



To: Mayor and Councillors
From: Terry Crowe
Manager, Policy Planning
Date: February 10, 2009
File:
Re: **Proposed Jet Fuel Line and Storage System Discussion at Public Works & Transportation Meeting of February 18, 2009**

Please be advised that representatives for the Vancouver Airport Fuel Facilities Corporation (VAFFC) will attend the February 18th, 2009 Public Works & Transportation Committee meeting as a delegation to speak in open session to the proposed Vancouver Airport Fuel Delivery Project.

The discussion is anticipated to be based upon the attached open memo dated February 9, 2009.

The delegation is expected to include:

- Adrian Pollard, P.Eng. Director of Engineering, West FSM Management Group Inc. as lead speaker;
- Scott Hanna (Hatch, Ltd.); and
- David Bursey (Bull, Howser, & Tupper).

We are informed that Anne Murray, Vice President, Community and Environmental Affairs, Vancouver International Airport Authority may also attend.

For clarification, please contact me at 604-276-4139.


Terry Crowe
Manager, Policy Planning

TTC:dcB

Att. 1

pc: TAG Members
John Irving, P.Eng. MPA, Director, Engineering
Robert Kates, Manager, Real Estate Services



To: Mayor and Councillors **Date:** February 9, 2009
From: Terry Crowe **File:**
Manager, Policy Planning
Re: **Update: Vancouver Airport Fuel Facilities Corporation (VAFFC) Proposed Jet Fuel Line to the Vancouver Airport**

Purpose

The purpose of this update is to provide Council with an overview of the Vancouver Airport Fuel Facilities Corporation's (VAFFC) proposed jet fuel line project to the Vancouver Airport including background on the proponents, a project overview, the anticipated review process and the City's standing regarding anticipated approvals.

Background (See Attachments 1 and 2)

Just over a year ago, Richmond staff were approached by representatives from the VAFFC regarding their proposed Vancouver Airport Fuel Project. The VAFFC is the aviation fuel operator at YVR and other Canadian Airports and is owned and operated by a partnership of commercial airlines.

Proposed Project Components

- (1.) Sea Island Jet Fuel Storage Tank Facility,
- (2.) Proposed Jet Fuel Off Loading Facility in South Richmond (VAFFC Owned),
- (3.) Proposed South Richmond Jet Fuel Storage Tank Facility,
- (4.) An Underground Jet Fuel Transmission Line (From the Port Metro Van Storage Site to YVR).

Who Regulates The Jet Fuel Project?

The proposed jet fuel pipeline and the storage tanks are regulated under the BC Pipeline Act with approval being required from the British Columbia Oil and Gas Commission. The BC Oil and Gas Commission has the authority to impose conditions upon the VAFFC. In considering the application, the Commission must weigh issues such as: (1) the objection of an interested party, (2) any public interest that the Commission believes may be affected, and (3) the needs and general good of the residents of British Columbia as a whole.

The City's Regulatory Authority

If the City's requests are reasonable, they will likely be met; however, the Province can override the City's authority if it wishes. To avoid this, City staff recommend that Richmond adopt a co-operative, partnership and community consultation approach and ask the VAFFC to do the same.

Proposed Project Implications For Richmond

As proposed, the project does not involve OCP, area plan or rezoning amendments (e.g., the tanks are proposed to go on federal land). An OCP Environmentally Sensitive Area (ESA) Development Permit will be required for the dock facility and the pipeline itself. The City will negotiate with the VAFFC for a Municipal Access Agreement to provide the City with assurances regarding the pipeline alignment, depths, method of installation, permit/fees including occupancy, restorations, etc. Other City

requirements include the City requiring the VAFFC to prepare traffic management plans, seek engineering design approvals and reach agreements with the City regarding the use of land, etc. The City may collect normal fees and negotiate payments.

