



Public Works and Transportation Committee

Anderson Room, City Hall
6911 No. 3 Road

Wednesday, October 18, 2017
4:00 p.m.

Pg. # ITEM

MINUTES

PWT-4 *Motion to adopt the [minutes](#) of the meeting of the Public Works and Transportation Committee held on September 20, 2017.*



NEXT COMMITTEE MEETING DATE

November 22, 2017, (tentative date) at 4:00 p.m. in the Anderson Room

PLANNING AND DEVELOPMENT DIVISION

1. **TRANSLINK 2018 CAPITAL PROGRAM COST-SHARE
SUBMISSIONS**
(File Ref. No. 01-0154-04/2017-Vol 01) (REDMS No. 5493788 v. 3)

PWT-8

[See Page PWT-8 for full report](#)

Designated Speaker: Victor Wei

STAFF RECOMMENDATION

- (1) *That the submission of pedestrian, bicycle and transit facility improvement projects for cost-sharing as part of the TransLink 2018 capital cost-share programs as described in the report titled, “TransLink 2018 Capital Program Cost-Share Submissions” dated September 27, 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 2018 Capital Plan and the 5-Year Financial Plan (2018-2022) be updated accordingly.*



ENGINEERING AND PUBLIC WORKS DIVISION

2. **RICHMOND'S COMMITMENT TO PESTICIDE USE REDUCTION AND INVASIVE SPECIES MANAGEMENT**

(File Ref. No. 10-6125-04-01) (REDMS No. 5559065)

PWT-18

See Page PWT-18 for full report

Designated Speaker: Peter Russell and Chad Paulin

STAFF RECOMMENDATION

That the staff report titled “Richmond’s Commitment to Pesticide Use Reduction and Invasive Species Management” dated September 22, 2017, from the Director, Engineering, be received for information.



3. **2018 PAVING PROGRAM**

(File Ref. No. 10-6050-01) (REDMS No. 5550568)

PWT-36

See Page PWT-36 for full report

Designated Speaker: Milton Chan

STAFF RECOMMENDATION

That the staff report titled, “2018 Paving Program,” dated September 18, 2017, from the Director, Engineering be received for information.



Pg. # ITEM

4. **GREASE INSPECTOR UPDATE 2017**
(File Ref. No. 10-6060-03-01) (REDMS No. 5521844 v. 4)

PWT-43

See Page PWT-43 for full report

Designated Speaker: Lloyd Bie

STAFF RECOMMENDATION

That a full-time grease inspector be submitted as part of the 2018 Utility Budgets for Council consideration.

☐

5. **MANAGER’S REPORT**

ADJOURNMENT

☐



Public Works and Transportation Committee

Date: Wednesday, September 20, 2017

Place: Anderson Room
Richmond City Hall

Present: Councillor Chak Au, Chair
Councillor Harold Steves
Councillor Derek Dang
Councillor Carol Day
Councillor Alexa Loo

Also Present: Councillor Bill McNulty
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 July 19, 2017, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

October 18, 2017, (tentative date) at 4:00 p.m. in the Anderson Room

PLANNING AND DEVELOPMENT DIVISION

1. **RIVER ROAD – PROPOSED ADDITIONAL ROAD SAFETY ENHANCEMENT MEASURES**

(File Ref. No. 10-6450-09-01) (REDMS No. 5488824 v. 3)

Public Works & Transportation Committee

Wednesday, September 20, 2017

In reply to queries from Committee, Victor Wei, Director, Transportation, advised that in consultation with the cycling community, speed has been identified as the primary concern for cyclists and therefore, staff recommend speed humps as a long term solution. Also, he noted that cyclists can easily manoeuvre over speed humps and thus their installation along River Road is not of a concern. Mr. Wei then advised that residents and businesses in the area would be informed of the upcoming installation of speed humps and staff are prepared to make further adjustments should concerns persist.

It was moved and seconded

- (1) *That Option 2 as described in the staff report titled "River Road – Proposed Additional Road Safety Enhancement Measures" dated August 22, 2017 from the Director, Transportation, be endorsed for implementation as part of on-going city-wide efforts to improve safety for road users; and*
- (2) *That Richmond RCMP be requested to establish regular speed and vehicle weight enforcement on River Road between No. 6 Road and Westminster Highway as a complementary road safety enhancement measure to Recommendation 1.*

CARRIED

ENGINEERING AND PUBLIC WORKS DIVISION

2. **METRO VANCOUVER CAPITAL CONSTRUCTION UPDATE 2017**
(File Ref. No. 10-6060-03-01) (REDMS No. 5488473 v. 2)

It was moved and seconded

That the report titled "Metro Vancouver Capital Construction Update 2017," dated August 25, 2017 from the Director, Engineering be received for information.

CARRIED

3. **RESTRICTION OF GROUNDWATER DISCHARGE TO CITY DRAINAGE AND SANITARY SYSTEMS**
(File Ref. No. 10-6060-05-01) (REDMS No. 5489017 v. 3)

In reply to queries from Committee, Lloyd Bie, Manager, Engineering Planning, noted that restriction of groundwater discharge means restricting the water found beneath the surface of the ground from discharging into the City's drainage system.

It was moved and seconded

That the Drainage, Dyke, and Sanitary Sewer System Bylaw No. 7551, Amendment Bylaw No. 9751 be introduced and given first, second and third readings.

CARRIED

2.

Public Works & Transportation Committee
Wednesday, September 20, 2017

4. **SHELL ROAD NORTH DRAINAGE PUMP STATION**
(File Ref. No. 10-6340-20-P.16308) (REDMS No. 5495802 v. 2)

It was moved and seconded

That the design concept for the Shell Road North Drainage Pump Station as detailed in Attachment 1 of the staff report titled "Shell Road North Drainage Pump Station" dated August 9, 2017 from the Director, Engineering be approved.

CARRIED

5. **RIPARIAN RESPONSE STRATEGY COMPLIANCE UPDATE**
(File Ref. No.: 10-6160-00) (REDMS No. 5542675 v. 5)

Peter Russell, Senior Manager, Sustainability and District Energy, introduced Chad Paulin, Manager, Environment.

In reply to queries, Mr. Russell provided the following information:

- it is the duty of the developer through the use of a qualified environmental professional to monitor Riparian Management Areas that fall within their respective development;
- it is anticipated that regulatory tools will assist in developers' understanding of protection measures; and
- following public consultation, staff will report back with a regulatory package.

It was moved and seconded

That the report titled "Riparian Response Strategy Compliance Update" from the Director, Engineering, dated September 11, 2017 be received for information.

CARRIED

6. **MANAGER'S REPORT**

(i) Dike and Pump Station Damage

John Irving, Director, Engineering, provided an update on the damages caused by BC Hydro in relation to the proposed George Massey Tunnel replacement project. Mr. Irving noted that some repairs have been made and costs will be incurred by BC Hydro.

Discussion took place and a report written by Tom Morrison regarding pile foundations was referenced. In response to the discussion, Mr. Wei advised that the current provincial government is conducting an independent review of the proposed George Massey Tunnel replacement project in an effort to determine the right alternative.

Public Works & Transportation Committee

Wednesday, September 20, 2017

In reply to a query, Mr. Irving advised that the works completed to date as part of the proposed George Massey Tunnel replacement project does not benefit the City.

(ii) *Let's Recycle Correctly Program*

Suzanne Bycraft, Manager, Fleet and Environmental Programs, provided information regarding the "Let's Recycle Correctly" program including what may and may not be recycled. Ms. Bycraft advised that curb side audits are forthcoming and a public education campaign will be launched to promote awareness and educate residents. Also, she noted that areas with higher contamination rates will be targeted. She stated that the program aims to support and educate the public in an effort to lower contamination rates.

In response to a query from Committee, Ms. Bycraft advised that not all types of plastics are accepted as recyclable sorting machines are only capable of recognizing certain types of plastics.

Also, Ms. Bycraft advised staff's public outreach efforts will be supplemented with additional manpower. She noted that staff are examining partnership opportunities with the City's Sustainability Department to provide informational videos.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:31 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Public Works and Transportation Committee of the Council of the City of Richmond held on Wednesday, September 20, 2017.

Councillor Chak Au
Chair

Sarah Kurian
Legislative Services Coordinator



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** September 27, 2017
From: Victor Wei, P. Eng.
Director, Transportation **File:** 01-0154-04/2017-Vol 01
Re: **TransLink 2018 Capital Program Cost-Share Submissions**

Staff Recommendation

1. That the submission of pedestrian, bicycle and transit facility improvement projects for cost-sharing as part of the TransLink 2018 capital cost-share programs as described in the report titled, "TransLink 2018 Capital Program Cost-Share Submissions" dated September 27, 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 2018 Capital Plan and the 5-Year Financial Plan (2018-2022) be updated accordingly.

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

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance	☒	
Parks	☒	
Engineering	☒	
Law	☒	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

Each year, municipalities may submit road, bicycle and transit-related improvement projects for 50-50 funding consideration from TransLink's capital cost-share funding programs. This staff report presents the proposed submissions from the City to TransLink's 2018 capital cost-share programs, which support the goals of the City's *Official Community Plan*.

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

3.3. *Effective transportation and mobility networks.*

This report supports Council's 2014-2018 Term Goal #5 Partnerships and Collaboration:

5.2. *Strengthened strategic partnerships that help advance City priorities.*

Analysis

Major Road Network and Bike (MRNB) Upgrade Program

The MRNB Program provides allocated funding for capital improvements to the major roads across the region that comprise the MRN and the construction of bicycle facilities both on and off the MRN. The approval of the Phase One Plan of the 10-Year Vision restored funding to the program beginning in 2017. As shown in Table 1, the City will receive up to a total of \$794,000 for several cycling and pedestrian facility projects through the 2017 MRNB Program.

Table 1: Projects to Receive Funding from 2017 MRNB Program

Project Name/Scope	TransLink 2017 Funding ⁽¹⁾	Est. Total Project Cost
River Drive (No. 4 Road-Van Horne Way): multi-use pathway on south side including pedestrian lighting	\$207,000	\$1,344,000
No. 2 Road (Granville Ave-Westminster Hwy): sidewalk on east side	\$200,000	\$400,000
No. 2 Road (Steveston Hwy-Dyke Road): multi-use pathway on west/east sides	\$344,000	\$1,240,000
Sexsmith Road (Beckwith Road-Charles St): bike portion of multi-use path on east side including pedestrian lighting	\$43,000	\$495,000
Total	\$794,000	\$3,479,000

(1) The amount shown represents the maximum funding contribution to be requested from TransLink based on the City's cost estimate for the project. The actual amount invoiced to TransLink follows project completion and is based on incurred costs.

For 2018, \$20.0 million in total is available for upgrades to the MRN and bicycle projects on or off the MRN, which is a doubling of the funding available in 2017. Funding is allocated to municipalities based on population and employment growth forecasts from the *Regional Growth Strategy* and, for 2018, Richmond's allocation is estimated at \$1,588,000.

Beginning in 2018, some cycling projects may be eligible for up to 75% cost-share funding (i.e., TransLink funds 75% of the total project cost) as identified in the Mayors' Council Vision. Eligibility criteria include:

- project is located within defined Urban Centres or Frequent Transit Development Areas per the *Regional Growth Strategy* or within areas of “high cycling potential” as defined in TransLink’s *Regional Cycling Strategy*;
- project contributes to the Major Bikeway Network as defined in TransLink’s *Regional Cycling Strategy* including connections to bridges; and
- project design comprises Class 1 facilities (i.e., protected bike lane, off-street path or a neighbourhood bikeway on local streets where the targeted number of vehicles per day on the local street is equal to or less than 500).

