



City of Richmond

Report to Committee

To: General Purposes Committee

Date: March 14, 2011

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

File:

Re: **Vancouver Airport Fuel Delivery Project Proposal –
Environmental Assessment Certificate Application Review**

Staff Recommendation

That, without limitation to any additional comments that may arise from further review, the proposed City comments identified in **Attachment 4** on the Environmental Assessment Certificate Application for the Vancouver Airport Fuel Delivery Project be endorsed for submission to the BC Environmental Assessment Office.

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

Att (2)

FOR ORIGINATING DEPARTMENT USE ONLY			
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER	
Real Estate Services.....	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Environmental Programs	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Fire Rescue	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Policy Planning	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Parks	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
REVIEWED BY TAG	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	REVIEWED BY CAO	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

Staff Report

Origin

At the Regular Council Meeting of June 8, 2009, the following motion was adopted:

"That in relation to any new and necessary jet fuel supply systems to YVR, a preference be endorsed for:

- (a) jet fuel supply system options that result in no net gain of jet fuel line length on Lulu Island;***
- (b) the further consideration and review of alternatives to the current VAFFC proposal;***
- (c) significant removal of fuel delivery trucks from regional roadways; and***
- (d) options that do not include an off-loading facility on the south arm of the Fraser River."***

Furthermore, at the Regular Council Meeting of April 26, 2010, the following motion was adopted:

"That the City of Richmond advise the BC Environmental Assessment Office and the VAFFC of the following:

- (1) That in any new jet fuel supply systems to the Vancouver International Airport, Richmond Council is strongly opposed to:***
 - (a) an off-loading facility on the south arm of the Fraser River;***
 - (b) a new jet fuel line through Richmond farmland and urban areas of Richmond; and***
 - (c) any increase in the number of trucks carrying jet fuel on City streets.***
- (2) That the recent VAFFC public open house was inadequate to inform the public of the full situation and that the minimum criteria for adequate consultation would include:***
 - (a) an opportunity for attendees to provide written input;***
 - (b) full disclosure of the proponent's analysis;***
 - (c) a discussion and analysis of the options rather than the assertion of one option; and***
 - (d) many opportunities at various locations for input."***

In the context of these motions, staff have continued to represent the City's interests through the Environmental Assessment (EA) process for the fuel delivery project. The purpose of this report is to provide an update on the EA process and seek endorsement of the proposed City comments on the EA Certificate Application submitted by the Vancouver Airport Fuel Facilities Corporation (VAFFC) for their fuel delivery project.

Analysis

Richmond is home to the Vancouver International Airport (YVR). While concerns for safety and environmental impacts exist on any proposed pipeline system in addition to the existing aging system, a safe and reliable supply system for jet fuel is integral to the on-going prosperity of YVR operations.

VAFFC submitted an EA Application to the British Columbia Environmental Assessment Office (EAO) on January 5, 2011. Shortly after, on February 7, 2011, VAFFC submitted a Pipeline Application to the BC Oil & Gas Commission. Both applications seek approval for the South Arm Terminal fuel delivery project and neither process will consider alternative options. The proposed pipeline routes for the South Arm Terminal option are shown in **Attachment 1**. The schedule for the EAO process is provided in **Attachment 2** for reference.

Review Process and Timeline

Both the EA and Pipeline Permit approvals are administered by Provincial agencies. As such, as a local government, the City has limited influences on the outcome of these review processes. The proposal is well into the EA process based on the process set out by the EAO (**Attachment 3**).

As permitted by Provincial legislation, the EAO and the OGC have agreed to the concurrent review of the EA and Pipeline Permit applications. Also, the federal and provincial EA processes have been harmonized. As such, the EA application is subject to the 180-day review process set out in the BC *Environmental Assessment Act*, after which the OGC has 60 days to make a decision with respect to the Pipeline Permit application. Furthermore, Port Metro Vancouver will make a separate decision for the purposes of the federal EA requirement.

Although the fuel pipeline project originally did not trigger an EA process under provincial legislation, VAFFC requested, and the EAO agreed, to permit VAFFC to opt-in to the process. Since the request was granted in November 2008, VAFFC's application has been subject to a lengthy Pre-Application process. This process involved submission of a project report, pre-application meetings and consultations with the public and stakeholders starting in February 2009, numerous studies on various aspects of the project, identification of issues by various agencies through the Technical Working Group for the project, and development and approval of the Application Information Requirements document (which sets out the issues to be addressed in the EA and the information to be included in the formal application). At the end of the Pre-Application process, VAFFC submitted a formal application for review by the EAO. This formal application was screened and reviewed for completeness, and officially accepted for review by the EAO.¹

¹ The submission is available digitally at http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_project_home_346.html. A hard copy of the two-volume application submission has been made available in the Councillors' lounge.

Agencies, authorities, departments and organizations from the local, provincial and federal jurisdictions² are involved in the EA review (both Pre-Application and during the formal review process) as members of the Technical Working Group for the project. The EAO organized a Working Group meeting on Wednesday March 2, 2011 to present a summary of the submission to numerous government agencies, including Richmond, and several First Nations.

Now that VAFFC's application has entered the formal 180-day review process, EAO staff has showed little willingness to alter the established EA process schedule. Based on the schedule provided by the EAO (**Attachment 2**), VAFFC's EA Application was officially accepted for review on February 18, 2011. While the schedule originally required Richmond to provide technical comments to the EAO by March 18, 2011, staff have negotiated an extension to March 31, 2011. Regardless of Richmond's time extension, the review process is scheduled to end after 180 days on August 17, 2011. At the end of the prescribed review process, the EA application will be referred to the Minister of Environment for a decision, based on recommendations from the EAO. It is anticipated that the Minister's decision will be rendered by October 1, 2011.