The City's Preliminary Main Interests

From what is known of the proposal, at this point in the process, the City's interests include:

1. On Matters Of Substance

- (A) Only one jet fuel line is preferred in Richmond. Richmond requests that the review process clarify:
 - Why two jet fuel lines (the existing line & a new line) would result from the proposal, if approved,
 - Why the existing line cannot be upgraded, instead of building the proposed line,
 - Why the existing line cannot be decommissioned, if the proposed line is approved,
 - The pros and cons of having only one line and having two lines,
 - The rationale behind the options analysis including the option of upgrading the existing jet fuel line.
- (B) Public safety – both during installation and over the long term operation of the facilities;
- (C) Protecting the City's Interests (e.g., by ensuring that the VAFFC adheres to City policies, bylaws, approvals, standards, requirements, agreements and fees, etc. as these are fundamental mechanisms through which the City strives to convey and protect the community's interests);
- (D) Maximizing Benefits To The City: Wherever the pipeline goes, also advancing the City interests through mutual cooperation including elements such as promoting City trails, improving City dykes, and urban and farm drainage, and exploring cost sharing opportunities;
- (E) Not Opening Any New Public Roads in the ALR. The City does not wish to create new vehicle access which would cause undesired new residential development within agricultural areas;
- (F) Roads: Locating the pipeline in existing open road allowances appears acceptable if there is minimal disruption (e.g., on Williams Road) and there are City benefits (e.g., drainage is improved);
- (G) Tank Farm Design: The City's ability to address and influence the location, scale, design, visibility and landscaping of the proposed fuel tank farm; and
- (H) Managing Conflicts: That all parties will minimize and address potential conflicts and disruptions.

2. On Matters Of Process

- (A) The review process will involve and emphasize co-operation, partnerships and negotiated solutions, to achieve Win - Win results;
- (B) The City has the opportunity to identify and assess concerns, and to explore and negotiate Win - Win solutions directly with the VAFFC;
- (C) The City will have its City interests considered by the VAFFC, the review committee and the BC Environmental Assessment Office;
- (D) The City will have the opportunity to review and provide input on the jet fuel system (e.g. route alignment options, tank farm location and design);
- (E) The VAFFC will lead the project, including leading a thorough public consultation process (e.g., to achieve education, understanding, acceptance), for and in the Richmond community;
- (F) The VAFFC will regularly update Council of progress;
- (G) The VAFFC will address City Council's and the public concerns;
- (H) If the BCEAO review occurs, the City will:
 - have a representative (TBD) on the provincial review committee,
 - have meaningful input into the Terms Of Reference for the assessment to ensure that the scope of the assessment adequately addresses Richmond's concerns; and

- (I) The parties develop and agree upon a communications strategy and implementation plan for informing both Richmond City Council and Richmond Citizens.

Possible Jet Fuel Pipeline Route Selections

At this point, the VAFFC has not identified a specific route for the jet fuel pipeline between the south Richmond fuel storage facility near Williams Road and the Sea Island tank storage facility. City staff want to discuss all route options with the VAFFC. The second diagram in **Attachment 1** shows one potential pipeline corridor identified by the VAFFC through preliminary discussions with City staff, but the technical analyses on this route and others (e.g. Shell Road, No. 5 Road, No. 6 Road) are still ongoing. It is anticipated that the City and other stakeholders will continue to have input on the pipeline route selection, particularly where there are possible mutual benefits in one route over another.

Possible Provincial Environmental Review Processes

The VAFFC has voluntarily made an application to the BC Environmental Assessment Office (BCEAO) to have it review the proposed project, under the BC Environmental Assessment Act. It appears that this will occur. The BCEAO has asked the City to first provide comments by the end of January 2009, regarding the idea of having the jet fuel system reviewed under the BCEAO. In order to meet this time, City staff advised the BCEAO that it is acceptable to review the project under BCEAO process, as long as the City interests are protected (**Attachment 3**).


Staff Involvement

The City's review of the project will be lead by the City's Real Estate Division (Robert Kates) and Engineering (John Irving) as there is an opportunity to create a "Win-Win" approach to achieve the City's interests and the project involves many engineering details. OCP and zoning amendments are not anticipated. Lead City staff will co-ordinate the various reviews and approvals among City departments and other external agencies as necessary. The nature of this project means that the following City divisions will be involved: Real Estate Services, Engineering, Environmental Programs, Law, Parks, Planning and Development. Policy planning will be involved to as necessary (e.g., to comment on the route selection and the tank farm design).

Next Steps

Once the BCEAO has made its decision to review the proposed project under the BCEAO process or not, City staff will ask the VAFFC to meet with Council (e.g., at General Purposes Committee or the Public Works and Transportation Committee) to brief Council on the project, proposed process and implications.