The City proposes to submit the following projects for consideration to be included in the 2018 MRNB Program (Attachment 1):

- *River Parkway Bike Lanes*: provision of 1.8 m wide buffered bike lanes protected from adjacent vehicles with delineator posts as part of the overall construction of River Parkway between 150 m north of Gilbert Road and Cambie Road. Based on the project’s location in Richmond’s Urban Centre and its Class 1 design, the City will be seeking up to 75% cost-share funding for this project.
- *Westminster Highway Multi-Use Pathway*: rebuild of the existing two-way off-street paved 2.5-3.0 m wide asphalt pathway for pedestrians and cyclists on the south side of Westminster Highway between 14,600-block and No. 7 Road as the existing pathway has suffered extensive damage from tree roots.
- *Odlin Road Bike Route*: establishment of new east-west bike route primarily along Odlin Road between its eastern terminus and No. 3 Road including upgrade of the existing path through Odlin Park to a multi-use path, construction of a new multi-use pathway with lighting to connect Odlin Road and Brown Road, upgrade of the pathway connection at Browngate Road-Hazelbridge Way, and the addition of pavement markings and signage.
- *Off-Gilbert Bikeway Phase 1*: initiation of a new north-south neighbourhood bikeway using local streets and off-street connecting pathways that would parallel Gilbert Road to the east and link Steveston Highway to the City Centre at Granville Avenue. Phase 1 work would comprise the upgrade of two existing off-street pathways south of Williams Road to accommodate both pedestrians and cyclists.

Bicycle Infrastructure Capital Cost-Sharing (BICCS) Program

The BICCS Program provides allocated and competitive-based funding for the construction of bicycle facilities. The approval of the Phase One Plan of the 10-Year Vision also restored allocated funding to the program beginning in 2017. As shown in Table 2, the City will receive up to a total of \$626,000 for several cycling-related projects through the 2017 BICCS Program. In total, the City will receive up to \$620,000 in TransLink funding towards the No. 2 Road multi-use pathway.

Table 2: Projects to Receive Funding from 2017 BICCS Program

Project Name/Scope	TransLink 2017 Funding ⁽¹⁾ Allocated	TransLink 2017 Funding ⁽¹⁾ Competitive	Est. Total Project Cost
Great Canadian Way (Bridgeport Road-Van Horne Way): multi-use pathway on west side including pedestrian lighting	\$150,000	-	\$300,000
No. 2 Road (Steveston Hwy-Dyke Road): multi-use pathway on west/east sides	\$55,000	\$221,000	\$1,240,000
Westminster Hwy (No. 8 Road-Nelson Road): multi-use pathway on south side	\$200,000	-	\$400,000
Total	\$405,000	\$221,000	\$1,940,000

(1) The amount shown represents the maximum funding contribution to be requested from TransLink based on the City's cost estimate for the project. The actual amount invoiced to TransLink follows project completion and is based on incurred costs.

For 2018, the BICCS Program has a total of \$13.45 million (a nearly 80% increase in funding from 2017) with \$9.0 million available on an allocated basis, based on 2016 Census population data and employment data, and \$4.45 million available on a competitive basis. Richmond's allocation for 2018 is \$782,000. For the competitive-based program, municipalities permitted to submit up to two projects each for TransLink cost-share funding up to a maximum of \$600,000 per project. Municipalities may submit the same eligible project to the MRNB and BICCS Programs provided the total TransLink funding does not exceed 50% of the total cost (or 75% if eligible).

The City proposes to submit the following projects for consideration to be included in the allocated component of the 2018 BICCS Program (Attachment 1):

- *River Parkway Bike Lanes*: provision of 1.8 m wide buffered bike lanes protected from adjacent vehicles with delineator posts as part of the overall construction of River Parkway between 150 m north of Gilbert Road and Cambie Road.
- *Cambie Road Multi-Use Pathway*: construction of a two-way off-street paved 4.0 m wide asphalt pathway for pedestrians and cyclists on the south side of Cambie Road between River Road and No. 3 Road including pedestrian lighting.
- *Parkside Bikeway Extension*: construction of a two-way off-street paved 3.0 m wide asphalt pathway for pedestrians and cyclists to connect the existing northern terminus of the Parkside Bikeway path at Garden City Park to Anderson School and Alberta Road. From Alberta Road, signage and pavement markings would be implemented to further extend the route to Westminster Highway and the Garden City Lands.
- *Crosstown Bikeway*: continued eastward extension of this new neighbourhood bikeway with modifications to the Lucas Road-No. 3 Road intersection to facilitate the east-west through movement of cyclists across the major arterial.

The City proposes to submit the following projects for consideration to be included in the competitive-based component of the 2018 BICCS Program (Attachment 1):

- *River Parkway Bike Lanes*: provision of 1.8 m wide buffered bike lanes protected from adjacent vehicles with delineator posts as part of the overall construction of River Parkway between 150 m north of Gilbert Road and Cambie Road.

- *Alderbridge Way Multi-Use Pathway*: construction of a two-way off-street paved 3.0 m wide asphalt pathway for pedestrians and cyclists on the north side of Alderbridge Way between Shell Road and No. 4 Road including pedestrian lighting. The pathway will fill in a gap in similar facilities by providing connections to the existing pathway on Alderbridge Way west of No. 4 Road and the Shell Road Trail at its eastern end.

Walking Infrastructure to Transit (WITT) Program

The WITT program provides allocated and competitive-based funding for pedestrian facility upgrades within walking distance of frequent transit stops, stations and exchanges to promote the seamless integration of walking and cycling with transit. As shown in Table 3, the City will receive up to \$205,000 for the Sexsmith Road pedestrian portion of the multi-use pathway as part of the 2017 WITT Program. In total, the City will receive up to \$248,000 in TransLink funding towards this project.

Table 3: Project to Receive Funding from 2017 WITT Program

Project Name/Scope	TransLink 2017 Funding ⁽¹⁾	Est. Total Project Cost
Sexsmith Road (Beckwith Road-Charles St): bike portion of multi-use path on east side including pedestrian lighting	\$205,000	\$495,000

(1) The amount shown represents the maximum funding contribution to be requested from TransLink based on the City's cost estimate for the project. The actual amount invoiced to TransLink follows project completion and is based on incurred costs.

For 2018, the WITT Program has a total of \$5.0 million with \$3.3 million available on an allocated basis, based on population and employment growth forecasts from the *Regional Growth Strategy*, and \$1.7 million available on a competitive basis to enhance and expand pedestrian access to transit through investments to improve safety, connectivity and accessibility, and provide amenities (e.g., pedestrian lighting, street furniture). Richmond's allocation for 2018 is \$272,000.

The City proposes to submit the following projects for consideration to be included in the allocated component of the 2018 WITT Program (Attachment 1):

- *Riverside Industrial Park Pathways*: construction of asphalt pathways to complete missing gaps in the pedestrian network connecting to bus stops within the Riverside Industrial Park south of Steveston Highway at No. 5 Road. The pathways would be located on those roadways that have transit service.
- *Cambie Road Multi-Use Pathway*: construction of a two-way off-street paved 4.0 m wide asphalt pathway for pedestrians and cyclists on the south side of Cambie Road between River Road and No. 3 Road including pedestrian lighting.

Transit-Related Road Infrastructure Program (TRRIP)

TransLink's TRRIP provides funding for roadway infrastructure facilities required for the delivery of transit services in the region. As shown in Table 4, a number of City transit-related projects will receive up to a total of \$125,000 in funding from TransLink's 2017 TRRIP. As of August 2017, Richmond has 721 active bus stops, of which 530 (73.5%) are accessible, which is an increase from 71.9% in August 2016.

Table 4: Projects to Receive Funding from 2017 TRRIP

Project Name/Scope	TransLink 2017 Funding ⁽¹⁾	Est. Total Project Cost
Addition of landing pad to bus stop: up to 16 locations	\$125,000	\$250,000

(1) The amounts shown represent the maximum funding contribution to be requested from TransLink based on the City's cost estimate for the project. The actual amount invoiced to TransLink follows project completion and is based on incurred costs.

TransLink funding of \$1.0 million is available for cost-sharing under the 2018 TRRIP. As TRRIP has no block funding formula, there is no allocated amount of eligible funding for the City. Projects proposed to be submitted by the City for cost-sharing under the 2018 TRRIP are:

- ***Bus Stop Upgrades:*** continued retrofits to various existing bus stops to provide for universal accessibility (i.e., installation of a landing pad and/or connecting sidewalk for wheelchair users) and construction of connecting pathways to provide access to/from the bus stop. The exact bus stop locations for these upgrades will be determined through feedback from transit users and consultation with Richmond Centre for Disability.

Additional projects may be identified for submission to TransLink prior to its annual program deadline (e.g., installation of advance left-turn arrows at selected intersections to facilitate turning movements for buses in order to increase service reliability).

Requested Funding and Estimated Project Costs

The total requested funding for the above 2018 submissions to TransLink's capital cost-sharing programs is \$4,055,000 as summarized in Table 5, which will support projects with a total estimated cost of \$6,770,000.

Table 5: Projects to be Submitted to 2018 TransLink Cost-Share Programs

Project	TransLink MRNB-Allocated	TransLink BICCS-Allocated	TransLink BICCS-Competitive	Proposed City Portion & Funding Source	Est. Total Project Cost
River Parkway (Gilbert Road-Cambie Road): bike lanes	\$1,013,000	\$652,000	\$600,000	\$25,000 2017-2018 Capital Program	\$3,190,000
Westminster Hwy (14,600-block-No. 7 Road): multi-use path rebuild	\$360,000	-	-	\$360,000 2016-2018 Active Transportation Improvement Programs	\$720,000
Odlin Road Bike Route (East End-No. 3 Road): multi-use paths, pavement markings and signage	\$125,000	-	-	\$125,000 2016-2018 Active Transportation Improvement Programs	\$250,000
Off-Gilbert Bikeway: upgrade of two off-street pathways	\$90,000	-	-	\$90,000 2016-2018 Active Transportation Improvement Programs	\$180,000
Parkside Bikeway (Garden City Park-Westminster Hwy): multi-use path, pavement markings and signage	-	\$50,000	-	\$50,000 2016-2018 Active Transportation Improvement Programs	\$100,000
Crosstown Bikeway: Lucas Road-No. 3 Road intersection modifications	-	\$80,000	-	\$80,000 2016-2018 Active Transportation Improvement Programs	\$160,000
Alderbridge Way (No. 4 Road-Shell Road): multi-use path	-	-	\$600,000	\$600,000 2018 Capital Program	\$1,200,000
Subtotal	\$1,588,000	\$782,000	\$1,200,000		\$5,800,000

Project	TransLink WITT- Allocated	TransLink WITT- Competitive	TransLink TRIP	Proposed City Portion & Funding Source	Est. Total Project Cost
Cambie Road (River Road- No. 3 Road): multi-use path	\$22,000	\$38,000	-	\$60,000 2018 Capital Program	\$120,000
Riverside Industrial Park: connecting paths to bus stops	\$250,000	-	-	\$250,000 2018 Neighbourhood Walkway Program	\$500,000
Accessibility upgrades to existing bus stops: various locations	-	-	\$175,000	\$175,000 2018 Transit Related Road Improvement Program	\$350,000
Subtotal	\$272,000	\$38,000	\$175,000		\$970,000

- (1) The amounts shown represent the maximum funding contribution to be requested from TransLink based on the City's cost estimate for the project. The actual amount invoiced to TransLink follows project completion and is based on incurred costs.
- (2) The City's portions of the costs of the projects have either been previously approved by Council or will be considered during the 2018 Capital Budget process.

