



General Purposes Committee

Anderson Room, City Hall
6911 No. 3 Road

Monday, July 15, 2019
4:00 p.m.

Pg. # ITEM

MINUTES

GP-4 *Motion to adopt the **minutes** of the meeting of the General Purposes Committee held on July 2, 2019.*



ENGINEERING AND PUBLIC WORKS DIVISION

1. **SINGLE-USE PLASTIC AND OTHER ITEMS BYLAW AND IMPLEMENTATION PLANS**

(File Ref. No. 10-6370-01; 12-8060-20-010000/010063/10064) (REDMS No. 6213867 v. 7; 6197835; 6198746; 6198761)

GP-19

See Page GP-19 for full report

Designated Speaker: Suzanne Bycraft

STAFF RECOMMENDATION

(1) *That the following bylaws to introduce a ban on single-use plastic and other items be introduced and given first, second and third readings with an effective date of January 1, 2020:*

(a) *Single-Use Plastic and Other Items Bylaw No. 10000;*

(b) *Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 10063; and*

- (c) *Municipal Ticket Information Bylaw No.7321, Amendment Bylaw No. 10064; and*
- (2) *That the implementation plans for plastic straws and plastic bags, as outlined in Attachments 1 and 2 of the staff report dated July 5, 2019 titled, “Single-Use Plastic and Other Items Bylaw Bans and Implementation Plans” from the Director, Public Works Operations, with funding in the amount of \$260,000, from the Sanitation and Recycling provision, be approved.*



COMMUNITY SERVICES DIVISION

2. **ANIMAL SHELTER GUIDING PRINCIPLES, BUILDING AND PROGRAM OPTIONS, AND SITE**

(File Ref. No. 06-2055-20-12) (REDMS No. 6152282 v. 49)

GP-45

See Page GP-45 for full report

Designated Speakers: Paul Brar and Doru Lazar

STAFF RECOMMENDATION

- (1) *That the Animal Shelter Guiding Principles, as described in the staff report titled “Animal Shelter Guiding Principles, Building and Program Options, and Site” dated June 14, 2019, from the Director, Recreation and Sport Services and the Acting Director, Facilities be endorsed;*
- (2) *That Building and Program Option 2, as described in the staff report titled “Animal Shelter Guiding Principles, Building and Program Options, and Site” dated June 14, 2019, from the Director, Recreation and Sport Services and the Acting Director, Facilities be approved; and*
- (3) *That the site located at 12071 No. 5 Road, as described in the staff report titled “Animal Shelter Guiding Principles, Building and Program Options, and Site” dated June 14, 2019, from the Director, Recreation and Sport Services and the Acting Director, Facilities be approved.*



3. **REFERRAL RESPONSE: PROPOSED PLAN FOR MAJOR EVENTS AND PROGRAMS IN 2020**

(File Ref. No. 11-7400-01) (REDMS No. 6183746 v. 7; 6198265; 6198274; 6133366)

GP-69

See Page GP-69 for full report

Designated Speaker: Bryan Tasaka

STAFF RECOMMENDATION

- (1) *That the Major Events and Programs for 2020 as outlined in the staff report titled “Referral Response: Proposed Plan for Major Events and Programs in 2020” dated May 27, 2019, from the Director, Arts, Culture and Heritage Services, be approved;*
- (2) *That the expenditures totaling \$1,775,500 for Major Events and Programs in 2020, of which \$1,345,000 is funded from the Rate Stabilization Account and \$430,000 funded from projected sponsorships and grants, be included in the amended Consolidated 5 Year Financial Plan (2019–2023); and*
- (3) *That the development of a new Major Events Strategy as outlined in the staff report titled “Referral Response: Proposed Plan for Major Events and Programs in 2020” dated May 27, 2019, from the Director, Arts, Culture and Heritage Services, be approved.*



CAO'S OFFICE

4. **ORGANIZATIONAL DEVELOPMENT PROGRAM**

(File Ref. No. 01-0005-01) (REDMS No. 6132525 v. 8)

GP-85

See Page GP-85 for full report

Designated Speakers: Claire Adamson and Jason Kita

STAFF RECOMMENDATION

That the report titled “Organizational Development Program” dated July 2, 2019 from the Director, Corporate Programs Management Group, be received for information.



FINANCE AND CORPORATE SERVICES DIVISION

ADDED 5. **INTERGOVERNMENTAL WORKING GROUP RE: SMALL BUSINESS AND PROPERTY TAX**

(File Ref. No.) (REDMS No. 6232858)

GP-91

See Page GP-91 for full report

Designated Speaker: Jerry Chong

STAFF RECOMMENDATION

- (1) *That Council support the recommendations provided by the Intergovernmental Working Group of Metro Vancouver; and*
- (2) *That a letter be sent from the Mayor's office to the Premier of the Province of BC, advising of this support.*



ENGINEERING AND PUBLIC WORKS DIVISION

ADDED 6. **VANCOUVER AIRPORT FUEL DELIVERY PROJECT**

(File Ref. No. 10-6060-01) (REDMS No. 6231550)

GP-94

See Page GP-94 for full report

Designated Speaker: Anthony Capuccinello Iraci

STAFF RECOMMENDATION

- (1) *That the Chief Administrative Officer and the General Manager, Engineering & Public Works be authorized to execute, on behalf of the City, a Site Specific Municipal Access Agreement between the City and the Vancouver Airport Fuel Facilities Corporation containing the material terms and conditions as generally described in the staff report titled "Vancouver Airport Fuel Delivery Project", dated July 10, 2019, from the City Solicitor and the Acting Director, Engineering;*

- (2) *That the Manager, Engineering Planning be authorized to execute, on behalf of the City, a Servicing Agreement between the City and the Vancouver Airport Fuel Facilities Corporation, for the development of the Marine Terminal located at 15040 Williams Road, Richmond, BC, containing the material terms and conditions as generally described in the staff report titled “Vancouver Airport Fuel Delivery Project”, dated July 10, 2019, from the City Solicitor and the Acting Director, Engineering; and*
- (3) *That the Chief Administrative Officer and the General Manager of Engineering & Public Works be authorized to approve both Vancouver Airport Fuel Facilities Corporation’s reliance on the ALC Decision dated March 17, 2017 (ALC File: 55644) and Vancouver Airport Fuel Facilities Corporation making a replacement ALC application in the event reliance on the said ALC Decision becomes problematic for either the City or VAFFC.*

☐

ADJOURNMENT

☐



General Purposes Committee

Date: Tuesday, July 2, 2019

Place: Anderson Room
Richmond City Hall

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

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

MINUTES

It was moved and seconded

That the minutes of the meetings of the General Purposes Committee held on June 10, 2019 and June 17, 2019, be adopted as circulated.

CARRIED

COMMUNITY SERVICES DIVISION

1. **COUNCIL APPROVAL OF PRIVATE DEVELOPMENT PUBLIC ART AND DEVELOPER CONTRIBUTIONS – NEW POLICY**

(File Ref. No. 11-7000-00) (REDMS No. 6135219 v. 21; 6155022; 3066549; 6153236; 6153496; 6153200; 6153500)

In response to questions from Committee, Liesl G. Jauk, Manager Arts Services, Biliana Velkova, Public Art Planner, and Wayne Craig, Director, Development advised that:

General Purposes Committee

Tuesday, July 2, 2019

- the public art locations criteria only applies to the private development public program and would not apply to arts facilities and they would be located where they are most appropriate;
- arts facilities programs could potentially be located in high profile public locations depending on the space requirements and program needs;
- a negotiated split for contributions over \$40,000 would be on a per project basis as there are currently no specific guidelines and details of the split would be finalized prior to the development permit or rezoning;
- level of voluntary developer contributions have a wide range depending on square footage and the size of the project;
- in terms of budget for any specific rezoning it depends on the scale of the project for example, small arterial road townhouses would most likely contribute cash and any large scale development through the city centre where contribution values are hundreds of thousands, most likely would contribute a public art piece;
- if a public art project through the public art program is rejected by Council or the developer opts out of the program, the developer can place the art on private land at their discretion;
- any developer participating in the public art program must follow city procedures even if the art will be placed on private land; and
- currently Council is not involved in the approval of the public art plan, the Richmond Public Art Advisory Committee provides comments and recommendation.

Discussion took place on (i) referring the matter back to staff for further refinement and details, (ii) Council's involvement in the approval process of public art, (iii) creating an overall theme and initiating art projects in Richmond, (iv) encouraging young artists to participate in public art, and (v) creating a vision plan for public art projects.

In further reply to queries from Committee, staff clarified that:

- there are several neighbourhood public art plans which all reference Richmond's distinct heritage and culture;
- developers are responsible for the care and maintenance of art on private land;

General Purposes Committee

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- the public art policy includes a contribution rate based on land use and square footage, developers are strongly advised to contribute to the program however there is no incentive to participate unlike like the bonus density given for affordable housing contributions but most participate in the program;
- in terms of making private developer public art contributions mandatory, best practice from the Province would indicate that incentive needs to be provided in terms of bonus density, which the current approach does not include;
- the private proposed selection and approval process include recommended options for Council to further participate in the program; and
- the process included in the report has been developed in a way that would not hold up development but does add an additional Council approval prior to the rezoning.

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

It was moved and seconded

That the report titled, "Council Approval of Private Development Public Art and Developer Contributions – New Policy" from the Senior manager, Arts, Culture and Heritage Services dated May 24, 2019 be referred back to staff for more information on:

- (1) local art plans;***
- (2) suggestions in terms of vision and themes for art in the city such as heritage, history, culture and harmony;***
- (3) opportunities for young and emerging artists; and***
- (4) earlier reference to Council regarding public art on private property.***

CARRIED

Opposed: Cllr. Loo

PLANNING AND DEVELOPMENT DIVISION

2. **POTENTIAL TRANSIT EXCHANGE AS PART OF STEVESTON COMMUNITY CENTRE AND BRANCH LIBRARY REPLACEMENT PROJECT**

(File Ref. No. 06-2052-25-SCCR1) (REDMS No. 6196248 v. 5)

Sonali Hingorani, Transportation Engineer referenced a previously distributed staff memorandum with updated attachments (attached to and forming part of these minutes as Schedule 1.)

3.

General Purposes Committee

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In reply to questions from Committee Ms. Hingorani noted that, through TransLink, the real estate department is actively investigating potential land acquisitions to address the operational issues that currently exist on Chatham Street however staff have not heard if there is one option being perused and will continue to have conversations with TransLink regarding the matter.

Councillor Harold Steves distributed materials to Committee relating to locations for the transit exchange at Steveston Community Park and rapid transit in Steveston (attached to and forming part of these minutes as Schedule 2) and spoke to three proposed referrals.

Discussion then took place on alternative locations for the transit exchange and in reply to queries from Committee, Ms. Hingorani and Lloyd Bie, Director, Transportation advised that (i) the proposal is to request options that include provision of bus turn around to alleviate the routing of bus circulation on Fourth Avenue, and (ii) staff have not had any direction to remove it off Chatham Street at this point in time so it is included as one of the options that TransLink could consider for the future bus exchange with improvements to Chatham Street.

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

It was moved and seconded

That with respect to TransLink's planned upgrade of the Steveston Transit Exchange as identified in Phase Three of the Mayors' Council 10-Year Investment Plan:

- (1) TransLink be advised that the City does not support a location within Steveston Community Park as part of the Steveston Community Centre and Branch Library Replacement Project; and***
- (2) That staff be directed to review other possible locations for the Steveston Transit Exchange including at 4320 Moncton Street or elsewhere in Steveston.***

The question on the motion was not called as discussion further ensued regarding (i) other uses of City owned property in Steveston in conjunction with a Steveston transit exchange, and (ii) light rail transit (LRT) in Steveston.

The question on the motion was then called and it was **CARRIED**.

As a further result of the discussion, the following **referral motions** were introduced:

It was moved and seconded

That staff comment on possible LRT terminus options and potential routes in Steveston.

CARRIED

General Purposes Committee
Tuesday, July 2, 2019

It was moved and seconded

That staff prepare options for LRT across Richmond to an LRT Transit Tunnel at Massey Tunnel utilizing the Shell Road Railway Line from Bridgeport, or a connection to the Canada Line, or a combination of both.

The question on the referral motion was not called as discussion further ensued on population density need for LRT to Steveston and the impact of the Massey Tunnel project.

The question on the motion was then called and it was **CARRIED** with Cllr. Loo opposed.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (5:12 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the General Purposes Committee of the Council of the City of Richmond held on Tuesday, July 2, 2019.

Mayor Malcolm D. Brodie
Chair

Amanda Welby
Legislative Services Coordinator



City of
Richmond

Memorandum
Planning and Development Division
Transportation

To: Mayor and Councillors
From: Lloyd Bie, P.Eng.
Director, Transportation
Date: June 26, 2019
File: 06-2052-25-SCCR1/Vol 01
Re: **Corrected Attachments for Staff Report entitled "Potential Transit Exchange as part of Steveston Community Centre and Branch Library Replacement Project"**

At the upcoming July 2, 2019 General Purposes Committee meeting, a staff report will be presented entitled "Potential Transit Exchange as part of Steveston Community Centre and Branch Library Replacement Project" that responds to a Committee referral.

The map displaying bus routings in each of Attachments 3 through 5 of the report does not correctly correspond to the option being illustrated. Attached are the correct versions of Attachments 3 through 5.

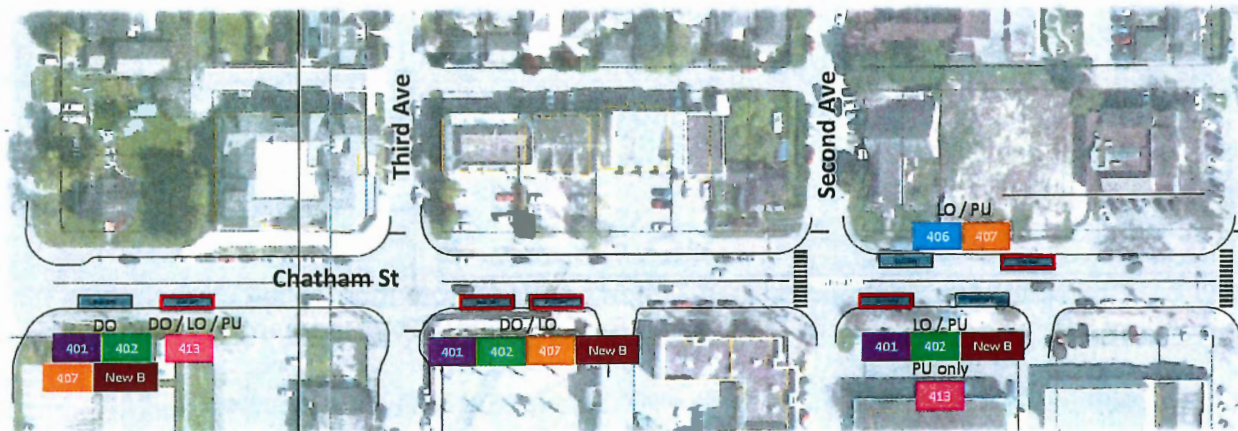
Should you have any questions, please contact me at 604-276-4131 or lbie@richmond.ca.


Lloyd Bie, P.Eng.
Director, Transportation

LB:jc

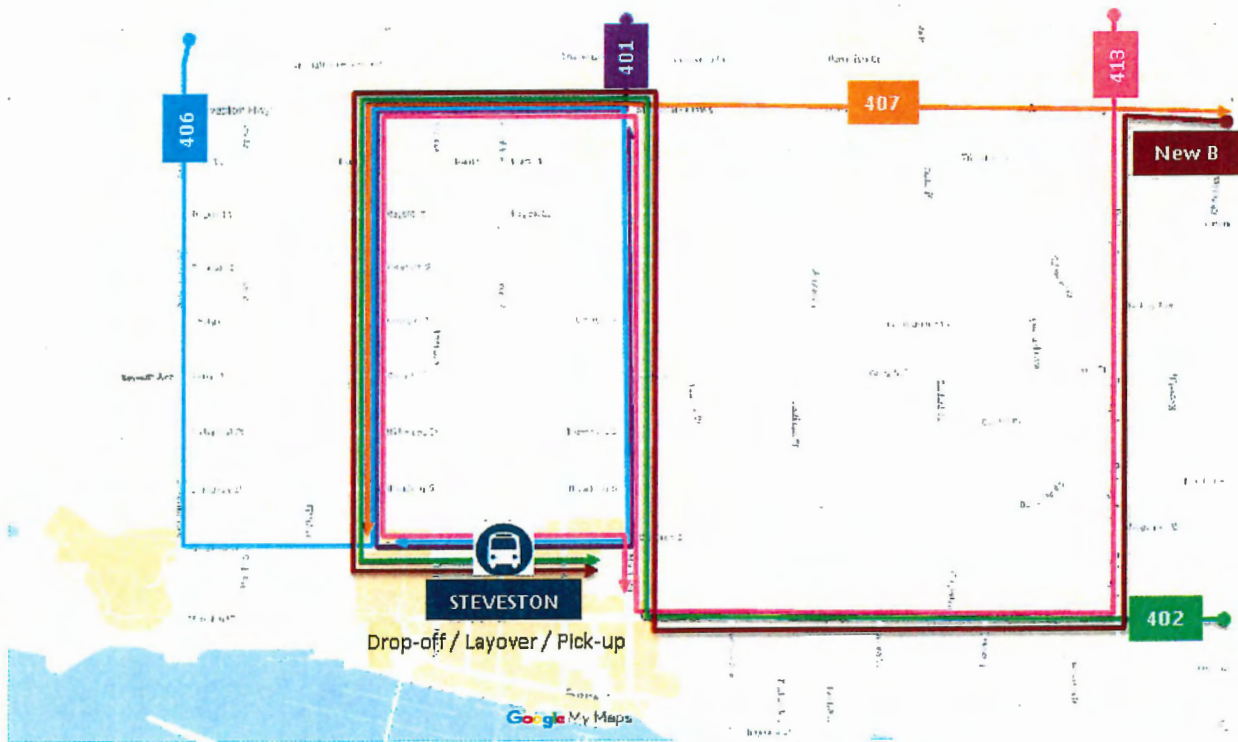
pc: SMT

Option 1: Status Quo



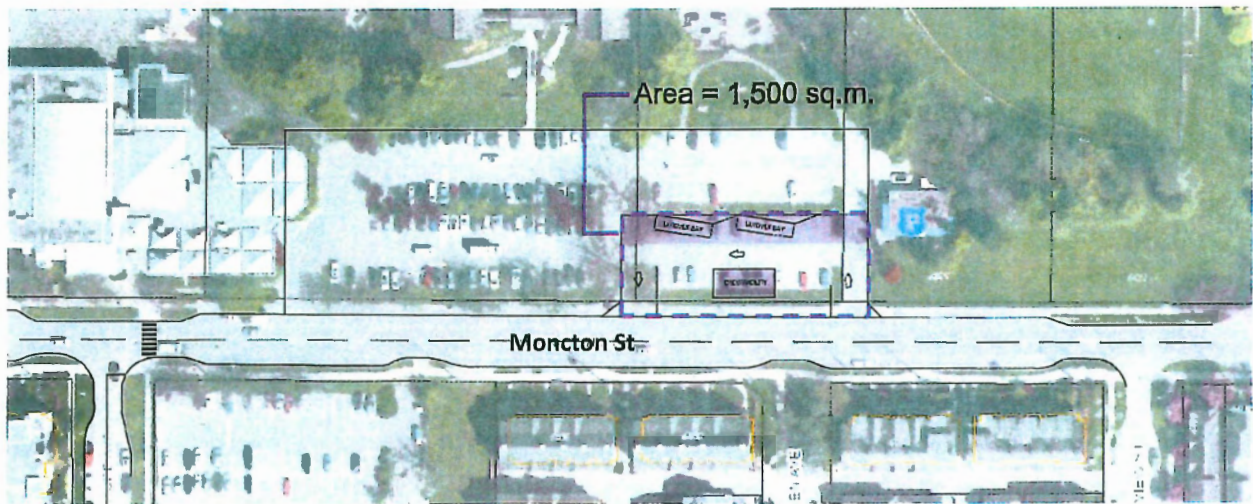
*Note: 402 and 407 are interlined to allow a 2-way service for 407 on 4th Avenue. If this becomes impossible due to schedule changes to either route, 407 would become a one way loop in this concept.

On-Street Transit Spaces on Chatham Street

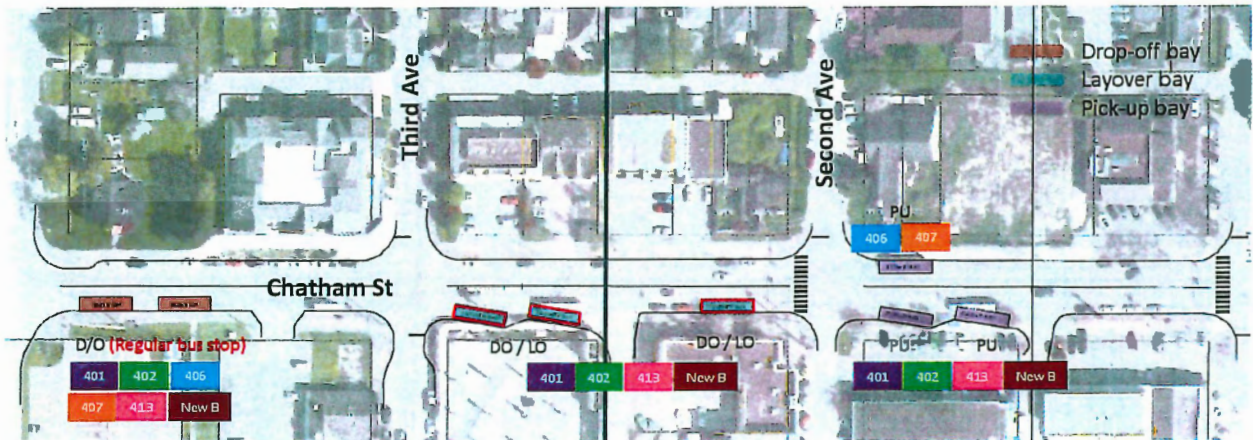


Transit Routes to/from Steveston

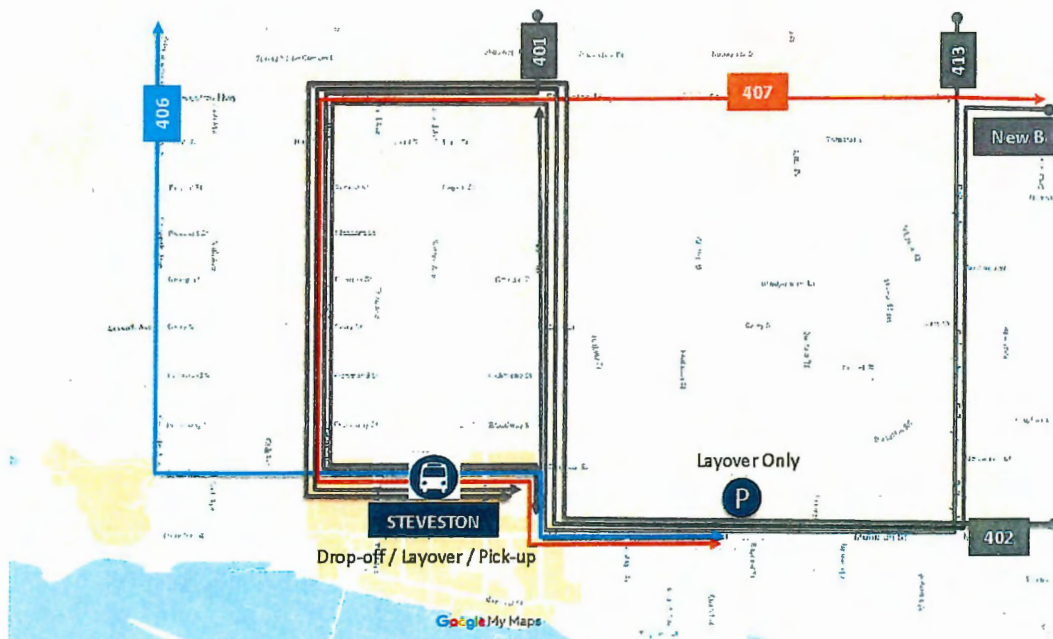
Option 2a: Relocate Two Layover Spaces to Steveston Community Park



Area Required at Steveston Community Centre

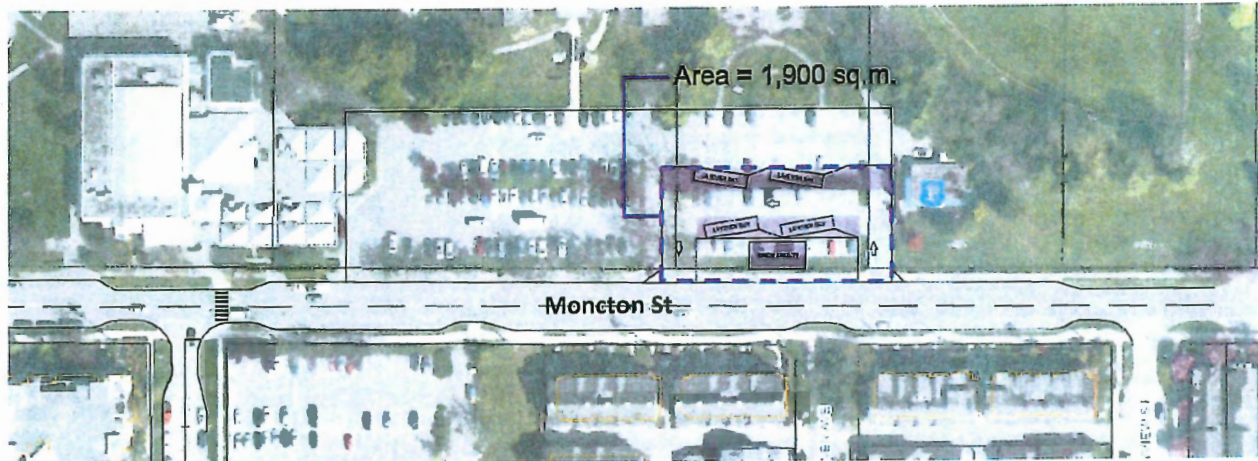


On-Street Transit Spaces on Chatham Street

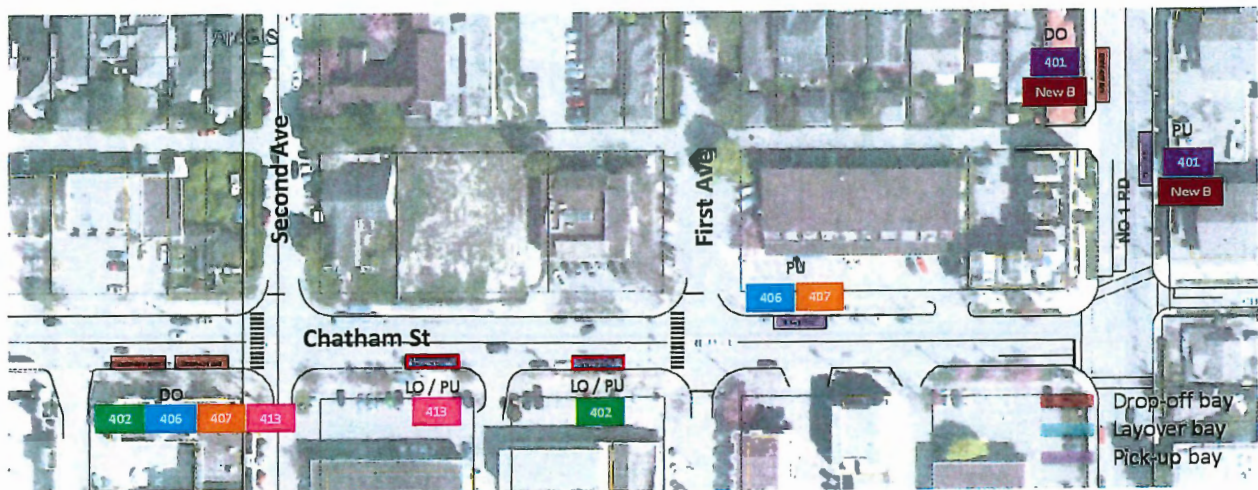


Transit Routes from Steveston

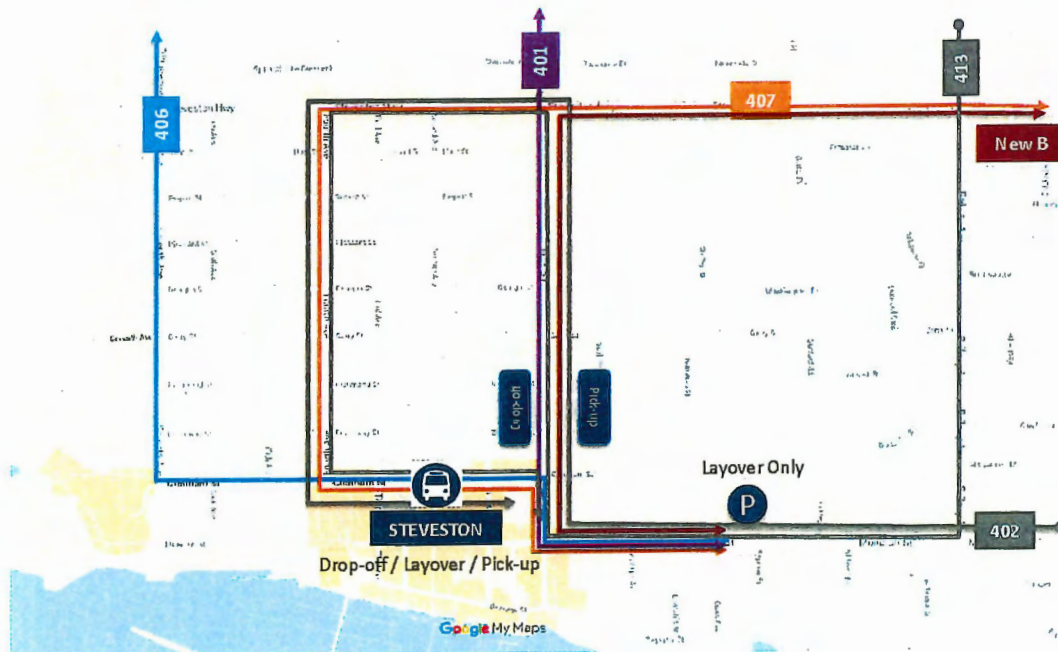
Option 2b: Relocate Four Layover Spaces to Steveston Community Park



Area Required at Steveston Community Centre



On-Street Transit Spaces on Chatham Street and No. 1 Road



Transit Routes to/from Steveston

Referrals

Councillor Harold Steves

July 2, 2019

1) Transit Exchange at Steveston Community Park:

That staff consider the use of 4320 Moncton Street as part of a full transit exchange at Steveston Community Park and report back to council.

The City owns property at 4320 Moncton St, valued a \$12,677,000, with 4,532 sq. m. deeded and additional access from road allowances on the east and west sides.

2) Rapid Transit Link to Steveston:

That Staff review the report "Rapid Transit Link to Steveston", schedule 2 to the minutes of the General Purposes Committee Meeting held on Tuesday, December 21, 2004 and recommend potential routes for Richmond Rapid Transit Phase 2 connecting the Canada Line to Steveston with LRT and a recommended site for a future LRT transit centre in Steveston.

3) Rapid Transit to Steveston and Ladner/White Rock via an LRT Tunnel at Massey tunnel announced by premier Van Der Zalm, August 1989.

That staff prepare options for LRT across Richmond to an LRT Transit Tunnel at Massey Tunnel utilizing the Shell Road Railway Line from Bridgeport, or a connection to the Canada Line, or a combination of both.

4. RAPID TRANSIT LINK TO STEVESTON

The terms of reference for the Vancouver - Richmond Rapid Transit Project include the consideration of a future extension of the rapid transit line to Steveston.

To date, B.C. Transit has not undertaken any detailed studies on this issue. Their position has been that the extension options will be examined during the "final evaluation" stage, once a preferred route has been chosen. Richmond staff, on the other hand, has indicated the study of these extension options should take place now rather than later in order to better understand and evaluate the overall route options.

While it is not in the interest of Richmond to delay major transit decisions to permit the detailed study of this option, Richmond staff have given the matter some consideration and asked B.C. Transit to provide their proposed analysis as soon as possible.

Richmond staff have supported the concept of a grade orientated system extension to Steveston from the outset of the study and in the September 27, 1991 progress report put forward a recommendation that Council request B.C. Transit to prepare a report on all extension possibilities (including Steveston, southeast Richmond, the airport and East Richmond). Richmond does not have the staff resources to undertake this detailed study at this time. In the interim it is the recommendation of staff that a right-of-way on Railway be maintained to provide for a future link.

The following points should provide context for the investigation of a Steveston connection by B.C. Transit.

(i) System Characteristics

Two issues are important in describing the route options for Steveston.

1. The first one is whether the connection is a mainline extension or a branch line. Main line extensions are preferable because transfers are not necessary.
2. The second one is whether the connection uses main line technology or whether alternative systems are envisaged.

ii) Technology

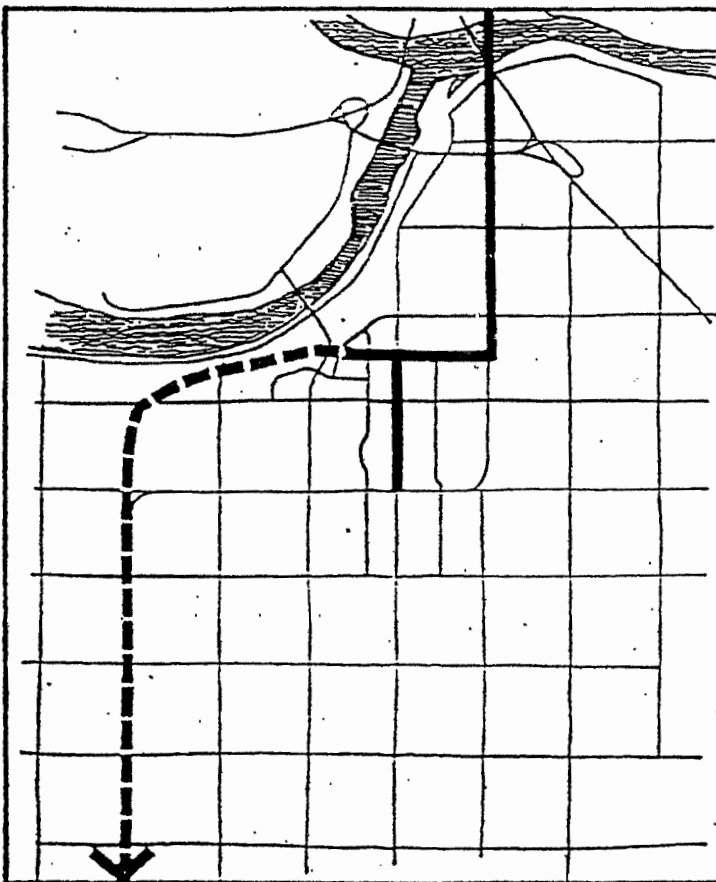
A link to Steveston could be accommodated quite readily through a continuation, a direct extension, of a conventional light rail transit system. It is clear that an ALRT technology would not be acceptable as a direct link to Steveston due to its detrimental impact on neighbourhoods.

While a continuation of the CLRT technology would be preferred, it would also be possible to introduce another type of transit technology, such as a heritage style streetcar on this section of the line.

iii) Routes

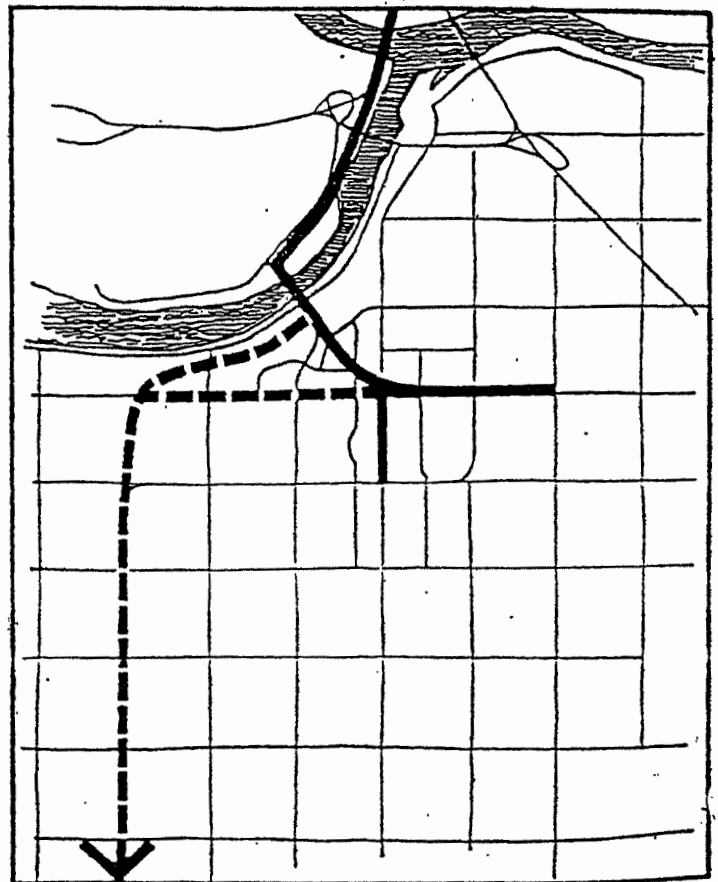
Possible routes from the Town Centre to Steveston include:

- a) An extension westward from Garden City, Lansdowne to the CPR right-of-way;
- b) A branch line westward from a Sea Island route where it meets the CPR right-of-way, or westward from Westminster Highway to the CPR right-of-way;
- c) An extension from a Garden City route westward on Granville Avenue from No. 3 Road connecting to the CPR right-of-way;
- d) An extension from a Sea Island route westward on Granville Avenue from No. 3 Road connecting to the CPR right-of-way;
- e) An extension from a Garden City route southward on No. 3 Road from Granville Avenue, running down No. 3 Road to Steveston. This route would serve not only West Richmond but South-east Richmond as well but has right-of-way constraints;
- f) An extension from a Sea Island route southward on No. 3 Road from Granville Avenue, running down No. 3 Road to Steveston. (This route would serve not only West Richmond but South-east Richmond as well but has right-of-way constraints.); and
- g) Other variations of the above routes.

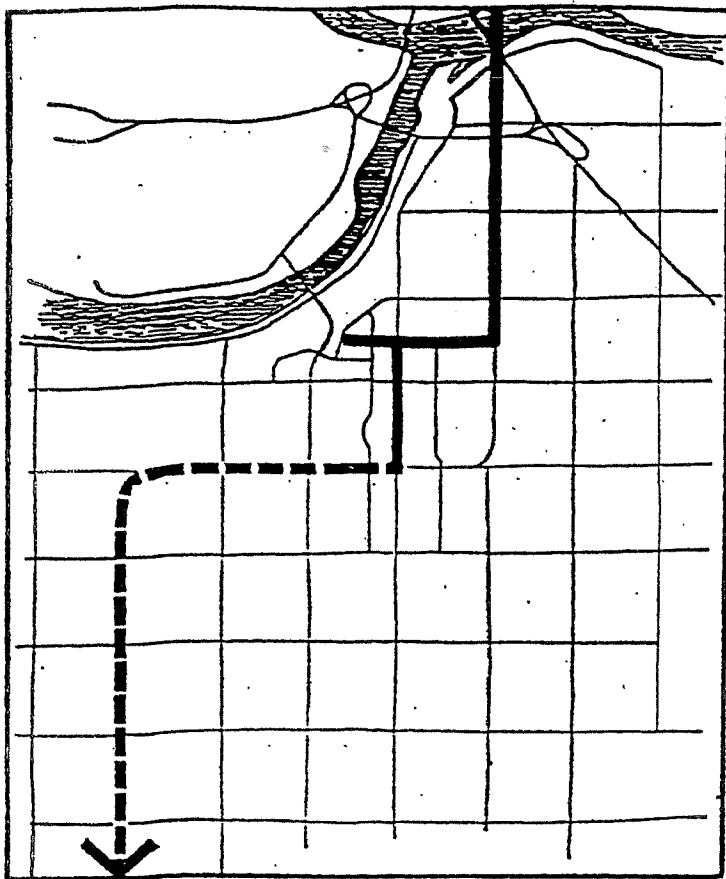


a.

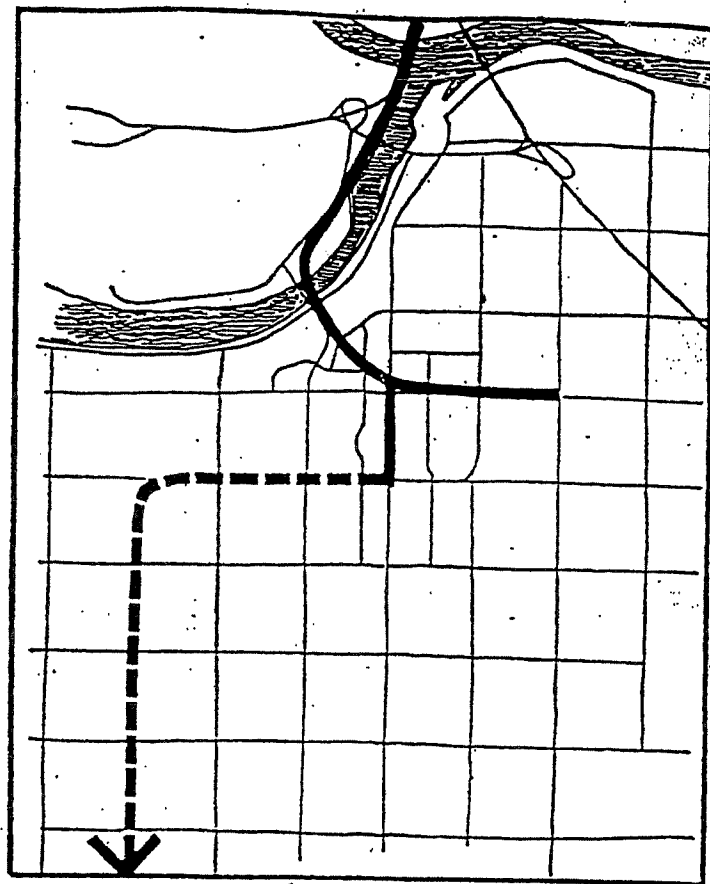
GP 615



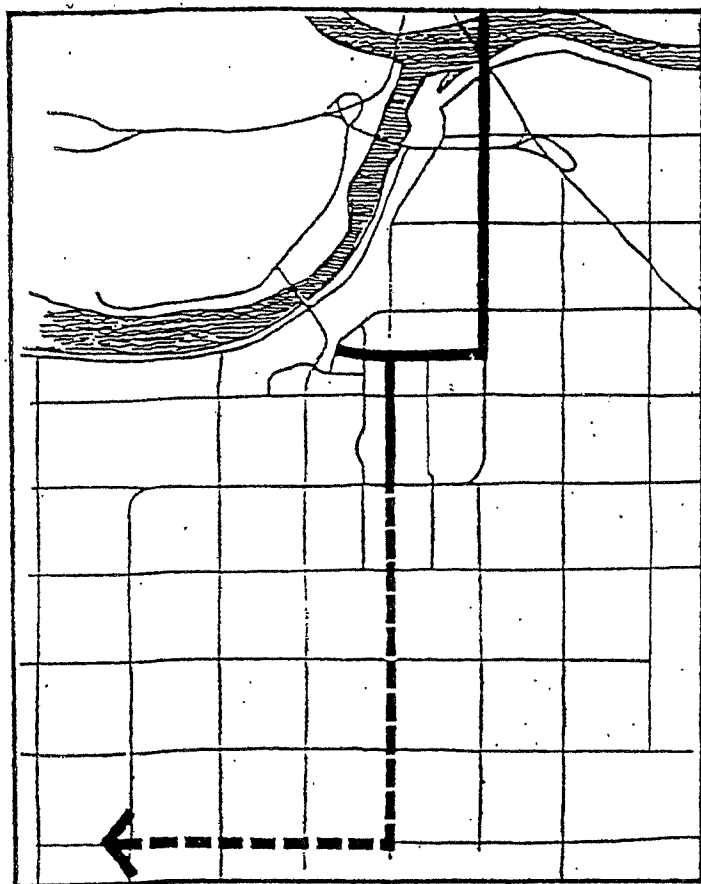
b.



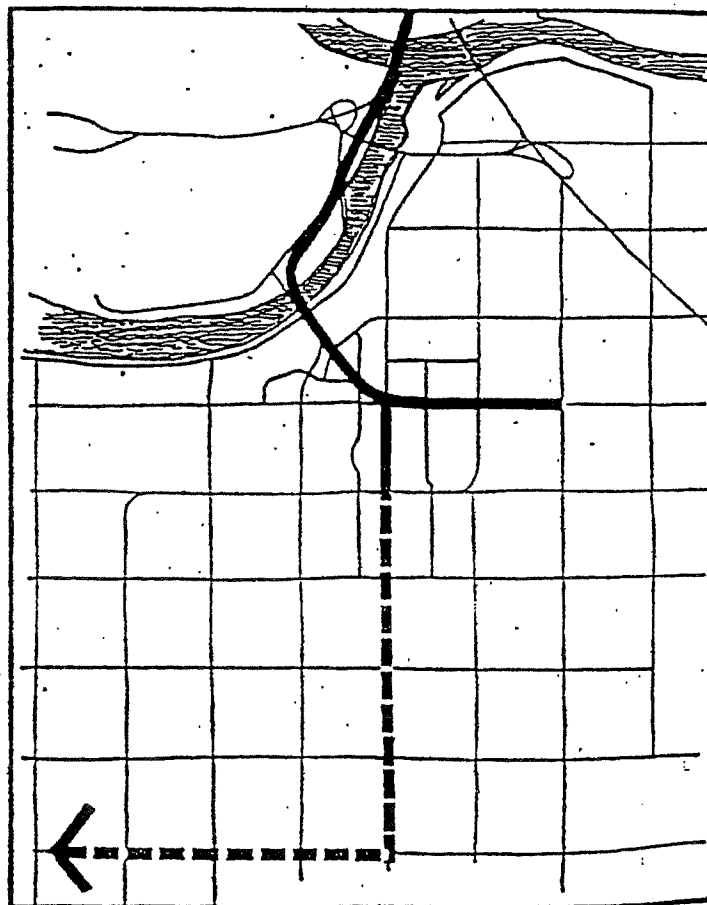
c.



d.



e.



f.

iv) Feasibility

The feasibility of extending a rapid transit line to Steveston should take into consideration a wide range of economic, environmental and social costs and benefits. When we consider that approximate 60% of the current Richmond ridership is derived from the west side, a west side extension for Steveston has considerable justification in providing even more convenient transit service. A route which follows the existing CPR right-of-way would be relatively cost effective due to:

- . The fact that the line would be built on an existing rail right-of-way if this could be acquired at a reasonable cost;
- . The limited number of at-grade signalized crossings required;
- . The potential of the rail right-of-way and adjoining municipal lands to accommodate a number of small park and ride lots as well as feeder bus connections;
- . The potential cost savings occurring from reductions in the bus system serving the area; and
- . The limited costs required for mitigating the impact on neighbouring properties given the generous width of the right-of-way and the parallel arterial roadway for much of its length.

The feasibility study will have to evaluate the pros and cons of introducing the Steveston connection at the same time the line is introduced into the Town Centre, of phasing it in over the short term (5 years) and, of phasing it in over the long term (5-20 years).

