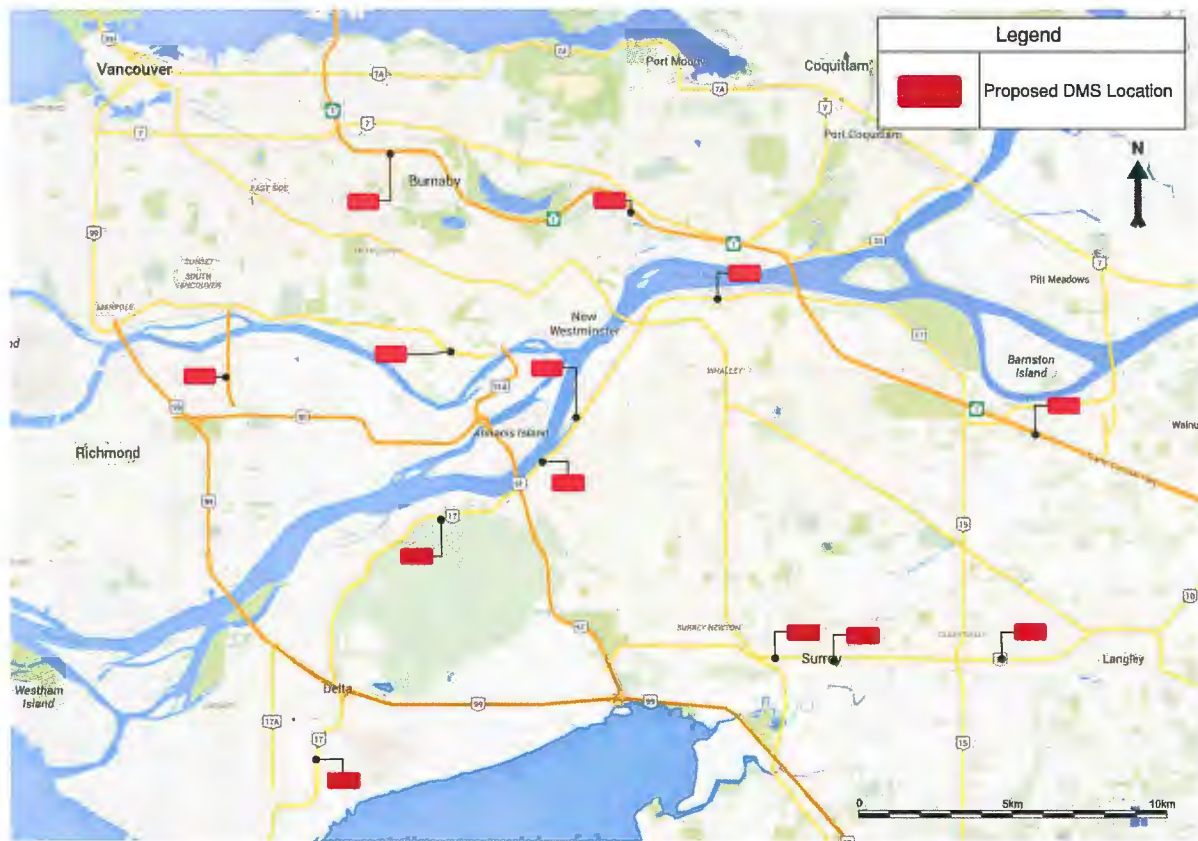
Joan Caravan  
Transportation Planner  
(604-276-4035)



Robert Gilchrist  
Supervisor, Traffic Operations  
(604-247-4697)

Att. 1: Proposed Locations of 13 New Dynamic Message Signs as part of the Alex Fraser Bridge Capacity Improvement Project

**Proposed Locations of 13 New Dynamic Message Signs  
as part of the Alex Fraser Bridge Capacity Improvement Project**





# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee

**Date:** April 2, 2017

**From:** Tom Stewart, AScT.  
Director, Public Works Operations

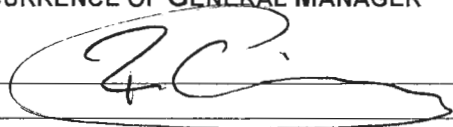


**File:** 10-6000-01/2017-Vol  
01

**Re:** 2017 National Public Works Week

### Staff Recommendation

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

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

| REPORT CONCURRENCE   |  |
|--|--|
| CONCURRENCE OF GENERAL MANAGER<br> |  |
| REVIEWED BY STAFF REPORT /<br>AGENDA REVIEW SUBCOMMITTEE   | INITIALS:<br> |
| APPROVED BY CAO<br>                |  |

## **Staff Report**

### **Origin**

The Canadian Public Works Association's annual National Public Works Week is from May 21 - 27, 2017 and to celebrate the City will host three events. This report provides information on the events that will be held to recognize National Public Works Week.

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

#### *9.2. Effective engagement strategies and tools.*

### **Analysis**

Each May, National Public Works Week is held to celebrate the many people dedicated to their communities by working in public works careers. Municipalities celebrate National Public Works Week with open houses, school and educational events, and displays of public works equipment. The City recognizes National Public Works Week through a proclamation outlining the following areas:

- Public Works services provided in the community are an integral part of Richmond residents' everyday lives.
- The support of an understanding and informed citizenry is vital to the efficient operation of Public Works systems and programs such as water, sewers, streets and highways, public buildings and solid waste collection.
- The health, safety and comfort of this community greatly depends on these facilities and services.
- The quality and effectiveness of these facilities, as well as their planning, design and construction, is vitally dependent upon the efforts and skills of Public Works staff.
- The efficiency of the qualified and dedicated personnel who staff the Public Works department is materially influenced by people's attitude and understanding of the importance of the work they perform.

The City will recognize National Public Works Week by hosting three significant events:

#### *1. Project WET*

Project WET, the City's annual water education program developed in partnership with the Richmond School District, will be held May 9<sup>th</sup> to May 11<sup>th</sup>. The program will be presented to 14 elementary school classes, with approximately 400 students and teachers expected in attendance. In addition to a variety of water education stations (i.e. conservation, water metering, and hydrant maintenance), there will be Sewerage and Drainage and Environmental Programs stations set up.

2. *National Public Works Week Breakfast and Scholarships*

A breakfast to celebrate Public Works staff will be held on Thursday, May 11<sup>th</sup> at 6:30 a.m. in the Works Yard garage. The breakfast provides an opportunity for employees to celebrate their achievements and to acknowledge the hard work that staff put into maintaining the City's infrastructure 24 hours a day, seven days a week. Additionally, recipients of the \$500 City of Richmond/CUPE Local 394 scholarships will be invited to receive their scholarships on stage. These scholarships are awarded annually to two Richmond high school students who have elected to pursue trades professions.

3. *Engineering and Public Works Open House*

The annual Engineering and Public Works Open House takes place on Saturday, May 13<sup>th</sup> from 11:00 a.m. to 3:00 p.m. at the Works Yard, with nearly 8,000 residents attending last year. The free event allows residents to meet City staff, learn about the work they perform and programs offered, and have fun exploring the various booths, interactive displays, food vendors and live entertainment.


This year we will also be incorporating Canada's 150 Celebration into the festivities by having a Memory Lane exhibit that will be a combination of photos and artifacts, along with the Richmond Olympic Oval and Richmond's 150 Pavilion. The CUPE 394 sponsored car show will return but be located at Dover Park this year. In order to ensure traffic flows smoothly we will have Traffic Control Personnel on Lynas Lane from 9:00 a.m. to 5:00 p.m.

**Financial Impact**

None.

**Conclusion**

The City's Engineering and Public Works Division together with Community Services and Community Safety play an active role in celebrating the annual National Public Works Week. Three events are held to recognize and highlight the people who provide and maintain the infrastructure services known as public works. Cities across Canada participate by raising awareness of public works contributions, and encourage community support for these dedicated employees who consistently improve the quality of life for residents.



Jatinder Johal, CPA, CGA  
Manager, Public Works Administration  
(604-233-3330)

JJ:jj



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee      **Date:** April 3, 2017  
**From:** Tom Stewart, ASCT.  
Director, Public Works Operations      **File:** 02-0735-01/2017-Vol 01  
**Re:** **Standardization of City's Single and Tandem Axle Vehicle Fleet**

### Staff Recommendation

1. That the Peterbilt make be adopted as the standard for future single and tandem axle cab and chassis vehicle requirements;
2. That staff be authorized to competitively bid directly with Peterbilt dealers to obtain best value; and
3. That the Peterbilt make standard for the cab and chassis components of the City's single and tandem axle vehicle fleet be reviewed after five years or sooner if the City does not receive competitive bids in order to evaluate suitability in relation to overall best value.

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

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

## **Staff Report**

### **Origin**

This report seeks Council approval to adopt the Peterbilt make as the City standard for its single and tandem axle cab and chassis vehicle requirements. Standardization for this facet only of the City's trucking fleet will enable economies of scale in parts standardization, tooling, maintenance and vehicle operations.

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

*Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.*

*6.1. Safe and sustainable infrastructure.*

### **Background**

Recent multiple competitive bids issued to the marketplace for single axle and tandem axle dump truck replacements have consistently resulted in the Peterbilt make winning the bid through evaluation by providing best value to the City in the areas of:

- Product quality
- Dealership support
- Dependability/reliability
- Overall operational performance

Further, due to their quality make, Peterbilt also offer high trade-in values at the end of their lifecycle.

The City currently has four Peterbilt units in the fleet (dump truck units 1454, 1455, 1668 and 1768), with an additional two units recently approved for award (replacement for units 1165 and 1278). The existing units have provided exceptional value in terms of performance and contribute to operational efficiency and effectiveness through minimal to no downtime; reduced maintenance requirements; consistency in application and use by operators; interchangeability of attachments and overall fuel efficiency.

### **Analysis**

The City's large truck fleet is currently made up of four single-axle dump trucks, six tandem axle dump trucks, a flusher truck, a crane truck, two sweepers and three hydro excavation trucks. Staff propose to standardize to Peterbilt and offer an opportunity to bid on the cab and chassis components of these units as they become eligible for replacement (due to age, condition, etc.) to Peterbilt dealers. Vehicle outfitting (dump boxes, sanding/salting inserts, deck components, hydro excavation equipment, etc.) would be acquired through the regular competitive bid process.

Standardizing the cab and chassis components of the truck fleet offers a number of benefits, including:

- *Redundancy* – professional driver/operator training in vehicle operation is able to be standardized.
- *Maintenance* – vehicle maintenance is able to be managed more efficiently on standardized units. This includes the ability to standardize training for the City's mechanics who service these units.
- *Inventory* – parts and tooling inventory is able to be standardized, which helps to achieve economies of scale and improved efficiency in vehicle maintenance aspects, i.e. reduces the need to store a wider variety of parts for different makes.
- *Parts Interchangeability* – Various components, such as those used for snow response operations, are able to be exchanged between units (where required) to maximize vehicle uptime during key operational response priorities/events.
- *Engine Performance* – the Peterbilt is a quality design engine, suited to the demands of Public Works/Parks maintenance and construction projects.

Fleet and Purchasing staff would ensure standard purchasing protocols are followed to achieve best value through competitive bidding with the two local Peterbilt dealers, and any and all Peterbilt dealers that wish to participate in the process.

### **Environmental Impact**

Replacement of the types of vehicles noted in this report with newer engine technology will result in lower Greenhouse Gas Emissions, thereby contributing to the goals and objectives of the City's Green Fleet Action Plan, which establishes a 2% annual reduction in overall fuel-related emissions.

### **Financial Impact**

All vehicle/truck replacements are identified as part of the annual Fleet Vehicle Equipment Reserve capital program. Only those units which are approved as part of the annual capital program will be acquired under the proposed approach.

The Peterbilt make typically has a higher acquisition cost (approximately 15%). However, when trade-in value, maintenance and other operational costs are considered over the 10-year lifecycle of the units, the Peterbilt make offers approximately 45% savings over other makes.

### **Conclusion**

This report proposes that the City's large truck fleet (dump trucks, vectors, etc.) be standardized to the Peterbilt make due to their reliability, quality make and overall best value as demonstrated through experience with existing Peterbilts in the City's fleet. Purchasing protocols to ensure best value will continue to be applied in competitive bidding with local and all Peterbilt dealers.




April 3, 2017

- 4 -

A five-year timeframe is proposed, after which this approach will be reviewed to determine if the City's needs and best value requirements are continuing to be met. Staff will report back at the end of the five-year period should it be recommended to continue beyond that timeframe.



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



Syd Stowe  
Manager, Purchasing  
(604-276-4061)



# City of Richmond

## Report to Committee

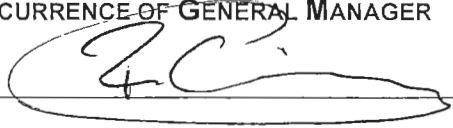

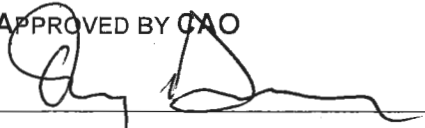
**To:** Public Works and Transportation Committee      **Date:** March 23, 2017  
**From:** Tom Stewart, ASCT.  
Director, Public Works Operations      **File:** 10-6370-01/2017-Vol  
01  
**Re:** **Report 2016: Recycling and Solid Waste Management - On Track for 80% Waste Diversion**

### Staff Recommendation

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

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

Att. 1

| REPORT CONCURRENCE   |  |
|--|--|
| CONCURRENCE OF GENERAL MANAGER<br> |  |
| REVIEWED BY STAFF REPORT /<br>AGENDA REVIEW SUBCOMMITTEE   | INITIALS:<br> |
| APPROVED BY CAO<br>                |  |

## Staff Report

### Origin

This report presents the City's annual progress toward waste diversion goals as outlined in the attached "Report 2016: Recycling and Solid Waste Management – On Track for 80% Waste Diversion".

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

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

#### *4.1. Continued implementation of the sustainability framework.*

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

*Continue to develop and provide programs and services that ensure the Richmond community is well-informed and engaged on City business and decision making.*

#### *9.1. Understandable, timely, easily accessible public communication.*

### Analysis

#### Background

The City's goals to reduce waste are aligned with regional targets in the Integrated Solid Waste and Resource Management Plan (ISWRMP). Richmond notably achieved its first target of 70% waste diversion in 2013 – two years ahead of schedule – and is now well positioned to pursue the next target of 80% waste diversion by 2020. With the full suite of programs now available in the community, and the continued commitment by community members to recycle, Richmond is on track to achieve this next target and its goal to be a Recycling Smart City.

To achieve its goals, the City assesses and updates existing programs, introduces new policies, bylaws and programs, and works with residents and community partners to improve and expand its waste reduction and recycling services. These programs and services are further supported by a range of communication and outreach programs to ensure residents are aware of the services available and understand how to access and use these services effectively. "Report 2016: Recycling and Solid Waste Management – On Track for 80% Waste Diversion" (the Report) (Attachment 1), summarizes Richmond's comprehensive programs, highlights results achieved in 2016, provides insights into upcoming initiatives, and includes tips and resources to support recycling and sustainable waste management.

#### 2016 Highlights

The Report provides an overview of Richmond's progress towards its waste diversion targets based on the combination of convenient, responsive services that are adapted to meet emerging

needs and priorities, clear requirements through bylaws and other guidelines, and community outreach and communication initiatives.

Key accomplishments in 2016 include:

- Achieved 78% waste diversion from single-family homes.
- Introduced biweekly Garbage Cart service for more than 33,000 single-family homes and townhomes to promote increased recycling and waste diversion.
- Introduced the Richmond Collection Schedule App to provide residents with reminders about their curbside collection day and information about drop-off locations for various materials using the Recycling Wizard. Since its launch in 2016, there were 14,413 online searches for collection day details and 41,326 searches for materials using the Recycling Wizard, and 5,156 residents signed up for weekly reminders.
- Introduced Donation Bin Regulation Bylaw 9502 that restricts donation bin placement to registered charities only and establishes suitable, safe locations for bin placement as part of promoting reuse of used household clothing and other items.
- Supported 153 student volunteers as they contributed 2,661 hours to promote recycling and responsible waste management at community events.
- Introduced the Demolition Waste and Recyclable Materials Bylaw No. 9516, which requires that 70% of waste from single-family home demolitions be recycled or diverted from waste disposal.
- Introduced a new Recycling Champions program to work with residents who are interested in helping their neighbours increase their recycling by providing recycling tips and advice, and by raising awareness about the importance of recycling.
- Supported recycling for approximately 170,000 attendees at more than 50 events.
- Responded to over 26,670 customer service requests and administrative transactions related to garbage and recycling via the Environmental Programs Information Line.
- Delivered 38 recycling and waste reduction workshops with approximately 860 attendees, organized 10 DreamRider and Zero Heroes theatrical shows involving more than 3,710 students, hosted five Recycling Depot tours for 105 students and teachers, and participated at six community events to raise awareness about how to properly sort recyclables to reduce contamination.

These and other key accomplishments in 2016 are outlined in further detail in the Report.

### Report 2016 Overview

The 2016 Report contains four chapters. The first three chapters summarize outcomes and accomplishments in the past year, provide data to report on progress related to current waste management and recycling services, and highlight the variety of public education/community outreach programs delivered across the city. The final chapter in the Report is a comprehensive

tips and resources section. The Report content also features tips for residents to help them connect with City and product stewardship programs for disposing of a variety of items.

A summary overview of each chapter follows.

*Chapter 1: Annual Outlook – On Track for 80% Waste Diversion* highlights the City's progress and key achievements that support achieving its target for 80% waste diversion by 2020. A key initiative in 2016 involved the implementation of the new biweekly Garbage Cart program, which included providing residents with the option to reduce their curbside garbage collection fees by selecting smaller cart sizes. The program rollout involved extensive communication to inform residents about the shift to biweekly collection, how the program works and the opportunities to select their preferred cart size. As part of the implementation, the City introduced a new, free Richmond Collection Schedule App, which provides residents with reminders about their curbside collection day as well as a Recycling Wizard that makes it easy to look up where to recycle household items.

The City continues to promote outreach and community partnerships through its new Recycling Champions Program, which provides resources and support to residents who are leaders in recycling and interested in assisting their neighbours to increase recycling.

Policy improvements highlighted in this chapter include the new Demolition Waste and Recyclable Materials Bylaw No. 9516, which requires mandatory recycling of demolition materials from single-family homes, and a new Donation Bin Regulation Bylaw No. 9402, which restricts donation bins to registered charities and establishes suitable, safe locations for bin placement to address concerns about illegal dumping and a lack of clear requirements for managing these types of bins.

To address public spaces waste management, the City is testing in-ground garbage bins as a means to provide more capacity for outdoor garbage collection while reducing collection frequency needs. As well, the City's Event Recycling Program provides event organizers with recycling and garbage carts at no charge, complimentary collection services and guidance on what is required for effective waste management at events.