Should the submissions be successful, the City would enter into funding agreements with TransLink. The agreements are standard form agreements provided by TransLink and include an indemnity and release in favour of TransLink. Staff recommend that the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the agreements. The 2018 Capital Plan and the 5-Year Financial Plan (2018-2022) would be updated to reflect the receipt of the external grants where required dependant on the timing of the budget process.

Financial Impact

As indicated in Table 5, the City's portions of the costs of the projects have either been previously approved by Council or will be considered during the 2018 Capital Budget process. All projects have operating budget impacts that have been approved or will be incorporated as part of the past or upcoming annual budget processes.

Conclusion

A number of pedestrian and bicycle route improvement projects are proposed for submission to TransLink's various cost-sharing programs for 2018 that would support the Council Term Goal with respect to "A Well Planned Community" as well as the goals of the Official Community Plan. The proposed projects capitalize on the expanded external cost-share funding available from TransLink as part of the implementation of Phase One of the 10-Year Investment Plan. In addition to maximizing external funding in implementing local transportation improvements, significant benefits for those using sustainable travel modes in terms of new infrastructure that provides safety and accessibility enhancements would also be achieved should these projects be approved by TransLink and Council.

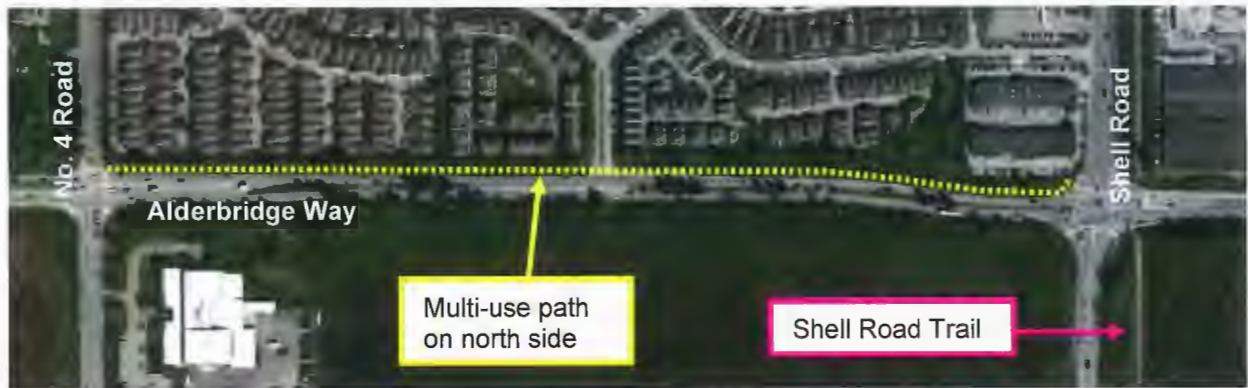


Joan Caravan
Transportation Planner
(604-276-4035)

JC:jc

Att. 1: Locations of Proposed Cost-Share Pedestrian and Cycling Infrastructure Projects

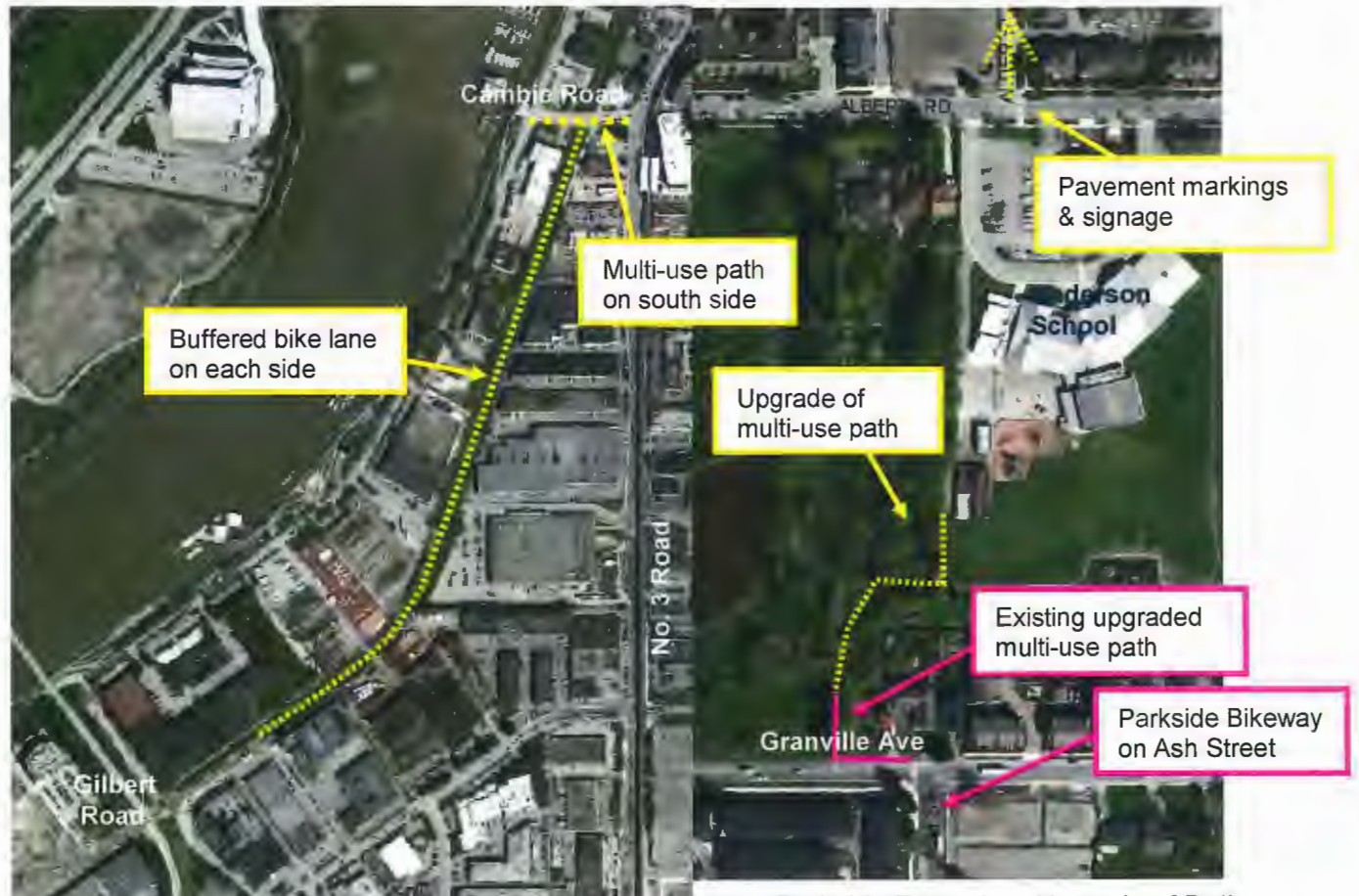
Proposed 2018 MRNB, BICCS and WITT Program Projects
(Yellow Outlined Boxes)



Alderbridge Way (No. 4 Road-Shell Road): Multi-Use Pathway



Westminster Highway (14,600-block-No. 7 Road): Rebuild of Multi-Use Pathway



River Parkway (Gilbert Road-Cambie Road): Bike Lanes
Cambie Road (River Parkway-No. 3 Road): Multi-Use Path

Parkside Extension: Upgrade of Path

Proposed 2018 MRNB, BICCS and WITT Program Projects
(Yellow Outlined Boxes)

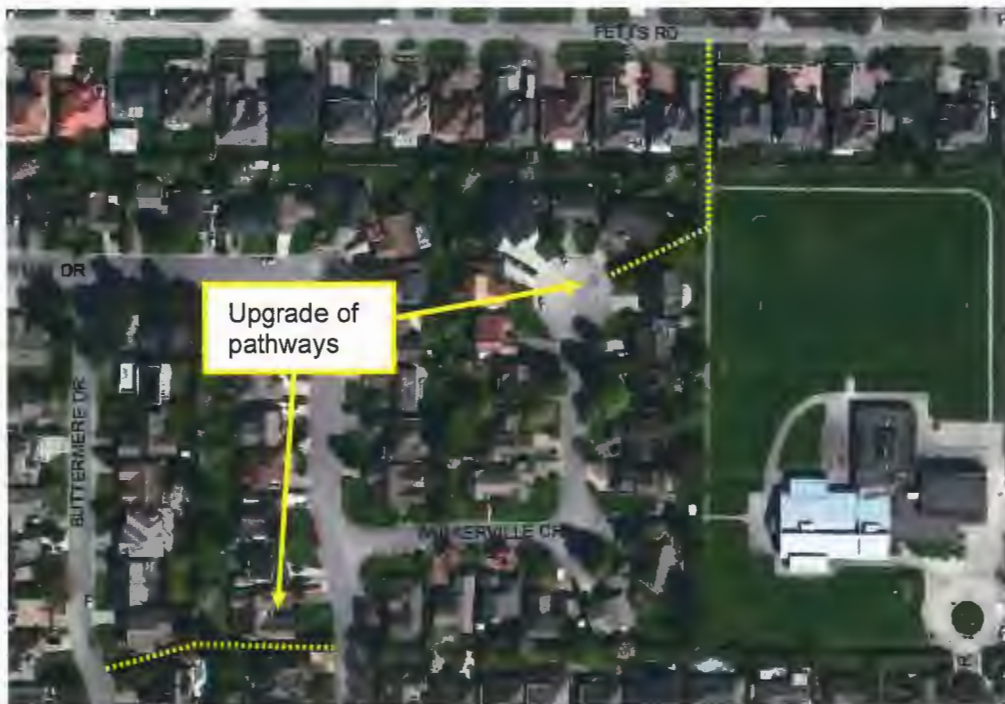


Odlin Road (East Terminus-No. 3 Road): Multi-Use Pathways, Signage, Pavement Markings