After this memo, Robert Kates (4212) and John Irving (4140) should be contacted to answer any of your questions. They will continue to monitor and report progress, as necessary. For clarification regarding this memo, please contact me at 604-276-4139.


Terry Crowe, Manager, Policy Planning
TTC:deb
Att. 2

pc: TAG Members
Doug Long, City Solicitor
David Brownlee, Planner 2
Lesley Douglas, Asst. Mgr. Env. Programs
Suzanne Bycraft, Manager, Fleet & Env. Pgms
Robert Kates, Manager, Real Estate Services

Brian J. Jackson, MCIP, Director of Development
Victor Wei, P.Eng., Director, Transportation
John Irving, P.Eng MPA, Director, Engineering
Margot Daykin, Sustainability Manager, CPMG
Diana Waltmann, Manager, Media Relations

Figure 7. Rendering of Proposed Terminal

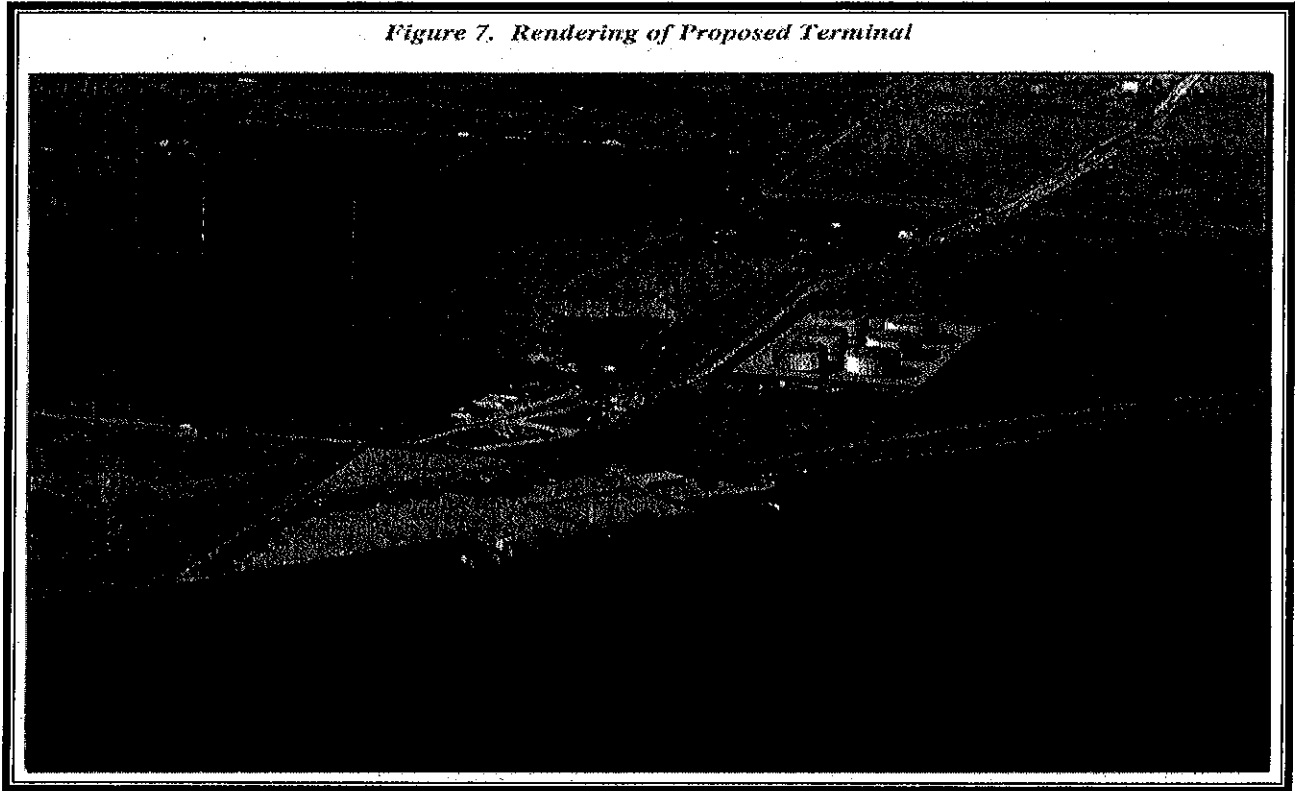
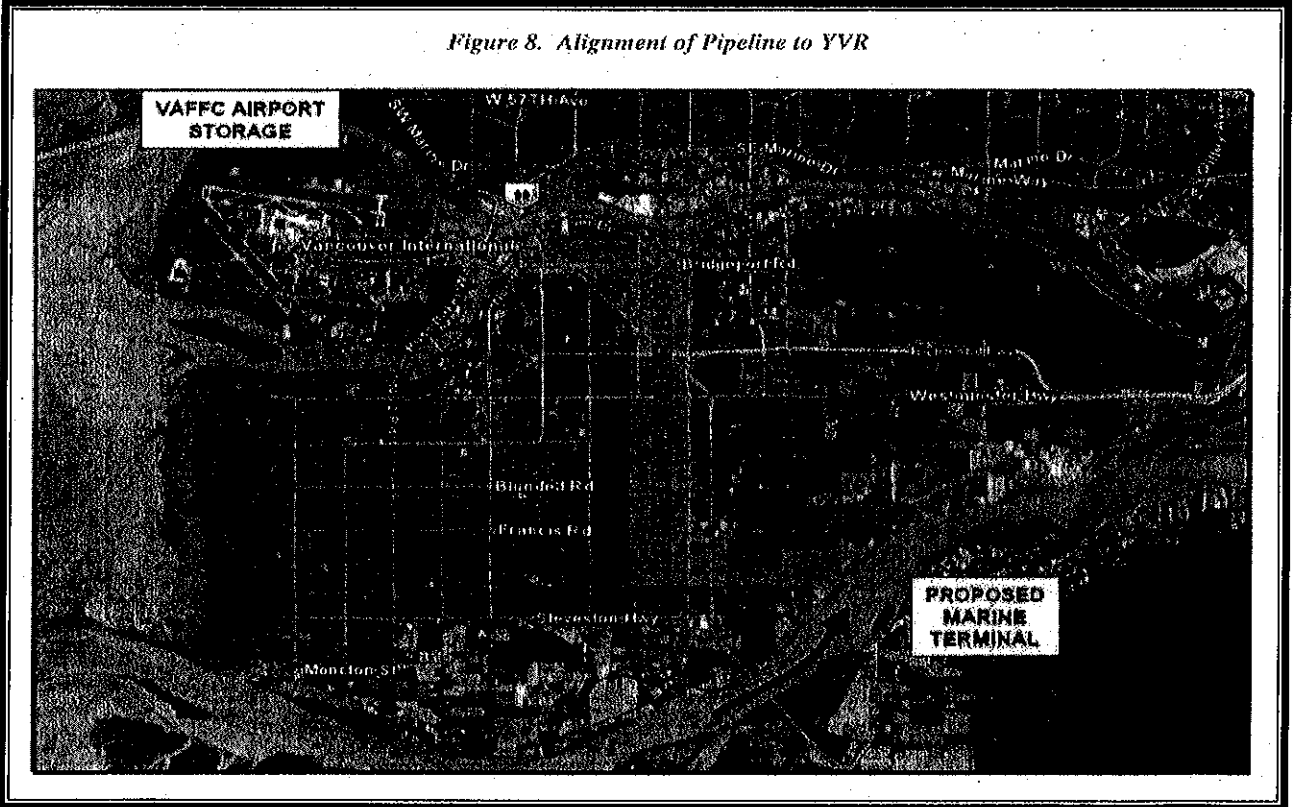


Figure 8. Alignment of Pipeline to YVR



Detailed Summary Or Richmond Staff Comments Regarding The Proposed VAFFC Jet Fuel System

1. What Is Jet Fuel?

Jet fuel is basically an unleaded paraffin (kerosene) oil-based fuel used for aviation. There are classes of it (e.g., Jet A-1, otherwise known as AVTUR), which is produced to an internationally standardized set of specifications. Jet fuel is clear to straw coloured and is not highly combustible as it has a high thermal stability.