*Chapter 2: Programs and Services – Expanding Services to Make Recycling Easy and Convenient* describes the City's comprehensive recycling and waste reduction initiatives and highlights how each program contributes to overall diversion targets and sustainability goals. This chapter provides details on the quantities collected through the Blue Box, Blue Cart, and Green Cart recycling programs, drop-off services at the Richmond Recycling Depot, Yard Trimmings Drop Off service and litter collection services. This section also includes details on the City's Large Item Pick Up Program, and the major categories of items collected through this program. It is noted that residents in single-family homes have reduced their garbage by 17%, which is equal to more than 2,000 tonnes, following the introduction of the biweekly Garbage Cart program. Waste diversion increased from 74% to 78% in 2016. In addition, this section outlines new guidelines being developed to assist developers in designing effective recycling space in new commercial and multi-family buildings.

*Chapter 3: Outreach and Customer Service – Supporting Awareness and Education* presents the City's commitment to support waste reduction and reuse by working together with community members and partners. This includes informing and educating residents and supporting recycling leaders in the community through its high school Green Ambassadors and the newly introduced Recycling Champions programs. The City's extensive public education and community outreach initiatives target emerging information needs, such as how to use new programs or tips on how to recycle correctly to reduce contamination, as well as increasing awareness and fostering sustainable behaviours to make recycling and responsible waste management a way of life. Free workshops on composting, reducing food waste, eco-cleaning, and how to sort recycling correctly are offered throughout the year, as are outreach displays at various events and in local shopping centres. City staff partnered with the Richmond School District to engage 3,534 elementary school students and 177 teachers to teach them how to recycle and inspire them to reduce waste. City staff members also mentored approximately 150 high school Green Ambassadors, who contributed more than 2,660 volunteer hours to support community events and the annual REaDY Summit.

*Chapter 4: Tips and Resources – Easy Steps to Increase Recycling and Reduce Waste* provides a comprehensive guide to recycling. It includes specific information on how and what to recycle in the City's Blue Box, Blue Cart, Large Item Pick Up and Green Cart programs. There is information on how to compost at home, the items accepted for recycling at the Richmond Recycling Depot, and what to do with many household items ranging from medication to recyclable mattresses. In addition to these tips and resources, the City applies communication tactics such as advertising and social media, to raise awareness about key household materials that can contaminate recycling, such as electronics, Styrofoam and plastic bags, and provides information on how to recycle these materials using drop-off programs.

The resources section includes information on what to do with special waste items and banned materials, including recycling and disposal options through take-back programs. There is contact information and locations for Richmond services and community partners involved in stewardship programs.

### *Moving Forward*

As the City continues to grow and expand our services to further advance toward 80% waste diversion for all residents, key focus areas in 2017 will include:

1. Improve litter collection efficiency by installing in-ground containers in high traffic and/or remote public spaces to address garbage capacity concerns and reduce service frequency, and implement new litter collection routes to maximize operational efficiency.
2. Report on potential changes to the configuration of the Recycling Depot, including hours and days of operation, and items accepted, with a goal to enhance the Richmond Recycling Depot.
3. Improve emergency preparedness through the development of a Disaster Debris Management Plan for Richmond that aligns with the Metro Vancouver regional plan.
4. Review and report progress on Demolition Waste and Recyclable Materials Bylaw No. 9516 as part of promoting expanded recycling of demolition materials.

5. Continue to raise awareness about how to recycle and the importance of responsible waste management through workshops, theatrical shows, digitally-led classroom activities, and support the 6th Annual REaDY Summit.
6. Work with Recycling Champions and property managers to increase recycling in multi-family complexes, with a focus on increasing recycling and reducing contamination.
7. Generate awareness about the types of materials that are recyclable in Richmond's programs and how to sort recyclables properly to reduce contamination.
8. Expand public spaces recycling options by leveraging new bin options to provide convenient, accessible recycling, and enhance the container replacement and maintenance program.

#### Proposed Communication

Subject to Council's approval, the annual "Report 2016: Recycling and Solid Waste Management – On Track for 80% Waste Diversion" will be posted on the City's website and made available through various communication tools including social media channels and as part of community outreach initiatives.

#### **Financial Impact**

Programs related to solid waste that impact service levels are brought to Council for review and consideration throughout the year.

#### **Conclusion**

Through the annual "Report 2016: Recycling and Solid Waste Management – On Track for 80% Waste Diversion", the City is providing its residents with a progress report on the many recycling and waste management programs and activities delivered in the community. The Report also serves as a comprehensive resource guide that supports recycling, reuse and reduction activities throughout the year. By tracking progress towards its goals for waste diversion and reporting this to the community, the City is demonstrating Richmond's commitment to responsive services, responsible government and accessible information and communication.

It is through residents' participation and commitment to recycling that those living in single-family homes have achieved 78% waste diversion in 2016, which is on track for the goal to divert 80% of waste by 2020.



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

Att. 1: Report 2016: Recycling and Solid Waste Management – On Track for 80% Waste Diversion



City of Richmond

# REPORT 2016

RECYCLING AND SOLID WASTE MANAGEMENT



**ON TRACK FOR 80% WASTE DIVERSION**

**Let's trim our waste!**

**PWT - 48**





**LET'S  
TRIM  
OUR  
WASTE!**

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# ANNUAL OUTLOOK

## ON TRACK FOR 80% WASTE DIVERSION

With the implementation of a full suite of services that make it easier than ever to recycle and reduce garbage, the City of Richmond is on track to achieve its goal for 80% waste diversion by 2020. In addition to its residential recycling and garbage collection services, the City has also introduced new programs and requirements that facilitate convenient waste management and encourage responsible recycling.

A key initiative in 2016 involved the implementation of the City's new residential Garbage Cart program, which involved a shift to biweekly collection. Under the new biweekly Garbage Cart program, the City provided residents with garbage carts with lids and wheels at no cost. Residents' annual utility fee for curbside garbage collection is now based on the size of cart they choose. Residents who opted for smaller carts – generating less garbage – now pay less for their garbage collection. The program rollout included information kits to inform residents about how the biweekly collection program works, the opportunity to save money by reducing their garbage with smaller carts and details on the limited types of household materials that go in the garbage. Under the new program, single-family garbage has been reduced by 17% and organics recycling has increased by nearly 16%. This program complements the City's recycling programs – the Blue Cart/Blue Box program and the Green Cart program – as well as the drop off services available at the Richmond Recycling Depot and the Large Item Pick Up program. Together, these services make it easy for residents to recycle the majority of their household waste, and their progress is evident as Richmond residents with curbside collection are now diverting 78% of their waste from the landfill.

Recognizing the importance of working together to achieve its goals, the City has also introduced a new Recycling Champions program. Through this program, residents who are committed to recycling and encouraging responsible waste management now work with the City to help raise awareness about the importance of recycling, and provide tips on how to recycle correctly. As part of this grassroots outreach program, the City provides the Recycling Champions with training, tips and resources. Any Richmond resident who is interested in promoting recycling and helping other residents to increase their recycling can sign up for the program. This new program is particularly effective in multi-family complexes where residents share a centralized recycling area and may not be as well informed about how to use the recycling programs or why they need to keep recyclable materials out of the garbage.

While residential services are key to achieving waste diversion targets, the City has also made progress towards increased recycling of materials from the demolition of single-family homes. Demolition, land-clearing and construction (DLC) waste accounts for 30% of total waste disposed in the region, and about 70,000 tonnes of that waste originates in Richmond. To support responsible recycling and waste management in this area, the City has introduced a new Demolition Waste and Recyclable Materials Bylaw No. 9516, which requires mandatory recycling of these demolition materials. Under this bylaw, the owner or agent involved in the demolition must submit an application for a demolition permit, along with a properly completed waste disposal and recycling services plan that outlines how the waste and recyclable materials will be handled. The bylaw requires that 70% of the demolition waste be recycled or reused. To help ensure compliance with this bylaw, the owner or agent must keep records to support how the waste and recycling was managed and submit a compliance report within 90 days of completing the project. The owner or agent can apply for a fee refund that is calculated based on how well the bylaw requirements are met, which provides added incentive to recycle the demolition materials.

Richmond has also been conducting pilot projects to test different service options in the community. One pilot project involved the development of a bylaw to address concerns related to illegal dumping that occurs around community donation bins. The problem had become worse as an increasing number of donation bins were being placed around the community.

## Working with Recycling Champions to reduce waste.

As part of assessing the bylaw, it was noted that donation bins help keep materials out of the landfill, encourage reuse and recycling, and facilitate donations of clothing to charitable organizations. Proceeds from these donations are used to fund programs and services that benefit residents. Under the new bylaw, donation bins are only permitted on City property, there is a fee and permit structure in place for anyone who is managing a bin, and the bins can only be placed by organizations that are registered charities. These added requirements will make it easier for the City to ensure the organizations managing these bins remain responsible for regularly emptying the bins and keeping the area free of illegal dumping. The new bylaw came into effect July 1, 2016 and has been very effective.

Another new initiative is a pilot project to test in-ground garbage bins as a means to provide more capacity for outdoor garbage collection while reducing collection frequency needs. The City installed three in-ground containers in 2016 and will be testing them in 2017. The containers only need to be serviced every few months due to their capacity. By reducing the frequency for collection in these pilot areas, the City is better able to manage increasing demands for litter collection in a growing community.

Another key service that supports recycling and waste management in public areas is the City's Event Recycling Program. In 2016, the City supported recycling at more than 50 events, including free rental of garbage and recycling bins and providing event organizers with guidance on how to ensure their event is set up to support convenient recycling services.

Looking ahead to 2017, the City will continue to explore opportunities to increase recycling throughout the community. This will include expanded public engagement opportunities and a review of services to streamline and round out its service delivery approaches.

### THREE EASY STEPS

Richmond can achieve its targets with the help of community commitment to these three easy steps to reduce waste:

#### RECYCLE

RAMP UP RECYCLING – EXPAND YOUR RECYCLING TO INCLUDE FOOD SCRAPS AND OTHER MATERIALS ACCEPTED THROUGH CITY COLLECTION SERVICES, THE RECYCLING DEPOT AND TAKE BACK PROGRAMS.



#### REDUCE

BE CHOOSY WHEN YOU SHOP – SELECT PRODUCTS WITH MINIMAL OR NO PACKAGING, LIKE USING A MUG INSTEAD OF A PAPER CUP.



#### REUSE

DONATE BEFORE YOU DISPOSE – CONSIDER DONATING OR SELLING GENTLY USED PRODUCTS.





## OUR TOP ACCOMPLISHMENTS IN 2016

The following are some of the key accomplishments in 2016:

### BIWEEKLY GARBAGE

**Introduced** biweekly garbage collection service for more than 33,000 single-family homes and townhomes as part of promoting increased recycling and waste diversion. Residents are able to reduce the fees they pay for garbage service by selecting smaller cart sizes.

### COLLECTION SCHEDULE APP

**Introduced** the Richmond Collection Schedule App to provide residents with reminders about their curbside collection day and information about drop-off locations for various materials using the Recycling Wizard. Since its launch in 2016, there were 14,413 online searches for collection day details and approximately 41,326 searches for materials using the Recycling Wizard, and 5,156 residents signed up for weekly reminders.

### DONATION BIN

**Introduced** Donation Bin Regulation Bylaw No. 9502 that restricts donation bin placement to registered charities only and establishes suitable, safe locations for bin placement as part of promoting reuse of used household clothing and other items.

### GREEN AMBASSADORS

**Supported** 153 student volunteers as they contributed 2,661 hours to promote recycling and responsible waste management at community events.

### DEMOLITION & CONSTRUCTION WASTE

**Introduced** the Demolition Waste and Recyclable Materials Bylaw No. 9516, which requires that 70% of waste from single-family home demolitions be recycled or diverted from waste disposal.

### MULTI-FAMILY OUTREACH

**Introduced** a new Recycling Champions program to work with residents who are interested in helping their neighbours increase their recycling by providing recycling tips and advice, and by raising awareness about the importance of recycling.

### EFFICIENCY & PROCESS IMPROVEMENTS

**Completed** an internal process review in relation to customer service, litter collection routes and illegal dumping response procedures.

### EVENT RECYCLING

**Supported** recycling for approximately 170,000 attendees at more than 50 events.

### CUSTOMER SERVICE

**Responded** to over 26,670 customer service requests and administrative transactions related to garbage and recycling via the Environmental Programs Information Line.

### STUDENT & COMMUNITY ENGAGEMENT

**Delivered** 38 recycling and waste reduction workshops with approximately 860 attendees, organized 10 DreamRider, Zero Heroes theatrical shows involving more than 3,710 students, hosted five Recycling Depot tours for 105 students and teachers, and participated at six community events to raise awareness about how to properly sort recyclables to reduce contamination.

## OUR GOALS

Richmond's long-term goal is to be a Recycling Smart City, and the annual goals listed below are designed to help achieve this target. Each goal is designed to make it easy and convenient to recycle and reduce waste in Richmond, as well as creating and promoting opportunities for innovation, partnership and continuous improvement.

1

### **Improve litter collection efficiency**

Install in-ground containers in high traffic and/or remote public spaces to address garbage capacity concerns and reduce service frequency, and implement new litter collection routes to maximize operational efficiency.

2

### **Enhance Recycling Depot**

Report on potential changes to the configuration of the Recycling Depot, including hours and days of operation, and items accepted.

3

### **Improve emergency preparedness**

Develop a Disaster Debris Management Plan for Richmond that aligns with the Metro Vancouver regional plan.

4

### **Expand demolition recycling**

Review and report progress on Demolition Waste and Recyclable Materials Bylaw No. 9516 as part of promoting expanded recycling of demolition materials.

5

### **Leverage public engagement**

Continue to raise awareness about how to recycle and the importance of responsible waste management through workshops, theatrical shows, digitally-led classroom activities, and support the 6th Annual REaDY Summit.

6

### **Increase recycling in multi-family complexes**

Work with Recycling Champions and property managers to increase recycling in multi-family complexes, with a focus on increasing food scraps recycling and reducing contamination.

7

### **Increase awareness about recycling**

Generate awareness about the types of materials that are recyclable in Richmond's programs and how to sort recyclables properly to reduce contamination.

8

### **Expand public spaces recycling options**

Leverage new bin options to provide convenient, accessible recycling, and enhance the container replacement and maintenance program.





# THANK YOU!

## THANK YOU TO RICHMOND RESIDENTS

Richmond residents continue to demonstrate their commitment to recycling, and as a result, Richmond is on track to achieve its goal for 80% waste diversion by 2020. Our thanks go to residents who take action every day to keep recyclables out of the garbage. In 2016, this partnership with our residents expanded to include individuals and organizations who are making an extra effort to promote increased recycling in the community.

We want to extend a special thank you to the residents who are participating in our Recycling Champions program. These residents are committed to recycling and are motivated to work with their neighbours to help others increase their recycling. This is particularly important in multi-family complexes, where recycling levels are behind those in single-family homes. Thanks to the contributions of the growing number of Recycling Champions in our community, we are looking forward to continuous improvement in these buildings.

Our thanks also go to the more than 50 organizations who hosted events in Richmond and leveraged the City's Event Recycling program to help promote recycling and responsible waste management. By planning ahead and setting up multiple recycling stations, these event organizers are showcasing how easy it is to encourage recycling at public events.

Recycling and waste diversion is most successful when all members of the community take responsibility for their waste. We are proud of how our community comes together, and with this partnership approach, we are confident we will achieve our goal to be a Recycling Smart City.

### DID YOU KNOW?

Food waste and non-flammable recyclable materials like paper, plastic containers, glass bottles and aluminium cans are banned from garbage. These materials will all be recycled through the City's convenient recycling programs.



# CONVENIENT, HIGH QUALITY AND RELIABLE SERVICES

# PROGRAMS AND SERVICES

## EXPANDING SERVICES TO MAKE RECYCLING EASY AND CONVENIENT

Richmond residents in single-family homes are now diverting 78% of their waste, and recycling is increasing in townhomes and other multi-family complexes. To support residents and their commitment to recycling, Richmond continues to expand services to help residents reduce their garbage and create incentives to promote increased recycling. Green Cart and Blue Box/Blue Cart recycling remain core services to help residents recycle. Residents can also drop off a growing list of recyclable items at the Richmond Recycling Depot and other drop-off facilities.

Richmond works with residents, industry partners, product stewardship groups and businesses to achieve its goal to be a Recycling Smart City and implement sustainable waste management. Through partnerships and community engagement, Richmond's commitment to continuous improvement results in enhanced services to benefit residents.



Residents in single-family homes are now diverting 78% of their waste.





## **RICHMOND RECYCLING AND WASTE MANAGEMENT**

Richmond delivers a wide range of recycling and waste management services for residents to ensure that all waste is managed effectively and efficiently. The following are the key recycling and waste management services offered through the City of Richmond.

### **BLUE BOX**

Weekly curbside collection for paper, newsprint, glass, plastic containers, empty aerosol cans, milk cartons, plastic/paper drink cups, spiral wound containers, and tin and aluminium containers. This program is provided to 40,155 residential units in single-family homes and townhomes. For details, see page 32.

### **BLUE CART**

Weekly recycling collection for paper, newsprint, glass, plastic containers, aerosol cans, milk cartons, plastic/paper drink cups, spiral wound containers and tin and aluminium containers. This program is provided to more than 33,725 multi-family units. For details, see page 34.

### **GREEN CART**

Collection for foods scraps and yard trimmings. This program is provided to residents in single-family homes and townhomes as well as multi-family complexes. For details, see page 36.

### **RECYCLING DEPOT**

Drop-off service for products ranging from yard trimmings and household items, to hazardous materials and take-back program products. This service is available to all residents and in limited quantities for commercial operators. The Recycling Depot also sells compost bins, rain barrels, Garbage Tags and Garbage Disposal Vouchers for use at the Vancouver Landfill. For details, see page 40.

### **GO! RECYCLE PUBLIC SPACES AND EVENT RECYCLING**

Recycling bins in the community make it easy to recycle on the go, such as in parks, at community centres, in the Steveston business district and at the Canada Line stations and Richmond central bus stops. Richmond supports community events by loaning garbage and recycling bins for local events at no charge.

### **COMPOSTING AT HOME**

Support for residential composting includes the sale of compost bins, a composting demonstration garden and related workshops. These services are available to all residents. For details, see page 37.



## CURBSIDE GARBAGE COLLECTION

Curbside collection of garbage, not including banned items such as hazardous waste and materials that can be recycled, is available to residents in single-family homes and some townhomes. For details, see page 38.

## EXTRA GARBAGE DISPOSAL

Garbage tags or disposal vouchers for the Vancouver Landfill provide options for residents when they need to dispose of additional garbage or large items. For details, see page 38.