EA Public Open House

The EAO held a Public Open House on March 7, 2011 in Richmond at the Executive Airport Plaza Hotel. The Open House was conducted in the same manner as the previous open house held by the EAO on April 14, 2010. The EAO did not respond to or address any of the issues raised under Council's motion on the open house format made at the Regular Council Meeting of April 26, 2010 (quoted on page 2 of this staff report).

The Open House was attended by approximately 50 people who were largely opposed to the project. EAO and VAFFC staff provided presentations on the application and conducted a question and answer session. Attendees were directed to provide written comments to the EAO as follows:

1. Online form at EAO's website: www.eao.gov.bc.ca
2. By regular mail to: Jennifer Dessouki
Environmental Assessment Office
1st Floor – 836 Yates St.
Victoria, BC V8W 1L8
3. By fax to: 250-356-7440

Please note that the EAO office treats a petition with multiple signatures as one single comment. The City continues to make every effort to make the application information available to our citizens with current material on the submission and contact information for the proponent of the application and the reviewing agencies posted on the City's web site at: <http://www.richmond.ca/news/city/BCEAOopenhouse20110307.htm>

² **Provincial Authorities:** B.C. Environmental Assessment Office, B.C. Ministry of Environment, B.C. Ministry of Community, Sport and Culture Development, B.C. Utilities Commission, B.C. Oil and Gas Commission. **Local/Regional government:** City of Richmond, Corporation of Delta, Metro Vancouver. **Federal Authorities:** Canadian Environmental Assessment Agency, Port Metro Vancouver, Transport Canada, Environment Canada, Fisheries and Oceans Canada, Health Canada, Canadian Transportation Agency, Canadian Coast Guard, Indian and Northern Affairs Canada, Vancouver Airport Authority.

Technical Comments

Based on material provided by VAFFC to date, there are no “risk free” solutions available to address the need for jet fuel. From a technical perspective, the “best” proposal would be one that creates the least amount of risk and environmental impact with the most rigorous preparation and safeguards against risks. The material submitted by VAFFC to the EAO is extensive and has provided professional responses to satisfy the EAO sufficiently for the submission to be accepted as an application for review.

Along with other working group members, stakeholders, and the public, staff have raised issues and concerns and have provided extensive comments to the EAO through the Pre-Application phase. The specific comments and responses from VAFFC are recorded and tracked in the EAO’s tracking document.³ Staff have completed an initial review of VAFFC’s application and have prepared an initial list of comments that are detailed in **Attachment 4**, of which some key elements are as follows:

- Highway 99 is a preferred route for any jet fuel pipeline over the use of any City rights-of-way and any selected route should not front any residential properties.
- VAFFC has not committed to specific elements of a Municipal Access Agreement that the City requires, such as responsibility for causal costs.
- There is no commitment to compensate the City for neutralization of City rights-of-way.
- An adequate land based spill risk and mitigation assessment has not been provided.
- VAFFC have not addressed the lack of fire-fighting capability in the area of the proposed terminal.
- VAFFC has not provided a comparative assessment of options and alternatives to their proposal that fully accounts for impacts and externalized costs to the City and other stakeholders.
- Drainage, trail and other City utility uses and needs in the Shell Rd corridor and other City rights-of-way are critical to supporting the community and need to be protected. A continuous drainage canal is required throughout the full length of Shell Rd.
- Dike rights of way and construction to current standards with build-ability to future standards and public trail access are required through the South Arm terminal property and any other impacted foreshore area.

³ The EAO comment tracking document can be found on the EAO website <http://www.eao.gov.bc.ca/> here: http://a100.gov.bc.ca/appsdata/epic/documents/p346/1288219695145_74bb51bbee10bd6c74097ba45127aea45c10ea6a4bae902858ad7711df40630d.pdf

Based on staff's review to date, VAFFC's application has not adequately addressed any of the comments previously provided by the City during the Pre-Application phase, nor has it addressed any of the adopted motions identified in the **Origin** section of this staff report (with the exception of fuel truck traffic, which would be reduced or eliminated under the application proposal).

Staff will remain engaged on the working group representing the City's interests throughout the EA process.

Financial Impact

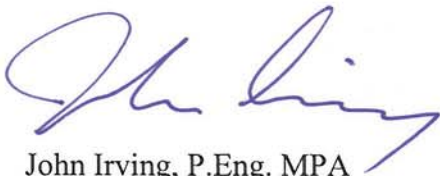
There is no financial impact at this time, however ongoing review and engagement on the EA process requires the use of numerous staff for extended periods and at times the use of external legal counsel. Through the 180-day application review stage it is estimated that the staff demand would be one full-time equivalent.

Conclusion

VAFFC submitted an EA Application to the British Columbia Environmental Assessment Office (EAO) on January 5, 2011. Shortly after, on February 7, 2011, VAFFC submitted a Pipeline Application to the BC Oil & Gas Commission. Both applications seek approval for the South Arm Terminal fuel delivery project and neither process will consider alternative options.

