



**To:** General Purposes Committee  
**From:** Peter Russell, RPP  
Director, Sustainability and District Energy  
**Re:** Tilbury Phase 2 LNG Expansion Project

**Date:** June 1, 2020  
**File:** 10-6125-30-010/Vol 01

**Staff Recommendation**

That the comments outlined in the staff report titled “Tilbury Phase 2 LNG Expansion Project”, dated June 1, 2020, from the Director, Sustainability and District Energy be endorsed and submitted to the BC Environmental Assessment Office and the Impact Assessment Agency of Canada to support the provincial and federal environmental assessments.

Peter Russell, RPP  
Director, Sustainability and District Energy  
(604-276-4130)

Att. 3

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Engineering Transportation	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

This report introduces the FortisBC, Tilbury Phase 2 Liquefied Natural Gas (LNG) Expansion Project and summarizes the provincial and federal environmental assessment processes currently underway. This report also recommends that comments regarding this project be endorsed and submitted to the BC Environmental Assessment Office and the Impact Assessment Agency of Canada to support the provincial and federal environmental assessment phases.

This report supports Council's Strategic Plan (2018-2022), Strategy #2: A Sustainable and Environmentally Conscious City:

*Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.*

*2.1 Continued leadership in addressing climate change and promoting circular economic principles.*

### Analysis

FortisBC (Fortis) is proposing the second and final expansion of its existing LNG facility located on Tilbury Island, in the City of Delta (Attachment 1). The proposed upgrades (the Project) will include a new LNG storage tank (and related infrastructure) to increase LNG storage capacity at the site to 163,000 m<sup>3</sup> and LNG production capacity by more than 50%. Fortis is planning to begin construction within two years and intends to commission a marine jetty, also currently pursuing an environmental assessment to access offshore LNG markets by 2028. Fortis notes that it does not anticipate future expansion at this site beyond this Project. Fortis operates and maintains a network of LNG transmission lines throughout Metro Vancouver, including a transmission line in Richmond that crosses the Fraser River, west of Nelson Road. No alterations or upgrades are proposed for this transmission line or within the City's limits.

The Project's storage and liquefaction capacity triggers a review under BC's *Environmental Assessment Act* and the federal *Impact Assessment Act* to determine if environmental certificates are required. Fortis prepared an Initial Project Description that was accepted by the BC Environmental Assessment Office and Impact Assessment Agency of Canada in February 2020 to initiate the provincial Early Engagement phase and federal Planning phase of the environmental assessment processes. The purpose of these early phases is to identify key issues and concerns early in the processes to better inform a plan for resolution during the assessments. Illustrations of the provincial and federal environmental assessment timelines are included in Attachment 2. The timelines for these preliminary assessment phases have been extended in consideration of COVID-19 and continue to be assessed by the agencies to support meaningful consultation.

### Liquefied Natural Gas Expansion on Tilbury Island

The LNG facility on Tilbury Island has been operational since 1971. The original facility included a single storage tank (still in place), related infrastructure and a truck loading bay. The original facility was capable of producing 60 tonnes of LNG daily and had a LNG storage capacity of 28,000 m<sup>3</sup>. Phase 1 (A and B) facility upgrades began in 2014. Phase 1A improvements, completed in 2018, included the construction of a new storage tank and truck loading facilities to increase LNG storage and production. Fortis is currently working on Phase 1B improvements which include commissioning the new storage tank and new transmission lines between Tilbury Gate Station and the Tilbury LNG facility. Phase 1B upgrades are expected to be operational by 2022. Phase 2 upgrades include decommissioning the facility's original storage tank and constructing a new tank. The final configuration will include two final storage tanks if approved. Phase 1 improvements were authorized by the provincial government in 2013, under the *Utilities Commissions Act*, and did not trigger provincial or federal environmental assessments under the BC *Environmental Assessment Act* or the federal *Canadian Environmental Assessment Act* at that time.