## LARGE ITEM PICK UP PROGRAM

Residents in single-family homes, some townhomes and some multi-family complexes can arrange for collection of four large household items per year. For details, see page 39.

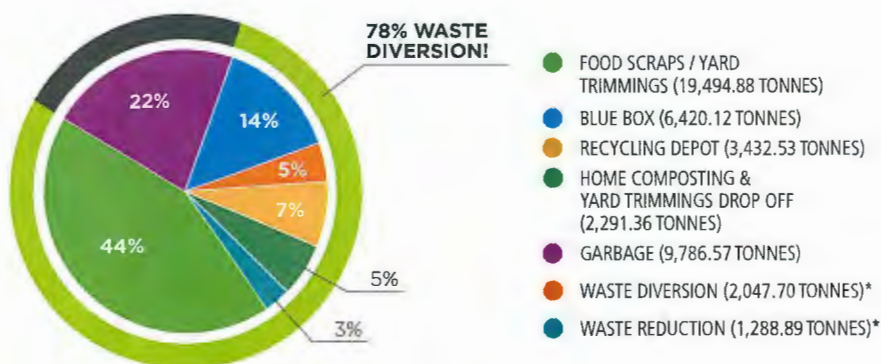
## COMMUNITY AND SCHOOL ENGAGEMENT

Through partnerships with students, teachers and the School District, Richmond sponsors educational shows, awareness programs and volunteer opportunities to increase understanding of recycling and the benefits of reducing waste. For details see the Outreach and Customer Service section on page 25.

### DID YOU KNOW?

Plastic takes hundreds of years to break down in a landfill, whereas recycled plastic can be used to make bottles, clothing, carpet, picnic tables, drainage pipes, bags, trash cans, paneling, flower pots and pallets.

## SINGLE-FAMILY RECYCLING



Residents in single-family homes recycled or reduced 34,975.48 tonnes in 2016 – 78% of total estimated waste generated – through a number of recycling and waste reduction opportunities, including curbside and Recycling Depot collection, as well as composting programs.

\* Estimated





## RESIDENTIAL RECYCLING PROGRAMS

With weekly collection services, drop-off programs, public spaces recycling and community take back programs, it's easy and convenient to recycle in Richmond. Richmond offers residents a range of services to support recycling at home and on the go.

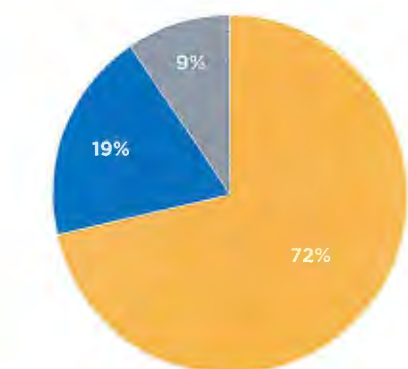
### BLUE BOX RECYCLING PROGRAM

The Blue Box recycling program provides convenient collection services in the community. Residents in single-family homes and some townhome complexes use the City's Blue Box program to recycle newspaper, paper products and cardboard along with tin, aluminium, glass bottles and jars, and plastic containers. More than 40,155 residential units are serviced with weekly collection under this program.

In 2016, more than 6,400 tonnes of materials were recycled in the Blue Box program. Of this, 72% was mixed paper, 9% was glass jars and bottles and 19% was mixed containers.

Items that can be recycled through this program are listed in the Tips and Resources section of this publication and at [www.richmond.ca/recycle](http://www.richmond.ca/recycle).

### 2016 BLUE BOX RECYCLING MIX



- MIXED PAPER (4,591.38 TONNES)
- GLASS (596.74 TONNES)
- CONTAINERS (1,232.00 TONNES)

## BLUE CART RECYCLING PROGRAM

People who live in multi-family complexes can recycle the same products as residents who use the Blue Box program through the City's Blue Cart recycling program. The City provides recycling carts for a mini-recycling depot at each complex, which is generally located in the recycling enclosure or other convenient location. This service is currently available to over 33,725 multi-family units, and the City has information tools such as Blue Cart decals, posters and brochures that are offered to stratas and property managers to help raise awareness and increase participation.

In 2016, more than 2,100 tonnes of materials were recycled through the Blue Cart recycling program.

It is important to recycle using the correct carts. For a detailed list of items that can be recycled through the Blue Cart recycling program, see the Tips and Resources section or visit [www.richmond.ca/recycle](http://www.richmond.ca/recycle).



## TIP FOR RESIDENTS

Residents in single-family homes and some townhomes can pick up complimentary Blue Box supplies at the Richmond Recycling Depot and City Hall.

Residents in multi-family complexes with Blue Cart service can pick up an indoor collection bag at the Richmond Recycling Depot or phone the Environmental Programs Information Line at 604-276-4010.







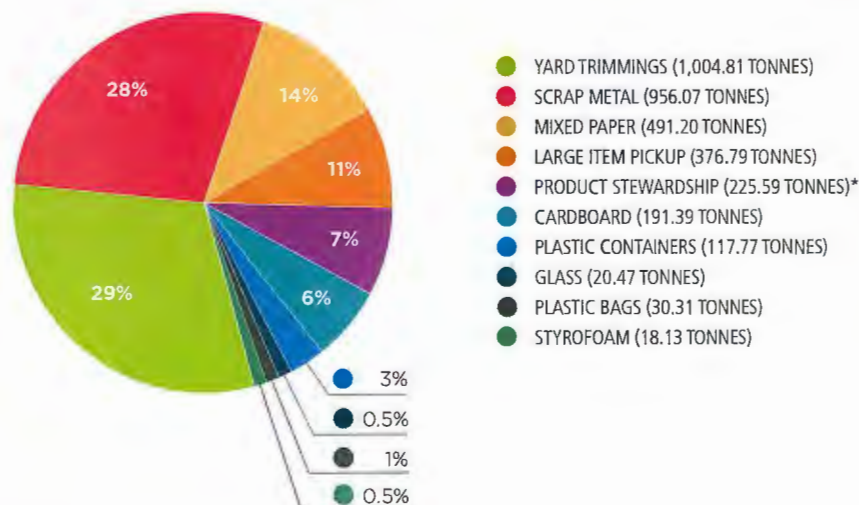
## RECYCLING DEPOT PROGRAM

The Richmond Recycling Depot is located at 5555 Lynas Lane and is open from 9:00 a.m. – 6:15 p.m., Wednesday to Sunday for drop off of a broad range of materials. The Recycling Depot also sells compost bins, rain barrels, Garbage Tags and Garbage Disposal Vouchers. The Richmond Recycling Depot is a product stewardship (take back) collection site for small appliances, paints, solvents, flammable liquids, pesticides, lights and lighting fixtures.

### RECYCLING DEPOT SERVICES

This facility accepts a wide range of materials including cardboard, yard and garden trimmings, mixed paper and newspapers, as well as Styrofoam, used books, cell phones, household batteries and plastic bags. The facility also accepts large appliances (e.g. fridges, stoves, washing machines), metal items (e.g. bike frames, barbecues, lawn mowers), glass bottles, jars, tin and aluminium cans, paints, pesticides and solvents. For a detailed list of items, see page 41. The Recycling Depot is owned and operated by the City of Richmond, with two full-time staff and additional staff support in the summer months to manage increased recycling volumes. Staff on site are available to answer questions and provide assistance with unloading awkward or heavy items.

### DEPOT RECYCLING: BREAKDOWN OF MATERIALS COLLECTED IN 2016



### TOTAL TONNAGE = 3,432.53

In 2016, 3,432.53 tonnes of recyclable materials were collected at the Recycling Depot. This includes yard trimmings, scrap metal, mixed paper products and rigid plastic containers. For more information on drop-off programs for yard trimmings, see page 17.

\* Estimated

## DEPOT RECYCLING: MATERIALS AND AMOUNTS COLLECTED THROUGH TAKE BACK PROGRAMS IN 2016



**PAINT**  
227,232  
EQUIVALENT  
LITRES



**AEROSOLS**  
4,200 EQUIVALENT  
LITRES



**SOLVENTS & PESTICIDES**  
12,960 EQUIVALENT  
LITRES



**SMALL APPLIANCES**  
79.71 TONNES



**CFLS**  
373 BOXES



**4' TUBES**  
320 BOXES



**8' TUBES**  
51 BOXES

### FOR SALE AT THE RECYCLING DEPOT

Residents can purchase the following items:

- Compost bins - \$25 each + GST
- Rain barrels - \$30 each + GST
- Extra Garbage Tags - \$2 each
- Garbage Disposal Vouchers - \$5 each for Richmond residents and it is worth up to \$25 at the Vancouver Landfill

### RECYCLE AT THE DEPOT

Richmond's free drop-off program includes:

- Styrofoam
- Batteries (household batteries 5 kg or under)
- Cell phones
- Used books
- Plastic bags and plastic overwrap
- Large and small appliances
- Scrap metal
- Yard and garden trimmings

For a full list of items that can be recycled at the Recycling Depot, see page 41.



### TIP FOR RESIDENTS

Fats, oils and grease should never be disposed down sinks, drains or garburators as the material hardens and builds up on the inside of sewage lines, causing blockages. This can lead to breaks and sewage spills or overflows. Recycle food scraps, grease solids and small amounts of cooking oil that can be absorbed with a paper towel in your Green Cart, and take used cooking oils and liquid fats in a sealed container to the Richmond Recycling Depot (5555 Lynas Lane, open Wednesday to Sunday from 9:00 a.m. to 6:15 p.m.) for free disposal.





## COMPOSTING PROGRAMS

Composting is a simple and organic process that can reduce household waste by up to 40%. Fruit and vegetable peelings, along with grass, leaves and other yard trimmings, can be added to a compost bin. In addition, composted matter produces a very nutrient-rich soil to keep lawns and gardens healthy.

### BACKYARD COMPOST BIN DISTRIBUTION PROGRAM

The City of Richmond supports composting by providing free composting workshops from January to November, which include information on backyard and worm composting and how to harvest compost. The City offers compost bins for sale at the Recycling Depot for \$25 plus tax each. Backyard composting is the most effective way to dispose of fruit and vegetable peelings, eggshells, coffee grounds, filters, tea bags and yard trimming materials. Since this program started in 1992, 10,741 compost bins have been distributed.

Additional tips and information on composting are provided in the Tips and Resources section and at [www.richmond.ca/recycle](http://www.richmond.ca/recycle).

### COMPOST DEMONSTRATION GARDEN

To help residents learn about backyard composting, the City offers a Compost Demonstration area in the Terra Nova Rural Park located at 2631 Westminster Highway just west of No.1 Road. It is open from dawn to dusk year-round, and is supplemented by workshops. Residents are encouraged to take a self-guided tour to learn about different types of compost bins and the benefits of composting.



### TIP FOR RESIDENTS

The Compost Hotline at 604-736-2250 offers tips and advice on how to compost and use the nutrient-rich soil produced for home gardens. Compost from yard trimmings drop-off programs and through the Green Cart collection programs is sold for use in the landscaping industry.



#### DID YOU KNOW?

When food scraps are disposed of in a landfill, the decomposition process creates methane. Methane is a powerful greenhouse gas that contributes to global warming.

## YARD TRIMMINGS DROP-OFF PROGRAMS

### ECOWASTE INDUSTRIES

The City offers residents the option to drop off unlimited quantities of yard and garden trimmings for free at Ecowaste Industries located at 15111 Triangle Road. Proof of Richmond residency is required. Commercial landscapers servicing residential properties are also eligible for free drop-off. They must apply for this exemption.

Visit [ecowaste.com](http://ecowaste.com) or call 604-277-1410 for hours of operation and directions.

### RICHMOND RECYCLING DEPOT

Residents may drop off limited quantities of yard and garden trimmings (up to 1 cubic yard) at the Richmond Recycling Depot. A fee of \$20 applies for each additional cubic yard. Commercial operators may also use the Recycling Depot to drop off yard trimmings for a fee of \$20 per cubic yard. The Recycling Depot is located at 5555 Lynas Lane and is open from 9:00 a.m. – 6:15 p.m., Wednesday to Sunday.

For a detailed list of all items that can be recycled at the Recycling Depot, please refer to the Tips and Resources section on page 41.

### DROP OFF TONNAGE IN 2016

In 2016, 3,652.82 tonnes of yard trimmings were collected at the Recycling Depot and through the Ecowaste residential and commercial drop-off service.

**1,004.81  
TONNES**

RECYCLING DEPOT

+

**2,648.01  
TONNES**

ECOWASTE INDUSTRIES

=

**3,652.82  
TONNES**





## GREEN CART PROGRAM

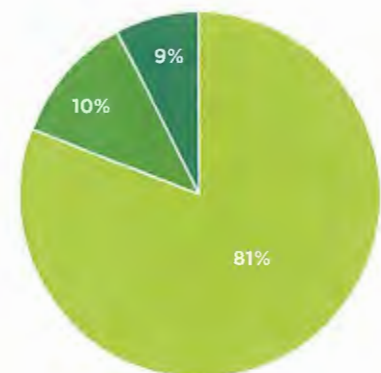
Richmond's Green Cart recycling program is available to all Richmond residents to ensure they have a convenient service to recycle food scraps, and yard and garden trimmings, which are banned from the garbage. Green Cart recycling totalled approximately 21,477.44 tonnes in 2016 – a 16% increase over 2015. The majority came from single-family homes followed by townhomes and apartments in multi-family housing sites.

Food scraps and yard trimmings represent about 40% of household waste, and the increase in Green Cart recycling along with Richmond's other recycling services has contributed to residents in single-family homes reducing their garbage by 78% in 2016. The Green Cart program is also an important service to support residents with an easy and convenient recycling option to meet requirements for Metro Vancouver's disposal ban on food scraps.

## RECYCLING WASTE TO REDUCE COSTS

By providing Green Cart recycling services, the City is helping residents avoid added costs for materials banned from disposal. Organics (including yard trimmings and food scraps) can no longer be tossed in the garbage. Surcharged fees are applied on any organics in garbage that exceed 5% (in 2017).

## 2016 RESIDENTIAL GREEN CART RECYCLING



- SINGLE-FAMILY HOMES (17,459.44 TONNES)
- TOWNHOMES (2,035.44 TONNES)
- APARTMENTS & CONDOMINIUMS (1,982.56 TONNES)

With the introduction of biweekly garbage collection, Richmond residents have reduced their garbage by 17%, which is equivalent to more than 2,000 tonnes.

## GARBAGE COLLECTION SERVICES

Richmond's curbside garbage collection services provide residents with convenient options for waste disposal. Household garbage is collected biweekly using City-provided garbage carts, and residents are offered curbside collection for up to four large household items through the City's Large Item Pick Up program.

### GARBAGE COLLECTION

In 2016, the City introduced its new Garbage Cart program, which included City-provided carts with wheels and lids, as well as a shift to biweekly collection to help reduce garbage and encourage recycling. The new Garbage Cart program is designed to lower costs for residents who are reducing their garbage by recycling their household waste.

Residents who select smaller cart sizes are generating less garbage and as a result, they pay less for their annual curbside garbage collection. Residents can exchange their cart for a different size, and their curbside garbage collection fees are adjusted according to the size selected.

With biweekly collection, residents have the same collection day; however, garbage is now collected biweekly (every other week) and recycling continues to be collected weekly. To support the new program implementation, the City communicated with residents using direct mail information kits, print advertising, transit shelter advertising, social media posts, website updates and an information kit that was distributed with the new carts. Residents also received an annual Garbage Collection Schedule, which is customized to each collection zone.

### GARBAGE CART SIZE OPTIONS



There are four standard sizes of Garbage Carts, and an additional Extra Small cart is available by request.





### NEW APP PROVIDES TIPS AND COLLECTION REMINDERS

Richmond has a new, free tool to support recycling and provide weekly collection reminders – the Richmond Collection Schedule app. The app includes an option to sign up for weekly reminders about curbside recycling and garbage collection as well as a Recycling Wizard tool that makes it easy to find out where to recycle various household items. This new app is available at the Apple and Android app stores. The Recycling Wizard is also available online at [www.richmond.ca/recyclesearch](http://www.richmond.ca/recyclesearch).

### EXTRA GARBAGE OPTIONS

For the occasions when residents have extra garbage, the City offers several options:

- Residents can purchase \$2 Garbage Tags for excess garbage bags/cans as needed.
- Use Richmond's Large Item Pick Up program for curbside collection of up to four large items each year. To schedule a large item pick up, residents call the City's service provider, Sierra Waste Services at 604-270-4722.
- A \$5 Garbage Disposal Voucher for the Vancouver Landfill (one per Richmond household per year) can be purchased at City facilities. The voucher is good for up to \$25 in value for garbage drop off at the Vancouver Landfill located at 5400 72nd Street, Delta. For more information, call 604-276-4010.

### GARBAGE DISPOSAL OVER THE YEARS



As conscientious recyclers, residents have drastically reduced the amount of garbage disposed since 1990. The City continues to improve and adapt services to support increased recycling and to help reduce garbage.



### LARGE ITEM PICK UP PROGRAM

Richmond's Large Item Pick Up program provides curbside collection of up to four large items per year. This program is provided to residents in single-family homes, as well as townhomes and multi-family complexes with the City's garbage collection and/or Blue Box program. This service makes it easier for residents who do not have access to a vehicle to dispose of large items. Residents can contact the City's service provider at 604-270-4722 to arrange for collection of up to four large items per year. All four large items can be picked up at the same time, or in varying bundles for a total of four items annually.

Items accepted in this program include furniture, appliances and small household goods. Restrictions apply to ensure items can be handled safely and mattresses must be covered in plastic to keep them dry. If residents have more than four large items to dispose of, they can purchase a Garbage Disposal Voucher for \$5 from any City facility and use the voucher to dispose of up to \$25 worth of garbage items at the Vancouver Landfill.

For more information on this program, see page 39 or visit [www.richmond.ca/recycle](http://www.richmond.ca/recycle).

APPROXIMATELY **8,501** REQUESTS FOR SERVICE



**2,976**  
MATTRESSES &  
BOXSPRINGS



**597**  
WASHERS & DRYERS



**420**  
TELEVISIONS



**620**  
FRIDGES & FREEZERS



**432**  
BARBECUES



**180**  
DISHWASHERS

**535** TONNES WERE COLLECTED  
AND OF THIS, **288**  
TONNES WERE RECYCLED



**255**  
STOVES



**56**  
MICROWAVES



**1,131**  
OTHER

**7,319**  
NON-RECYCLABLE HOUSEHOLD ITEMS COLLECTED  
FOR SAFE HANDLING AND DISPOSAL

**13,986** ITEMS COLLECTED





## LITTER COLLECTION SERVICES

Maintaining a litter-free city is a key focus area to ensure residents can enjoy clean parks and public spaces. The City of Richmond has made efforts to ensure that there are garbage cans, and in many cases recycling options, in public spaces throughout the city.