Staff have negotiated a deadline extension to March 31, 2011 for submission of comments on the application. Regardless of this extension, the review process is scheduled to end after 180 days on August 17, 2011. At the end of the prescribed review process, the EA application will be referred to the Minister of Environment for a decision, based on recommendations from the EAO. It is anticipated that the Minister's decision will be rendered by October 1, 2011.

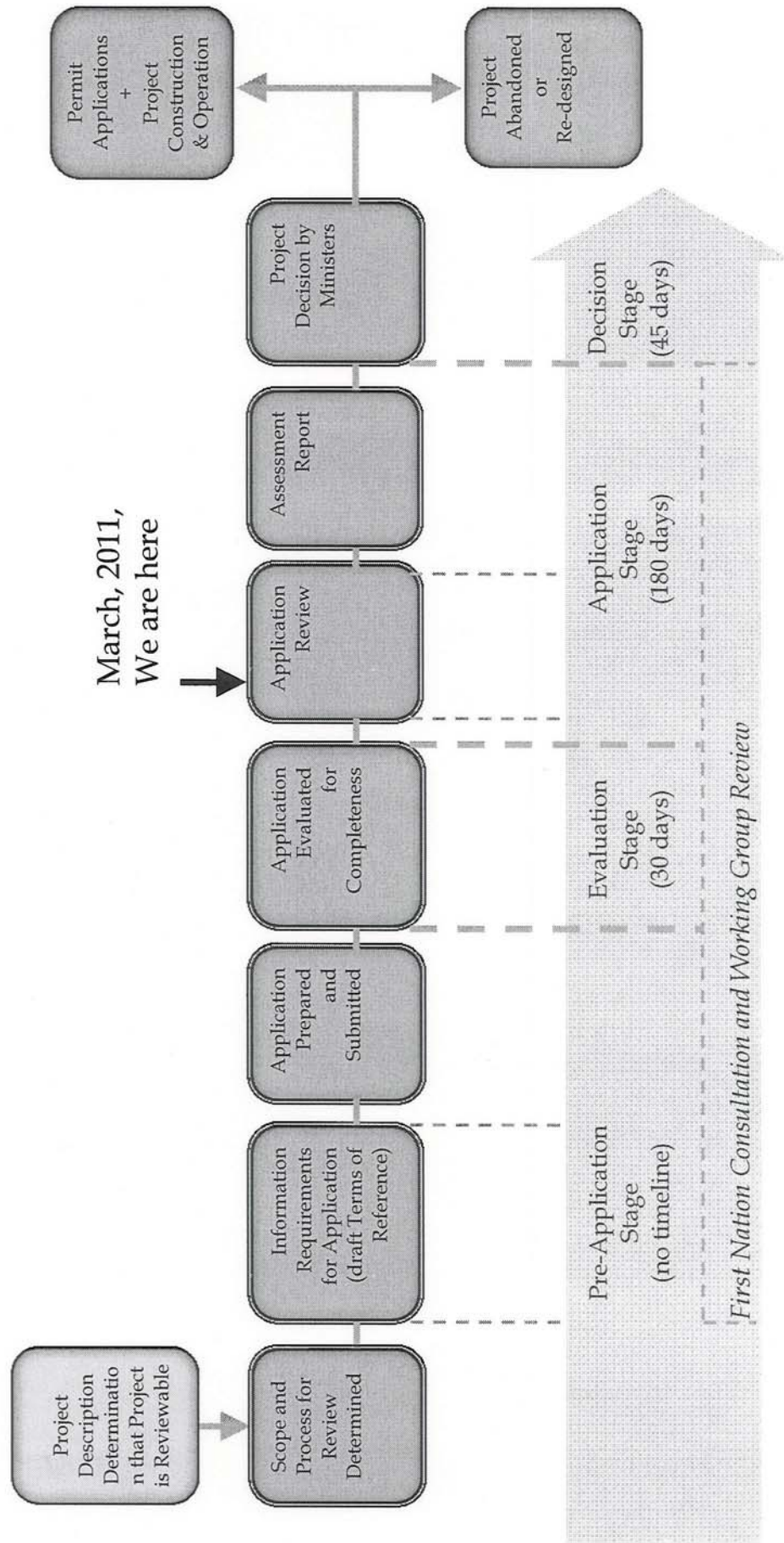
It is recommended that, without limitation to any additional comments that may arise from further review, the proposed City comments identified in **Attachment 4** on the Environmental Assessment Certificate Application for the Vancouver Airport Fuel Delivery Project be endorsed for submission to the BC Environmental Assessment Office.



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

Att (6)

Environmental Assessment Review Process



Attachment 4

This table identifies the key issues raised by the City together with the summarized response on those issues provided by VAFFC through their EA Application.