Wespac Midstream – Vancouver LLC (WesPac) is also pursuing federal and provincial Environmental Assessment Certificates to construct a marine jetty (and related infrastructure), adjacent to the Fortis site that will facilitate the shipment of LNG to offshore markets. Staff have been engaged on this project since 2015 as a Working Group member. This project is currently in the Application Review stage and staff are working with the Province to address concerns related to climate change, security and the protection of the community's dike infrastructure. The BC Environmental Assessment Office has deliberated on the technical information presented by Wespac during the assessment and is preparing a draft referral package to inform provincial and federal decisions. Staff will keep Council informed on the status of this project.

### Local Government Consultation and Staff Comments

The BC Environmental Assessment Office and the federal Impact Assessment Agency are leading a coordinated approach to obtain comments from the public (and stakeholders) regarding the Project. A 45 day public comment period will be held between June 1, 2020 and July 16, 2020. Two virtual Open Houses are also planned on June 18 and 23, 2020 that will include presentations from each agency and Fortis. Staff will attend the virtual Open Houses. The City has also been invited to provide general comments, concerns and issues related to the project. Comments and concerns will not be limited to these events, the City will have ample opportunity to submit future concerns or comments if needed.

Staff have reviewed Fortis' Initial Project Description and are seeking Council's endorsement for the following comments to be forwarded to the BC Environmental Assessment Office and the Impact Assessment Agency of Canada:

- The City is concerned with the proposed volumes of LNG that will be stored at the facility should the Project be approved. The volatile material poses a risk to the community and Fraser River in terms of spills, accidents, malfunctions and potential security breaches.

- The Project represents another industrial upgrade that is further contributing to the industrialization of the Fraser River estuary and its sensitive ecosystems. There are currently a number of major projects (proposed and/or approved), at or near the Fraser River estuary including the Robert's Bank Terminal 2 Project, the Delta Grinding Facility Project, the Vancouver Airport Fuel Delivery Project and the George Massey Tunnel Replacement Project (Attachment 3). The City relies on the ecosystem functions of the Fraser River estuary to reduce the impacts of flooding and improve the community's quality of life. Recent updates under BC's *Environmental Assessment Act* and federal *Impact Assessment Act* have not been tested and have the potential to not adequately mitigate the long-term cumulative effects of climate change caused by the Project and others.
- The Project does not align with Metro Vancouver's regional air quality objectives. Richmond is concerned that the Project will impact the region's air quality during construction and operation as volumes of contaminants (nitrogen oxides, carbon dioxide, sulfur dioxide, hydrocarbons, and particulate matter) are expected to be released from the Project's related infrastructure.
- Fortis is proposing to increase LNG production and storage capacity, and is preparing their operations to include marine shipping to offshore markets. Staff have concerns with the potential impacts that increased noise, light and atmospheric pollution will have on local wildlife and the community.
- It is unclear if the City's road network will be impacted from increased LNG truck movements as a result of the Project. Fortis states that up to 500 temporary workers will be required to access the site during construction. A Traffic Impact Assessment is required to determine whether or not the Project should proceed until the long-term improvements to the George Massey Crossing, as well as the Steveston Highway and Highway 17A interchanges, are complete.
- The site is currently located on land in the City of Delta that is designated for industrial uses. Fortis will be required to occupy additional land outside of the proposed project footprint for temporary construction laydown and staging areas. Land within the provincial Agricultural Land Reserve should not be developed to support these areas during construction.
- This project does not align with local, provincial national strategies to reduce greenhouse gas emissions and reduce BC's economic reliance on fossil fuels. Fortis should be directed to develop alternative and renewable fuel sources that have less socio-economic and environmental impacts than drilling, processing and transporting LNG.
- Fortis states that additional work will be required to commission the marine jetty, should that project be approved (under separate environmental assessment). The City expects that this additional work be detailed as part of this Project so potential, related issues can be fully assessed.

### Next Steps

If endorsed, the comments above will be submitted to the BC Environmental Assessment Office and the federal Impact Assessment Agency to inform the early phases of the environmental assessment processes. The BC Environmental Assessment Office and federal Impact Assessment Agency will produce a joint report following the public comment period to summarize key

concerns following the public consultation period. Fortis then has up to one year to consider these concerns and prepare a Detailed Project Description to inform a regulatory readiness decision. The agencies will have numerous options at that time including requesting revisions to the Detailed Project Description, terminating the project from the assessment process, issuing an exemption, and proceeding with environmental assessments. Notice of a future decision will be posted publicly. Staff will provide updates accordingly.