In addition, City crews work seven days a week to collect litter from parks, school grounds, roadsides, sidewalks and boulevards. They inspect or service garbage and recycling from litter and recycling receptacles in the community 23,339 times every month. Crews also assist with removing graffiti from City garbage cans, and they collect illegally-dumped materials found on City property and provide safe disposal and recycling of these items. Together, these measures help to support a safe and appealing community.

### DID YOU KNOW?

The City sponsors engaging programs at elementary schools to teach students about reducing litter, and promotes a litter-free community through its Partners for Beautification Program.

**BINS INSPECTED OR SERVICED 23,339 TIMES PER MONTH OR APPROXIMATELY 280,000 TIMES PER YEAR**

**CREWS TRAVEL 2,840 KILOMETRES PER WEEK TO INSPECT AND SERVICE BINS**



Example of a well-designed garbage and recycling room. Courtesy of Concert Properties

## COMMERCIAL AND MULTI-FAMILY DEVELOPMENT GUIDELINES

Richmond is developing a new resource guide to assist owners, developers and designers in the development of appropriate recycling and waste storage systems for multi-family and commercial complexes. Following the recommended strategies in the guide will help streamline the development application process by ensuring key requirements are met as part of the initial application.

Recycling and waste management are integral to the development and planning process for multi-family and commercial complexes. Richmond's resource guide is intended to assist owners, developers and designers to ensure development applications for multi-family and commercial complexes include recycling and waste storage systems that meet government regulations and comply with Metro Vancouver disposal bans. These guidelines are designed to address common design issues, ensure adequate space to accommodate bins to meet disposal ban requirements (including food scraps recycling), ensure well-designed recycling areas that are easy to use or access, and provide adequate space for height clearance and turning radius for collection vehicles.

### GOALS AND OBJECTIVES

The goals of effective garbage and recycling programs for multi-family and commercial complexes are to provide efficient recycling and garbage services and to achieve targeted waste diversion while minimizing contamination in recycling. The following objectives support these goals:

- Create building design to support convenient access to full range of recycling services.
- Minimize contamination of recycling by designing areas to accommodate convenient grouping of recycling types and space for instructional signage.
- Create building design to ensure sufficient space is allocated for collection of materials, including turn radius and height clearance for automated collection trucks.
- Create efficient centralized collection areas with sufficient space for recycling and garbage carts/bins to help avoid unsightly premises caused by overflowing carts/bins.





# NEW PARTNERSHIPS TO INCREASE RECYCLING

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# OUTREACH AND CUSTOMER SERVICE

## SUPPORTING AWARENESS AND EDUCATION

Richmond recognizes that providing recycling services is the first important step in reducing waste; however, the second critical step is communication and community engagement. This includes informing residents about City and partner programs and services available in the community, educating them on how to use the programs, raising awareness about why recycling and reducing waste is important, and engaging the community to help design programs that fit their needs and priorities. The third essential step is providing excellent customer service. With its commitment to community outreach and customer service, the City goes beyond providing services – it supports residents so they can be successful in reducing their waste.



In 2016, approximately 153 youth volunteered more than 2,660 hours in Richmond's Green Ambassador program to support recycling awareness at events and outreach displays.





## CUSTOMER SERVICE

Richmond's successful outreach and customer service programs are designed to help turn information and education into action. By working with children and youth through school programs and the Green Ambassadors, Richmond creates a learning environment where students gain a better understanding about recycling and sustainable waste management, and then apply their skills as volunteers and through school activities. Providing outreach, customer support services and information materials also assists residents by increasing their understanding of how to recycle along with new tools and services to promote recycling at home and on the go.

The Environmental Programs Information Line staff assisted customers with more than 26,000 service requests in 2016, answering questions, assisting with requests relating to garbage and recycling and providing guidance on where to go for additional information and resources. Richmond also assists customers directly at the Recycling Depot, and through its outreach programs in the community.

At the Depot, staff provide assistance with where and how to recycle using its drop-off options, answer questions about City programs and services and sell products such as compost bins and rain barrels as well as Garbage Tags and Garbage Disposal Vouchers. Through outreach, Richmond goes into the community to connect with residents to share information and respond to questions.

**26,670**  
CUSTOMER SERVICE  
CALLS SUPPORTED

**8,770**  
GARBAGE TAGS SOLD

**700**  
GARBAGE DISPOSAL  
VOUCHERS SOLD

**65** COMPOST  
BINS SOLD

Richmond recognizes the importance of working with community members to achieve its waste reduction goals. This outreach includes engaging students to raise awareness about the importance of recycling and reducing garbage, as well as creating opportunities for residents to become leaders in the community. The City is also proud to sponsor events and workshops to encourage recycling and provide tips and instructions on how to manage waste responsibly.

## 2016 HIGHLIGHTS

### ENGAGING STUDENTS

In 2016, Richmond sponsored the DreamRider Zero Heroes show at 10 schools, engaging 3,534 students from kindergarten to grade seven and approximately 177 teachers to raise awareness and inspire them to reduce waste. The participants learned about solid waste reduction and received tools to take home to share with their family and friends. In the survey following the shows, 100% of teachers surveyed agreed that the performance was "Outstanding/Very Good" and that the educational content of this show was "Very Valuable", and 89% of teachers surveyed said DreamRider was "Very Effective" at inspiring children to change their environmental behaviours.

### RICHMOND GREEN AMBASSADORS

Richmond's Green Ambassadors are dedicated high school students who participate in monthly symposiums to learn about environmental sustainability and apply what they have learned as volunteers at City events and activities. In 2016, 153 students in the program contributed more than 2,660 volunteer hours to promote recycling at community events and organize the REaDY Summit. These energetic and environmentally conscious individuals also manage green initiatives in their school.

### RICHMOND RECYCLING CHAMPIONS

Richmond's Recycling Champion program is designed to support residents who are interested in helping their neighbours increase recycling and reduce garbage. This City-sponsored program provides these resident leaders with tips and resources that they can share with other residents to help increase understanding of how to recycle correctly and why it is important to divert waste from landfills. In its first year, 40 residents signed up to be Recycling Champions.

### RICHMOND HOSTS 5<sup>TH</sup> ANNUAL EARTH DAY SUMMIT

The 2016 REaDY Summit showcased how community partners, students and residents can come together to celebrate sustainable actions that can trigger a positive change in our community. Summit participants included 35 student volunteers from 15 Richmond schools, as well as residents from five municipalities. Thanks to help from student volunteers, 95% of the waste from the event was recycled. This year's Summit featured two youth-led keynote presentations and the opening ceremony included speeches by four students between grades three to nine who spoke on the topic "Change Happens Now: The World is Rooted in Our Backyard".





## EVENT RECYCLING

Recycling stations are required for all special event bookings taking place in Richmond. For some events, the City hosts recycling stations with assistance from the Green Ambassador volunteers. This involves setting up recycling stations and having recycling assistants at the event to advise people on how to recycle. In 2016, the City hosted recycling stations at 19 events, including the Public Works Open House, Children's Art Festival, Move for Health, Doors Open, COOL Expo, Halloween Fireworks, Ship to Shore Festival, Salmon Festival and Maritime Festival. Typically, very high diversion rates are achieved thanks to the efforts of the City's Green Ambassadors. Examples include:

- Ship to Shore – 90% diversion rate
- Steveston Salmon Festival – 93% diversion rate
- Maritime Festival – 93% diversion rate
- World Festival – 79% diversion rate

The City also supports events by providing organizers with recycling bins and garbage carts at no charge, as well as complimentary collection services. This makes it easy for event organizers to keep the venue clean and recyclables out of the landfill. In 2016, 50 event organizers used the City's event recycling program to help keep recyclable materials out of the garbage at events.

## GREAT CANADIAN SHORELINE CLEAN-UP

Jointly led by the Vancouver Aquarium and World Wildlife Foundation, the Great Canadian Shoreline Clean-Up focuses on educating and empowering people to make a difference through community clean-up events. As part of this initiative, Environmental Programs partnered with Parks to support 42 community clean-up events on the City's waterfront.



## COMMUNITY WORKSHOPS

Richmond's free community workshops provide education and tips that support recycling and waste reduction techniques. In 2016, the City hosted 38 community workshops with a total of 859 participants. A summary of workshops that focus on helping residents towards the City's goal for 80% waste diversion is provided below.

For information on the workshops, email [esoutreach@richmond.ca](mailto:esoutreach@richmond.ca). To attend free workshops offered by the City, visit [richmond.ca/register](http://richmond.ca/register) for workshop details and registration information.

| COMMUNITY WORKSHOPS                       |                     |                        |   |
|---|---------------------|------------------------|---|
| TYPE OF WORKSHOP                          | NUMBER OF WORKSHOPS | NUMBER OF PARTICIPANTS | DESCRIPTION   |
| <b>Composting Workshops</b>               | 2                   | 31                     | Learn simple compost harvesting techniques and how to effectively convert food and yard waste into an organic soil conditioner.   |
| <b>Do-it-yourself Recycling Workshops</b> | 5                   | 46                     | Turn second hand items into amazing treasures such as pallet gardens, stationery items, holiday-themed gift baskets and repurposing old clothing into new knit or crocheted items.              |
| <b>Food Waste Reduction Workshops</b>     | 21                  | 477                    | Reduce food waste by learning harvesting, freezing/canning, and fermenting techniques to store foods.   |
| <b>Eco-cleaning</b>                       | 2                   | 49                     | Homemade household cleaners work well, save money and are less harmful to people, animals and the environment. With a few easy steps, participants learn to make and use eco-friendly cleaners. |
| <b>Recycling Workshops</b>                | 8                   | 256                    | Learn how to sort household recyclables properly to reduce contamination. Understand the recycling process and the importance recycling has on the environment.                                 |
| <b>Total</b>                              | <b>38</b>           | <b>859</b>             |   |



# PROGRAMS & PARTNERSHIPS IN WASTE MANAGEMENT

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# TIPS AND RESOURCES

## EASY STEPS TO INCREASE RECYCLING AND REDUCE WASTE

In Richmond, we care about our community, and we are working together to trim our waste. The City works with residents and community partners to make it easy and convenient to reuse and recycle at home and on the go. It's all about making recycling a way of life. This at-a-glance resource on the various types of recycling programs and services available through the City of Richmond is a valuable guide to support being recycling smart in Richmond. The Tips and Resources include highlights such as how and where to recycle, what to do with hazardous waste and where to find additional information.

Resources also include contact information and locations for Richmond services and community partners involved in take back collection through product stewardship programs. Together these Tips and Resources help to support maximum recycling with minimum contamination in the waste going to the landfill.



Richmond's Environmental Program staff share information on tips and resources by phone, through outreach events and on the website.





## BLUE BOX

Richmond's Blue Box recycling program provides convenient collection for residents in single-family homes and some townhomes to recycle mixed paper, plastic containers, milk cartons, paper and plastic drink cups, flower pots, empty aerosol cans and spiral wound tins like frozen juice concentrate containers as well as glass bottles and jars, which are separated into the grey Glass Recycling Bin.

Recyclable materials from the Blue Box program are collected from single-family homes and some townhome complexes on the same day that garbage is collected. Containers are placed into the Blue Box, glass bottles and jars are placed in the grey Glass Recycling Bin and all paper products, including newspaper and flattened cardboard are placed in the yellow Mixed Paper Recycling Bag. Blue Boxes are available in two sizes: regular (16 gallons) and tall (22 gallons) for extra capacity.

It is important to ensure materials are sorted correctly into the proper recycling receptacles. For example, recyclables must be placed individually in bins – not stacked, nestled, or in plastic bags. Also, plastics like toys, hangers and laundry hampers are not accepted in the Blue Box but can be brought to the Richmond Recycling Depot.

For a list of items accepted in Blue Box recycling, see page 33 or visit [www.richmond.ca/recycle](http://www.richmond.ca/recycle).

### Set Out Time

Before 7:30 a.m. on collection day.

### Report a Missed Collection

Call 604-276-4010 or email [garbageandrecycling@richmond.ca](mailto:garbageandrecycling@richmond.ca).

### How to Get a Mixed Paper Recycling Bag, Glass Recycling Bin or Blue Box

There is no charge for new or replacement Blue Boxes, Glass Recycling Bins or Mixed Paper Recycling Bags.

For additional Blue Box supplies call 604-276-4010 or pick them up at the following locations:

### Richmond Recycling Depot

5555 Lynas Lane  
Wednesday to Sunday (Closed on Mondays, Tuesdays & Statutory Holidays)  
9:00 a.m. to 6:15 p.m.

### City Hall

6911 No. 3 Road  
Monday to Friday (Closed on Saturdays, Sundays & Statutory Holidays)  
8:15 a.m. to 5:00 p.m.

Please note: Tall Blue Boxes are only available at the Richmond Recycling Depot.

## WHAT GOES WHERE:



## MIXED PAPER RECYCLING BAG

| ACCEPTED   | HOW TO RECYCLE   | NOT ACCEPTED  |
|--|--|---|
| <ul style="list-style-type: none"> <li>✓ Newspapers, inserts &amp; flyers</li> <li>✓ Flattened cardboard boxes</li> <li>✓ Catalogues &amp; magazines</li> <li>✓ Cereal boxes</li> <li>✓ Clean pizza boxes</li> <li>✓ Corrugated cardboard (small pieces)</li> <li>✓ Envelopes</li> <li>✓ Junk mail</li> <li>✓ Paper bags</li> <li>✓ Paper egg cartons</li> <li>✓ Paper gift wrap &amp; greeting cards</li> <li>✓ Telephone books</li> <li>✓ Shredded paper (place inside a paper bag to avoid scattering)</li> <li>✓ Writing paper (notepads, loose leaf paper, white or coloured paper, printed paper)</li> </ul> | <ul style="list-style-type: none"> <li>• Remove plastic liners/covers.</li> <li>• Remove any food residue.</li> <li>• Flatten boxes.</li> <li>• <b>Place in Mixed Paper Recycling Bag.</b></li> <li>• Cardboard bundle size: 3 ft x 2 ft x 4 in (90 cm x 60 cm x 10 cm)</li> </ul> <p><i>Note:</i> Oversized/excessive amounts of cardboard can be dropped off at the City's Recycling Depot at 5555 Lynas Lane.</p> | <ul style="list-style-type: none"> <li>✗ Cardboard boxes with wax coating</li> <li>✗ Plastic bags used to cover newspapers/flyers</li> <li>✗ Metallic wrapping paper</li> <li>✗ Ribbons or bows</li> <li>✗ Musical greeting cards with batteries</li> <li>✗ Padded envelopes</li> <li>✗ Plastic or foil candy wrappers</li> </ul> |

## GLASS RECYCLING BIN

| ACCEPTED  | HOW TO RECYCLE  | NOT ACCEPTED  |
|---|---|---|
| <ul style="list-style-type: none"> <li>✓ Clear or coloured glass bottles &amp; jars (pickle jars, jam jars, spaghetti sauce jars, soy sauce bottles)</li> </ul> | <ul style="list-style-type: none"> <li>• Remove lids &amp; caps.</li> <li>• Remove food residue.</li> <li>• Empty &amp; rinse.</li> <li>• <b>Place in Glass Recycling Bin.</b></li> </ul> | <ul style="list-style-type: none"> <li>✗ Glasses, dishes, cookware, window glass or mirrors</li> <li>✗ Ceramic products</li> <li>✗ Lids &amp; caps (place in Blue Box)</li> </ul> |

## BLUE BOX FOR CONTAINERS

| ACCEPTED  | HOW TO RECYCLE  | NOT ACCEPTED  |
|---|---|---|
| <ul style="list-style-type: none"> <li>✓ Empty aerosol cans &amp; caps (food items, air fresheners, shaving cream, deodorant, hairspray)</li> <li>✓ Microwavable bowls, cups &amp; lids</li> <li>✓ Paper food containers &amp; cartons (ice-cream, milk, liquid whipping cream)</li> <li>✓ Paper &amp; plastic drink cups with lids</li> <li>✓ Plastic containers, trays &amp; caps (bakery containers &amp; deli trays)</li> <li>✓ Plastic and paper garden pots &amp; trays</li> <li>✓ Spiral wound paper cans &amp; lids (frozen juice, potato chips, cookie dough, coffee, nuts, baby formula)</li> <li>✓ Aluminium cans &amp; lids</li> <li>✓ Aluminium foil &amp; foil containers (foil wrap, pie plates, food trays)</li> <li>✓ Plastic bottles &amp; caps (food items, condiments such as ketchup, mustard &amp; relish, dish soap, mouthwash, shampoos, conditioners)</li> <li>✓ Plastic jars &amp; lids</li> <li>✓ Plastic tubs &amp; lids (margarine, spreads, dairy products such as yogurt, cottage cheese, sour cream, ice cream)</li> <li>✓ Tin cans &amp; lids</li> </ul> | <ul style="list-style-type: none"> <li>• Remove food residue.</li> <li>• Remove caps or lids; place loose in the Blue Box.</li> <li>• Empty and rinse.</li> <li>• <b>Place in Blue Box.</b></li> </ul> <p><i>Note:</i> Flatten containers where possible.</p> | <ul style="list-style-type: none"> <li>✗ Aerosol cans with hazardous materials (spray paint) or with remaining content*</li> <li>✗ Ceramic plant pots</li> <li>✗ Compostable/biodegradable plastic bags &amp; containers</li> <li>✗ Containers for motor oil, vehicle lubricant or wax products</li> <li>✗ Foil-lined cardboard lids from take-out containers</li> <li>✗ Garden hoses</li> <li>✗ Plastic bags &amp; over wrap*</li> <li>✗ Plastic string or rope</li> <li>✗ Styrofoam materials*</li> </ul> <p>* Take to the Richmond Recycling Depot</p> |





## BLUE CART

All multi-level multi-family complexes like apartments and condominiums and some townhomes have a recycling depot with Blue Carts for recycling mixed paper, plastic containers, milk cartons, paper and plastic drink cups, flower pots, empty aerosol cans and spiral wound tins like frozen juice concentrate containers as well as glass bottles and jars, which are separated into the Glass Recycling Cart. They are generally located in the garbage room or other convenient location.

For sorting recycling, containers are placed in the Containers Recycling Cart, glass bottles and jars are placed in the Glass Recycling Cart and paper products including newspaper and flattened cardboard are placed in the Mixed Paper Recycling Cart. These recyclable materials are banned from landfill.

The carts are emptied once a week. Statutory holidays do not generally affect the collection; however, Christmas Day may delay collection by one day if it falls on a weekday. For information about the recycling depot location in your building, contact your building manager or property manager.

It is important to ensure materials are sorted correctly into the proper recycling carts. For example, recyclables must be placed individually in carts – not stacked, nestled, or in plastic bags. Also, plastics like toys, hangers and laundry hampers are not accepted in the Blue Cart but can be brought to the Richmond Recycling Depot.