Key Issue	VAFFC Response	Proposed City Comments
Municipal Access Agreement	VAFFC will use all reasonable efforts to negotiate a Municipal Access Agreement with the City of Richmond that will define the relevant terms and conditions.	<p>The Table of Commitments must contain clear language that compels the proponent to complete Municipal Access Agreements (MAA) prior to any work on City land, rights of way or other areas administered by the City. The City will work with the proponent to outline the terms and conditions that will be required, but this is essential to protect the interest of the Corporation of City of Richmond, and the taxpayers of Richmond.</p> <p>VAFFC must commit to responsibility for all causal costs related to the construction and operation of any fuel delivery infrastructure within City lands.</p> <p>During the March working group meeting, the EAO noted that the Table of Commitments "does not include commitments to comply with... local government Bylaws". This is a concern to the City, as activities involving PMV properties, federally-administered lands, rail corridors, or the Pipeline regulations under the Oil and Gas Activities Act may not be subject to certain bylaws, severely restricting the City's ability to protect its interests, its citizens and its community standards as established by a set of Bylaws. Therefore, compliance with bylaws should be codified in ToC, and where compliance with any specific bylaws is not possible, justification and clear mitigation measures must be addressed.</p>
Pipeline Right-of-Way Compensation	The effect of the pipeline and any appropriate compensation will be addressed in the City of Richmond Municipal Access Agreement.	<p>Without clear and firm language in the Table of Commitments indicating that the proponent must enter an MAA prior to work within the City, this response is not sufficient to protect the interests of the City or the Taxpayer.</p> <p>The City of Richmond is the owner of lands and rights-of-way through which the pipeline will pass. In the event that the pipeline results in contamination of soil, groundwater, or soil vapours that emanate from these lands, the City may be considered a person partially responsible under the Environmental Management Act for this contamination. Even if not found partially responsible, the Act would require that the City necessarily spend money to remediate any contamination and seek redress from VAFFC through the courts. The City must be protected from these legal and financial liabilities through a legal agreement with VAFFC and the Table of Commitments.</p>

Key Issue	VAFFC Response	Proposed City Comments
Land-Based Spill Modeling	<p>VAFFC will follow all appropriate statutory requirements and standards, including those of the Oil and Gas Commission which is the primary authority for such pipelines and receiving facilities. Any residual issues will be addressed in the City of Richmond Municipal Access Agreement.</p> <p>Chapter 16: Spill Probability and Risk of the Application addresses land-based spill risk in accordance with good environmental assessment practice for facilities of this size, type and nature.</p>	<p>The City's floodplain geography challenges the interplay of groundwater and storm water in a spill event scenario, particularly in light of surrounding agricultural lands. With an extremely shallow water table, any pipeline designed to underlie city utility infrastructure will be installed below seasonal water tables, significantly increasing the spread of contaminants to adjacent open water courses, utility corridors, and soils. There is little discussion of this in the documentation</p> <p>Chapter 16 of the application does evaluate land-based spill risk, which is an improvement over the pre-application phase, however there is less information on the fate of spilled fuel and the implications for human health and the environment in the case of a spill within the dike than there is on a spill outside the dike.</p> <p>EA considers only environmental/human health risks, and does not evaluate property (including utility works) damage risks due to pipeline failure.</p>
Pipeline Public Consultation	<p>Once the pipeline route has been determined, further consultation directed at potentially affected landowners along the pipeline route would be undertaken in accordance with the requirements of the EAO and the Oil and Gas Commission. Details regarding public consultation activities at all stages of the Project are addressed in Chapter 3: Information Distribution and Consultation of the Application.</p>	<p>More time is required for public consultation, and City of Richmond Staff must have time to consult with public on larger impacts of project.</p> <p>The City takes a larger view of the public consultation process than the proponent, as this project has potential costs and benefits to the entire community, and interest is not limited to those who own land directly affected by pipeline operations.</p>
Fire Suppression and Fire Fighting Capability	<p>This is addressed in Chapter 18: Fire Prevention, Preparedness and Emergency Response of the Application.</p>	<p>Comments from RFR are detailed in Attachment 5.</p>

Key Issue	VAFFC Response	Proposed City Comments
<p>Options Analysis</p>	<p>Alternative means of undertaking the Project, as proposed by VAFFC, is addressed in Section 2.6: Alternative Means of Undertaking the Project of the Application. This section is presented in accordance with requirements of the CEAA.</p> <p>An analysis of alternatives to the Project proposed by VAFFC is not a regulatory requirement and is not within the scope of the environmental assessment review. Nevertheless, Subsection 2.3.5: Fuel Delivery System Options of the Application provides a brief discussion of all potential options considered leading up to the Project.</p>	<p>From the information provided it is clear that other viable options exist for the delivery of jet fuel. A full comparative analysis of alternative options should be conducted that fully accounts for and quantifies all impacts and externalized costs to the City and other stakeholders.</p>
<p>No Net Loss of City Natural Areas</p>	<p>The proposed pipeline will follow existing transportation and/or utility corridors in the City of Richmond and no net loss of City natural areas is expected.</p> <p>All aspects of the assessment of the Project have been undertaken in accordance with the relevant federal, provincial, regional and local government legislation and policies.</p>	<p>The proponent has not addressed how the design, routing and construction of the project will result in no net loss of City natural areas (i.e. The City's EcoPlus approach). This is beyond the legislation and policies referred to. The City of Richmond lies within the Fraser River estuary, yet the documentation within the application takes a very linear approach to impacts, with little recognition of the City's estuarine geography and associated rich ecological matrix.</p> <p>“integrity Management Program” (Chapter 17) included right-of-way vegetation clearing programs – however this <i>may not</i> comply with RMA or ESA policies. Riparian areas, ESAs and green corridors within the City represent a significant proportion of the remaining Natural Areas in the City. The interaction with the commitment to preserve riparian plants (Chapter 9) may conflict with this.</p>

