



City of Richmond

Report to Council

To: Richmond City Council
From: Cecilia Achiam
Chair, Development Permit Panel
Date: July 9, 2019
File: 01-0100-20-DPER1-
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Re: **Development Permit Panel Meetings Held on October 11, 2017,
November 29, 2017 and February 28, 2018**

Staff Recommendation

That the recommendation of the Panel to authorize the issuance of a Development Permit (DP 16-741741) for the property at 15040 Williams Road be endorsed, and the Permit so issued.

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Chair, Development Permit Panel
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WC/SB:blg

Panel Report

The Development Permit Panel considered the following item at its meetings held on October 11, 2017, November 29, 2017 and February 28, 2018.

DP 16-741741 – VANCOUVER AIRPORT FUEL FACILITIES CORPORATION (VAFFC) –
15040 WILLIAMS ROAD
(October 11, 2017, November 29, 2017 and February 28, 2018)

The Panel considered a Development Permit application to permit the construction of a Marine Terminal Facility for aviation/jet fuel delivery on a site zoned “Industrial (I)” and partially designated as an Environmentally Sensitive Area (ESA).

The application was reviewed at the meetings held on October 11, 2017; November 29, 2017; and February 28, 2018.

At the meeting held on October 11, 2017, Adrian Pollard, of FSM Management Group, provided a brief presentation, noting that:

- The overall Vancouver Airport Fuel Delivery project started in 2007 and is intended to provide airlines operating at the Vancouver International Airport (YVR) with secure aviation fuel supply and accommodate and support the future growth of YVR.
- Environmental assessment approvals have been granted to the project from the Provincial and Federal Governments.
- Provincial and Federal permits have been granted for the construction of two of the three main components of the overall project: the fuel receiving facility to the north of the subject site and the underground pipeline to YVR.
- The other main component of the overall project is the subject development; the proposed Marine Terminal facility, which will accommodate one vessel arriving once a week or approximately three to four vessels arriving in a month and will be staffed 24 hours a day with up to 10 employees.
- Transfer of aviation fuel from the vessel directly to the underground pipeline to the fuel receiving facility takes approximately 18 to 36 hours.
- The Marine terminal will include six small buildings or enclosures to support the activities of the Marine Terminal, removal and replacement of the existing dock with a new and re-graded foreshore area, new berthing and mooring structures, and a pedestrian trail and a new relocated dike and an associated right-of-way (ROW).
- Other site improvements will be done to stabilize the area and protect the dike and structures that support the offloading activity.

Angus Johnston, of Hatfield Consultants, reviewed the proposed mitigation, compensation and enhancement scheme for the Environmentally Sensitive Area (ESA) on the subject site, noting that: (i) qualified environmental professionals' assessment indicated that the subject site's intertidal ESA is a low productivity habitat and the shoreline ESA is mostly barren with scattered invasive plants and shrubs; (ii) removal of the existing bulkhead wharf, re-grading and replacement of the existing rip-rap, and other improvements on the riverbed and banks will enhance the intertidal ESA; (iii) removal of a patch of native tree saplings in the shoreline ESA will be compensated by on-site and off-site habitat enhancements; (iv) both the on-site Riparian Management Area (RMA) and the "inferred" RMA along the Savage Road right-of-way (ROW) adjacent to the subject site have been assessed by qualified environmental professionals to be in a highly disturbed state and have limited habitat features; and (v) proposed compensation and enhancements for the RMA include establishing a new fence, re-grading the RMA, and re-vegetation of the new five-metre wide RMA with native planting.

In response to Panel queries, Mr. Pollard and Linda Dupuis, of Hatfield Consultants, advised that: (i) pumps for offloading fuel will be installed on board the vessel; (ii) fire truck access will be provided; (iii) the site will be secured and must comply with Transport Canada security requirements; (iv) dismantled on-site structures will be disposed in appropriate landfills; (v) the entire RMAs along Williams Road and Savage Road will be completely replanted and significant landscaping will be installed on either side of the proposed pedestrian trail and on the adjacent slope; (vi) site constraints determined the off-site location of a portion of RMA and ESA compensation/enhancement areas; (vii) the proposed pedestrian trail does not relate to the ESA but provides extra ecological networking in the subject site; (viii) enhancements include removing the existing fencing and fully restoring the five-metre wide RMA; and (ix) proposed ESA compensation/enhancement will be provided both on-site and off-site focusing on high productivity areas identified by the Fraser River Estuary Management Program (FREMP).