### **Financial Impact**

None.

### **Conclusion**

FortisBC has been executing Phase 1 (A and B) upgrades at its LNG facility on Tilbury Island since 2014 to increase storage and production capacity. Fortis is now proposing Phase 2 construction to commission the Phase 1 improvements and prepare to ship LNG to offshore markets, with connection to a marine jetty.

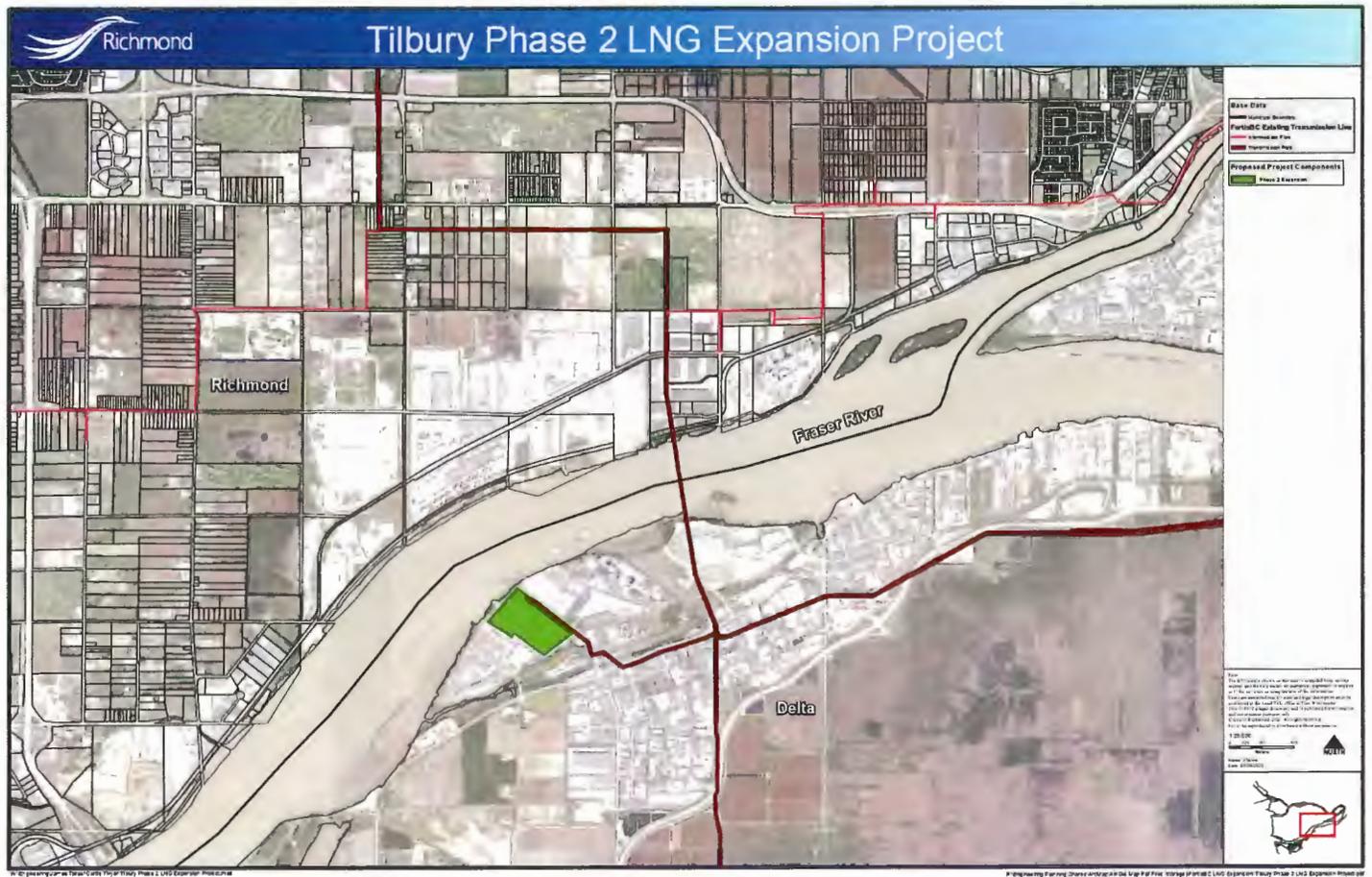
Staff are seeking Council's endorsement of the comments detailed in this report, in response to Fortis' Initial Project Description. Staff will remain engaged during these early stages and will participate on the Technical Advisory Committee, should the Project proceed to provincial and federal environmental assessments.