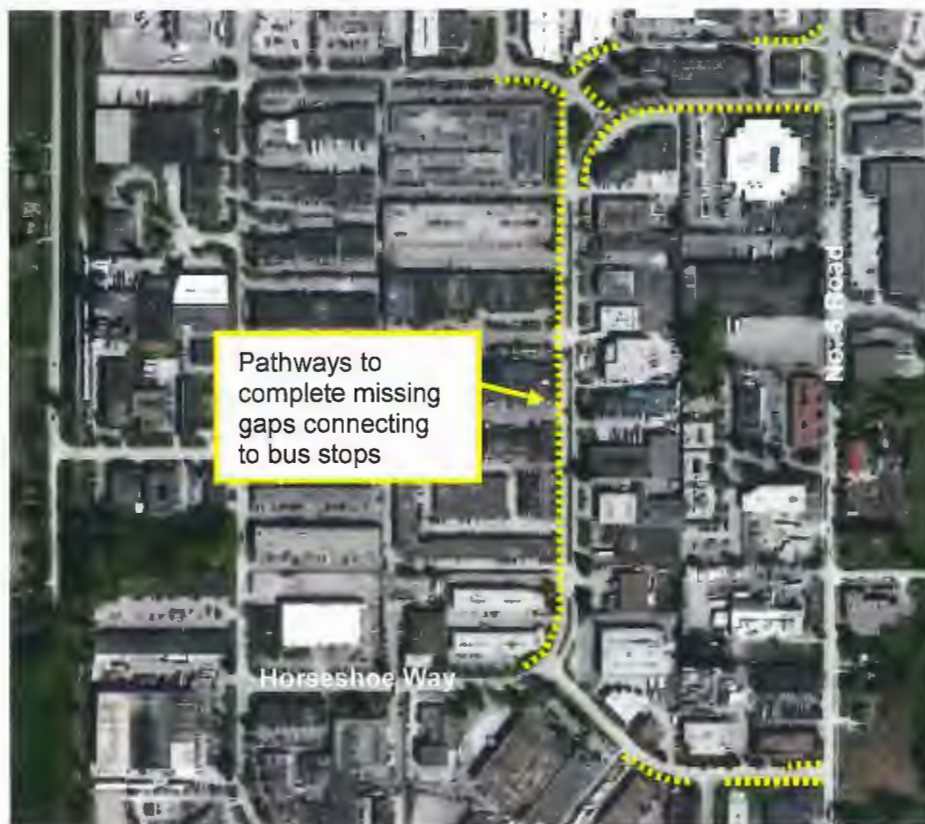


Crosstown Neighbourhood Bikeway: Lucas Road-No. 3 Road Intersection Upgrades

**Proposed 2018 MRNB, BICCS and WITT Program Projects
(Yellow Outlined Boxes)**



Off-Gilbert Neighbourhood Bikeway Phase 1: Upgrade of Off-Street Pathways



Riverside Industrial Park: Pathways connecting to Bus Stops



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** September 22, 2017
From: John Irving, P.Eng. MPA **File:** 10-6125-04-01/2017-Vol 01
Director, Engineering
Re: **Richmond's Commitment to Pesticide Use Reduction and Invasive Species Management**

Staff Recommendation

That the staff report titled "Richmond's Commitment to Pesticide Use Reduction and Invasive Species Management" dated September 22, 2017, from the Director, Engineering, be received for information.

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

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Parks Services Sewerage & Drainage	☒ ☒	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

In 2009, Council adopted the Enhanced Pesticide Management Program (EPMP) and the *Pesticide Use Control Bylaw No. 8514* with the objective of reducing the use of traditional pesticides for cosmetic purposes. Target areas include Corporate Reductions, Education and Community Partnerships, and Senior Government and Municipal regulation.

In 2015, Council adopted the *Invasive Species Action Plan* (ISAP) under the EPMP, which set out a strategic, risk-based approach to prioritize the management of invasive species that pose an immediate threat to civil infrastructure and human health.

Both programs support 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.

4.2 Innovative projects and initiatives to advance sustainability; and

6.1 Safe and sustainable infrastructure.

Background

Enhanced Pesticide Management Program

When adopted, the EPMP was a leading initiative in BC recognized for the implementation of the *Pesticide Use Control Bylaw No. 8514* (Bylaw), the broad-based education programming, and the provision of technical support and training for the public, the landscaping industry and City staff.

To date, the EPMP has been well-received in the community and feedback from the public has demonstrated a keen awareness of the Bylaw and willingness for voluntary compliance. Since its adoption, minimal amendments have been required to align the program with the provincial *Integrated Pest Management Act*. In addition, there have been an insignificant number of suspected pesticide infractions, which is a result of the City's strong community outreach and education programs.

Invasive Species Action Plan

Invasive species are organisms (plants, animals, fungus or bacterium) that are not native to the lower mainland. Since there are no local predators or diseases to control them, these species can have severe effects on the environment, health and economy because they can spread rapidly by out-competing native species. There are currently over two-dozen invasive species in Richmond including several high-risk species such as giant hogweed, parrot's feather and knotweed that pose a risk to civil infrastructure and human health, in some cases. As Richmond experiences climate change and associated ecological shifts that influence the proliferation of invasive

species, the Invasive Species Action Plan enables Richmond to adapt and respond to these shifts, as well as to evolving senior and local government priorities.

To mitigate these threats, the City has been proactively managing the spread of invasive species on City lands and providing support on privately-owned lands. The plan recommends 11 overreaching management strategies, further supported by a number of action items assigned as either short-term (1 – 2 years), medium-term (3 – 5 years), or long-term (5 years plus) priorities.

Since 2015, the ISAP has secured \$625,000 through Engineering's Capital Projects - Drainage Improvement section for the removal of parrot's feather and treatment of knotweed species located on or near City infrastructure. Outcomes related to these programs are summarized below.

This report showcases Richmond's commitment to pesticide use reduction under the EPMP and invasive species management. This report summarizes key achievements of both programs since the adoption of the ISAP in 2016, including a detailed version of initiatives in Attachment 1. The summary document in Attachment 1 will be posted online for the public, publicized through the City's social media channels and highlighted at community outreach events.

Analysis

Highlights of EPMP initiatives in 2016/17 include:

- The delivery of 49 Natural Lawn Care, Organic Garden and Fruit Tree Maintenance workshops reaching 733 residents, attendance at 11 community events, and distribution of approximately 3,000 brochures informing citizens of the Pesticide Use Control Bylaw education program;
- Responding to community interest and involving topics that include small-space gardening, resilient landscapes and growing herbs;
- Hosting workshops related to Environmental Sustainability's goals and accomplishments including bee identification, conservation and lifecycle workshops (in recognition of the Ecological Network strategy) and the Bridgeport Industrial Park – Pollinator Pasture;
- Ongoing partnership with local pesticide retailers. All the retail businesses visited by staff have agreed to display City brochures for the Pesticide Use Control Bylaw No. 8514. Retailers continue to make changes regarding to in-store pesticide availability. Due to the recent changes to the provincial *Integrated Pest Management Act*, pesticides are required to be under restrictive access to customers and more staff interaction with customers regarding the appropriate use of the pesticide is required. As a result, staff note a shift in pesticide availability and an increase in awareness in the sale of traditional pesticides;
- Amendments to the Water Use Restriction Bylaw No. 7784 to support nematode treatment for European chafer beetle; and
- A chafer beetle demonstration at Garden City park that showcases 3 popular seed mixes that are more resistant or resilient to European chafer beetle damage than common lawns.

Highlights of ISAP in 2016/17 include:

- The treatment of 261 knotweed plants equal to 2.5 hectares;
- A partnership with the province to suction dredge a water body on the West Dyke equal to 432m² and producing 84 bags of Brazilian elodea to be disposed of;
- Coordinating mechanical mowing trials along the West Dyke, which targeted approximately 3200m² of wild chervil;
- The installation of shading frames in the Hamilton community to assess the effectiveness of the method to control parrot's feather, removing parrot's feather from an area equal to 1250 m² and installing geotextiles in the Hamilton watercourses to reduce density and ultimately eradicate;
- Lead a webinar series with the Invasive Species Council of British Columbia, highlighting Richmond's efforts to date in parrot's feather management;
- For 'Invasive Species Action Month', set up a static display with weekly themes and engagement of 555 people through the City's social media pages;
- Distributing over 1800 native plants to community members at the Public Works Open House;
- Coordinating site tours of aquatic invasive species infestations across the city for members of the Invasive Species Council of Metro Vancouver and facilitated sample collection of European fire ants by a Simon Fraser University master student for lab rearing experiments;
- The City was highlighted in six Richmond News articles, one Vancouver Sun article and a CBC television interview, generally focusing on growing concerns in the region regarding invasive species, specifically European chafer beetle and parrot's feather; and
- Established or strengthened working relationships with various organizations provincially and regionally including:
 - Invasive Species Soil Working Group
 - Metro Vancouver Regional Invasive Species Task Force
 - Canadian Food Inspections Agency
 - Invasive Species Council of British Columbia
 - Invasive Species Council of Metro Vancouver

Financial Impact

None at this time. Additional funds received through annual capital budget requests further augment the capacity for staff to manage and deliver invasive species initiatives. Any additional funding needs (capital and/or operating) will be brought forward for Council consideration.

Conclusion

Since the inception of Richmond's Enhanced Pesticide Management Program, the City has actively demonstrated leadership in the reduction of traditional pesticide use and the management of invasive species. While the establishment and spread of invasive species will continue to be an ongoing challenge, the Invasive Species Action Plan provides proactive strategies to decrease the ecological impact and economic cost associated with the long-term management of invasive species.



Chad Paulin
Manager, Environment
(604-247-4672)



Peter Russell
Sr. Manager, Environment & District Energy
(604-276-4130)

CP:th

Att. 1: Richmond's Commitment to Pesticide Use Reduction and Invasive Species Management
Update - 2017

City of Richmond

Richmond's Commitment to Pesticide Reduction & Invasive Species Management

EPMP & ISAP

2017 Update

CAUTION

NOTICE OF PESTICIDE USE

Treatment Area:

Date and Start Time of
Pesticide Application:

Alt Date:

Pest(s) to be Controlled:

KNOTWEED

Pesticide Active Ingredient(s):

Glyphosate Disopropylamine

Pesticide Registration Number (PCP):

Registration #29994

Precautions to Minimize Exposure to Pesticides:
DO NOT ENTER THE TREATED AREA



Pesticide User License: Wade McLeod
Name & License Number: 186450
Telephone Number: 604-317-8903

For emergency medical information contact B.C. Drug and Poison Information Centre 1-800-567-8911 or 604-682-5050

Knotweed Treatment Area

Knotweed is currently being treated in this area. Please refrain from entering the contained area or otherwise disturbing the knotweed. Once this area is accessible again, the herbicide will no longer be active on the surface.

Knotweed is a perennially listed noxious weed and has become a priority species in Richmond due to its ability to spread and establish in new areas.

Chemical treatment is used to control knotweed. The herbicide is applied to the leaves of the knotweed, which is then absorbed and transported to the roots, where it kills the plant. Knotweed is a species with exceptional regenerative capability enough to establish into a new plant.

Treatment Process

The knotweed is treated with a herbicide. The herbicide is applied to the leaves of the knotweed, which is then absorbed and transported to the roots, where it kills the plant. Knotweed is a species with exceptional regenerative capability enough to establish into a new plant.



Richmond City Council adopted the Enhanced Pesticide Management Program (EPMP) and the *Pesticide Use Control Bylaw No. 8514* in 2009 with the objective of reducing the use of traditional pesticides based on a level of risk and benefit.

Subsequently, the *Invasive Species Action Plan (ISAP)* was adopted in 2015 under the EPMP, which has allowed for a strategic, risk-based approach to prioritize the management of invasive species that pose an immediate threat to civil infrastructure and human health. As Richmond experiences climate change and associated ecological shifts that influence the proliferation of invasive species, the ISAP enables Richmond to adapt and respond to these shifts, as well as to evolving senior and local government priorities.

Richmond's EPMP and ISAP include detailed strategies and actions organized around the following four pillars to achieve City initiatives:

- **Leadership & Innovation**
- **Partnership**
- **Public Outreach & Engagement**
- **Invasive Species Treatment**

This document summarizes achievements to date in implementing the EPMP and ISAP and notes forecasted future actions.