2. The Need For Jet Fuel

The Vancouver Airport (YVR) currently receives about 70-80% of its aircraft jet fuel via the 41 km long pipeline from Burnaby which is owned and operated by Trans Mountain and was installed approximately 40 years ago. The capacity of the existing pipeline has been exceeded and the remaining 20-30% of the present day fuel requirements are delivered by some 20 – 30 tanker trucks each day. VAFFC projections for future jet fuel demand indicate that fuel supply conditions at YVR will be critical by 2010 and, if not addressed, will result in potential flight cancellations, increased delays or the possible redirection of flights (e.g., to Seattle).

In anticipation of the fuel shortages, since 2001 VAFFC has evaluated 14 separate options for meeting YVR's future jet fuel needs. VAFFC assessments were made in terms of safety, technical, regulatory, economic, environmental and socio-economic criteria. With these criteria VAFFC has narrowed its preference to a proposal to develop a new fuel delivery system involving an expanded fuel storage facility on Sea Island, a new marine off loading terminal at 15040 Williams Road adjacent to the south arm of the Fraser River, new fuel storage tank facility (currently proposed for the Port Metro Vancouver lands formerly known as Fraser Port) and a new VAFFC owned and operated underground jet fuel pipeline across Richmond leading to YVR (route to be determined). Having narrowed the alternatives down, VAFFC has been working on preliminary engineering feasibility studies for each of these project components.

3. Project Components

(A) Sea Island Jet Fuel Storage Tank Facility

The VAFFC is currently in the process of expanding the jet fuel storage capacity on Sea Island by adding four new storage tanks with a combined capacity of 36 million litres in a new facility on the south side of Ferguson Rd. This will serve to improve daily inventory on Sea Island from 1.5 to 5 days in the event of a supply disruption.

(B) Proposed Jet Fuel Off Loading Facility in South Richmond (VAFFC Owned)

- Marine barges and transport vessel docking facility.
- Fuel unloaded and conveyed by pipeline to nearby storage tanks on federal Port Metro Vancouver (PMV) land.

The VAFFC acquired 15040 Williams Road in 2007. The property, which is located at the corner of Williams Road and Triangle Rd. in Richmond was bought by the VAFFC with the future intention of barging aviation fuel up the south arm of the Fraser River. The site, formerly owned by Bernie Lotzkar and operated as a scrap metal site, is one of the few fee simple sites in Richmond capable of accommodating deep sea vessels. Under VAFFC's proposal, this site would serve as the marine terminal for off loading jet fuel transported in by cargo ship from refineries in the United States, Asia and other regions of the world. This location was chosen because it lies at one of the widest and deepest sections of the Fraser River. The site is already zoned Industrial District (I1).

(C) Proposed South Richmond Jet Fuel Storage Tank Facility

- Tanks: To be VAFFC owned and operated.
- Land: Federally owned by Port Metro Vancouver (PMV).

Fuel would be off loaded from barges docked at the 15040 Williams Road terminal and transferred by pipeline to a nearby proposed tank storage facility at Port Metro Vancouver. The 3 hectare storage facility is initially proposed to hold approximately 450,000 barrels with expansion potential to about 540,000 barrels. Negotiations are ongoing between VAFFC and Port Metro Vancouver regarding a possible site within Port Metro Vancouver land. These discussions appear promising. An artist's rendering of the tank storage facility is shown in **Attachment 1**. Should this option fail, VAFFC may seek an alternative nearby site for the storage tank facility for which, if on private land, a rezoning may be required. City staff will carefully monitor.

(D) **An Underground Jet Fuel Transmission Line (From the Port Metro Van Storage Site to YVR)**

An underground pipeline is proposed for transferring the fuel from the tank storage facility in southern Richmond to the Sea Island Fuel Storage Facility approximately 15 km away. A definitive route for the pipeline has not yet been determined as different options are being assessed. Any route will have pros and cons which will need to be carefully evaluated. The City and public will have input into the route selection.

4. Who Regulates The Jet Fuel Project?

Both the jet fuel pipeline and the storage tanks are regulated under the BC Pipeline Act with approval being required from the British Columbia Oil and Gas Commission. The City's external legal council has advised that if the pipeline is also used to transport fuel for others (third parties) the operator would be considered a "common carrier" and would also be subject to the BC Utilities Commission (BCUC) which has the authority to regulate rates and other aspects of the line's operation. If the VAFFC is only using the pipeline for its own fuel, it would not be subject to regulation by the BCUC but would be subject to the BC Oil and Gas Commission under the Pipeline Act.