5. RAPID TRANSIT LINK TO THE AIRPORT

The terms of reference for the Vancouver - Richmond Rapid Transit Project include the consideration of a direct link to the airport.

Essentially there are three possible alternatives for linking the rapid transit system to the airport:

- i) A route which enters Richmond through Sea Island could connect to the airport via a station near Miller Road and Russ Baker Way. In its "Choices" publication of Summer, 1991, B.C. Transit indicated this connection would be made if the Arbutus corridor is chosen.

The Sea Island route provides the best connection to the airport as it could be done at the time the rapid transit system was introduced, at reasonable cost since the distance is small and the right-of-way may be available if the airport authority can be persuaded by the obvious benefits. While this option would not direct Vancouver - destined travellers through Richmond Town Centre, there would be a direct rapid transit connection.

- ii) A connection to the airport from a Garden City route could be accomplished by extending the east-west (Lansdowne) portion of the Garden City, Lansdowne, No. 3 Road route westward through the Town Centre and onto Sea Island. B.C. Transit outlined this possibility in a September 30, 1991 letter from R.N. Tribe, Vice President of Capital Projects. Mr. Tribe indicated this "future airport connection" would create "a circumstance where the airport is a terminus to the line, and Richmond Town Centre is the first stop leading from the airport to Vancouver".

38

Premier promises

By DIANE STRANDBERG

Richmond will have a new \$500 million rapid transit system in place by 1995, Premier Bill Vander Zalm promised Monday.

But what kind of system it will be and where it will go is still up for grabs.

B.C. Transit will begin detailed planning immediately on a rapid transit system to Richmond, with a possible spur to the International Airport here. The announcement was made Monday at the B.C. Institution of Technology training facility on Sea Island. It was part of a \$1 billion transit package that will see Skytrain and Seabus routes extended and a fleet of new ar-

ticultated buses purchased for use throughout the Greater Vancouver region.

Transit choices include a rail system, using existing rail lines from Vancouver to Richmond, an elevated system similar to Skytrain, and express buses on special bus lanes. Mayor Gil Blair said he wouldn't speculate what type of system the planning committee will recommend. But he praised the Premier's transit proposal, particularly his commitment to 100 per cent funding for the project, which relieves local taxpayers of the burden of fully paying for the system.

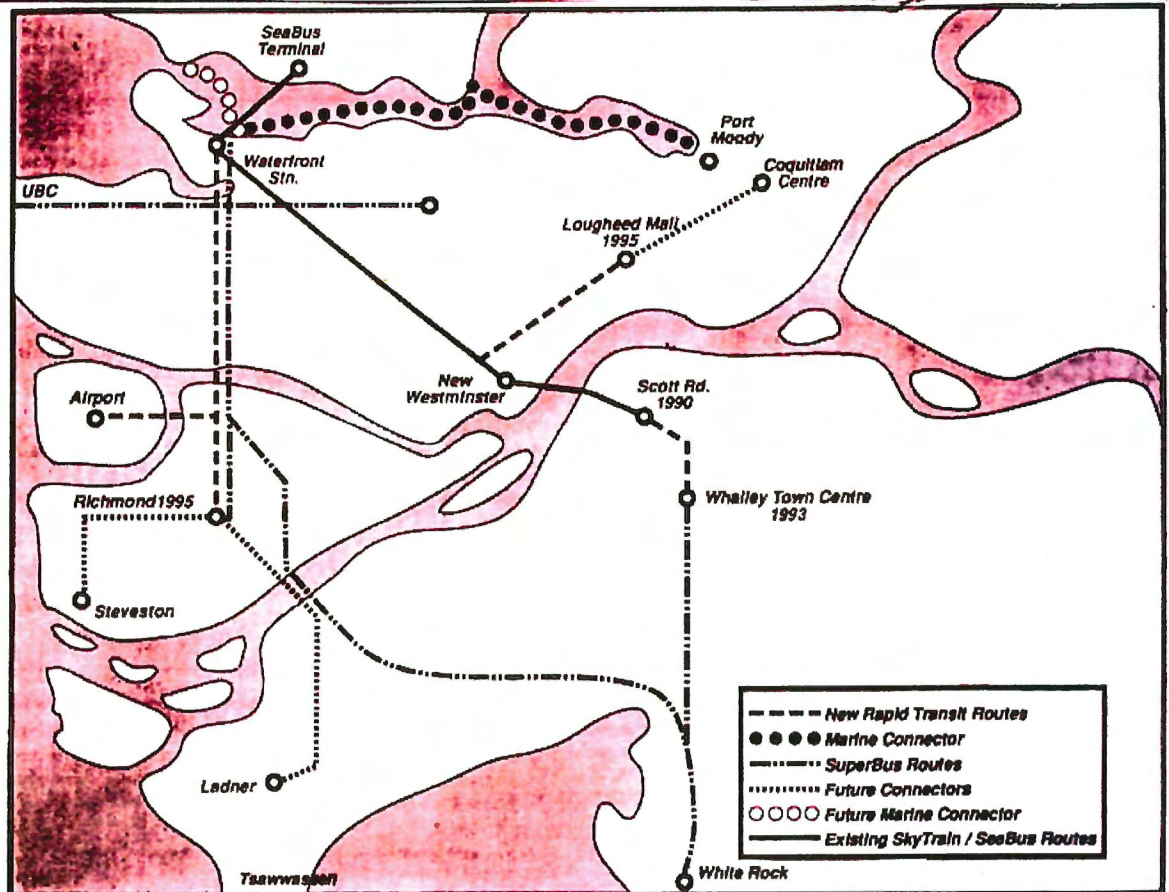
"It's a very significant an-

nouncement. The capital cost of Skytrain was an impossible burden for the (Vancouver Regional) Transit Commission to fund," Blair said.

While Blair wouldn't comment what kind of rapid transit system Richmond needs, his Vancouver counterpart, Mayor Gordon Campbell, has admitted a preference for buses.

In an interview Tuesday, Mayor Campbell said he wouldn't prejudice the transit commission's study of alternative systems. But he expressed his concern that an elevated Skytrain system would create "visual pollution" and a rail system would cause traffic problems and noise.

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Transit improvements announced



City of Richmond

Report to Committee

To: General Purposes Committee
From: Tom Stewart, ASCT.
Director, Public Works Operations
Re: **Single-Use Plastic and Other Items Bylaw and Implementation Plans**

Date: July 5, 2019
File: 10-6370-01/2019-Vol
01

Staff Recommendation

1. That the following bylaws to introduce a ban on single-use plastic and other items be introduced and given first, second and third readings with an effective date of January 1, 2020:
 - a. Single-Use Plastic and Other Items Bylaw No. 10000;
 - b. Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 10063, and
 - c. Municipal Ticket Information Bylaw No. 7321, Amendment Bylaw No. 10064; and
2. That the implementation plans for plastic straws and plastic bags, as outlined in Attachments 1 and 2 of the staff report dated July 5, 2019 titled, "Single-Use Plastic and Other Items Bylaw Bans and Implementation Plans" from the Director, Public Works Operations, with funding in the amount of \$260,000, from the Sanitation and Recycling provision, be approved.

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

Att. 2

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

Staff Report

Origin

This report responds to the following resolutions from the May 21, 2019 Special Council Meeting where the staff report, “Single-Use Plastic Items – City of Vancouver Proposals” was considered. The resolutions are as follows:

- (1) *That:*
 - a. *staff be directed to bring forward appropriate bylaw amendments to the Business Regulation Bylaw No. 7360 to ban the commercial use or commercial distribution of foam cups, foam plates and foam take-out containers effective January 1, 2020, with exceptions provided for charitable organizations and hospital/care facilities;*
 - b. *staff be directed to bring forward appropriate bylaw amendments to the Municipal Ticket Information Bylaw No. 7321 to incorporate a ticketing provision for those businesses who violate Business Regulation Bylaw 7360 as amended per item (a) above, effective January 1, 2020; and*
 - c. *staff be directed to bring forward appropriate bylaw amendments to the Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122 to incorporate a fine of \$250 for each instance where a business violates Business Regulation Bylaw No. 7360 as amended per item (a) above, effective January 1, 2020;*
- (2) *That the implementation plan, as outlined in Attachment 2, with funding in the amount of \$300,000, from the Sanitation and Recycling provision, to support implementation of a foam cups, foam plates and foam take-out containers ban, be approved;*
- (3) *That funding for ongoing support, education and bylaw enforcement, for item (a) above, be included for Council’s consideration in the 2020 and future Sanitation and Recycling utility budget and rates;*
- (4) *That staff bring forward two resolutions for the 2019 Union of British Columbia Municipalities convention requesting the provincial government’s support to address single-use items by:*
 - a. *adopting a comprehensive provincial single-use item reduction strategy; and*
 - b. *developing provincial standards for compostable single-use items ensuring they are designed to fully biodegrade if littered in the natural environment, that any standards and certifications for compostability are aligned with provincial composting infrastructure, and that compostable single-use items are collected and managed through an extended producer responsibility program that covers the residential and commercial sectors as well as materials from the public realm;*
- (5) *That the Mayor write the Chair of the Greater Vancouver Sewerage and Drainage District Board and the Ministry of Environment and Climate Change Strategy to develop a provincial single-use item reduction strategy;*
- (6) *That staff be directed to bring forward appropriate bylaw amendments to ban straws, similar to the City of Vancouver’s approach, together with an implementation plan and budget effective January 1, 2020, and also report back on the City of Vancouver’s research being undertaken regarding the ban on straws;*
- (7) *That staff be directed to examine the issue of single-use food utensils, and report back;*
- (8) *That staff be directed to bring forward appropriate bylaw amendments to prohibit the commercial use or commercial distribution of plastic checkout bags and regulate paper*

- and reusable bags with incremental fees, effective January 1, 2020, with appropriate exemptions listed in Table 2, in the staff report titled “Single-Use Plastic Items – City of Vancouver Proposals”, dated May 12, 2019 from the Director, Public Works, with a six-month grace period to permit the use of existing plastic bag stock that was purchased by a business prior to the first reading of the bylaw; and*
- (9) *That staff be directed to bring forward an implementation plan and budget to prohibit plastic checkout bags, for item (8) above.*

This report presents the appropriate regulatory bylaws and additional information as directed by Council.

Analysis

Bylaws

A new Single-Use Plastic and Other Items Bylaw is presented to encompass the items to be banned. This bylaw will prohibit the distribution of the items as noted effective January 1, 2020. In addition, appropriate bylaw amendments to incorporate non-compliance enforcement and fines are included with this report.

A summary of each of the bylaws presented with this report is outlined below:

1. *Single-Use Plastic and Other Items Bylaw No. 10000:*

This Bylaw prohibits businesses from providing foam containers to customers for transporting prepared food or beverages, including but not limited to, plates, cups, bowls, trays, cartons and hinged or lidded containers. The provisions exempt hospitals and licensed community care facilities. Charitable societies or charitable organizations are exempt for a period of one year. Prepared food containers that are filled and sealed outside the City are exempted. With the exception of hospitals, licensed care facilities and charitable societies or organizations, businesses have a six month period, commencing January 1, 2020, from which to use up any existing supplies of foam containers.

Bylaw 10000 further prohibits food vendors from providing plastic straws, including those made from biodegradable plastic or compostable plastic. There is an exemption which allows businesses to provide a plastic straw to persons with a disability and/or other accessibility needs upon request. As with foam containers, businesses have a six month period, commencing January 1, 2020, from which to exhaust any existing supplies of plastic straws. The bylaw provisions do not restrict the sale of straws (including plastic straws) intended for use at a customer's home or business provided they are sold in packages of multiple straws.

Businesses are further prohibited from providing plastic checkout bags to customers, including those made from biodegradable plastic or compostable plastic. A six month grace period, commencing January 1, 2020, for using up existing supplies is provided. Exemptions are provided in the bylaw for plastic checkout bags that are returned by customers for reuse (a common practise in thrift stores). A list of exemptions is also included for plastic checkout bags that are used to package loose items, such as fruit,

vegetables, hardware items, prepared foods that are not pre-packaged as well as other similar items. The bylaw provisions do not restrict the sale of plastic bags intended for use at a customer's home or business provided they are sold in packages of multiple bags. Initially, provisions to regulate the distribution of paper and reusable bags have not been included in the bylaw. Preliminary feedback has indicated that the imposition of fees requires further review and may have financial implications for both businesses and the public. These are provisions which may be considered at a later time when the effectiveness of the bylaw is able to be assessed.

Offences and penalties include a \$2,000 fine for providing false information as well as fines of a maximum \$10,000 per day on conviction.

This bylaw will be effective January 1, 2020.

2. *Municipal Ticket Information Bylaw No. 7321, Amendment Bylaw No. 10063:*

The amendments included for this bylaw will allow tickets to be issued for any business that provides foam containers, plastic straws and plastic checkout bags in violation of Bylaw 10000.

The ticketing provisions derived in this bylaw are appealed in Provincial court and carry fines of up to \$500 per occurrence. If the proposed bylaws are adopted, tickets could be issued as of July 1, 2020 (after the expiry of the six month grace period).

3. *Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 10064:*

The amendments included for this bylaw will allow tickets of \$250 to be issued per offense to any business that sells or provides prepared food in foam containers, provides straws to customers or provides a plastic checkout bag to a customer outside of the provisions of Bylaw 10000.

Fines under this bylaw are considered administrative penalties and are appealed through adjudication. Although fines for bylaw violation notices are lower than for municipal tickets the cost to administer these tickets is less and the tickets can be mailed rather than issued in person. As with the municipal tickets, these tickets could be applied as of July 1, 2020.

Retail Ban of Single-Use Plastic and Other Items

At the May 21, 2019 Special Council Meeting, it was asked if the sale of foam containers, plastic straws and other non-reusable single-use plastic and other items can be banned from all Richmond businesses, including banning large retailers from selling these items. If the City chooses to move forward with such a ban, the City's Law Department will provide Committee with further advice on this matter. For the purposes of this report, it is understood that municipal regulation of the conduct of business, including prohibiting certain types of transactions, is a well-established aspect of a valid business regulation in British Columbia. This understanding stems from recent court decisions such as the *International Bio Research dba Pet Habitat, et al.*

v. *Richmond* case which upheld the City's bylaw banning the sale of puppy retail sales and the *Canadian Plastic Bag Assn. v. Victoria* where the Court upheld a bylaw banning the sale of single-use plastic bags. It should be noted that the British Columbia Court of Appeal is scheduled to hear the latter case, meaning the ruling upholding the plastic bag ban may be overruled.

Implementation Plans

Projected implementation plans and budgets for plastic straws and plastic bags, as directed by Council, are included with this report (Attachments 1 and 2). (Staff note the implementation plan for single-use foam items was previously approved by Council.) The implementation plans contained in Attachments 1 and 2 identify key actions, timelines and steps required to implement and educate businesses and residents about the plastic straw and plastic bag bans, including resource tools and compliance efforts. The implementation plans include estimated costs for 2019 to prepare for the introduction of the bans as well as projected (2020) future/on-going estimated costs. The combined costs for ban implementation for plastic straws and plastic bags in 2019 are estimated at \$260,000. If approved, this amount could be funded from the Sanitation and Recycling provision.

Estimated costs in 2020 include amounts for on-going education, administration and enforcement, and are estimated at \$450,000 plus \$45,000 for capital expenditures (staffing resources, vehicle, workstations, etc.). These amounts will be further reviewed for inclusion in the appropriate 2020 operating and utility budgets, should the implementation plans be approved.

Other Referral Items

The following section provides an update on other actions taken to date to comply with the direction provided by Council.

UBCM Resolutions

Resolutions with respect to the development of a comprehensive provincial single-use item reduction strategy and compostable single-use items have been prepared and presented to Council separately in order to meet the June 30 UBCM submission deadline.

The resolution concerning single-use items mirrors that of the City of Vancouver and is intended to create a provincial standard to help achieve harmonization for businesses and residents relating to single-use items. The resolution pertaining to compostable packaging standards is intended to ensure standards and certifications for compostable packaging are aligned with composting infrastructure and are further managed through the extended producer responsibility program.

Provincial Single-Use Item Reduction Strategy Correspondence

On behalf of Council, letters have been sent to the Chair of the Greater Vancouver Sewerage and Drainage District Board and the Ministry of Environment and Climate Change Strategy to develop a provincial single-use item reduction strategy.

Single-Use Food Utensils

Single-use food utensils are typically considered to include knives, forks, spoons and chopsticks. They can be used for take-out, fast-food, street carts and for food delivery services.

Plastic utensils are predominately made from a mix of low-grade plastics, including polypropylene and polystyrene. Some of the challenges with recycling plastic utensils include:

- They are commonly contaminated with food residue.
- While polypropylene and polystyrene are recyclable, utensils can be made from mixed plastic materials, making it difficult to distinguish for sorting and making into new products.
- There are no processors locally that accept utensils for recycling.

The benefits of single-use plastic utensils are they are inexpensive, lightweight, convenient, sanitary, and do not consume water or generate wastewater to clean.

Current alternatives to single-use plastic utensils include:

- Reusable utensils, or
- Fibre based, uncoated or wooden cutlery (accepted by local composting facilities). Coatings on paper or wooden cutlery is an issue to be mindful of since some can be coated with a plastic lining. Only natural/cellulose type coatings would be acceptable for composting processes.

The availability of these products and cost discrepancy between alternatives and plastic cutlery has not been reviewed at this time.

Staff note that the City of Vancouver “Single-Use Item Reduction Strategy 2018-2025” discusses a by-request bylaw for single-use utensils. Such a bylaw would prohibit businesses from providing single-use utensils unless the customer is first asked if they are needed. Early findings show that some stakeholders have indicated they currently only provide single-use utensils only when requested by the customer. Other stakeholders have raised concerns about slowed service, safety risk, and inadvertently increasing waste. Consultation on single-use utensils is on-going and Vancouver staff will report back with additional details in November 2019. Staff will continue to monitor developments in this regard.

In the European Union, a Single-Use Plastics Directive was adopted on March 27, 2018 which included banning of plastic cutlery. The Directive has two years from formal adoption to transpose the legislation into national laws. It is unclear how the issue of plastic cutlery is to be addressed as part of this directive.

In their 2018 Waste Composition Study, Metro Vancouver identified approximately 330,000 utensils in the total regional waste stream, 50% of which were identified as wood (i.e. chopsticks or wooden utensils).

Financial Impact

The projected implementation cost in 2019 for plastic straws and plastic bags per the implementation plans provided with this report is \$260,000. If approved, these costs can be funded from the Sanitation and Recycling Provision.

The estimated annual operating budget impact commencing in 2020 is \$450,000, plus capital costs of \$45,000. This amount will be included in the appropriate 2020 budget submissions for Council's consideration should the implementation plans as presented with this report be approved.

Conclusion

This report presents the appropriate regulatory amendments to ban foam containers, plastic straws and plastic checkout bags effective January, 2020. Implementation plans to provide outreach, education, compliance and enforcement efforts are also provided for Council's consideration.



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

SJB:kn

- Att. 1: City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Straws
- 2: City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Checkout Bags

City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Straws

B. Plastic Straws				
Action	Timelines	Projected 2019 Implementation Cost	Projected 2020 Ongoing Cost	
1 Bylaw Development				
<p>(a) In the new Single-Use Plastic and Other Items Bylaw, include a ban which prevents food vendors from providing an unnecessary plastic drinking straw to a customer.</p> <p>(b) Include an exemption which allows businesses to provide a plastic straw when requested by a customer for disability and/or other accessibility reasons.</p> <p>(c) Amend <i>Municipal Ticket Information Authorization Bylaw No. 7321</i> to add ticketing provisions for Plastic Drinking Straws.</p> <p>(d) Amend <i>Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122</i> to incorporate fines.</p> <p><i>Exemptions:</i></p> <p>(e) Persons with disability and/or other accessibility needs that request a plastic straw.</p> <p>(f) Plastic straws that were provided outside of the City limits.</p> <p>(g) Hospital or licensed community care facility.</p> <p>(h) Charitable society or organization.</p>	<p>Include in bylaws to July 22, 2019 Council meeting for approval.</p>	<p>January 1, 2020</p> <p>Exemptions to be reviewed in one year, i.e. January 1, 2021.</p>		

Attachment 1 (cont'd)

City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Straws (cont'd)

B. Plastic Straws					
Action	Timelines		Projected 2019 Implementation Cost	Projected 2020 Ongoing Cost	
2 Consultation					
<p><i>Accessibility:</i></p> <p>(a) Consult with Vancouver Coastal Health regarding health requirements and accessibility concerns.</p> <p>(b) Consult with Richmond Centre for Disability, Seniors Advisory Committee, Vancouver Coastal Health/Richmond Health Services Local Governance Liaison Group and the Richmond Family & Youth Court Committee.</p> <p><i>Straws for specialty beverages:</i></p> <p>(c) Consult with food vendors for specialty beverages that require straws wider than a standard straw to identify suitable alternatives to plastic.</p>	July 22, 2019 - December 31, 2019	Exemptions to be reviewed in one year, i.e. January 1, 2021.			
3 Resource Toolkit			\$40,000.00	\$15,000.00	
<p>(a) Engage consulting support to develop an alternative/suitable materials options guide in English, Mandarin and Cantonese languages.</p> <p>(b) Develop a bylaw awareness toolkit for businesses with printed materials to be used in store to inform employees and customers about the City bylaw changes.</p> <p>(c) Plain language descriptions of the bylaw requirements and effective dates.</p> <p>(d) Frequently Asked Questions for business employees to answer public questions in store.</p> <p>(e) Roll out toolkit with affected businesses.</p>	Commence development on Council approval.	Deliver/provide information through effective date of bylaw and beyond, as required.			

City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Straws (cont'd)

B. Plastic Straws				
	Action	Timelines		Projected 2019 Implementation Cost
				Projected 2020 Ongoing Cost
4	Education			\$65,000.00
	Engage consulting support to assist with development and delivery of an outreach program and related materials to raise awareness about new requirements and the need to reduce single-use plastic and other items: <i>Business:</i> (a) Communication through the Chamber of Commerce and other business associations, including non-English speaking business owners. (b) City hosted workshops (English, Mandarin and Cantonese languages). (c) Direct mail to affected businesses. (d) Bill insert with business license renewal/tax notice to affected businesses. (e) Bylaw Bulletin (English, Mandarin and Cantonese languages). (f) Guide outlining alternative materials and answers to frequently asked questions.	Commence upon Council approval.	Deliver through effective date of bylaw and ongoing throughout 2020.	\$20,000.00

Attachment 1 (cont'd)
City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Straws (cont'd)

B. Plastic Straws					
Action	Timelines		Projected 2019 Implementation Cost	Projected 2020 Ongoing Cost	
<i>General Public (English, Mandarin and Cantonese languages):</i> (a) News Release (b) Media Event (c) Social Media (d) Website (e) Designated email and hotline (f) Information display highlighting alternative materials - use at events and in City facilities (g) Bill insert in utility notice	Commence upon Council approval.	Deliver through effective date of bylaw and ongoing throughout 2020.			
5 Enforcement					
<i>(a) Compliance Outreach:</i> Environmental Programs Staff: Provide additional temporary staffing/resource support for community outreach and response to enquiries with the objective of obtaining voluntary compliance via education and provision of resource materials. Costs split with Checkout Bags implementation budget.	Commence upon Council approval.		\$25,000.00	\$50,000.00	

Attachment 1 (cont'd)

City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Straws (cont'd)

B. Plastic Straws				
Action	Timelines	Projected 2019 Implementation Cost	Projected 2020 Ongoing Cost	
<p><i>(b) Bylaw Enforcement:</i></p> <p>Bylaw Staff: Incorporate enforcement for plastic straw ban as a component of enforcement for Single-Use Plastic and Other Items Bylaw.</p> <p>One bylaw enforcement position.</p> <p><i>General enforcement approach is outlined below:</i></p> <p>(a) Distribute warning letter to business found in non-compliance.</p> <p>(b) If business remains in non-compliance - issue a fine of \$250.00 under the bylaw.</p> <p>(c) Referral to prosecution for non-compliant business.</p> <p>Costs split with Plastic Bag implementation budget.</p>	January, 2020		<p>\$60,000.00 (Operating)</p> <p>\$22,500.00 (Capital)</p>	
6 Advocacy				
Included plastic drinking straws as a component of the Single-Use Item advocacy letters to the Chair of the Greater Vancouver Sewer and Drainage District Board and the Ministry of Environment and Climate Change Strategy requesting support for the development of a Provincial Single-Use Item Reduction Strategy.	Incorporated into July 22, 2019 report to Council.	UBCM Resolution: September 23-27, 2019		
7 Administration			\$80,000.00	
<p>(a) Dedicated coordination for Single-Use Plastic and Other Items Bylaw (\$90,000 - split with Checkout Bags budget).</p> <p>(b) Outreach support; i.e. call/communications representative (\$70,000 split with Checkout Bags budget).</p>	Commence upon Council approval.			

Attachment 1 (cont'd)
City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Straws (cont'd)

B. Plastic Straws				
	Action	Timelines		Projected 2019 Implementation Cost
				Projected 2020 Ongoing Cost
	Total 2019 Estimated Costs (on-going costs to be identified in 2020 and subsequent budgets)			\$130,000.00
				\$247,500.00

City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Checkout Bags

C. Plastic Checkout Bags				
Action	Timelines	Projected 2019 Implementation Cost	Projected 2020 Ongoing Cost	
1 Bylaw Development				
(a) In the new Single-Use Plastic and Other Items Bylaw, include a ban which prevents businesses from providing a plastic bag for the purpose of transporting items purchased or received by a customer. (b) Amend <i>Municipal Ticket Information Authorization Bylaw No. 7321</i> to add ticketing provisions for Plastic Bags. (c) Amend <i>Notice of Bylaw Violation dispute Adjudication Bylaw No. 8122</i> to incorporate fines.	Include in bylaws to July 22, 2019 Council meeting for approval.	January 1, 2020 During 2020, review Bylaw performance and evaluate whether the imposition of a fee structure to minimize single-use paper bags is to be recommended for Council consideration.		
2 Resource Toolkit				
(a) Engage consulting support to develop an alternative/suitable materials options guide in English, Mandarin and Cantonese languages. (b) Develop a bylaw awareness toolkit for businesses with printed materials to be used in store to inform employees and customers about the City bylaw changes. (c) Plain language descriptions of the bylaw requirements and effective dates. (d) Frequently Asked Questions for business employees to answer public questions in-store. (e) Roll out toolkit with affected businesses.	Commence development on Council approval.	Deliver/provide information through effective date of bylaw and beyond, as required.	\$40,000.00	\$15,000.00

Attachment 2 (cont'd)
City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Checkout Bags (cont'd)

C. Plastic Checkout Bags				
Action	Timelines	Projected 2019 Implementation Cost	Projected 2020 Ongoing Cost	
3 Education		\$65,000.00	\$20,000.00	
Engage consulting support to assist with development and delivery of an outreach program and related materials to raise awareness about new requirements and the need to reduce single-use plastic and other items: <i>Business:</i> (a) Communication through the Chamber of Commerce and other business associations, including non-English speaking business owners. (b) City hosted workshops (English, Mandarin and Cantonese languages). (c) Direct mail to affected business. (d) Bill insert with business license renewal/tax notice to affected businesses. (e) Bylaw Bulletin (English, Mandarin and Cantonese languages) (f) Guide outlining alternative materials and answers to frequently asked questions.	Commence upon Council approval.	Deliver through effective date of bylaw and on-going in 2020.		
<i>General Public (English, Mandarin and Cantonese languages):</i> (a) News Release (b) Media Event (c) Social Media (d) Website (e) Designated email and hotline (f) Information display highlighting alternative materials - use at events and in City facilities (g) Bill insert in utility notice	Commence upon Council approval.	Deliver through effective date of bylaw and on-going in 2020.		

Attachment 2 (cont'd)
City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Checkout Bags (cont'd)

C. Plastic Checkout Bags					
Action	Timelines	Projected 2019 Implementation Cost	Projected 2020 Ongoing Cost		
4 Enforcement					
<p>(a) <i>Compliance Outreach:</i> Environmental Programs Staff: Incorporate as part of additional temporary staffing/resource support identified for Single-Use Plastic and Other Items for community outreach and response to enquiries with the objective of obtaining voluntary compliance via education and provision of resource materials.</p> <p>Costs split with Plastic Straws implementation budget.</p>	Commence upon Council approval	\$25,000.00	\$50,000.00		
<p>(b) <i>Bylaw Enforcement:</i> Bylaws: Incorporate enforcement for plastic straw ban as a component of Single-Use Plastic and Other Items Bylaw.</p> <p>One bylaw enforcement position.</p> <p><i>General enforcement approach is outlined below:</i> (a) Distribute warning letter to business found in non-compliance. (b) If business remains in non-compliance - issue a fine of \$250.00 under the bylaw. (c) Referral to prosecution for non-compliant business.</p> <p>Costs split with Plastic Straws implementation budget.</p>	July, 2020		<p>\$60,000.00 (Operating) \$22,500.00 (Capital)</p>		

Attachment 2 (cont'd)
City of Richmond Single-Use Plastic and Other Items Implementation Plan: Plastic Checkout Bags (cont'd)

C. Plastic Checkout Bags					
Action	Timelines	Projected 2019 Implementation Cost	Projected 2020 Ongoing Cost		
5 Advocacy					
Included plastic bags as a component of the Single-Use Item advocacy letters to the Chair of the Greater Vancouver Sewer and Drainage District Board and the Ministry of Environment and Climate Change Strategy requesting support for the development of a Provincial Single-Use Item Reduction Strategy.	Incorporate into July 22, 2019 report to Council.	UBCM Resolution: September 23-27, 2019			
6 Administration					
(a) Dedicated coordination for Single-Use Plastic and Other Items Bylaw (\$90,000 - split with Straw budget). (b) Outreach support; i.e. call/communications representative (\$70,000 split with Straw budget).					
Total 2019 Estimated Costs (ongoing costs to be identified in 2020 and subsequent budgets)				\$130,000.00	\$247,500.00



SINGLE-USE PLASTIC AND OTHER ITEMS BYLAW NO. 10000

WHEREAS Part 2, Division 1, Section 8(6) of the *Community Charter* confers upon the City authority to, by bylaw, regulate in relation to business;

AND WHEREAS Council deems it desirable to regulate the use of single-use plastic and other items;

NOW THEREFORE, the Council enacts as follows:

PART ONE: FOAM CONTAINERS

- 1.1 No Business shall sell or otherwise provide Prepared Food in any Food Service Ware that contains Polystyrene Foam.
- 1.2 Section 1.1 shall not apply to:
 - a) a hospital, or any facility licensed as a community care facility under the *Community Care and Assisted Living Act*;
 - b) subject to Section 6.3 of this Bylaw, organizations incorporated and in good standing under the *Society Act*, or registered as a charitable society or organization under the federal *Income Tax Act*; or
 - c) prepared food containers that have been filled and sealed outside the City prior to arrival at the premises or location where the holder of a Licence operates.

PART TWO: PLASTIC STRAWS

- 2.1 No Business shall sell or otherwise provide any Plastic Straws.
- 2.2 Section 2.1 shall not apply in instances where a Business sells or otherwise provides a Plastic Straw to persons with a disability and/or other accessibility needs who request a Plastic Straw.
- 2.3 Part Two does not limit or restrict the sale of straws, including Plastic Straws, intended for use at the customer's home or business, provided that they are sold in packages of multiple straws.

PART THREE: PLASTIC CHECKOUT BAGS

- 3.1 Except as provided in this Bylaw, no Business shall sell or otherwise provide a Plastic Checkout Bag to a customer.
- 3.2 A Business may sell or otherwise provide a Plastic Checkout Bag to a customer only if:
- a) the Plastic Checkout Bag has been returned to the Business for the purpose of being reused by other customers;
 - b) the Plastic Checkout Bag is used for any of the following:
 - i. package loose bulk items such as fruit, vegetables, nuts, grains or candy;
 - ii. package loose small hardware items such as nails or bolts;
 - iii. contain or wrap frozen foods, meat, poultry or fish, whether pre-packaged or not;
 - iv. wrap flowers or potted plants;
 - v. protect prepared foods or bakery goods that are not pre-packaged;
 - vi. contain prescription drugs received from a pharmacy;
 - vii. transport live fish;
 - viii. protect linens, bedding or other similar large items;
 - ix. protect newspapers or other printed material intended to be left at the customer's residence or place of business; or
 - x. protect clothes after professional laundering or dry cleaning.
- 3.3 Part Three does not limit or restrict the sale of bags, including Plastic Bags, intended for use at the customer's home or business, provided that they are sold in packages of multiple bags.

PART FOUR: OFFENCES AND PENALTIES

- 4.1 Any person who:
- a) violates or contravenes any provision of this Bylaw, or who causes or allows any provision of this Bylaw to be violated or contravened;
 - b) fails to comply with any of the provisions of this Bylaw;

- c) neglects or refrains from doing anything required under the provisions of this Bylaw; or
- d) obstructs, or seeks or attempts to prevent or obstruct a person who is involved in the execution of duties under this Bylaw,

commits an offence and upon conviction shall be liable to a fine of not less than One Thousand Dollars (\$1,000.00) and not more than Ten Thousand Dollars (\$10,000.00), in addition to the costs of the prosecution, and where the offence is a continuing one, each day that the offence is continued shall constitute a separate offence.

- 4.2 A violation of any of the provisions identified in this Bylaw shall result in liability for penalties and late payment amounts established in Schedule A of the *Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122*, as amended or replaced from time to time.
- 4.3 A violation of any of the provisions identified in this Bylaw shall be subject to the procedures, restrictions, limits, obligations and rights established in the *Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122* in accordance with the *Local Government Bylaw Notice Enforcement Act, SBC 2003, c. 60*, as they may be amended or replaced from time to time.
- 4.4 Any person who gives false information required under this Bylaw is deemed to have committed an infraction of, or an offence against, this Bylaw, and is liable on summary conviction to a penalty of not more than \$2,000 in addition to the costs of the prosecution, and each day that such violation is caused or allowed to continue constitutes a separate offence.

PART FIVE: INTERPRETATION

- 5.1 In this Bylaw, unless the context requires otherwise:

BUSINESS	means any person, organization, or group engaged in a trade, business, profession, occupation, calling, employment or purpose that is regulated under the City's Business Licence Bylaw No. 7360 and includes a person employed by, or operating on behalf of, a Business.
CITY	means the City of Richmond.
FOOD SERVICE WARE	means products used for serving or transporting prepared food or beverages including, but not limited to, plates, cups, bowls, trays, cartons and hinged or lidded containers.
LICENCE	means a business licence issued by the City pursuant to the City's Business Licence Bylaw No. 7360.

PLASTIC CHECKOUT BAG	means any bag made with plastic, including biodegradable plastic or compostable plastic that is: <ul style="list-style-type: none">(a) intended to be used by a customer for the purpose of transporting items purchased or received by the customer from the Business providing the bag; or(b) intended to be used to package take-out or delivery food.
PLASTIC STRAW	means any drinking straw made with plastic, including biodegradable plastic or compostable plastic.
POLYSTYRENE FOAM	means blown polystyrene and expanded and extruded foams composed of thermoplastic petrochemical materials containing a styrene monomer and processed by any technique including, but not limited to, fusion of polymer spheres (expandable bead foam), injection molding, foam molding, and extrusion-blown molding (extruded foam polystyrene).
PREPARED FOOD	means any food or beverage prepared for consumption by a Business at that person's licensed premises or location, using any cooking or food preparation technique. Prepared food does not include any raw uncooked food, including meat, poultry, fish, seafood, eggs or vegetables unless provided for consumption without further food preparation.

PART SIX: GENERAL

- 6.1 If any section, section, paragraph, clause or phrase of this Bylaw is for any reason held to be invalid by the decision of a court of competent jurisdiction, such decision does not affect the validity of the remaining portions of this Bylaw.
- 6.2 This Bylaw is to come into force and effect January 1, 2020, except Part 4 which comes into force and effect on July 1, 2020.
- 6.3 Section 1.2(b) will cease to be of force and effect on January 1, 2021.

6.4 This Bylaw is cited as “Single-Use Plastic and Other Items Bylaw 10000”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

CITY OF RICHMOND
APPROVED for content by originating dept. 
APPROVED for legality by Solicitor 

MAYOR

CORPORATE OFFICER



**Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122,
Amendment Bylaw No. 10063**

The Council of the City of Richmond enacts as follows:

1. Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, as amended, is further amended at Part One – Application by adding the following in proper alphabetical order:

“Single-Use Plastic and Other Items Bylaw 10000;”
2. Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, as amended, is further amended by adding to the end of the table in Schedule A of Bylaw No. 8122 the content of the table in Schedule A attached to and forming part of this bylaw.
3. This Bylaw is cited as “**Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 10063**”.

FIRST READING



SECOND READING

THIRD READING

ADOPTED

MAYOR

CORPORATE OFFICER

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

SCHEDULE A to BYLAW NO. 10063**SCHEDULE A to BYLAW NO. 10063****Designated Bylaw Contraventions and Corresponding Penalties**

A1 Bylaw	A2 Description of Contravention	A3 Section	A4 Compliance Agreement Available	A5 Penalty	A6 Early Payment Option	A7 Late Payment Amount	A8 Compliance Agreement Discount
Single-Use Plastic and Other Items Bylaw No. 10000	Period of Time from Receipt (inclusive)		n/a	29 to 60 days	1 to 28 days	61 days or more	n/a
	Selling or otherwise providing Prepared Food in any Food Service Ware that contains Polystyrene Foam.	1.1	No	\$ 250.00	\$ 250.00	\$500.00	n/a
	Selling or otherwise providing any Plastic Straws.	2.1	No	\$ 250.00	\$ 250.00	\$ 500.00	n/a
	Selling or otherwise providing a Plastic Checkout Bag to a customer.	3.1	No	\$ 250.00	\$ 250.00	\$ 500.00	n/a



**Municipal Ticket Information Authorization Bylaw No. 7321,
Amendment Bylaw No. 10064**

The Council of the City of Richmond enacts as follows:

1. **Municipal Ticket Information Authorization Bylaw No. 7321**, as amended, is further amended in Schedule A by adding in the proper alphabetical order “Single-Use Plastic and Other Items Bylaw No. 10000 ”.
2. **Municipal Ticket Information Authorization Bylaw No. 7321**, as amended, is further amended by adding the following Schedule B 18:

SCHEDULE B 18

SINGLE-USE PLASTIC AND OTHER ITEMS BYLAW NO. 10000

Offence	Section	Fine
Selling or otherwise providing Prepared Food in any Food Service Ware that contains Polystyrene Foam	1.1	\$500.00
Selling or otherwise providing any Plastic Straws.	2.1	\$500.00
Selling or otherwise providing a Plastic Checkout Bag to a customer.	3.1	\$500.00

[The remainder of this page is intentionally left blank]

3. This Bylaw is cited as “**Municipal Ticket Information Authorization Bylaw No. 7321, Amendment Bylaw No. 10064**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

CITY OF
RICHMOND

APPROVED
for content by
originating
dept.


APPROVED
for legality
by Solicitor


MAYOR

CORPORATE OFFICER



City of Richmond

Report to Committee

To: General Purposes Committee
From: Elizabeth Ayers
Director, Recreation and Sport Services

Date: June 14, 2019
File: 06-2055-20-12/Vol 01

Jim V. Young, P. Eng.
Acting Director, Facilities

Re: Animal Shelter Guiding Principles, Building and Program Options, and Site

Staff Recommendation

1. That the Animal Shelter Guiding Principles, as described in the staff report titled "Animal Shelter Guiding Principles, Building and Program Options, and Site" dated June 14, 2019, from the Director, Recreation and Sport Services and the Acting Director, Facilities be endorsed;
2. That Building and Program Option 2, as described in the staff report titled "Animal Shelter Guiding Principles, Building and Program Options, and Site" dated June 14, 2019, from the Director, Recreation and Sport Services and the Acting Director, Facilities be approved; and
3. That the site located at 12071 No. 5 Road, as described in the staff report titled "Animal Shelter Guiding Principles, Building and Program Options, and Site" dated June 14, 2019, from the Director, Recreation and Sport Services and the Acting Director, Facilities be approved.

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

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

Att. 6

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

Staff Report

Origin

On December 12, 2016, Council approved a budget of \$2 million for the Advanced Planning and Design for Phase 2 Major Facilities Projects, including the Richmond Animal Shelter (“Animal Shelter”). On December 11, 2017, Council approved capital funding of \$8 million for the Animal Shelter replacement facility as part of the 2018 Capital Budget.

At the General Purposes Committee meeting held on January 21, 2019, staff received the following referral in relation to the proposed program:

That the staff report titled “Animal Shelter Guiding Principles, Program Options and Site” dated December 11, 2018, from the Director, Recreation Services and the Senior Manager, Capital Buildings Project Development, be referred to staff and report back within 60 days on the following:

- (1) how to maximize the Council-approved \$8 million budget;*
- (2) the potential phasing of the building;*
- (3) the potential re-use of portions or all of the existing animal shelter building;*
- (4) additional information on the overall space needs;*
- (5) the potential needs and opportunities for an educational program;*
- (6) stakeholder and public input, which is to be provided to Council; and*
- (7) if there were to be an increase to the \$8 million budget, what would be the impacts to the Capital and Operating budgets.*

The purpose of this report is to respond to the above referral. The specific sections of the report that address referral items 1-7 are outlined in Table 1. This report also seeks to obtain Council’s endorsement of the Animal Shelter Guiding Principles, and Council’s approval of a building and program option, and site for the new animal shelter.

Table 1: Sections of the Report Addressing Referral Items 1-7

Referral	Description	Page Number
1	How to maximize the Council-approved \$8 million budget.	Page 5
2	The potential phasing of the building.	Page 8
3	The potential re-use of portions or all of the existing animal shelter building.	Pages 8-9
4	Additional information on the overall space needs.	Page 5
5	The potential needs and opportunities for an educational program.	Page 4 of Attachment 1
6	Stakeholder and public input, which is to be provided to Council.	Page 4
7	If there were to be an increase to the \$8 million budget, what would be the impacts to the Capital and Operating budgets?	Page 10 and Attachment 5

This report supports the following outcome statement under the Resource Management focus area in the 2022 Parks and Open Space Strategy:

Our parks and open space system is managed by a responsive organization that meets community needs.

This report supports the following outcome statement under Focus Area 1 in the Community Wellness Strategy 2018 – 2023:

Increase the number of individuals across all ages reporting a positive state of mental wellness.

This report supports the following strategic direction under Goal 3 Building on Social Assets and Community Capacity in the Social Development Strategy 2012 – 2022:

Facilitate strong and safe neighbourhoods.

Analysis

Background

The Animal Shelter, located at 12071 No. 5 Road, is a 4,580 sq. ft. single-storey facility that was built in 1978. The existing animal shelter consists of two buildings (dog kennel and administrative spaces) and is supported by a 455 sq. ft. portable structure that was added to the site in 2016. The shelter accommodates over 800 animals annually, ranging from companion animals (including dogs, cats, rabbits, small animals, and birds) to wildlife and small farm animals. Best practices in animal sheltering have advanced considerably over the past 40 years and are no longer being met by the existing facility, which is nearing the end of its lifecycle and is due for renovation or replacement.

The Animal Shelter plays a community safety role in temporarily housing dangerous/aggressive animals or animals that are stray or at-large. It also plays a community services role in providing residents the ability to adopt companion animals (including dogs, cats, rabbits, and small animals) and promoting awareness of animal welfare and responsible pet ownership.

The selection of a service provider for the operation of the Animal Shelter and the provision of animal control services is determined through the City's formal procurement process, and is awarded for a maximum term of five years. The current operating contract for the Animal Shelter is held by the Regional Animal Protection Society (RAPS), and is scheduled to expire on January 31, 2021, with the option for the City to execute a one-year renewal.

Animal Shelter Guiding Principles

Guiding principles are benchmarks used to guide the development and execution of a project. The proposed Animal Shelter Guiding Principles were developed based on a review of industry standards and best practices in the design and operation of animal shelters, and with input from RAPS and the British Columbia Society for the Prevention of Cruelty to Animals (BC SPCA). These Guiding Principles are outlined on the next page.

The new Animal Shelter will:

- Be designed to ensure efficient and effective operations and delivery of services;
- Include design measures to reduce animal stress and promote animal welfare and health;
- Incorporate best practices and industry standards in the care of animals;
- Provide appropriate spaces for adoption activities;
- Provide adequate spaces to effectively manage disease control;
- Provide safe and appropriate spaces for staff and volunteer operations;
- Provide safe spaces for interaction between the staff and animals, between the staff and the public, and between the public and animals; and
- Be designed to integrate sustainable practices and accommodate future growth.

As standards in animal sheltering have evolved dramatically over the past four decades, the Animal Shelter Guiding Principles are intended to provide overall direction in the program development, facility design, and operation of the facility.

Stakeholder Consultation and Development of Building Options and Program

This report presents two options for the replacement of the existing Animal Shelter for Council's consideration. The proposed options were developed through extensive and iterative consultation with key community stakeholders including RAPS (the current facility operator), and the BC SPCA, which operates 29 shelters across the province. The BC SPCA also operates an Education and Adoption Centre for cats and small animals in Richmond. In addition, staff consulted with the City of Delta Community Animal Shelter, the City of New Westminster Animal Shelter, the City of Surrey Animal Resource Centre, the Langley Animal Protection Society (LAPS) which operates the Patti Dale Animal Shelter, and Maple Ridge Community Animal Shelter (BC SPCA). The Stakeholder Consultation Summary Report is included as Attachment 1.

In addition to the Animal Shelter Guiding Principles, the development of the proposed options was guided by the *Canadian Standards of Care in Animal Shelters*, published by the Canadian Advisory Council on National Shelter Standards. These standards were developed to address deficiencies in the care of companion animals in shelters and are regarded as industry best practices in the design and operation of animal shelters. Key considerations identified in these standards that are applicable to the replacement facility are provided in Attachment 2.

The program development process considered the needs of today's population of approximately 223,000 residents, as well as the City's future needs of anticipated population growth, which the Official Community Plan (OCP) projects to be 280,000 residents by 2041.

Minimum Service Levels and Space Needs

A review of the existing shelter's data informed the identification of minimum service levels for the replacement facility. This includes examination of animal species-specific data provided by RAPS related to intake, adoption rates, and length of stay for the years 2017, 2018, and the first quarter of 2019.

The recommended minimum service level, or animal holding capacity, is depicted in Table 2 and is based on considerations such as:

- Maintaining a steady flow of animals and minimizing their length of stay in the shelter, thus reducing stress on the animals and mitigating the spread of infectious diseases; and
- Enabling the shelter to operate at 70 to 80 per cent of the maximum animal holding capacity on a day-to-day basis, to allow for peak volumes during unexpected and seasonal animal intake fluctuations.

Table 2: Recommended Minimum Service Levels for Replacement Animal Shelter

Animal Type	Average Capacity Needs (stray, adoption, isolation)	Adjustment for Peak Volumes	Recommended Minimum Animal Holding Capacity
Dogs	9	+4	13
Cats	19	+9	28
Rabbits	6	+2	8
Small animals	4	+2	6

Maximizing the Council Approved Budget

In response to feedback and direction received at the General Purposes Committee meeting held on January 21, 2019, two options are presented for Council's consideration:

- Building and Program Option 1 – Construction of a new building (4,200 sq. ft.); and
- Building and Program Option 2 – Renovation and expansion of the existing building (6,180 sq. ft.).