Discussion ensued between the Panel and the design team regarding the proposed ESA and RMA compensation/enhancement and the Chair was of the opinion that the proposed scheme for the RMA appears to be more rigorous than for the shoreline ESA.

In response to Panel queries, the design team acknowledged that: (i) enhancement planting is not proposed in the intertidal ESA as the proposed modifications to the foreshore/intertidal area will improve habitat conditions compared to existing conditions; (ii) intertidal areas are naturally productive and it is anticipated that the intertidal habitat conditions could establish naturally over a period of approximately one year; (iii) the proposed viewing platform is consistent with the master trail strategy in the City's Official Community Plan (OCP); and (iv) provision of signage interpreting on-site improvements could be incorporated into the project.

Staff noted that: (i) the proposed dike and public trail construction will be secured with separate registered right-of-way (ROW) agreements; (ii) there will be cash-in-lieu contribution for the proposed pedestrian viewing platform; and (iii) ESA planting areas will be subject to legal agreements to ensure that these areas will be retained and maintained in the long term. Staff further noted that there will be multiple Servicing Agreements associated with the project including for: (i) dike construction within the dike right-of-way (ROW); (ii) public trail construction within the trail right-of-way (ROW) which includes connection to the trail on the City property to the west of the subject site; and (iii) site services and frontage improvements along Williams Road.

In response to Panel queries, staff advised that: (i) there is an opportunity for more mature planting in the ESA within the subject site; and (ii) while the ESA Guidelines in the City's OCP focus on ESA assessment of existing conditions and enhancement, they also include provisions encouraging additional planting to enhance the rehabilitation of degraded areas.

Anne Lerner, of 12633 No. 2 Road, addressed the Panel, expressing concern regarding the potential adverse environmental impacts of the project to the Fraser River and queried whether dredging works would be done in the river to allow the passage of large vessels heading to the Marine Terminal. She also spoke of the potential negative impacts of increased traffic of vessels in the river on salmon.

In response to Ms. Lerner's concern, Mr. Pollard advised that: (i) dredging works in the river will not be necessary, as vessels heading to the Marine Terminal could navigate the river under existing conditions; (ii) a minimal increase of six percent in large vessel traffic is anticipated in the South Arm Fraser River when the Marine Terminal becomes operational; and (iii) management plans include coordination with First Nations regarding the timing of vessels navigating the river in order not to disrupt their fishing activities.

No correspondence was submitted to the Panel regarding the Development Permit application.

The Chair noted that the proposed RMA and ESA mitigation, compensation and enhancement scheme is a good start; however, he was of the opinion that more work could be done by the applicant and suggested that the subject development application be referred back to staff.

The Panel referred the application back to staff:

1. For the applicant to work with staff to:

- (a) Review the proposed mitigation, compensation and enhancement scheme for shoreline ESA based primarily on existing ESA condition in the subject site and investigate opportunities for additional on-site ESA planting.
- (b) Review the proposed compensation/enhancement planting scheme for the shoreline ESA and consider introducing more mature and substantive planting.
- (c) Consider introducing some planting in the intertidal ESA in addition to the proposed removal of existing and development/construction of new structures and shoreline within the shoreline and intertidal ESA.

- (d) Investigate opportunities for further on-site ESA compensation and enhancements especially within the shoreline ESA and other areas along the proposed public trail and in the northern portion of the site in addition to the proposed off-site ESA enhancements.
 - (e) Consider installing on-site signage to inform and provide interpretation to the public regarding the works and enhancements done on the subject site to protect and preserve the natural environment.
2. That staff review the adequacy of the pedestrian viewing platform cash-in-lieu contribution and report back.

Subsequent to the Panel meeting, the applicant worked with staff to revise the proposal to address the Panel's referral comments by adding two new shoreline ESA planting areas, incorporating larger plant selections, adding new landscaping areas outside of the ESA, enhancing landscaping along the public trail and adding a new interpretive signage package for the public trail area. Staff reviewed the observation platform cost estimate and provided a detailed cost breakdown in the referral Staff Report.