Chad Paulin, M.Sc., P.Ag  
Manager, Environment  
(604-247-4672)

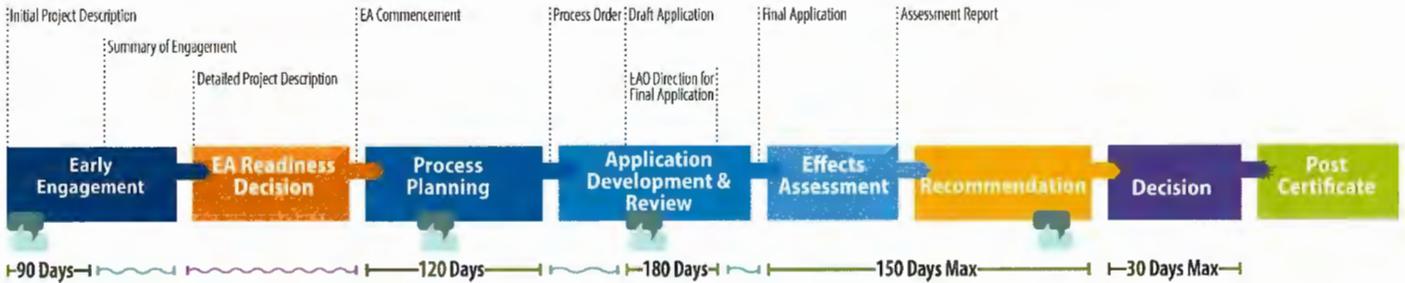
- Att. 1: Tilbury Phase 2 LNG Expansion Project Site Location
- 2: Provincial and Federal Environmental Assessment Timelines
- 3: Locations of Projects and Transportation Corridors

Attachment 1: Project Site Location

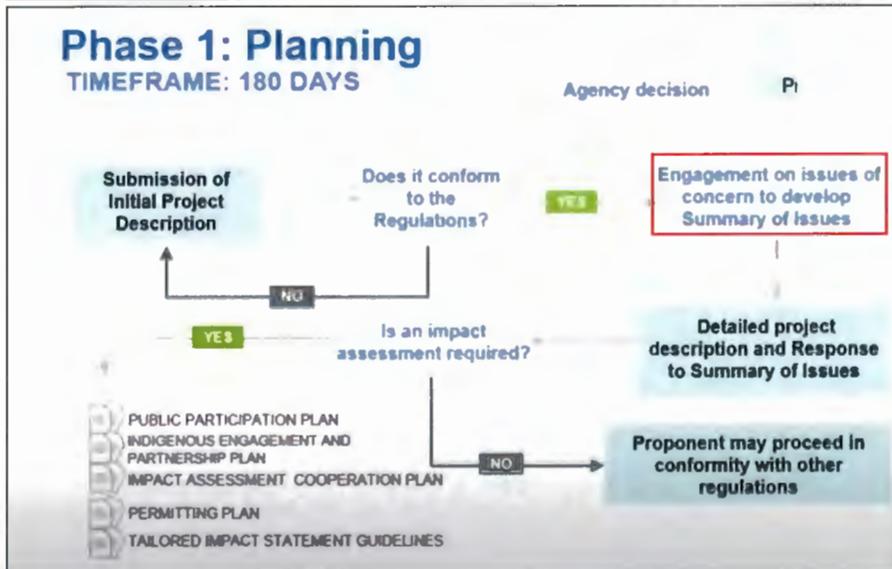


# Environmental Assessment (2018) Timeline

**Timeline**  
 ~ EAO Time  
 ~ Proponent Time  
 ~ Public Engagement & comment Period



**We Are Here**



**We Are Here**

# Attachment 3 - Locations of Projects and Transportation Corridors