Both options seek to maximize the Council approved budget of \$8 million and will be designed, where possible, to meet the *Canadian Standards of Care in Animal Shelters*. The existing 455 sq. ft. portable is proposed to be retained in both options to accommodate the desired program.

Summary of Building and Program Options

The proposed programs associated with the two Building and Program Options are outlined in Table 3 on the next page, with an overview of animal holding capacities and a comparison to the existing Animal Shelter program.

Building and Program Option 1 provides a shelter that incorporates many, but not all, of the best practices in animal shelter construction materials and design. In order to maximize the Council approved budget of \$8 million, alternative lower cost approaches would be used in place of best practices. These include wood-frame versus masonry construction, solid doors to the cat rooms versus glass sliding doors, and the use of trench drains, chain-link doors, overhead heating, and fibre-glass reinforced plastic in the dog areas.

At the existing facility, administrative and operational areas have been altered over time to accommodate animals, resulting in animal housing that does not meet industry standards, specifically for cats and small animals. Options 1 and 2 will provide sufficient space to meet animal housing requirements, resulting in more space provided per animal than in the existing facility.

A more detailed breakdown of program areas, including square footages, is included in Attachment 3.

Table 3: Summary of Building and Program Options for the Animal Shelter

Program Area		Existing Facility*	Option 1 – New Building \$8 million	<u>Recommended</u> Option 2 – Renovation and Expansion \$8 million
Total Building Area (Does not include 455 sq. ft. portable)		4,580 sq. ft.	4,200 sq. ft.	6,180 sq. ft. Includes existing facility plus 1,600 sq. ft. new addition
ANIMAL HOLDING				
1.	Dogs	16 dogs	13 dogs	17 dogs
2.	Cats	38 cats	30 cats	40 cats
3.	Rabbits (Indoor)	✗ (8 rabbits outdoor)	✗ (8 rabbits outdoor)	8 rabbits
4.	Small animals	6 animals	6 animals	6 animals
ADMINISTRATION				
5.	Animal intake/surrender room	✓ (portable)	✓	✓
6.	Volunteer space	✗	✗	✓
7.	Staff lunch room	✗	✓	✓
8.	Reception/administration/offices	✓ (building and portable)	✓	✓
MULTIPURPOSE / EDUCATION				
9.	Multipurpose room	✗	✗	✓
SERVICE AREAS				
10.	Animal control receiving area	✗	✓	✓
11.	Food preparation and storage	✓	✓	✓
12.	Animal grooming room	✗	✓	✓
13.	Circulation and support areas – corridors, storage, laundry, mechanical, etc.	✓	✓	✓

Building and Program Option 1 – Construction of a New Building (\$8 million)

Building and Program Option 1 (“Option 1”) involves the construction of a new, approximately 4,200 sq. ft. wood-frame facility, as outlined in Attachment 4. While this option is smaller than the existing facility (4,580 sq. ft.), the efficient and modern design would allow for more effective delivery of the services offered at the existing animal shelter.

Proposed Program

Option 1 improves on the current Animal Shelter with the addition of an animal control receiving area, grooming room, and staff room, as well as a larger reception and office area. The existing 455 sq. ft. portable would be retained and relocated to the rear of the site, and used for cat isolation (with 8 cat capacity) and storage.

Due to budget constraints, indoor space specifically designated for rabbits is not included as part of the proposed program. Consequently, the proposed program area for rabbits is unconditioned covered outdoor space, similar to how rabbits are housed at the existing shelter. This is not consistent with best practices, which is to house domestic rabbits indoors.

Building and Program Option 1 can be achieved within the \$8 million (2021 dollars) budget approved by Council. The building will be designed so it can be expanded if there is a future need.

Should Council choose to add program spaces to Option 1, to be comparable to Building and Program Option 2 (as described on pages 8–10), the financial impact would be approximately \$3 million in additional project funding, which would increase the total cost to \$11 million. A breakdown of additional costs is included in Attachment 5.

Service Continuity

The construction strategy will allow for the existing shelter to continue operating while a new one is being built at the north side of the site. A sufficiently wide driveway can be made available from No. 5 Road for access to the facility during the construction period. This driveway will be shared with construction crews, following all the necessary safety measures. Upon completion of the new facility, the existing shelter will be demolished and the vacant space will be available for outdoor program opportunities.

Feasibility of a New Two-Storey Building

As an alternative to constructing a new single-storey building, staff investigated the feasibility of building a two-storey facility to reduce the footprint of the building on the site and to maximize the potential program space. Through this process, it was discovered that no net benefit will be achieved with a two-storey option due to extra costs required to accommodate the addition of staircases and an elevator, which are required for the facility to comply with the *B.C. Building Code* and the Enhanced Accessibility Design Guidelines and Technical Specifications for City buildings. Accommodating these additions within the existing budget would require the removal of critical program space, resulting in a less functional shelter.

Should Council choose Option 1 (new building) to be constructed with infrastructure to support a future second-storey, this infrastructure can be added at an additional cost of \$200,000.

Building and Program Option 2 – Renovation and Expansion of the Existing Building (\$8 million) (Recommended)

A high level building condition assessment of the existing facility was completed in February 2019. This revealed that the existing building can be renovated and upgraded to extend its life span, and identified critical items to be addressed such as the roof and in-slab electric heating throughout the dog kennel area. During renovation, additional upgrades would include the building envelope, mechanical, electrical and security systems to meet current building standards.

Building and Program Option 2 (“Option 2”) reflects a facility that has a combined area of approximately 6,180 sq. ft. as outlined in Attachment 6. This option involves renovation of the existing 4,580 sq. ft. building and the addition of an approximately 1,600 sq. ft. expansion, thus providing a larger program and higher service level than Option 1, which meets the minimum animal holding capacities, as outlined on page 4, and allows for increased demand due to population growth. The building will meet industry standards in providing adequate space per animal to minimize stress on the animals and mitigate the spread of disease.

Proposed Program

In this option, the existing dog kennel facility would be renovated to reduce animal stress and the spread of disease by extending the masonry walls separating the kennels to the ceiling and adding solid doors to each kennel. Furthermore, the trench drains would be replaced with in-suite drains in each kennel, which mitigates odours and the spread of disease.

The existing administration building would be renovated and repurposed to provide more space for operations and animal housing. The 455 sq. ft. portable would be relocated on-site and continue to be used for cat isolation.

The expansion would be wood-framed construction and added to the east side of the existing administration building. It would be the publicly accessible part of the facility and would include a new reception area, an intake/surrender room, cat and small animal adoption rooms, and more suitable administrative and animal control offices. Option 2 would include a volunteer space and multipurpose room, which are common spaces in modern animal shelters to support programming and operations.

Option 2 can be achieved within the budget of \$8 million (2021 dollars) approved by Council as part of the 2018 Capital Building Program.

Option 2 is recommended as it provides approximately 47 per cent more program space than Option 1, includes a higher number of best practice construction features, meets the minimum service level required for the animal shelter replacement facility, and allows for increased demand due to population growth. This is the preferred option by the stakeholders that were consulted as part of the engagement process.

With these renovations and expansion, it is anticipated that this facility will have a life expectancy of approximately 45 years, assuming there is regular maintenance. By comparison, the wood-frame structure proposed in Option 1 is anticipated to have a higher maintenance cost and a lower life expectancy.

Service Continuity

The renovation and expansion of the existing facility will have an impact on the delivery of services for a period of approximately 18 to 24 months.

The tender and award processes for the renovation and construction services are anticipated to begin by mid-2020. The City will investigate options to provide animal shelter services to Richmond residents during construction, which may include soliciting bids for provision of animal control services through its formal procurement process. The procurement documents will note that such services will need to be offered through an off-site facility.

As the current shelter consists of two stand-alone facilities (the dog kennels and administrative building), staff reviewed the merits of phasing construction whereby one of the two facilities would remain open. Although animals would still need to be relocated, this opportunity would enable animals to be relocated in phases, such as only relocating dogs when the dog kennel building is being renovated. It is anticipated that this approach would reduce operating costs associated with relocating animals during construction, and is preferred by the existing shelter operator. However, this approach is not recommended by staff as it would extend the construction schedule and hinder construction logistics, which are anticipated to result in the capital project budget being exceeded.

Site

The existing site continues to be well-suited for the purposes of a new animal shelter as it:

- Is City-owned;
- Has minimal site servicing costs;
- Poses no land use or zoning challenges;
- Is familiar to current users;
- Has access to dog walking routes; and
- Is accessible by public transit.

Staff recommend that the new animal shelter be constructed on the existing site at 12071 No. 5 Road.

Financial Analysis

Should Council approve the staff recommendation of Building and Program Option 2 (renovation and expansion), the project can be achieved within the budget of \$8 million approved by Council as part of the 2018 Capital Buildings Program.

Should Council endorse Building and Program Option 1 (new building) and the associated program as outlined in this report, the project can be achieved within the approved budget of \$8 million.

Alternatively, should Council endorse Building and Program Option 1 and choose to add the program spaces outlined in Attachment 5, to achieve a comparable service level as that in Option 2, the Council approved budget would be exceeded by \$3 million, bringing the total cost of Building and Program Option 1 to \$11 million. In this circumstance, staff recommend that the additional amount be funded by the Capital Buildings and Infrastructure Reserve, and that the Consolidated 5-Year Financial Plan (2019 – 2023) be amended accordingly.

Operating Budget Impact

The preliminary Facility Operating Budget Impact (OBI) for the replacement shelter is currently projected to be approximately \$65,000 (2022 dollars). The OBI will be refined and submitted to Council for consideration once the details of the design are known.

The operation of the Animal Shelter is subject to tender and determined through a formal procurement process. The current agreement with RAPS is scheduled to expire on January 31, 2021, with the option for the City to execute a one-year renewal.

Construction Cost Escalation

The current uncertainty within the local construction market, coupled with industry volatility, has led to difficulties commencing construction projects due to high bids and/or receipt of little interest on tendered projects. Some of the driving factors include:

- Current market conditions are such that there is an overabundance of work so that contractors/trades are unwilling to commit to more.
- Tariffs on various construction-related materials have contributed to significant cost escalations. While tariffs on steel and aluminium have recently been removed, it is anticipated there will be a delay before any cost reductions (if any) are realized.

These market conditions are anticipated to continue for the foreseeable future. Recent discussions with consultants in the building industry have indicated that cost escalation is up to 18 per cent per year in some areas of construction. Staff have included an allowance of 8 per cent per year cost escalation, as recommended by a Professional Quantity Surveyor.

Next Steps

Should Council approve the Animal Shelter Guiding Principles, Building and Program Option 2, and the site for the new animal shelter facility, staff will proceed with the design process.

It is estimated that the project can be completed and ready for occupancy in approximately 30 to 36 months after program approval.

Financial Impact

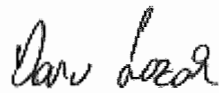
Both options presented in this report can be achieved within the budget of \$8 million (2021 dollars) approved by Council on December 11, 2017, as part of the 2018 Capital Building Program.

Conclusion

The Richmond Animal Shelter will be designed to ensure effective and efficient operations that uphold industry standards in animal sheltering. The new or renovated and expanded facility will integrate best practices where possible within the Council approved \$8 million budget. The existing site continues to be well-suited for the purposes of a new animal shelter.



Paul Brar
Manager, Parks Programs
(604-244-1275)



Doru Lazar, MBA, P.Eng., PMP
Senior Project Manager
(604-204-8695)

- Att. 1: Stakeholder Consultation Summary Report
2: Canadian Standards of Care in Animal Shelters
3: Program Details for Animal Shelter Options
4: Animal Shelter Building and Program Option 1 – New Building
5: Additional Program Spaces for Building and Program Option 1
6: Animal Shelter Building and Program Option 2 – Renovation and Expansion



RICHMOND ANIMAL SHELTER REPLACEMENT PROJECT

STAKEHOLDER CONSULTATION SUMMARY REPORT
MAY 2019

GP - 57

Background

The replacement of the existing animal shelter, currently located at 12071 No. 5 Road, will modernize the facility and operations in order to address current and future needs in the community. The facility design aims to incorporate best practices and industry standards in the care of animals.

Overview

Consultation and engagement activities were conducted with key publics and stakeholders. In addition, a review of industry guidelines and best practices, and visits to regional animal shelters informed the development of the program. Industry resources, such as the *Canadian Standards of Care in Animal Shelters* published by the Canadian Advisory Council on National Shelter Standards, were also considered to guide the planning and program development progress.



The objectives of the engagement program were:

- To ensure the building program reflects best practices and industry standards in the care of animals;
- To ensure efficient and effective operations and delivery of services;
- To ensure the health, safety and welfare of animals in the care of the shelter;
- To ensure the facility provides adequate space to service current and anticipated future needs; and
- To ensure stakeholders feel informed, engaged, and excited about the facility.

Key Publics and Stakeholders

The following key publics and stakeholders were consulted throughout the program development process:

- Regional Animal Protection Society (RAPS);
- BC Society for the Prevention of Cruelty to Animals (BC SPCA);
- Langley Animal Protection Society (LAPS);
- Maple Ridge Community Animal Shelter (BC SPCA);
- Surrey Animal Resource Centre;
- Delta Community Animal Shelter;
- New Westminster Animal Shelter;
- City of Richmond Bylaws Staff; and
- City of Richmond Facilities Staff.

Trends in Animal Sheltering

Through consulting with the BC SPCA and RAPS, interviewing Shelter Managers during best practices tours and focus groups, and reviewing the Canadian Federation of Human Societies' *Animal Shelter Statistics 2015* and *Cats in Canada 2017* publications, the following trends in animal sheltering were identified:

- The number of dogs coming into animal shelters is declining. The number of cats and small animals relative to dogs in shelters is increasing. The number of cats coming into animal shelters is approximately twice the number of dogs;
- Dogs or cats that come into the shelter as strays are quickly returned to owners as a result of effective licensing, micro-chipping, and other animal identification programs;
- Animal shelters have evolved from primarily serving a community safety and impoundment function to also include animal surrender/adoption and the promotion of animal welfare;
- Shelter management practices have evolved over the years to focus on animal welfare and reducing animal stress. Animals under stress are more susceptible to sickness and disease, which can result in longer stays in shelters and also infection of other animals;
- Animal sheltering organizations have become increasingly professionalized, using data, science, and metrics to achieve strategic positive outcomes for animals, families, and communities;
- Intake must be managed in order to prevent the number of animals in care from overtaking the shelter's capacity to provide conditions that meet basic needs. Rather than accepting any surrendered animal at any time, appointments are scheduled to take in surrendered animals when the shelter's capacity permits it;
- Rescue organizations are playing an increasing role in the sheltering of homeless animals. This emergence of rescue organizations is alleviating the pressure on municipal shelters;
- Digital technology has made it easier for people to adopt animals and transfer ownership of animals from sources other than municipal animal shelters (e.g., breeders, rescue agencies, Craigslist, Kijiji, etc.);
- Foster programs for companion animals that are not readily adoptable are essential to limit an animal's length of stay in a shelter, thereby easing pressures on capacity and also improving the animal's welfare; and
- Inter-municipal collaboration to transfer animals from areas where they are overpopulated to areas where they are in lower supply or higher demand increases the rate of adoption for some animals.



Key Themes and Outcomes

The following key themes and outcomes emerged when key publics and stakeholders reviewed program options for the new animal shelter:

- **Animal care and welfare** – Further to the *Canadian Standards of Care in Animal Shelters*, and best practices from the Association of Shelter Veterinarians and American Society for the Prevention of Cruelty to Animals, engagement participants highlighted important industry standards such as space requirements, stress mitigation, capacity allocations, indoor and outdoor access, outdoor weather protection, and animal, staff and public flow throughout the facility.
- **Capacity and growth** – It was recommended that animal holding spaces are given top priority within the program in order to meet the desired service level, with consideration of industry trends and anticipated demand. Flexible rooms and design features are recommended so that spaces can be adapted and repurposed for fluctuating needs.
- **Safety and security of staff, volunteers and animals** – Engagement participants highlighted safety and security considerations such as break-ins and theft of animals, animal handling and interactions, management of dangerous dogs, exterior fencing, gates and access points, occupational health and safety, and accessibility.
- **Materials and finishes** – Recommendations were provided regarding selection of construction materials, finishes and installation methods to maximize the life span and maintenance of the building, and contribute to the welfare of animals in the shelter's care. These included features such as in-suite drains and radiant underfloor heating in each dog kennel, solid, masonry walls throughout the shelter, and glass sliding doors in pet adoption areas.
- **Sanitation and disease control** – Recommendations regarding design features for preventing the spread of disease included building systems such as ventilation and drainage, the strategic location of isolation rooms, as well as construction finishes and materials to contribute to a healthy, sanitary space for animals and staff.
- **Educational programs and community outreach initiatives** – Engagement participants spoke about the multipurpose rooms in their animal shelters that are utilized for training sessions, children's programs, camps and birthday parties, as well as skill development and pet obedience workshops. They indicated several benefits of providing such programs and initiatives including reduced rates of animal surrenders and increased responsible pet ownership. Engagement participants encouraged the City to include a multipurpose room in the animal shelter.



Benefits of Educational Programs and Community Outreach Initiatives

Through the consultation process, it became evident that many animal shelters provide educational programs and community outreach initiatives with the intention of promoting responsible pet ownership and animal welfare. These programs are provided using multipurpose space within their facilities or, in the absence of such a space, through outreach or collaboration with other agencies.

Engagement participants reported the following benefits associated with educational programming and community outreach initiatives:

- Responsible pet ownership;
- Increased awareness of animal welfare;
- Increased adoption rates;
- Reduced rate of animal surrenders, which reduces pressure on the shelter;
- Development of compassion and empathy for all living things amongst residents of all ages;
- Community involvement and a strengthened sense of belonging; and
- Increased public safety.

Benefits of Multipurpose Space

In addition to the delivery of educational programs, multipurpose rooms allow animal shelters to host meetings and workshops, volunteer training sessions, children's programs, summer camps, birthday parties, and skill development workshops for pets and their owners. Multipurpose rooms can also provide emergency housing for domestic pets in crisis situations such as apartment fires or natural disasters.



Conclusion

The engagement activities provided valuable insight into the complex operations of animal shelters and the various considerations that go into the design and construction of successful operations. The key themes and outcomes resulting from the animal shelter engagement activities contributed to the development of the program for the animal shelter replacement facility.



Canadian Standards of Care in Animal Shelters

The *Canadian Standards of Care in Animal Shelters*, published by the Canadian Advisory Council on National Shelter Standards, is a guiding document which informed the proposed program options and will inform the detailed design of the shelter. These standards were developed to address deficiencies in the care of companion animals in shelters and are considered industry best practices in the design and operation of animal shelters.

Key considerations identified in these standards, and to be applied in the new City of Richmond Animal Shelter, include the following:

- Facilities must be appropriate for the species, the number of animals receiving care, and the expected length of stay in order to ensure the physical and psychological well-being of the animals.
- Shelter design should provide for proper separation of animals by species, health status, age, gender, temperament and predator-prey status.
- Shelter design should include sufficient space for operations, including intake, examination, holding, adoption, isolation, treatment, food storage and euthanasia.
- Entrances and exits, hallways, and rooms should be arranged so that movement through the facility and cleaning should proceed from the areas housing the most susceptible to disease and/or healthiest animals to those who are most likely to be a source of contagious disease.
- At least 10% of the facility housing capacity should be made available for isolation of animals diagnosed with, or suspected of having, a contagious disease.
- An animal's primary enclosure must be structurally sound and maintained in safe, working condition to properly confine animals, prevent injury, keep other animals out, and enable the animals to remain dry and clean.
- In addition to size considerations, proper layout of the primary enclosure is essential to maintain animal health and welfare. Food and water bowls or receptacles must be provided. The location of food, water, and litter containers relative to each other, resting areas, and doors can have a significant impact on the well-being of animals.
- As the length of stay increases (e.g., beyond 1-2 weeks), it becomes increasingly important to provide space that is both mentally and physically stimulating. Alternatives to traditional housing must be provided. For animals housed long term, the physical environment must include opportunities for hiding, playing, resting, feeding, and eliminating. For cats, the environment should also allow for scratching, climbing and perching.
- Protected indoor-outdoor access is ideal for most species, especially when animals are held long-term. Outdoor spaces must be suitably enclosed to protect from adverse weather, vandalism, and prevent escape or predation.
- Every sheltering organization has a maximum capacity to provide humane care, and the population in their care must not exceed that level. Factors that determine capacity for care include: the number of appropriate housing units; staffing for programs or services; staff training; average length of stay; and the total number of reclaims, adoptions, transfers, release, or other outcomes.

Program Details for Richmond Animal Shelter Options

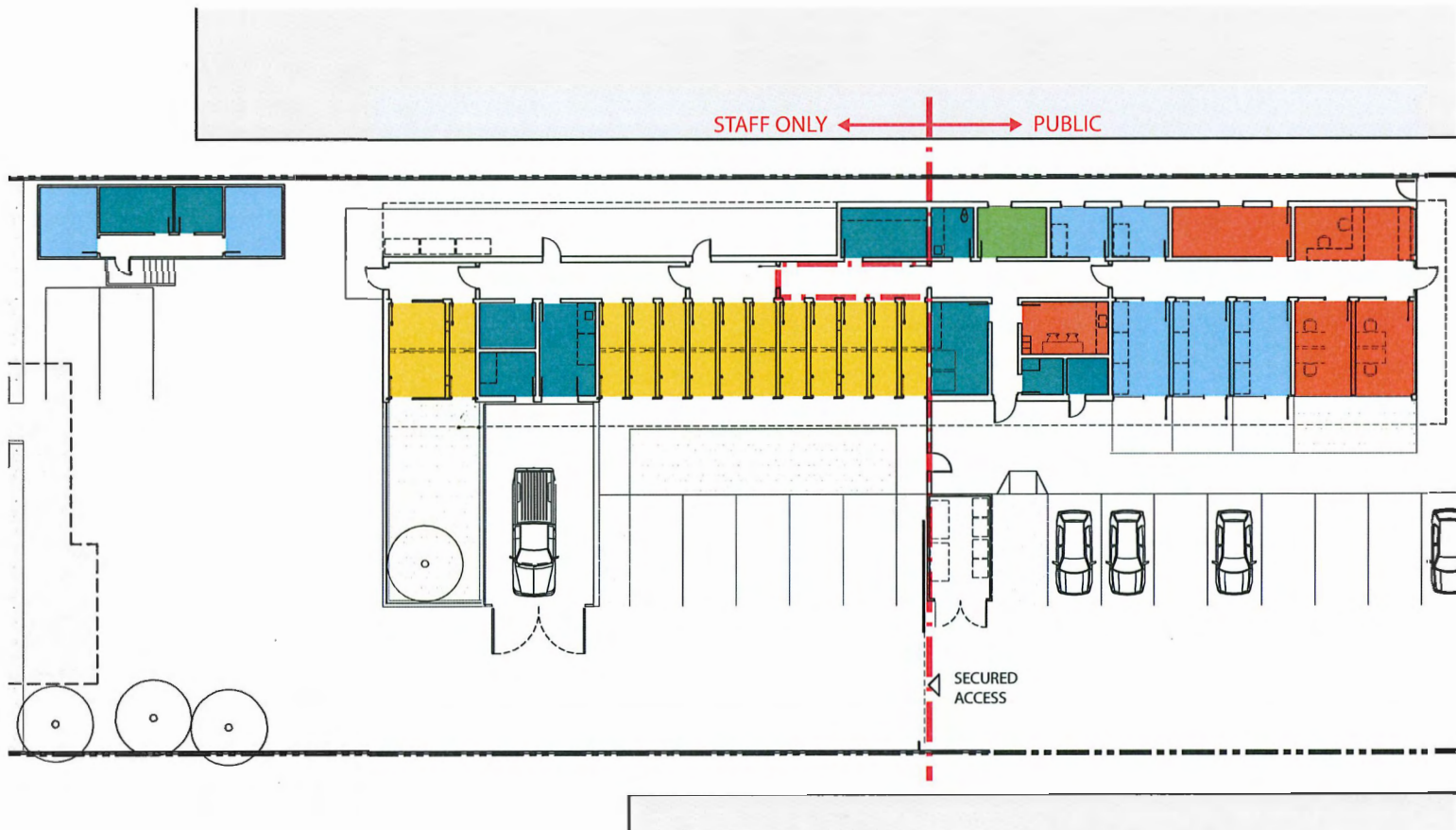
Program Area*		Existing Facility	Option 1 – New Building \$8.0 million	<u>Recommended</u> Option 2 – Renovation and Expansion \$8.0 million
ANIMAL HOLDING				
1.	Dogs	798 sq. ft.	450 sq. ft.	818 sq. ft.
2.	Cats	483 sq. ft. (+100 sq. ft. in portable)	565 sq. ft. (+200 sq. ft. in portable)	623 sq. ft. (+200 sq. ft. in portable)
3.	Rabbits	0 sq. ft. (outdoor)	0 sq. ft. (outdoor)	150 sq. ft.
4.	Small animals	112 sq. ft.	90 sq. ft.	129 sq. ft.
ADMINISTRATION				
5.	Animal intake/exam room	0 sq. ft. (79 sq. ft. in portable)	150 sq. ft.	129 sq. ft.
6.	Volunteer space	0 sq. ft.	0 sq. ft.	43 sq. ft.
7.	Staff/volunteer lunch room	0 sq. ft.	120 sq. ft.	138 sq. ft.
8.	Reception/administration/offices	186 sq. ft. (+100 sq. ft. in portable)	378 sq. ft.	463 sq. ft.
MULTIPURPOSE / EDUCATION				
9.	Multipurpose room	0 sq. ft.	0 sq. ft.	600 sq. ft.
SERVICE AREAS				
10.	Animal control receiving area	0 sq. ft.	137 sq. ft.	129 sq. ft.
11.	Food preparation and storage	117 sq. ft.	113 sq. ft.	117 sq. ft.
12.	Animal grooming	0 sq. ft.	64 sq. ft.	48 sq. ft.
13.	Laundry	131 sq. ft.	139 sq. ft.	183 sq. ft.
14.	Circulation and support areas – corridors, storage, laundry, washrooms, mechanical, etc.	2,753 sq. ft.	1,994 sq. ft.	2,610 sq. ft.
Total Building Area[†]		4,580 sq. ft.	4,200 sq. ft.	6,180 sq. ft.[‡]

* Program areas subject to change during detailed design.

[†] Does not include the 455 sq. ft. on-site portable.

[‡] Includes existing building (4,580 sq. ft.) and new addition (1,600 sq. ft.).

Animal Shelter Building and Program Option 1 – New Building



	DOGS
	CATS
	SMALL ANIMALS / RABBITS
	SERVICE AREAS
	ADMINISTRATION

ANIMAL HOLDING CAPACITY:

DOGS:	13
CATS:	22 + 8 ISOLATION
SMALL ANIMALS /	
RABBITS:	1 ROOM

NOTE: CONCEPT DRAWING ONLY; LAYOUT SUBJECT TO CHANGE DURING DETAILED DESIGN.

Additional Program Spaces for Building and Program Option 1

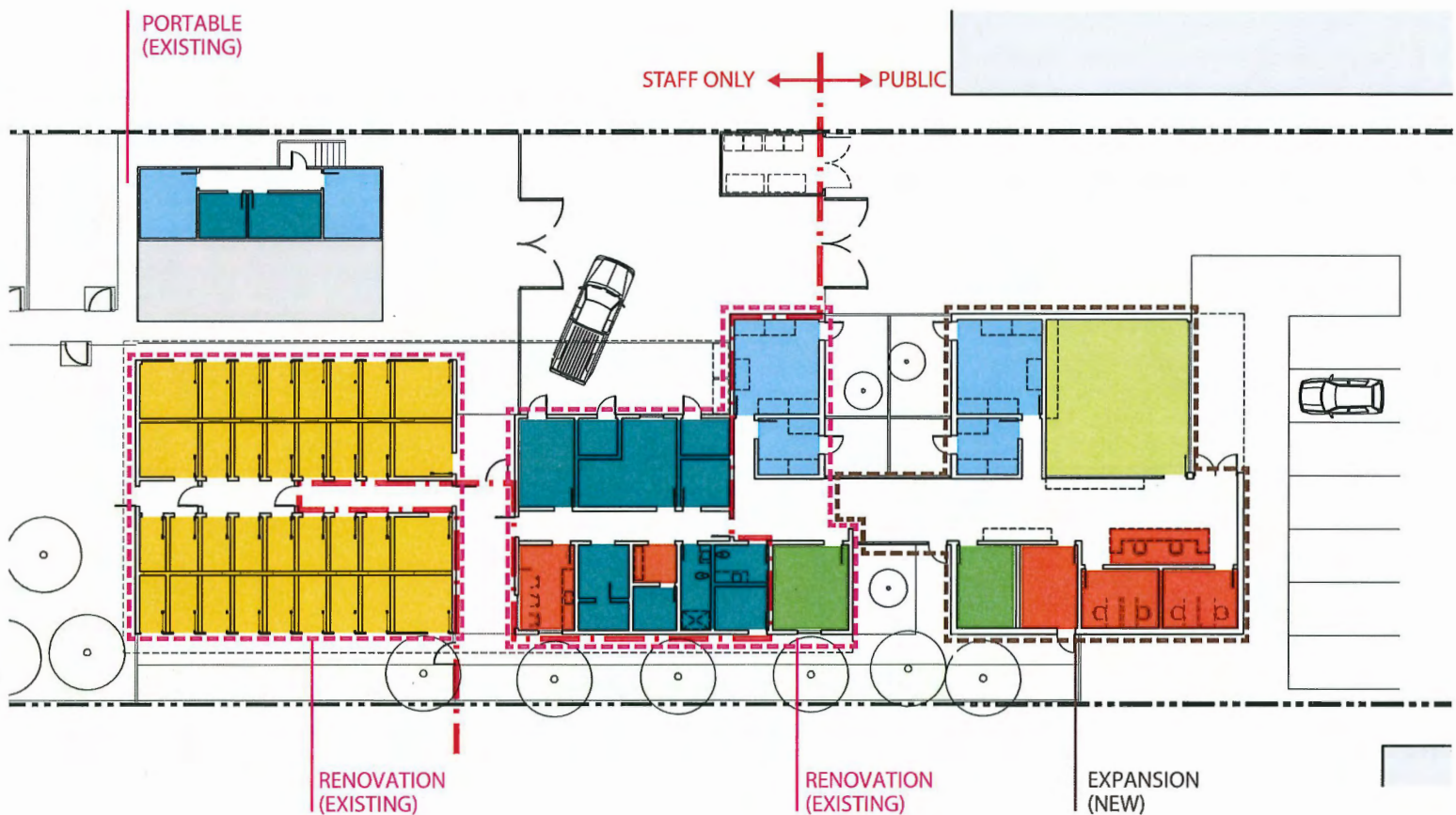
In order for Building and Program Option 1 (New Building) to include a similar level program as Option 2 (Renovation and Expansion), an estimated additional \$3.0 million in project funding would be required. A breakdown of costs to achieve this level of program is illustrated in Table 4 below.

Table 4 – Cost of Additional Program Spaces for Building Option 1

Program Space		Cost
1	2 x small animal/rabbit rooms	\$ 403,000
2	Cat room (6 cats)	\$ 242,000
3	3 dog kennels	\$ 338,000
4	Large family dog suite	\$ 255,000
5	Multipurpose room (MPR)	\$ 926,000
6	Volunteer room	\$ 123,000
7	Staff washroom and shower	\$ 135,000
8	Dry storage rooms	\$ 441,000
9	Flex room (cats or small animals)	\$ 123,000
Total		\$2,986,000

Council endorsement of additional program spaces would require an increase of approximately \$3.0 million to the Council-approved budget of \$8.0 million.

Animal Shelter Building and Program Option 2 – Renovation and Expansion



	DOGS
	CATS
	SMALL ANIMALS / RABBITS
	SERVICE AREAS
	ADMINISTRATION
	MULTIPURPOSE / EDUCATION

ANIMAL HOLDING CAPACITY:	
DOGS:	17
CATS:	32 + 8 ISOLATION
SMALL ANIMALS / RABBITS:	2 ROOMS

NOTE: CONCEPT DRAWING ONLY; LAYOUT SUBJECT TO CHANGE DURING DETAILED DESIGN.



City of Richmond

Report to Committee

To: General Purposes Committee **Date:** May 27, 2019
From: Marie Fenwick **File:** 11-7400-01/2019-Vol
Director, Arts, Culture and Heritage Services 01
Re: Referral Response: Proposed Plan for Major Events and Programs in 2020

Staff Recommendations

1. That the Major Events and Programs for 2020 as outlined in the staff report titled "Referral Response: Proposed Plan for Major Events and Programs in 2020" dated May 27, 2019, from the Director, Arts, Culture and Heritage Services, be approved;
2. That the expenditures totaling \$1,775,500 for Major Events and Programs in 2020, of which \$1,345,000 is funded from the Rate Stabilization Account and \$430,000 funded from projected sponsorships and grants, be included in the amended Consolidated 5 Year Financial Plan (2019–2023); and
3. That the development of a new Major Events Strategy as outlined in the staff report titled "Referral Response: Proposed Plan for Major Events and Programs in 2020" dated May 27, 2019, from the Director, Arts, Culture and Heritage Services, be approved.

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

Att. 3

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

Staff Report

Origin

On April 1, 2019, staff presented the Proposed Plan for Major Events and Programs in 2020 report to the General Purposes Committee. This report recommended a 2020 program of events with the same scope and funding levels as 2019.

General Purposes Committee made the following referral:

That the Proposed Plan for Major Events and Programs in 2020 be referred back to staff for further review and re-evaluation including:

- 1. Council comments in terms of an evaluation of the various events held by the City;*
- 2. Sponsorship potential;*
- 3. Re-evaluation of the various events and budget;*
- 4. Completion of an economic impact study; and*
- 5. Report back to the General Purposes Committee.*

This report supports Council approved strategies, including the Major Events Strategy and its goals of programming and creating a dynamic destination waterfront, the Waterfront Strategy, the Parks and Open Space Strategy 2022, the Arts Strategy vision for Richmond to be an arts destination, and the Resilient Economy Strategy by providing enhanced destination and tourism products. The program detailed in this report will maximize the social and economic benefits to the community and provide a rich offering of festivals and events.

Analysis

Background

At the City Council meeting on January 15, 2018, Council approved a Terms of Reference and appointed a Major Events Advisory Group (MEAG) to provide input into the types of major events to be produced by the City.

The Terms of Reference for MEAG is to provide recommendations on the annual event program which will allow staff to submit a report to Council through the General Purposes Committee and prepare a submission to the annual budget process. MEAG consists of Councillors' Day and Au (Co-Chairs), Loo and Steves, and staff, who have conducted a series of meetings to review the Major Event Program for 2020.

On January 22, 2019, the MEAG reviewed the proposed festival program and recommended the following for consideration by Council:

1. That the 2020 program include the same schedule of events as presented by staff, including the Children's Arts Festival, Cherry Blossom Festival, Doors Open Richmond, Steveston Salmon Festival, Richmond Maritime Festival, Farm Fest at Garden City Lands, Richmond

World Festival, Neighbourhood Park Celebration Grants and City-wide Event Marketing Campaign Program and City Branded Assets; and

2. That the funding for the event program remains at the same funding levels as the 2019 program (see Table 1).

Defining the Success of the Current Major Events Program

In the Proposed Plan for Major Events and Programs in 2020 report, staff described the following ways the success of the existing festival program was evaluated:

- Through feedback from a recent Art Strategy survey and community engagement, free public events were considered one of the top priorities for Richmond residents.
- Exit surveys taken at the Maritime Festival and World Festival in 2018 were positive with 94 per cent of respondents rating the festivals as very good to excellent.
- Each festival received strong volunteer support from the local community. Volunteers are provided an opportunity to develop new skills, experiences and relationships.
- Richmond festivals receive strong support from community partners who take an active role in planning and participating in the event. Festival partners include the Richmond Agricultural and Industrial Society, BC Wakayama Kenjin-Kai, Richmond Arts Coalition, Britannia Heritage Shipyard Society, KPU, Vancouver Cantonese Opera Society, Richmond Public Library, and Cinevolution. A full list of community engagement partners is listed in Attachment 2.
- In 2018, attendance for the City's festival program exceeded 200,000 people and sponsorship sales totalled \$303,500. These two figures speak to the popularity of free community festivals and the satisfaction level of the festival's corporate partners for the program.
- The Canadian Event Industry Awards recognized the inaugural 2015 edition of the Richmond World Festival as the Best Public Entertainment Event in Canada. The Richmond World Festival (2019), Richmond Maritime Festival (2018) and the Richmond Canada 150 program (2017) were finalists in the Canadian Event Industry Awards Best Festival category.

Additional Processes to Evaluate the Major Event Program

- Festivals will continue to be evaluated based on feedback from the community. Specifically, an intercept survey will be conducted at this summer's major festivals to determine origin of attendees and how much they spent locally during their stay. This data collected will be used in Tourism Richmond's Festival Impact Calculator to estimate the economic impact of the festival. The surveys will also collect general input on the attendees overall experience.

- Staff will meet with the MEAG at the end of the festival season to review the outcome of each event, the impact the event had on the community and discuss if any changes are required to the overall scope of the event.

Sponsorship Potential

The sponsorship sales cycle and federal grant applications for the 2020 season will begin in the fall of 2019. Based on the current progress of sponsorship sales and grant funding awards for the 2019 events program, staff project comparable levels of success for a similar event program in 2020.

The major event program relies heavily on sponsorship revenue and federal grant funding to deliver its current lineup of annual festivals. In 2018, sponsorship and federal grants accounted for 26 per cent of the total festival budget.

Table 1: Sponsorship and Grant Revenue Expressed as a Percentage of the Total Major Event Program

Year	Sponsorship (A)	Federal Grants (B)	City Funding for Major Events (C)	Total Funding for Major Events (A)+(B)+(C)=(D)	Sponsorship + Grants as a % of Total Festival Funding (A+B)/D
2016	\$215,900	\$52,900	\$740,000	\$1,008,800	27%
2017	\$300,327	\$166,200	\$2,875,000	\$3,341,527	14%
2018	\$303,500	\$87,400	\$1,128,000	\$1,518,900	26%
2019 (projected)	<i>\$348,750</i>	<i>\$85,216</i>	<i>\$1,345,000</i>	<i>\$1,778,966</i>	<i>24%</i>

Should the scope of the 2020 program change, then projected funding from sponsorship and grants can be expected to change accordingly. For example, if a festival is decreased from two days to one, then the fee charged for presenting level sponsorship could drop relative to the reduction in overall benefits.

Re-evaluation of Festival Program Budget

Staff recommends the major events program plan and budget (Table 2) as recommended by MEAG. This program includes the Children's Arts Festival, Cherry Blossom Festival, Doors Open Richmond, Steveston Salmon Festival, Richmond Maritime Festival, Farm Fest at Garden City Lands, and Richmond World Festival.

Table 2: Recommended Major Events Program

PROPOSED EVENTS & PROGRAMS	2019 City Funding <i>Approved</i>	Major Events Advisory Group Recommended 2020 City Funding	2020 Projected Sponsorship & Grants	TOTAL: Event Budget
Children's Arts Festival	\$75,000	\$75,000	\$30,000	\$105,000
Cherry Blossom Festival	\$35,000	\$35,000	\$0	\$35,000
Doors Open Richmond	\$20,000	\$20,000	\$7,000	\$27,000
Steveston Salmon Festival (in partnership)	\$250,000	\$250,000	\$138,000	\$388,000
Richmond Maritime Festival	\$300,000	\$300,000	\$90,000	\$390,000
Farm Fest	\$40,000	\$40,000	\$15,000	\$55,000
Richmond World Festival	\$400,000	\$400,000	\$150,000	\$550,000
Neighbourhood Celebration Grant Program	\$75,000	\$75,000	\$0	\$75,000
City-wide marketing campaign	\$85,000	\$85,000	\$0	\$85,000
City branded shared resources	\$15,000	\$15,000	\$0	\$15,000
Program Contingency	\$50,000	\$50,000	\$0	\$50,000
TOTAL PROGRAM BUDGET	\$1,345,000	\$1,345,000	\$430,000	\$1,775,000

A detailed summary of each event, along with projected attendance figures, can be found in Attachment 1. In addition, a summary of the City funding from 2016 to the proposed 2020 budget is detailed in Attachment 3.

Options to Reduce Proposed Event Program

There are a number of ways in which the proposed event program can be reduced including cancelling individual events or reducing the scope of events. Should Council wish to reduce the festival program for 2020, staff have identified the following three options for consideration:

1. Steveston Salmon Festival

- a. Reduce the level of support for entertainment programming that was added as part of the Richmond Canada Day in Steveston (2017–2018) and support Salmon Festival with site production and marketing only. (\$75,000 budget reduction)

2. Richmond Maritime Festival

- a. Cancel the previously approved expansion to Imperial Landing and revert back to the 2018 model with programming limited to the Britannia Shipyards site. (\$100,000 budget reduction)
- b. Reduce the festival to a one day event. (\$70,000 budget reduction)

3. Richmond World Festival:

- a. Reduce the festival to a one day event. (\$100,000 budget reduction)

Any changes to the proposed program should consider the City's current relationships with sponsors. For example, reducing the Richmond World Festival to a one day event will result in a decrease in sponsorship revenue.

Many of the festivals have also developed strong partnerships with various community groups (e.g., Salmon Festival Society, BC Wakayama Kenjin-Kai, Richmond Arts Coalition, Britannia Heritage Shipyard Society, Cinevolution, etc.). A change in a festival's scope may impact the opportunities to collaborate with the community.

Economic Impact of Festivals

Economic impact models are commonly used to evaluate the economic impact of major events and festivals. These models take a variety of inputs into account including festival size, festival type, percentage of local residents and estimated spend on-site and off-site by visitors. The data generated by these models can be used to determine the return on investment.

An industry scan revealed a number of economic impact models applied to similar festivals. For example, the Surrey Fusion Festival conducted an intercept survey in 2018 to determine how much visitors spent at stores and restaurants while visiting the festival. The data revealed that the average spend per group was \$51 and the average group size was 2.6 people. Based on a 100,000 attendance estimate, the estimated total spend in the community was \$1,960,000.

On a national level, the Canadian Festivals Coalition commissioned a report in 2009 titled Economic Impact of Canada's Festivals and Events. This report measured the economic impact of 15 of Canada's largest festivals. The study revealed that over \$1B in new spending was generated by these events and that they also support employment of 15,600 full-time equivalent jobs and \$283M in tax revenue to the municipal government.

Staff collaborated with Tourism Richmond to estimate the economic impact of festivals in the City. To accurately measure the economic impact of Richmond festivals, Tourism Richmond obtained third-party input and guidelines from a variety of analysts and statisticians at multiple organizations including Pacific Analytics, Destination British Columbia, Destinations International and BC Statistics.

Using a variety of methodology recommendations and industry figures, Tourism Richmond developed a customized Festival Impact Calculator specifically for Richmond's festival environment. Several of these figures were provided from BC Stats and were customized specifically for the Richmond market using Tourism Richmond's primary data on where Richmond visitors spend money across different sectors. The Richmond Festival Impact Calculator also takes into account event budget, earned sponsorship revenue, resident spending, day visitor spending and overnight visitor spending.

Key outputs include the Total Economic Impact of new money brought into the Richmond economy, including its indirect and induced value, as well as an estimate of Total Value which includes spending by residents and the City funding. The projected economic impacts of City's major events program in 2019 are detailed in Table 3.

Table 3: Projected economic impact of the City's 2019 major events program

Category	Total	Description
Total Resident Spending	\$1.7M	Resident spending at festivals
Day Visitor Spending	\$2.3M	Non-Richmond residents spending in and out of festival
Total Economic Impact	\$2.9M	Includes day visitor spending and sponsorship revenue
Total Value	\$5.7M	Includes day visitor spending, sponsorship revenue, Richmond resident spend and City funding

The importance of a robust festival program can also be measured by its socio-cultural impact on a city. Festivals can enhance the vibrancy of a city, create a greater sense of civic pride and connectedness between residents and improve the overall livability. Specifically, Richmond's current festival program celebrates its maritime roots, agricultural heritage and unique cultural diversity and each are free (or low cost) to attend making them financially accessible to the community.

Furthermore, providing residents with opportunities to attend festivals in Richmond provides a staycation opportunity and keeps spending in Richmond.

Development of a Major Events Strategy

In 2007, Council adopted the *Major Events Plan 2007–2012* in advance of the 2010 Winter Olympics. The objectives of this plan were to leverage Games related opportunities for long term legacies, maximize social and economic benefits to the community, complement the Games' program of events, attract visitors to the City and enhance the international profile of Richmond. The plan's vision statement was "Richmond, the premier events destination in Canada".

The recommendations from the Major Events Plan 2007–2012 can be credited with supporting the creation of the Richmond Canada 150 program, Richmond World Festival, Farm Fest at Garden City Lands, Richmond Cherry Blossom Festival, Children's Arts Festival and the Neighbourhood Celebration Grant Program. The plan also supported the vision of an expanded Richmond Maritime Festival and the Ships to Shore: King of the Sea in 2017.

As the existing Major Events Plan is no longer current, and the development and delivery of major events in the city has changed significantly since this plan was developed in 2007, staff recommend the development of a new Major Events Strategy. This new Strategy will guide the future direction of the City's major events program and will include the following:

1. An assessment of the economic and social benefits of the current program of festivals.
2. A review of operating models to resource, manage, fund and evaluate the delivery of events in the City.
3. A review of opportunities to attract and/or produce new events that align with the City's objectives.
4. A review of the opportunities and capacity for community involvement in the major event program.
5. The development of a decision making framework for determining which major events to support and/or produce in future years.

Development Timeline for Major Events Strategy:

- **Summer 2019** – Collect visitor data through intercept surveys at the City's summer festivals.
- **Fall 2019** – Through a series of workshops and outreach initiatives, staff will conduct a major events needs assessment with input from key stakeholder and community members.
- **Winter 2020** – Major Events Strategy drafted and presented to Council.
- **Spring 2020** – Report to Council, including a proposed program and budget request for 2021. This program and budget will be developed based on Council direction from the Major Events Strategy.

Financial Impact

The financial impact for the proposed Major Events Program in 2020 is \$1,345,000 which is proposed to be funded through the Rate Stabilization Account.

Conclusion

The proposed schedule of events for 2020 continues the City's tradition of providing numerous opportunities for people to celebrate and engage with their community. Richmond has become a leader in Metro Vancouver in offering free or low cost festivals.

Richmond events are well attended, strongly supported through corporate sponsorships, create meaningful community partnerships, provide numerous volunteer opportunities and receive significant positive public feedback.

May 27, 2019

- 9 -

A handwritten signature in black ink, appearing to read 'Bryan Tasaka', with a stylized, cursive script.

Bryan Tasaka
Manager, Major Events and Film
(604-276-4320)

- Att. 1: Summary of the Major Events Program for 2020
- 2: Community Engagement at the City's Major Events
- 3: Five Year Funding Summary (2016–2020)

Summary of the Major Events Program for 2020

1. Children's Arts Festival (*February 17–21*)

A festival dedicated to children that opens on Family Day and features numerous performances, art activities, and workshops, and ends with four days of school group programs.

Attendance (projected): 8,000 **Venue:** Richmond Cultural Centre

Target Audience: Children aged 3-12; surrounding school districts

2. Richmond Cherry Blossom Festival (*April 5, tentative date*)

Set amongst the 255 cherry trees in Garry Point Park, this festival will feature a variety of Japanese performances, kite flying, activities and food. The festival will include mini-workshops where participants can learn the art of bonsai, origami, ikebana, traditional tea ceremony and more. The artistic direction for the festival is led by representatives of the local Japanese community.