For a list of items accepted in Blue Cart recycling, see page 35 or visit [www.richmond.ca/recycle](http://www.richmond.ca/recycle).

### Cart Emptying

Some carts are retrieved from their site, however, some are brought out to a collection area.

Carts brought out must be at the collection area before 7:30 a.m.

### Report a Missed Collection

Call 604-276-4010 or email [garbageandrecycling@richmond.ca](mailto:garbageandrecycling@richmond.ca).

### How to Get an Indoor Collection Bag for Blue Cart Recycling

There is no charge for new or replacement Blue Cart recycling bags. For additional bags call 604-276-4010 or pick them up at the following locations:

#### City Recycling Depot

5555 Lynas Lane  
Wednesday to Sunday (Closed on Mondays, Tuesdays & Statutory Holidays)  
9:00 a.m. to 6:15 p.m.

#### City Hall

6911 No. 3 Road  
Monday to Friday (Closed on Saturdays, Sundays & Statutory Holidays)  
8:15 a.m. to 5:00 p.m.

## WHAT GOES WHERE:



## MIXED PAPER RECYCLING CART

| ACCEPTED   | HOW TO RECYCLE  | NOT ACCEPTED  |
|--|---|---|
| <ul style="list-style-type: none"> <li>✓ Newspapers, inserts &amp; flyers</li> <li>✓ Flattened cardboard boxes</li> <li>✓ Catalogues &amp; magazines</li> <li>✓ Cereal boxes</li> <li>✓ Clean pizza boxes</li> <li>✓ Corrugated cardboard (small pieces)</li> <li>✓ Envelopes</li> <li>✓ Junk mail</li> <li>✓ Paper bags</li> <li>✓ Paper egg cartons</li> <li>✓ Paper gift wrap &amp; greeting cards</li> <li>✓ Telephone books</li> <li>✓ Shredded paper (place inside a paper bag to avoid scattering)</li> <li>✓ Writing paper (notepads, loose leaf paper, white or coloured paper, printed paper)</li> </ul> | <ul style="list-style-type: none"> <li>• Remove plastic liners/covers.</li> <li>• Remove any food residue.</li> <li>• Flatten boxes.</li> <li>• Cut cardboard into small pieces – 12 in x 12 in (30 cm x 30 cm)</li> <li>• <b>Place in Mixed Paper Recycling Cart.</b></li> </ul> <p><i>Note:</i> Oversized/excessive amounts of cardboard can be dropped off at the City's Recycling Depot at 5555 Lynas Lane.</p> | <ul style="list-style-type: none"> <li>✗ Cardboard boxes with wax coating</li> <li>✗ Plastic bags used to cover newspapers/flyers</li> <li>✗ Metallic wrapping paper</li> <li>✗ Ribbons or bows</li> <li>✗ Musical greeting cards with batteries</li> <li>✗ Padded envelopes</li> <li>✗ Plastic or foil candy wrappers</li> </ul> |

## GLASS RECYCLING CART

| ACCEPTED  | HOW TO RECYCLE   | NOT ACCEPTED   |
|---|--|--|
| <ul style="list-style-type: none"> <li>✓ Clear or coloured glass bottles &amp; jars (pickle jars, jam jars, spaghetti sauce jars, soy sauce bottles)</li> </ul> | <ul style="list-style-type: none"> <li>• Remove lids &amp; caps.</li> <li>• Remove food residue.</li> <li>• Empty &amp; rinse.</li> <li>• <b>Place in Glass Recycling Cart.</b></li> </ul> | <ul style="list-style-type: none"> <li>✗ Glasses, dishes, cookware, window glass or mirrors</li> <li>✗ Ceramic products</li> <li>✗ Lids &amp; caps (place in Containers Recycling Cart)</li> </ul> |

## CONTAINERS RECYCLING CART

| ACCEPTED  | HOW TO RECYCLE  | NOT ACCEPTED  |
|---|---|---|
| <ul style="list-style-type: none"> <li>✓ Empty aerosol cans &amp; caps (food items, air fresheners, shaving cream, deodorant, hairspray)</li> <li>✓ Microwavable bowls, cups &amp; lids</li> <li>✓ Paper food containers &amp; cartons (ice-cream, milk, liquid whipping cream)</li> <li>✓ Paper &amp; plastic drink cups with lids</li> <li>✓ Plastic containers, trays &amp; caps (bakery containers &amp; deli trays)</li> <li>✓ Plastic and paper garden pots &amp; trays</li> <li>✓ Spiral wound paper cans &amp; lids (frozen juice, potato chips, cookie dough, coffee, nuts, baby formula)</li> <li>✓ Aluminium cans &amp; lids</li> <li>✓ Aluminium foil &amp; foil containers (foil wrap, pie plates, food trays)</li> <li>✓ Plastic bottles &amp; caps (food items, condiments such as ketchup, mustard &amp; relish, dish soap, mouthwash, shampoos, conditioners)</li> <li>✓ Plastic jars &amp; lids</li> <li>✓ Plastic tubs &amp; lids (margarine, spreads, dairy products such as yogurt, cottage cheese, sour cream, ice cream)</li> <li>✓ Tin cans &amp; lids</li> </ul> | <ul style="list-style-type: none"> <li>• Remove food residue.</li> <li>• Remove caps or lids; place loose in the Blue Cart.</li> <li>• Empty and rinse.</li> <li>• <b>Place in Containers Recycling Cart.</b></li> </ul> <p><i>Note:</i> Flatten containers where possible.</p> | <ul style="list-style-type: none"> <li>✗ Aerosol cans with hazardous materials (spray paint) or with remaining content*</li> <li>✗ Ceramic plant pots</li> <li>✗ Compostable/biodegradable plastic bags &amp; containers</li> <li>✗ Containers for motor oil, vehicle lubricant or wax products</li> <li>✗ Foil-lined cardboard lids from take-out containers</li> <li>✗ Garden hoses</li> <li>✗ Plastic bags &amp; over wrap*</li> <li>✗ Plastic string or rope</li> <li>✗ Styrofoam materials*</li> </ul> <p>* Take to the Richmond Recycling Depot</p> |



## GREEN CART

Food scraps are banned from the garbage, which means they must be recycled or composted. With the Green Cart program, all Richmond residents have access to food scraps recycling and when you recycle with a Green Cart, you are helping turn food scraps and yard trimmings into compost for nutrient-rich soil.

Residents with curbside collection may continue to use Green Cans for excess food scraps and yard trimmings. Paper yard waste bags and tied bundles of yard trimmings are also accepted. Please visit [www.richmond.ca/greencart](http://www.richmond.ca/greencart) for more information.

Please note that Green Carts stay with the property. Residents with curbside collection may exchange their Green Cart for a different size for \$25. If residents move to another house in Richmond, they will have a Green Cart at that location. If there is no cart, or to exchange a cart size, please call 604-276-4010.

### WHAT GOES IN THE GREEN CART:



| ACCEPTED   |   | HOW TO RECYCLE   | NOT ACCEPTED   |
|--|---|--|--|
| <b>FOOD SCRAPS &amp; FOOD SOILED PAPER</b> <ul style="list-style-type: none"> <li>✓ Breads, pasta, rice &amp; noodles</li> <li>✓ Coffee grounds &amp; filters</li> <li>✓ Dairy products</li> <li>✓ Fruit</li> <li>✓ Eggshells</li> <li>✓ Meat, poultry, fish, shellfish &amp; bones</li> <li>✓ Paper towels/napkin/plates</li> <li>✓ Pizza delivery boxes</li> <li>✓ Small amounts of grease/oil absorbed into paper towel</li> <li>✓ Solid grease</li> <li>✓ Table scraps &amp; food scrapings</li> <li>✓ Tea bags</li> <li>✓ Vegetables</li> </ul> | <b>YARD TRIMMINGS</b> <ul style="list-style-type: none"> <li>✓ Flowers</li> <li>✓ Leaves</li> <li>✓ Grass clippings</li> <li>✓ Other organic yard materials</li> <li>✓ Plants (living or dead/dried)</li> <li>✓ Plant trimmings</li> <li>✓ Tree &amp; hedge prunings</li> </ul> | <ul style="list-style-type: none"> <li>• Collect food scraps in your kitchen container.</li> <li>• Empty materials from your kitchen container into your <b>Green Cart</b>.</li> <li>• Place yard trimmings into <b>Green Cart</b> along with your food scraps (Extra yard trimmings can go in large paper bags or additional labelled Green Cans).</li> <li>• Place your Green Cart at the curb along with unlimited paper yard trimmings bags and/or Green Cans, Blue Box recycling and garbage by 7:30 a.m. on your regular collection day.</li> </ul> <p><i>Note:</i> For centralized Green Cart service, the collection details are arranged between the City and the strata council or property manager. Residents do not have to set the carts out for pick up.</p> | <ul style="list-style-type: none"> <li>✗ Coffee cups</li> <li>✗ Compostable and biodegradable plastic bags</li> <li>✗ Styrofoam cups, meat trays or takeout containers</li> <li>✗ Garden hoses or flower pots</li> <li>✗ Liquid grease</li> <li>✗ Lumber</li> <li>✗ Pet feces or kitty litter</li> <li>✗ Plastic bags and plastic overwrap</li> <li>✗ Plastic wraps</li> <li>✗ Prunings over 4 inches (10 cm) in diameter</li> <li>✗ Rocks, dirt or sod</li> </ul> |

#### Yard Trimmings Drop-off Locations

Richmond residents and commercial landscapers can drop off yard trimmings (see above for materials accepted) at the following locations.

##### Ecowaste Industries

15111 Triangle Road  
Open Monday to Friday from 7:00 a.m. to 4:30 p.m. (last load in at 4:15 p.m.)

Open Saturday from 8:00 a.m. to 4:00 p.m. (last load in at 3:45 p.m.). Closed Sundays.

Commercial operators will be charged a fee unless pre-approved for servicing residential properties in Richmond.

Visit [ecowaste.com](http://ecowaste.com) or call 604-277-1410 for detailed information.

##### City Recycling Depot

5555 Lynas Lane  
Wednesday to Sunday (Closed on Mondays, Tuesdays & Statutory Holidays)  
9:00 a.m. to 6:15 p.m.

There is no charge for dropping off amounts less than one cubic yard (a car, station wagon or minivan load). Large loads are charged a fee of \$20 per cubic yard. Commercial operators will be charged a fee of \$20 per cubic yard at the Richmond Recycling Depot.



## HOME COMPOSTING

Home composting turns your food scraps and yard trimmings into nutrient-rich soil that can be spread on lawns and flowerbeds.

### BACKYARD COMPOST BIN

"Garden Gourmet" compost bins are available to Richmond residents at the Recycling Depot for \$25 plus tax. The bin dimensions are 36 inches (90 cm) high, 22 inches (56 cm) wide and 22 inches (56 cm) deep. They are suitable for residential backyard composting of grass, leaves, vegetable trimmings, fruit trimmings and other miscellaneous organic garden trimmings.

### COMPOST HOTLINE

The Compost Hotline offers support and tips for best practices in home composting. It is operated by City Farmer, which has researched and promoted the best methods of urban composting since 1978.

#### Compost Hotline

Phone: 604-736-2250

Email: [composthotline@telus.net](mailto:composthotline@telus.net)

### COMPOST DEMONSTRATION GARDEN

A compost demonstration garden is located at 2631 Westminster Highway in the Terra Nova Rural Park. Composting demonstration units are on display for viewing year-round, from dawn to dusk.



#### Nitrogen Rich Green Materials:

- PLANT TRIMMINGS
- FRUIT & VEGETABLE PEELINGS
- FRESH GRASS CLIPPINGS
- COFFEE GROUNDS & TEA LEAVES

#### Carbon Rich Brown Materials:

- DRY LEAVES
- SAWDUST
- STRAW
- SHREDDED NEWSPAPER CLIPPINGS

### HOW TO COMPOST

- 1 USING A BACKYARD COMPOST BIN, START WITH A GOOD LAYER OF COARSE ORGANIC MATERIAL, SUCH AS STRAW, LEAVES OR PRUNING AT THE BOTTOM TO ALLOW AIR TO CIRCULATE.
- 2 ADD A GOOD LAYER OF NITROGEN-RICH GREEN MATERIAL FOLLOWED BY ONE LAYER OF CARBON-RICH BROWN MATERIAL, UNTIL THE BIN IS FULL.
- 3 COMPOST REQUIRES AIR. TURN AND STIR YOUR COMPOST WEEKLY SO THE ORGANISMS GET NECESSARY OXYGEN.
- 4 COMPOST REQUIRES MOISTURE. WATER YOUR COMPOST BIN FREQUENTLY, TO ENSURE IT STAYS AS MOIST AS A WRUNG-OUT SPONGE.
- 5 GIVE IT TIME - IN 12-18 MONTHS, MATERIAL AT THE BOTTOM AND MIDDLE OF THE BIN SHOULD BE COMPOSTED. USE THIS THROUGHOUT YOUR GARDEN. USE THE UN-COMPOSTED MATERIAL TO START A NEW BATCH. CHIPPING OR CHOPPING THE MATERIAL CAN INCREASE THE SPEED OF THE PROCESS. REGULAR AERATION IS KEY TO SUCCESSFUL COMPOSTING.



## GARBAGE COLLECTION

### CURBSIDE COLLECTION SERVICE

#### Biweekly Garbage Cart Program

Garbage Carts are collected biweekly (every other week). Annual curbside garbage collection fees are based on the size of the cart – the smaller the cart, the lower the fees. Residents may exchange their Garbage Cart for a different size for \$25 by calling 604-276-4010.

For cart size options and related fees, visit [www.richmond.ca/garbage](http://www.richmond.ca/garbage).

#### Preparing Garbage for Collection

It's important to secure or wrap loose garbage to prevent loose materials from being scattered by wind or animals. Garbage must be securely packed in plastic bags. This includes ashes, kitty litter, disposable diapers, vacuum cleaner sweepings and other loose household garbage.

All garbage must be placed at curbside before 7:30 a.m. on collection day but no earlier than

8:00 p.m. the day before. Do not place receptacles or other items on the road.

Residents are responsible for cleaning up any loose materials that have been scattered over the ground by animals, wind or vandalism.

#### Extra Item Disposal Options

Purchase Garbage Tags or Garbage Disposal Vouchers to dispose of extra garbage.

#### \$2 Garbage Tags

Garbage Tags for curbside collection are available for purchase at all City facilities. One Garbage Tag is good for an additional garbage bag or can.

#### Garbage Disposal Vouchers

Richmond residents may purchase a Garbage Disposal Voucher for \$5 at all City facilities. These vouchers are good for up to \$25 at the Vancouver Landfill, and are valid anytime. They are limited to one per household.

Visit [www.richmond.ca/recycle](http://www.richmond.ca/recycle) for a list of City facilities selling Garbage Tags and Garbage Disposal Vouchers.

#### Large Item Pick-Up Program

Residents in single-family homes, some townhomes and multi-family complexes with City garbage and/or Blue Box service, can arrange for curbside collection of four large household items each year. See page 39 for details.

#### Sign up for the Richmond Collection Schedule App

Get weekly collection reminders by downloading the free Richmond Collection Schedule app at the Apple or Android app stores to receive weekly reminders about curbside garbage and recycling collection, and to use the Recycling Wizard for tips on where to recycle.

The following items are **not** accepted in the garbage:

| MATERIAL  | HOW TO RECYCLE OR DISPOSE  |
|---|--|
| <b>X DEMOLITION WASTE</b>   | <ul style="list-style-type: none"> <li>Take to Ecowaste Industries at 15111 Triangle Road, or call the RCBC Recycling hotline at 604-RECYCLE (732-9253).</li> </ul>  |
| <b>X DIRT, ROCK, CONCRETE OR BRICKS</b>   | <ul style="list-style-type: none"> <li>Take to Ecowaste Industries. Visit <a href="http://ecowaste.com">ecowaste.com</a> or call 604-277-1410 for accepted items &amp; hours.</li> </ul>   |
| <b>X DRYWALL</b><br>(Gypsum, sheetrock, plasterboard, gyproc & wallboard)   | <ul style="list-style-type: none"> <li>Special restrictions apply. Please call the RCBC Recycling Hotline for details at 604-732-9253.</li> </ul>  |
| <b>X HAZARDOUS WASTE</b>  | <ul style="list-style-type: none"> <li>Call RCBC Recycling Hotline at 604-732-9253, visit <a href="http://www.metrovancouverrecycles.org">www.metrovancouverrecycles.org</a> or see page 46 - 52 for drop-off locations.</li> </ul>  |
| <b>X MATERIALS THAT ARE TOO BIG OR MAY DAMAGE GARBAGE TRUCK</b>   | <ul style="list-style-type: none"> <li>See Large Item Pick Up program on page 39 for disposal options.</li> </ul>  |
| <b>X PROVINCIAL PRODUCT STEWARDSHIP COLLECTION (TAKE BACK) ITEMS</b>  | <ul style="list-style-type: none"> <li>Visit <a href="http://bcstewards.com">bcstewards.com</a> or call 604-732-9253.</li> </ul>   |
| <b>X RECYCLABLE MATERIALS</b><br>(Mixed paper, cardboard, plastic containers, empty aerosol cans, tin & aluminium cans, glass bottles & jars, and other materials accepted in the Blue Box/Blue Cart program) | <ul style="list-style-type: none"> <li>Recycle with the Blue Box or Blue Cart program.</li> <li>Remember to recycle glass separately using the Glass Recycling Bin/Cart.</li> <li>See pages 32 - 35 for details.</li> </ul>  |
| <b>X YARD TRIMMINGS &amp; FOOD SCRAPS</b>   | <ul style="list-style-type: none"> <li>Place in Green Carts or for yard trimmings only, paper yard waste bags.</li> <li>For yard trimmings only, one cubic yard or less may be dropped off at Recycling Depot. Unlimited amounts of yard trimmings can be dropped off at Ecowaste Industries with proof of residency.</li> <li>Check Green Cart section for restrictions and accepted materials on page 36.</li> </ul> |

For a list of drop-off locations, use the City's Recycling Wizard available on the Richmond Collection Schedule app and at [www.richmond.ca/recyclesearch](http://www.richmond.ca/recyclesearch) or call the RCBC Recycling Hotline at 604-732-9253.

## COLLECTION SERVICE FOR LARGE HOUSEHOLD ITEMS

Richmond's Large Item Pick Up program provides a convenient collection service for up to four large household items per year, including mattresses, furniture and appliances. The program is available to residents in single-family homes, as well as townhomes and multi-family complexes with the City's garbage collection service and/or Blue Box program.