Three alternative lawn solutions resistant to the European chafer beetle on display at Garden City Park. (Left to right: Micro clover & tall fescue, Fleur de Lawn, Pollinator blend)

LEADERSHIP & INNOVATION

INITIATIVES

1. **Implement research control trials for aquatic invasive species such as parrot's feather and Brazilian elodea**
2. **Proactive treatment strategies of priority invasive species for major capital projects**
3. **Develop an enhanced notification process for the treatment of invasive species**

KEY ACHIEVEMENTS

Aquatic invasive species management: Richmond is a leader in BC managing Parrot's feather due to its ongoing control trials and development of best management practices. Recent initiatives include:

- Invasive Species Council of British Columbia webinar on the City's efforts on parrot's feather management; a total of 26 participants from Canada and USA participated in the webinar
- Invasive Species Council of Metro Vancouver – Annual General Meeting site tour led by Richmond on aquatic invasive species and management efforts including trials

Local News Coverage: Richmond's work was highlighted in local newspapers due to growing concerns in the region regarding invasive species—specifically parrot's feather and European chafer beetle. The coverage enabled greater outreach and empowerment of the community to recognize invasive species, understand their harmful impact on Richmond's ecosystem and adopt best management practices for control.

Research: Presented on the ISAP's priority invasive species and the City's Integrated Pest Management strategies followed by site visits to active trials for 10 master students under SFU's Pest Management Program. One master student's study focused on effective baits of European fire ants and worked collaboratively with the City on known sites for lab rearing experiments.

Bylaw Amendment: The Water Use Restriction Bylaw No. 7784 was amended to allow for a more flexible timeframe for applying nematodes, a biological control to manage European chafer beetles.

Enhanced Notification Process: The City recognized public concerns related to the use of herbicides in the community and identified an opportunity to augment existing communication protocols to include advanced notification of treatment in their neighbourhoods. Information signs are installed at the treatment site to keep residents informed of the City's knotweed treatment program.

Alternative lawn demonstrations: The City encourages bio-diverse lawns such as a pollinator blend, a Fleur de Lawn mix, or a micro clover/tall fescue mix as these blends are more resilient or resistant to European chafer beetle infestations than traditional grasses. These popular blends are on demonstration at City Hall and Garden City Park encouraging residents to proactive alternatives.





Parrot's feather poses a risk to the City's drainage infrastructure requiring continual maintenance.

FUTURE ACTIONS

Support research by academic institutions: Facilitate research on the ecology and control of invasive species by providing access to city sites and assistance to University groups. This will include, when possible, the sharing of research results, test projects, and other technical experiences.

Invasive Species Bylaw: Bring forward an invasive species bylaw for council consideration for the control or treatment of high priority species such as giant hogweed and knotweed on private property.

Parrot's feather maintenance best management practices: Due to the limited research associated with the management of parrot's feather in inland watercourses, staff has been analyzing best management practices. Key best management practices include: proper containment, mechanical removal strategies and proper disposal sites. A formal document will be created and incorporated into general maintenance and mechanical removal strategies when working in and around parrot's feather infestations.

PARTNERSHIPS

INITIATIVES

1. Continue industry collaboration to stay informed on the latest scientific research and best management practices.
2. Develop new partnerships with other jurisdictions across North America to fill gaps in local knowledge.

KEY ACHIEVEMENTS

Early Detection, Rapid Response: Worked with the province to develop and maintain standards for Early Detection & Rapid Response (EDRR), a “proactive approach to managing new invasive species to BC that prevents establishment and subsequent impacts through targeted species risk assessment, verification, containment and eradication”. Recent initiatives include:

- **Brazilian elodea pilot project:** Worked alongside the province to remove 84 bags of plant material from an area of 432m² within the Steveston Slough. Assessment and monitoring of the efficacy of these treatments will guide best management practices for future removal projects.
- **Invasive species soil working group:** The movement of infested soil is one of the leading causes of invasive species spread regionally and provincially. The Invasive Species Soil Working Group includes provincial, regional and local government representatives. The City has been a participant since its inception in 2016 to initiate solutions related to the movement of soil and invasive species. The working group presented a high level summary of the working group at the UBCM in 2016.
- **Provincial Grant:** The province provides financial assistance annually for invasive species management for City initiatives associated with outreach and education, trials and EDRR. The City has used this grant to promote Invasive Species Action Month, Public Works Open House and parrot’s feather trials.



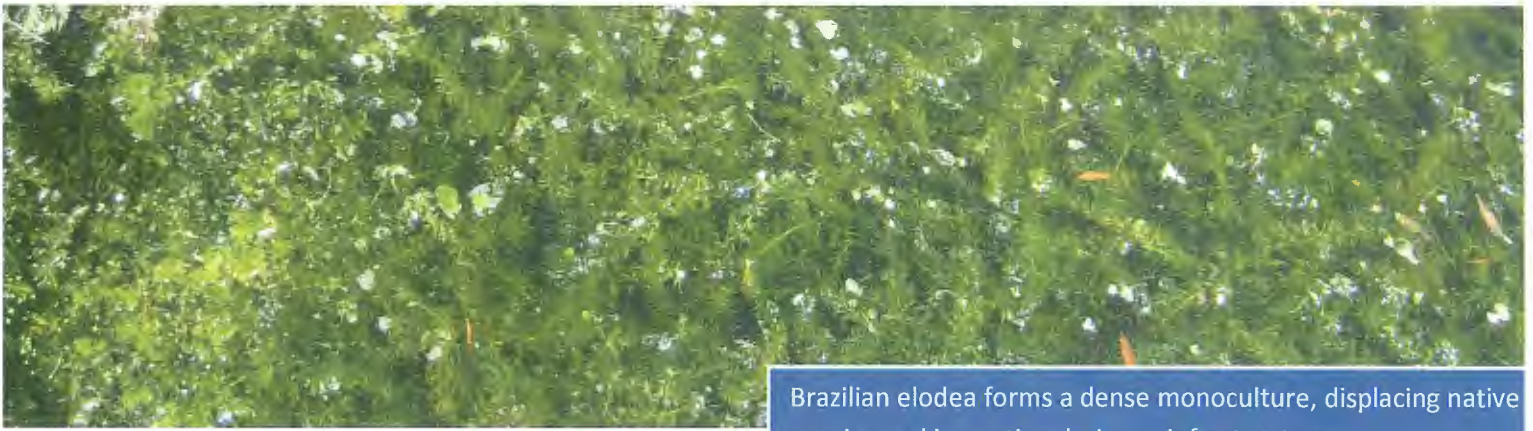
Partnership with the Province of BC on Brazilian Elodea removal



Brazilian Elodea in Steveston Slough, West Dyke



84 Bags of Brazilian Elodea removed



Brazilian elodea forms a dense monoculture, displacing native species and impacting drainage infrastructure.

Interdepartmental partnerships: Worked closely with other departments to coordinate efforts for removal and mitigation of spread on City property and to maintain compliance on private property. Some recent examples include:

- **City Parks:** Ensure fast response times for removal of high priority species (e.g. giant hogweed and knotweed species) that pose a risk to public health and safety in City Parks.
- **Capital projects:** Capital projects to consider best management practices for priority species. Planning initiatives have highlighted priority areas of knotweed infestation with a focus on civil infrastructure including the dike and pump stations that will reduce cost and prepare crews more appropriately.
- **Metro Vancouver Regional Invasive Species Task Force:** To collaborate with local government, Electoral Area A, First Nations and senior government departments to collectively implement priority initiatives and to advise the Regional Planning Advisory Committee on progress. Noteworthy achievements include:
 - Compile and maintain a list of disposal sites
 - Research emergent practices on selected invasive species
 - Investigate options for control near water bodies
 - Investigate soil management options

Canadian Food Inspection Agency (CFIA): The City makes available to CFIA live wood samples and the installation of traps at various sites in search of a variety of invasive insects that are a threat to the region.

Invasive Species Council of British Columbia/ Metro Vancouver: The Invasive Species Councils of BC and MV provide assistance in research, confirmation of invasive species, educational materials and public engagement.



FUTURE ACTIONS

Interdepartmental Invasive Species Team: To meet quarterly with key invasive species representatives from various departments including Parks, Drainage, Roads, Community Bylaws and Water. This team would enable greater awareness of invasive species management into daily maintenance and construction activities. As well as greater communications and support from the Environmental Coordinator, when required.

Incorporate soil infested with invasive species into development permits and service agreements: Work with the City's Soil Bylaw Officer regarding the spread of invasive species via soil movement through permits and service agreements.

Early Detection, Rapid Response: An ongoing commitment to continue monitoring for the introduction of provincially listed EDRR species and to work in partnership with the province on effective management strategies.



2017 Public Works Open House: Over 1800 native plants handed out to residents.

PUBLIC OUTREACH & ENGAGEMENT

INITIATIVES

1. Encourage public awareness around Richmond's invasive species and pesticide use
2. Encourage the public to choose native plant species to support pollinators
3. Support Richmond residents with free educational events and workshops

KEY ACHIEVEMENTS

Environmental Workshops & Events: Delivered 49 free workshops engaging 733 Richmond residents since 2016. Topics ranged from Natural Lawn Care and Organic Gardening, to Bee Identification and Fruit Tree Management. Staff has also attended 11 community events to raise awareness and generate knowledgeable conversations around invasive species and pesticide use in the community.

Support to Community & City Departments: Dedicated emails and phone lines for both pesticides and invasive species, encourage the public to contact staff with any inquiries. Approximately 3,000 brochures distributed in the community during 2016/17 in partnership with Community Bylaws. Support is also provided to all City departments for invasive species management.

Ongoing partnership with local pesticide retailers: Recent amendments to the provincial *Integrated Pest Management Act*, require pesticides to be under restrictive access to customers. Staff met with retailers that sell pesticides and now have Pesticide Use Control brochures on display. Staff have seen a continual increase in awareness regarding the sale of traditional pesticides, as a result of continued exposure to the Pesticide Use Control Bylaw, pesticide restrictions and in-store pesticide availability.



REaDY Summit

733

residents engaged
in environmental
workshops since
2016



2017 Raptor Festival



Seasonal Kitchen
Workshop

Invasive Species Action Month: In May 2016/17, the City participated in Invasive Species Action Month to raise awareness and knowledge on the many invasive plants and animals that have been detected in Richmond. Weekly themed displays were featured in the Galleria, alongside suitable alternative plants to help encourage residents to plant native species that will support local pollinators and combat the destructive spread of invasive species.

FUTURE ACTIONS

Bath Slough Restoration: As one of the few remaining watercourses in Richmond and a key part of the City's Ecological Network, the City is looking forward to upcoming projects in restoring the riparian area of the Bath Slough adjacent to the Bridgeport Industrial Park – Pollinator Pasture. The slough provides ecosystem services such as wildlife habitat and storage and conveyance of rain water. This restoration project will include the removal of various invasive species and the planting of native trees and shrubs. Ongoing monitoring of the site is necessary to ensure native plants thrive in this important ecological corridor.

Workshops for school aged kids: Creation of Environmental Sustainability workshops for school aged kids in Richmond. Introduction of topics such as natural gardening and invasive species in a fun interactive manner to get conversations around these important topics started at an early age. This will also serve as another mechanism to engage and communicate with Richmond residents through their children.