Attendance (projected): 3,500 **Venue:** Garry Point Park

Target Audience: All ages; local community

3. Doors Open Richmond (*June 6–7*)

Doors Open is one of Metro Vancouver's largest celebrations of heritage, arts and culture. Doors Open offers visitors a free opportunity to explore 40+ sites showcasing the richness and depth of Richmond's history and culture.

Attendance (projected): 16,000 **Venue:** Various locations throughout the city

Target Audience: All ages; local community

4. Steveston Salmon Festival (*July 1*)

A Canada Day celebration featuring festival programming throughout Steveston Village, a headline concert, parade, salmon bake, exhibitors and artisans, kids zone, street hockey, and a fireworks finale. The festival will be organized in partnership with the Salmon Festival organizers.

Attendance (projected): 80,000 **Venue:** Steveston Village

Target Audience: All ages; local community

5. Richmond Maritime Festival (*July 25–26*)

A two day festival celebrating the City's maritime heritage using both Britannia Shipyards National Historic Site and the docks at Imperial Landing. Wooden boats will moor at Britannia and the larger modern boats (e.g., Navy vessels, tug boats, tall ships [i.e., Adventurous]) will dock at Imperial Landing. The festival will showcase local performing artists and artisans. Exhibits will include various boat building demonstrations in collaboration with the Britannia Heritage Shipyard Society. The Richmond Arts Coalition will assist in programming local artists.

Attendance (projected): 40,000 **Venue:** Britannia Shipyards & Imperial Landing

Target Audience: All ages; Metro Vancouver residents; tourists

6. Farm Fest at Garden City Lands (*August*)

The Farm Fest at Garden City Lands is a nostalgic farmers market that celebrates Richmond's connection to agriculture, provides educational opportunities on agricultural and gardening practices, and connects residents to the Garden City Lands. In addition to the farmers and artisans marketplace, festival highlights will include agricultural demonstrations, farm equipment displays, educational exhibits, and an interpretive wagon ride. The Farm Fest will celebrate Richmond's farming heritage, provide learning opportunities for community members, strengthen collaboration between local food system stakeholders, and provide opportunities for community building in the City Centre.

Attendance (projected): 6,000 **Venue:** Garden City Lands

Target Audience: All ages; Metro Vancouver residents

7. Richmond World Festival (*September 4–5*)

A two day festival at Minoru Park featuring over 140 performances on nine stages including international headliners. The World Festival will showcase over 80 artisans and vendors and 50 food trucks in the FEASTival of Flavours. The Culinary Stage features cooking demonstrations by local chefs and Cinevolution produces the Digital Carnival zone. The award winning World Festival is a top tourist event for the City that has a strong regional appeal and can also be leveraged through a partnership with Tourism Richmond. Community partnerships include Richmond Public Library, Cinevolution, the local African community, and the Vancouver Cantonese Opera Society.

Attendance (projected): 60,000 **Venue:** Minoru Park

Target Audience: All ages; Metro Vancouver residents; tourists

8. Neighbourhood Celebration Grant Program

Neighbourhoods are the cornerstone of Richmond's communities. They are the natural spaces for building healthy, vibrant, trusting, and resilient communities.

The Neighbourhood Celebration Grant Program is designed to facilitate the hosting of high quality, grassroots events in neighbourhood parks thus building a sense of neighbourhood pride and identity.

The City would provide opportunities for residents, community groups and Parent Advisory Committees to submit proposals for the hosting of community-building events in their neighbourhood. The City would collaborate with event organizers to provide a base level of resources to support each selected event (e.g., event leader(s), permits, tents, water stations, equipment). Event organizers would be responsible for event programming, acquiring additional resources, and mobilizing neighbours.

The Major Events Advisory Group (MEAG) would provide direction on the eligibility and selection criteria for this program. The resources made available and the number of events to be selected, would be determined by the MEAG.

The benefits of this program include promoting resident interaction; strengthening community connections while building a sense of ownership and neighbourhood pride; connecting residents with their local streets, parks and green spaces; providing the

community with the resources to host a high quality community building event; and providing an opportunity for community members to gain experience organizing grassroots events.

9. City-wide Event Marketing Campaign Program and City Branded Assets

The City-wide event marketing campaign (formerly Days of Summer) and City branded shared resources are programs that support all of the City's major events and have been historically funded as part of the major event program. The comprehensive marketing campaign promotes all of the major events to the region through the major media outlets (e.g., TV, radio stations and online blogs). The City-branded assets allow each event to properly recognize the City as the producer of the event, promote sponsors correctly and support the event's infrastructure (e.g., kiosks, city branded arch, tents, and sky flags, etc.).

Community Engagement at the City's Major Events

Children's Arts Festival

- **Programming Partners:** Richmond Public Library and Richmond School District

Richmond Cherry Blossom Festival

- **Community Organizers:** Jim Tanaka & Mary Hirano
- **Programming Partners:** Vancouver Language School and BC Wakayama Kenjin Kai
- **Exhibitors:** Sister Cities Advisory Committee

Doors Open Richmond

- **Programming Partner:** Richmond Museum Society
- **Participating Sites:** Richmond Cultural Centre, Richmond Museum, Richmond Art Gallery, Richmond Media Lab, Richmond Public Library, Textile Arts Guild of Richmond, Richmond Weavers and Spinners Guild, Richmond Potters Club, Bahá'í Community of Richmond, Brighthouse Fire Hall No. 1, Minoru Chapel, Bodhi Meditation Centre, Lipont Place, Olympic Experience at the Richmond Olympic Oval, Vancouver International Airport (YVR), WildResearch—Iona Island Bird Observatory, Waters Edge House Art Studio, Yulia Radchenko Studio, Richmond Eastern Catholic Church, Alice Saunders Home Art Studio, Gina Page Seawrack Press Studio, Loraine Wellman Fine Art Home Studio, BC Emergency Health Service Station, Steves Family Farmhouse, Open Art Studio, Steveston Museum, Steveston Tram, Steveston Japanese Canadian Cultural Centre, Steveston Hub, Britannia Shipyards National Historic Site, Branscombe House, London Heritage Farm, Finn Road Studio and Garden, Fuggles & Warlock Craftworks, Lingyen Mountain Temple, Az-Zahraa Islamic Centre, Richmond Mosque BC Muslim Association, Richmond Nature Park, The Museum at the Sherman Armoury, Richmond Ismaili Jamatkhana, Phoenix Perennials, Nanaksar Gurdwara Gursikh Temple, BCIT Aerospace Campus, Gulf of Georgia Cannery, Wild Sweets

Steveston Salmon Festival

- **Community Organizers:** Richmond Agricultural and Industrial Society
- **Programming Partners:** Steveston Farmers Market, Steveston Museum and Tram, Gulf of Georgia Cannery

Richmond Maritime Festival

- **Programming Partners:** Richmond Arts Coalition and Britannia Heritage Shipyards Society
- **Exhibitors:** Richmond Carvers, Fraser River Discovery Centre, SALTS, Eddie Hawk, Britannia Heritage Shipyards Society, Sea Cadets, Maritime Mammal Rescue Center, Gulf of Georgia Cannery, Greyhaven Exotic Bird Sanctuary, Richmond Pottery Club,

Richmond Weavers and Spinner Guild, Steveston Maritime Modelers, Fraser Riverkeepers and Richmond Artists Guild

Farm Fest at Garden City Lands

- **Programming Partners:** KPU
- **Exhibitors:** Richmond Nature Park Society, David Suzuki Foundation, BC Association of Farmers Markets, Young Agrarians, Garden City Conservation Society, Richmond Food Security Society, KPU, Walk Richmond, The Sharing Farm, BC Dairy Association, Poultry in Motion, and Steveston Farmers Market Association

Richmond World Festival

- **Programming Partners:** Cinevolution, Somali Women Empowerment Society, Vancouver Cantonese Opera Society, Mary Wilson (Richmond Black History Month), Richmond Public Library, Richmond Art Gallery, Richmond Museum, and Richmond Arts Centre
- **Exhibitors:** Richmond Cares Richmond Gives, Richmond Multicultural Community Services, Richmond Centre for Disability, S.U.C.C.E.S.S. ISIP, ISSofBC, Aviva Employment Services/Back in Motion, Canucks Autism Network, Gateway Theatre, Bodhi Meditation, City of Richmond Youth Street Team, City of Richmond- Recycling and Waste Management, Minoru Centre for Active Living, Richmond Art Gallery, City Centre Community Association and Emotive Electric Vehicles

Five Year Funding Summary (2016-2020)

The following table details the City, sponsorship and grant funding levels since 2016:

	2016	2017	2018	2019	2020 (proposed)
CHILDREN'S ARTS FESTIVAL					
City Funding	\$ 60,000	\$ 70,000	\$ 75,000	\$ 75,000	\$ 75,000
Sponsorship	\$ 27,000	\$ 23,000	\$ 28,000	\$ 33,750	\$ 30,000
Total	\$ 87,000	\$ 93,000	\$ 103,000	\$ 108,750	\$ 105,000
CHERRY BLOSSOM FESTIVAL (funding for 2017 was through the Richmond Canada 150 Celebration Grant Program)					
City Funding			\$ 25,000	\$ 35,000	\$ 35,000
Total		\$ -	\$ 25,000	\$ 35,000	\$ 35,000
DOORS OPEN					
City Funding				\$ 20,000	\$ 20,000
Federal Grant	\$ 4,100	\$ 3,600	\$ 2,700	\$ 2,000	\$ 2,000
Sponsorship	\$ 1,500	\$ 500	\$ 5,000	\$ 5,000	\$ 5,000
Total	\$ 5,600	\$ 4,100	\$ 7,700	\$ 27,000	\$ 27,000
CANADA DAY (Ships to Shore 2013-2016; Richmond Canada Day in Steveston 2017-2018); merged with SalmonFest 2019)					
City Funding	\$ 180,000	\$ 365,000	\$ 250,000	\$ 250,000	\$ 250,000
Federal Grant		\$ 28,000	\$ 32,000	\$ 32,816	\$ 33,000
Sponsorship	\$ 25,000	\$ 53,000	\$ 75,000	\$ 105,000	\$ 105,000
Total	\$ 205,000	\$ 446,000	\$ 357,000	\$ 387,816	\$ 388,000
MARITIME FESTIVAL					
City Funding	\$ 205,000	\$ 380,000	\$ 200,000	\$ 300,000	\$ 300,000
Federal Grant	\$ 48,800	\$ 54,600	\$ 52,700	\$ 50,400	\$ 50,000
Sponsorship	\$ 47,400	\$ 40,000	\$ 39,500	\$ 40,000	\$ 40,000
Total	\$ 301,200	\$ 474,600	\$ 292,200	\$ 390,400	\$ 390,000
FARM FEST (Harvest Fest in 2017)					
City Funding		\$ 150,000	\$ 28,000	\$ 40,000	\$ 40,000
Federal Grant		\$ 40,000			
Sponsorship		\$ 16,452	\$ 4,500	\$ 15,000	\$ 15,000
Total	\$ -	\$ 206,452	\$ 32,500	\$ 55,000	\$ 55,000
WORLD FESTIVAL					
City Funding	\$ 230,000	\$ 300,000	\$ 400,000	\$ 400,000	\$ 400,000
Sponsorship	\$ 115,000	\$ 133,000	\$ 151,500	\$ 150,000	\$ 150,000
Total	\$ 345,000	\$ 433,000	\$ 551,500	\$ 550,000	\$ 550,000
SHIPS TO SHORE - KING OF THE SEA					
City Funding		\$ 695,000			
Sponsorship		\$ 34,375			
Total		\$ 729,375			
NEIGHBOURHOOD GRANT PROGRAM					
City Funding		\$ 150,000		\$ 75,000	\$ 75,000
Total		\$ 150,000	\$ -	\$ 75,000	\$ 75,000
SUPPORT SERVICES					
Marketing	\$ 50,000	\$ 150,000	\$ 85,000	\$ 85,000	\$ 85,000
Shared Event Assets	\$ 15,000		\$ 15,000	\$ 15,000	\$ 15,000
Program Contingency		\$ 200,000	\$ 50,000	\$ 50,000	\$ 50,000
Total	\$ 65,000	\$ 350,000	\$ 150,000	\$ 150,000	\$ 150,000

CANADA 150 SPECIFIC EVENTS

Federal Grant (High School Concert Series)	\$	40,000
Pioneer Luncheon	\$	60,000
Music in the Plaza	\$	30,000
Additional 150 Projects	\$	75,000
Specialized Services	\$	250,000
Total	\$	455,000

TOTAL	\$	1,008,800	\$	3,341,527	\$	1,518,900	\$	1,778,966	\$	1,775,000
TOTAL CITY FUNDING	\$	740,000	\$	2,875,000	\$	1,128,000	\$	1,345,000	\$	1,345,000
TOTAL GRANT FUNDING	\$	52,900	\$	166,200	\$	87,400	\$	85,216	\$	85,000
TOTAL SPONSORSHIP FUNDING	\$	215,900	\$	300,327	\$	303,500	\$	348,750	\$	345,000

NOTES:

1. Base level funding for each event was through the Rate Stabilization Fund; except for the Richmond Canada 150 program in 2017 which received \$2,095,000 in funding from the Council Community Initiative Fund.
2. The 2017 Cherry Blossom Festival was funded through the Richmond Canada 150 Celebration Grant program.
3. Figures shown in italics are estimates or requested amounts



City of Richmond

Report to Committee

To: General Purposes Committee
From: Jason Kita
Director, Corporate Programs Management
Group
Re: Organizational Development Program

Date: July 2, 2019
File: 01-0005-01/2019-Vol
01

Staff Recommendation

That the report titled "Organizational Development Program" dated July 2, 2019 from the Director, Corporate Programs Management Group, be received for information.

Jason Kita
Director, Corporate Programs Management Group
(604-276-4091)

REPORT CONCURRENCE	
REVIEWED BY SENIOR MANAGEMENT TEAM	INITIALS:
APPROVED BY CAO 	

Staff Report

Origin

The primary objective of the senior administration with regard to the environment in which the organization will operate has been to establish and sustain a culture of continuous improvement. In order to achieve this objective, new corporate-wide staff engagement programs are introduced through which staff from all areas and levels of authority within the organization work together utilizing purpose designed strategies to achieve specific goals and address areas needing improvement.

Past examples of these types of major programs are the Corporate Renewal Program – Learning from the Past/Shaping the Future, and the Strategic Management Program. Through these programs the organization achieved extraordinary levels of performance during a period that the City experienced significant growth, added many new facilities, created more parks, and introduced new programs and improved service delivery. During this era, the organization also met the unanticipated challenge on which reputations are built or ruined, which was on short notice to take on responsibility for delivering the premier venue and becoming an official Venue City of the 2010 Olympic Winter Games.

Over time, with changes in personnel, increased workloads, and other factors, organizations inevitably experience fallback in organizational performance. This has been the case in our organization and, in order to address and correct this, a new primary program – the Richmond Organizational Development Program (OD Program) and various related sub-programs are presently being introduced.

The OD Program was designed to build on past successes achieved through the Corporate Renewal Program. As these are administrative programs, they would not typically be brought to Council's attention; however, as we are in the first year of a new Council term, with two new elected officials, and have recently adopted the Council Strategic Plan 2018-2022 – Staff concluded that this would be an appropriate opportunity to update Council on this significant administrative initiative.

The OD Program is a corporate-wide collaboration that provides staff with a “Blueprint for Excellence.” Centered on the City's vision, the OD Program outlines eight primary focus areas that each contribute to the City's corporate culture of continuous improvement. Key pillars of our OD Program include: Values, Leadership, Customer Service, People, Structure, Aligned Strategies, Operational Performance and Corporate Performance. The OD Program is a significant program that entails re-training our staff while placing considerable emphasis on the important role of organizational culture in establishing performance standards and achieving desirable results. Sub-programs and various initiatives that support corporate-wide success are created with a specific purpose in mind.

Analysis

Organizational Development Sub-Programs and Initiatives

Though a variety of sub-programs and initiatives support the Organizational Development Program, the Imagine Richmond Program (the Imagine Program) and the Flexible Work Arrangements initiative are highlighted in this Report in order to provide Council with real working, rather than theoretical examples.

The Imagine Richmond Program

The Imagine Program is designed to support culture change and enhance performance throughout the organization. The Imagine Program will help us to achieve results beyond traditional means by harnessing the talent and creativity of our staff for the pursuit of opportunities and challenges that go beyond the mandates of their regular jobs. This program, which was developed following a leadership session where the importance of imagination, as the next level beyond innovation, was identified as part of our corporate strategic program and as a necessary step for Richmond to remain at the forefront of municipal government administrative and organizational leadership.

The Imagine Program is a formal process through which staff are provided opportunities and encouraged to share ideas that could benefit the City and/or the community, for review and potential implementation. Ideas that are feasible, and fit within existing budgets and structures will be implemented immediately at the discretion of the appropriate level of management. More complex ideas will be expanded upon and reviewed for feasibility. From there, ideas that have real potential, align with corporate goals, and/or support Council's Strategic Plan will be further refined and considered for implementation.

The City's workforce is comprised of approximately 2,200 staff who work in sites located all over the city and perform roles as members of numerous different business units. Many staff members have experience and expertise that goes beyond the scope of their regular roles. By harnessing the collective expertise, ideas, and creativity of City staff, the Imagine Program will generate the opportunity to create and implement something really exciting and new for the community in Richmond.

Flexible Work Arrangements

It is essential that as an organization, the City continues to evolve and to keep up with progressive practices in how we conduct business and provide back-of-house support. The OD Program provides staff with areas of focus to further our corporate culture and strengthen how we perform as an organization. One of the initiatives that has supported the ability of staff to be increasingly responsive and productive with their time has been the formalization of a program that allows for flexible work arrangements where appropriate for the specific role. This program provides the opportunity for staff to adjust their working hours when operationally feasible and equips the three most senior levels of staff with remote access to the City's network, data and other pertinent information, which enables staff to work offsite or at home both during regular working hours and on personal time. For example, the amount of emails is significant and having remote access to the City's system allows staff to obtain additional needed information at their convenience instead of having to wait to access their workspace. With increased requests for

information, staff referrals, and in order to be as responsive to organizational needs as possible, this program allows staff to adjust priorities and areas of focus as needed to keep up with demand. This is one example of an initiative that supports the OD Program's goal to deliver on our vision through continuous improvement and adopting practices that enhance overall operational and corporate performance and increase productivity.

Program Integration and Training

To be sustainable as a corporate program, and be effective in achieving the outcomes of enhancing the City's corporate culture and developing new ideas to achieve corporate goals, it is important that all staff understand the OD Program and related sub-programs and initiatives, and how they can be involved. The OD Program has been integrated and communicated throughout the organization through a phased implementation plan. This has allowed for greater understanding and for staff to ingrain principles of the OD Program into daily work in a meaningful way through incremental adjustments and learning opportunities without creating undue strain on staff resources. This phased approach will continue through individual, departmental, and corporate-wide engagements and initiatives as needed. The OD Program is the foundation on which the sub-programs are able to achieve success and increase organizational performance.

The Imagine Program goes well beyond a traditional "idea suggestion box" program. Ideation conversations will be built into regular team meetings, will be encouraged individually, and will be supported through staff training and ideation workshop opportunities. Staff mindsets, already familiar with, and ingrained in continuous improvement, will be challenged to think in new ways. Innovation, one of the City's Core Values, highlights the importance of finding new ways to improve on efficiency, and the outcomes generated for the community. Innovation is an important part of how staff perform in their roles within the City. The Imagine Program goes beyond innovation, looking at brand new concepts, lines of business, activities, and so on that is not traditional to municipal government but will lead to stronger community outcomes either through the potential for revenue generation or through delivery of new opportunities to the community.

Staff have expressed great interest in learning more about how to effectively integrate ideation into operational roles. It is essential that staff are using effective techniques, so that idea generation sessions are fruitful in producing real, tangible ideas that result in significant, beneficial impacts. Proper communication and training around the Imagine Program is needed to ensure it remains focused on delivering results, is firmly situated within best practices in the field, and is strategically aligned with corporate priorities, plans, and strategies such as the Organizational Development Program.

Effective corporate-wide training, implementation, and communication of these programs are essential to meeting program goals. Training is usually focused on individual staff members; however, periodically it is more cost-effective to conduct group training programs for the collective body of staff. These training programs do not add new costs to the organization and are more efficient and effective because all staff that attend receive the same training and hear the same messages at the same time.

Imagine Program Training

The most effective way to communicate and train staff in this type of program is by providing a collective training program. By hosting a one-day training session for approximately 300 key staff from all levels and departments of the organization, selected for their creativity, several key program outcomes will be delivered that will have lasting organizational impact.

The Imagine Program Training Session (the Session) outcomes and benefits include:

- Inclusiveness through facilitating common training for a broad range of employee groups at all levels of the organization.
- The shared understanding of how the Imagine Program aligns with corporate priorities and strategic programs such as Organizational Development.
- The shared understanding of the Imagine Program, how it presents a unique and exciting opportunity to make an impact in the organization and community, and why ideation is important (and prudent) in all lines of business.
- Education on the importance of creative thinking and imagination as a business strategy.
- Dialogue and a question-and-answer session with creativity and ideation experts in various fields of business.
- Hands-on training in facilitating ideation workshops and sessions including sharing effective techniques and utilizing tools and resources that will be brought back to the workplace.
- Idea generation itself, through the hands-on experiential learning, will also result in initial evaluations for feasibility, alignment with corporate goals and implementation potential.
- Inspire and empower staff to be leaders and demonstrate the City of Richmond culture and brand of continuous improvement and future thinking.

The Session is being planned for Fall 2019 and will likely be held in a City facility or a local hotel conference room venue. Every effort has been made to practice ideation and creativity concepts through the planning of this session, particularly with regard to creating the greatest value through intentional session components at the lowest possible impact to training dollars. The estimated cost for this session is approximately \$230 to \$250 per person based on offering a full day of training for 300 staff. If this training session proves to be successful, a second session may be offered to another 300 staff. The more staff that can hear the message first-hand and experience the training for themselves instead of hearing about the program through their supervisor, the more engaged and committed staff will become to the program.

The cost of this training is already accounted for in the training budget, an amount that would be spent on individual staff training regardless of this training opportunity. By hosting the training for staff in this manner, as a one-day customized session, we are able to provide a number of benefits to the City. The per-person cost remains very low while the efficiency and effectiveness of the training will be high. To provide an order of magnitude for the cost effectiveness, similar training sessions can range from \$1,500 to \$2,000 per person if attended on an individual basis through external training options. The training will be inclusive of all areas of the organization,

reach a broad audience, and be customized for Richmond-specific needs and program goals. Because staff will participate in the training at the same time, departments and teams will participate in the same discussions and be able to move forward with applying their learning across the organization without gaps in knowledge. The training will be completely customized to meet Richmond's desired outcomes and will provide the ability to make adjustments as necessary to the day in order to meet our needs.

Post-Session Integration

Following the Session, staff that attended will return to their business units and share information on the Imagine Program. Attendees will be trained in the workshop facilitation method used in the Imagine Program and understand the foundational aspects of why this approach is taken and how to apply it to their work areas. They will be supported as needed to apply these new tools and skills through departmental meetings and sessions, reinforcing the learning, and providing the opportunity for the entire workforce to be trained in the following months.

Financial Impact

No additional costs as this training will be funded from existing budgets that would otherwise be spent on other types of training.

Conclusion

The Richmond Organizational Development Program is a strategic initiative that will help to achieve corporate goals through furthering our corporate culture of continuous improvement. The Imagine Richmond Program, as one of the sub-programs of the OD Program is designed to generate opportunities to further improve our City and organizational performance through harnessing the collective talents, ideas and expertise of City of Richmond staff members. The Imagine Program Training Session will launch this new Imagine Program most effectively by communicating with staff and engaging in Program training through one day of collective training for approximately 300 staff representing each department and level of the organization. Many of the staff who attend will become ambassadors for the program and will return to the workplace to share their insights with their fellow employees.



Claire Adamson
Manager, Corporate Strategic Initiatives
(604-247-4482)

CA:ca



City of Richmond

Report to Committee

To: General Purposes Committee

Date: July 10, 2019

From: Jerry Chong, CPA CA
Director, Finance

File:

Re: Intergovernmental Working Group re: Small Business and Property Tax

Staff Recommendation

1. That Council support the recommendations provided by the Intergovernmental Working Group of Metro Vancouver; and
2. That a letter be sent from the Mayor's office to the Premier of the Province of BC, advising of this support.

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

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

Staff Report

Origin

The viability of independent small businesses in Metro Vancouver is under threat, particularly for those in neighbourhoods that are experiencing fast pace of change and dramatic increase in market valuation.

Analysis

From 2005 – 2011, the value of commercial properties in Richmond’s City Centre increased dramatically due to the Canada Line construction and to the City Centre Area Plan that allowed for redevelopment of the City Centre from low density commercial buildings into high density mixed use residential towers. The development potential of the area resulted in escalating property values and property taxes which caused extreme tax burden to small commercial tenants who were locked into triple net leases, responsible for the payment of property taxes, and could not share in the capital appreciation.

Limitations of the Assessment Act and the Community Charter prevented the City from providing any tax relief to small businesses. To address this situation, the City had proposed a split assessment solution for discussion at the 2008 UBCM convention. At the time, the Province was unwilling to make the legislative changes because they claimed that this was an isolated issue that only impacted Richmond and did not want a change that could potentially cause negative effect to other municipalities. However, after four years of persistence, in 2012, the Province relented and provided the City with the authority under the Municipalities Enabling and Validating Act to adopt the City Area Transitional Tax Exemption Bylaw. This was a one-time authority to provide a partial tax exemption to those properties in the City Centre with the highest percentage of tax increase as determined by the Council. The purpose of the exemption was to provide businesses with a transitional period to terminate their lease and to relocate to other neighbourhoods or to adjust their business model to accommodate the higher taxes required for their existing location.

Current Issue:

In recent years, commercial property values in many Metro Vancouver municipalities have increased substantially in underdeveloped neighbourhoods with potential for redevelopment. Similar to Richmond’s City Centre situation from 2005-2011, many small businesses that are locked into triple net leases and are located in areas with redevelopment potential are finding it near impossible to meet their property tax obligations because their properties are assessed based on “highest and best use” and not on existing use. These small businesses have approached their City Council for assistance.

As a result, the Regional Finance Advisory Committee (“RFAC”) of Metro Vancouver created an Intergovernmental Working Group in late 2018 with representatives from the Province, BC Assessment, and seven Metro Vancouver municipalities (Vancouver, Burnaby, Richmond, Coquitlam, West Vancouver, District of North Vancouver and Surrey to look at possible policy or legislative changes that will provide the necessary tools that all municipalities can utilize to address this situation. After numerous meetings, recommendations were finalized by the group.

Recommendation Highlights:

- The Province to change the Assessment Act to incorporate the methodology to enable a split assessment for properties that are recognized as having “development potential”; with the value of the “existing use” portion of the property remaining in the original assessment class and the “development potential” portion of the assessment moving into a new commercial sub-class.
- The Province to change the Community Charter to allow municipalities to define, by bylaw, the eligibility criteria, the term for split assessment and the appropriate tax rate to be set for the new sub-class.
- The recommendation is for changes to the Assessment Act and the Community Charter which allows municipalities the option of drafting a bylaw to provide tax relief to small businesses located in areas with redevelopment potential. Municipalities are not required to draft such a bylaw if they do not feel that there is a need in their community.

In general, the current recommendation is similar to the City’s request at the 2008 UBCM Conference in that legislative changes are needed in order for municipalities to have tools to address the tax burden created to underdeveloped properties with high development potential.

The respective municipalities in the Working Group are preparing a joint letter to the Province to convey the urgency for a timely approval in order to enact the required changes in time for the 2020 property tax billing cycle.

On July 10, 2019, the City of Vancouver’s Committee on Policy and Strategic Priorities received information concerning the Intergovernmental Working Group’s recommendations and the Committee recommended that the Province of British Columbia act on this immediately to ensure this is implemented for the 2020 tax year.

Financial Impact

None.

Conclusion

Small businesses in Metro Vancouver are under threat, particularly for those in neighbourhoods that are experiencing fast pace of change and dramatic increase in market valuation. The recommendations for changes to the Assessment Act will help reduce the burden to tenants subject to triple net leases.



Ivy Wong, CPA
Manager, Revenue
(604-276-4046)

IW:jc



City of Richmond

Report to Committee

To: General Purposes Committee

Date: July 10, 2019

From: Anthony Capuccinello Iraci
City Solicitor

File: 10-6060-01/2019-Vol
01

Milton Chan, P.Eng.
Acting Director, Engineering



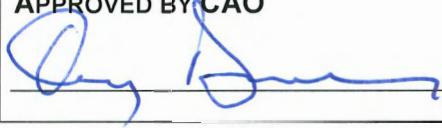
Re: Vancouver Airport Fuel Delivery Project

Staff Recommendation

1. That the Chief Administrative Officer and the General Manager, Engineering & Public Works be authorized to execute, on behalf of the City, a Site Specific Municipal Access Agreement between the City and the Vancouver Airport Fuel Facilities Corporation containing the material terms and conditions as generally described in the staff report titled "Vancouver Airport Fuel Delivery Project", dated July 10, 2019, from the City Solicitor and the Acting Director, Engineering;
2. That the Manager, Engineering Planning be authorized to execute, on behalf of the City, a Servicing Agreement between the City and the Vancouver Airport Fuel Facilities Corporation, for the development of the Marine Terminal located at 15040 Williams Road, Richmond, BC, containing the material terms and conditions as generally described in the staff report titled "Vancouver Airport Fuel Delivery Project", dated July 10, 2019, from the City Solicitor and the Acting Director, Engineering; and
3. That the Chief Administrative Officer and the General Manager of Engineering & Public Works be authorized to approve both Vancouver Airport Fuel Facilities Corporation's reliance on the ALC Decision dated March 17, 2017 (ALC File: 55644) and Vancouver Airport Fuel Facilities Corporation making a replacement ALC application in the event reliance on the said ALC Decision becomes problematic for either the City or VAFFC.

Anthony Capuccinello Iraci
City Solicitor
(604-247-4636)
Att. 12

Milton Chan, P.Eng.
Acting Director, Engineering
(604-276-4377)

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Real Estate Services	<input checked="" type="checkbox"/>	
Sustainability	<input checked="" type="checkbox"/>	
Fire Rescue	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	
Risk	<input checked="" type="checkbox"/>	
Development Applications	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO 

Staff Report

Origin

The Vancouver Airport Fuel Facilities Corporation (“VAFFC”) is building a new aviation fuel delivery system to serve the airlines at Vancouver International Airport (“YVR”). The Vancouver Airport Fuel Delivery Project (the “**Project**”) consists of the following key elements:

1. a deep water Marine Terminal on the south arm of the Fraser River, capable of receiving marine vessel shipments of aviation fuel, to be located on lands owned by the VAFFC at 15040 Williams Road (the “**Marine Terminal**”);
2. an approximately 400 meter long transfer pipe connecting the Marine Terminal to the Fuel Receiving Facility (the “**Transfer Pipe**”);
3. a Fuel Receiving Facility, consisting of 6 storage tanks, to be located on lands that are adjacent to the Marine Terminal at 15611 Williams Road (the “**Fuel Receiving Facility**”), which are leased to the VAFFC from the Port of Vancouver (the “**Port Authority**”); and
4. a 13km long delivery pipeline connecting the Fuel Receiving Facility to existing VAFFC storage systems at YVR (together with the Transfer Pipe, the “**Pipeline**”).

In December 2013, VAFFC was issued an Environmental Assessment Certificate under the *Environmental Assessment Act*, approving the Project. In February 2016, the Port issued a project permit to VAFFC to begin construction activities on the Fuel Receiving Facility. In April 2017, the BC Oil and Gas Commission issued a permit to VAFFC to construct the Pipeline.

The proposed Pipeline alignment runs along provincially-owned roads and some City roads. The main segment of the proposed alignment runs along Highway 99, which is under Provincial jurisdiction. Multiple route options were approved in the Environmental Assessment Certificate for the southern portion of the Pipeline (all of which require the use of City roads/highways). VAFFC has elected to pursue a route that uses unopened portions of Francis Road, Savage Road and Williams Road (all owned by the City). **Attachment 2** is a map showing the Pipeline route VAFFC intends to use.

Although VAFFC has received a permit from the BC Oil and Gas Commission to build the Pipeline, pursuant to section 34(2)(b) of the *Oil and Gas Activities Act*, VAFFC must obtain authorization from the City in order to enter and use the City’s roads/highways for the Project.

VAFFC has obtained all necessary federal and provincial regulatory approvals for this Project through extensive public processes over the last 10 years. The only outstanding approvals required by VAFFC are the approvals of the MAA and the Servicing Agreement and issuance of the ESA DP and related building permit, all by the City of Richmond and all of which are limited in scope to terms related to the occupation and use of the required City highway/road right of way and to the Marine Terminal site ESA.

Other considerations related to the Project have been dealt with in other approval processes or are the subject matter of legislation and are summarized in the report for background information purposes.

Background

YVR currently receives jet fuel from two sources: (a) 80% through the 40 km Kinder Morgan (Jet Fuel) Inc. pipeline that originates near the Burrard Inlet and crosses Burnaby and north Richmond (40% of which is supplied by the Chevron Refinery in Burnaby and 40% of which is shipped by barges to the Westridge Marine Terminal from the BP Cherry Point Refinery in Washington State); and (b) 20% via tanker truck deliveries from the BP Cherry Point Refinery in Washington State.

VAFFC has submitted that the Project is needed because the Kinder Morgan pipeline is at maximum capacity and cannot meet the airport's growing fuel demand. According to VAFFC the existing fuel delivery system must currently be supplemented by 70 fuel tanker truck deliveries per day to meet the airport's peak fuel demand (which if the airport was operating at peak fuel demand for a full month would amount to approximately 2,000 fuel tanker trucks per month). For a full summary of why the VAFFC claims the Project and Pipeline are needed, see **Attachment 3**.

A corporate profile and description of VAFFC's membership and structure has been provided by VAFFC (**Attachment 4**). Also, as noted by VAFFC, "...similar fuel facility corporations operate at all the major international airports across Canada – Vancouver, Edmonton, Calgary, Winnipeg, Ottawa, Hamilton, Toronto, Montreal and Halifax. The largest in Canada is Pearson International Fuel Facilities Corporation (PIFFC). VAFFC is the second largest..."

Regarding the existing jet fuel line that was constructed in 1969, the owner Kinder Morgan (Jet Fuel) Inc. ("**KMJF**") in current proceedings before the British Columbia Utilities Commission ("**BCUC**"), has submitted that once the VAFD Project commences operations the existing jet fuel line will become economically unviable. Consequently, KMJF is seeking orders from the BCUC approving abandonment cost estimates and the collection of an abandonment cost surcharge over the three year remaining economic life of the existing system (see excerpts taken from KMJF's application set out in **Attachment 7**).

Analysis

SECTION 1: Municipal Access Agreement

City staff have negotiated a Site-Specific Municipal Access Agreement ("**MAA**") with VAFFC, whereby the City would grant VAFFC a non-exclusive license to use those portions of Francis Road, Savage Road and Williams Road highlighted in purple on the map in **Attachment 2** (the "**Service Corridors**") to construct and operate portions of the Pipeline. The Service Corridors are, with the exception of a portion of Williams Road, all unopened roads.

The MAA is very favorable to the City and imposes minimal obligations on the City. A summary of some of the potential impacts of not entering into an MAA are set out in **Attachment 1**.

The key terms of the MAA are as follows:

Term	50 years (initial term of 30 years, with an automatic 20 year extension).
License Fee	VAFFC will pay the City: <ul style="list-style-type: none"> (a) a non-refundable license fee of \$9,800,000 for the initial thirty year term, paid upfront; (b) \$250,000 to reimburse the City for its costs associated with negotiating the MAA, paid upfront; and (c) if the term of the MAA is extended for the additional 20 year term, the greater of \$12,706,000 or the fair market value of a 20 year license as determined by an appraiser at the time the extension term is about to commence.
Road Construction	The Pipeline must be installed in a manner that permits the City to build a road above it without requiring the Pipeline to be protected or relocated.
Relocation of Pipeline	If the Pipeline in any way interferes with the City's ability to undertake a municipal project, VAFFC is required, at its sole cost, to protect or relocate the Pipeline to accommodate the municipal project. VAFFC is also liable to pay the City all the City's project costs caused by the Pipeline (such as delay costs).
Route Alignment	Subject to the City granting VAFFC the right to use the City's roads/highways for the southern portion of the Pipeline (and approving the Servicing Agreement and Environmentally Sensitive Area Development Permit (the "ESA DP") for the Marine Terminal), VAFFC will use the Bridgeport Road option (which is under Provincial Jurisdiction) for the northern portion of the Pipeline, instead of City roads in north Richmond. This is better for the City as the Bridgeport Trail option and the River Road option for the northern pipeline alignment (as set out in Attachment 5), which were both approved in VAFFC's Environmental Assessment Certificate and were VAFFC's preferred alignment options, would have had significant negative impacts on the future development of North Richmond.
Limitation on Liability	The liability of the City is limited to claims or losses arising from the gross negligence or wilful misconduct of the City, or its employees or contractors.

Indemnification	VAFFC will indemnify the City from all losses and claims that are caused by the portion of the Pipeline located in the Service Corridors or VAFFC's operations in the Service Corridors (including environmental liabilities). The City is not providing any indemnity in favour of VAFFC.
Environmental and Fire Suppression	<p>VAFFC agrees to provide an automated fire suppression system. The fire system would be designed so that, once the system detects a fire, foam will automatically be deployed without human intervention after a 5 min delay. This time delay will allow the operator on site enough time to abort the deployment of foam should it be a false alarm. If for whatever reason the operator on-site is incapacitated, the foam will deploy automatically after the 5 min delay. Furthermore, if the operator on site confirms the fire before the 5 min delay has passed, they will be able to deploy the foam immediately. Details regarding the system are set out in Attachment 8.</p> <p>VAFFC also agrees to a series of environmental monitoring and reporting requirements. VAFFC also agrees to incorporate certain additional fire suppression equipment and establish two command centres in connection with its operations at the Marine Terminal and Fuel Receiving Facility.</p>
Remedies	If VAFFC is in breach of its obligations under the MAA, and it fails to fix that breach within 30 days of receipt of a notice from the City (or fails to commence to rectify the breach if it is not possible to remedy the breach in 30 days), then the City may either (a) take such actions as it determines are necessary to correct the breach (at VAFFC's cost), or (b) terminate the MAA. The City may also terminate the MAA if VAFFC (i) becomes bankrupt or (ii) ceases to have the authority to operate the Pipeline.
Removal of Pipeline	Within one (1) year from the date the MAA is terminated or expires, or the date VAFFC notifies the City that it no longer needs the Pipeline, VAFFC must, <u>at its own cost, and at the City's option</u> , either (1) remove all abandoned Pipeline in the Service Corridor, or (2) abandon the Pipeline in place in the Service Corridor in accordance with all applicable laws.

In addition to the above terms, there are also indirect benefits accruing to the City. The corresponding reduction of tanker trucks off City roads will eliminate the safety risks associated with transporting jet fuel in that manner. Also, the approved alignment ensures that the Pipeline will not be located in proximity to residential areas, as was previously considered by VAFFC.

A further potential benefit is the likely abandonment of the existing jet fuel line which was constructed in 1969 to the standards of construction at that time. Construction of the VAFD Project together with the likely abandonment of the existing KMJF pipeline system will result in effectively no appreciable net increase in jet fuel pipeline length in Richmond given that each line is approximately 13km in length within the City. For some properties abandonment will also boost land values and create development options that were otherwise not possible within 30

meters of the existing line due to the proximity and development restrictions set out in legislation and in the statutory right of ways registered against the encumbered private properties.

The upfront payment of \$10,050,000 (for the initial license fee and reimbursement for costs) as well as an additional payment of at least \$12,706,000 if the term of the MAA is extended beyond its initial 30 year term was based on the fair market value of the impacted area of the required City highways as determined by a third party accredited appraiser retained by the City.

The MAA includes a provision that the City will not unreasonably withhold the issuance of any other permits of the City that are necessary for the initial installation and construction of the Pipeline within the Service Corridors and of the Marine Terminal. This includes:

- Marine Terminal Building Permit
- Marine Terminal Environmentally Sensitive Area Development Permit
- Marine Terminal Servicing Agreement

VAFFC would still be required to apply for various permits and satisfy certain notification requirements for work within the Service Corridors, in a similar manner as that required for telecommunications carriers that have infrastructure in the City's roads.

While the MAA is still subject to Council approval, VAFFC have provided the City with a signed copy of the MAA, and have delivered full payment of the \$9,800,000 license fee and the \$250,000 for reimbursement of the City's professional costs in trust. If the City does not approve the MAA by August 1, 2019 (or such later dated agreed upon by VAFFC), then these funds will be returned to VAFFC.

SECTION 2: ALC Approval dated March 17, 2017

Included in this report is a recommendation that the City approve VAFFC's reliance on the ALC Decision dated March 17th, 2017 in respect of ALC File: 55644 (**Attachment 6**) that was inadvertently obtained without proper City authorization, and which staff only recently became aware of. The ALC Decision approves the Proposal to create two temporary workspaces, with a maximum combined area of 2.0 ha, for the purposes of constructing an underground pipeline within the existing Road Right of Way along Francis Road.

If the MAA is approved by Council, the approval of reliance on the ALC Decision should not be a concern to the City. It would be implicit in any approval of the MAA that the City supports the approvals granted in the ALC Decision. Moreover, VAFFC has recently confirmed that it will require only 10% of the approved temporary workspace on private property within the ALR and and ESA. In the event reliance on ALC Decision becomes problematic, this report further recommends that the City approves VAFFC making a properly authorized application for the necessary ALC approvals.

SECTION 3: Servicing Agreement

Various infrastructure upgrades and utility works would be required to support the Marine Terminal Facility, protect the public and enhance the City's infrastructure network. VAFFC would be required to enter into a Servicing Agreement for these works.

The key components of the SA are:

- Design and construct approximately 350 m of new dike through the subject site, complete with seismic protection;
- Register a 7.5 m wide SRW through the subject site for the purposes of dike access, construction and maintenance, with a minimum dike setback of 7.0 m;
- Design and construct bank protection works along the river, which are to be maintained by the Owner, with a legal agreement to be registered on Title, permitting the City to access and maintain these works if the Owner fails to do so, at the Owner's cost;
- Design and construct a 6 m wide park trail through the subject site;
- Register a 6 m wide Statutory Right of Way with Public Right-of-Passage for a publicly-accessible trail through the subject site;
- Design and construct off-site and on-site Environmentally Sensitive Area (ESA) and Riparian Management Area (RMA) landscaping enhancements, including a bench marsh on the river side of the dike;
- Design and construct utility and frontage works to provide services and access to the site, including water connections, culverts, and driveway modifications;
- Provide financial security for the City to complete any unfinished works;
- Complete works within a defined schedule; and
- Indemnify the City.

Entering into the Servicing Agreement will benefit the City by providing additional linkages in the public trail network and providing enhanced flood protection in the area through dike works. The dike works to be provided by the development are consistent with the City's Dike Master Plan Phase 3 approved by Council on March 25, 2019.

SECTION 4: Limited Scope of Outstanding Approvals Sought from the City of Richmond

VAFFC has obtained all necessary federal and provincial regulatory approvals for this Project through extensive public processes over the last 10 years. The only outstanding approvals required by VAFFC are the approvals of the MAA and the Servicing Agreement and issuance of the ESA DP and related building permit, all by the City of Richmond and all of which are limited in scope to terms related to the occupation and use of the required City highway/road right of way and to the Marine Terminal site ESA.

Other considerations related to the Project have been dealt with in other approval processes or are the subject matter of legislation and may be summarized as follows:

4(a) Environmental Assessment Process Approval dated December 11th, 2013

Issues related to impacts on the environment including, among other things, marine spill prevention, marine spill preparedness and response, spill liability, fire prevention and fire response at the Fuel Receiving Facility and Marine Terminal were all considered and decided as part of the environmental assessment process and are addressed in the conditions of approval of the Environmental Assessment (the “EA”). Attached collectively are copies of the Reasons for Ministers’ Decision, the EA Certificate and the Conditions of EA Approval (**Attachment 9**).

In addition to staff’s comments below, VAFFC has provided a summary outlining “VAFFC SPILL PREVENTION, PREPAREDNESS AND RESPONSE” and an outline of “OTHER FACTORS TO REDUCE RISK ON FRASER RIVER” as well as a description of the legislative federal and provincial regulatory regimes related to spill response and spill liability, all of which are collectively attached as **Attachment 10** to this report.

4(a)(i) Summary on waterside operational spill and disaster response requirements, procedures and capabilities

VAFFC’s spill prevention, preparedness and response capabilities was a key issue discussed during the EA. The Vancouver Fraser Port Authority concluded that tanker traffic risks involving aviation fuel and other liquid bulk carriers in the Fraser River were acceptable in the spill scenarios modeled by VAFFC. The BC Ministry of Environment and Climate Change Strategy stated that the recommended conditions (outlined in VAFFC’s EA Certificate) for spill prevention align with emerging policy and bolster the requirements contemplated in the Province’s independent West Coast Spill Response Study (Volume 1 – Volume 3).

Construction Spill Prevention Measures

VAFFC has developed project Construction Environmental Management Plans that specifically mitigate environmental concerns including spills, while constructing the Marine Terminal, Pipeline and Receiving Fuel Facility. Each plan was prepared in accordance with the Project’s stakeholder engagement, aligns with the conditions outlined in VAFFC’s EA Certificate and further includes the addition of the following attachments:

- a) Accidents or Malfunctions Management Plan;
- b) Air Quality and Dust Control Management Plan;
- c) Archaeological Management Plan;
- d) Contaminated Sites Management Plan;
- e) Fuels, Chemicals and Materials Storage and Handling Plan;
- f) Noise Management Plan;
- g) Spill Prevention and Emergency Response Plan;
- h) Surface Water Quality/Fisheries Protection and Sediment Control Plan;
- i) Vegetation and Wildlife Management Plan; and
- j) Waste Management Plan.

Marine Spill Prevention Measures

VAFFC, in consultation with Western Canada Marine Response Corporation (“WCMRC”), has developed a robust spill prevention, preparedness and response plan and has committed to the following measures that will prevent spills in the Fraser River:

- Pre-screening of vessels through a tanker acceptance program;
- All vessels must be double-hulled;
- Berthing/escort tugs for vessels;
- Vessels must be under the expert control of Fraser River Pilots;
- Vessels will travel at slow speeds in the Fraser River;
- Fuel unloading will stop if weather conditions or river characteristics exceed pre-set operational limits;
- Automatic and manual shutdown of fuel unloading equipment;
- Leak-free manifold connections;
- Pre-arrival readiness checks at the marine terminal (personnel, tank space, monitoring Systems, emergency shut-down, dock readiness);
- Pre-transfer (from ship to shore) meeting of tanker and terminal personnel to discuss the fuel transfer process;
- A response vessel will accompany each fuel cargo vessel; and
- Pre-deployed, permanent spill containment booms will be deployed at the terminal and two response vessels will be on standby at all times.

Additional marine spill prevention measures include:

- Port Metro Vancouver escorts deep-sea vessels during inclement weather to assist with safe navigation;
- Communication is required between Fraser River Pilots and the Coast Guard’s Vessel Traffic Services and the marine terminal while on the Fraser River;
- The Fraser River has a sandy river bottom, making grounding less likely and less hazardous; and
- The location of the marine terminal will reduce the time and distance that vessels travel along the BC coastline compared to using the Westridge Marine Terminal in Burnaby.