The BC Oil and Gas Commission has the authority to impose conditions upon the VAFFC. In considering the application, the Commission must weigh issues such as:

- the objection of an interested party,
- any public interest that the Commission believes may be affected, and
- the needs and general good of the residents of British Columbia as a whole.

The Pipeline Act provides the pipeline company with powers of expropriation under provisions outlined under the Railway Act in order to facilitate the construction and operation of the pipeline. Approval by the Commission would give the VAFFC the right to use City highways subject to specific utility separation criteria. Legal council advises "we expect that the Commission would recognize the City as an "interested party" under s.11 for the purpose of its consideration of the application to construct the pipeline, such that the City would have an opportunity to make any submissions it needs to make on location and alignment issues and so forth."

5. The City's Regulatory Authority

The City's external legal council has indicated that there appears to be no provisions in the legislation which would make the VAFFC's above ground facilities, either at the Fraser River or along the jet fuel pipeline alignment, immune to the City's regulatory jurisdiction (e.g., zoning and land use regulations), except where these are located on federal lands. In this latter case, any City's authority will be at the discretion of the federal authority (i.e., Port Metro Vancouver).

An important caveat to the City's regulatory authority is that, should the Province disagree with the City's regulations, it can override the City's authority using provisions under the BC Local Government Act (e.g., section 874), or the BC Significant Projects Streamlining Act. The importance of the airport operations to the provincial economy lends a level of credence to this possibility.

The bottom line can be summarized as follows:

- (A) **Pipeline Construction:** The City would not have the ability to stop the pipeline but appears able to influence its alignment via (1) co-operative discussions and (2) its participation through the various regulatory approval processes (BC Environmental Review, BC Oil and Gas Commission review).
- (B) **On Private or City Lands:** For above ground structures (storage tanks, pump stations, etc.) the City may be able to influence the construction via land use regulations – but this would be subject to the Province's overriding powers.
- (C) **On Federal Lands:** For above ground structures (storage tanks, pump stations etc.) constructed on federal lands the City's influence will be at the discretion of the applicable federal authority.

Feature	City's Influence
Pipeline	<ul style="list-style-type: none"> • Can't stop pipeline • May influence alignment
Above Ground Structures on Private Land	<ul style="list-style-type: none"> • May be able to stop using land use controls (e.g., zoning, etc.) • Ability is subject to provincial override.
Above Ground Structures on Federal Land	<ul style="list-style-type: none"> • No direct authority • Influence is at the discretion of the federal agencies.

In view of these considerations, City staff recommend that the City follow a co-operative, partnership and community consultation approach and ask the VAFFC to do the same. This approach will best enable the City to obtain VAFFC co-operation, protect the City's interests by having the VAFFC meet all City approvals, agreements, standards and fees, and avoid the Province overruling a City request or decision. As long as the

City's requests are legitimate and reasonable, staff consider that the VAFFC will meet them and the City likely will not be overruled by the Commission as the Commission will want the City's issues to be addressed.

As the project is proposed, no OCP, area plan or rezoning amendments are required (e.g., the tanks are proposed to go on federal land). An OCP Environmentally Sensitive Area (ESA) Development Permit will be required for the dock facility and the pipeline itself. The City will negotiate with the VAFFC for a Municipal Access Agreement to provide the City with assurances regarding the pipeline alignment, depths, method of installation, permit/fees including occupancy, restorations, etc. Other City requirements include the City requiring the VAFFC to prepare traffic management plans, seek engineering design approvals and reach agreements with the City regarding the use of land, etc. The City may collect normal fees and negotiate payments.

6. The City's Preliminary Main Interests

From what is known of the proposal, at this point in the process, the City's interests include:

(A) On Matters Of Substance

- (i.) Only one jet fuel line is preferred in Richmond. Richmond requests that the review process clarify:
 - Why two jet fuel lines (the existing line & a new line) would result from the proposal, if approved,
 - Why the existing line cannot be upgraded, instead of building the proposed line,
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 - The pros and cons of having only one line and having two lines,
 - The rationale behind the options analysis including the option of upgrading the existing jet fuel line.
- (ii.) Public safety – both during installation and over the long term operation of the facilities;
- (iii.) Protecting the City's Interests (e.g., by ensuring that the VAFFC adheres to City policies, bylaws, approvals, standards, requirements, agreements and fees, etc. as these are fundamental mechanisms through which the City strives to convey and protect the community's interests);
- (iv.) Maximizing Benefits To The City: Wherever the pipeline goes, also advancing the City interests through mutual cooperation including elements such as promoting City trails, improving City dykes, and urban and farm drainage, and exploring cost sharing opportunities;
- (v.) Not Opening Any New Public Roads in the ALR. The City does not wish to create new vehicle access which would cause undesired new residential development within agricultural areas;
- (vi.) Roads: Locating the pipeline in existing open road allowances appears acceptable if there is minimal disruption (e.g., on Williams Road) and there are City benefits (e.g., drainage is improved);
- (vii.) Tank Farm Design: The City's ability to address and influence the location, scale, design, visibility and landscaping of the proposed fuel tank farm; and
- (viii.) Managing Conflicts: That all parties will minimize and address potential conflicts and disruptions.

(B) On Matters Of Process

- (i.) The review process will involve and emphasize co-operation, partnerships and negotiated solutions, to achieve Win - Win results;
- (ii.) The City has the opportunity to identify and assess concerns, and to explore and negotiate Win – Win solutions directly with the VAFFC;
- (iii.) The City will have its City interests considered by the VAFFC, the review committee and the BC Environmental Assessment Office;
- (iv.) The City will have the opportunity to review and provide input on the jet fuel system (e.g. route alignment options, tank farm location and design);
- (v.) The VAFFC will lead the project, including leading a thorough public consultation process (e.g., to achieve education, understanding, acceptance), for and in the Richmond community;
- (vi.) The VAFFC will regularly update Council of progress;
- (vii.) The VAFFC will address City Council's and the public concerns;
- (viii.) If the BCEAO review occurs, the City will:
 - have a representative (TBD) on the provincial review committee,
 - have meaningful input into the Terms Of Reference for the assessment to ensure that the scope of the assessment adequately addresses Richmond's concerns; and
- (ix.) The parties develop and agree upon a communications strategy and implementation plan for informing both Richmond City Council and Richmond Citizens.

It appears that to achieve the City interests a co-operative, partnership and community consultation approach is best and will be sought with the VAFFC. City staff anticipate that the VAFFC will continue to co-operate with the City, various stakeholders and the general public.

7. Possible Jet Fuel Pipeline Route Selections

At this point, the VAFFC has not identified a specific route for the jet fuel pipeline between the south Richmond fuel storage facility near Williams Road and the Sea Island tank storage facility. City staff want to discuss all route options with the VAFFC. The second diagram in **Attachment 1** shows one potential pipeline corridor identified by the VAFFC through preliminary discussions with City staff, but the technical analyses on this route and others (e.g. Shell Road, No. 5 Road, No. 6 Road) are still ongoing. It is anticipated that the City and other stakeholders will continue to have input on the pipeline route selection, particularly where there are possible mutual benefits in one route over another.

8. Possible Provincial Environmental Review Processes

The VAFFC has voluntarily made an application to the BC Environmental Assessment Office (BCEAO) to have it review the proposed project, under the BC Environmental Assessment Act. The application is voluntary, as the project currently does not meet any of the usual regulatory thresholds under the Act, but may do so later upon being built.

- If the project is accepted for review under the Environmental Assessment Act, the City can make submissions through this process.
- If the project is not accepted for review under the Environmental Assessment Act, the City can make submissions through the normal review process managed by the British Columbia Oil and Gas Commission.

The benefits of having the proposed project reviewed by the BCEAO are that the review would: (1) have a multi stakeholder committee on which Richmond will have representation, and (2) involve a comprehensive, streamlined and co-ordinated review process among the multi stakeholders (e.g., City, YVR, Port Metro Vancouver) which is anticipated to achieve efficiencies and save time. The alternate process appears to involve lengthy individual stakeholder reviews which could be unwieldy.

9. VAFFC Activities

The VAFFC has hired a range of consultants: FSM Management Group Inc, for project management; National Public Relations", for communications; and Hatch for environmental reviews. The VAFFC has discussed the proposal with YVR representatives, will be meeting with the Port Authority to get some form of understanding of the tanks and has met several times with City staff to get a common understanding of the project and process.

Prepared by Richmond City Staff