This program is designed to make it more convenient for residents to dispose of large household items and to help reduce illegal dumping. As well, through this program, large household items that can be recycled will be diverted from the landfill, which will help Richmond achieve its goal for 80% waste diversion from the landfill by 2020.

### STEPS ON HOW THE PROGRAM WORKS:

- 1** To schedule collection of up to four items per year, residents can contact the City's service provider, Sierra Waste Services at 604-270-4722 or schedule online at [www.richmond.ca/largeitem](http://www.richmond.ca/largeitem).
- 2** Sierra Waste Services will contact you to provide a pick up date and confirmation number.
- 3** On your scheduled pick up date only, place items at the curb or for multi-family complexes, in the area designated by the strata or property manager, before 7:30 a.m. or no earlier than 8:00 p.m. the night before.

**Safety Consideration:** If the large item is a freezer, refrigerator, icebox or other container that is equipped with a latch or locking device, the door/latch must be removed and placed beside the large item for safety reasons.



#### DID YOU KNOW?

Wet mattresses cannot be recycled and pose safety hazards for lifting. Please ensure the mattress stays dry and mould-free by covering it in a plastic bag. Reuse the bag from newly-purchased mattresses or purchase bags from home hardware and supply stores. Water-logged items that become too heavy may not be picked up.

### LIST OF ITEMS ACCEPTED



#### ACCEPTED

- ✓ Appliances (e.g. stove, dishwasher, washer and/or dryer, hot water tank, refrigerator, freezer, microwave, cooler)
- ✓ Barbecues (remove propane tank and/or lava rock briquettes)
- ✓ Bed frame
- ✓ Electric lawnmowers
- ✓ Furniture (e.g. couch, coffee table, chair, desk, dresser, TV stand, cabinet, drawer, table, hutch, crib, high chair, entertainment centre)
- ✓ Headboard
- ✓ Outdoor furniture (e.g. chairs, patio tables, patio umbrellas)
- ✓ Small household goods, which must be in boxes or bundled and are a reasonable size (one box or bundle is equal to one of the resident's four allotted items)
- ✓ Weight training equipment (e.g. treadmills, ellipticals, stationary bikes, stair masters, weight sets)
- ✓ Mattresses or boxsprings – please cover your mattress with a plastic bag.

#### NOT ACCEPTED

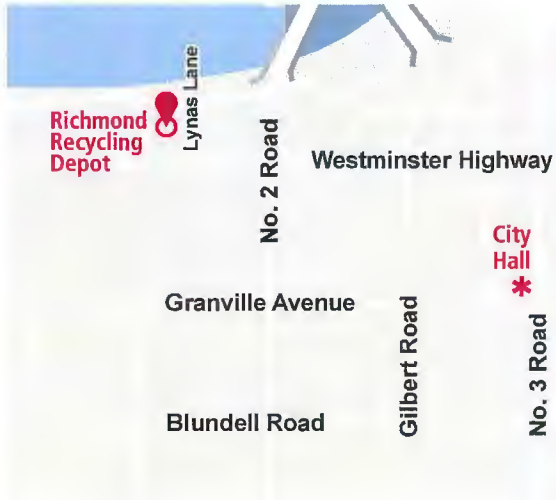
- ✗ Car bodies or parts
- ✗ Carpets
- ✗ Construction materials
- ✗ Drywall
- ✗ Gas lawnmowers
- ✗ Hazardous waste
- ✗ Lumber, demolition or home renovation materials
- ✗ Propane tanks
- ✗ Tree stumps
- ✗ Tires

Note: Items that contain any hazardous liquids such as gas, oil, etc. will not be accepted.

See page 47 - 52 for disposal locations or call the RCBC Recycling Hotline at 604-732-9253.

Note: The item(s) must be able to be safely handled from the curbside in order to qualify for collection.





## RECYCLING DEPOT

The Richmond Recycling Depot is located at 5555 Lynas Lane and is open from Wednesday through Sunday from 9:00 a.m. to 6:15 p.m. The Depot accepts Styrofoam, batteries, cell phones, used cooking oil, large appliances, large metal items and yard trimmings, as well as recyclables normally placed curbside.

Residents are encouraged to use the curbside recyclables collection for glass bottles and jars, rigid plastic containers, newsprint and mixed paper. Businesses are encouraged to subscribe to onsite collection services if a large quantity of recyclables is produced. Residents and small business operators can drop off one cubic yard of recyclables and three large appliances at the Depot per day.

In addition, the Depot is a Product Stewardship (Take Back) Collection site for paint, solvents, flammable liquids, pesticides, lights, lighting fixtures and small appliances.

### FOR SALE AT THE RECYCLING DEPOT

Residents can purchase the following items:

- Compost bins - \$25 each + GST
- Rain barrels - \$30 each + GST
- Extra Garbage Tags - \$2 each
- Garbage Disposal Vouchers (cost is \$5 for Richmond residents and value is up to \$25 at the Vancouver Landfill)



### TIP FOR RESIDENTS

Residents can purchase compost bins from the Richmond Recycling Depot. To learn more about how to compost, see page 37, or visit the Compost Demonstration Garden located at 2631 Westminister Highway in the Terra Nova Rural Park.



### MATERIALS ACCEPTED AT THE RICHMOND RECYCLING DEPOT

Please note: All materials must be sorted into different containers at the Recycling Depot. Please visit [www.richmond.ca/depot](http://www.richmond.ca/depot) for drop-off details.

- |   |   |  |
|---|---|--|
| ✓ Aluminium materials (aluminium foil, pie plates)  | ✓ Flammable aerosols  | ✓ Newspaper  |
| ✓ Appliances (small and large electrical/battery operated appliances including dishwashers, washing machines, stoves, barbeques, ovens, microwaves, fridges, freezers, vacuums, hair dryers, toaster ovens, etc.) | ✓ Flammable liquids   | ✓ Paints (household paints)  |
| ✓ Batteries (small household batteries less than 5 kg)  | ✓ Flower pots (paper/plastic garden pots)   | ✓ Paint aerosols   |
| ✓ Books   | ✓ Gasoline (in approved ULC containers)   | ✓ Pesticides (domestic pesticides)   |
| ✓ Cell phones (including batteries)   | ✓ Glass bottles and jars (clear and coloured)   | ✓ Plastic containers   |
| ✓ Clean untreated wood  | ✓ Lights (fluorescent tubes, compact fluorescent lights, light emitting diodes, halogen and incandescent lights, high intensity discharge and other mercury containing lamps) | ✓ Plastic grocery shopping bags and plastic overwrap                             |
| ✓ Cooking oil and animal fat  | ✓ Lighting fixtures   | ✓ Sewing, knitting and textile machines  |
| ✓ Corrugated cardboard (flattened, clean corrugated boxes)  | ✓ Magazines   | ✓ Styrofoam packaging  |
| ✓ Exercise and hobby machines (treadmills, elliptical / cross trainers, cycling machines)   | ✓ Metal items (bike frames, clean 45 gallon drums, clean automotive parts, lawn chairs, steel coat hangers, steel or lead piping)   | ✓ Tin cans   |
|   | ✓ Paper (mixed paper products including flattened boxboards, envelopes, junk mail, flyers, inserts, office paper, paper egg cartons, telephone books, etc.)                   | ✓ Tools (power tools such as angle saws, jigsaws, trimmers, drum machines, etc.) |
|   |   | ✓ Yard and garden trimmings  |





## TIP FOR RESIDENTS

You can find drop-off locations and how to recycle a variety of household items using the Recycling Wizard on the free Richmond Collection Schedule App (available at the Apple and Android app stores). Plus, the app sends you weekly collection day reminders!

The Recycling Wizard is also available online at [www.richmond.ca/recyclesearch](http://www.richmond.ca/recyclesearch).

## COMMUNITY RESOURCES AND PARTNERS

### METRO VANCOUVER RECYCLES — REUSE AND RECYCLE IN THE REGION

A convenient web tool called Metro Vancouver Recycles makes it easy to connect with people who could use products you don't need, or to find options for recycling products that cannot be included in your curbside collection, visit [metrovancoverrecycles.org](http://metrovancoverrecycles.org).

There are also convenient links to online services if you want to sell or give away goods. The following are just a few examples in the Metro Vancouver region:

#### Metro Vancouver Recycling Directory

[metrovancoverrecycles.org](http://metrovancoverrecycles.org)

#### MetroVan Reuses

[bc.reuses.com](http://bc.reuses.com)

#### Richmond Shares

[richmondshares.bc.ca](http://richmondshares.bc.ca)

#### Recycle BC

[recyclebc.ca](http://recyclebc.ca)

### RCBC COMMUNITY RESOURCES

#### Recycling Hotline

Monday to Friday, 9 a.m. to 4 p.m.

Phone: 604-RECYCLE (604-732-9253)

Email: [hotline@rcbc.bc.ca](mailto:hotline@rcbc.bc.ca)

RCBC Recyclepedia at [rcbc.bc.ca/recyclepedia](http://rcbc.bc.ca/recyclepedia)

Smart Phone App: BC Recyclepedia App

(available at iPhone App Store and Android Market)

### DID YOU KNOW?

Four, 2-litre plastic bottles can be recycled into one t-shirt, filling for a ski jacket and two ball caps.





## PRODUCT STEWARDSHIP PROGRAMS

The City of Richmond works with local companies and organizations like Product Care and Encorp to support BC's Product Stewardship Programs.

These programs are often called take back programs or Extended Producer Responsibility (EPR) programs, and they are based on the principle that whoever designs, produces, sells or uses a product is also responsible for minimizing that product's environmental impact. The key participants in these programs are the BC government, local governments, producers, retailers and consumers who bring their products to designated collection sites when they are at their end of life. The cost of these programs is covered by consumers and producers, sometimes in the form of a deposit or levy that is charged at the time of purchase. In the case of beverage containers, there are refunds available when they are returned at a collection site.

Take back programs are important as they expand the opportunities for recycling beyond the curbside collection services. There are many household items that can be recycled through businesses and organizations in the community who participate in BC's Product Stewardship Program. Many of these items are also considered hazardous waste, and they are restricted from garbage as they are not accepted at the landfill. The take back programs help to ensure that these expired or end-of-life products will be disposed of safely, and recycled where possible.



## PRODUCT STEWARDSHIP PROGRAM CATEGORIES

The following categories highlight the products that can be returned to retailers and other community partners. For a list of drop-off locations for each category, please see pages 47 to 52.

| TAKE BACK PROGRAMS         | WHAT IS INCLUDED  | STEWARDSHIP AGENCY   |
|----------------------------|---|--|
| <b>BATTERIES</b>           | Household batteries   | Call2Recycle<br><b>Contact</b><br><a href="http://call2recycle.ca">call2recycle.ca</a><br>1-888-224-9764<br><a href="mailto:info@call2recycle.ca">info@call2recycle.ca</a><br>Drop off site locator<br>1-877-273-2925  |
| <b>BEVERAGE CONTAINERS</b> | Almost all types of beverage containers   | Encorp Pacific (Canada)<br><b>Contact</b><br><a href="http://return-it.ca/locations">return-it.ca/locations</a><br>1-800-330-9767 or 604-473-2400<br><a href="mailto:returnit@returnit.ca">returnit@returnit.ca</a><br>Note: Beverage containers like pop and juice cans and bottles can be recycled with the Blue Box or Blue Cart or can be dropped off at Richmond's Recycling Depot as part of the City's recycling services. Beverage containers can also be returned for a refund on the deposit at a number of Return-It Depot locations in Richmond. |
| <b>CELL PHONES</b>         | Mobile/wireless devices that connect to a cellular or paging network, including all cell phones, smart phones, wireless personal digital assistants (PDAs), external air cards and pagers, as well as cell phone batteries and accessories, including headsets and chargers | Canadian Wireless Telecommunications Association<br><b>Contact</b><br><a href="http://RecycleMyCell.ca">RecycleMyCell.ca</a><br>1-888-797-1740<br><a href="mailto:info@recyclemycell.ca">info@recyclemycell.ca</a>   |
| <b>ELECTRONICS</b>         | Televisions and computer and printer products such as desktop computers, display devices, portable (laptop) computers, desktop printers and fax machines and computer accessories like keyboards, pointing devices, track balls and mice                                    | Encorp Pacific (Canada)<br><b>Contact</b><br><a href="http://return-it.ca/electronics">return-it.ca/electronics</a><br>1-800-330-9767 or 604-473-2400<br><a href="mailto:returnit@returnit.ca">returnit@returnit.ca</a>  |
| <b>MEDICATION</b>          | All expired or leftover prescription medication, non-prescription medication and mineral supplements, anti-fungal and anti-bacterial creams   | Health Products Stewardship Association<br><b>Contact</b><br><a href="http://healthsteward.ca/returns/british-columbia">healthsteward.ca/returns/british-columbia</a><br>613-723-7282 or 1-844-535-8889<br><a href="mailto:info@healthsteward.ca">info@healthsteward.ca</a>  |

### DID YOU KNOW?

100% of brewer packaging is either reusable or recyclable, and in addition to standard beer cans and bottles, brewers reuse or recycle their aluminium kegs and their secondary packaging including plastic shrink wrap, cardboard and wooden pallets.



**DID YOU KNOW?**

A littered aluminum can takes 500 years to disintegrate, but it only takes six weeks to be manufactured, filled, sold, recycled, remanufactured, refilled and be back out on the marketplace.

| TAKE BACK PROGRAMS                               | WHAT IS INCLUDED   | STEWARDSHIP AGENCY  |
|--|--|---|
| <b>PACKAGING AND PRINTED PAPER</b>               | Aerosol cans, microwavable bowls/cups/lids, paper food containers & cartons, plastic & paper drink cups with lids, plastic containers/jars/tubs/trays, aluminium cans, tin cans, etc. Visit <a href="http://recyclinginbc.ca">recyclinginbc.ca</a> for a complete list | RecycleBC<br><b>Contact</b><br><a href="http://recyclebc.ca">recyclebc.ca</a><br>778-588-9504 or 1-855-875-3596<br><a href="mailto:info@recyclebc.ca">info@recyclebc.ca</a>   |
| <b>PAINTS, SOLVENTS, PESTICIDES AND GASOLINE</b> | Paints, solvents, pesticides and gasoline  | Product Care Association<br><b>Contact</b><br><a href="http://regeneration.ca">regeneration.ca</a><br>1-877-592-2972<br><a href="mailto:contact@productcare.org">contact@productcare.org</a>  |
| <b>SMALL APPLIANCES AND POWER TOOLS</b>          | Kitchen countertop appliances (e.g. toasters, microwaves, coffee makers and food processors), electric bathroom scales, hair dryers, carpet cleaners, vacuum cleaners, portable fans, power tools, sewing and exercise machines  | ElectroRecycle is a non-profit, province-wide, small electrical appliance recycling program in B.C. and the first of its kind in Canada through the Canadian Electrical Stewardship Association (CESA) with the help of BC's Product Care Association<br><b>Contact</b><br><a href="http://electrorecycle.ca">electrorecycle.ca</a><br>1-877-670-2372<br><a href="mailto:info@cesarecycling.ca">info@cesarecycling.ca</a> |
| <b>TIRES</b>                                     | Car tires, truck tires and some agricultural and logger/skidder tires  | Tire Stewardship BC (TSBC)<br><b>Contact</b><br><a href="http://tsbc.ca">tsbc.ca</a><br>1-866-759-0488  |
| <b>THERMOSTATS</b>                               | Mercury-containing and electronic thermostats  | Heating, Refrigeration and Air Conditioning Institute of Canada in partnership with the Canadian Institute of Plumbing and Heating, and delivered by Summerhill Impact.<br><b>Contact</b><br><a href="http://switchthestat.ca">switchthestat.ca</a><br>416-922-2448 (ext 232)<br><a href="mailto:jcourt@summerhillgroup.ca">jcourt@summerhillgroup.ca</a>   |
| <b>USED OIL AND ANTIFREEZE</b>                   | Motor oil, oil filters, empty oil containers, antifreeze and used antifreeze containers  | BC Used Oil Management Association<br><b>Contact</b><br><a href="http://usedoilrecycling.com/en/bc">usedoilrecycling.com/en/bc</a><br>1-866-254-0555<br><a href="mailto:reception@usedoilrecycling.ca">reception@usedoilrecycling.ca</a>  |



## HAZARDOUS WASTE AND OTHER DISPOSAL ITEMS

The careless handling of hazardous products can cause serious injury as well as damage to the environment. Hazardous products that are dumped in sewers or green spaces can injure livestock, wildlife and plant life. Careful and often specialized disposal is essential for these materials.

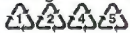
There are certain materials that Metro Vancouver disposal facilities do not accept, either because there are already disposal programs set up for these items, or because they are hazardous to waste collection workers, the public and the environment.

At disposal sites, garbage loads are inspected for banned and prohibited materials. Loads that arrive at the disposal sites containing prohibited materials are assessed a \$65 minimum surcharge, plus the cost of removal, clean-up or remediation. Loads containing banned materials are assessed a 50% tipping fee surcharge.

Many common hazardous household and automotive products must be recycled or disposed through special depots. Disposal sites and take back collection options for hazardous and banned materials are listed on the following pages. Please note that this information is provided as a reference for your convenience; however, it is not guaranteed. Please call first to confirm that the site is still open to accept these take back products and to check hours of operation.

For a list of drop-off locations, use the City's Recycling Wizard available on the Richmond Collection Schedule app and at [www.richmond.ca/recyclesearch](http://www.richmond.ca/recyclesearch), or call the RCBC Recycling Hotline at 604-732-9253.

### BANNED AND HAZARDOUS MATERIALS

| BANNED HAZARDOUS AND OPERATIONAL IMPACT MATERIALS  | BANNED MATERIALS THAT CAN BE RECYCLED WITH CITY SERVICES   | BANNED PRODUCT STEWARDSHIP MATERIALS   |
|--|--|--|
| <ul style="list-style-type: none"> <li>x Agricultural waste</li> <li>x Asbestos</li> <li>x Automobile parts and bodies</li> <li>x Barrels, drums, pails or other large (205 litre or greater) liquid containers, whether full or empty</li> <li>x Biomedical waste</li> <li>x Dead animals</li> <li>x Gypsum</li> <li>x Hazardous waste</li> <li>x Inert fill material including soil, sod, gravel, concrete and asphalt exceeding 0.5 cubic metres per load</li> <li>x Liquids or sludge</li> <li>x Mattresses</li> <li>x Propane tanks</li> <li>x Refuse that is on fire, smoldering, flammable or explosive</li> <li>x Wire and cable exceeding 1% of load</li> </ul> | <ul style="list-style-type: none"> <li>x Beverage containers</li> <li>x Clean wood</li> <li>x Containers made of glass, metal or banned recycled plastic </li> <li>x Corrugated cardboard</li> <li>x Food waste</li> <li>x Green waste</li> <li>x Recyclable paper</li> </ul> | <ul style="list-style-type: none"> <li>x Antifreeze and antifreeze containers</li> <li>x Batteries</li> <li>x Electronics and electrical products, including metal household and commercial appliances</li> <li>x Fluorescent lights</li> <li>x Gasoline</li> <li>x Lead-acid batteries</li> <li>x Oil, oil filters and oil containers</li> <li>x Packaging and printed paper</li> <li>x Paint</li> <li>x Pesticides</li> <li>x Pharmaceutical products and medications</li> <li>x Solvents and flammable liquids</li> <li>x Thermostats</li> <li>x Tires</li> </ul> |
| For a complete list of banned materials, please visit <a href="http://www.metrovancouver.org/services/solid-waste/bylaws-regulations/banned-materials">www.metrovancouver.org/services/solid-waste/bylaws-regulations/banned-materials</a>   |  |  |



### TIP FOR RESIDENTS

To spot hazardous waste, look for the words Danger, Warning, or Caution on the product label, and any of the symbols shown above.