Fuel Receiving Facility Spill Prevention Measures

The Fuel Receiving Facility will be equipped with the following spill prevention measures:

- Constructed to current seismic design standards;
- Corrosion protection;
- Leak detection;
- Flow control systems;
- Automatic foam suppression system;
- Secondary containment to prevent the spread of spills outside the facility;
- 24/7 monitoring, including electronic video surveillance; and

- On-site control and monitoring by trained operations personnel during all offloading, fuel transfer and fuel handling activities.

Pipeline Spill Prevention Measures

The pipeline will be equipped with the following spill prevention measures:

- State-of the art corrosion protection and leak detection technologies;
- Monitoring by a control system that uses pressure sensors and automatic flow shut-off devices;
- Constructed to current seismic design standards;
- Be pressurized only during fuel transfer operations (not 24/7); and
- Be buried underground and well-marked, mapped and electronically located for reference by municipal and private contractors.

Marine Spill Preparedness and Response

Various pieces of federal legislation including the *Fisheries Act*, *Canada Shipping Act*, and *Canadian Environmental Protection Act* include provisions that restrict pollution and impose liability for damages resulting from spills. The *Canada Shipping Act* requires that VAFFC deploy equipment and resources to contain and control a spill within one hour of its discovery, and commence spill response within six hours. VAFFC's spill response measures will facilitate a response in less than six hours. VAFFC will have the following spill preparedness and response measures in place before fuel unloading begins to enable rapid spill response in the unlikely event of a spill:

- A final Oil Pollution Emergency Plan in place prior to operations;
- Pre-deployed, permanent booming protection of the fuel vessel at the marine terminal and at Ladner Reach (in Delta, BC);
- On-site spill response and containment infrastructure, including permanent deflection/containment structures, booms, sorbents, skimmers, temporary waste storage; spill response infrastructure at key locations in the Fraser River;
- Two dedicated spill response vessels; and
- The installation of spill response infrastructure for rapid deployment of spill response equipment in the event of a spill at Sea Reach, North Steveston Harbour, Canoe Passage and Lander Reach locations.

4(a)(ii) The status of WCMRC or others setting up a Fraser River asset

- WCMRC maintains a network of response bases, equipment and personnel across coastal B.C. WCMRC currently has five response bases (of varying capacities) in the South Coast and one response base on the North Coast. WCMRC is currently planning additional response bases on the South Coast, including one in Richmond at 23511 Dyke Rd, near Annacis Island. Staff have had preliminary discussions about the proposed facility, but no formal applications to construct the facility have been received to date.

Staff would work cooperatively with WCMRC to obtain any necessary City approvals in a timely manner.

- The Federal Government has also made a \$1.5 billion pledge to support the national Oceans Protection Plan that includes: \$278 million for improved emergency preparedness; \$250 million to increase Coast Guard Capacity; \$207 million for safer navigation and vessel tracking systems; and \$103 million in increased marine research.
- Federal Agencies such as DFO and the Coast Guard have since been working with Agencies such as the Marine Environmental Observation Prediction & Response Network and Canadian Universities to build BC's capacity to anticipate and respond to marine risks. Staff have been involved in some of this work to date including spill modelling predictions.

4(a)(iii) Details on the capability of the proposed tank farm containment dike and structures

VAFFC has prepared a draft Oil Spill Emergency Plan in consultation with Western Canada Marine Response Corporation, particulars of which include:

- The terminal facilities include six aboveground tanks, with a total capacity of 500,000 barrels, located in a "diked" secondary containment area. The tanks are equipped with overfill alarms, tank vents, motorized tank valves and related piping and fittings;
- The secondary containment is sized, according to the National Fire Code, to hold the contents of one tank plus 10% of the aggregate of the other tanks in the tank farm. The tank farm secondary containment area precipitation accumulation is controlled via motor operated and hydrocarbon monitor controlled valve(s) that control the flow to an oil water separator for monitoring before the water is released to the Fraser River;
- Design Specifications that meet National Fire Code standards;
- Spill recovery techniques for land-based spills including land-based booms, sorbents and tank trucks and vacuum trucks (equipped with a manta ray skimmer) to recover any portions of the slick moving onsite and towards the shore;
- Operations for spill response will include 24/7 operations until the risk has been mitigated through the Incident Command System; and
- Waste management procedures including an operational Waste Plan that complies with all federal and provincial hazardous waste guidelines.

4(a)(iv) Seismic design standard for the tank farm

Mitigations for various environmental concerns including flooding, earth quakes and climate change are outlined in Chapter 21 of the EA. Section 21.5 relates to Seismic Activity specifically.

The Project will be designed, constructed, operated and managed in a manner that addresses the potential adverse effects of the environment including the following design requirements:

- Design all aboveground Project components to withstand a 1-in-50 year snow load event and an extreme rainfall event to a maximum of 8 millimetres precipitation over 15 minutes or 40 millimetres precipitation over 24 hours;
- Design all aboveground Project components to withstand a 1-in-100 year hourly wind pressure event;
- Design all Project components to withstand, at minimum a 1-in-200 year flood event;
- Design the marine terminal to withstand all physical river loads, including current velocity and direction and waves;
- Design all drainage systems to accommodate the rainfall flow generated from a 1-in -10 year rainstorm;
- Design the marine terminal to withstand a seismic event with an equivalent return period of 475 years, which corresponds to a 10% probability of exceedance in 50 years;
- Design the fuel receiving facility to withstand a seismic event with an equivalent return period of 2,475 years, which corresponds to a 2% probability of exceedance in 50 years;
- Design the pipeline river crossing to withstand a seismic event with an equivalent return period of 2,475 years, which corresponds to a 2% probability of exceedance in 50 years; and
- Design all other sections of the pipeline to maintain structural and pressure integrity under the seismic loading of, at minimum, a 1-in-475 year earthquake.

4(a)(v) Insurance

The requirement to carry adequate insurance coverage for spills is captured in Conditions 46 and 47 of the Environmental Assessment Certificate (**Attachment 9**).

In the Ministers' Reasons for Decision approving the issuance of the Environmental Assessment Certificate (**Attachment 9**), the Ministers noted on p. 4 of that decision under the heading "Spill Liability" that "...VAFFC and vessel owners will have \$2 billion in insurance to cover the costs of spill response and compensation...".

VAFFC has additionally provided a summary of the policies that are currently in place and has agreed that the City of Richmond will be named as an additional insured to the insurance liability policies VAFFC has and is required to have in place for the VAFD Project.

4(b) Oil and Gas Commission Approval dated April 3, 2017 (amended April 10, 2017 and extended March 28, 2019)

In addition to conditions imposed under the EA process, the Oil and Gas Commission of BC (the "OGC") in issuing a permit under the *Oil and Gas Activities Act* has imposed conditions related to the technical specifications of the Pipeline and associated works as well conditions related to, among other things, the environment, clearing, water course crossings and works, all as set out in OGC permit and permit extension (**Attachment 11**) and applicable legislation cited therein.

Among the technical specifications are the operating pressure, pipeline diameter and requirement that the flow be uni-directional. The scope of the project design does not allow for fuel flow in both directions. Fuel can only flow towards YVR International Airport. Also, VAFFC's Environmental Assessment Certificate only allows for the unloading of jet fuel.

VAFFC has also confirmed that the Pipeline is extendable to points south and/or to Cherry Point in future.

4(c) Legislative Spill Response Regulatory Regime and Spill Compensation Regulatory Regime

In addition to the conditions of approval outlined above, a description of the legislative federal and provincial regulatory regimes related to spill response and spill liability has been provided by VAFFC and is attached (**Attachment 10**).

SECTION 5: Consequences of Not Approving a Municipal Access Agreement

If Council does not approve the MAA, VAFFC has several legal and legislative options available to proceed with the Pipeline without the City's consent. If this occurs then all the benefits and protections staff have negotiated in the MAA would be lost. Moreover, if successful in pursuing the legal and legislative options, the end result for the City would be a Pipeline in place, potentially in a less desirable alignment, without an agreement and without compensation payable to the City. In other words, the outcome would mirror that of the existing jet fuel line that is owned and operated by Kinder Morgan (Jet Fuel) Inc. for which the City does not have an agreement and for which the City does not receive any compensation or any of the other benefits and protections negotiated in the MAA.

Some of the key impacts of not entering into a MAA are set out in **Attachment 1**.

In addition, particulars of some of the key benefits that would be lost include:

- upfront payment of \$10,050,000 (for the initial licence fee and reimbursement for costs) as well as the additional payment of at least \$12,706,000 if the term is extended;
- the Pipeline must be installed in a manner that permits the City to build a road above it without requiring the Pipeline to be protected or relocated;
- if the Pipeline in any way interferes with the City's ability to undertake a municipal project, VAFFC is required, at its sole cost, to protect or relocate the Pipeline to accommodate the municipal project. VAFFC is also liable to pay the City all the City's project costs caused by the Pipeline (such as delay costs);
- liability of the City is limited to claims or losses arising from the gross negligence or wilful misconduct of the City, or its employees or contractors;
- VAFFC will indemnify the City from all losses and claims that are caused by the portion of the Pipeline located in the City's highways or by VAFFC's operations in the City's

highways (including environmental liabilities). The City is not providing any indemnity in favour of VAFFC;

- VAFFC's agreement to provide an automated fire suppression system. The fire system would be designed so that, once the system detects a fire, foam will automatically be deployed without human intervention after a 5 min delay. This time delay will allow the operator on site enough time to abort the deployment of foam should it be a false alarm. If for whatever reason the operator on-site is incapacitated, the foam will deploy automatically after the 5 min delay. Furthermore, if the operator on site confirms the fire before the 5 min delay has passed, they will be able to deploy the foam immediately;
- VAFFC's agreement to a series of environmental monitoring and reporting requirements and to incorporate certain additional fire suppression equipment and establish two command centres in connection with its operations at the Marine Terminal and Fuel Receiving Facility;
- Upon termination or expiry of the MAA, VAFFC must, at its own cost, and at the City's option, either (1) remove all abandoned Pipeline in the City's highways, or (2) abandon the Pipeline in place in the City's highways in accordance with all applicable laws; and
- VAFFC's agreement that the Pipeline will not be located in proximity to the residential and other areas of Richmond previously under consideration.

In addition, the public amenities and infrastructure improvements that VAFFC has committed to provide through the DP approval process would likely be unrealized. These include:

- Approximately 350 m of new foreshore dike;
- Design and construction of a 6 m wide park trail across 15040 Williams Road;
- Approximately 3,491 m² of new terrestrial habitat and 3,800 m³ of new aquatic habitat;
- Three years of monitoring all ESA, RMA and trail vegetation installations (on and off-site) by a Qualified Environmental Professional (QEP);
- Creation of a new 200 m² intertidal bench marsh with monitoring for five years;
- Five years of adaptive management/detailed success monitoring by a (QEP);
- \$204,210 cash-in-lieu for future construction of a recreational staging area east of Williams Road plus off-site trail enhancements to the east of the subject property;
- \$6,480.00 to the City of Richmond, for an interpretive signage package for the pedestrian trail system; and
- Registration of a legal agreement on Title to require the owner to design and construct bank protection along the Fraser River to protect the new dike.

If Council does not approve the MAA, VAFFC would likely commence construction of those components of the Project that are not affected by the City's actions (such as the Fuel Receiving Facility and those portions of the Pipeline that use Provincially owned highways/roads) while it

pursues circumventing the City's refusal through the Courts or through other legislative means. VAFFC has already provided notice indicating that it will resume construction on the Fueling Receiving Facility this summer and expects to have a highway permit in hand from the Ministry of Transportation and Infrastructure by end of July, 2019 (**Attachment 12**).

Financial Impact

None

Conclusion

A Municipal Access Agreement between the City and VAFFC will allow the City to better manage the presence of the Pipeline within the City's Service Corridors. The terms and conditions of the proposed agreement provide fair market value for use of the corridor and protect the City's interests.



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- Att. 1: Some potential impacts of not entering into a MAA
- Att. 2: Existing and Proposed Pipeline Route
- Att. 3: Project Description
- Att. 4: VAFFC Corporate Profile, Membership and Structure
- Att. 5: Alternative North Route Alignment
- Att. 6: ALC Decision
- Att. 7: Excerpts from KMJF application to BCUC
- Att. 8: Details Regarding Foam Suppression System
- Att. 9: Reasons for Ministers' Decision, the EA Certificate and the Conditions of EA Approval
- Att.10: Spill Response Regulatory Regime; Marine Oil Spill Regulatory Regime; Spill Prevention, Preparedness and Response; Other Factors to Reduce Risk on Fraser River
- Att. 11: OGC Permit and Permit Extension
- Att. 12: Letter regarding MOTI highway permit

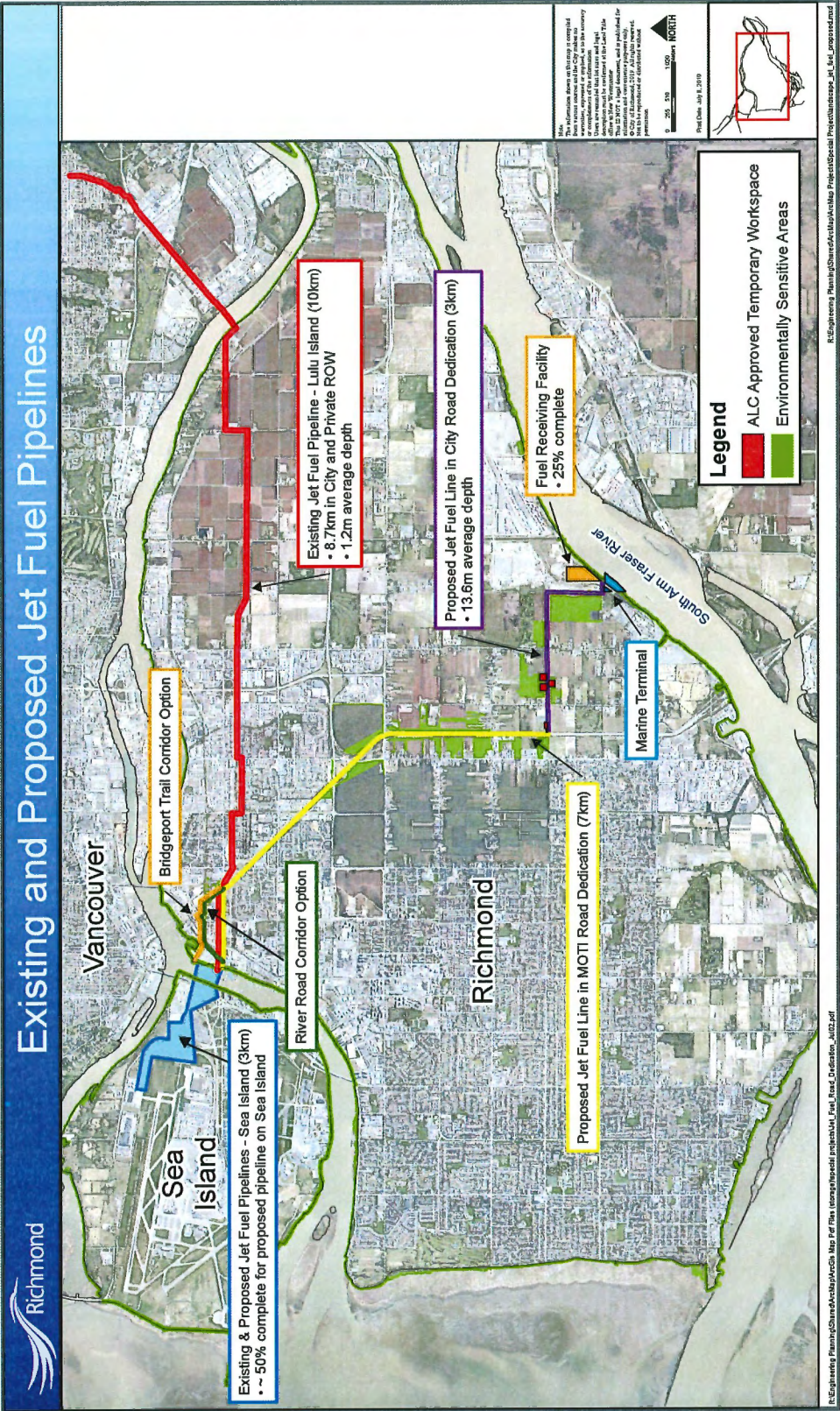
Attachment 1
Some potential impacts of not entering into a MAA

The following table summarizes some of the potential impacts of not entering into a Municipal Access Agreement or ESA DP with VAFFC:

With Municipal Access Agreement	No Municipal Access Agreement
VAFFC indemnifies the City from all losses and claims that are caused by the VAFFC in the City's highways, including environmental liabilities.	The City is not indemnified by VAFFC.
If the pipeline in any way interferes with the City's ability to undertake a municipal project, VAFFC is solely responsible to protect or relocate the pipeline at VAFFC's cost. VAFFC is also liable for any City project costs caused by the pipeline.	Costs are allocated per the provincial Pipeline Crossing Regulation.
Liability of the City to VAFFC is limited to gross negligence.	Liability of the City to VAFFC is based on common law rules of negligence, increasing risk to the City in the case of an incident involving the pipeline caused by the City or contractor.
The pipeline in City highway is installed using horizontal directional drilling, with the pipe being below the peat level except at the entry/exit pits.	VAFFC may opt to switch to a shallow excavation method, increasing impacts along the length of the pipeline including ESA areas.
In north Richmond between Highway 99 and Sea Island, the pipeline is installed in provincial land along Bridgeport Road.	VAFFC has the option to utilize alternate corridors approved under the Environmental Assessment Certificate. Both alternate options (Bridgeport Trail Corridor and River Road Corridor) result in additional pipeline being installed in City highway instead of Provincial highway.
Modified automatic fire suppression system to be installed at the Fuel Receiving Facility.	VAFFC may opt to revert to a fire suppression system that meets the minimum code requirements.
The City can require VAFFC to remove all abandoned pipeline at the end of the agreement period.	Decommissioning will be done in accordance with legislation, which may allow the pipe to be abandoned in place
Licence fee of \$9.8 million for initial 30 year term, and a minimum extension licence fee of \$12.7 million for 20 year extension. Reimbursement for professional costs in the amount of \$250,000.	No licence fees and no reimbursement for professional costs.

With ESA DP	No ESA DP
Construction of 350m of new dike and registering a 7.5m Right of Way for dike access, construction and maintenance at the Marine Terminal site.	Any dike would be private. The City would not have the right to access and maintain this dike.
Provision of a 6m wide park trail through the site at the Marine Terminal Site along with cash contribution towards off-site trail enhancements in the area.	No public trail/amenities.
Design and construct off-site and on-site ESA and RMA habitat enhancements, including a bench marsh on the river side of the dike. Monitoring requirements associated with these enhancements will ensure these significant habitat improvements are maintained.	VAFFC may elect to reduce ESA and RMA compensation to the minimum amount required.

Attachment 2
Existing and Proposed Pipeline Route



Attachment 3 Project Description

From VAFFC website:

Project Overview

Vancouver Airport Fuel Facilities Corporation (VAFFC), a consortium owned by most of the major airlines serving [Vancouver International Airport](#) (YVR), is building an aviation fuel delivery system to serve YVR.

The new delivery system includes a [Marine Terminal](#) and [Fuel Receiving Facility](#) on the South Arm of the Fraser River and a 13-kilometre underground [pipeline](#) to YVR. The system will meet the fuel requirements of the airlines and airport for the next 60 to 100 years, and be constructed to modern building, seismic, fire, and environmental codes to achieve the highest level of safety and reliability.

Project Need

The project is needed because the existing fuel delivery system is at maximum capacity and cannot meet the airport's growing fuel demand. Currently, the existing fuel delivery system must be supplemented by 70 fuel tanker truck deliveries per day (2,000 per month) which are required to meet the airport's peak fuel demand. Without a new fuel delivery system, the expected growth in fuel demand at YVR will have to be supplied by tanker truck deliveries, which could result in an additional 500 trucks on the road each month. For example, one new daily flight from Asia would require an additional 80 tanker truck deliveries each month. Reliance on tanker trucks is not sustainable to meet the fuel demand at a major international airport. The project will allow for the safe, secure and reliable supply of fuel to YVR for the long term.

Project Benefits

With a secure and long-term competitive fuel supply, the project will help ensure that YVR remains a key economic generator and critical part of British Columbia's role as Canada's Pacific Gateway. The project will have a smaller environmental footprint than the existing fuel delivery system. The project's spill prevention and response strategies for the Fraser River are robust and go well beyond industry standards and best practices, and will enhance the response capability on the Fraser River to the benefit of all other users on the river. It will also significantly reduce the dependence on tanker truck deliveries.

Project Approval

VAFFC received environmental approval in December 2013 from the provincial and federal governments following more than a decade of comprehensive planning, research, review and consultation, including seven open houses and more than 80 meetings with stakeholders.

Construction of the new system is expected to resume in spring 2019, with the full project commencing operations by late 2021.

Marine Terminal

The new Marine Terminal will be located on the north shore of the south arm of the Fraser River, at one of the widest and deepest sections of the river. An upgrade of an existing wharf, in an area that is already zoned for heavy industrial use, will be based on best practice designs and incorporate state-of-the-art mooring and offloading technologies.

The marine terminal will be designed to handle small barge shipments and large overseas shipments. These will be short in duration and only a few times a month, based on projected YVR fuel demand. A barge could be expected to deliver fuel once every two weeks with an unloading time around 12 hours, while a Panamax class vessel could be expected 1-2 times per month with an unloading time of between 24 to 36 hours.

Marine transportation of aviation fuel and other petroleum products within the Lower Mainland is not new. This new terminal will be receiving the vessels that are currently making deliveries to the Westridge Marine Terminal in Burrard Inlet.

Safety

The marine terminal will be a designated Oil Handling Facility ("OHF") under Transport Canada and comply with the standards and requirements of the Canada Shipping Act. The Marine Terminal will have a comprehensive Oil Pollution Emergency Plan incorporating specific response strategies tailored to the river environment. Western Canada Marine Response Corporation is the designated Response Organization in western Canada and will provide marine spill response services for both the terminal and shipping companies calling the terminal.

Vessels:

- All vessels will be double-hulled for optimal safety
- All vessel movements will be guided by tugboats and government-certified marine pilots on the river and at the Marine Terminal
- All vessels calling on the terminal will be pre-screened and vetted through a tanker acceptance program
- All vessels will have Shipboard Oil Pollution Emergency Plan, and required to carry pollution liability insurance

Fuel transfer:

- Fuel will be transferred from vessels to shore using hydraulically-operated articulated unloading arms
- The unloading arms will be designed to have flexibility and move with the vessel as winds, tides and currents change and as the vessel rises higher in the water as the fuel is offloaded
- If the movement of the vessel exceeds the safe range, the fuel transfer process will be automatically stopped and the arms will be disconnected using leak-free emergency release couplings
- The terminal will be equipped with pre-deployed booming

On-site Spill Response:

- Spill response vessels will be deployed upon arrival of a vessel in the river, will accompany the vessel to the terminal
- Before a vessel is offloaded, booms and skimmers will be positioned around the vessel to contain a spill in the unlikely event of an accidental release of product onto water, and to recover the product as quickly as possible
- The response boats would be on standby to deploy containment and absorbent booms in the water if require

Fuel Receiving Facility

The Fuel Receiving Facility will be located on industrial zoned, Port Metro Vancouver land adjacent to the Marine Terminal. No agricultural land will be required.

The facility will include six steel above-ground storage tanks with a total capacity of about 80 million litres.

The tanks will be located on the landward side of the dike at the foot of Williams Road. They will be approximately 14 metres high compared to the surrounding land, and partially hidden behind a two- to three-metre high containment berm.

A new, 500 metre-long underground pipeline will transfer offloaded jet fuel from the marine terminal to the storage tanks.

The facility will:

- Comply with both federal and provincial storage tank regulations
- Be built to modern storage tank and seismic design requirements
- Provide secondary containment features for all fuel storage and handling areas
- Incorporate emissions control systems
- Incorporate modern corrosion protection, leak detection and flow control systems

- Be automated, monitored 24/7 and electronically safeguarded through electronic video surveillance
- Be controlled and monitored by on-site operations personnel during all offloading, fuel transfer and fuel handling activities
- Supplementary to fire department services and fire water supply, the facility and public areas will also be protected from fire with a state-of-the-art detection system and suppression system including tank cooling water and foam injection

Pipeline

The new pipeline will be about 13 kilometres long and 355 millimetres (about 14 inches) in diameter. The pipeline will be buried approximately 10 metres underground for most of its route, and at least 2.5 metres underground along Bridgeport Road.

The pipeline will consist of specialty steel pipe manufactured in accordance with the American Society for Testing and Materials (ASTM) Standard A53 (Grade B) and will be installed to the standards established by the Canadian Standards Association (CSA) Standard Z662-03 for Oil and Gas Pipeline Systems. The pipeline installation and operation will be regulated by the BC Oil and Gas Commission.

Construction will include extensive use of directional drilling (particularly for water body crossings and intersections) to mitigate potential environmental impacts and avoid disruption of vehicle and marine vessel traffic.

Prior to commissioning, the pipeline will be thoroughly tested and cleaned in accordance with construction and operational requirements, and clearly marked along its entire length. Similar to all other utility installation, location information will be provided to the City of Richmond and locator services.

Safety

Modern pipeline systems have the benefit of precise locating technologies, new materials and coatings, and high-tech installation techniques to reduce disturbances during construction.

The pipeline systems will:

- Be constructed with resilient materials to current seismic design standards
- Be controlled and monitored by operations personnel during all fuel transfer activities
- Be pressurized only during fuel transfer operations between the Fuel Receiving Facility and YVR (not 24/7)
- Include state-of-the-art corrosion protection and leak detection technologies
- Be buried underground and well-marked, mapped and electronically located for reference by municipal and private contractors
- Be monitored by a control system using pressure sensors and automatic flow shutoff devices

Attachment 4 VAFFC Corporate Profile, Membership and Structure

VAFFC – 9 July 2019

VANCOUVER AIRPORT FUEL FACILITIES CORPORATION

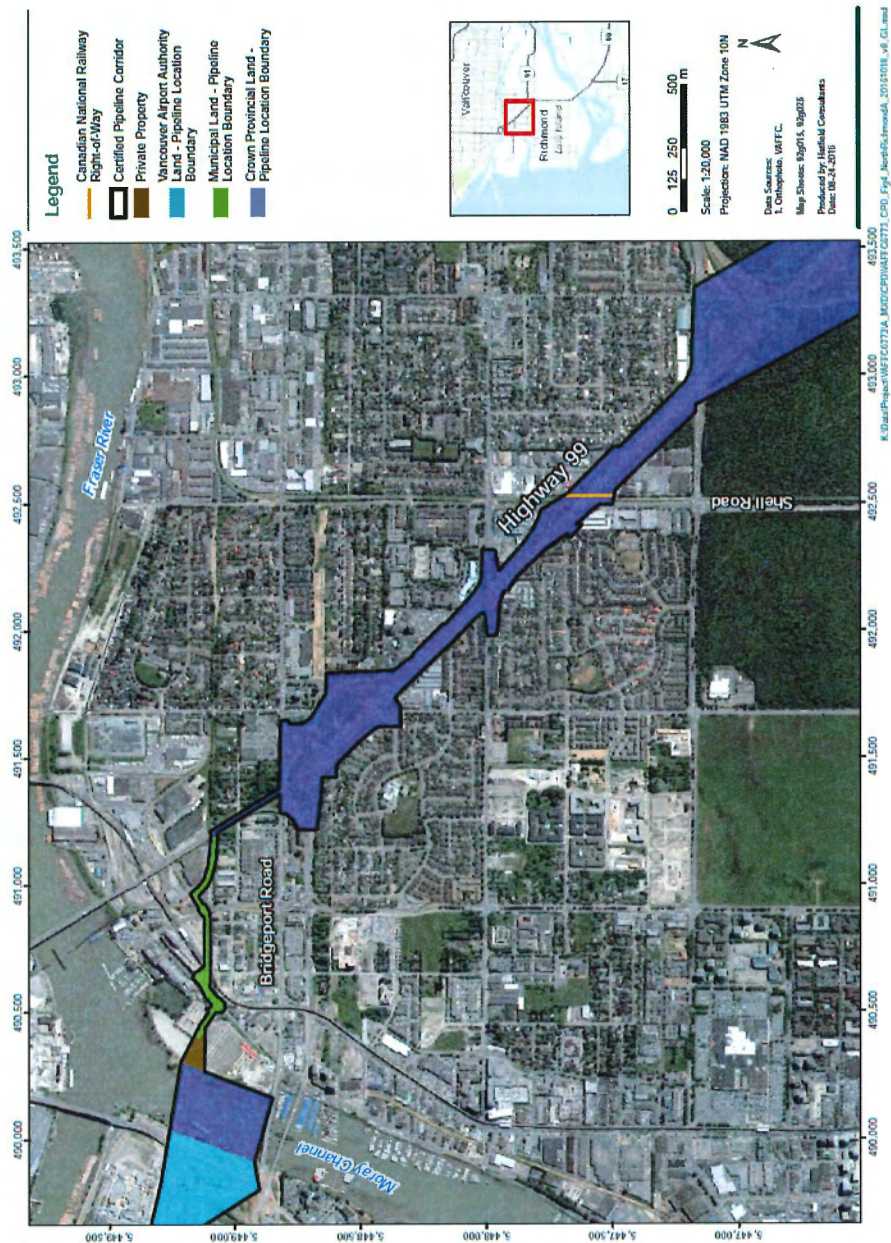
Corporate Profile, Membership and Structure

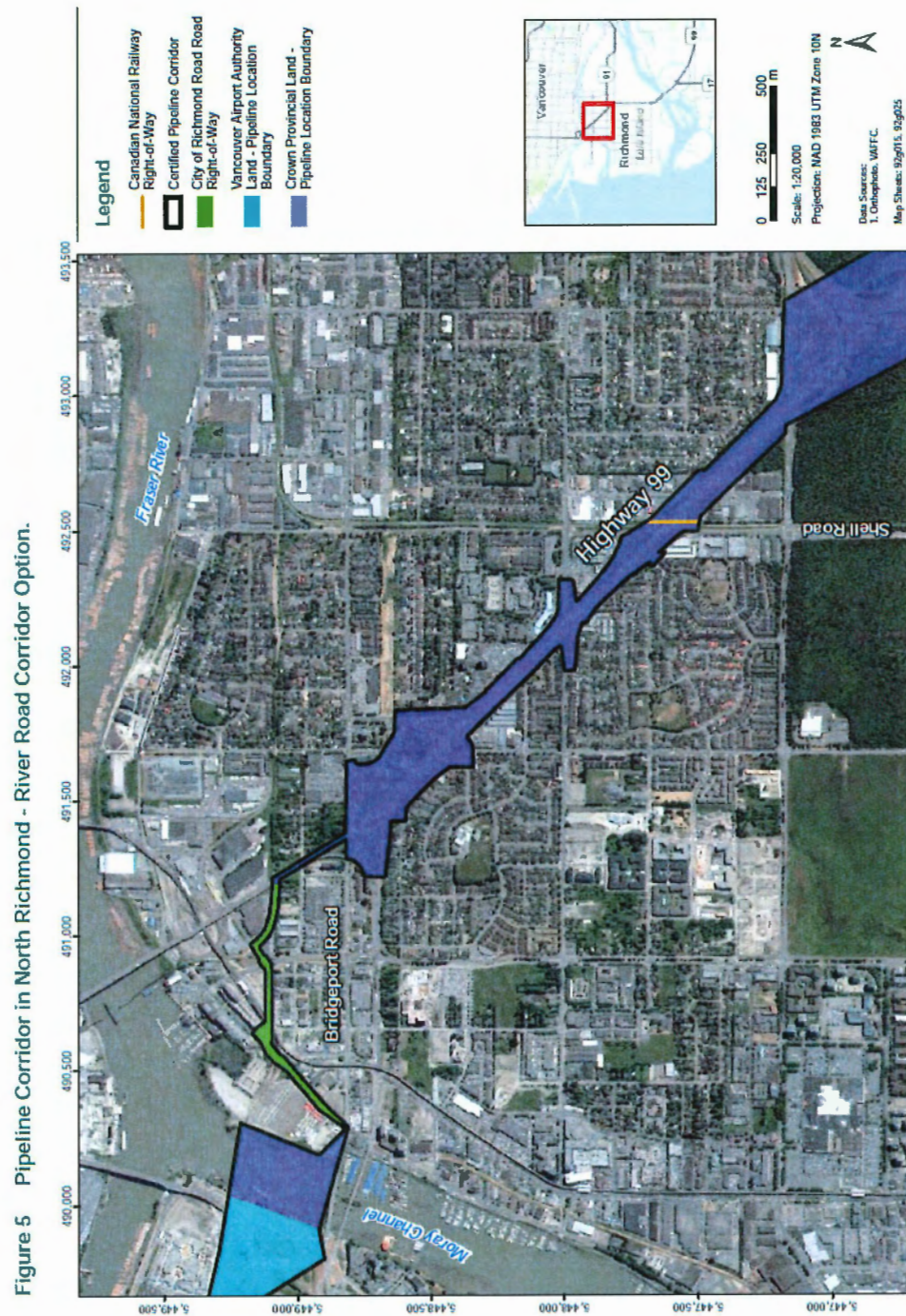
- Vancouver Airport Fuel Facilities Corporation (VAFFC) is a not-for-profit company owned by a consortium of international and domestic commercial airlines that operate at Vancouver International Airport (YVR), Canada's second largest airport. Currently, 34 airlines are VAFFC members. The main function of VAFFC is to provide efficient sharing of facilities, costs and risks between member airlines. VAFFC has over 30 years of experience in fuel handling activities at YVR.
- VAFFC owns, constructs, operates and maintains the aviation fuel storage and distribution facilities at YVR. Similar fuel facility corporations operate at all of the major international airports across Canada – Vancouver, Edmonton, Calgary, Winnipeg, Ottawa, Hamilton, Toronto, Montreal and Halifax. The largest in Canada is Pearson International Fuel Facilities Corporation (PIFFC). VAFFC is the second largest.
- VAFFC contracts the planning, management, construction and operation of its facilities to qualified organizations, and draws expertise from a network of experienced engineering and environmental consultants specializing in fuel infrastructure. FSM Management Group Inc. (FSM) is responsible for administering the day-to-day finances for VAFFC, managing its construction projects, and overseeing operations at YVR. FSM specializes in the planning and management of fuel-related projects and infrastructure across Canada.
- The fuel facility structure has been a successful organizational model for many years, both operationally and commercially. The airline membership in VAFFC may vary from year-to-year, but VAFFC continues and offers a stable entity to serve the airlines who use YVR. VAFFC enjoys an A2 credit rating from Moody's.
- Each member airline purchases fuel for its own use and arranges delivery to the VAFFC fuel facilities at YVR, either through the existing delivery pipeline system or via tanker trucks. On behalf of its member airlines, VAFFC is responsible for:
 - Operating and maintaining its fuel facility system at YVR;
 - Working with Vancouver Airport Authority and Transport Canada to develop fuel demand forecasts and comply with regulations;
 - Directing new investment, maintaining insurance, and structuring debt;
 - Planning, constructing and operating safe, reliable and cost-effective fuel infrastructure to meet near and long-term demand projections; and
 - Obtaining regulatory permits, approvals and authorizations as they relate to fuel system operation and expansion, and new developments such as the Vancouver Airport Fuel Delivery Project (VAFDP).

Attachment 5

Alternative North Route Alignment

Figure 4 Pipeline Corridor in North Richmond - Bridgeport Trail Corridor Option.





Attachment 6 ALC Decision



Agricultural Land Commission
133-4940 Canada Way
Burnaby, British Columbia V5G 4K6
Tel: 604 660-7000
Fax: 604 660-7033
www.alc.gov.bc.ca

March 17, 2017

ALC File: 55644

RPS Group
Suite 700, 555 – 4th Avenue SW
Calgary, AB T2P 3E7

Attention Jerry Hagen:

Re: Application for a Utility Corridor the Agricultural Land Reserve (ALR)

Please find attached the Reasons for Decision of the South Coast Panel (Resolution #64/2017) as it relates to the above noted application. A sketch plan depicting the decision is also attached. As agent, it is your responsibility to notify the applicant accordingly.

Reconsideration of a Decision as Directed by the ALC Chair

Please note that pursuant to [s. 33.1 of the Agricultural Land Commission Act](#), the Chair may direct the Executive Committee to reconsider any panel decision if, within 60 days from the date of this decision, he considers that the decision may not fulfill the purposes of the Commission as set out in s. 6, or does not adequately take into consideration s. 4.3.

You will be notified in writing if the Executive Committee is directed to reconsider your decision. The Commission advises you to take this 60 day period into consideration prior to proceeding with any actions upon this decision.

Reconsideration of a Decision by an Affected Person

We draw your attention to [s. 33\(1\) of the Agricultural Land Commission Act](#) which provides a person affected the opportunity to submit a request for reconsideration.

33(1) On the written request of a person affected or on the commission's own initiative, the commission may reconsider a decision of the commission under this Act and may confirm, reverse or vary it if the commission determines that:

- (a) evidence not available at the time of the original decision has become available,
- (b) all or part of the original decision was based on evidence that was in error or was false.

For further clarity, s. 33.1 and s. 33(1) are separate and independent sections of the *Agricultural Land Commission Act*.

Further correspondence with respect to this application is to be directed to Kamelli Mark at (Kamelli.Mark@gov.bc.ca).

July 10, 2019

- 28 -

Page 2 of 2

Yours truly,

PROVINCIAL AGRICULTURAL LAND COMMISSION

A handwritten signature in dark ink, appearing to read 'KMARK', written in a stylized, cursive-like font.

Kamelli Mark, Land Use Planner

Enclosures: Reasons for Decision (Resolution #64/2017)
Sketch plan

55844d1



AGRICULTURAL LAND COMMISSION FILE 55644

REASONS FOR DECISION OF THE SOUTH COAST PANEL

Application submitted pursuant to s. 6 of BC Regulation 171/2002 (ALR Use, Subdivision and Procedure Regulation)

Applicant: City of Richmond
(the "Applicant")

Agent: Jerry Hagen
(the "Agent")

Application before the South Coast Regional Panel: William Zylmans, Panel Chair
Satwinder Bains



Agricultural Land Commission Decision, ALC File 55644

THE APPLICATION

[1] The legal description of the properties involved in the application are:

Property 1

Parcel Identifier: 002-789-850

Parcel One (RD173314E) (Reference Plan 8809) of Lot 3, Section 19, Block 4, north Range 5 West, New Westminster District Plan 5239

Civic Address: 8871 Sidaway Road, Richmond, BC

Parcel Area: 6.4 ha

Area Affected: 0.6 ha

Property 2

Parcel Identifier: 011-007-427

Lot 5, Section 20, Block 4, North Range 5 West, New Westminster District Plan 3109

Civic Address: 8611 No. 6 Road, Richmond, BC

Parcel Area: 8.1 ha

Area Affected: 1.0 ha

Property 3

Parcel Identifier: 011-007-419

Lot 4, Section 20, Block 4, North Range 5 West, New Westminster District Plan 3109

Civic Address: 8611 No. 6 Road, Richmond, BC

Parcel Area: 8.1 ha

Area Affected: 1.0 ha

Property 4

Parcel Identifier: 004-021-908

Lot 1, Section 29, Block 4, North Range 5 West, New Westminster District, Plan 4691



Agricultural Land Commission Decision, ALC File 55644

Civic Address: 9111 No. 6 Road, Richmond, BC

Parcel Area: 8.5 ha

Area Affected: 0.83 ha

Property 5 (Right-of-Way)

Parcel Identifier: N/A

Government Road Allowance between Sec 21, Block 4N, Range 5W and Section 28, Block 4N, Range 5W

Civic Address: N/A

Parcel Area: 3.8 ha

Area Affected: 3.8 ha

(collectively, the "Properties")

[2] The Properties are located within a designated agricultural land reserve ("ALR") as defined in s. 1 of the *Agricultural Land Commission Act* (the "ALCA").

[3] The Properties are located within Zone 1 as defined in s. 4.2 of the ALCA.

[4] Pursuant to s. 6 of the BC Regulation 171/2002 (Agricultural Land Reserve Use, Subdivision and Procedure Regulation (the "Regulation"), the Applicants are applying to create two temporary workspaces, with a maximum combined area of 2.0 ha, for the purpose of constructing an underground pipeline (fuel delivery system for the Vancouver International Airport) within an existing Road Right of Way (ROW) along Francis Road (the "Proposal"). The Proposal along with supporting documentation is collectively the application (the "Application").

RELEVANT STATUTORY PROVISIONS

[5] The Application was made pursuant to s. 6 of the Regulation:



Agricultural Land Commission Decision, ALC File 55644

6 Unless permitted under sections 2 and 3, a person must file an application under section 34 (6) of the Act directly with the office of the commission and in a form acceptable to the commission for any of the following uses:

- (a) widening of an existing road right of way;
- (b) construction of a road within an existing right of way;
- (c) dedication of a right of way or construction of any of the following:
 - (i) a new or existing road or railway;
 - (ii) a new or existing recreational trail;
 - (iii) a utility corridor use;
 - (iv) a sewer or water line other than for ancillary utility connections;
 - (v) a forest service road under the *Forest Act*;
- (d) the new use of an existing right of way for a recreational trail.

[6] The Panel considered the Application within the context of s. 6 of the ALCA. The purposes of the Agricultural Land Commission (the "Commission") set out in s. 6 are as follows:

6 The following are the purposes of the commission:

- (a) to preserve agricultural land;
- (b) to encourage farming on agricultural land in collaboration with other communities of interest; and
- (c) to encourage local governments, first nations, the government and its agents to enable and accommodate farm use of agricultural land and uses compatible with agriculture in their plans, bylaws and policies.

EVIDENTIARY RECORD BEFORE THE PANEL

[7] The Panel considered the following evidence:

- 1. The Application
- 2. Local government documents
- 3. Previous application history



4. Agricultural capability map, ALR context map and satellite imagery

All documentation noted above was disclosed to the Agent in advance of this decision.

[8] The Panel reviewed two previous applications involving Property 1 (there are no previous applications in ALC records involving Property 2, Property 3, Property 4, or Property 5):

Application ID: 11112
Legacy File: 719
(Penich, 1975)

To subdivide two 0.08 ha lots from Property 1 (6.4 ha) for residential uses. The Commission stated that the subject property has very good agricultural potential and that the construction of two additional homes on the property would remove too much land from production. The application was refused by Resolution #2226/75.

Application ID: 14404
Legacy File: 32842
(Senghera Farms Ltd., 1999)

To place approximately 1000 m³ of gravel on an approximately 59 m x 100 m portion of Property 1 to a depth of approximately 0.2 to 0.3 m for the purpose of constructing a greenhouse. The application was approved by ALC Resolution #535/99.

SITE VISIT

[9] The Panel, in the circumstances of the Application, did not consider it necessary to conduct a site visit to the Property based on the evidentiary record associated with the Application.

FINDINGS

[10] In assessing agricultural capability, the Panel referred in part to agricultural capability mapping and ratings. The ratings are identified using the BC Land Inventory (BCLI), 'Land Capability Classification for Agriculture in B.C.' system. The improved agricultural capability ratings identified on BCLI map sheet 92G/03h for the mapping units encompassing the Properties are as follows:



Agricultural Land Commission Decision, ALC File 55644

- Property 1: Class 2 and Class 3, more specifically (7:2WD 3:3WD)
- Property 2: Class 3, more specifically (O3LWF)
- Property 3: Class 3, more specifically (O3LWF)
- Property 4: Class 3, more specifically (O3LWF)
- Property 5: Class 3, more specifically (O3LWF)

O - Indicates organic soils.

Class 2 - land is capable of producing a wide range of crops. Minor restrictions of soil or climate may reduce capability but pose no major difficulties in management.

Class 3 - land is capable of producing a fairly wide range of crops under good management practices. Soil and/or climate limitations are somewhat restrictive.

The limiting subclasses associated with this parcel of land are L (degree of decomposition – permeability), W (excess water), F (low fertility), and D (erosion).

[11] The Panel reviewed the BCLI ratings and find that the Properties are capable of supporting agriculture.

[12] The Application identifies four potential locations for the two proposed temporary workspaces on Property 1, Property 2, Property 3, and Property 4. The temporary workspaces are to be used for a combination of staging and storage of vehicles, pipes, and equipment to facilitate construction of the pipeline. The Application states that no agriculture is currently taking place on the portions of the Properties proposed for temporary workspaces. According to the Application, the 3.8 ha area identified as a "pipeline easement" is located entirely within an existing City of Richmond ROW (Property 5) along Francis Road (currently undeveloped). The Panel has no objection to the proposed location of the pipeline as it is entirely contained within an existing ROW.

[13] While no farming is currently taking place on the portions of the four Properties proposed for the temporary workspaces, this is not indicative that the lands will not be utilized for agricultural purposes in future. The Panel appreciates that the locations within



the ALR were chosen to best facilitate the construction and staging needs for the pipeline along Francis Road; however, there is the potential for negative impacts to accrue on the subject Properties and on adjacent properties during construction. The Panel is amenable to the Applicant utilizing any two of the four proposed temporary workspaces, provided that the two chosen sites are successfully reclaimed following completion of construction along Francis Road; should the Applicant choose to clear Property 2 for use as a temporary workspace, reforestation of the site would not be required following completion of construction.

DECISION

[14] For the reasons given above, the Panel approves the Proposal to create two temporary workspaces, with a maximum combined area of 2.0 ha, for the purpose of constructing an underground pipeline (fuel delivery system for the Vancouver International Airport) within an existing Road Right of Way (ROW) along Francis Road.