Key Issue	VAFFC Response	Proposed City Comments
City Riparian Management Areas	This is addressed in Section 5.2: Fisheries, Aquatics and Surface Water Quality Assessment and Chapter 9: Environmental Management Program of the Application.	<p>The proponent does not refer to the different pipeline routings and the risks associated with each. For example, the Shell Road corridor has high value RMAs and ESAs that could potentially have higher ecological risks associated with an inland pipeline spill event than other routing options. There is also a section of the pipeline routing under the Fraser River (i.e. Moray Channel) with minimal discussion of details yet the crossing is adjacent to FREMP red coded habitat.</p> <p>The proponent has not addressed how the design, routing and construction of the project will result in no net loss of RMAs, ESAs (i.e. City EcoPlus policy) and City Parks and green spaces.</p> <p>"Integrity Management Program" (Chapter 17) included right-of-way vegetation clearing programs – however this may not comply with RMA or ESA policies.</p> <p>Section 2.4.4.3 outlines proposed pipeline installation techniques that would unavoidably result in significant dewatering of trenchworks. Dewatering management is mentioned, with discharge to Sanitary as primary response. Proponent has not identified if discharge to sanitary is a viable option along entire 15km route. Note that the City of Richmond has a Bylaw regulating the disposal of dewatering effluent, and under no circumstances will untreated dewatering effluent be permitted to flow into the City's storm drainage system.</p>
City Parks, Trails, Environmentally Sensitive Areas	This is addressed in Chapter 6: Assessment of Social and Economic Effects and Chapter 9: Environmental Management Program of the Application.	Comments from Parks are detailed in Attachment 6

Key Issue	VAFFC Response	Proposed City Comments
Contaminated Sites	This is addressed in Section 5.6: Screening Level Contaminated Sites Assessment and Chapter 9: Environmental Management Program of the Application.	<p>The potential management strategy for unrecognized contaminated sites that may be encountered on or adjacent to City-controlled lands along the project corridor will be a subject of the Municipal Access Agreements, again emphasizing the requirement for these agreements to be part of the Table of Commitments.</p> <p>The Table of Commitments should include a commitment that all costs relate to the identification, characterization and mitigation of contamination encountered during the project will be the responsibility of the VAFFC. This includes any costs that the City may encounter due to the VAFFC's need to mitigate contamination.</p> <p>The Screening Level Site assessment is reasonable, and the mitigation measures being considered in the event of encountering unanticipated contamination is sufficient to satisfy the City's needs.</p> <p>See comments under "Pipeline Right-of-Way compensation" regarding the future liability issues around contaminated Sites.</p>
Pipeline Route		Highway 99 is a preferred route for any jet fuel pipeline over the use of any City rights-of-way and any selected route should not front any residential properties.
Drainage & Dikes		Drainage, water level control, trail and other City utility uses and needs in the Shell Rd corridor and other City rights-of-way are critical to supporting the community and need to be protected. A continuous drainage canal is required throughout the full length of Shell Rd. Dike rights of way and construction to current standards with build-ability to future standards and public trail access are required through the South Arm terminal property and any other impacted foreshore area.
Opportunity to Provide Additional Comments	The EAO will coordinate an opportunity for all members of the Technical Working Group to provide comments on the Application during the Application Review stage.	The VAFFC application identifies numerous plans, activities, actions and other items that would be delivered at indeterminate times and to indeterminate quality. All commitments made under the application must be identified with specific quality assurances and delivery schedules for which VAFFC will be fully accountable for under any issued certificate or permit.

Attachment 5

Richmond Fire Rescue - Comments on the VAFFC Application

Chapter 9 – Environmental Management Program

The stated objective of this chapter is as follows; “*The objective of the Environmental Management Program will be to minimize the potential for environmental effects and other adverse effects throughout the lifespan of the Project*”. The important portion of this statement is in the underlined word that being minimize, it is with some surety that RFR believes VAFFC will minimize risks however that is quite different from no risk.

Secondarily throughout chapter 9 there are the promises of full bodied plans to create plans and protocols which minimize and or mitigate risks, however none of those plans are available to review and as such it is difficult to know exactly how compliant VAFFC will be with their promises.

9.3 Materials Storage and Handling

This section describes VAFFC making employees aware of their responsibility to report hazardous material spills, however this infers that RFR will be responsible to mitigate the effects of reportable spill levels and to facilitate the cleanup of said material spills.

9.4 Construction Environmental Management Plan

This section promises a comprehensive plan that contemplates the National Fire Protection Association and BC Fire Codes. These are the applicable standards and codes that RFR would require, however without the plan in place it is difficult to evaluate. Evaluation and monitoring of the plan would require significant staff resources.

9.4.1.12 Spill Prevention and Emergency Response Plan

This section identifies the need for a plan however there are areas of concern in the wording “*the plan will reflect information*” which may or may not mean adherence to a particular standard. There is a promise of a plan but no plan to review or reflect upon, the review and monitoring of the plan would require RFR staff time and resources be used to ensure compliance with safety standards.

The final paragraph creates concern for RFR as the paragraph states, “*The Plan will recognize that the authority to give mandatory evacuation orders is limited to the Fire Commissioner under Section 2 of the Fire Services Act*”. Having the authority to give mandatory evacuation orders limited to the Fire Commissioner severely handcuffs RFR from protecting the workers on site and the citizens of Richmond.

Finally, a land based spill study has not been completed leaving a significant gap in the evaluation process.

9.5 Operations Environmental Management Plan

At this time there is only a conceptual idea of what an operational plan would be and that it will be created in concert with RFR. Currently, RFR response to the tank farm location is approximately 9 minutes which is considerably outside industry standards. In terms of fire response this is a significant risk which may be mitigated through design. The operation of a pipeline may be of little impact depending on the design of the system. Systems that are significantly buried are protected from many risks including criminal, those systems that run at grade have been a target of criminal activity in the past. Transportation systems are among noted threats from both domestic and international terrorists. To date there has not been an evaluation of this risk platform nor how the first responders within Richmond might respond to such a threat.