### ANTIFREEZE AND EMPTY CONTAINERS <sup>DB</sup>

| DROP-OFF LOCATION               | ADDRESS                   | PHONE        |
|---------------------------------|---------------------------|--------------|
| Richmond Audi                   | 5680 Parkwood Way         | 604-279-9663 |
| Certigard Petro-Canada          | 4011 Francis Road         | 604-241-1101 |
| Cowell Motors Ltd. - Volkswagen | 13611 Smallwood Place     | 604-273-3922 |
| Jaguar Land Rover Richmond      | 5660 Parkwood Way         | 604-273-6068 |
| Jiffy Lube                      | 10991 No. 4 Road          | 604-448-0142 |
| Metron Auto Service Ltd.        | 104 - 8077 Alexandra Road | 604-270-1668 |
| Mr. Lube                        | 9120 Westminster Highway  | 604-273-5823 |
| Rainbow Auto Service            | 142 - 11788 River Road    | 604-276-2820 |

For a complete list of antifreeze or containers accepted, visit <http://usedoilrecycling.com/en/bc> or call 604-732-9253.

### APPLIANCES - SMALL <sup>DB</sup>

| DROP-OFF LOCATION                 | ADDRESS                    | PHONE          |
|-----------------------------------|----------------------------|----------------|
| City's Recycling Depot            | 5555 Lynas Lane            | 604-276-4010   |
| Ironwood Bottle & Return-It Depot | 110 - 11020 Horseshoe Way  | 604-275-0585   |
| OK Bottle Depot                   | 7960 River Road            | 604-244-0008   |
| Regional Recycling                | 13300 Vulcan Way           | 1-855-701-7171 |
| Richmond Return-It Depot          | 135 - 8171 Westminster Hwy | 604-232-5555   |

For a complete list of small appliances accepted, visit [electrorecycle.ca](http://electrorecycle.ca) or call 604-732-9253.

### AUTOMOTIVE BATTERIES <sup>DB</sup>

| DROP-OFF LOCATION    | ADDRESS             | PHONE          |
|----------------------|---------------------|----------------|
| Kal Tire             | 2633 No. 5 Road     | 604-278-9181   |
| Regional Recycling * | 13300 Vulcan Way    | 1-855-701-7171 |
| Sota Battery Canada  | 11871 Horseshoe Way | 604-271-9727   |

Note: All retail locations accept a used car battery for each new one purchased. For a list of collection sites, please visit [www.recyclemybattery.ca](http://www.recyclemybattery.ca).

### CRASH CAR SEATS

| DROP-OFF LOCATION            | ADDRESS                 | PHONE        |
|------------------------------|-------------------------|--------------|
| City of Vancouver Landfill * | 5400 72nd Street, Delta | 604-873-7000 |

DB: Disposal ban | \* A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.



**BATTERIES AND MOBILE PHONES <sup>DB</sup>**

Batteries weighing five kilograms or less.

| DROP-OFF LOCATION      | ADDRESS                        | PHONE        |
|------------------------|--------------------------------|--------------|
| Best Buy               | 700-5300 No. 3 Road            | 604-273-7335 |
| City's Recycling Depot | 5555 Lynas Lane                | 604-276-4010 |
| Dr Battery             | 102 - 4460 Jacombs Road        | 604-273-8248 |
| Home Depot             | 2700 Sweden Way                | 604-303-9882 |
| London Drugs           | 5971 No. 3 Road                | 604-448-4811 |
|                        | 3200 - 11666 Steveston Highway | 604-448-4852 |
| Pharmasave             | 116 - 10151 No. 3 Road         | 604-241-2898 |
| Rona                   | 7111 Elmbridge Way             | 604-273-4606 |
| Staples                | 8171 Ackroyd Road              | 604-270-9599 |
|                        | 110 - 2780 Sweden Way          | 604-303-7850 |

For a complete list of batteries accepted, please visit [call2recycle.ca](http://call2recycle.ca) or call 1-888-224-9764.

For a complete list of mobile phones drop off locations, visit [call2recycle.ca/locator](http://call2recycle.ca/locator).

All cellular/mobile phone stores accept used cellular/mobile phones for refurbishing or recycling.

To erase information from your device, including text messages, contacts and personal files, use Cell Phone Data Erasers by [recyclemycell.ca/recycling-your-device](http://recyclemycell.ca/recycling-your-device) available for free.

**CARBON MONOXIDE (CO), SMOKE AND COMBINATION SMOKE AND CO ALARMS <sup>DB</sup>**

| DROP-OFF LOCATION                   | ADDRESS                        | PHONE          |
|-------------------------------------|--------------------------------|----------------|
| London Drugs (smoke detectors only) | 5971 No. 3 Road                | 604-448-4811   |
|                                     | 3200 - 11666 Steveston Highway | 604-448-4852   |
| Regional Recycling                  | 13300 Vulcan Way               | 1-855-701-7171 |

For a complete list of alarms accepted, please visit [regeneration.ca](http://regeneration.ca) or call 604-732-9253.

**ELECTRONICS: AUDIO VISUAL EQUIPMENT, COMPUTERS, MONITORS, TVs, PRINTERS, FAX MACHINES, SCANNERS, VIDEO GAMES & ACCESSORIES**

| DROP-OFF LOCATION                 | ADDRESS                   | PHONE          |
|-----------------------------------|---------------------------|----------------|
| Best Buy                          | 700 - 5300 No. 3 Road     | 604-273-7335   |
| Ironwood Bottle & Return-It Depot | 110 - 11020 Horseshoe Way | 604-275-0585   |
| OK Bottle Depot                   | 7960 River Road           | 604-244-0008   |
| Regional Recycling                | 13300 Vulcan Way          | 1-855-701-7171 |
| Staples                           | 8171 Ackroyd Road         | 604-270-9599   |
|                                   | 110 - 2780 Sweden Way     | 604-303-7850   |

For a complete list of materials accepted, please visit [return-it.ca/electronics](http://return-it.ca/electronics) or call 604-473-2400.

**EXERCISE & HOBBY MACHINES <sup>DB</sup>**

| DROP-OFF LOCATION                 | ADDRESS                   | PHONE          |
|-----------------------------------|---------------------------|----------------|
| City's Recycling Depot            | 5555 Lynas Lane           | 604-276-4010   |
| Ironwood Bottle & Return-It Depot | 110 - 11020 Horseshoe Way | 604-275-0585   |
| OK Bottle Depot                   | 7960 River Road           | 604-244-0008   |
| Regional Recycling                | 13300 Vulcan Way          | 1-855-701-7171 |
| Richmond Return-It Depot          | 135-8171 Westminster Hwy  | 604-232-5555   |

**EYEGLASSES**

| DROP-OFF LOCATION   | ADDRESS | PHONE |
|---|---------|-------|
| Drop off at a local optometrist or eye care professional. |         |       |

**FIRE EXTINGUISHERS**

| DROP-OFF LOCATION | ADDRESS              | PHONE        |
|-------------------|----------------------|--------------|
| Vancouver Fire*   | 22131 Fraserwood Way | 604-232-3473 |

DB: Disposal ban | \* A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.



**DID YOU KNOW?**

The Product Stewardship Program helps with take back of many recyclable materials and is guided by the principle that whoever designs, produces, sells or uses a product takes responsibility for minimizing that product's environmental impact. The costs for

recycling these products are covered through environmental handling fees that are charged on the sale of products and through refundable deposits on items like beverage containers.


**FLAMMABLE LIQUIDS<sup>DB</sup>, PESTICIDES<sup>DB</sup>,  
SOLVENTS<sup>DB</sup>, GASOLINE<sup>DB</sup>**

(Gasoline must be in approved ULC container)

| DROP-OFF LOCATION      | ADDRESS          | PHONE          |
|------------------------|------------------|----------------|
| City's Recycling Depot | 5555 Lynas Lane  | 604-276-4010   |
| Regional Recycling     | 13300 Vulcan Way | 1-855-701-7171 |

For a complete list of flammable liquids, gasoline, pesticides and solvents accepted, please visit [regeneration.ca](http://regeneration.ca) or call 604-732-9253.

**GENERAL HAZARDOUS MATERIALS**

| DROP-OFF LOCATION        | ADDRESS                      | PHONE        |
|--------------------------|------------------------------|--------------|
| Tervita*                 | 160 - 13511 Vulcan Way       | 604-214-7000 |
| Terrapure Environmental* | 9 - 7483 Progress Way, Delta | 604-952-1220 |

**GYPSUM DRYWALL<sup>DB</sup>**

No other materials attached to or on drywall

| DROP-OFF LOCATION   | ADDRESS                           | PHONE        |
|---|-----------------------------------|--------------|
| City of Vancouver Landfill *  | 5400 72nd Street, Delta           | 604-873-7000 |
| Ecowaste Industries Ltd. *  | 15111 Triangle Road               | 604-277-1410 |
| New West Gypsum Recycling *   | 38 Vulcan Street, New Westminster | 604-534-9925 |
| Vancouver Transfer Station<br>(Maximum 1/2 sheet with a paid load of garbage) | 377 W. Kent Avenue N.             | 604-326-4600 |

**HYPODERMIC NEEDLES**

Purchase a "Sharps Container" from a pharmacy and return the container to same pharmacy when full.


**LIGHTS & LIGHTING FIXTURES<sup>DB</sup>**

| DROP-OFF LOCATION      | ADDRESS                        | PHONE        |
|------------------------|--------------------------------|--------------|
| City's Recycling Depot | 5555 Lynas Lane                | 604-276-4010 |
| London Drugs           | 5971 No. 3 Road                | 604-448-4811 |
|                        | 3200 - 11666 Steveston Highway | 604-448-4852 |
| Rona                   | 7111 Elmbidge Way              | 604-273-4606 |

For a complete list of lighting products accepted, please visit [regeneration.ca](http://regeneration.ca) or call 604-732-9253.

**LUBRICATING (USED) OIL<sup>DB</sup>, OIL FILTERS<sup>DB</sup>,  
PLASTIC OIL CONTAINERS<sup>DB</sup>**

| DROP-OFF LOCATION               | ADDRESS                     | PHONE        |
|---------------------------------|-----------------------------|--------------|
| Audi of Richmond                | 5680 Parkwood Way           | 604-279-9663 |
| Cowell Motors Ltd - Volkswagen  | 13611 Smallwood Place       | 604-273-3922 |
| Esso Service Station (Blundell) | 7991 No. 1 Road             | 604-277-1105 |
| Jaguar Land Rover of Richmond   | 5660 Parkwood Way           | 604-273-6068 |
| Jiffy Lube                      | 10991 No. 4 Road            | 604-448-0142 |
| Metron Auto Service Ltd.        | 104 - 8077 Alexandra Road   | 604-270-1668 |
| Mr. Lube                        | 9120 Westminster Highway    | 604-273-5823 |
| Sky Auto Services               | 110 - 5791 Minoru Boulevard | 604-233-1828 |

For a complete list of lubricating oil, oil filters and plastic oil containers accepted, visit [usedoilrecycling.com](http://usedoilrecycling.com) or call 604-732-9253.

DB: Disposal ban | \* A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.

Working together with the City of Richmond, producers, retailers and residents can divert hazardous waste and other special disposal items from the landfill. Producers and retailers who support product stewardship and related take back programs assist with recycling and proper disposal, and residents can use these programs to help turn waste into resources.




**MATRESSES AND BOXSPRINGS™**

| DROP-OFF LOCATION            | ADDRESS                     | PHONE        |
|------------------------------|-----------------------------|--------------|
| Canadian Mattress Recycling* | 1210 Cliveden Avenue, Delta | 604-777-0324 |
| City of Vancouver Landfill*  | 5400 72nd Street, Delta     | 604-873-7000 |
| MattressRecycling.ca*        | 11571 Twigg Place           | 604-324-3211 |

Richmond's Large Item Pick Up Program: Contact Sierra Waste at 604-270-4722. Please note some restrictions apply. Visit [www.richmond.ca/largeitem](http://www.richmond.ca/largeitem) for program details.

**MEDICAL DEVICES & EQUIPMENT<sup>DB</sup>**

| DROP-OFF LOCATION                 | ADDRESS                   | PHONE          |
|-----------------------------------|---------------------------|----------------|
| Best Buy                          | 700 - 5300 No. 3 Road     | 604-273-7335   |
| Ironwood Bottle & Return-It Depot | 110 - 11020 Horseshoe Way | 604-275-0585   |
| OK Bottle Depot                   | 7960 River Road           | 604-244-0008   |
| Regional Recycling                | 13300 Vulcan Way          | 1-855-701-7171 |
| Staples                           | 8171 Ackroyd Road         | 604-270-9599   |
|                                   | 110 - 2780 Sweden Way     | 604-303-7850   |



**MUSICAL INSTRUMENTS<sup>DB</sup>**

| DROP-OFF LOCATION                                | ADDRESS                   | PHONE          |
|--|---------------------------|----------------|
| Ironwood Bottle & Return-It Depot                | 110 - 11020 Horseshoe Way | 604-275-0585   |
| OK Bottle Depot<br>(electrical instruments only) | 7960 River Road           | 604-244-0008   |
| Regional Recycling                               | 13300 Vulcan Way          | 1-855-701-7171 |
| Staples<br>(electrical instruments only)         | 8171 Ackroyd Road         | 604-270-9599   |
|  | 110 - 2780 Sweden Way     | 604-303-7850   |

**PAINT & PAINT AEROSOL CONTAINERS™**

| DROP-OFF LOCATION      | ADDRESS            | PHONE          |
|------------------------|--------------------|----------------|
| City's Recycling Depot | 5555 Lynas Lane    | 604-276-4010   |
| Regional Recycling     | 13300 Vulcan Way   | 1-855-701-7171 |
| Rona                   | 7111 Elmbridge Way | 604-273-4606   |

For a complete list of paint & paint aerosol containers accepted, please visit [regeneration.ca](http://regeneration.ca) or call 604-732-9253.

DB: Disposal ban | \* A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.



**PHARMACEUTICAL DB**

All pharmacies accept left over or outdated prescription drugs, non-prescription medications, herbal products, mineral supplements, vitamin supplements and throat lozenges for safe disposal.

For a list of pharmacies and/or drugs, medications, herbal products and mineral supplements accepted, visit [healthsteward.ca/returns/british-columbia](http://healthsteward.ca/returns/british-columbia) or call 604-732-9253.

Note: Please do not wash these items down the drain or throw them in the garbage.

**PROPANE TANKS - REFILLABLE (EMPTY)**

| DROP-OFF LOCATION           | ADDRESS                 | PHONE        |
|-----------------------------|-------------------------|--------------|
| City of Vancouver Landfill* | 5400 72nd Street, Delta | 604-873-7000 |
| Husky Gas Stations*         | 8011 No. 3 Road         | 604-270-3822 |
|                             | 9060 Bridgeport Road    | 604-278-0011 |

**PROPANE TANKS (SMALL) - DISPOSABLE (EMPTY)**

| DROP-OFF LOCATION          | ADDRESS                 | PHONE        |
|----------------------------|-------------------------|--------------|
| City of Vancouver Landfill | 5400 72nd Street, Delta | 604-873-7000 |
| Husky Gas Stations*        | 8011 No. 3 Road         | 604-270-3822 |
|                            | 9060 Bridgeport Road    | 604-278-0011 |

**OUTDOOR POWER EQUIPMENT DB**

| DROP-OFF LOCATION      | ADDRESS          | PHONE          |
|------------------------|------------------|----------------|
| City's Recycling Depot | 5555 Lynas Lane  | 604-276-4010   |
| Regional Recycling     | 13300 Vulcan Way | 1-855-701-7171 |

**SEWING, KNITTING & TEXTILE MACHINES DB**

| DROP-OFF LOCATION                 | ADDRESS                    | PHONE          |
|-----------------------------------|----------------------------|----------------|
| City's Recycling Depot            | 5555 Lynas Lane            | 604-276-4010   |
| Ironwood Bottle & Return-It Depot | 110 - 11020 Horseshoe Way  | 604-275-0585   |
| OK Bottle Depot                   | 7960 River Road            | 604-244-0008   |
| Regional Recycling                | 13300 Vulcan Way           | 1-855-701-7171 |
| Richmond Return-It Depot          | 135 - 8171 Westminster Hwy | 604-232-5555   |

**STYROFOAM - MOLDED PACKAGING & FOOD CONTAINERS**

| DROP-OFF LOCATION      | ADDRESS         | PHONE        |
|------------------------|-----------------|--------------|
| City's Recycling Depot | 5555 Lynas Lane | 604-276-4010 |

London Drugs customers can return the moulded packaging Styrofoam from their appliance, computer and accessories products to any London Drugs store with proof of purchase.

**STYROFOAM CHIPS (PEANUTS)**

| DROP-OFF LOCATION                | ADDRESS                       | PHONE        |
|----------------------------------|-------------------------------|--------------|
| The UPS Store                    | 185 - 9040 Blundell Road      | 604-231-9643 |
|                                  | 3080 - 11666 Steveston Hwy    | 604-271-1501 |
|                                  | 130 - 8191 Westminster Hwy    | 604-279-0988 |
| Packaging Depot                  | 6360 Kingsway, Burnaby        | 604-451-1206 |
|                                  | 5524 Cambie Street, Vancouver | 604-325-9966 |
| Westcoast Plastic Recycling Inc* | 215 - 7080 River Road         | 604-247-1664 |

**TELUS EQUIPMENT (RENTAL OR RETAIL) DB**

All TELUS rental or retail equipment such as cordless/corded phones, Voice Over IP (VOIP) phones, Global Positioning System (GPS) equipment and video/telephone conference equipment can be returned via Canada Post, call 604-310-2255 for more information.

DB: Disposal ban | \* A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.