[15] The Proposal is approved subject to the following conditions:

Pre-Construction Phase:

- a. The Applicant shall submit a finalized plan confirming the selection of the two temporary workspaces prior to commencement of construction;
- b. no more than two temporary workspaces shall be selected out of the four proposed options;
- c. submission of a schedule outlining the projected start date and end date of construction within the Proposal area within 60 calendar days from release of this decision;
- d. submission of a pre-site assessment for the two temporary workspaces prepared by a qualified registered professional for review and approval by the Commission prior to commencement of construction. Any pre-site assessment prepared for Property 4 must assess the parcel in its entirety;
- e. submission of a reclamation plan for the two temporary workspaces prepared by a qualified registered professional for review and approval by the Commission prior to



commencement of construction. If Property 4 is selected for use as a temporary workspace, the reclamation plan must include reclamation measures for the portion of the property outlined on the attached Sketch Plan;

- f. to ensure the successful reclamation of the project area and appropriate oversight should the Applicant cease to consult with a qualified registered professional, a financial security in the form of an Irrevocable Letter of Credit (the "ILOC") in the amount of \$40,000 must be made payable to the Minister of Finance c/o the Agricultural Land Commission. The ILOC is to ensure the project is conducted in accordance with the information submitted with the Application and the conditions of this decision;
- g. for greater clarity, some or all of the ILOC will be accessible to and used by the Commission upon the failure of the operator to comply with any or all aspects of the conditions of approval contained herein;

Construction Phase:

- h. the construction and location of the pipeline and the two temporary workspaces shall be in substantial compliance with the plan submitted with the Application and the attached Sketch Plan;
- i. under the direction of a professional agrologist, all existing topsoil must be salvaged for use during the reclamation of the project where appropriate:
 - i. Stockpiled soils should be windrowed and located in an area where they will not be disturbed and will not impede site drainage;
 - ii. Stockpiles should not exceed 3 metres in height and slopes should be no steeper than 3:1;
 - iii. Stockpiles should be seeded and established with an appropriate plant cover, or other suitable soil erosion control measure must be applied to protect the stockpiles from wind, runoff and other removal process;
 - iv. Stockpiled soil must not be removed from the Property without written permission from the Commission;



- j. geotextile fabric must be placed under soil stockpiles to protect underlying soil and to ensure no foreign material is left on site following completion of construction;
- k. swamp/rig mats must be installed over the temporary workspaces to protect underlying soil;
- l. appropriate weed control must be practiced on all areas disturbed by the Proposal;
- m. any fencing which is removed or damaged must be replaced, to the landowners' satisfaction, by the Applicant at the time of construction;

Post-Construction Phase:

- n. If Property 1, Property 2, or Property 3 are selected for use as temporary workspaces, upon completion of construction the temporary workspaces must be reclaimed to an agricultural capability equal to or better than existing conditions as per the pre-site assessment within 6 months of construction completion along Francis Road;
- o. If Property 4 is selected for use as a temporary workspace, upon completion of construction the portion of the property outlined on the attached Sketch Plan must be reclaimed to an agricultural capability equal to or better than the BCLI improved capability ratings;
- p. submission of a closure report prepared by a professional agrologist for review and approval by the Commission within 60 days following completion of the project, confirming that the Commission's conditions of approval have been met;
- q. release of the ILOC will be dependent on receipt of evidence that the reclamation is completed to a standard deemed satisfactory by the Commission. In this regard, the Commission will consider the final report that must be prepared by a qualified registered professional and submitted to the Commission in fulfillment of condition "p" above; and,
- r. the construction and reclamation being completed within three (3) calendar years from the date of release of this decision.

[16] This decision does not relieve the owner or occupier of the responsibility to comply with applicable Acts, regulations, bylaws of the local government, and decisions and orders of any person or body having jurisdiction over the land under an enactment.



Agricultural Land Commission Decision, ALC File 55644

[17] These are the unanimous reasons of the South Coast Panel of the Agricultural Land Commission.

[18] A decision of the Panel is a decision of the Commission pursuant to s. 11.1(5) of the *Agricultural Land Commission Act*.

[19] This decision is recorded as Resolution #64/2017 and is released on March 17, 2017;

CERTIFICATION OF DECISION

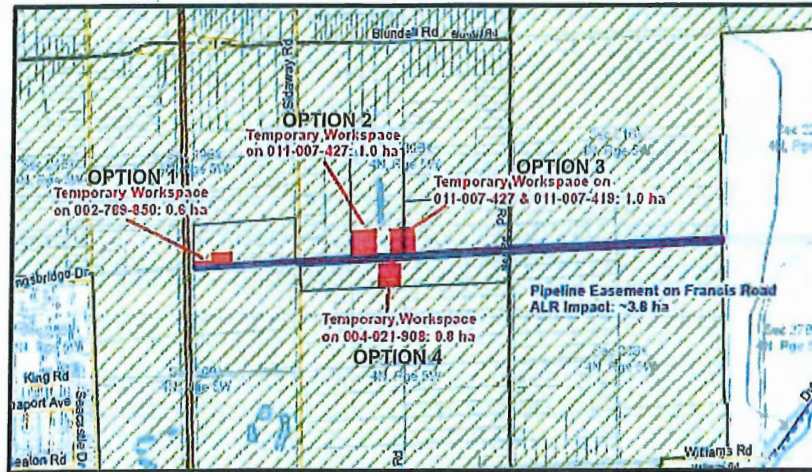
A handwritten signature in blue ink, appearing to read 'W. Zylmans', is written over a horizontal line.

William Zylmans, Panel Chair, on behalf of the South Coast Panel

END OF DOCUMENT



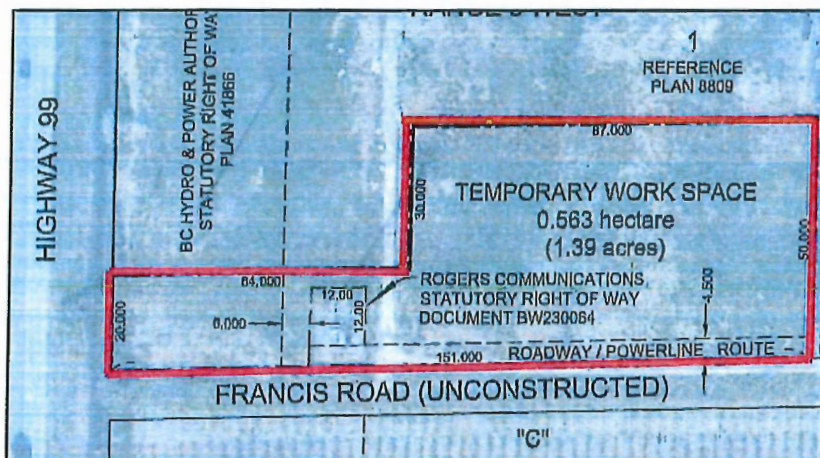
Agricultural Land Commission Decision Sketch Plan
 ALC File 55644 (City of Richmond)
 Conditionally Approved Utility Corridor Use
 ALC Resolution #64/2017



■ = Conditionally Approved Utility Corridor Use (two temporary workspaces out of four options, with a maximum combined area of 2.0 ha)



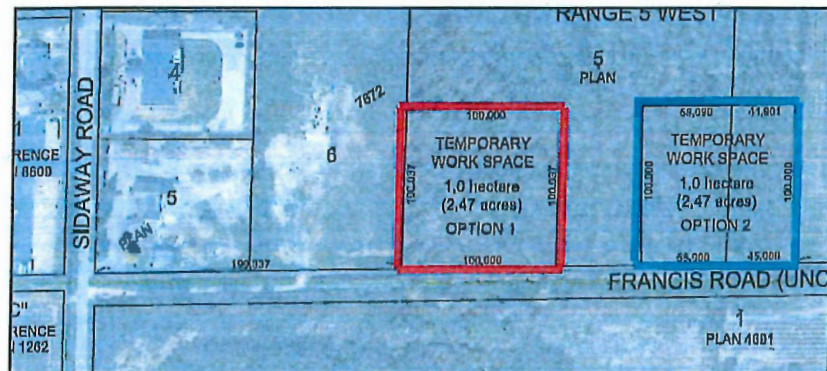
Agricultural Land Commission Decision Sketch Plan
 ALC File 55644 (City of Richmond)
 Conditionally Approved Utility Corridor Use
 ALC Resolution #64/2017



— = Conditionally Approved Utility Corridor Use (temporary workspace - Property 1, Option 1)



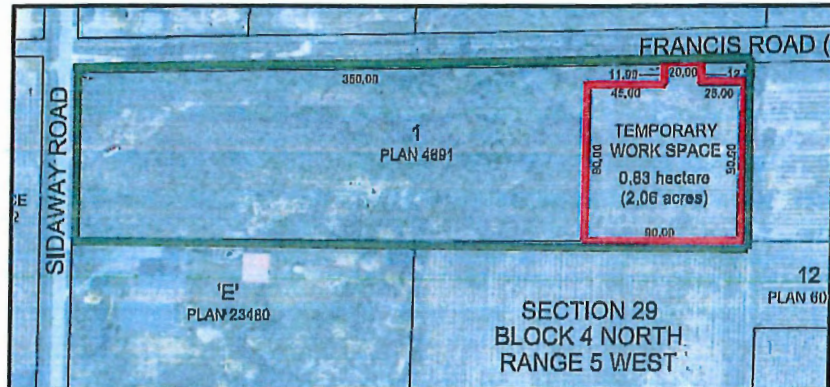
Agricultural Land Commission Decision Sketch Plan
 ALC File 55644 (City of Richmond)
 Conditionally Approved Utility Corridor Use
 ALC Resolution #64/2017



- = Conditionally Approved Utility Corridor Use (temporary workspace - Property 2, Option 2)
- = Conditionally Approved Utility Corridor Use (temporary workspace - Property 3, Option 3)



Agricultural Land Commission Decision Sketch Plan
 ALC File 55844 (City of Richmond)
 Conditionally Approved Utility Corridor Use
 ALC Resolution #64/2017



- = Conditionally Approved Utility Corridor Use (temporary workspace - Property 4, Option 4)
- = Area to be reclaimed if Property 4, Option 4, is selected for use as temporary workspace

Attachment 7
Excerpts from Kinder Morgan Canada (Jet Fuel) Inc.'s Application

KINDER MORGAN CANADA (JET FUEL) INC. 2019 TARIFF FILING	EXHIBIT B-8
--	-------------



Rosa Twyman
Ph: 403.930.7991
Rosa.Twyman@RLChambers.ca
Our matter #: 1081.001

June 7, 2019

VIA E-Filing

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Attention: Patrick Wruck, Commission Secretary

Dear Mr. Wruck,

Re: Project No. 1598984
British Columbia Utilities Commission ("BCUC")
Kinder Morgan Canada (Jet Fuel) Inc. ("KMJF") 2019 Tariff Filing
2019 Revenue Requirement and Final Tolls Application

In accordance with the process schedule set out in BCUC Order No. P-5-19, please find enclosed KMJF's 2019 Revenue Requirement and Final Tolls Application.

Yours truly,

<Submitted electronically>

Rosa Twyman
Regulatory Law Chambers
cc: Bruce Reed, Manager-Tariffs and Regulatory Affairs for KMJF
KMJF Shippers

00098811.1

601, 888 FOURTH AVE. SW CALGARY AB T2P 0V2 • PH: 403-930-7991 FX: 403-930-7998 • WWW.REGULATORYLAWCHAMBERS.CA

BRITISH COLUMBIA UTILITIES COMMISSION

KINDER MORGAN CANADA (JET FUEL) INC.

2019 TARIFF FILING

Project No. 1598984

APPLICATION FOR REVENUE REQUIREMENT AND FINAL TOLLS FOR 2019-2021

June 7, 2019

00098368.7

Application for Tolls
Executive Summary

Kinder Morgan Canada (Jet Fuel) Inc.'s ("KMJF") pipeline system transports jet fuel from the Parkland refinery, Westridge terminal and distribution facilities in the Burnaby area to the Burnaby terminal and then to the Vancouver International Airport terminal. The 41-km pipeline system has been in operation since 1969. It includes five storage tanks at the Vancouver airport terminal.

KMJF requests approval of the 2019 Forecast Revenue Requirement that is calculated based on the continuation of the existing annual revenue requirement cost allocation tolling methodology approved by the Commission in Order P-5-09, issued December 16, 2009. KMJF further proposes that the 2019 Forecast Revenue Requirement is escalated 2.0 percent per year, which is 0.5 percent lower than the escalation factor used for the years 2011 through 2018. The 2019 Forecast Revenue Requirement reflects the cost of operation for the pipeline as well as the amortization of plant in service and other required costs over the expected remaining life of the pipeline. The expected remaining life of the pipeline is forecast to be three years, based on the Vancouver Airport Fuel Delivery's ("VAFD") stated construction timeline for its competing pipeline project. KMJF expects that, as a result, the KMJF pipeline system will become economically unviable once the VAFD project commences operations and bypasses the KMJF pipeline system. KMJF also requests approval for the annual amount of abandonment costs to be collected from shippers through a Collection Mechanism. For purposes of calculating the annual amount of abandonment costs to be collected through the Collection Mechanism, KMJF assumed a 3-year period, consistent with the expected remaining life of the pipeline. The following is a high-level summary of the key parameters contained in the following pages.

00098368.7

- 15 -

F. Forecasted Volumes After December 31, 2021 and Remaining Economic Life

24. Based on the foregoing, KMJF expects that the VAFD project (*i.e.*, VAFFC's bypass fuel delivery system) will be in service by late 2021. Once the VAFD project is operational, the Jet Fuel System will become uneconomical to maintain and operate.
25. Adrian Pollard, VAFFC's spokesman, was quoted as saying in an article in BIV, dated June 20, 2017, that the KMJF Jet Fuel System at that point will no longer be economical to maintain:¹⁷

"The airlines are the end customer," Pollard said. "They're financing this project; naturally they're going to use it. And the capacity on that existing [Jet Fuel System] will decline to such a point where it's not really economical to maintain it." [Emphasis added.]

26. The article also states:¹⁸

Once the VAFFC project is completed, the consortium [VAFFC] will be able to buy jet fuel on the open market. South Korea is one likely supplier, said Rob Smith, energy director for IHS Markit.

He expects having access to new markets for jet fuel will drive prices down, which will affect both the refinery in Burnaby and Kinder Morgan.

The new pipeline might mean that the days are numbered for the Kinder Morgan pipeline that now supplies YVR, because airlines will be able to supply all of their own fuel. [Emphasis added.]

27. Once the VAFD project enters service, the remaining shippers from the Parkland refinery and Shell rail facility, that currently represent about 40 percent of total volumes, would have to pay 100 percent of the Jet Fuel System revenue requirement. KMJF expects that, as a result, the Jet Fuel System will become economically unviable once the VAFD project commences operations and bypasses the Jet Fuel System.

¹⁷ Nelson Bennett, "New \$150 million jet fuel pipeline project underway: Days could be numbered for current Kinder Morgan pipeline that supplies YVR with jet fuel," Article Published by Business in Vancouver, dated June 20, 2017, available online at: <<https://biv.com/article/2017/06/new-150-million-jet-fuel-pipeline-project-underway>>. A copy of the article is attached hereto as Appendix D.

¹⁸ Nelson Bennett, "New \$150 million jet fuel pipeline project underway: Days could be numbered for current Kinder Morgan pipeline that supplies YVR with jet fuel," Article Published by Business in Vancouver, dated June 20, 2017, available online at: <<https://biv.com/article/2017/06/new-150-million-jet-fuel-pipeline-project-underway>>. A copy of the article is attached hereto as Appendix D.

00098368.7

C. Rate Base

32. The plant portion of the rate base is calculated on the basis of a mid-year average. The opening balances for original cost and accumulated depreciation are based on actuals, and the closing balances for original cost and accumulated depreciation are forecast. The mid-year average balances provide the forecast of average net plant in service.

Table 4: Rate Base Summary²¹

Average Rate Base (\$000)	2019 Forecast	Sch. No.
Average plant in service	18,819	6
Average accumulated depreciation of plant in service	13,878	6
Average net book value of plant in service	4,941	
December 31, 2018 deferred income tax balance	-111	
Average working capital requirement	<u>159</u>	10
Average Rate Base	<u>4,989</u>	

D. Depreciation Based on Three Year Remaining Economic Life of Jet Fuel System

33. As discussed above, KMJF expects that once the VAFD project commences operations, the Jet Fuel System will become economically unviable. For this reason, the expected economic life of the pipeline is forecast to be three years from January 1, 2019, based on an expectation that the VAFD project will commence operations by late 2021.
34. Depreciation expense is forecast by multiplying the plant account balances by the appropriate depreciation rate.²² A separate depreciation rate is applied for each plant account or group of similar assets. The depreciation rates are based on an updated depreciation study that establishes depreciation rates effective January 1, 2019.²³

²¹ Wetmore 2019 Cost of Service Study, Schedule 2.

²² Wetmore 2019 Cost of Service Study, Schedule 4.

²³ The updated depreciation study is included in the Wetmore 2019 Cost of Service Study as Schedule 5.

- 19 -

35. KMJF's existing depreciation rates have been in effect since January 1, 2010. The 2019 Depreciation Study (Schedule 5 of the 2019 Cost of Service Study) presented below calculates revised depreciation rates as of January 1, 2019 based upon a three-year remaining depreciable life:

Table 5: 2019 Depreciation Study²⁴

Account Number & Description	Original Cost 12/31/2018	Accumulated Depreciation 12/31/2018	Net Service Value 12/31/2018	2018 Depreciation Expense	Existing Depreciation Rates	Forecast Remaining Life (a) = [d / e] [1]	Proposed Recovery 3 Years w Exception (b)	(i) = [h / b]	Revised Remaining Life (j) = [d / h]
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
152 Lend Rights	98,883.73	91,762.48	6,921.25	1,748.70	1.77%	4.0	2,307.08	2.34%	3.0
153 Line Pipe [2]	6,107,724.24	3,558,941.50	2,548,782.74	282,472.58	4.80%	9.0	1,080,980.91	15.89%	[1]
159 Buildings	490,479.33	341,743.90	138,735.43	19,219.18	4.00%	7.2	48,245.14	8.62%	3.0
159 Pumping Equipment	1,138,930.25	900,553.22	238,377.03	52,390.80	4.60%	4.5	79,459.01	6.98%	3.0
159 Station Lines	1,831,570.82	1,572,959.16	258,611.66	81,898.61	4.24%	4.4	119,538.22	6.16%	3.0
160 Other Station Equipment	2,760,133.99	1,989,824.62	770,309.37	153,627.16	5.73%	5.0	258,769.79	8.30%	3.0
160C Central Pipeline Control	328,325.99	320,325.99	-	-	0.00%	na	-	0.00%	na
161 Storage Tanks	1,878,251.02	1,228,896.83	649,354.19	91,993.66	4.90%	7.1	216,451.40	11.52%	3.0
163 Communications	230,200.52	223,358.50	15,842.02	5,513.46	10.00%	2.9	5,280.67	2.21%	3.0
165WE Work Equipment	51,974.45	47,999.11	3,975.34	1,326.12	20.00%	3.0	1,325.11	2.55%	3.0
165HW Computer Hardware	3,789.43	3,789.43	-	-	20.00%	na	-	0.00%	na
165SW Computer Software	8,625.11	8,625.11	-	-	20.00%	na	-	0.00%	na
169D AFUDC (Interest)	149,198.01	132,468.61	16,731.40	4,819.10	3.23%	3.5	5,577.13	3.74%	3.0
169E AFUDC (Equity)	160,050.55	136,072.52	23,978.04	5,425.72	3.39%	4.4	7,992.68	4.59%	3.0
190 Construction Overhead	3,252,311.69	2,773,177.53	479,134.16	130,417.68	4.01%	3.7	159,711.49	4.91%	3.0
BS Cost of Removal	-	(404,795.28)	404,795.28	49,616.56	7.69%	8.2	134,931.78	33.33%	3.0
Total	18,590,249.44	12,934,696.23	5,655,551.21	880,366.33		6.4	2,118,550.40		

Summary of Depreciation Rates

	2018	2019
Depreciation Expense without Costs of Removal	830,849.77	1,891,618.64
Amortization of normal Costs of Removal	49,516.56	134,931.78
Total Provision for Pipeline	880,366.33	2,118,550.40

Notes:

[1] Reflects depreciation and amortization effective as of January 1, 2010.

[2] As shown on Schedule 6, a significant addition is forecast to be placed in service in 2019. Therefore, this 2019 forecast addition is factored into the depreciation rate calculation, as shown below.

	12/31/2018	Forecast Additions	Revised Amount	Proposed Recovery 3 Years
Original Cost	6,107,724.24	694,100.00	6,801,824.24	15.89%
Net Service Value	2,548,782.74	694,100.00	3,242,882.74	1,080,980.91

36. These revised depreciation rates are used in the calculation of forecast 2019 depreciation expense presented in Schedule 6 of the 2019 Cost of Service Study.

37. KMJF considers that its proposed depreciation method is reasonable and fair as it ensures that Parkland, Shell, and Air Canada, together with VAFFC, equitably share the costs of the utilization of the pipeline prior to it becoming underutilized and economically unviable. This is particularly fair, given that VAFFC is the entity with sole control of whether the KMJF Jet Fuel Line becomes significantly underutilized as a result of the bypass VAFD project.

²⁴ Wetmore 2019 Cost of Service Study, Schedule 5.

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IV. ABANDONMENT COSTS

A. BCUC Jurisdiction

43. It is in the public interest that regulated pipelines be abandoned safely and efficiently.²⁹ The BCUC has jurisdiction to establish conditions with respect to a common carrier in relation to abandonment of service. KMJF considers that this authority includes jurisdiction to consider and approve:

- (a) an abandonment cost estimate for the Jet Fuel System, as a legitimate cost of KMJF providing service to be recovered from users of the system;
- (b) a fair and transparent collection mechanism that allows the estimated abandonment costs to be collected over the remaining economic life of the Jet Fuel System; and
- (c) a set-aside mechanism that ensures funds will be available to safely and effectively abandon the Jet Fuel System by the end of its anticipated economic life.

44. KMJF recognizes that prior to discontinuing service and commencing abandonment of the Jet Fuel System, it will be required to apply to the BCUC to cease providing service and to the BC Oil and Gas Commission ("BCOGC") for leave to physically abandon the system.

B. Abandonment Cost Estimate

45. KMJF retained Environmental Liability Management Inc. ("ELM") to provide an abandonment cost estimate for the Jet Fuel System (the "**2019 ELM Abandonment Cost Study**"). KMJF includes the ELM Abandonment Cost Study as Appendix E to this application.

46. ELM prepared the 2019 ELM Abandonment Cost Study based on the National Energy Board's guidelines regarding unit cost costs for abandonment activities.³⁰ ELM is in the process of completing an in-person inspection of the facilities and acquiring additional input from landowners, municipalities and regulators as to any specific removal

²⁹ See National Energy Board Reasons for Decision MH-001-2013, p 114.

³⁰ See 2019 ELM Abandonment Cost Study, p 10.

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requirements. ELM expects to complete this process by the end of July, 2019. ELM will, if required, update the 2019 ELM Abandonment Cost Study upon completion of these steps.

47. In National Energy Board Decision MH-001-2013, the National Energy Board also held that the timing of abandonment of a pipeline for the purpose of establishing future abandonment costs should be the shorter of the anticipated economic life or physical life.

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V. RELIEF REQUESTED

54. Based on the foregoing, KMJF respectfully requests orders by the Commission granting the following:
- (a) approval of the 2019 Forecast Revenue Requirement;
 - (b) approval of the 2020 and 2021 revenue requirements based on applying a 2% escalation factor to the revenue requirement approved for the preceding year;
 - (c) approval of tolls for the Tolling Period being determined based on the continuation of the existing annual revenue requirement cost allocation tolling methodology set out in Tariff No. 40;³⁴
 - (d) approval of the Abandonment Cost Estimate;
 - (e) approval of KMJF's proposed Abandonment Cost Surcharge to collect from shippers the Abandonment Cost Estimate over the three-year remaining economic life of the Jet Fuel System;
 - (f) approval of KMJF's proposed abandonment cost set aside mechanism; and
 - (g) such further and other relief as the Commission may deem just.

All of which is respectfully submitted this 7th day of June 2019.

Original signed by

Rosa Twyman and John Gormley
Counsel for Kinder Morgan Canada (Jet Fuel) Inc.

³⁴ Ex. B-1, Proposed Tariff No. 40, Section 15, PDF p 7 of 14.

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Attachment 8
Details Regarding Foam Suppression System

Capuccinello Iraci, Tony

From: David Bursey <BurseyD@bennettjones.com>
Sent: Wednesday, 10 July 2019 12:44
To: Capuccinello Iraci, Tony
Cc: Larry Sandrin; Charlotte Teal; 'Robert Iasenza'; Mark McCaskill
Subject: VAFFC - DP Permit and MAA review - further details on fire suppression system

Tony,

COR requested further details about the foam fire suppression system at the fuel receiving facility, as noted below. Here is VAFFC's response.

COR Question: What is the name(s) of the foam suppression system manufacturer and installer.

VAFFC Response: The fire suppression system is a project-specific design for the VAFDP type of facility, and is not a single source off the shelf system. The system components are sourced through multiple suppliers. The design of the system was a collaboration between fuel system engineering design professionals and fire system experts.

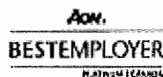
VAFFC has not yet tendered the supply of the fire suppression system. VAFFC's engineering design team has specified a list of qualified installation companies that will be able to meet the stringent requirements for the supply and installation of the system components. Only these companies will be solicited.

Let me know if you have further questions.



David Bursey
Partner, Bennett Jones LLP

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Attachment 9
Reasons for Ministers' Decision, the EA Certificate and the Conditions of EA Approval

In the matter of the
ENVIRONMENTAL ASSESSMENT ACT
S.B.C. 2002, c. 43
(Act)

and

in the matter of an
Application
for an
Environmental Assessment Certificate
(Application)
by

Vancouver Airport Fuel Facilities Corporation
(VAFFC)

for the

Vancouver Airport Fuel Delivery Project
(Project)

Reasons for Ministers' Decision

On December 11, 2013, pursuant to Section 17(3)(c) of the Act, we, the Minister of Environment and the Minister of Natural Gas Development (Ministers), issued an environmental assessment (EA) certificate for the Project. This document provides a record of the factors that we considered, and the rationale for our decision.

1. NATURE AND SCOPE OF THE DECISION

Section 17(3) of the Act sets out the parameters for our decision. We:

- were required to consider Environmental Assessment Office's (EAO's) *Vancouver Airport Fuel Delivery Project Assessment Report* (Assessment Report) and accompanying Recommendations of the Executive Director; and
- considered any other matters we thought relevant to the public interest in making our decision on the Application.

We also needed to be satisfied that the Province had met its duty to consult, and if appropriate, accommodate First Nations with respect to potential impacts of the Project on their Aboriginal rights.

2. MINISTERS' CONSIDERATIONS

2.1. Assessment Report, Certified Project Description and Recommended Conditions

EAO, with advice from the project working group, reviewed the VAFFC's application for an EA certificate and documented its findings in the Assessment Report. EAO is satisfied that the 64 recommended conditions and project design aspects specified in the Certified Project Description will prevent or reduce potential adverse environmental, social, economic, heritage or health impacts of the Project, such that no significant residual adverse effects are expected.

EAO is satisfied that the Crown's duty to consult and accommodate First Nations has been discharged for the Project.

2.2. Recommendations of the Executive Director

The Executive Director of EAO considered the Assessment Report, the Certified Project Description, and the recommended conditions. The Executive Director recommended that an EA certificate be issued for the Project.

2.3. Key Considerations

The following issues were key considerations in our decision to issue an EA Certificate for the Project.

Marine Spill Prevention

The Vancouver Fraser Port Authority concluded that tanker traffic risks involving aviation fuel and other liquid bulk carriers in the Fraser River were acceptable presently and in future scenarios modeled.

The Ministry of Environment stated that the recommended conditions for spill prevention align with emerging policy and bolster the requirements contemplated in their *West Coast Spill Response Study*.

VAFFC is required to undertake the following measures to prevent spills:

- pre-screening of vessels through a tanker acceptance program;
- all vessels must be double-hulled;
- berthing/escort tugs for vessels;
- vessels under expert control of Fraser River Pilots;
- vessels will travel at slow speeds in the Fraser River;
- fuel unloading will stop if weather conditions or river characteristics exceed pre-set operational limits;
- automatic and manual shutdown of fuel unloading equipment; and
- leak-free manifold connections.

With these spill prevention measures, the probability of a medium or large sized spill would be rare and unlikely to occur during the Project's lifetime.

In addition to VAFFC's spill prevention measures:

- the Vancouver Fraser Port Authority escorts deep-sea vessels during inclement weather to assist with safe navigation;
- communication is required between Fraser River Pilots with Canada Coast Guard's Vessel Traffic Services and the marine terminal while on the Fraser River;
- the Fraser River has a sandy river bottom, making grounding less likely and less hazardous; and
- the location of the marine terminal will reduce the time and distance that vessels travel along the BC coastline compared to using the Westridge Marine Terminal in Burnaby.

Marine Spill Preparedness and Response

The Ministry of Environment stated that the recommended conditions for spill preparedness and response align with emerging policy and bolster the requirements contemplated in their *West Coast Spill Response Study*. The Project will result in a net increase in spill response capacity in the Fraser River.

The *Canada Shipping Act* requires that VAFFC deploy equipment and resources to contain and control a spill within one hour of its discovery, and commence spill response within six hours. VAFFC's spill response measures will facilitate a response in less than six hours.

In the unlikely event of a spill, VAFFC will have the following spill preparedness and response measures in place before fuel unloading begins to enable rapid spill response in the unlikely event of a spill:

- Oil Pollution Emergency Plan in place with Western Canada Marine Response Corporation;
- booming protection of the fuel vessel at the marine terminal and at Ladner Reach (in Delta, BC);
- on-site spill response and containment infrastructure, including permanent deflection/containment structures, booms, sorbents, skimmers, temporary waste storage;
- spill response infrastructure at key locations in the Fraser River; and
- two dedicated spill response vessels.

Spill Liability

Canadian law requires that the polluter pay if there is a spill. VAFFC and vessel owners will have \$2 billion in insurance to cover the costs of spill response and compensation. VAFFC will be responsible for maintaining insurance, including:

- aviation legal liability (property damage or injury);
- environmental impairment liability (contamination or pollution); and
- marine liability (pollution into the marine environment).

Fire Prevention at the Fuel Receiving Facility and Marine Terminal

There is an existing legal framework for fire protection and response requirements in BC. VAFFC will construct the Project according to relevant legislation, codes and guidelines, such as the BC Fire Code.

The Project will contribute over \$500,000 annually in property taxes, a portion of which will go toward supporting fire protection services.

VAFFC is required to have the following measures in place to prevent a fire at the fuel receiving facility and marine terminal:

- prepare and implement a Fire Safety Plan in consultation with City of Richmond Fire Rescue, Corporation of Delta Fire, and Provincial Emergency Services;
- test all fire prevention and response systems in accordance with applicable codes, guidelines, and best practices, and make test results available to City of Richmond Fire Rescue, Corporation of Delta Fire, Provincial Emergency Services, and the BC Oil and Gas Commission;
- locate heat-generating equipment away from the storage tanks;
- ensure electrical equipment at the facility meets intrinsic or explosion-proof safety requirements;
- prohibit ignition sources such as open spark or flames, unless in a controlled environment or under a hot work permit;
- prohibit smoking on the marine terminal and fuel receiving facility properties; and
- keep sites free of combustible materials.

Fire Response at the Fuel Receiving Facility and Marine Terminal

VAFFC is required to have the following measures in place to respond to a fire at the fuel receiving facility and marine terminal:

- auxiliary firefighting equipment;
- automated fire detection systems;
- fire hydrant systems;
- high-expansion foam fire protection system at the fuel receiving facility;
- All fire equipment will be maintained in a constant state of readiness, with testing and drills and training of staff to ensure reliable operations.

Project Benefits

The Project provides a reliable fuel source for the Vancouver Airport (YVR), and will allow YVR to meet their projected future fuel demands. The Project will contribute economically to the region through taxes and employment.

There will be a net reduction of regional greenhouse gas emissions as a result of a shift from tanker trucks to fuel vessels. Project operations would result in removing 1000 tanker trucks per month from BC's roads, thereby eliminating the existing risks of fuel spills from those tanker trucks.

The Project will result in a \$110 million investment, and 762 person years of direct, indirect, and induced construction jobs in BC. In addition to the approximately 26,700 existing jobs at YVR, a new daily international flight creates approximately 185 direct jobs, and approximately 465 more indirect and induced jobs. The Project contributes to YVR's role as a part of Canada's Pacific Gateway, and is aligned with the BC Jobs Plan.

3. CONCLUSION

We are confident that the prevention measures included in the EA will effectively contribute to the prevention of an accidental fire or spill. After consideration of the findings of the Assessment Report, Project design and the recommended conditions, the Recommendations of the Executive Director, and the key considerations as outlined in section 2 of these Reasons for Ministers' Decision, and having regard to our responsibilities under the Act, we issued a conditional EA certificate for the Project. We note that the Project will be subject to applicable permits and authorizations before the Project can proceed.



Honourable Mary Polak
Minister of Environment



Honourable Rich Coleman
Minister of Natural Gas Development

Signed this 11th day of December, 2013

**In the matter of the
ENVIRONMENTAL ASSESSMENT ACT
S.B.C. 2002, c. 43
(Act)**

and

**in the matter of an
Application
for an
Environmental Assessment Certificate
(Application)**

by

**VANCOUVER AIRPORT FUEL FACILITIES CORPORATION
(Proponent)**

for the

VANCOUVER AIRPORT FUEL DELIVERY PROJECT

ENVIRONMENTAL ASSESSMENT CERTIFICATE # E13-02

Whereas:

- A. The Proponent proposes to develop the project described in Schedule A to this certificate (the "Project");
- B. On February 10, 2009, the Executive Director of the Environmental Assessment Office issued an Order under section 7(3)(a) of the Act designating the Project as reviewable under the Act;
- C. On February 23, 2009, a Project Lead of the Environmental Assessment Office issued an Order under section 10(1)(c) of the Act stating that an environmental assessment certificate was required for the Project and that the Proponent could not proceed with the Project in the absence of an assessment;
- D. A screening-level federal environmental assessment was initiated under the *Canada Port Authority Environmental Assessment Regulations* under the *Canadian Environmental Assessment Act*, 1992. The Environmental Assessment Office and the Vancouver Fraser Port Authority conducted a coordinated environmental assessment in accordance with the *Canada-British Columbia Agreement for Environmental Assessment Cooperation* (2004);
- E. On November 18, 2009, a Project Lead of the Environmental Assessment Office issued an Order under section 11 of the Act outlining the scope, procedures and methods of the EA for the Project;

- F. On December 15, 2009, a Project Lead of the Environmental Assessment Office issued an Order under section 13 of the Act clarifying the scope of the Project and including the spill management control and emergency response in the scope of the EA as described in the section 11 Order;
- G. The assessment of the Project was conducted from February 19, 2010 to December 14, 2012, and included consultations with First Nations and the public respecting the Application;
- H. On April 8, 2011, a Project Lead of the Environmental Assessment Office issued an Order under section 13 of the Act modifying the section 11 Order to include how Tsleil-Waututh Nation would be consulted during the EA;
- I. On April 28, 2011, a Project Lead of the Environmental Assessment Office issued an Order under section 24(2) of the Act to suspend the time limit of the application review stage to allow time for the Proponent to complete an assessment of an alternate pipeline route (Highway 99) and prepare a report on the alternate route for the working group to review; this suspension was lifted on January 4, 2012;
- J. On March 7, 2012, a Project Lead of the Environmental Assessment Office issued an Order under section 24(2) of the Act to suspend the time limit of the application review stage to allow time for the Proponent to complete additional biofilm studies and prepare a report for relevant agencies to review; this suspension was lifted on November 19, 2012;
- K. On December 14, 2012, pursuant to section 17 of the Act, the Executive Director referred the Application, the Assessment Report, and his recommendations to the undersigned;
- L. On January 25, 2013, the Minister issued an Order under section 24(4) of the Act to extend the time limit for a decision under section 17 by 30 days;
- M. On February 25, 2013, the Minister issued Orders under section 24(4) and section 30 of the Act suspending the assessment pending the receipt of an Interim Report on the Ministry of Environment's Land-Based Spill Process and the Ministry of Environment's West Coast Spill Response Study (Reports), and extending the time limit for making a decision under section 17 by 75 days following the receipt of the Reports;
- N. On October 10, 2013, the Environmental Assessment Office received the Reports and conducted the assessment of the proposed Project in consideration of the Reports from October 10, 2013 to November 18, 2013, including consultation with the working group, First Nations, and the Proponent;
- O. On November 18, 2013, the Executive Director referred amended recommendations to the undersigned;
- P. Compliance with this Certificate, including its conditions, will be monitored by the staff of the Environmental Assessment Office, and others who have been appointed as inspectors under the Act;
- Q. The undersigned have considered the Application, the Assessment Report, and the recommendations of the Executive Director.

Now Therefore,

We issue this Environmental Assessment Certificate to the Proponent for the Project, subject to the following conditions, the description of the Project set out in Schedule A, and the conditions set out in Schedule B.

Conditions

1. The Holder must submit a report to the Executive Director on the status of compliance with the Conditions of this Certificate, and the conditions in Schedule B, at the following times:
 - a. one month prior to substantially starting construction of any of the Project facilities;
 - b. one month prior to operations;
 - c. on or before December 31 in each year during which the Project is being constructed or operated;
 - d. one month prior to the start of decommissioning; and
 - e. one month after the completion of decommissioning.

The Executive Director may adjust or extend this reporting requirement by providing written notice to the Holder.
2. (1) Except as provided below, neither this Certificate nor any interest in it may be transferred to any person.
- (2) The Holder may transfer this Certificate if the Holder and proposed holder
 - a. obtain consent for the transfer from the Executive Director, and
 - b. apply under section 19 of the Act for such amendments to this Certificate, if any, as the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.
- (3) An interest in this Certificate may be transferred by way of a grant of security to lenders or financiers without consent.
- (4) A transfer to a trustee in bankruptcy, by a receiver or a trustee in bankruptcy pursuant to a court approved sale or as part of a court approved arrangement under the *Company Creditors Arrangement Act* may occur without consent.
- (5) If this Certificate is transferred without consent, the new and former holder must notify the Executive Director within 30 days of the transfer and apply within the time specified by the Executive Director for any amendments to this Certificate that the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.
3. (1) Except in connection with the granting of security to Project lenders or financiers, prior to the Holder transferring a significant interest in the Project, the Holder and proposed transferee must
 - a. obtain consent for the transfer from the Executive Director and
 - b. apply under section 19 of the Act for such amendments to this Certificate, if any, as the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.

- (2) A transfer to a trustee in bankruptcy, by a receiver or a trustee in bankruptcy pursuant to a court approved sale or as part of a court approved arrangement under the *Company Creditors Arrangement Act* may occur without consent.
- (3) If a significant interest in the Project is transferred without consent, the Holder must notify the Executive Director within 30 days of the transfer and apply within the time specified by the Executive Director for any amendments to this Certificate that the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.

Duration of Certificate

- 4. For the purpose of section 18(1) of the Act, the deadline is 5 years from the date set out below.



Honourable Mary Polak
Minister of Environment



Honourable Rich Coleman
Minister of Natural Gas Development

Issued this 11th day of December, 2013

**VANCOUVER AIRPORT FUEL DELIVERY
PROJECT (PROJECT)**

SCHEDULE A

**CERTIFIED PROJECT DESCRIPTION
For
AN ENVIRONMENTAL ASSESSMENT CERTIFICATE**

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1 INTRODUCTION

Project Location: Richmond, British Columbia (see **Figure 1**).

The Project is composed of the following infrastructure, as described further below:

- Upgrades to an existing marine terminal wharf;
- Facilities at the marine terminal to unload aviation fuel;
- A new fuel receiving facility, consisting of storage tanks, filtration, and pumping systems;
- A new pipeline to transfer aviation fuel from the marine terminal to the new fuel receiving facility (transfer pipeline); and
- A new pipeline to deliver aviation fuel from the fuel receiving facility to facilities at Vancouver International Airport (YVR) (delivery pipeline).

2 MARINE TERMINAL

2.1 Location

The Vancouver Airport Fuel Facilities Corporation (Proponent) owns a waterfront property with an existing marine terminal wharf ¹ located on the north shore of the South Arm of the Fraser River at the foot of Williams Road, City of Richmond, BC, 2.2 kilometres upriver of the George Massey Tunnel (see **Figure 1**). The civic address for this property is 15040 Williams Road, Richmond, BC.

The existing marine terminal property boundary and the approximate area of Water lot DL-924 (Water Lot) are shown on **Figure 2**. Water Lot DL-924 will be expanded outward in the Fraser River to accommodate larger vessels and Project works. This expansion will be included in Vancouver Fraser Port Authority (VFPA) permitting. With the exception of dredging activities for operational navigation, all permanent structures and construction dredging activities associated with the marine terminal upgrades must be situated within the terminal property boundary or within the area of the expanded Water Lot.

¹ 15040 Williams Road. Latitude: 49°08.36' North, Longitude: 123°03.33' West. Legal Description: Section 34, Block 4 North, Range 5 West Except: Part (1.41 acres) shown coloured pink on Plan 4933; Secondly: Parcel A (Plan with Bylaw filed A32824); Thirdly: Parcel B (Plan with Bylaw filed A32824) New Westminster District.

2.2 Characteristics and Components

The marine terminal upgrades that are part of the Project are:

- Upgrading of the marine terminal to meet current seismic design criteria;
- Improving the structural capacity to accommodate aviation fuel vessels;
- Constructing fuel unloading and transfer facilities;
- Structural strengthening and replacement of existing fill material and/or bulkhead perimeter wall;
- Strengthening of existing structures and ground in adjacent upland areas of the marine terminal property;
- Constructing new pipe-pile supported mooring structures as necessary to safely secure vessels, located in upland areas of the marine terminal property;
- Constructing new pipe-pile supported breasting dolphins² and mooring structures as necessary to safely secure vessels, located in-water adjacent to the existing berth face;
- Constructing a new pipe-pile supported unloading platform located in-water and immediately off of or adjacent to the existing berth face;
- Dredging and scour protection works at the base of the existing pipe pile structure and the base of mooring and berthing structures;
- Constructing new pipe-pile structures to support containment boom reels and containment boom anchor points. These works must be located in-water or on the terminal property, immediately upriver and downriver of the berth face;
- Constructing a new pipe-pile supported or floating emergency/utility boat launch facility located in-water adjacent to the property shoreline or on the terminal property; and
- Related ancillary work in support of the primary work listed above.

² An isolated marine structure for berthing and mooring of vessels, and to:

- a) assist in berthing of vessels by taking up some berthing loads;
- b) keep vessels from pressing against the wharf structure; and
- c) serve as mooring points to restrict the longitudinal movement of the berthing vessel.

Other marine terminal site works that are part of the Project include:

- Initial and ongoing maintenance dredging programs to maintain vessel draft and access to the marine terminal from the Fraser River navigation channel; and,
- Constructing a new pedestrian/bicycle trail along the perimeter of the marine terminal property.

The transfer pipeline (see **Section 4**) components situated within the marine terminal property boundary or within the area of the Water Lot, as expanded, are:

- Mechanical articulating unloading arms with leak-free connection points;
- Connection piping crossing the marine terminal property's existing dike right-of-way either above grade or through an encasement, then connecting to a valve station and fuel testing facility situated on the marine terminal property; and,
- Piping located on above-ground pipe racks with the exception of the dike crossing and beginning of transfer pipeline to the fuel receiving facility.

Other general features to be constructed on the marine terminal property are:

- An operations building,
- Spill response equipment caches and deployment system,
- Fire detection and response systems,
- Drainage system with separator system,
- Staff parking area,
- Perimeter security fencing,
- Closed-circuit television cameras, and
- Lighting towers.

3 FUEL RECEIVING FACILITY

3.1 Location

The new fuel receiving facility must be located on approximately 12 acres of VFPA industrial zoned land, situated in the southwest corner of the larger parcel of VFPA lands identified as "Lot #1, Plan 74529"³ (**Figure 2**). The specific boundary of the leased area will be determined by the VFPA Project Permit

Fuel must be received into the tanks of the fuel receiving facility from a transfer pipeline connecting the marine terminal (see **Section 4**). Fuel must be stored in the tanks and then delivered to YVR by a delivery pipeline (see **Section 4**).

3.2 Characteristics and Components

The facility must be designed to receive, store, and deliver aviation kerosene fuel.

The components of the new fuel receiving facility are:

- A maximum of eight aboveground storage tanks, each up to a maximum height of 15 metres from the foundation base. Total combined storage capacity of the facility must not exceed 80 million litres;
- Containment dike surrounding all tanks or groups of tanks;
- Operations building;
- Inbound fuel filtration system;
- Outbound pumping system;
- Outbound fuel filtration system;
- Waste fuel collection and storage system;
- Controlled storm drainage and oil/water separator system;
- Electrical power generation and distribution equipment, including transformers, switchgear, multiple voltage distribution, emergency generator and uninterruptible power supply systems;
- Potable and fire water systems;
- Fixed foam distribution system;

³ Latitude: 49°08.32' North, Longitude: 123°03.18' West.

- Sanitary sewer connection;
- Diesel fuel storage for emergency back-up generator systems;
- Staff parking area;
- Fuel quality control and sample building;
- Perimeter security fencing and closed-circuit television cameras;
- Lighting towers; and
- An access road following the inner perimeter of the fenced area with space set aside for vehicle parking.

4 FUEL PIPELINES

The Project includes two fuel pipelines:

1. A transfer pipeline with a maximum length of 0.6 kilometres and a maximum diameter of 600 millimetres; and
2. A delivery pipeline with a maximum length of 16 kilometres and a maximum diameter of 300 millimetres.

4.1 Location

4.1.1 Transfer Pipeline

The transfer pipeline must be located on the Proponent's marine terminal and on property owned by the VFPA, with the exception of an underground crossing of Williams Road. The property boundaries within which the transfer pipeline corridor must be located are shown on **Figure 2**.

4.1.2 Delivery Pipeline

The delivery pipeline must be located within the boundaries of property owned by VFPA, the BC Ministry of Transportation and Infrastructure, the Vancouver Airport Authority, or the City of Richmond as shown on **Figures 2 to 7**.

The delivery pipeline corridor route is described below:

- North from the new fuel receiving facility to the Francis Road right-of-way, crossing a Canadian National Railway right-of-way to reach Francis Road;
- West along the Francis Road right-of-way to Highway 99. The pipeline corridor width required for locating and constructing the pipeline is up to 10 metres either side of the right-of-way centreline;
- North along Highway 99 to Bridgeport Trail. The corridor width required for locating and constructing the pipeline is the Highway 99 right-of-way;

- West and then northwest along Bridgeport Trail to Van Horne Way. The pipeline corridor width required for locating and constructing the pipeline is up to 12 metres either side of the trail and road centreline;
- Southwest along Van Horne Way to Charles Street. The corridor width required for locating and constructing the pipeline is the Van Horne Way right-of-way;
- West along Charles Street to River Road. The corridor width required for locating and constructing the pipeline is the Charles Street right-of-way;
- Southwest along River Road to No. 3 Road. The corridor width required for locating and constructing the pipeline is the River Road right-of-way;
- Northwest along No. 3 Road to the pipeline crossing under Moray Channel. The corridor width required for locating and constructing the pipeline is the No. 3 Road right-of-way. For approximately 150 metres before the pipeline crosses under the Moray Channel, the corridor width required for locating and constructing the pipeline is up to 200 metres;
- Crossing under Moray Channel to Grauer Road;
- West along Grauer Road to the airside perimeter service road (North Perimeter Road). The corridor width required for locating and constructing the pipeline is up to 50 metres to the south of the road centreline. The northern boundary of the pipeline corridor width is defined by:
 - The Grauer Road right-of-way along the section of road that runs northwest;
 - The south property boundary of Sea Island Conservation Area lands along the section of road that runs west and turns north onto North Perimeter Road; and,
- North/northwest along North Perimeter Road to the existing fuel storage and handling facilities. The corridor width required for locating and constructing the pipeline is up to 50 metres either side of the road centreline. The pipeline will terminate on airport land leased by VAFFC.

A complete delivery pipeline corridor route is shown in **Figure 7**.