Chapter 15 – Accidents or Malfunctions

This chapter describes how each potential accident, malfunction or unplanned event could be managed and/or mitigated. It does not identify that City and other external resources will be required to address these accidents.

15.2.2 Accidental Fire

This report quantifies the risk of accidental fire as “extremely low”. RFR disagrees with that categorization as construction sites that have fuel storage, welding activities and heavy machinery often create a recipe for fire conditions. Secondly, once the tank farm is operational malfunctions in the spark retarding portions of the loading systems can lead to a static electrical spark condition that can cause fire. It is true that Jet fuel is difficult to catch on fire however once on fire is also difficult to control and with the current response status of RFR to this area any fire will have a significant foothold which will only exacerbate the situation.

15.2.2.2 Potential Effects

Currently there are very few people living in this area however there is a potential for growth to the west of the tank farm site. A large fire at the tank farm could create the situation where persons could be evacuated for extended periods of time as tank farm fires can be stubborn and take many hours to extinguish. The effects do not necessarily end with Richmond depending on wind conditions fire conditions (smoke) could impact Delta. Run off from the extinguishing efforts could quite easily enter the river causing additional effects.

15.2.2.3 Management and Mitigation

As outlined earlier, RFR response time to the tank farm area is well outside industry standards and as such creates an unusually high risk for the City of Richmond. RFR would recommend a fully staffed Fire Station be situated sufficiently close to the tank farm site to mitigate the risk. A staffed fire station is an expensive venture which could potentially cost 7-8 million dollars in capital costs in the erection of a station, purchase of a fire apparatus and current operational staffing of 24/7 crews are a 2.5 million dollar annual operating cost. Currently, there is no water-

side fire coverage on the south arm of the Fraser River and as such RFR would attempt to enter into agreements to purchase a fire boat or at a minimum enter into agreements to provide water-side fire coverage.

RFR personnel would also need to be trained in ship board firefighting techniques as this is not part of our current training platform.

15.3 Project Operations

15.3.1 Accidental Spill of Deleterious Material

The spill of bunkering materials is rated as a low fire risk however the effect of a bunker spill either on water or land is potentially much more dangerous to persons and or the environment. Such a spill may occur during fuelling or as a result of accidental piercing of the ship's hull.

15.3.1.3 Management and Mitigation Measures

This section speaks to prevention, preparedness and response. There is no assessment or discussion of the recovery phase.

On the water spills are to be managed by Western Canada Marine Response Corporation and the Canadian Coast Guard. The Canadian Coast guard is stationed on the North Arm of the Fraser River, which would require considerable time for their resources to respond to the South Arm facilities. Western Canada is situated in Vancouver thus their response would be measured in hours rather than minutes which could mean a significant spread of deleterious materials.

15.3.2 Accidental Fire

This section includes the following quote: "*Fires at the marine terminal could only occur while a vessel is berthed and off-loading fuel.*" RFR does not agree with this statement, there are a great number of conditions under which fire can start. Accidental fires are just that and they can occur at any time and not only during off loading operations. This report minimizes the risk of fire which in RFR's opinion is inappropriate.

Chapter 17- Spill Prevention, Preparedness and Emergency Response,

The significant gap in this chapter is that of recovery, a pillar of emergency planning. Recovery should be considered within each of the planning stages. Without the end in mind no prevention plan is complete.

RFR agrees with the report's statement "*Response capability is a cost of doing business*" and that the private sector that creates the risk is responsible to be prepared and capable of responding. While this statement is laudable RFR has experienced this in practice and much private sector planning goes no further than to write into their plans to call 911 as response preparedness.

Chapter 18-Fire Prevention, Preparedness, and Emergency Response

To date a fire safety plan is not complete and as such it is difficult to determine the commitment of VAFFC in this area.

18.3.3 Marine Terminal Operations

As identified earlier, RFR disagrees that the only accident opportunity occurs during off loading. While this is clearly a risk it is not the only risk.

18.4.4.2 National Fire Protection Association

This section identifies several of the important standards that pertain to this project however some standards are missing. RFR would submit that the following are examples of standards that also apply and as the full scope of work is determined RFR would identify the appropriate standard;

NFPA 472 -- Standard for competence of responders to hazardous materials incidents

NFPA 1710- Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments

18.6 Fire Prevention, Preparedness and Emergency Response Measures by Project Component

18.6.3 Existing Fire Response Capacity and Evaluation of Adequacy

This section states: *"In addition to vessel onboard fire fighting systems, local fire fighting capability includes 3 dedicated fire boats in the harbor (1 in Vancouver, 1 in North Vancouver and 1 in Burnaby), which are city resources."* While it is true that these cities own the identified fire resources Richmond does not currently have agreement to garner the use of said vessels nor is there a vessel available to be deployed in less than an hour of initial contact. (There are currently 5 Fire boats in the consortium 1 in North Vancouver City, 1 in North Vancouver District, 1 In Burnaby Port Moody and 2 in Vancouver, one in Burrard Inlet and 1 in False creek, a total of 4 in the Burrard inlet and 1 in False Creek.

The inference that RFR has at present the resources to service this increased risk to the City of Richmond is simply incorrect and unfounded.