Refresh Outreach Program: The City is looking to reinvigorate the already successful Environmental Sustainability Workshop Program to bring new branding, topics and workshop instructors. This will draw new people to the program, while maintaining the current attendees.

Residents forage for edible wilds at Terra Nova Rural Park, learning to prepare meals with locally sourced produce.





Wild chervil spreads by both seed and plant fragments. Each plant can produce upwards of 10,000 seeds.

INVASIVE SPECIES TREATMENT

INITIATIVES

1. Knotweed control on priority sites with herbicide
2. Mechanical mowing trials for wild chervil
3. Mechanical control of parrot's feather

KEY ACHIEVEMENTS

The City continues to proactively manage the spread of priority invasive species and noxious weeds that pose a risk to public health and safety and City infrastructure. Recent projects in 2016/2017 include:

Ongoing Japanese knotweed treatment: Knotweed species pose a significant risk to City infrastructure as their extensive root system increases erosion potential and can grow through concrete and asphalt. Since 2016, the City has treated 261 sites of knotweed totaling 2.5 hectares. Priority areas include risks to civil infrastructure including infestations along the dike and near pump stations.

Parrot's feather shading trials: Installation of shading frames in Hamilton community saw significant reduction of parrot's feather biomass. Positive results have guided the installation of 1,247m² geotextile in Smith Crescent's drainage ditches.

Wild chervil mowing trials: The City has initiated experimental mowing trials along 3,200m² the West Dike trails in an effort to control of wild chervil along the banks. It is essential to mow at a specific time when the plant flower and just gone to seed. During this period the plant has the least amount of energy left in its roots system.

261
knotweed sites
treated totaling
2.5_{ha}



Nematode application at City Hall Plaza



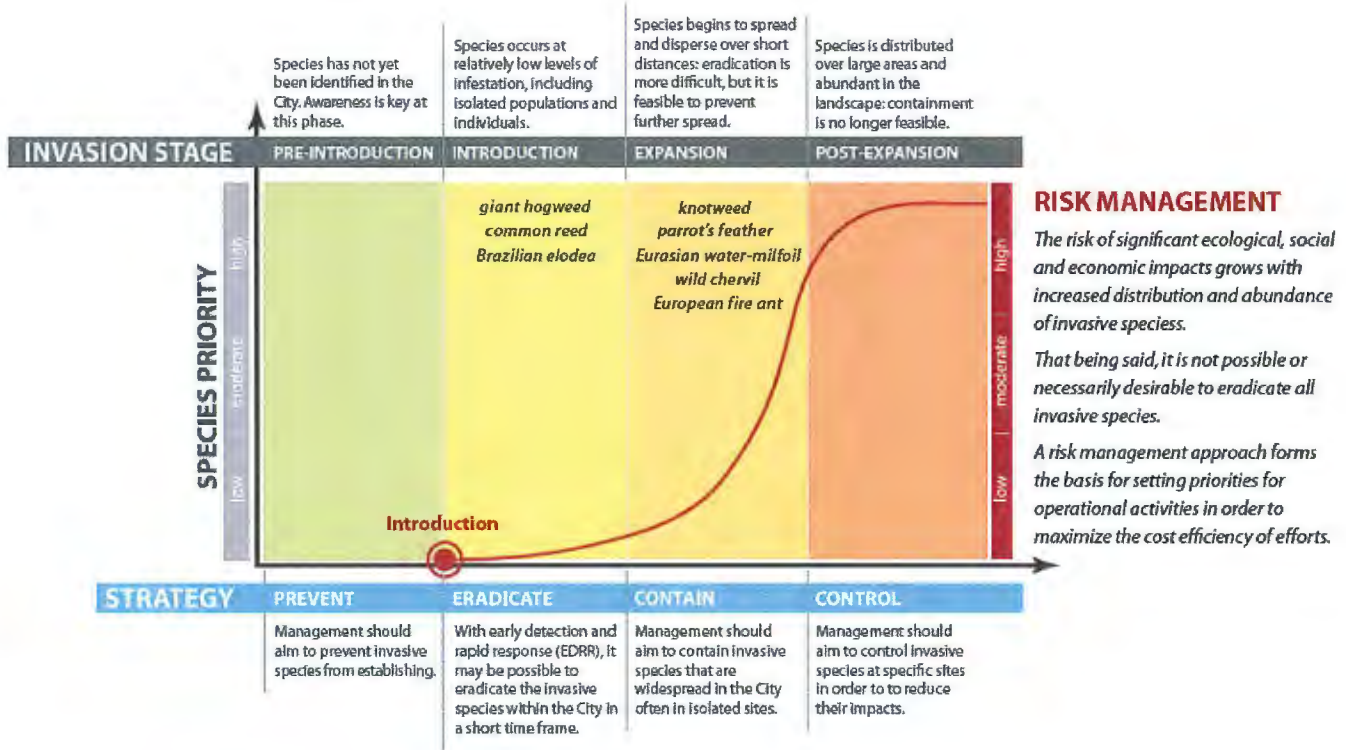
Wild chervil mowing trials along West Dyke

Parrot's Feather Shading Trials

July 21, 2016

June 28, 2017



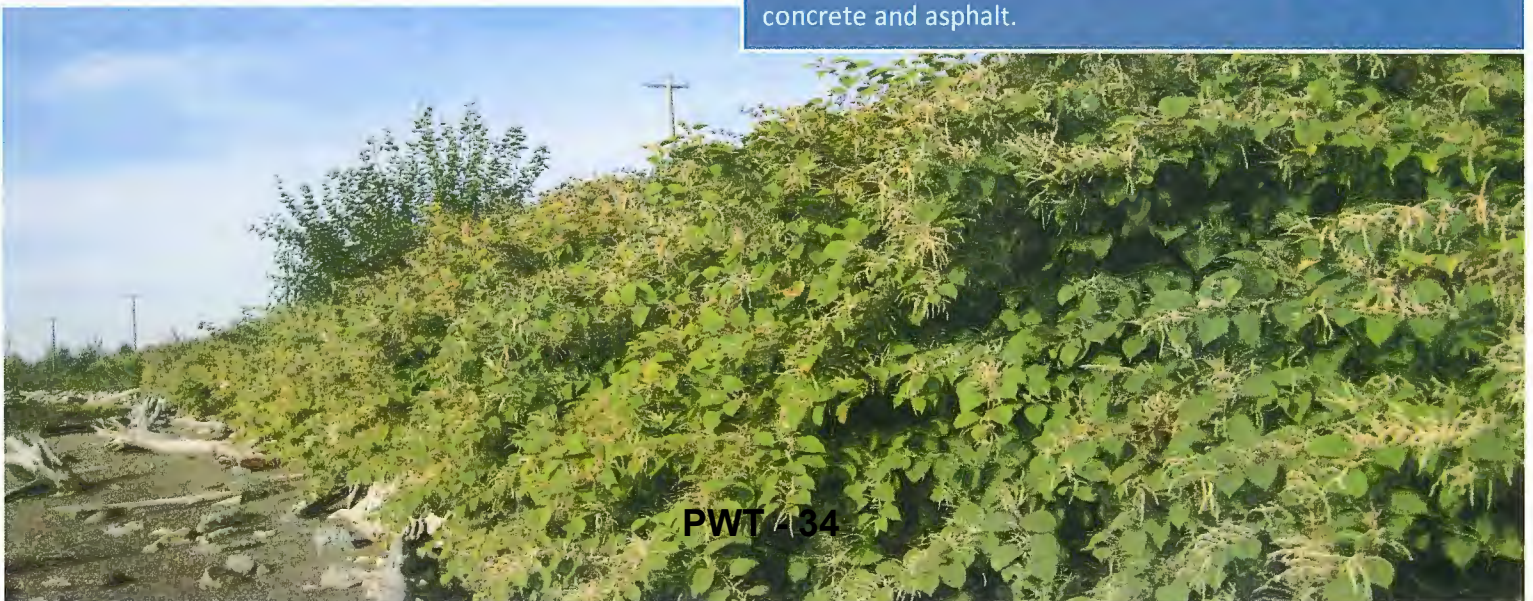


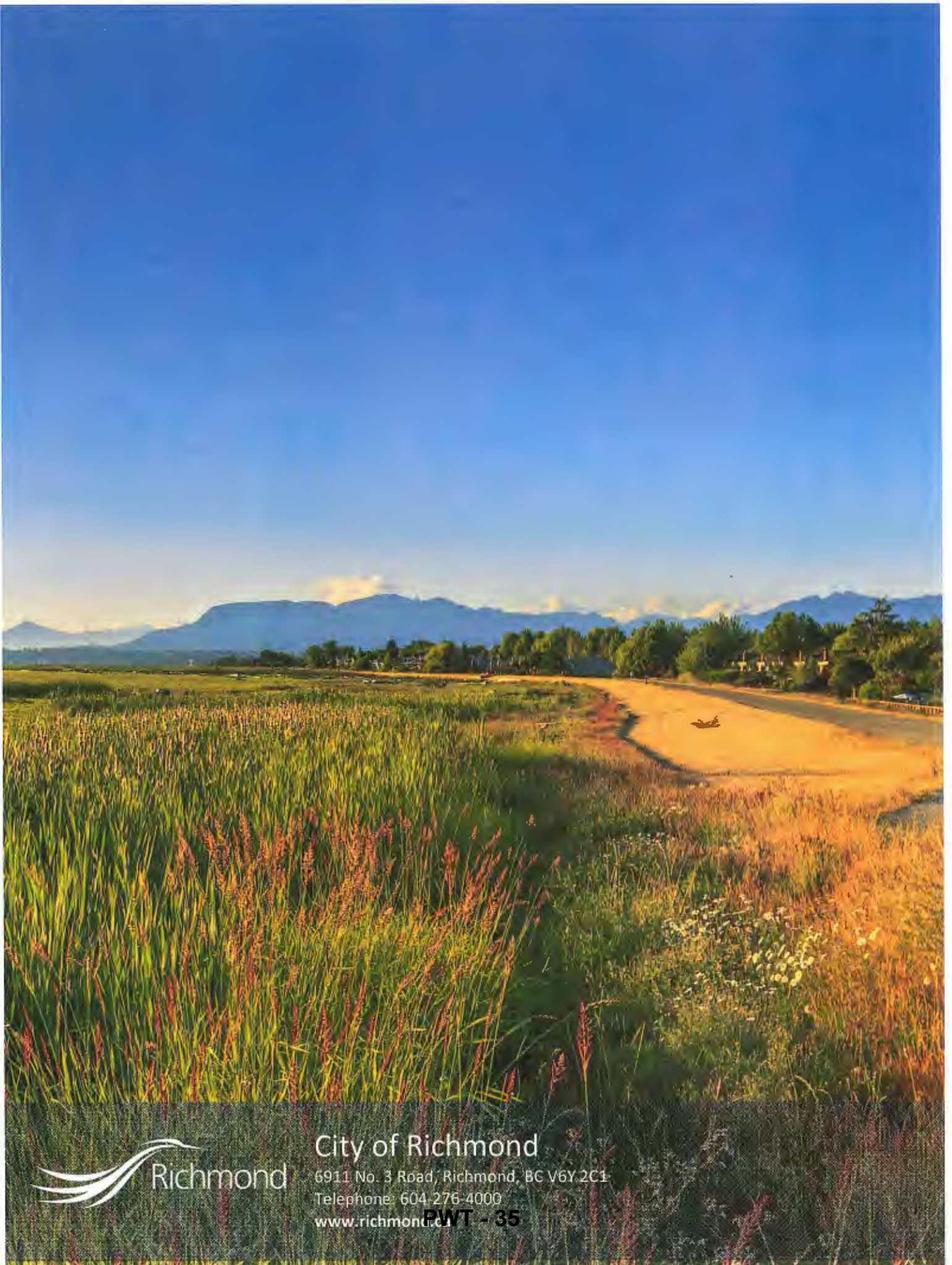
FUTURE ACTIONS

Treatment of noxious weeds in exclusion zones: The City will explore opportunities (e.g. pesticide use permits) for treating below provincially legislated pesticide free zones to increase the efficacy of eradication of infrastructure damaging infestations found along water bodies.