4.2 Characteristics and Components

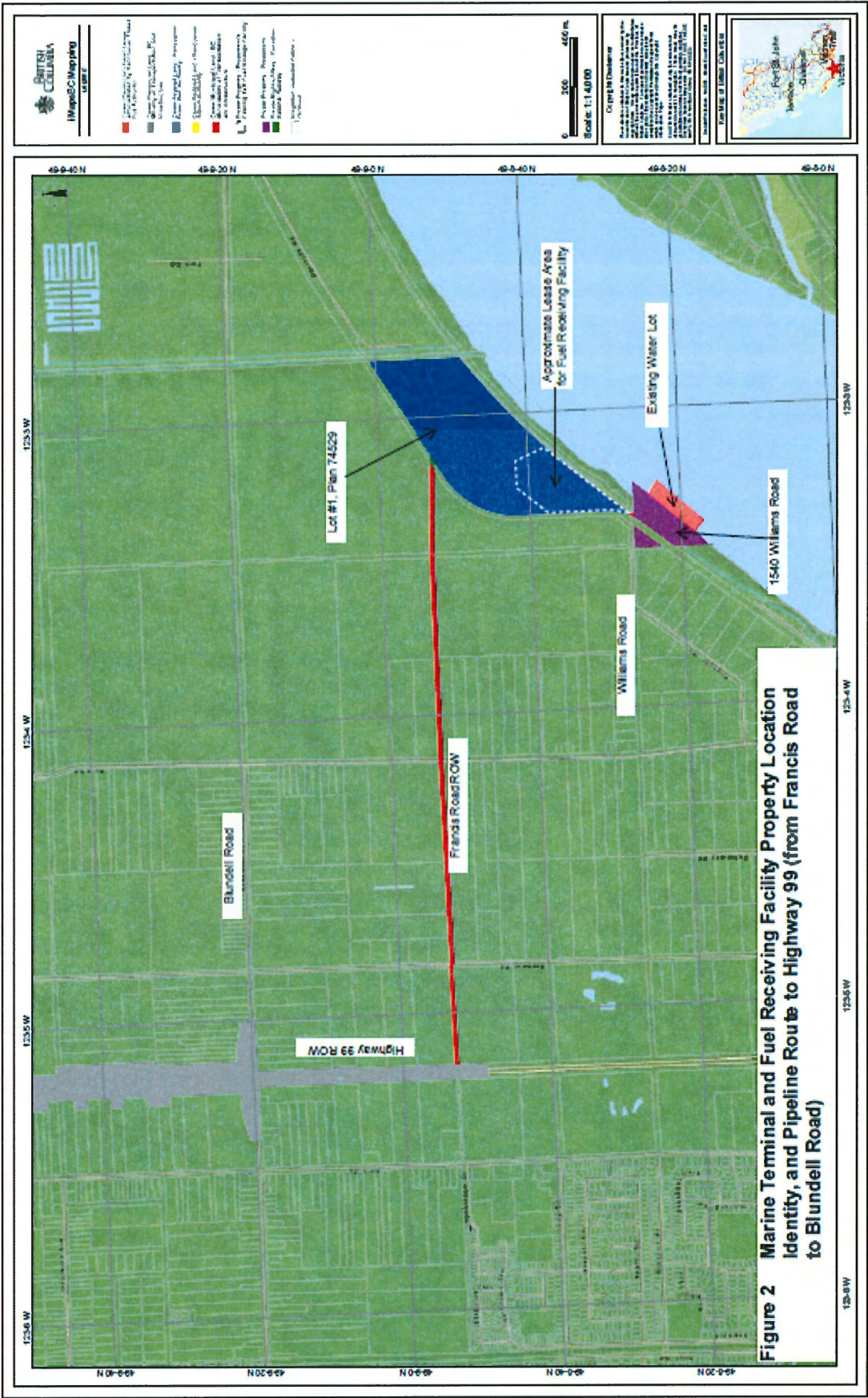
Permanent facilities related to the pipelines are:

- "Pig" launching/receiving assemblies at either end of each pipeline⁴;
- Emergency shutdown valves at the following locations:
 - marine terminal;
 - new fuel receiving facility (at the exit point of the fuel transfer pipeline and the entry point of the fuel delivery pipeline);
 - either side of the Moray Channel, one on Lulu Island and one on Sea Island; and
 - fuel storage and handling facility at YVR.

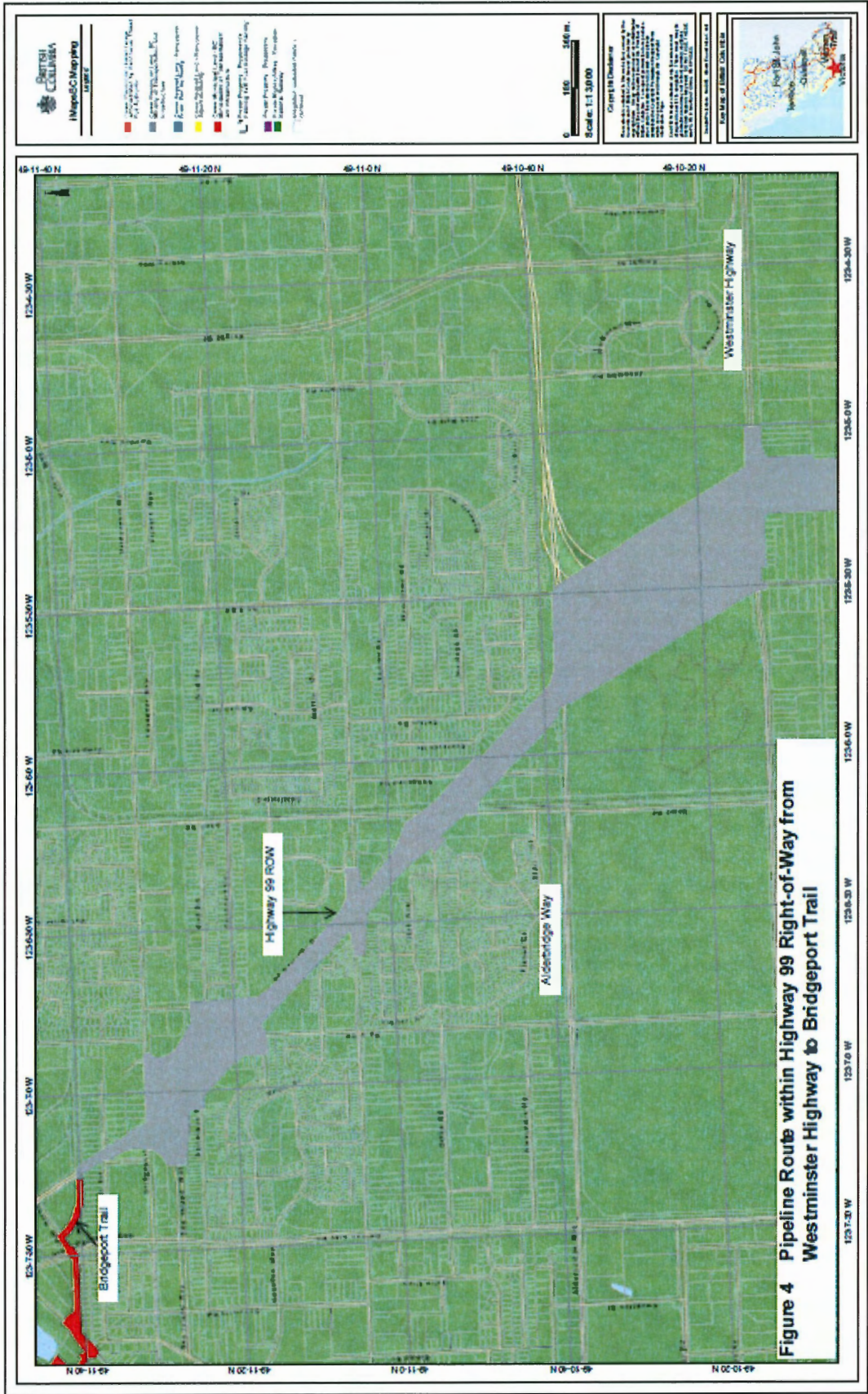
⁴ 'Pigging' refers to the use of inspection gauges or 'pigs' to perform various maintenance operations on a pipeline, including cleaning and inspection. This is accomplished by inserting the 'pig' into a 'pig launcher' (or 'launching station'). The launcher / launching station is then closed and the pressure-driven flow of the product in the pipeline is used to push the 'pig' along the pipe.

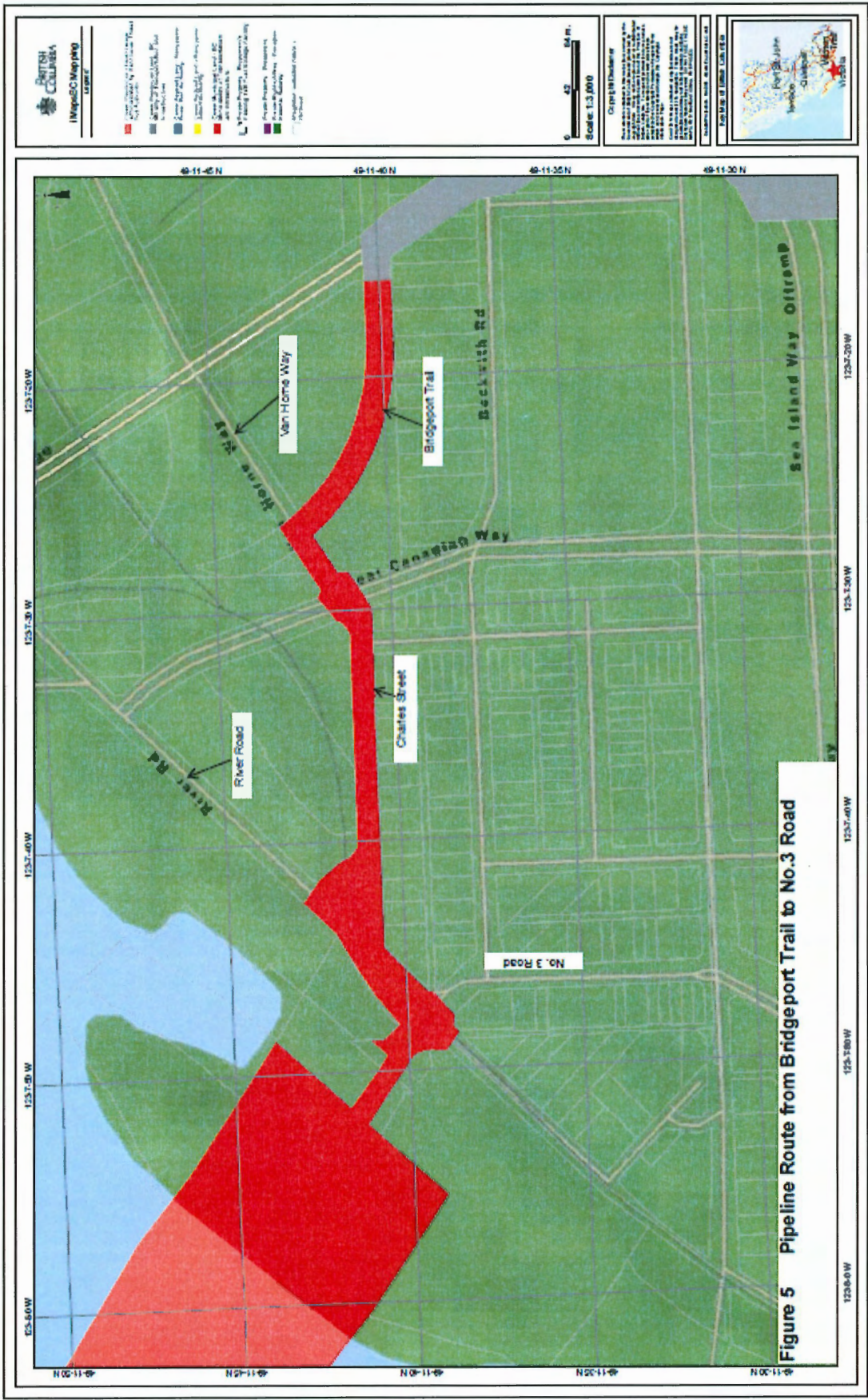


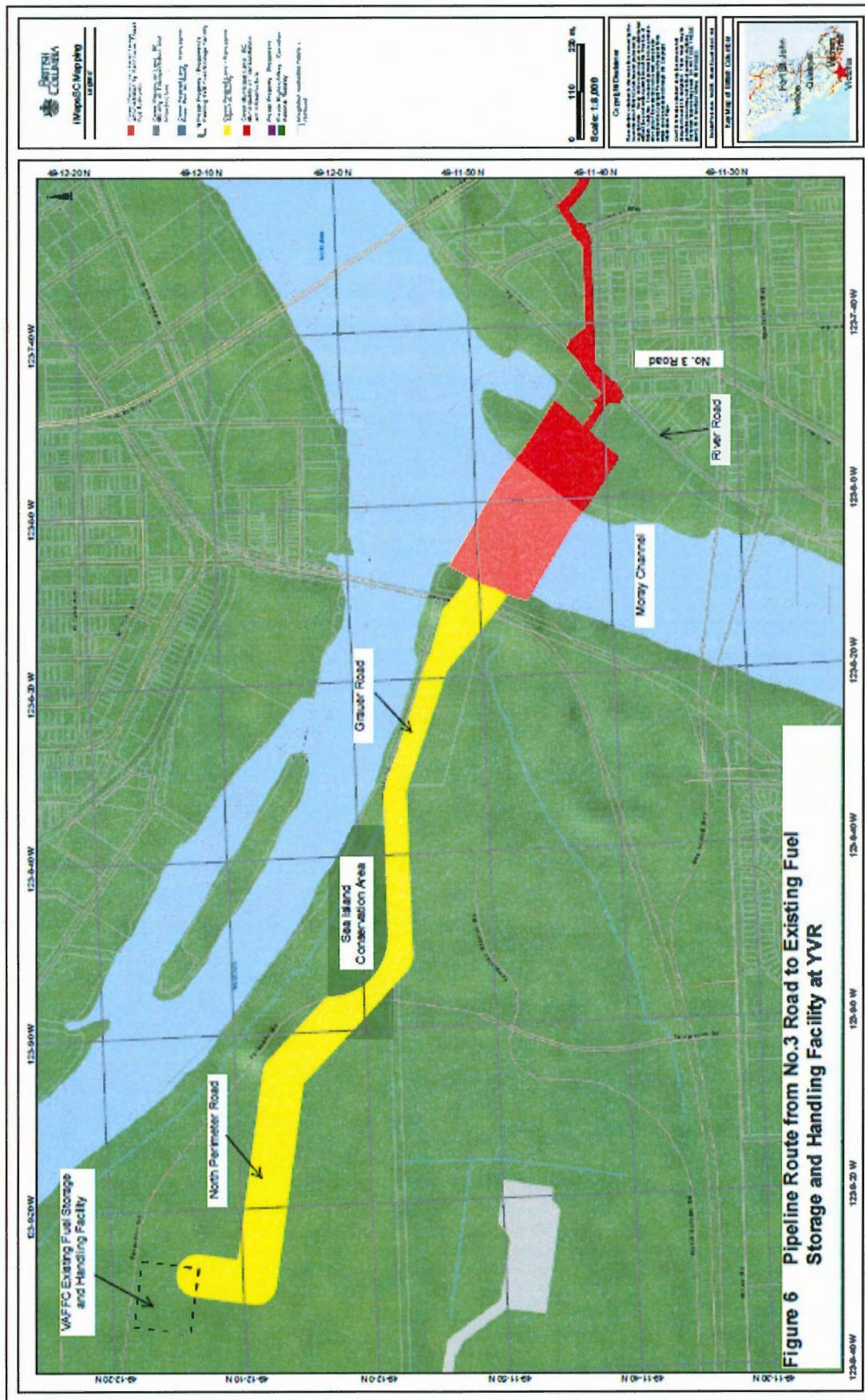
Figure 1 General Location of Project Components

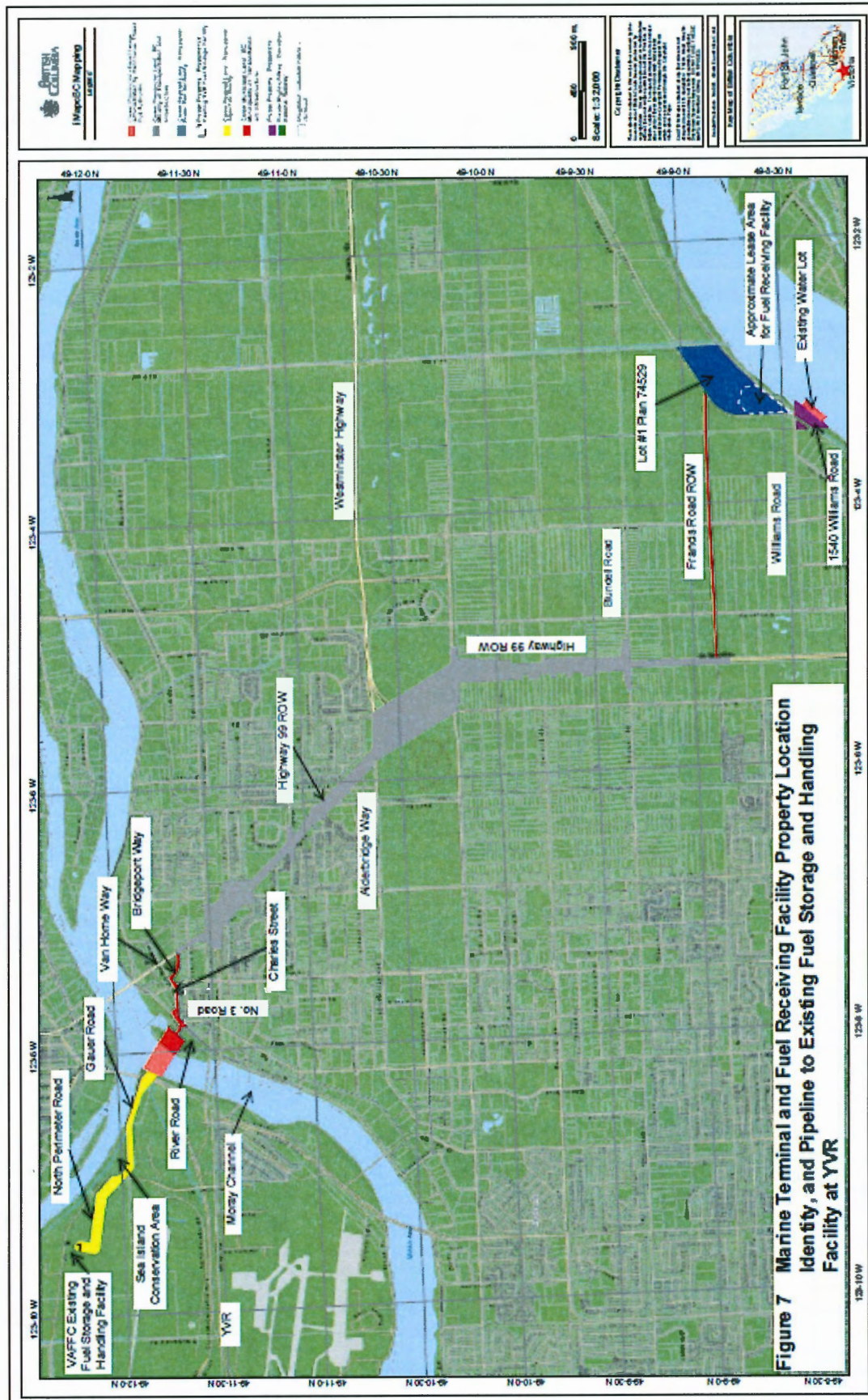












SCHEDULE B
TABLE OF CONDITIONS

This table lists the conditions that the Holder of an Environmental Assessment Certificate (EAC) for the Vancouver Airport Fuel Delivery Project (Project) must fulfill following receipt of the Project's EAC. Although the Holder is responsible for conditions at all times, the Holder may retain 'contractors' or 'operators' to assist with the performance of certain conditions.

In this Schedule:

'authorization' includes a permit, license, approval or other authorization issued by a government allowing a person to carry out an activity that would otherwise be contrary to law;

'contractor' means a person contracted by the Holder to undertake work associated with the construction of Project components;

'operator' means a person contracted by the Holder to manage the operation of the Project components; and

'subcontractor' means a person working on the Project under contract with the contractor, including a person working on the Project under contract with a subcontractor.

A reference to a standard, code, or enactment in these conditions is a reference to that standard, code, or enactment as amended from time to time, and, if the standard, code, or enactment is superseded or replaced by a standard, code, or enactment published or enacted by the same organization as the original, is a reference to the subsequent standard, code, or practice.

Note: The Project has been assessed under the *Environmental Assessment Act*, S.B.C. 2002, c. 43, and a screening level environmental assessment of the Project was commenced under the *Canadian Environmental Assessment Act*, S.C. 1992, c. 37, and completed under the *Canadian Environmental Assessment Act*, 2012, S.C. 2012, c. 19, as if the earlier Act had not been repealed. To avoid uncertainty and duplication, the BC Environmental Assessment Office and Vancouver Fraser Port Authority, as federal authority in relation to the Project, undertook a coordinated environmental assessment.

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
Responsible Environmental Management – Construction				
1	<p>The Holder must develop and implement a Construction Environmental Management Plan (CEMP) in accordance with Chapter 9 of the Application. The CEMP must include the following:</p> <ul style="list-style-type: none"> a. Accidents or Malfunctions Management Plan; b. Air Quality and Dust Control Management Plan; c. Archaeological Management Plan; d. Contaminated Sites Management Plan; e. Fuels, Chemicals and Materials Storage and Handling Plan; f. Noise Management Plan; g. Spill Prevention and Emergency Response Plan; h. Surface Water Quality/Fisheries Protection and Sediment Control Plan; i. Vegetation and Wildlife Management Plan; and j. Waste Management Plan. <p>The Holder may implement two CEMPs. One for early or advance pre-construction works including geotechnical investigations, site preparation and preloading, if required, and one for major construction works.</p> <p>The CEMP must describe measures to verify that construction activities will comply with the EAC, regulatory approvals, applicable legislation and applicable industry best management practices.</p> <p>The Holder must obtain approval of the final CEMP from Environmental Assessment Office (EAO) before commencement of construction of the Project.</p> <p>Municipalities, government agencies, and First Nations involved in the environmental assessment for the Project must be provided copies of the draft and final CEMP plans, unless they indicate otherwise.</p>	Pre-Construction - prepared 60 days before construction starts (30 days for any pre-construction early works) Construction - implemented throughout	Application - Chapter 9	EAO/FLNR/MoE
2	<p>The Holder must develop and implement a Traffic Management Plan (TMP) in accordance with Chapter 9 of the Application. The TMP must:</p> <ul style="list-style-type: none"> a. Follow the "Traffic Control Manual for Work on Roadways" (Ministry of Transportation and Infrastructure (MOTI) 1999) where Project activities occur on arterial highways as defined by the 	Pre-Construction - prepared 60 days before construction starts Construction - implemented throughout	Application - Chapter 9	EAO

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
	<p><i>Transportation and Infrastructure Act</i> and the City of Richmond's General Traffic Control Guidelines for City of Richmond Roadways where Project activities occur on roads within the City of Richmond's jurisdiction; and</p> <p>b. Include a communications strategy to inform stakeholders, including the public and government agencies, about construction progress and identify methods for providing feedback on issues and concerns.</p> <p>The TMP must describe measures to verify that construction activities will comply with the EAC, regulatory approvals, applicable legislation and applicable industry best management practices. The draft TMP must be provided to EAO, the Vancouver Fraser Port Authority, the Ministry of Transportation and Infrastructure, and the City of Richmond for review and comment. The Holder must obtain approval of the final TMP from EAO before commencement of construction of the Project.</p>			
3	<p>The Holder must require that each contractor deliver an environmental orientation training session to all of their construction site personnel and sub-contractor site personnel as a pre-requisite to on-site work. The training session must include:</p> <ul style="list-style-type: none"> a. An overview of the CEMP; b. Roles and responsibilities of Project personnel and relevant contact information; c. Site-specific environmental issues, regulatory requirements, environmental protection and mitigation measures; d. The applicable Workplace Hazardous Materials Information System; and e. Responsibilities, protocols, and relevant contact information in response to an accidental spill or other type of environmental emergency, including information specified by relevant standards, codes, or enactments. 	Pre-Construction and Construction - delivered before construction starts and to personnel hired during construction	Application - Chapter 9	EAO
Number	Condition	Timing	Source	Responsible Agency for Compliance
4	The Holder must require each contractor to retain the services of an Environmental Monitor, with demonstrated experience and knowledge of environmental monitoring for construction projects in BC,	Pre-Construction - hired before construction starts	Application - Chapter 9	EAO

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
	throughout the construction phase. The Environmental Monitor must be given authority to stop work, and be responsible for ensuring compliance with: a. The terms and conditions of the EAC; b. The avoidance or protection measures described in the CEMP permits, or c. Any authorizations or other regulatory requirements.	Construction - implemented throughout		
5	The Environmental Monitor must report on contractors' and subcontractors' compliance with the terms and conditions of the EAC, the avoidance or protection measures described in the CEMP, any authorizations and other regulatory requirements. Monitoring reports must be submitted to the Holder or Environmental Manager.	Construction - implemented throughout Reports provided monthly	Application - Chapter 9	EAO
6	The Holder must retain the services of an experienced and qualified Environmental Manager with demonstrated experience and knowledge of environmental monitoring for construction projects in BC to oversee the implementation of the CEMP and contractors' and subcontractor's environmental performance as described in Chapter 9 of the Application. The Environmental Manager must perform the following tasks: a. Review monitoring reports submitted by the contractors' Environmental Monitors; and b. Complete monthly on-site audits and reports, as a minimum, with more frequent audits and reports scheduled depending on the work activity, consistent with the CEMP.	Construction Reports compiled monthly	Application - Chapter 9	EAO
7	The Holder must produce reports summarizing: a. Surveys referred to in Conditions 19, 21, 22, and 23; b. Archeological Impact Assessment referred to in condition 39; and c. Updates to the Richmond Heritage Inventory and Register and the Holder's assessment of whether these impact the Project. The summary reports must provide a reasonably detailed overview of the work or survey. The Holder must provide copies of the summary report to EAO and any interested government agencies or First Nations, on request.	Construction - implemented throughout Reports available on request.	Application - Chapter 9	EAO
Responsible Environmental Management - Operations				

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
8	<p>The Holder must develop and implement an Operations Environmental Management Plan (OEMP) in accordance with Chapter 9 of the Application. The Holder must review and update the OEMP annually. The OEMP must include the following:</p> <ul style="list-style-type: none"> a. Accidents or Malfunctions Plan; b. Air Quality Management Plan; c. Waste Management Plan; d. Noise and Nuisance Management Plan; and e. Surface Water Quality Monitoring Plan. <p>The OEMP must verify that operations will comply with the EAC, regulatory approvals, applicable legislation and applicable industry best management practices.</p> <p>The Holder must obtain approval of the final OEMP from EAO prior to commencing operations. Municipalities, government agencies and First Nations involved in the environmental assessment for the Project must be provided copies of the draft and final plans, unless they indicate otherwise.</p>	Pre-Operations - prepared 60 days before operations start Operations - annual reports and implemented throughout	Application - Chapter 9	EAO/FLNR/MoE
Fisheries, Aquatics and Surface Water Quality				
9	<p>The Holder must:</p> <ul style="list-style-type: none"> a. Include a water sampling program in their CEMP Surface Water Quality / Fisheries Protection and Sediment Control Plan, designed in consultation with BC Ministry of Environment, that is consistent with BC Approved Water Quality Guidelines, A <i>Compendium of Working Water Quality Guidelines for British Columbia</i> (Ministry of Environment, 2006) and <i>Water Quality Assessment and Objectives for the Fraser River from Hope to Sturgeon and Roberts Banks</i> (Ministry of Environment), that identifies procedures for collecting and analyzing water samples, before and during construction, from surface water drainage ditches that have potential to be adversely affected by construction activities; b. Measure for pH, temperature, and biochemical oxygen demand, as well as relevant contaminants, including, but not necessarily limited to, total petroleum hydrocarbons, polycyclic aromatic hydrocarbons, total suspended solids, and dissolved and total metals concentrations; and c. Control the discharge water and surface run-off from the work area so it meets the applicable provincial and/or federal water quality guidelines or requirements. If these applicable guidelines or 	<p>Pre-Construction - water sampling plan to be prepared 60 days before construction starts</p> <p>Pre-Construction - sampling and implementation to begin before starting any work in and around the Fraser River and surface drainage ditches</p> <p>Construction: Implementation of plan and continued sampling and measurement throughout construction</p>	Application - Section 5.2 Agency/First Nations Comments	EAO/OGC/FLNR/MoE

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
	requirements are exceeded, the cause must be investigated and water control measures must be adjusted as necessary to correct the cause of the exceedance.			
10	Unless an authorization under section 8 or a permit under section 25 of the <i>Oil and Gas Activities Act</i> specifically exempts the Holder from this condition and establishes alternate equivalent or better standards, the Holder must adhere to the "Best Management Practices for Pile Driving and Related Operations" (BC Marine and Pile Driving Contractors Association 2003).	Construction - for activities and equipment related to pile-driving	Application - Section 5.2	EAO
11	The Holder must monitor underwater sound pressure levels generated by pile driving equipment. If the measured sound pressure levels exceed 30 kilopascals, at a distance of one metre (1 m) from the pile, or if the Environmental Monitor observes direct evidence of distressed, injured or dead fish associated with pile-driving activity, the Environmental Monitor must immediately suspend all in-river work generating high sound pressure levels, notify Fisheries and Oceans Canada (DFO), develop and obtain DFO approval for mitigation measures, and implement those measures when restarting the activity.	Construction - for activities and equipment related to underwater pile-driving	Application - Section 5.2	EAO/DFO
12	If cast-in-place rather than precast construction methods are used at the marine terminal, the Holder must use concrete-tight forms to isolate the concrete from the receiving river environment, and must take appropriate steps to ensure that uncured concrete, concrete fines or water that has been in contact with uncured concrete do not enter the receiving river environment.	Construction - implemented throughout terminal construction	Application - Section 5.2	EAO/FLNR/DFO
13	The Holder must adhere to the "Fraser River Estuary Management Program (FREMP) Dredge Management Guidelines" (FREMP 2005).	Construction and Operations - for activities associated with dredging	Application - Section 5.2	EAO/FLNR/DFO
14	All in-water river construction works must either be carried out from equipment located onshore and above the high water mark or from a barge that is spud-anchored or moored at the terminal berth so as to prevent grounding, or other disturbance, on the intertidal foreshore or sub tidal river bed.	Pre-Construction - before starting any in-water works	Application - Section 5.2	EAO/FLNR/DFO
15	The Holder must conduct all work in and around the Fraser River and surface water drainage ditches on Lulu Island according to the relevant BC Ministry of Environment Guidebook Chapters on Best Management Practices for Instream Works and the "Land Development Guidelines for the Protection of Aquatic Habitat" (Fisheries and Oceans Canada and Ministry of Environment, Lands and Parks 1992), unless an authorization under section 8 or a permit under section 25 of the <i>Oil and Gas Activities Act</i> .	Pre-Construction - before starting any work in and around the Fraser River and surface drainage ditches	Application - Section 5.2	EAO/FLNR/DFO/OGC

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
	specifically exempts the Holder from this condition and establishes alternate equivalent or better standards. The Holder must conduct all work in and around surface water drainage ditches on Sea Island according to the "Environmental Construction Standards" from the Vancouver Airport Authority (1998).			
16	The Holder must develop and implement site-specific management plans for directional drilling of pipelines consistent with the guidelines in the "Planning Horizontal Directional Drilling for Pipeline Construction" (Canadian Association of Petroleum Producers 2004).	Pre-Construction - prepared 60 days before construction starts Pre-Construction - before starting any directional drilling works Construction	Application - Section 5.2	EAO/OGC
Fuels, Chemicals and Materials Storage and Handling				
17	The Fuels, Chemicals and Materials Storage and Handling Plan must adhere to relevant guidance in "A Field Guide to Fuel Handling, Transportation and Storage" (Ministry of Water, Land and Air Protection 2002). The Plan must apply to all construction activities and identify best management practices for: a. Equipment refuelling; b. Concrete materials use; and c. Painting, staining and chemical applications.	Pre-Construction - prepared 60 days before construction starts Construction - implemented throughout	Application - Section 9.4	EAO/MoE
Vegetation and Wildlife				
18	The Vegetation and Wildlife Management Plan must adhere to the following standards: a. "2012 Standard Specifications for Highway Construction" (MOTI 2011) for Project components located within provincial rights-of-way; b. "Master Municipal Construction Documents" for Project components located on property owned by the City of Richmond; and c. Vancouver Airport Authority's vegetation standards for Project components located on property under Airport jurisdiction.	Pre-Construction - prepared 60 days before construction starts Construction - implemented throughout	Application - Section 5.3	EAO/FLNR
19	The Holder must complete site-specific rare/at-risk plant surveys, to be conducted by a suitably qualified professional, according to the University of British Columbia's E-Flora BC rare plant survey protocols. If	Pre-Construction - before starting any clearing and	Application - Section 5.3	EAO/FLNR

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
	avoidance of rare or at-risk plants is not practical, plants must be salvaged and relocated according to the "Guidelines for Translocation of Plant Species at Risk in British Columbia" (Ministry of Environment 2009).	grubbing activities in existing natural corridors		
20	The Holder must follow the "Best Management Practices Guidelines for Pacific Water Shrew in Urban and Rural Areas (Working Draft)" (Ministry of Environment 2010).	Pre-Construction - before starting any work in and around surface drainage ditches Construction	Agency/First Nations Comments	EAO/FLNR
21	The Holder must complete a bird nest survey, to be conducted by a suitably qualified professional, to verify that the Project complies with the <i>BC Wildlife Act</i> and <i>Migratory Birds Regulations</i> pursuant to the <i>Migratory Birds Convention Act, 1994</i> . The Holder must conduct vegetation clearing outside the general bird nesting season from April 1 to July 31 (or to September 15 where fledglings are still on the nest) unless otherwise specifically approved by the Ministry of Forests, Lands and Natural Resource Operations, or in a permit issued under section 25 of the <i>Oil and Gas Activities Act</i> . The Holder must report on the nest survey in their summary report(s).	Pre-Construction - survey to be completed before starting clearing work if clearing is required during nesting season	Agency/First Nations Comments	EAO/OGC/FLNR/MoE/CWS
22	The Holder must complete a raptor nest survey, to be conducted by a suitably qualified professional, to update the status of raptor nests and unless an authorization under section 8 or a permit under section 25 of the <i>Oil and Gas Activities Act</i> specifically exempts the Holder from this condition and establishes alternate equivalent or better standards, conduct construction activities in accordance with the "Best Management Practices for Raptor Conservation during Urban and Rural Land Development in British Columbia" (Ministry of Environment 2005). The Holder must report on the raptor nest survey in their summary report(s).	Pre-Construction - survey to be completed before starting construction in areas in which suitable habitat for raptors may occur. Construction - raptor monitoring as required	Agency/First Nations Comments	EAO/OGC/FLNR/MoE/CWS
23	The Holder must complete an amphibian egg mass and/or adult field survey for northern red-legged frog and western toad, to be conducted by a suitably qualified professional. The amphibian survey must follow the "Best Management Practices for Amphibians and Reptiles in Urban and Rural Environments in British Columbia" (Ministry of Water Land and Air Protection 2004). The Holder must report on the amphibian egg mass and/or adult field survey for northern red-legged frog and western toad in their summary report(s).	Pre-Construction - before starting construction in areas in which suitable habitat for northern red-legged frog and western toad may occur	Agency/First Nations Comments	EAO/FLNR

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
Air Quality				
24	The Air Quality and Dust Control Management Plan must be based on the "Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities" (Cheminfo Services Inc. 2005).	Pre-Construction - prepared 60 days before construction starts Construction - implemented throughout	Application - Section 5.4	EAO/MoE/OGC
25	The Holder must include as part of the contractual terms that contractors and subcontractors use non-road diesel engines for construction equipment that meet Tier 2 emissions standards, as defined by the U.S. Environmental Protection Agency (EPA). Preference must be given to proposals where at least 50 percent of non-road diesel engines employed by the person submitting the proposal and their team of potential subcontractors on the Project will meet Tier 4 emission standards.	Construction - Procurement stage for construction contractors	Application - Section 5.4	EAO
26	The Holder must identify and implement measures to reduce common air contaminants and greenhouse gas emissions at the marine terminal consistent with the "Northwest Ports Clean Air Strategy" (Port of Seattle, Port of Tacoma, and Port Metro Vancouver 2007) and subsequent updates to that strategy.	Operations - throughout	Application - Section 5.4	EAO
27	The Holder must design and construct the marine terminal to include infrastructure to facilitate the future use of shore power (i.e. power conduits).	Pre-Construction - during detailed design Construction	Agency/First Nations comments	EAO
28	The Holder must incorporate a pressure/vacuum venting system to control emissions from the fuel receiving tanks unless internal floating pans are used in the tanks.	Pre-Construction - design Construction Operations	Application - Chapter 17	EAO
Noise				
29	The Noise Management Plan must describe, and the Holder must implement, best management practices to mitigate the noise from construction and operation of equipment and vehicles. The Noise Management Plan must include measures to coordinate the timing of pile driving at the marine facility with activities Fraser Wharves Ltd to avoid exceedance of the City of Richmond's Noise Regulation Bylaw No. 8856.	Pre-Construction - prepared 60 days before construction starts Construction - implemented throughout	Application - Section 5.5	EAO/OGC/Local Bylaw Officers
30	The Holder must identify and implement procedures and timelines for providing advance notice to	Pre-Construction - prepared 60	Application -	EAO/OGC

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
	potentially affected residences and businesses about pile-driving activities and responding to noise complaints.	days before construction starts Construction - implemented throughout	Section 5.5	
31	The Noise and Nuisance Management Plan must identify, and the Holder must implement, procedures for receiving and responding to noise complaints related to the operation of the marine terminal and the fuel receiving facility, including records management, which must be kept for a minimum of six months.	Pre-Operations - prepared 60 days before operations start Operations - implemented throughout	Agency/First Nations comments	EAO
Solid and Hazardous Waste				
32	The Holder must identify and implement strategies to minimize and manage construction waste in their Waste Management Plan in accordance with Metro Vancouver's code of practice for the building industry.	Pre-Construction - prepared 60 days before construction starts Construction - implemented throughout	Application - Section 9.4	EAO/MoE/FLNR
Contaminated Sites				
33	The Holder must write the Contaminated Sites Management Plan to be consistent with the BC Ministry of Environment's Technical and Administrative Guidance documents for contaminated sites.	Pre-Construction - prepared 60 days before construction starts Construction - implemented throughout for areas identified in the screening assessment as having medium to high risk of encountering contamination.	Application - Section 5.6	EAO
Social and Economic				
34	The Vegetation and Wildlife Management Plan must identify measures to protect street and trail trees.	Pre-Construction - prepared 60 days before construction starts Construction - implemented throughout	Application - Chapter 6	EAO

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
35	If the City of Richmond develops the dike trail sections upstream and downstream of the marine terminal property, the Holder must work with the City of Richmond and adjacent landowners to provide a link to those upstream and downstream sections of the dike trail system that is compatible with the use of the site for marine terminal operations.	Pre-Construction - trail connectivity designed Pre-Operations - trail connectivity completed Operations - access to trail provided.	Agency/First Nations comments	EAO
36	With the exception of emergency lighting or spot lighting for vessels, the Holder must design area lighting for normal marine terminal and fuel receiving facility operations in a manner, such as directional or angled downward, which must minimize stray light outside of property boundaries.	Construction - Operations	Agency/First Nations comments	EAO/ITC
37	The Holder must install visual screens on the east and south side of the fuel receiving facility before the start of operations, to reduce street level visual impacts from the fuel receiving facility.	Pre-Operations	Agency comments	EAO
Archaeological and Heritage				
38	The Archaeological Management Plan must be prepared and implemented by a BC Registered Professional Archaeologist.	Pre-Construction - prepared 60 days before construction starts Construction - implemented throughout	Application - Chapter 7	EAO/FLNR
39	The Holder must: a. Conduct an Archaeological Impact Assessment for the fuel receiving facility located on Vancouver Fraser Port Authority land, the pipeline exit point on Sea Island, and pipeline crossings of old slough channels; and b. Monitor site preparation and construction activities that will enter into native soils (i.e. non-fill) in locations rated as having high or moderate archaeological potential in the Holder's previously completed Archaeological Overview Assessment. The monitoring procedures must adhere to those identified in the "British Columbia Archaeological Resource Management Handbook" and the "Archaeological Impact Assessment Guidelines" issued by the Ministry of Forests, Lands and Natural Resources Operations.	Construction - before starting ground disturbance works in these areas and in areas identified in the overview assessment as having high or moderate archaeological potential Construction - monitor construction activities	Application - Chapter 7	EAO/FLNR/OGC

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
	The Holder must invite relevant First Nations to participate in the Archaeological Impact Assessment at least four weeks before commencing the Archaeological Impact Assessment.			
40	The Holder must monitor updates to the Richmond Heritage Inventory and Register during construction.	Construction - monthly throughout	Application - Chapter 7	EAO
Accidents or Malfunctions				
41	The Holder must describe measures in the Accidents or Malfunctions Management Plan to restrict access to all construction sites.	Pre-Construction - prepared 60 days before construction starts Construction - implemented throughout	Application - Chapter 15	EAO/FLNR/OGC/MoE
Spill Prevention, Preparedness, and Emergency Response				
42	The Holder must include the following components in the design, construction, and operation of the marine terminal: a. Hydraulically-assisted and articulated fuel unloading arms with audible and visual emergency alarms, and automated and manual emergency shut-down capability; b. Real-time aviation fuel unloading monitoring; c. A rapid-deployment boat launch facility and boat (this vessel is in addition to the spill response vessel required under conditions 48 and 50); d. A structure immediately upriver (northeast) and downriver (southwest) of the terminal dock to protect berthed vessels from river debris, facilitate spill containment and recovery, and to locate booms; e. Reel-mounted river boom; f. Two skimmers ready for deployment; g. Drainage control system that includes an oil/water separator system, emergency valves, and oil-stop valves; and h. Secondary containment measures for all fuel handling areas.	Pre-Operations - during detailed design Construction Operations	Application - Chapter 17 Agency/First Nations comments	EAO/FLNR/DFO/MoE
43	The Holder must develop and implement an Oil Pollution Emergency Plan (OPEP). The OPEP must describe: a. Measures to contact First Nations, neighbouring properties, and stakeholders that may be potentially affected by spills;	Pre-Operations - consult and prepare 60 days before operations start Operations - implemented	Agency/First Nations Comments Application -	EAO/FLNR/DFO/ Corporation of Delta/ City of Richmond

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
	<p>b. Measures to coordinate planning and response with First Nations and municipal, provincial, and federal agencies; and</p> <p>c. Environmentally sensitive areas that could potentially be affected in the event of a spill and describe the response measures that will be implemented to prevent and reduce the potential for spill contact</p> <p>During development of the final OPEP, the Holder must consult the Corporation of Delta and City of Richmond fire and emergency departments to finalize notification requirements in the event of a spill in the river (e.g., immediate notification to the Irrigation Foreman) that could reach irrigation intake systems and include notification requirements in the OPEP acceptable to Delta and Richmond fire and emergency departments.</p>	throughout and updated annually	Chapters 16 and 17	
44	<p>The Holder must:</p> <p>a. Equip the fuel receiving facility and marine terminal with emergency spill response equipment as described in the final OPEP;</p> <p>b. Consult with Western Canada Marine Response Corporation (WCMRC) to identify any additional emergency spill response equipment to be stored at the marine terminal in addition to the Holder's requirements under the OPEP and <i>Canada Shipping Act</i>; and</p> <p>c. Annually inspect emergency response equipment to verify that it is in good working order.</p>	Pre-Operations - in place before operations start Operations - implemented throughout and inspected annually	Application - Chapter 17 Agency/First Nations Comments	EAO
45	<p>The Holder must maintain a real-time weather station at the marine terminal as part of an early warning system for operations staff to shut-down the cargo transfer and disconnect cargo unloading arms. The Holder must annually inspect the system to verify that it is in good working order.</p>	Pre-Operations - in place before operations start Operations - implemented throughout and inspected annually	Application - Chapter 17 Agency/First Nations Comments	EAO
46	<p>Through its terminal vessel acceptance program, the Holder must specify that all aviation fuel delivery vessels using the facility are:</p> <p>a. Double-hulled; and</p> <p>b. Insured for pollution liability at the prevailing industry standard coverage limits sufficient to insure the potential liability of the vessel owner and operator according to the applicable law for emergency spill response, clean-up, and environmental remediation and to compensate for loss by aboriginal food,</p>	Pre-Operations - in place before operations start Operations - implemented throughout	Application - Chapter 17 Agency/First Nations Comments	EAO

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
	social, and ceremonial fishers licensed under the <i>Fisheries Act</i> caused by a spill of aviation fuel from the vessel.			
47	The Holder must maintain insurance coverage for liability of itself, its contractors, subcontractors, and operators during construction and operation of its facilities in accordance with the "Holder's Insurance Policy Summary (27 November 2012)". Without limiting the generality of the foregoing, the Holder must maintain pollution liability insurance that meets or exceeds the prevailing industry standard coverage limits sufficient to insure its potential liability, according to the applicable law, to compensate for emergency spill response, clean-up and environmental remediation and for loss by aboriginal food, social and ceremonial fishers licensed under the <i>Fisheries Act</i> caused by a spill of aviation fuel from the Holder's construction sites or operational facilities.	Construction Pre-Operations - in place before operations start Operations - implemented throughout	Agency/First Nations Comments	EAO
48	The Holder must arrange to have two dedicated spill response vessels available at or near the marine terminal during tanker arrival, berthing, and for the duration of aviation fuel unloading.	Operations - implemented throughout	Agency/First Nations Comments	EAO
49	The Holder must require all vessels berthed at the marine terminal to be surrounded by Kepner booming, or other booming that provides equal or better protection in relation to spills, before, and for the duration of, aviation fuel unloading. Booms must be inspected annually.	Pre-Operations - in place before operations start Operations - implemented throughout and inspected annually	Agency/First Nations Comments	EAO
50	The Holder must require a response vessel be deployed to Ladner Reach for pre-deployment of booming before aviation fuel unloading starts. The vessel, which is one of the two vessels described in condition 48, must remain on standby in Ladner Reach, or near the marine terminal, for the duration of aviation fuel unloading.	Operations - implemented throughout	Agency/First Nations Comments	EAO
51	The Holder must install spill response infrastructure (piles, anchor points, etc.) at the following locations on the Fraser River, in accordance with WCMRC recommendations, for rapid deployment of spill response equipment in the event of a spill: a. Sea Reach;	Pre-Operations - in place before operations start Operations - implemented throughout and inspected	Agency/First Nations Comments	EAO

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
	b. North Steveston Harbour, c. Caroe Passage, and d. Ladner Reach.	annually		
52	The Holder must design, construct, and maintain the fuel receiving facility and pipeline system to provide for: a. In-line inspection and cleaning; b. A flow monitoring system; c. Pressure sensors; and d. Automatic motorized valves to control the receiving and dispensing of product and designed to close when commanded by the automated emergency shut-down system and fire detection equipment.	Pre-Construction –design Construction Operations	Application - Chapter 17	EAO/OGC
53	The Holder must design, construct, and maintain the fuel receiving facility and pipeline system to provide for: a. An automatic leak detection system for the transfer and delivery pipelines; and b. A cathodic protection system, or equivalent or better system, to inhibit corrosion of tank bottoms. Design of these elements must be approved by a suitably qualified professional.	Pre-Construction –design Construction Operations	Application - Chapter 17	EAO/OGC
54	The Holder must design, equip, and maintain the fuel receiving facility with oil-stop valves, lift stations, or other control valves to provide protection against accidental fuel releases occurring within the tank containment area and all other fuel handling area from overwhelming the oil/water separator and entering the surrounding drainage ditches and waterways. Design must be certified by a suitably qualified professional.	Pre-Construction –design Construction Operations	Application - Chapter 17	EAO
Fire Prevention, Preparedness and Emergency Response				
55	The Holder must prepare and implement a Fire Safety Plan in consultation with the City of Richmond Fire Rescue, the Corporation of Delta Fire, Provincial Emergency Services, and the BC Oil and Gas Commission.	Pre-Operations - consult and prepare 60 days before operations start Operations - implemented throughout and updated annually	Application - Chapter 18	EAO/OGC

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
56	The Holder must install, maintain and inspect firefighting systems at the fuel receiving facility sufficient to protect aviation fuel transfer areas and storage tanks, including: a. A high-expansion foam fire protection system connected to a fixed foam storage and dispensing unit; b. Auxiliary firefighting equipment; c. Automated fire detection systems; and d. A perimeter fire hydrant system to provide access to water for tank deluge and firefighting.	Construction Operations - inspect and maintain annually	Application - Chapter 18	EAO
57	The Holder must install, maintain and inspect firefighting systems at the marine terminal sufficient to protect aviation fuel transfer areas, including: a. Auxiliary firefighting equipment; b. Automated fire detection systems; and c. A fire hydrant system to provide access to water for firefighting.	Construction Operations - inspect and maintain annually	Application - Chapter 18	EAO
58	The Holder must test all fire prevention and response systems in accordance with applicable codes, guidelines, and best practices; and report the test results to the City of Richmond Fire Rescue, the Corporation of Delta Fire, Provincial Emergency Services, and the BC Oil and Gas Commission, upon request.	Pre-Operations - testing Operations - test, inspect and maintain annually	Application - Chapter 18	EAO/OGC
Miscellaneous Conditions				
59	During Project operations, the Holder must notify affected First Nations of the arrival and departure of a vessel delivering aviation fuel to the marine terminal at least 24 hours before the scheduled arrival and departure of that vessel in the South Arm of the Fraser River. The notice time may be reduced, from time to time, to the extent necessary to adjust to circumstances beyond the reasonable control of the Proponent related to the vessel's movement, but not reduced below 12 hours. For the purpose of this condition, an affected First Nation is one which had been consulted during the environmental assessment of the Project and to which DFO has issued a communal fishing license, Tsawwassen Harvest Documents, or other aboriginal community-based authorizations or commercial fishing license allowing members of an aboriginal community to fish on the South Arm of the Fraser River on the day of the arriving vessel. Specifics for notification procedures must be determined before the start of Project operations.	Pre-Operations - determine specifics for notification procedures Operations - implemented throughout	First Nations Comments	EAO
60	In the design of the terminal facilities, the Holder must follow the "Climate Change Adaptation Guidelines	Pre-Construction	Application -	EAO

Vancouver Airport Fuel Delivery Project
Table of Conditions

Number	Condition	Timing	Source	Responsible Agency for Compliance
	for Sea Dikes and Coastal Flood Hazard Land Use: Sea Dike Guidelines" (Ministry of Environment 2011) to account for potential increases in water levels due to global sea level rise and potential flooding during extreme freshet conditions.		Chapter 21 Agency/First Nations Comments	
61	The Holder must use the Project facilities only to unload, store, and deliver aviation kerosene fuel.	Operations	Application - Chapter 2 Agency/First Nations Comments	EAO
62	Before the start of Project operations, the Holder must complete an additional study to respond to information gaps identified by Environment Canada in its submission to the BC EAO dated November 13, 2012, to supplement the previous study by the Holder on the effects of a jet fuel spill on biofilm in the Fraser River Estuary (see VAFFC's Fraser River Delta Biofilm Sensitivity to Jet A Fuel Spill - Summary Report submitted to EAO on September 3, 2012). The Holder must consult Environment Canada and Vancouver Fraser Port Authority on the terms of reference for the additional study. Once the terms of reference are settled, the Holder must complete the additional study to the satisfaction of the Vancouver Fraser Port Authority.	Pre-Operations – complete additional study	Agency Comments	EAO/Vancouver Fraser Port Authority
63	The Holder must require that at least one escort tug accompany each aviation fuel cargo barge and at least two tugs accompany each aviation fuel tanker to the marine terminal from Sand Heads, or from the point at which River Pilots board the vessels, subject to any applicable requirements imposed by the Vancouver Fraser Port Authority on the Fraser River related to navigational assistance for tanker vessels on the Fraser River.	Operations	First Nations Comments	EAO
64	The Holder must retain copies of all plans, reports, and other records required by these conditions and any records relating to any surveys, studies, or assessments required by these conditions for at least five years from their production. The Holder must, on request, make such plans and records available to EAO, persons designated as inspectors under the <i>Environmental Assessment Act</i> , or the Vancouver Fraser Port Authority.	Throughout Construction and Operations		EAO/OGC/FLNR/ Vancouver Fraser Port Authority

Attachment 10

VAFFC - 10 July 2019

SPILL RESPONSE REGULATORY REGIME

1. Primary Response – Marine Terminal and Vessel

- The *Canada Shipping Act* requires each Oil Handling Facility to have an Oil Pollution Emergency Plan (OPEP).
 - An oil handling facility must be able to deploy equipment and resources to:
 - contain and control any spill within one hour after discovery of a spill, and
 - recover and clean up within six hours.
- VAFFC has filed an OPEP that far exceeds these standards.
 - The emergency response is based on the Incident Command System, which is the international standard for emergency response and the approach followed by Western Canada Marine Response Corporation (WCMRC) and regional government response agencies
 - Response measures have been studied and field tested
 - Equipment and resources will be stored on the Marine Terminal site, so VAFFC can respond immediately if there is a spill at the Marine Terminal
 - Containment and sensitive area protection will be deployed in advance of and during vessel berthing, so these response measures will already be place if a spill occurs
 - Berthing/escort tugs will escort fuel cargo vessels up the river. EAC Condition #63 outlines the requirements:

The Holder must require that at least one escort tug accompany each aviation fuel cargo barge and at least two tugs accompany each aviation fuel tanker to the marine terminal from Sand Heads, or from the point at which River Pilots board the vessels, subject to any applicable requirements imposed by the Vancouver Fraser Port Authority on the Fraser River related to navigational assistance for tanker vessels on the Fraser River.
 - VAFFC/RO response vessel accompanies vessel up the river. EAC Condition #49 outlines the requirements:

The Holder must arrange to have two dedicated spill response vessels available at or near the marine terminal during tanker arrival, berthing, and for the duration of aviation fuel unloading.
 - VAFFC will contract with WCMRC to implement the OPEP, which links the primary response directly with the secondary response

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- The VAFFC OPEP also includes an Oil Pollution Prevention Plan (OPPP), to meet best practice.
- The *Canada Shipping Act* requires vessels to have their own response plan – a Ship Oil Pollution Emergency Plan (SOPEP).