**DID YOU KNOW?**

Recycled tires are used in products such as athletic tracks, playground safety surfaces, synthetic turf fields and roofing products.

**THERMOSTATS<sup>DB</sup>**

| DROP-OFF LOCATION  | ADDRESS            | PHONE        |
|--------------------|--------------------|--------------|
| Andrew Sheret Ltd. | 4500 Vanguard Road | 604-278-3766 |

For more information, call 1-800-267-2231 ext. 224..

**TIRES<sup>DB</sup>**

| DROP-OFF LOCATION  | ADDRESS                 | PHONE        |
|--|-------------------------|--------------|
| Chariot Tire Ltd.  | 404 - 5940 No. 6 Road   | 604-276-2966 |
| Island City Automotive   | 180 - 5400 Minoru Blvd  | 604-273-4023 |
| Canadian Tire  | 3500 No. 3 Road         | 604-273-2939 |
|  | 11388 Steveston Highway | 604-271-6651 |
| Express Lube & Tune Centre   | 2840 No. 3 Road         | 604-278-1018 |
| Kal Tire   | 2633 No. 5 Road         | 604-278-9181 |
| Metro Tires Ltd.   | 13320 Mitchell Road     | 604-321-9004 |
| Midas Auto & Tire Service  | 4660 No. 3 Road         | 604-273-9664 |
| OK Tire Store  | 5831 Minoru Boulevard   | 604-278-5171 |
| Redline Automotive Ltd.  | 1 - 11711 No. 5 Road    | 604-277-4269 |
| Roadrunners Dial A Tire Ltd.   | 125 - 11780 River Road  | 604-274-8473 |
| Signature Mazda  | 13800 Smallwood Place   | 604-278-3185 |
| Vancouver Landfill<br>(Passenger/light truck, with/<br>without rims limit of 10) | 5400 72nd Street, Delta | 604-873-7000 |

Note: All retail locations accept a used tire for a new one purchased.

For a complete list of tires accepted, visit [tsbc.ca](http://tsbc.ca) or call 1-866-759-0488.

**BICYCLE TIRES, TUBES, HELMETS, LOCKS AND WORKING BIKES**

| DROP-OFF LOCATION | ADDRESS             | PHONE        |
|-------------------|---------------------|--------------|
| Village Bikes     | 3891 Moncton Street | 604-274-3865 |

For more information, visit [tsbc.ca/bike.php](http://tsbc.ca/bike.php) or call 1-866-759-0488.

**TOOLS - POWER (ELECTRONIC & ELECTRICAL)<sup>DB</sup>**

| DROP-OFF LOCATION                 | ADDRESS                    | PHONE          |
|-----------------------------------|----------------------------|----------------|
| City's Recycling Depot            | 5555 Lynas Lane            | 604-276-4010   |
| Ironwood Bottle & Return-It Depot | 110 - 11020 Horseshoe Way  | 604-275-0585   |
| OK Bottle Depot                   | 7960 River Road            | 604-244-0008   |
| Regional Recycling                | 13300 Vulcan Way           | 1-855-701-7171 |
| Richmond Return-It Depot          | 135 - 8171 Westminster Hwy | 604-232-5555   |

**TOYS (ELECTRONIC & ELECTRICAL) INCLUDING VIDEO GAMING SYSTEMS & ACCESSORIES<sup>DB</sup>**

| DROP-OFF LOCATION                 | ADDRESS                   | PHONE          |
|-----------------------------------|---------------------------|----------------|
| Best Buy                          | 700 - 5300 No. 3 Road     | 604-273-7335   |
| Ironwood Bottle & Return-It Depot | 110 - 11020 Horseshoe Way | 604-275-0585   |
| OK Bottle Depot                   | 7960 River Road           | 604-244-0008   |
| Regional Recycling                | 13300 Vulcan Way          | 1-855-701-7171 |

**UPHOLSTERED FURNITURE (COUCHES, ARMCHAIRS, ETC)**

| DROP-OFF LOCATION            | ADDRESS                     | PHONE        |
|------------------------------|-----------------------------|--------------|
| Canadian Mattress Recycling* | 1210 Cliveden Avenue, Delta | 604-777-0324 |
| City of Vancouver Landfill*  | 5400 72nd Street, Delta     | 604-873-7000 |
| MattressRecycling.ca*        | 11571 Twigg Place           | 604-324-3211 |

Richmond's Large Item Pick Up Program: Contact Sierra Waste at 604-270-4722. Please note some restrictions apply. Visit [www.richmond.ca/largeitem](http://www.richmond.ca/largeitem) for program details.

DB: Disposal ban | \* A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.





**CITY OF RICHMOND**

Environmental Programs Information Line:

604-276-4010

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

 Printed on recycled paper.





# City of Richmond

## Report to Committee

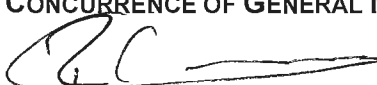


**To:** Public Works and Transportation Committee  
**From:** John Irving, P.Eng. MPA  
Director, Engineering  
**Date:** March 29, 2017  
**File:** 10-6060-05-01/2017-  
Vol 01  
**Re:** Post Winter Roads and Paving Program Update

### Staff Recommendation

1. That \$202,300 be allocated from the MRN Provision for MRN road rehabilitation and included as an amendment to the 5 Year Consolidated Financial Plan (2017-2021).
2. That \$832,500 be allocated from the Gas Tax Provision for Non MRN road rehabilitation and included as an amendment to the 5 Year Consolidated Financial Plan (2017-2021).

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

Att. 1

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

## Staff Report

### Origin

The winter of 2016/2017 was the worst the City of Richmond has experienced in recent memory. Low temperatures and high snowfalls led to an extensive snow removal program and has accelerated deterioration of the City's Roadways. This report identifies a number of roadways where repairs are required due to the unusually harsh winter and requests Council approval for funding to perform those repairs.

This report supports Council's 2014-2018 Term Goal #3 A Well-Planned Community:

*Adhere to effective planning and growth management practices to maintain and enhance the livability, sustainability and desirability of our City and its neighbourhoods, and to ensure the results match the intentions of our policies and bylaws.*

3.3. *Effective transportation and mobility networks.*

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

*Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.*

6.1. *Safe and sustainable infrastructure.*

### Findings of Fact

The winter of 2016/2017 was one of the worst in recent history. Table 1 identifies average winter metrics and compares them to statistics compiled for 2016/2017 at the weather station at Richmond Nature Park.

Table 1 – Winter Weather Statistics December Through March

|                              | Average (1981 -2010) | 2016/2017 | Difference      |
|------------------------------|----------------------|-----------|-----------------|
| Snowfall                     | 34.6 cm              | 55.4 cm   | 160% of average |
| Days With Snowfall           | 7.1 days             | 17 days   | 239% of average |
| Rain                         | 541 mm               | 382.4 mm  | 71% of average  |
| Days with Rainfall           | 73.7 days            | 55 days   | 75% of average  |
| Days Below 0 Degrees Celcius | 48.1                 | 64        | 133% of average |

A key issue was the amount of time that snow remained on the ground. In a typical Richmond winter, snow is typically washed away by rainfall within a few days of snowfall. The 2016/2017 winter was exceptional with snow remaining on the ground for long periods of time during the winter season.

### **Analysis**

The extreme winter weather experienced in 2016/2017 accelerated deterioration of the City's road network. Beyond work identified in the 2017 Capital Plan, Public Works has identified \$1,034,800 in roadway remediation projects that require attention in 2017, as itemized in Attachment 1. Roadway rehabilitation is required for these roadways this year to prevent further deterioration that will lead to costly road replacement. Staff recommends that this work be completed prior to the fall of 2017.

The City of Richmond entered the Community Works Fund Agreement with the Union of British Columbia Municipalities through which the City receives annual Gas Tax Funds. These funds can be allocated to projects that fall into one of the following categories: public transit, local roads and bridges, community energy systems, water and wastewater, solid waste management, disaster mitigation, culture and tourism infrastructure, and sport and recreation infrastructure. This project is applicable under the local roads and bridges category.

### **Financial Impact**

#### **Major Road Network (MRN)**

\$202,300 of the proposed roadway remediation work is on MRN roadways. Staff recommend funding this work from the MRN Provision and including this as an amendment to the City's 5 Year Consolidated Financial Plan (2017-2021). The MRN provision has an unencumbered balance of \$5.3M.

#### **Non Major Road Network (Non-MRN)**

\$832,500 of the proposed roadway remediation work is on Non-MRN roadways. Staff recommend funding this work from the Gas Tax Provision and including this as an amendment to the 5 Year Consolidated Financial Plan (2017-2021). The Gas Tax Provision has an unencumbered balance of \$1.2M.

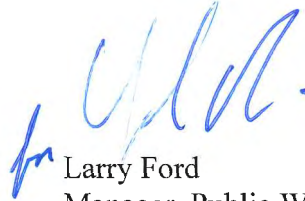


## Conclusion

The winter of 2016/2017 was one of the worst in recent memory and has accelerated deterioration of the City's road network. Public Works has identified \$1,034,800 in roadway remediation projects over and above the 2017 Capital Program that are required to prevent further roadway deterioration which will lead to costly road replacement.



Lloyd Bie, P.Eng.  
Manager, Engineering Planning  
(604-276-4075)



Larry Ford  
Manager, Public Works, Health and  
Safety Programs  
(604-244-1209)

LB:lb

Att. 1: Table of Roads Requiring Rehabilitation Due to 2016/2017 Winter Weather

## Attachment 1 – Roads Requiring Rehabilitation Due to 2016/2017 Winter Weather

| <b>Road</b>     | <b>Road Section</b>                   | <b>Rehabilitation Treatment</b> | <b>MRN / non-MRN</b> | <b>Area (sq. m)</b> | <b>Cost</b>        |
|-----------------|---------------------------------------|---------------------------------|----------------------|---------------------|--------------------|
| Blundell Rd     | No. 5 Rd to Shell Road Trail          | Grind and Overlay               | Non-MRN              | 5,805               | \$145,100          |
| Steveston Hwy   | Palmberg to Entertainment Way         | Grind and Overlay               | Non-MRN              | 7,740               | \$193,500          |
| Minoru Rd       | Lansdowne to Ackroyd                  | Grind and Overlay               | Non-MRN              | 4,200               | \$105,000          |
| Westminster Hwy | Garden City to 100 m past Alderbridge | Grind and Overlay               | MRN                  | 8,092               | \$202,300          |
| No. 3 Rd        | Westminster to Ackroyd                | Grind and Overlay               | Non-MRN              | 3,720               | \$93,000           |
| Granville Ave   | Gilbert to Minoru                     | Grind and Overlay               | Non-MRN              | 11,475              | \$286,900          |
| Westminster Hwy | W/PL of temple to Nelson              | Crack Seal                      | Non-MRN              | N/A                 | \$3,000            |
| Westminster Hwy | Nelson to Railroad Overpass           | Crack Seal                      | Non-MRN              | N/A                 | \$3,000            |
| Saba Rd         | Buswell to No. 3 Rd                   | Crack Seal                      | Non-MRN              | N/A                 | \$3,000            |
| <b>Total:</b>   |                                       |                                 |                      |                     | <b>\$1,034,800</b> |



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee

**Date:** March 22, 2017

**From:** John Irving, P.Eng. MPA  
Director, Engineering

**File:** 10-6060-03-01/2017-  
Vol 01

**Re:** Metro Vancouver Gilbert Trunk Sewer No. 2 Update

### Staff Recommendation

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

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

Att. 2

| REPORT CONCURRENCE  |  |   |
|---|--|---|
| <b>ROUTED TO:</b><br><br>Corporate Communications<br>Transportation | <b>CONCURRENCE</b><br><br><input checked="" type="checkbox"/><br><input checked="" type="checkbox"/> | <b>CONCURRENCE OF GENERAL MANAGER</b><br><br> |
| <b>REVIEWED BY STAFF REPORT /<br/>AGENDA REVIEW SUBCOMMITTEE</b>    | <b>INITIALS:</b><br><br>CT   | <b>APPROVED BY CAO</b><br><br>                |



## Staff Report

### Origin

Metro Vancouver's Gilbert Trunk Sewer conveys the majority of Richmond's sanitary sewage to the Lulu Island Wastewater Treatment Plant. The existing sewer is showing signs of deterioration due to age, and is currently nearing its full capacity as sewage flow demands continue to increase due to population growth. In 2013, Metro Vancouver began construction of the Gilbert Trunk Sewer No. 2 project (the "Project"). The Project involves constructing a second sewer line adjacent to the existing pipe. This will provide increased conveyance capacity to minimize backups and accommodate future growth in Richmond. Twinning of the sewer will also provide system redundancy, allowing for isolation of pipe sections to better facilitate future maintenance activities and ensure that consistent sanitary sewer service be provided to Richmond's residents.

This report updates Council on progress to date, upcoming construction activities, anticipated traffic impacts, as well as Metro Vancouver's communications strategy.

### Analysis

#### Project Description

The Project is divided into four sections (Attachment 1). Construction of the first section, extending from Metro Vancouver's Bridgeport pump station to the intersection of Gilbert Road and Elmbridge Way, began in spring 2013 and is now complete.

The remaining works involve the construction of approximately 6.2 km of 1500 mm and 1800 mm diameter sanitary sewer pipe installed at a depth of up to 4 m, as well as six concrete diversion chambers approximately 6 m by 6 m in size, located at various intersections along the Gilbert Road corridor. This work will be constructed as three sections:

- **Gilbert Road Sewer North Section** extends along Gilbert Road from Elmbridge Way to the north of the Blundell Road intersection;
- **Gilbert Road Sewer Central Section** extends along Gilbert Road from the Blundell Road intersection to north of the Steveston Highway intersection; and
- **Gilbert Road Sewer South Section** extends along Gilbert Road from the Steveston Highway intersection to the Lulu Island Wastewater Treatment Plant.

Construction of the Project is complex as it involves utility conflicts and the excavation of deep trenches which require dewatering and sheet piling. This will result in significant traffic impacts along Gilbert Road and intersecting roads. Staff is working with Metro Vancouver to minimize public impacts through improving pipeline design, scheduling and traffic planning.

#### Construction Schedule

Metro Vancouver's planned construction period is from spring 2018 to winter 2020. Construction will be staged around the major intersections on Gilbert Road, with construction at each intersection anticipated to last approximately 6 months. Staff encouraged Metro Vancouver to develop options that maintain traffic flow and avoid disruptions at adjacent intersections. In

general, the proposed traffic plan (Attachment 2) involves working at one major intersection at a time in the North and Central sections to avoid accumulation of traffic impacts in the more populated sections of the route. Construction of the South section is scheduled around other City projects in the area to reduce traffic impacts. Construction of the North section is anticipated to begin in spring 2018, followed by construction of the South section in spring 2019 and the construction of the Central section in summer 2019.

### Anticipated Traffic Impacts

#### *Gilbert Road Sewer North and Central Sections*

City staff has worked with Metro Vancouver to avoid full road closures in North and Central sections of the project. By improving pipeline alignment and cross over chamber locations, a traffic plan has been developed that facilitates one lane of traffic in each direction along Gilbert Road and intersecting roads. Metro Vancouver has completed detailed traffic modelling to assess the impact of intersection works on local traffic. Based on the results of the analysis, Metro Vancouver recommends prohibiting left turn traffic to maximize through traffic capacity. Results of this analysis have been reviewed and are supported by Engineering and Transportation staff. The traffic alterations described above are expected to be in effect for the full duration of construction at intersections for approximately 6 months.

As construction will involve deep open trench excavations, restricted property access is anticipated for pipeline construction, particularly on the west side of Gilbert Road. Other construction impacts include occasional temporary odour, parking restrictions, frequent construction vehicles and noise. Richmond and Metro Vancouver will work with the public to minimize impacts and accommodate the access requirements of impacted property owners.

#### *Gilbert Road Sewer South Section*

Gilbert Road south of Steveston Highway will be closed to through-traffic for approximately 18 months to accommodate Gilbert Trunk Sewer South section construction. The narrow width of Gilbert Road south of Steveston Highway combined with the deep sewer construction does not allow for through traffic on this section during pipeline construction. A rolling closure that moves with pipeline construction is being proposed. Metro Vancouver will work with impacted residents and businesses prior to construction to better understand and accommodate access needs.

A number of the City's Council-approved capital construction projects scheduled for construction in 2017 and 2018 are located within the same traffic footprint as the Gilbert Road Sewer South section. These include:

- 
- No. 2 Road Widening Project from Steveston Highway to London Road; and
  - Dike Upgrade Project on Dyke Road from Gilbert Road to No. 3 Road.

Staff are working with Metro Vancouver to coordinate construction of the Gilbert Road Sewer South section after the completion of the construction on No. 2 Road and Dyke Road projects to minimize overall traffic impacts to the area.

### Public Communications

Metro Vancouver has developed a Consultation and Communications Strategy for the Gilbert Trunk Sewer project. The strategy outlines Metro Vancouver's approach for engaging stakeholders impacted by construction activities, project team roles and responsibilities, and key contacts for project inquiries. Metro Vancouver's public engagement plan includes:

- A designated Community Liaison Officer to address community concerns regarding the project;
- Communication of information through fact sheets and newspaper advertisements;
- Targeted meetings and discussion with high-impact stakeholders (e.g. Gilbert Road residents and businesses) to provide project information and better understand the needs of the community;
- Project-specific open house events;
- Mobilization newsletters and construction signage posted in advance of construction;
- Attendance at special events, such as the City's Capital Works Open House and Public Works Open House; and
- Twitter and web updates prior to and during construction.

The City of Richmond will support and promote Metro Vancouver's communication efforts via the City's website, social media channels and other methods as deemed beneficial to the public.

### **Financial Impact**

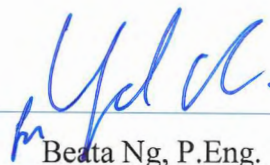
None.

### **Conclusion**

The Gilbert Trunk Sewer No. 2 project is required to improve capacity to accommodate ongoing municipal growth and provide redundancy for the existing Gilbert Trunk Sewer, which services the majority of Richmond's sanitary sewage catchments. Staff are working with Metro Vancouver to establish a construction schedule and traffic management plan that minimizes impacts to property owners and other stakeholders. Staff will continue to assist Metro Vancouver with their Consultation and Communications Strategy to deliver a high degree of stakeholder awareness and identify stakeholder issues before they become critical.



Lloyd Bie, P.Eng.  
Manager, Engineering Planning  
(4075)



Beata Ng, P.Eng.  
Project Engineer  
(4257)

Att. 1: Phases of Gilbert Trunk Sewer No. 2 Project  
Att. 2: Proposed Intersection Construction Sequence



**Attachment 1 – Phases of Gilbert Trunk Sewer No. 2 Project**





**Attachment 2 – Proposed Intersection Construction Sequence**