Adopting modern mobile mapping solutions: The City will evaluate the cost and time saving benefits of adopting mobile technologies such as iPads and GIS applications for determining and monitoring the abundance and distribution of invasive species across the city. This will allow staff to identify problem locations for introduction and track change over time more effectively.

Knotweed species pose a significant risk to City infrastructure growing extensive root systems with the ability to grow through concrete and asphalt.





City of Richmond

6911 No. 3 Road, Richmond, BC V6Y 2C1

Telephone: 604-276-4000

www.richmond.ca

PWT - 35



City of Richmond

Report to Committee

To: Public Works and Transportation Committee
From: John Irving, P.Eng. MPA
Director, Engineering
Re: 2018 Paving Program

Date: September 18, 2017
File: 10-6050-01/2017-Vol
01

Staff Recommendation

That the staff report titled, "2018 Paving Program," dated September 18, 2017, from the Director, Engineering be received for information.

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

Att. 3

REPORT CONCURRENCE		
ROUTED TO: Roads & Construction	CONCURRENCE ☒	CONCURRENCE OF GENERAL MANAGER
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: CJ	APPROVED BY CAO

Staff Report

Origin

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.

As in previous years, staff are presenting the annual paving program report for information purposes. Staff propose to tender this program early to realize favourable asphalt pricing.

Background

The paving program is required to maintain the City's road network to current operating levels as well as reduce the need for costly repairs. Staff have developed a prioritized list of locations that will be included in the 2018 Paving Program.

Analysis

The scope of work includes the milling and paving of roads and asphalt surfaces in priority order as identified by the City's Pavement Management System and staff. This also includes preparatory work such as curb and gutter repairs. The Pavement Management System software takes into account items such as the age, structure and current condition of the road. Updated pavement deflection data is currently being gathered to ensure that the Pavement Management System model results are accurate. The data is being gathered on an assortment of road types (arterial roads, the TransLink Major Road Network, recently resurfaced segments, and sections with substantial surface cracking).

Included in Attachment 1 is a list of the primary paving sites included in the 2018 Paving Program. As with past years, it is possible that identified paving locations cannot be completed due to conflict with development projects that are not known at this time. Should the seasonal paving restrictions permit, any deferred primary paving locations would be replaced with the secondary paving locations. These secondary locations are listed in Attachment 2. Two maps of the proposed paving sites (Richmond West and Richmond East) are included in Attachment 3.

The Aging Infrastructure Planning Report has identified a need for additional funding to maintain the City's roads to the current level of service. The impact of this funding gap has been partially mitigated by low paving contract prices over the past few years. This pricing is a result of early tendering of the annual paving contract and low material costs. To address the funding gap in the short term, as part of the 2018 Capital Budget process staff have submitted a \$1 million Asphalt Repaving Backlog Management Capital Submission for Council consideration. If this submission is adopted by Council as part of the 2018 Capital Budget, the list of paving locations will be adjusted to reflect the additional funding.

The tender for this year's Paving Program is scheduled to be issued to the market in November 2017. In recent years, achieving contractor completion of the paving program within the dates

specified in the contract has been an ongoing issue. To mitigate this, the 2018 Paving Program will be tendered in two parts. The tender will contain provisions stating that if a single contractor is the successful bidder for both parts, that a completely separate work crew will be required for each part of the program.

The 2018 Paving Program also includes an amendment to the City's standard tendering practices that reflects upon the City's environmental initiatives and allows for the use of recycled asphalt. The successful bidder will be encouraged to employ sustainable methodologies, practices and materials that would assist in reducing harmful emissions, in direct alignment with the City's sustainability goals. The tender will also note that the contract award is subject to approval of the 2018 Capital Budget by Council.

Financial Impact

Proposed funding for the 2018 Paving Program has been submitted as part of the 2018 Capital Budget as follows:

Proposed Funding	Amount (\$)
2018 Annual Asphalt Re-Paving Program – MRN	\$ 1,549,000
2018 Annual Asphalt Re-Paving Program – Non-MRN	\$ 2,982,000
Total Proposed Funding	\$ 4,531,000

Award of the 2018 Paving Program will occur once the 2018 Capital Budget is approved by Council.

Conclusion

The procurement process for the 2018 Paving Program is underway. Contract award and commencement of paving will occur once the 2018 Capital Budget is approved by Council.



Milton Chan, P. Eng.
Manager, Engineering Design & Construction
(604-276-4377)



Wasim Memon, C.E.T.
Supervisor – Inspections
(604-247-4189)

MC:mc

- Att. 1: 2018 Paving Program – Primary Locations
2: 2018 Paving Program – Secondary Locations
3: 2018 Paving Program Proposed Locations – Richmond West and Richmond East

2018 PAVING PROGRAM – PRIMARY LOCATIONS

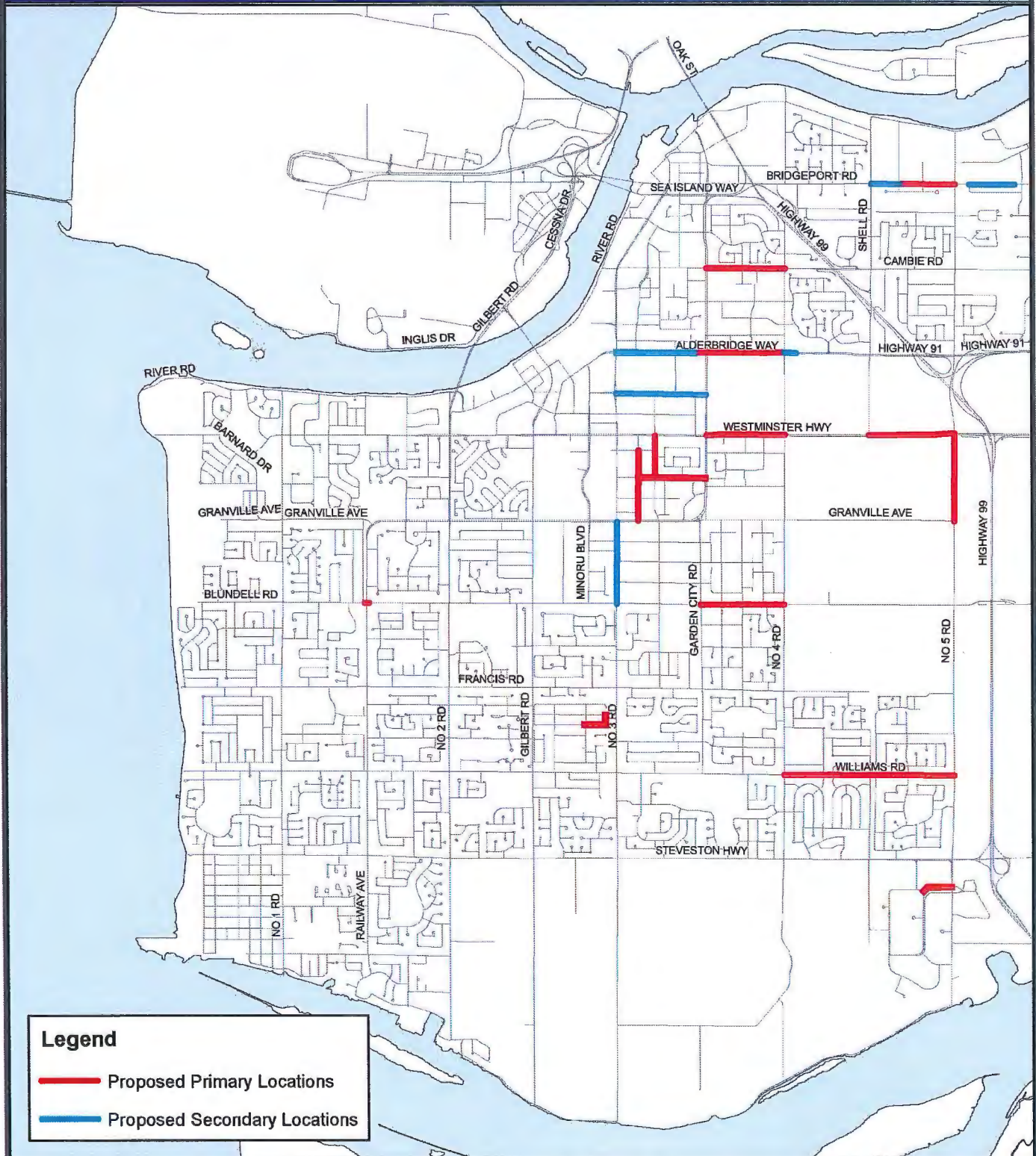
Location	Road Type
Belair Drive (Herbert Rd to Broadmoor Blvd)	Non-MRN
Blundell Road (9000 Block)	Non-MRN
Blundell Road & Railway Avenue Intersection	Non-MRN
Buswell Road (Granville Ave to Saba Rd)	Non-MRN
Cambie Road (9000 Block)	Non-MRN
Cambie Road (14000 Block)	Non-MRN
Cook Road (Buswell St to Garden City Way)	Non-MRN
Cooney Road (Westminster Hwy to Cook Rd)	Non-MRN
Horseshoe Way (No. 5 Rd to Coppersmith Way)	Non-MRN
No. 5 Road (6000 Block)	Non-MRN
Williams Road (10000 Block)	Non-MRN
Williams Road (11000 Block)	Non-MRN
Alderbridge Way (9000 Block)	MRN
Bridgeport Road (Simpson Rd to No. 5 Rd)	MRN
Westminster Highway Westbound Lanes (9000 Block)	MRN
Westminster Highway (11000 Block)	MRN
Westminster Highway North of Hwy 91 (CN Crossing to Oliver Dr)	MRN

2018 PAVING PROGRAM – SECONDARY LOCATIONS

Location	Road Type
Blundell Road (17000 Block)	Non-MRN
Blundell Road (18000 Block)	Non-MRN
Bridgeport Road (Viking Way to No. 6 Rd)	Non-MRN
Fraserwood Way (Fraserwood Pl to Dyke Rd)	Non-MRN
Lansdowne Road (8000 Block)	Non-MRN
No. 3 Road (7000 Block)	Non-MRN
No. 6 Road (Westminster Hwy to Francis Rd Corridor)	Non-MRN
No. 6 Road (Bridgeport Rd to River Rd)	Non-MRN
Bridgeport Road (Shell Rd to Simpson Rd)	MRN
Bridgeport Road (Vickers Way to Sweden Way)	MRN
Alderbridge Way (8000 Block)	MRN
Alderbridge Way (east of No. 4 Rd)	MRN