Conclusion

RFR would require a great deal more study and receipt of finalized plans to empirically study and understand the implications of this project. To date with the information provided RFR would not be in a position to appropriately support the additional risk to the City without upgrading the resource base of the department.

Attachment 6**Parks – Comments on VAFFC Application****South Arm Waterfront**

The location of the proposed terminal for the pipeline at 15040 Williams Rd. may have a variety of impacts on public access to the waterfront and extension of the waterfront trail. The 2010 Trail Strategy identified a number of objectives for the area:

- provide access to and through Riverport, the future Fraser River Port industrial area, and a future waterfront linear park that will link the west and east sides of Highway 99
- provide recreational access to the waterfront
- plan for a future waterfront park and a dyke trail north of Williams Road end
- construct a staging area and pier at the end of Williams Road
- connect to the South Dyke trail system to the west
- develop a trail along the Williams Road undeveloped r.o.w. between Sidaway Road and Triangle Road.

The Trail Strategy proposes a route around the property, on the Williams Rd. row and the City-owned road row, south of Williams Rd., then crossing the CNR row to the waterfront. Currently, there isn't a publicly accessible connection to the waterfront across the CNR row since it is fenced for use by Fraser Wharves for access between the docking facility on the property and the car storage facility to the west. In addition, CNR is planning to develop rail service in that ROW which would mean the creation of a rail crossing in order to achieve the proposed trail connection. VAFFC should provide a connection directly across the property thus facilitating the completion of the South Dyke trail connection to the west without a rail line crossing.

Shell Road Corridor

This corridor has been identified in the 2010 Richmond Trail Strategy as part of the Shell Road Greenway/Horseshoe Slough Trail to develop a mid-island greenway for pedestrian and off-road cycling. At present, the position and condition of the greenway varies with some sections being well developed and completely off-road while others offering a limited width adjacent to the road and finally, some sections where no greenway exists. The sections that may be affected by the proposed jet fuel pipeline are north of Westminster Highway (but possibly as far south as Francis Rd.).

The following sections are those that are poorly developed or undeveloped:

- Steveston Highway north to Athabasca Drive - the greenway is underdeveloped, a pedestrian scale greenway (min. 2 meter width) can be developed within the existing road right of way.
- Highway 99 overpass - south of the highway, a rustic pedestrian trail access crosses from the east side to the west side, pass under the highway, crosses the on/off ramp and connects to a sidewalk.
- North of the Highway 99 overpass to Cambie Rd. – there is a sidewalk on the west side of Shell Rd. but there is no greenway facility.

- Cambie Rd. to Caithcart Rd. – the sidewalk does not continue north of Cambie Rd., the road right of way is unusually narrow and does not allow for any greenway amenities. In addition, the road edge is used for parking by the adjacent business park employees.
- Caithcart Rd. north to the Bridgeport Trail – there is potentially space for a greenway within the existing road row depending on transportation and parking requirements.

The presence of any jet fuel pipeline in the CNR ROW and Shell Rd corridor must retain allow for a full width greenway on the east side of Shell Rd.

Bridgeport Trail

The trail is continuous from Shell Rd. to Van Horne Way near Garden City Rd. It is rustic but the row is wide and offers the opportunity to develop more greenway amenities in the future. The presence of any pipeline within the corridor must not prevent development of the trail and some public amenities (restrictions on excavation within the pipeline row) or improvements to create an ecological corridor.