At the meeting held on November 29, 2017, Mark McCaskill, of FSM Management Group, and Mr. Johnston, provided a brief presentation, noting that:

- An additional 702 square metres of planting will be introduced at the northeast and southwest portion of the site's Environmentally Sensitive Area (ESA).
- The proposed additional ESA planting will increase on-site ESA planting by more than 200 percent (bringing the total on-site ESA planting area to more than 1,000 square metres), and increase the compensation-loss ratio to over five to one.
- Approximately 60 trees and 2,500 shrubs will be added to the on-site ESA and Riparian Management Area (RMA) planting scheme, with the pot sizes of coniferous trees to be increased.
- Panel's request to consider planting in the intertidal ESA was considered by the applicant; however, upon investigation, the project team's fisheries and engineering experts' qualified professional opinion is that the approach is not technically and scientifically viable.
- 645 square metres of additional on-site non-ESA and non-RMA planting is proposed at a new trailside area in the northeast corner of the site and new three-metre wide planting strip adjacent to Williams Road RMA; there is also a 1.5-metre widening of one side of the proposed planting strip adjacent to the public trail.
- Total on-site non-ESA and non-RMA planting area proposed to be added is approximately 1,300 square metres, increasing significantly the overall on-site planting compared to the original proposal.
- The applicant will include interpretive signage along the public trail corridor and at strategic locations.

- The revised overall proposal substantially exceeds the City's ESA guideline requirements.

In reply to a Panel query, Mr. McCaskill advised that the operational requirements of the project were considered in determining the extent of the proposed three-metre wide planting strip adjacent to the Williams Road RMA.

In reply to a Panel query, staff stated that the proposed viewing platform will be constructed on the City land (Lot K) to the north of the subject site and will be developed in conjunction with the dike and trail system to be installed by the City in the area.

Discussion ensued regarding the lack of proposed planting along the waterfront and it was noted that planting was successfully integrated in the waterfronts of other areas north of the site.

In reply to Panel queries, Mr. Johnston advised that: (i) engineering requirements for the proposed rip-rap would not make planting along the waterfront feasible; and (ii) the site's hydraulic conditions, including high velocity river flows, would adversely affect the viability of planting.

In reply to the same query, Ron Byres, of Moffatt and Nichol, reviewed the technical and engineering rationale for the re-grading and design of the proposed rip-rap along the waterfront. He noted that construction materials for the proposed rip-rap include boulders and stones, and introducing materials such as soil, gravel and sand to accommodate planting would negatively impact the structural integrity of the rip-rap and would not ensure the survivability of plants.

In reply to a further query from the Panel, Mr. Byres acknowledged that algae could grow on the proposed rip-rap and the spaces between the rocks offer refuge for key fish species and organisms in the lower food chain.

In reply to the same query from the Panel, Cory Bettles, of Hatfield Consultants, briefed the Panel on what could possibly grow in the site's intertidal ESA given the existing water conditions. Mr. Bettles noted the difficulty of predicting the exact type of vegetation that could grow in a dynamic environmental system. However, he further noted that the proposed structures, as well as the addition and re-grading of the new rip-rap, could facilitate the growth of micro and some macro level vegetation, as well as provide habitat to macro invertebrates.

In reply to Panel queries, Ms. Dupuis noted that: (i) it is preferable to plant a lot of smaller deciduous trees in the site's ESA as they could better adapt to local growing conditions and could be planted densely to outcompete invasive species; and (ii) planting of larger deciduous trees requires greater spacing which provides opportunity for invasive species to grow.

Staff noted that the applicant explained the changes to landscaping in response to the Panel's referral motion. With regard to the item in the referral asking staff to review the cost estimate for the proposed viewing platform, staff advised that: (i) Planning staff had discussed the matter with Parks staff; (ii) the viewing platform proposed to be located in the adjacent City lot (Lot K) would be installed on top of the dike behind the high water mark; and (iii) Parks staff had verified the cost estimate for the proposed viewing platform which is attached in the Staff Report.

In reply to Panel queries, staff advised that: (i) the proposed viewing platform is similar to the design of viewing platforms in the area; (ii) the need for the proposed viewing platform originated from Parks staff after reviewing the recreational needs in the area; and (iii) projecting the proposed viewing platform beyond the high water mark would require an approval from the Department of Fisheries and Oceans (DFO).

No correspondence was submitted to the Panel regarding the Development Permit application.