2018 Paving Program Proposed Locations Richmond West

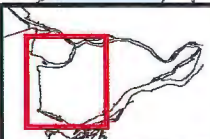
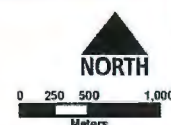


Legend

- Proposed Primary Locations
- Proposed Secondary Locations

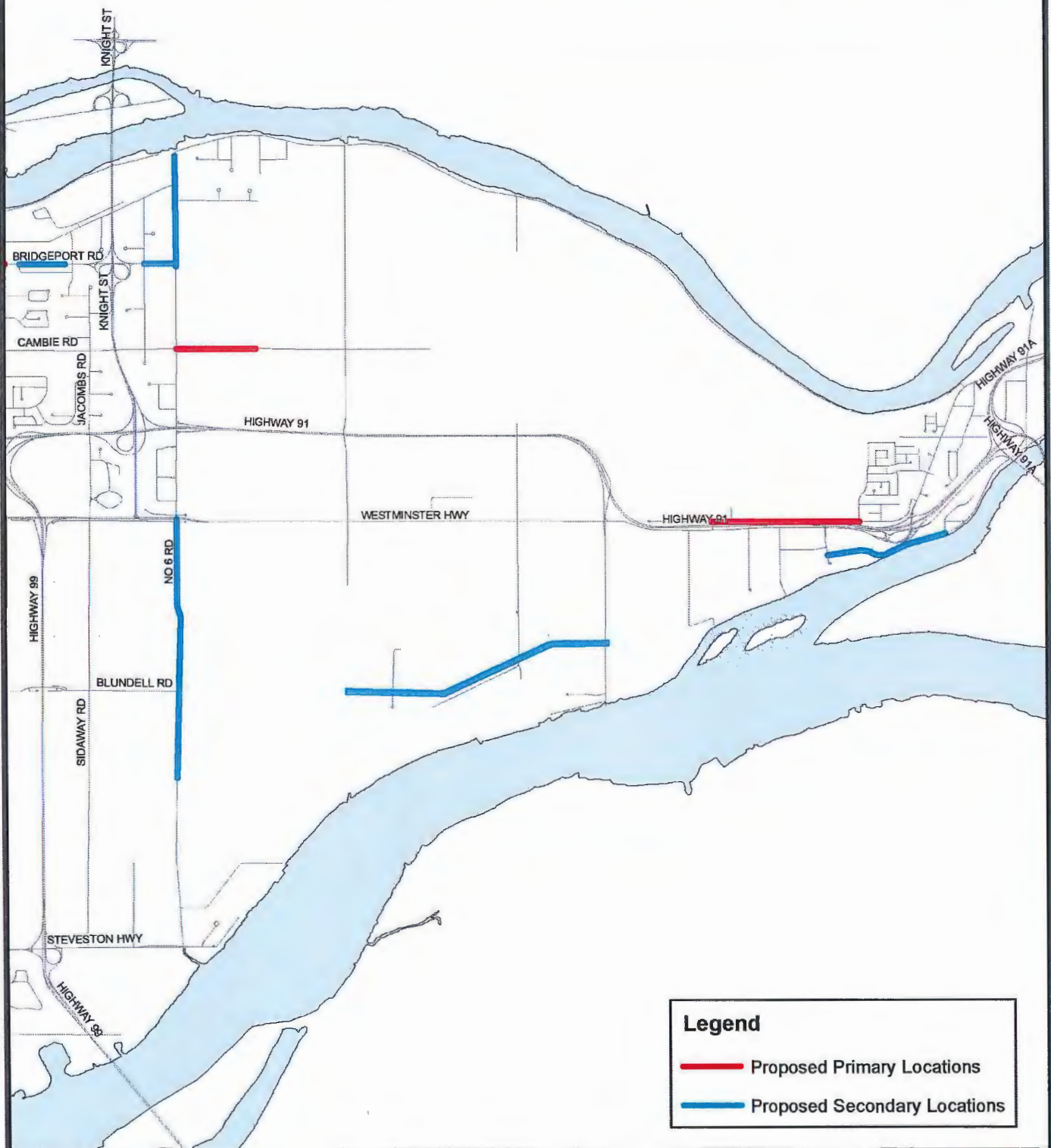
Note:
The information shown on this map is compiled from various sources and the City makes no warranties, expressed or implied, as to the accuracy or completeness of the information.
Users are reminded that lot sizes and legal description must be confirmed at the Land Title office in New Westminster.
This IS NOT a legal document, and is published for informational and convenience purposes only.
© City of Richmond, 2017. All rights reserved.
Not to be reproduced or distributed without permission.

Print By: JHennan
Print Date: September 2017



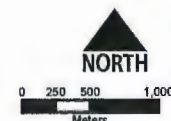


2018 Paving Program Proposed Locations Richmond East



Note:
The information shown on this map is compiled from various sources and the City makes no warranties, expressed or implied, as to the accuracy or completeness of the information.
Users are reminded that lot sizes and legal description must be confirmed at the Land Title office in New Westminster.
This IS NOT a legal document, and is published for information and convenience purposes only.
© City of Richmond, 2017. All rights reserved.
Not to be reproduced or distributed without permission.

Print By: Jhannan
Print Date: September 2017





City of Richmond

Report to Committee

To: Public Works and Transportation Committee
From: John Irving, P.Eng. MPA
Director, Engineering
Re: Grease Inspector Update 2017

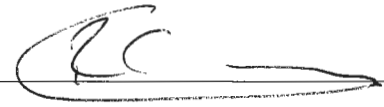
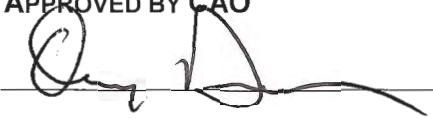
Date: September 22, 2017
File: 10-6060-03-01/2017-
Vol 01

Staff Recommendation

That a full-time grease inspector be submitted as part of the 2018 Utility Budgets for Council consideration.

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

Att: 1

REPORT CONCURRENCE		
ROUTED TO: Sewerage and Drainage Bylaws	CONCURRENCE ☒ ☒	CONCURRENCE OF GENERAL MANAGER 
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: CJ	APPROVED BY CAO 

Staff Report

Origin

The City's Drainage, Dyke and Sanitary System Bylaw No. 7551 requires that food sector establishments install and maintain grease interceptors to prevent grease from entering the sewer system. In 2008, Council approved a part-time grease inspector to enforce the maintenance of grease interceptors according to Bylaw No. 7551.

At the October 12, 2016 Regular Council Meeting, Council adopted the following motion:

That staff examine assigning a full-time grease inspector and bring this issue of grease inspection under Community Safety Committee and Bylaws and report back.

The 2017 Utility Budgets and Rates report, adopted at the November 28, 2016 Regular Council Meeting, introduced one-time funding of \$37,700 to upgrade the part-time grease inspector to a full-time grease inspector for 2017 to assess the effectiveness of this increased level of service. This report provides an update on services delivered through 2017 as a result of the full-time grease inspector.

Analysis

The impact of grease on the sanitary sewer system is an ongoing concern for the City of Richmond. The City maintains a Grease Management Program which includes grease source control, sanitary sewer system monitoring and inspection, and on-going maintenance work. The City is spending \$450,000 annually on flushing sewer pipes and pump stations to address grease build-up in the sanitary collection system.

Controlling grease at the source is the most effective way to reduce grease-related maintenance concerns. The primary role of the grease inspector is to minimize grease discharge into the sanitary sewer system by ensuring that food sector establishments comply with the requirements of Bylaw No. 7551. With the grease inspector upgraded from part-time to full-time in 2017, there has been an increase in bylaw compliance, indicating that the additional efforts from the grease inspector through increased education and inspection efforts has been successful in reducing grease discharge. In addition, expanded efforts from the grease inspector have led to development of an improved integrated inspection program that enhances efficiency and effectiveness.

Improved Education and Assistance Program

Violations to Bylaw No. 7551 are often a result of new property owners or managers that are unaware of the requirements of the bylaw and the reasons they exist. While operating at a full-time capacity, the grease inspector has extended inspection efforts to include providing more assistance and education on the negative impacts of grease, the proper means for disposal of grease and proper operation and maintenance of grease interceptors. The inspector is also able to follow up on violations in a more timely manner to ensure that information conveyed during the initial inspection is understood, and food establishment owners are incentivized to address violations.

The key objective of the expanded service is to provide food establishment owners with the necessary tools and assistance that enable them to meet the requirements of the bylaw. This approach has been effective as the number of tickets issued have decreased in 2017 (Attachment 1), indicating that more food establishments are complying with the bylaw. It is recommended that these efforts be maintained to avoid relapses in compliance and to educate new businesses that come to Richmond.

Increased Inspection Efforts

Richmond's population has grown by approximately 16% since the grease inspector was first introduced in 2008. With increasing numbers of food sector establishments, problems associated with grease in sanitary sewers as well as the need for inspection and outreach efforts have increased accordingly. As of February 2017, the City has a total of 1040 food sector establishments. A part-time inspector can inspect approximately 400 establishments per year. As this results in a typical inspection cycle of two to three years, establishments that are in violation of the bylaw do not become aware of the violation for two to three years, which may result in significant amounts of grease being discharged into the sanitary sewer system and on occasion into the drainage system as a result of overflows. A full time grease inspector can inspect over 700 establishments (70% of food establishments) allowing unauthorized grease discharge to be identified and remedied in a timely manner.

Integrated Inspection Program

The full time grease inspector has increased coordination with Public Works. The grease inspector is notified when maintenance staff identifies significant quantities of grease within the sanitary sewer system. The team then works collaboratively to trace the source of grease discharge. This allows staff to identify problematic areas and specifically address significant sources of grease discharge. The integrated approach to target problem areas has increased the effectiveness of sanitary maintenance and inspection efforts.

Previous efforts have been largely focused on food sector establishments. The stronger coordination with Public Works has facilitated identification of grease issues in residential areas, and a full time grease inspector will expand services to include providing education and outreach to residents.

Financial Impact

None at this time. The budget impact of upgrading the grease inspector position from part-time to full-time is \$38,500. Recommendations for incorporating this change as an additional level of service will be provided as part of the 2018 Utility Budgets and Rates Report for Council consideration.

Conclusion

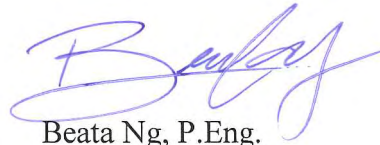
With the trial implementation of a full-time grease inspector in 2017, increases in levels of service that benefit both food sector establishment owners, residents as well as the City's sanitary sewer infrastructure have been observed. These include increased compliance with the bylaw through providing education and assistance, increased ability to reach out to more establishments through

increased inspection rates, and a more effective inspection program that involves collaboration between the grease inspector and Public Works staff.

Due to the added value from the additional services, it is recommended that options to change the grease inspector to a full-time position be presented as an additional level of service through the 2018 Utility Budgets and Rates process.



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



Beata Ng, P.Eng.
Project Engineer
(604-276-4257)

LB: bn

Att 1: Grease Inspection and Enforcement Statistics 2012-2017

Attachment 1 – Grease Inspection and Enforcement Statistics 2012-2017