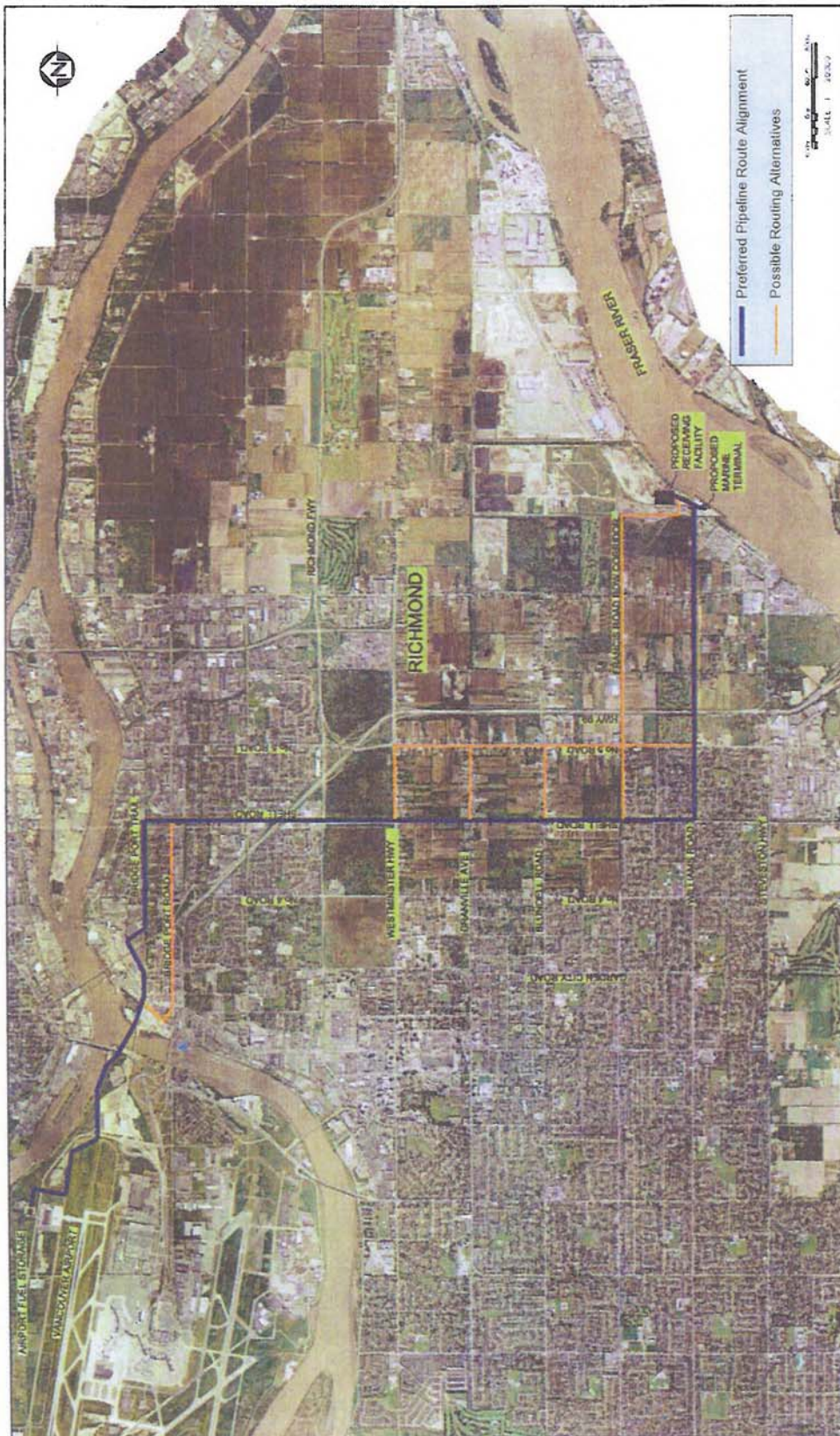


Figure 2
Project Components – Local Context
 Vancouver Airport Fuel Delivery Project
 Environmental Assessment Certificate Application

ENVIRONMENTAL ASSESSMENT OFFICE

Projected Schedule of Major Steps for Application Review Stage

Proposed Vancouver Airport Fuel Delivery Project

Please note that these are anticipated dates for the purpose of work planning and scheduling; these dates may be subject to change.

Activity	Target Date	Responsibility
Submitted Application for EAO evaluation against AIR. Includes Public Consultation Plan.	Jan 5, 2011	Proponent
Comments from WG Screening Group Due (tentative: telecom Jan 25 9am to 11am)	Jan 21, 2011	WG Screening Group
Evaluated and EAO decision rendered on accepting Application for EA Certificate	Feb 4, 2011	EAO
Produced and distributed copies of the Application	Feb 18, 2011	Proponent
Commencement of 180 day review period – project documents posted on EAO website	Feb 18, 2011	EAO
45-day public review and comment period	Feb 25 to April 11, 2011	EAO Proponent
Full working group meeting to initiate review of the Application	March 2, 2011	First Nations, Federal, Provincial, Local governments
Public Open House (Richmond) and Presentations	March 7, 2011	EAO, OGC, PMV Proponent
Technical sub-committee WG meeting(s) (technical committees to be established at March 2 WG meeting and scheduled as needed)	March 10 to 25, 2011	First Nations, Federal, Provincial, Local governments
Comments due on the Application from First Nations, Federal government, provincial government and local government (1 month after start of review)	March 18, 2011	Public First Nations, Federal, Provincial, Local governments
Responses from the Proponent to First Nations, and agency comments.	April 8, 2011	Proponent
Full/partial /technical working group meeting (s) on outstanding issues, as needed	April 11 onward	EAO
Responses from the Proponent to public	April 26, 2011	Proponent
First draft of Assessment Report & draft Table of Commitments– Circulated to Working Group (without First Nations section) for four week review	April 29, 2011	EAO
Proponent revisions to issues tracking table (if required), to EAO and agencies	April 28, 2011	Proponent
Proponent submits final First Nations Consultation report to EAO	May 04, 2011	Proponent
Proponent submits Public Consultation Report to EAO	May 10, 2011	Proponent
EAO Consultation Report circulated to First Nations for Review	May 11, 2011	EAO
Comments due from the Working Group on first	May 31, 2011	First Nations, Federal,

ENVIRONMENTAL ASSESSMENT OFFICE

draft of Assessment Report & Table of Commitments		Provincial, Local governments
Comments due from First Nations on the EAO Consultation Report	June 10, 2011	First Nations
Second Draft of Consultation Report circulated to First Nations	June 16, 2011	EAO
Second Draft of Assessment Report (includes First Nation section) & Table of Commitments - Circulated to Working Group for two week review	June 17, 2011	EAO
Comments due from First Nations on the final draft EAO Consultation Report	July 6, 2011	First Nations
Comments due from the Working Group on Second draft of the Assessment Report & Table of Commitments	July 15, 2011	First Nations, Federal, Provincial, Local governments
Day 150 - Closure on changes to Assessment Report and Proponent's Commitment Table	July 18 DAY 150	First Nations, Federal, Provincial and local governments
Day 150 to 180 – EAO Prepares Final Assessment Report, Consultation Report and Referral Package for Ministers	July 18 – Aug 5, 2011	EAO
Referral	Aug 17, 2011	EAO
Ministers Decision on whether to grant an EA Certificate	Oct 1, 2011	Ministers