The Panel referred the application back to staff to:

1. Investigate opportunities to expand the area of on-site planting particularly at the northwest portion of the site in addition to the proposed three-metre wide planting strip adjacent to the Williams Road RMA.
2. Explore further opportunities to increase the total area of proposed on-site planting considering the extent of foreshore area that will not be planted to accommodate the loading facility.
3. Review the advice given by the applicant regarding the viability of planting in the site's intertidal ESA in relation to similar projects which City staff have had direct experience in, including:
 - (a) Soliciting additional opinion from third party experts in the field regarding opportunities as well as constraints for enhancement in the site's intertidal ESA.
 - (b) Considering a financial compensation package for habitat enhancement in other areas if intertidal ESA planting is not feasible in the subject site.
4. Review the design and scope of the proposed viewing platform with the Parks Department to determine whether the type and size of the viewing platform should be revised.

Subsequent to the Panel Meeting, the applicant worked with staff to revise the proposal to address the Panel's referral comment by expanded planting in the northwest triangle portion of the site, increasing the area and size of planting in other portions of the site, adding an intertidal bench marsh enhancement and offering a revised cash-in-lieu contribution for future off-site trail enhancements and the future development of a recreational staging area at the foot of Williams Road.

An independent third party peer review of the proposed intertidal enhancement was undertaken by a Project Manager and a Restoration Ecologist with Pottinger Gaherty Environmental Consultants Ltd. (PGL) and a Geomorphologist with Northwest Hydraulics Consultants (NHC). These experts undertook a review of relevant background documents and the intertidal enhancement plan in the context of the site's specific hydraulic conditions and visited the site to examine the site conditions and query specific assumptions with regard to the proposed intertidal bench marsh design, installation and function. The peer review's recommendations were subsequently agreed to by the applicant and modifications were made to the design through the Servicing Agreement.

At the meeting held on February 28, 2018, Mr. McCaskill provided a brief presentation, noting that:

- Planting to the north triangle area of the property was increased by 25 percent after allowing for the minimum space required for operational and maintenance activities.
- Proposed tree sizes and pot sizes for shrubs and groundcovers were increased to the largest reasonable sizes without compromising survivability.
- The design of the viewing platform was modified and the proposed voluntary cash-in-lieu increased to approximately \$204,000.
- An intertidal bench planting area is proposed to be added in the intertidal Environmentally Sensitive Area (ESA).

In reply to queries from the Panel, Mr. McCaskill acknowledged that: (i) the intertidal bench has been raised to just below the high water mark to enhance the survivability of plant species; (ii) the bench cannot be expanded to the north as it will encroach into the dike structure; (iii) a few pre-engineered service structures are proposed on site; (iv) the Marine Terminal Facility will be fully operational twice a month or weekly depending on the size of the vessel delivering the fuel; (v) the intertidal bench will be filled with substrate to mitigate the effects of strong current and wave action to bench planting; and (vi) the unplanted strip at the north triangle area will be used to provide a gravel access road and equipment storage area.

Staff advised that: (i) the new planting area at the north triangle area combined with the previously committed Riparian Management Area (RMA) and landscape planting will result in total planting area of 46 percent of the entire triangle area; (ii) the viewing platform will be constructed by the City at a later date and that Parks Department has determined the platform location and design meets the City's open space and trail objectives for the area; (iii) part of the applicant's voluntary cash-in-lieu contribution will be used for enhancements to the existing City park trail to the west of the subject site; (iv) City staff solicited the opinion of third party experts regarding intertidal ESA planting in compliance with Panel's recommendation; (v) the City's third party review was conducted by PGL Environmental Consultants and Northwest Hydraulics and these consultants supported the provision of the proposed intertidal bench and have provided recommendations to improve the bench survivability which the applicant and City staff have reviewed and agreed to; (vi) the design of the intertidal bench planting will form part of the Servicing Agreement for the dike construction on the site; and (vii) there will be legal agreements to ensure maintenance of all ESA planting on the site.

In response to queries from the Panel, staff confirmed that: (i) ESA planting will be subject to a three-year monitoring period; (ii) the proposed intertidal bench planting will be monitored for five years; and (iii) the City will have monetary securities provided to ensure that these areas are installed and maintained accordingly.

No correspondence was submitted to the Panel regarding the Development Permit application.

The Panel expressed support to the applicant's response to Panel's comments at the previous consideration of the proposal.

The Panel recommends the Permit be issued.