2. Secondary Responses – Response Organization and Government Agencies

(a) WCMRC Response

- WCMRC is the Transport Canada certified Response Organization (RO) under the *Canada Shipping Act*.
- *Canada Shipping Act* requires vessels and marine terminals that handle oil to contract with the RO to be available to respond to spills.
- The Act requires the response organization to be able to commence a response within six hours in this area.
- VAFFC will contract with WCMRC for emergency response and to assist with response planning and to reduce that response time. VAFFC proposes that response measures be deployed with each delivery.

(b) Government Response

- VAFFC will notify the federal and provincial regulatory agencies, if there is a spill.
- The Coast Guard coordinates the government response. Many agencies are involved in this effort, as well as First Nations. (see Chapter 5 of the OPEP for the details of the Incident Command System and Regional Environmental Emergency Team.)
- The Coast Guard may assume control of the clean-up operation if the vessel owner or the marine terminal does not take control or perform effectively.
- The Coast Guard can recover clean-up and response costs from a polluter.

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MARINE OIL SPILL REGULATORY REGIME

1. General Legal Regime

- Federal and provincial legislation govern pollution and establish liability for harm to third parties. The statutory measures overlay the common law, which also imposes liability on polluters.
- The basic principles are
 - the polluter pays
 - the polluter is held to a strict liability standard
 - the polluter must compensate government for the cost of clean up
 - the polluter must compensate third parties who suffer loss caused by the spill
 - the person who suffers loss must take reasonable steps to mitigate the loss

2. Statutory Regime

- Federal and provincial legislation impose restrictions on pollution and impose liability for clean-up and third party damage resulting from the escape of contaminants.
- The key federal statutes are:
 - *Fisheries Act*
 - protection of fish and fish habitat
 - liability to the government for remediation
 - liability for damage to third parties
 - *Canada Shipping Act*
 - establishes an oil spill emergency response regime
 - requirements for plans and preparedness
 - liability for clean up
 - *Canadian Environmental Protection Act*
 - requirements for pollution prevention plans and environmental emergency plans
 - spill reporting requirements
 - obligation to cleanup any spill

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- allows recovery of costs and expenses incurred by government during clean up or environmental remediation
- defines civil liability for a spill
- *Marine Liability Act*
 - liability for oil pollution damage, the costs of clean up, and environmental reinstatement
 - sources of compensation
 - a) Ship owner
 - b) Ship-Source Oil Pollution Fund
- *Migratory Birds Convention Act*
 - prohibits the deposit oil, oily waste or other substances harmful to migratory birds into water inhabited by migratory birds
- *Transportation of Dangerous Goods Act*
 - the shipment must be properly identified on the vessel and in the manifest
 - requires an emergency response plan
 - requires spill reporting and clean up by the person with the charge, management and control of the goods at the time of the spill
- The key provincial statute is the *Environmental Management Act*.

3. Common Law

- The common law imposes liability for harm caused by a polluter under several different
- causes of action, including negligence and nuisance.

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VAFFC SPILL PREVENTION, PREPAREDNESS AND RESPONSE

MARINE TERMINAL AND PIPELINE

MARINE-BASED

With the assistance of Western Canada Marine Response Corporation (WCMRC), VAFFC prepared a robust Spill Prevention, Preparedness and Response Plan for the Vancouver Airport Fuel Delivery Project. VAFFC filed the draft plan with the Environmental Assessment Office in January 2012.

About the Plan

- The development and maintenance of the plan is required under the *Canada Shipping Act* for a marine terminal handling oil products.
- WCMRC prepared the Oil Pollution Emergency Plan (OPEP), and VAFFC filed the proposed plan with Environmental Assessment Office in January 2012. The Act only requires the OPEP to be in place before the terminal goes into operation, but VAFFC commissioned the plan as part of the EAO review to respond to the interest in spill response.
- As required by the Act, VAFFC will update and finalize the OPEP with WCMRC, as needed, before the marine terminal goes into operation.
- VAFFC's proposed response equipment and resources for the marine terminal exceed the requirements of the *Canada Shipping Act*.
- VAFFC will engage WCMRC to respond to any marine fuel spills.
- WCMRC will provide the response resources required to contain, control and recover any spilled fuel.
- The Act requires a response organization to have the minimum ability to respond to a spill of 10,000 tonnes, but WCMRC actually has the capability to respond to a spill of 25,000 tonnes.
- WCMRC is also planning to construct an additional response base on the Fraser River, which will add to the response capability and shorten the response time.
- The VAFFC marine terminal will also have dedicated equipment on site to allow for immediate response capability. This dedicated equipment is incremental to the WCMRC response capability. (See the description of equipment that follows)
- Includes details on initial responses, sources of response equipment and personnel, response action detail, interaction with other plans and contact notification checklists for individuals and organizations.
- All terminal operational personnel and those involved with responding to marine terminal spills must have full knowledge and understanding of the OPEP.
- VAFFC must update the OPEP annually and after any spill incident or exercise.

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Spill Response Modelling

- In June 2011, WCMRC conducted an assessment of spill response techniques for protection of sensitive areas on the Fraser River to inform the development of the VAFFC OPEP.
- As a result of the assessment, WCMRC concluded that the spill response safety measures outlined in the plan will ensure WCMRC has a superior capability to respond to a spill at the VAFFC marine terminal and will also improve the response capability of all users of the Fraser River.
- The combination of industry best practices for terminal design, dock operations, dock spill preventative measures and tanker preventative measures coupled with a solid response readiness plan reduces the risk of a spill ever happening.
- In the unlikely event of a spill all of the safety measures will ensure a rapid response to minimize any adverse effects.

About the VAFFC Marine Terminal

Fuel will be transferred from vessels to shore using hydraulically-operated articulated unloading arms.

- The unloading arms will be designed to have flexibility and move with the vessel as winds, tides and currents change and as the vessel rises higher in the water as the fuel is offloaded.
- If the movement of any vessel exceeds the safe range, the fuel transfer process will stop automatically, and the arms will be disconnected using leak-free emergency release couplings.
- The terminal will be equipped with pre-deployed permanent booming complete with a pile deflection/protection system and skimmers to collect any if fuel spills.

On-site Spill Response Equipment & Supplies

- The following spill response equipment will be available at the VAFFC marine terminal:
 - Two response boats complete with boom and skimmers during vessel arrival and offloading, two boom reels with over 600 metres of self-inflating boom, fast-current skimmers, one boom reel with over 300 metres of river boom, temporary storage for recovered fuel, sorbents and an array of related parts such as anchors and towing vanes
- Before a vessel is offloaded, the boom and skimmers will be positioned around the vessel to contain a spill in the unlikely event of an accidental release of product onto water, and to recover the product as quickly as possible (see the figure below).
- The two response boats will be on standby to deploy boom in the open river if required.
- The sorbents will be used to absorb any spilled fuel.

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Spill Reporting:

- In the event of a spill, VAFFC has the responsibility to ensure the Canadian Coast Guard and federal and provincial authorities are promptly notified.

Properties of Jet A Fuel:

- Aviation fuel is a refined product and if spilled on water, the fuel will spread on the surface and rapidly evaporate.
- The rate of evaporation will be influenced by air temperature, water temperature, wind and wave conditions.

LAND-BASED

VAFFC will follow best practices for all components of the project. The land-based risks associated with the project will be managed to insignificant levels with currently available and well understood technology and expertise.

Fuel Receiving Facility

The fuel receiving facility will include six above ground steel storage tanks, and it will:

- Be regulated by the BC Oil and Gas Commission
- Be built to modern storage tank and seismic design requirements
- Provide secondary containment features for all fuel storage and handling areas
- Incorporate emissions control systems
- Incorporate modern corrosion protection, leak detection and flow control systems
- Be automated, monitored 24/7 and electronically safeguarded through electronic video surveillance
- Be controlled and monitored by on-site operations personnel during all offloading, fuel transfer and fuel handling activities

Pipeline

Modern pipeline systems have the benefit of precise locating technologies, new materials and coatings, and high-tech installation techniques to reduce disturbances during construction.

The pipeline system will:

- Be regulated by the BC Oil and Gas Commission
- Be constructed with resilient materials to current seismic design standards
- Be controlled and monitored by operations personnel during all fuel transfer activities

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VAFFC - 10 July 2019

- Be pressurized only during fuel transfer operations (not 24/7)
- Include state-of-the-art corrosion protection and leak detection technologies
- Be buried underground and well-marked, mapped and electronically located for reference by municipal and private contractors
- Be monitored by a control system using pressure sensors and automatic flow shutoff devices

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OTHER FACTORS TO REDUCE RISK ON FRASER RIVER

1. Before the Vessels Arrival

(a) Tankers / Barges

- Vetting by Shipping Company, VAFFC and Canadian Government.
- Double hulled requirement
- Ship Oil Pollution Emergency Plans (SOPEP)
- Agreement with Response Organization (WCMRC)
- Communication with Vessel Traffic
- Communication with the terminal
- Vessels under control of BC Coast Pilots

(b) Terminal

- Equipment and procedures that represent industry best practices
- Oil Pollution Emergency Plans (OPEP)
- Oil Pollution Prevention Plan (OPPP)
- Agreement with Response Organization (WCMRC)

(c) Response Capability

- Response Organization (WCMRC) will have equipment and response readiness in the Fraser River
- Canadian Coast Guard – base in Richmond

2. On the River

- Vessels under control of Fraser River Pilots – with real time knowledge of river depths and other obstacles
- Sandy river bottom making grounding less likely and less hazardous
- Berthing/escort tugs will escort fuel cargo vessels up the river. EAC Condition #63 outlines the requirements:

The Holder must require that at least one escort tug accompany each aviation fuel cargo barge and at least two tugs accompany each aviation fuel tanker to the marine terminal from Sand Heads, or from the point at which River Pilots board the vessels, subject to any applicable

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VAFFC - 10 July 2019

requirements imposed by the Vancouver Fraser Port Authority on the Fraser River related to navigational assistance for tanker vessels on the Fraser River.

- VAFFC/RO response vessel accompanies vessel up the river. EAC Condition #49 outlines the requirements:

The Holder must arrange to have two dedicated spill response vessels available at or near the marine terminal during tanker arrival, berthing, and for the duration of aviation fuel unloading.

- Communication with the terminal
- Tankers travel at slow speeds in the river
- Vessels are capable of selective ballasting to relocate cargo away from damaged compartments in event of an incident
- Fisherman Oil Spill Emergency Response Team (FOSET) will assist

3. At the Terminal

- Berthing tugs assist the vessels into the berth
- Vessels are securely moored using quick release couplings
- Response vessels deploy the containment boom and skimmers
- Pre-arrival readiness checks (personnel, tank space, monitoring systems, emergency shut-down, dock readiness)
- Pre-transfer (Ship to Shore) meeting of tanker and terminal and agree on process
- Leak-free articulating unloading arms used to connect to ship manifold
- On ship and on shore containment for piping and connections
- Response vessels deploy booming at Ladner Reach
- Response vessels tend boom at Ladner Reach
- Tanker and terminal continuously monitor unloading

4. Enhancement during normal operation

- As a result of VAFFC's Project, spill response capability on the South Arm of the Fraser River will be enhanced, which reduces risks associated with all oil and other liquid transports.

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Attachment 11
OCG Permit and Permit Extension



April 10, 2017

Vancouver Airport Fuel Facilities Corporation
Unit 108- 12300 Horseshoe Way
Richmond, BC, V7A 4Z1

Attention: Vancouver Airport Fuel Facilities Corporation

RE: Commission Initiated Amendment of a Pipeline Permit

Application Determination Number: 100100195
Issuance Date: April 10, 2017

The BC Oil and Gas Commission (the Commission), under section 26(1)(d) of the Oil and Gas Activities Act, proposed amending Vancouver Airport Fuel Facilities Corporation's permit to replace a permit condition. After offering an oral opportunity to be heard, it was indicated by Vancouver Airport Fuel Facilities Corporation that the permit holder has no concerns with the proposed amendment. The Commission hereby amends the Permit and any associated authorizations referenced therein, subject to the original permit, any subsequent amendments and any additional or revised conditions as set out herein:

CONDITIONS

Notification

The Permit is amended to remove condition 12 stating:

The Permit Holder must notify Tsleil-Waututh Nation of any in-stream works at the marine terminal site a minimum of five (5) working days prior to commencement of activities.

to be replaced with the following:

The Permit Holder must notify any First Nations who may have aboriginal interests identified, as per the BC First Nations Consultative Areas Database, of any in-stream works at the marine terminal site a minimum of five (5) working days prior to commencement of activities.

This amendment forms an integral part of your permit(s) and should be attached thereto.

A handwritten signature in black ink, appearing to read 'James O'Hanley'.

James O'Hanley
Vice President
Permitting & Authorizations

Permitting and Authorizations Division
Physical Address: 6534 Airport Road, Fort St. John, BC
Mailing Address: Bag 2, Fort St. John, BC V1J 2B0

Page 1 of 2

Telephone: (250) 794-5200
Facsimile: (250) 794-5379
24 Hour: (250) 794-5200

July 10, 2019

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Date: March 22, 2017
Application Determination Number: 100101863

Commission Delegated Decision Maker

Copied to:

Land Agent: CCI Solutions

First Nations: Seabird Island First Nation, Squamish Nation, Katzie First Nation, Stz'uminus First Nation, Tsleil-
Waututh Nation, Penelakut Tribe, Cowichan Tribes, Lyackson First Nation, Musqueam Indian Band, Semiahmoo First
Nation, Lake Cowichan First Nation, Halalt First Nation, Tsawwassen First Nation, People Of The River Referrals
Office, Sto:lo Nation, Sto:lo Tribal Council, Soowahlie First Nation, Skawahlook First Nation, Shxw'ow'hamel First
Nation, Hwlitsum

Permitting and Authorizations Division
Physical Address: 6534 Airport Road, Fort St. John, BC
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April 3, 2017

Vancouver Airport Fuel Facilities Corporation
Unit 108- 12300 Horseshoe Way
Richmond, BC, V7A 4Z1

Attention: Vancouver Airport Fuel Facilities Corporation

RE: Determination of Application Area Number 100100195

Permit Holder: Vancouver Airport Fuel Facilities Corporation
Date of Issuance: April 3, 2017
Effective Date: April 3, 2017
Application Submitted Date: February 15, 2017
Application Determination Number: 100100195
Approved Disturbance Footprint: 17.127 ha

ACTIVITIES APPROVED

Pipeline Project No.: 000024381	Segment No.: 1, 2, 3, 4, 5
Associated Oil & Gas Activity No.: 00156632 to 00156652	Type: Workspace
Changes In and About a Stream: 0003774	

TECHNICAL SPECIFICATIONS

Seg No.: 001	From: d-65-H/92-G-3 To: a-75-H/92-G-03
Flow Direction: Uni-Directional Product: Jet Fuel Pipe Outer Diameter (mm): 609.6	
Maximum Operating Pressure (kpa): 1035 Installation Number(s): 1, 2	
Seg No.: 002	From: a-75-H/92-G-03 To: d-65-H/92-G-3
Flow Direction: Uni-Directional Product: Jet Fuel Pipe Outer Diameter (mm): 355.6	
Maximum Operating Pressure (kpa): 3102 Installation Number(s): 3, 4	
Seg No.: 003	From: d-65-H/92-G-3 To: a-43-J/92-G-03
Flow Direction: Uni-Directional Product: Jet Fuel Pipe Outer Diameter (mm): 355.6	
Maximum Operating Pressure (kpa): 3102 Installation Number(s): 5, 6, 7, 8, 9	
Seg No.: 004	From: d-65-H/92-G-3 To: a-75-H/92-G-03

Permitting and Authorizations
Physical Address: 6534 Airport Road, Fort St. John, BC
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Telephone: (250) 794-5200
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Permit Holder: Vancouver Airport Fuel Facilities Corporation
Application Determination number: 100100195

Application Submission Date: February 15, 2017
Date Issued: April 3, 2017

Flow Direction: Uni-Directional		Maximum Operating Pressure (kpa): 1035	
Product: Jet Fuel		Installation Number(s): 10, 11	
Pipe Outer Diameter (mm): 609.6			
Seg No.: 005		From: a-75-H/92-G-03 To: a-43-J/92-G-03	
Flow Direction: Uni-Directional		Maximum Operating Pressure (kpa): 3102	
Product: Jet Fuel		Installation Number(s): 12, 13, 14	
Pipe Outer Diameter (mm): 355.6			
Technical Pipeline Permissions			
Segment 1: Liquid Hydrocarbons, MOP: 1035 kPa, Unidirectional			
Segment 2: Liquid Hydrocarbons, MOP: 3102 kPa, Unidirectional			
Segment 3: Liquid Hydrocarbons, MOP: 3102 kPa, Unidirectional			
Segment 4: Liquid Hydrocarbons, MOP: 1035 kPa, Unidirectional			
Segment 5: Liquid Hydrocarbons, MOP: 3102 kPa, Unidirectional			
Piping & Instrumentation Diagram(s), MS-601 Revision B, dated January 16, 2017, MS-610 Revision B, dated January 16, 2017, MS-611 Revision B, dated January 16, 2017, MS-612 Revision B, dated January 16, 2017, MS-620 Revision B, dated January 16, 2017, MS-630 Revision B, dated January 16, 2017, MS-672 Revision A, dated August 31, 2016, MS-690 Revision A, dated August 31, 2016, submitted by Vancouver Airport Fuel Facilities Corporation.			

GENERAL PERMISSIONS, AUTHORIZATIONS and CONDITIONS

PERMISSIONS

Oil and Gas Activities Act

1. The BC Oil and Gas Commission, under section 25 (1) of the *Oil and Gas Activities Act*, hereby permits the Permit Holder referenced above to carry out the following activities subject to the conditions contained herein, any applicable exemptions and authorizations to construct and operate a pipeline to transmit jet fuel, as detailed in the Technical Specification Details table above.
2. The permissions and authorizations granted under this permit are limited to the area identified in the spatial data submitted to the Commission in the permit application as identified and dated above; herein after referred to as the 'activity area'.
3. In the area where two route options are proposed, the permit holder is authorized to construct the pipeline within one of the route options, but not both.

Petroleum and Natural Gas Act

4. Pursuant to section 138(1) of the *Petroleum and Natural Gas Act*, the Permit Holder is permitted to enter, occupy and use any unoccupied Crown land located within the activity area to carry out the oil and gas activities and related activities permitted, or authorized herein.
 - a) The permission to occupy and use Crown land does not entitle the Permit Holder to exclusive possession of the area.
 - b) The total disturbance within the activity area must not exceed the total approved disturbance footprint as referenced above.

Permit Holder: Vancouver Airport Fuel Facilities Corporation
Application Determination number: 100100195

Application Submission Date: February 15, 2017
Date Issued: April 3, 2017

AUTHORIZATIONS

Forest Act

5. The Commission, pursuant to section 47.4 of the *Forest Act*, hereby authorizes the removal of Crown timber from the activity area under the cutting permits associated with the Master Licence(s) as follows:

Master Licence to Cut No.: M02416

Cutting Permit No.: 1

Timber Mark No.: MTB969

Total New Cut: 3.4 ha.

Forest District: (DCK) Chilliwack Natural Resource District

Region: Coastal

6. The cutting permits are deemed spent upon the submission of the post-construction plan or upon either the cancellation or expiry of the activities authorized under the permit.

CONDITIONS

Notification

7. A notice of construction start must be submitted prior to the commencement of activities under this permit 48 hours before or as per the relevant legislation if longer than 48 hours. Notification must be submitted via Kermit for pipelines and facilities.
8. Within 60 days of the completion of construction activities under this permit, the Permit Holder must submit to the Commission a post-construction plan as a shapefile and PDF plan accurately identifying the location of the total area actually disturbed under this permit. The shapefile and plan must be submitted via eSubmission.
9. At least ten (10) working days prior to the commencement of any changes in or about a stream associated with maintenance activities, the Permit Holder must provide a notice of works to any First Nation(s) who may have Aboriginal Interests identified, as per the BC First Nations Consultative Areas Database, within the area in which the works are to occur.
10. A notice of maintenance activities must be submitted, as per the relevant Commission process at the time of submission, at least two (2) working days prior to the commencement of any changes in or about a stream associated with maintenance activities.
11. The Permit Holder must notify any First Nations who may have aboriginal interests identified, as per the BC First Nations Consultative Areas Database, a minimum of five (5) working days prior to commencement of construction.
12. The Permit Holder must notify Tsleil-Waututh Nation of any in-stream works at the marine terminal site a minimum of five (5) working days prior to commencement of activities.

General

13. The rights granted by this permit in relation to unoccupied Crown land are subject to all subsisting grants to or rights of any person made or acquired under the *Coal Act*, *Forest Act*, *Land Act*, *Mineral Tenure Act*, *Petroleum and Natural Gas Act*, *Range Act*, *Water Sustainability Act* or *Wildlife Act*, or any extension or renewal of the same.
14. The Permit Holder must not assign, sublicense or permit any person other than its employees, contractors or representatives, to use or occupy any Crown land within the activity area without the Commission's written consent.
15. The Permit Holder must ensure that any Crown land within the activity area is maintained in a condition so as to minimize hazards, including but not limited to hazards associated with storage of materials and equipment.

Permit Holder: Vancouver Airport Fuel Facilities Corporation
Application Determination number: 100100195

Application Submission Date: February 15, 2017
Date Issued: April 3, 2017

16. The Permit Holder must ensure that any Crown land within the activity area is maintained free of garbage, debris and unused equipment.
17. The Permit Holder must prepare a Security Management Plan before the commencement of activities, and must make a copy of the Security Management Plan available upon the request of the Commission.
18. The Permit Holder must keep a copy of the Security Management Plan on the activity area, and ensure that the security management measures identified in the Security Management Plan are implemented during activities.

Environmental

19. Construction activities must not result in rutting, compaction or erosion of soils that cannot be reasonably rehabilitated to similar levels of soil productivity that existed on the activity area prior to the construction activities taking place.
20. Any temporary access must be constructed and maintained in a manner that provides for proper surface drainage, prevents pooling on the surface, and maintains slope integrity.
21. The Permit Holder must make reasonable efforts to prevent establishment of invasive plants on the activity area set out in the Authorized Activities table above resulting from the carrying out of activities authorized under this permit.
22. Following completion of construction associated with the associated activities set out in the Activities Approved table above, the Permit Holder must, as soon as practicable:
 - a) decompact any soils compacted by the activity;
 - b) if natural surface drainage pattern was altered by the carrying out of the activity, the Permit Holder must restore, to the extent practicable, to the drainage pattern and its condition before the alteration; and
 - c) re-vegetate any exposed soil on the activity area including, where necessary, using seed or vegetative propagules of an ecologically suitable species that:
 - (i) promote the restoration of the wildlife habitat that existed on the area before the oil and gas activity was begun; and
 - (ii) stabilize the soil if it is highly susceptible to erosion.
 - d) Following completion of construction activities authorized under this permit, any retrievable surface soils removed from the activity area must be redistributed so that the soil structure is restored, to the extent practicable, to its condition before the activity was begun.

Clearing

23. The Permit Holder is permitted to fell any trees located on Crown land within 1.5 tree lengths of the activity area that are considered to be a safety hazard according to *Workers Compensation Act* regulations and must be felled in order to eliminate the hazard. Trees or portions of these trees that can be accessed from the activity area without causing damage to standing timber may be harvested.
24. The holder of the cutting permit must pay to the government, stumpage and any waste billing determined in accordance with the terms of this authorization.
25. The authorized cutting permit does not grant the Permit Holder the exclusive right to harvest Crown timber from the activity area. Authority to harvest some or all of the timber may be granted to other persons. The Permit Holder's right to harvest timber applies to any timber found on the site at the time they undertake harvesting activities.
26. All harvested Crown Timber must be marked with the cutting permit's associated Timber Mark.
27. Stumpage for cutting Permits falling within the Coast Area, as defined in the Coast Appraisal Manual (Manual) will be calculated in accordance with the Manual (volume based).
28. Any waste assessments applied under the Master Licence to Cut are subject to the merchantability specifications and monetary waste billing requirements in the Provincial Logging Residue and Waste Manual specific to the region associated with the Cutting Permit authorization.

Permit Holder: Vancouver Airport Fuel Facilities Corporation
 Application Determination number: 100100195

Application Submission Date: February 15, 2017
 Date Issued: April 3, 2017

Water Course Crossings and Works

29. Stream, lake and wetland crossings must be constructed in accordance with the methods and any mitigations, as specified in the application.
30. In-stream activities within a fish bearing stream, lake or wetland must occur:
 - a) during the applicable reduced risk work windows as specified in the Guidelines for Reduced Risk Instream Work Windows Ministry of Environment, Lower Mainland Region (March, 2006);
 - b) in accordance with alternative timing and associated mitigation recommended by a Qualified Professional and accepted by the Commission; or
 - c) in accordance with an authorization or letter of advice from Fisheries and Oceans Canada that is provided to the Commission.
31. At any time, the Commission may suspend instream works authorized under this permit. Suspensions on instream works will remain in place until such time as the Commission notifies permit holders that works may resume. Reasons for suspension of works may include, but are not limited to, drought conditions and increased environmental or public safety risks
32. Following initial construction, stream, lake and wetlands crossings are authorized for necessary pipeline maintenance activities on the activity area except for:
 - a) stream bank or stream bed revetment works in a stream classified as S1, S2, S3, S4 or S5;
 - b) pipe replacement within the stream channel where the original application specified a trenchless crossing method and the planned works involve a trenched crossing method;
 - c) permanent alteration of a stream bank;
33. The Permit Holder must ensure any instream works related to pipeline maintenance are planned and overseen by a qualified professional. This individual must assess and determine whether planned works pose a risk to any of the features listed below, and is responsible for developing and implementing mitigation measures to reduce any potential impacts on these features, as required:
 - a) Fish or important fisheries habitat;
 - b) Species identified as special concern, threatened, or endangered under the federal *Species at Risk Act*; or
 - c) Species identified by Order as a species at risk under the *Forest and Range Practices Act* or the *Oil and Gas Activities Act*.

This assessment must be provided to the Commission upon request.
34. Open cut crossings and works within streams, lakes or wetlands must be planned and conducted in accordance with the following requirements:
 - a) An open cut of a stream classified as S1, S2, S3 or S4 must not occur, unless the stream is frozen to its bed or is completely dry with no evidence of subsurface flow;
 - b) Unless otherwise authorized by Fisheries and Oceans Canada, spawning gravels must not be disturbed when redds that contain eggs or alevins are present. The authorization must be provided to the Commission; and
 - c) Channels, banks and beds of streams, including any disturbed stable natural material must be restored, to the extent practicable, to the structure and conditions that existed before the crossing construction was initiated.
35. Flow isolation crossings and works must be planned and conducted in accordance with (b) and (c) of the previous condition and the following additional requirements:
 - a) Construction of the crossing or works, including the location and operation of any equipment, must be isolated from water flowing in the stream;
 - b) Water from flumes, pump-arounds, diversions, or other methods must be released to downstream areas in a manner that avoids erosion or sediment release;

Permit Holder: Vancouver Airport Fuel Facilities Corporation
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- c) Pump intakes must not disturb beds of fish bearing streams, except as necessary to ensure safe installation and operation of equipment, and must be screened with maximum mesh sizes and approach velocities in accordance with the Fisheries and Oceans Canada Freshwater Intake End-of-Pipe Fish Screen Guideline; and
 - d) Water flows downstream of in-stream construction sites must be maintained at volume and discharge consistent with upstream flows.
36. Mechanical stream crossings for temporary access along pipeline right of way, must be constructed, maintained and deactivated according to the following requirements, as applicable:
- a) Only bridges and culverts, may be constructed at stream crossings;
 - b) The Permit Holder must ensure that permanent bridges are designed and fabricated in compliance with:
 - (i) the Canadian Standards Association Canadian Bridge Design Code, CAN/CSA-S6; and
 - (ii) soil property standards, as they apply to bridge piers and abutments; set out in the Canadian Foundation of Engineering Manual.
 - c) Except with leave of the Commission, the Permit Holder must ensure that:
 - (i) culverts are designed and fabricated in compliance with the applicable:
 - (a) Canadian Standards Association CSA G401, Corrugated Steel Pipe Products; or
 - (b) Canadian Standards Association Standard CSA B1800, Section B182.2, Plastic Non-pressure Pipe Compendium; or
 - (ii) Any pipe installed in lieu of a culvert is of at least equivalent standard and strength as any culvert as specified above.
 - d) Except with leave of the Commission, the Permit Holder must ensure that bridges or culverts meet the criteria set out in (i), (ii) or (iii) below.
 - (i) the bridge or culvert is designed to pass the highest peak flow of the stream that can reasonably be expected within the return periods set out in column 2 the table below for the period the Permit Holder anticipates the structure will remain on site, as set out in column 1 of the table below.

Column 1 Anticipated period crossing structure will remain on site	Column 2 Peak flow period
Bridge or culvert, 3 years or less	10 years
Bridge other than a bridge within a community watershed, more than 3 years but less than 15	50 years
Bridge within a community watershed, more than 3 years	100 years
Bridge, 15 years or more	100 years
Culvert, more than 3 years	100 years

- (ii) The bridge, or any component of the bridge:
 - (a) is designed to pass expected flows during the period the bridge is anticipated to remain on the site;
 - (b) is constructed, installed and used only in a period of low flow; and
 - (c) is removed before any period of high flow begins.

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(iii) The culvert:

- (a) is a temporary installation, and the Permit Holder does not expect to subsequently install a replacement culvert at that location;
 - (b) is not installed in a stream, when the stream contains fish;
 - (c) is sufficient to pass flows that occur during the period the culvert remains on the site;
 - (d) is installed during a period of low flow, and
 - (e) is removed before any period of high flow begins.
- e) Bridge or culvert abutments, footings and associated scour protection must be located outside the natural stream channel and must not constrict the channel width;
- f) Wetland crossings must be constructed, maintained and removed in accordance with the following:
- (i) Organic cover within and adjacent to the wetland must be retained;
 - (ii) Minimize erosion or release of sediment within the wetland;
 - (iii) Any padding materials must be placed on the wetland surface only and must not be used for infilling;
 - (iv) Any padding materials must be removed as soon as practicable following construction, considering weather and ground conditions; and
 - (v) The wetland, including banks and bed, must be restored, to the extent practicable, to the condition that existed before the crossing was initiated.

Archaeology

37. An Archaeological Impact Assessment (AIA) is required for the proposed development area prior to any development activities taking place.

An AIA report must be submitted to the Commission as soon as practicable.

If artifacts, features, materials or things protected under section 13(2) of the Heritage Conservation Act are identified the permit holder must, unless the permit holder holds a permit under section 12 of the Heritage Conservation Act issued by the Commission in respect of that artifact, feature, material or thing:

- a. immediately cease all work in the vicinity of the artifacts, features, materials or things;
- b. immediately notify the Commission and the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations; and
- c. refrain from resuming work in the vicinity of the artifacts, features, materials or things except in accordance with an appropriate mitigation plan that has been prepared in accordance with the Heritage Conservation Act and approved by the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations.

ACTIVITY SPECIFIC DETAILS PERMISSIONS, and CONDITIONS

PIPELINES

Land Area Number: 100003118
Pipeline Project Number: 000024381

All permissions for this activity are subject to the following conditions:

Pipeline Conditions

38. Changes must not be made to pigging design, and to above ground valves and piping, unless:
- a. the changes do not affect direct connections to pipelines and facilities;

Permitting and Authorizations
Physical Address: 6534 Airport Road, Fort St. John, BC
Mailing Address: Bag 2, Fort St. John, BC V1J 2B0

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Telephone: (250) 794-5200
Facsimile: (250) 794-5379
24 Hour: (250) 794-5200

Permit Holder: Vancouver Airport Fuel Facilities Corporation
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- b. there are no changes to approved pressure protection, H2S protection or isolation;
 - c. there is no substantive impact to any aspect of the project that was included in the consultation; and
 - d. the design and operation of the pipeline continues to meet all regulatory requirements and the requirements of CSA Z662.
39. At least 14 days prior to the start-up of the marine terminal, the permit holder must contact the Commission by email (OGCPipelines.Facilities@bcogc.ca, referencing the application area number) to coordinate and complete an inspection.
 40. The permit holder must complete and submit a noise survey for the marine terminal, as directed in the BC Noise Control Best Practices Guideline, to the Commission (OGCPipelines.Facilities@bcogc.ca, referencing the application area number) within 6 months of commencement of operations. The Commission may require additional sound monitoring surveys or noise impact assessments to be completed at any time once the facility is in operation.
 41. Prior to commencement of operations at the marine terminal, the permit holder must provide to the Commission (OGCPipelines.Facilities@bcogc.ca, referencing the application area number) a copy of the facility Emergency Shutdown Systems Logic Chart stamped by a Professional Engineer indicating that the shutdown systems have been inspected and tested.
 42. The permit holder must submit the post HAZOP Issued for Construction (IFC) Piping and Instrumentation Drawings (P&IDs), and a list documenting any design differences between IFC P&IDs and the P&IDs submitted to the Commission for the issuance of this permit, to the Commission (OGCPipelines.Facilities@bcogc.ca, referencing the application area number) at least 2 weeks prior to the commencement of any field construction of process equipment and piping at the marine terminal.
 43. Except with leave of the Commission, within 12 months of commencement of liquid hydrocarbons transmission to Tank Farm 2 at YVR Airport, the permit holder must submit to the Commission the results and interpretation of a high resolution in-line inspection tool run to establish an accurate position of the pipeline (GEOPIG) and to detect pipe deformation and defects.
 44. The permit holder must contact the Commission via email at OGCPipelines.Facilities@bcogc.ca (referencing the application area number) at least 48 hours in advance of the start of construction of the pipeline. A Commission representative may coordinate an inspection prior to or during construction of the pipeline.
 45. Prior to start of construction of the marine terminal, the Geotechnical report, stamped by a Professional Engineer registered in BC, must be submitted to the Commission (OGCPipelines.Facilities@bcogc.ca, referencing the application area number).
 46. The permit holder must conduct a facility start up meeting prior to commencing operations to review the Emergency Response Plan with all potential permit holder emergency responders. The BCOGC must be notified in writing at least 30 days prior to the meeting by submitting the, "OGC Notification of Facility/Producing Well Start-up Modification Meeting" form found at: <http://www.bcogc.ca/industry-zone/documentation/Emergency-Response-and-Safety>.

ADVISORY GUIDANCE

1. Construction plan 17647, Sheet 1-21 is for the Permit Holder's internal reference only and was not reviewed as a decision tool for this permit, nor does it form an integral part of this permit.
2. The permit holder should be aware that there may be First Nation's traditional, cultural, or spiritual activities occurring concurrently with maintenance activities, as well as areas of current use or cultural resources that overlap the activity area. All reasonable efforts should be made to minimize interference with those activities while carrying out the activities authorized herein.
3. Appropriate tenure may be issued upon acceptance of the post-construction plan. Submission of the original application and submission of the post-construction plan is considered an application for all subsequent applicable *Land Act* tenures. Upon the Commission's acceptance of the post-construction plan no further applications for replacement tenure are required.
4. The term "unused equipment" has the same definition as in the Drilling and Production Regulation.

Permit Holder: Vancouver Airport Fuel Facilities Corporation
Application Determination number: 100100195

Application Submission Date: February 15, 2017
Date Issued: April 3, 2017

5. The activity area, with the exception of temporary workspace ancillary numbers 00156648, 00156632, and 00156649, must be confined to the area approved in the Certified Project Description of the associated Environmental Assessment Certificate.

All pages included in this permit and any attached documents form an integral part of this permit.

Ken Paulson, P. Eng
Executive Vice President and Chief Operating Officer
Authorized Signatory and Commission Delegated Decision Maker

Copied to:

Land Agent: CCI Solutions

First Nations: Seabird Island First Nation, Squamish Nation, Katzie First Nation, Stz'uminus First Nation, Tsleil-Waututh Nation, Penelakut Tribe, Cowichan Tribes, Lyackson First Nation, Musqueam Indian Band, Semiahmoo First Nation, Lake Cowichan First Nation, Halalt First Nation, Tsawwassen First Nation, People Of The River Referrals Office, Sto:lo Nation, Sto:lo Tribal Council, Soowahlie First Nation, Skawahlook First Nation, Shxw'ow/hamel First Nation, Hwlitsum

Landowners/Rights Holders

Ministry of Forests District Office: (DCK) Chilliwack Natural Resource District

Work Safe BC

OGC Compliance and Enforcement

OGC Community Relations



March 28, 2019

Vancouver Airport Fuel Delivery Project
Unit 108- 12300 Horseshoe Way
Richmond, BC, V7A 4Z1

Attention: Vancouver Airport Fuel Delivery Project

RE: Permit Extension for Application Determination Number 100100195

Permit Holder: Vancouver Airport Fuel Delivery Project
Permit Date of Issuance: April 3, 2017
Extension Date of Issuance: March 28, 2019
Extended Expiration Date: April 3, 2020
Application Determination No.: 100100195
Pipeline Project No.: 000024381
Ancillary Description: Workspace
Ancillary No.: 00156632 to 00156652
Changes In and About a Stream: 0003774

PERMISSIONS

Oil and Gas Activities Act

1. The BC Oil and Gas Commission (the "Commission"), under section 32(5) of the Oil & Gas Activities Act, hereby extends the permit and any associated authorizations to construct, maintain and operate a pipeline.
2. This permit extension is subject to the original permit, authorizations, subsequent amendments and any additional conditions as set out herein .
3. The prescribed period of this permit has been extended for one year and will expire on **April 3, 2020** if the permit holder has not begun the activity by this date.

Petroleum and Natural Gas Act

4. Pursuant to Section 138(1) of the Petroleum and Natural Gas Act, the permit holder is authorized to enter, occupy and use any unoccupied Crown land located within the operating area to carry out the oil and gas activity and related activities authorized under this permit.

CONDITIONS

5. The rights granted by this authorization are subject to all subsisting grants to or rights of any person made or acquired under the *Coal Act*, *Forest Act*, *Land Act*, *Mineral Tenure Act*, *Petroleum and Natural Gas Act*, *Range Act*, *Water Sustainability Act* or *Wildlife Act*, or any extension or renewal of the same.
6. The Permit holder must not assign or sublicense this permit or permit any person to use or occupy the land, other than its employees, contractors, or representatives, without the Commission's written consent.

Permitting and Authorizations Division
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Mailing Address: Bag 2, Fort St. John, BC V1J 2B0

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24 Hour: (250) 794-5200

Permit Holder: Vancouver Airport Fuel Delivery Project
Application Determination number: 100100195

Permit Extension Submission Date: March 12, 2019
Date Issued: March 28, 2019

7. The Permit Holder must ensure that the area is maintained in a condition so as to minimize hazards, including but not limited to hazards associated with storage of materials and equipment.
8. The Permit Holder must ensure that the area is free of garbage, debris and unused equipment.

ADVISORY GUIDANCE

1. Appropriate *Land Act* tenure will be issued upon acceptance of the post-construction plan. Submission of the original application and submission of the post-construction plan is considered application for all subsequent *Land Act* tenures; no further applications for replacement tenure is required.

This extension forms an integral part of the permit and should be attached thereto.



James O'Hanley
Vice President, Applications
Commission Delegated Decision Maker

pc: Land Agent – RAM Engineering
OGC, Compliance and enforcement

Attachment 12
Letter regarding MOTI highway permit



Bennett Jones

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David Bursey
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e-mail: burseyd@bennettjones.com
Out File No. 731782

June 27, 2019

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

Attention: Anthony Capuccinello Iraci, City Solicitor

Dear Mr. Capuccinello:

**Re: Vancouver Airport Fuel Facilities Corporation – Marine Terminal Development Permit
– Site Specific Municipal Access Agreement – Vancouver Airport Fuel Delivery Project
– Update on the Ministry of Transportation and Infrastructure Permit**

Further to our recent discussions, I understand the City's General Purposes Committee will review VAFFC's Development Permit for its Marine Terminal site and the Site Specific Municipal Access Agreement on 2 July 2019. This letter gives an update on the status of the BC Ministry of Transportation and Infrastructure permit for VAFFC to construct and operate the portion of pipeline that will be located within the provincial highway corridor.

- VAFFC and MoTI staff settled the terms of the permit earlier this year. In March, we sent you a confidential copy of the final draft of the permit. There have been no changes to the terms of the MoTI permit since then. VAFFC expects that any further changes would be minor and technical in nature.
- MoTI is working through its internal administrative approval process to issue the permit. Based on a discussion between VAFFC and MoTI last week, we expect MoTI will issue the final permit by the end of July 2019.
- MoTI staff have assured VAFFC that the MoTI permit process is on track but the issuance process typically takes considerable time to complete because of MoTI staffing capacity. We understand the remaining process required to issue the permit is administrative in nature.

We will send you a final copy once MoTI has issued the final permit.

July 10, 2019

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June 27, 2019
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Please advise us if you require any further information.

Yours truly,

BENNETT JONES LLP


David Bursey

DB:dm