City of Richmond

Report to Committee

To:	General Purposes Committee	**Date:**	June 9, 2025
From:	Lloyd Bie, P.Eng. Director, Transportation	**File:**	10-6125-30-006/Vol 01
Re:	**Fraser River Tunnel Project Environmental Assessment – Application Review Comments**		

Staff Recommendation

That the comments as described in the report titled "Fraser River Tunnel Project Environmental Assessment - Application Review Comments" dated June 9, 2025, from the Director, Transportation be endorsed and forwarded to the British Columbia Environmental Assessment Office.

Lloyd Bie, P.Eng.
Director, Transportation
(604-276-4131)

Att. 3

REPORT CONCURRENCE		
ROUTED TO:	**CONCURRENCE**	**CONCURRENCE OF GENERAL MANAGER**
Real Estate Services	☑	Roeland Zwaag
Parks Services	☑	
Engineering	☑	
Climate and Environment	☑	
Community Bylaws	☑	
Policy Planning	☑	
SENIOR STAFF REPORT REVIEW	**INITIALS:**	**APPROVED BY CAO**
	CJ	

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Staff Report

Origin

This report provides an update on the environmental assessment process for the provincial Fraser River Tunnel Project (the Project). The City has the opportunity to provide comments to the BC Environmental Assessment Office (BC EAO) representing City interests on the Application Review Phase. The deadline for the City's submission of comments is June 25, 2025. Input into this phase of the environmental assessment is to ensure it includes all the technical studies and information required to assess the potential positive and negative impacts of the Project as part of the environmental assessment certification process.

This report supports Council's Strategic Plan 2022-2026 Focus Area #1 Proactive in Stakeholder and Civic Engagement:

> *Proactive stakeholder and civic engagement to foster understanding and involvement and advance Richmond's interests.*

This report supports Council's Strategic Plan 2022-2026 Focus Area #2 Strategic and Sustainable Community Growth:

> *Strategic and sustainable growth that supports long-term community needs and a well-planned and prosperous city.*
>
> *2.4 Enhance Richmond's robust transportation network by balancing commercial, public, private and active transportation needs.*

Analysis

Background

Transportation Investment Corporation on behalf of the Ministry of Transportation and Transit (the Proponent) proposes to construct a new eight-lane Immersed Tube Tunnel (ITT) that includes two dedicated transit lanes and a separate multi-use pathway (Figure 1). The Project budget, estimated at $4.15 billion has been committed by the Province, and is currently in the design stage. In July 2024, the Province announced that it had selected Cross Fraser Partnership to design and construct the Project.

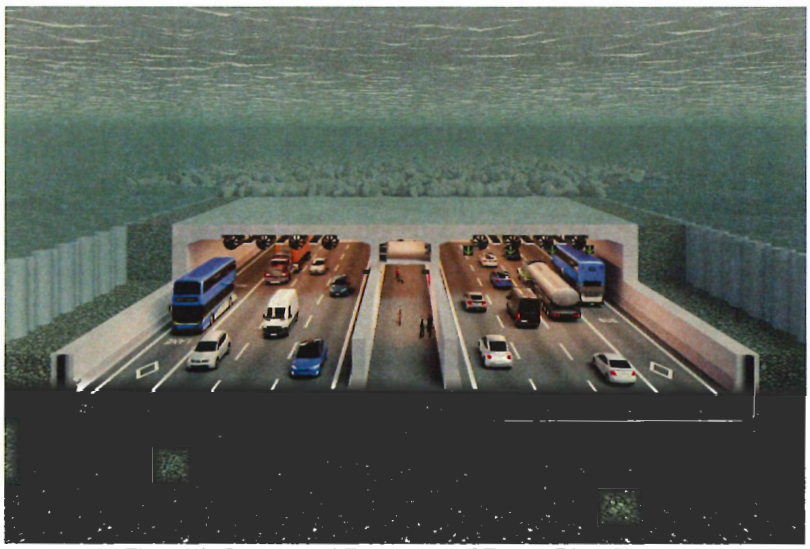

Figure 1: Conceptual Rendering of Fraser River Tunnel

Project Components

The Project (Attachment 1) includes the new tunnel, a new eight-lane Deas Slough Bridge and associated connections to the existing Highway 99 between Steveston Highway and Highway 17A. The Project also involves closing the existing tunnel and removal of the existing Deas Slough Bridge as well as creation of temporary construction facilities.

Project-related activities will occur in two distinct areas of the Project footprint (Attachment 2):

1) The Tunnel Corridor Area (TCA): Extends along Highway 99 from the Steveston Highway Interchange to the Highway 17A Interchange.
2) The Temporary Moorage Area (TMA): Located approximately 6 kilometres downriver of the TCA and is planned to be used for in-channel storage of completed tunnel elements prior to immersion during the construction of the new ITT.

Collectively, the TCA and the TMA represent the Project footprint, which encompasses approximately 215 hectares (ha).

Project Schedule

Construction of the Project will be carried out directly upstream (to the east) of the existing tunnel location. Project construction is planned to commence in 2026, with the new ITT opening to traffic in 2030. Following the opening of the new ITT, the existing tunnel will be closed as part of the Project, currently planned by the end of 2032. The new ITT is designed to operate for approximately 150 years.

Environmental Assessment Process for Fraser River Tunnel Project

The Project is in the fourth phase of the environmental assessment process, called application development and review (Figure 2).

In this phase, the proponent has developed the application for an environmental assessment certificate. The application includes all of the technical studies and information required by the EAO in the next phase to assess the project's potential impacts.

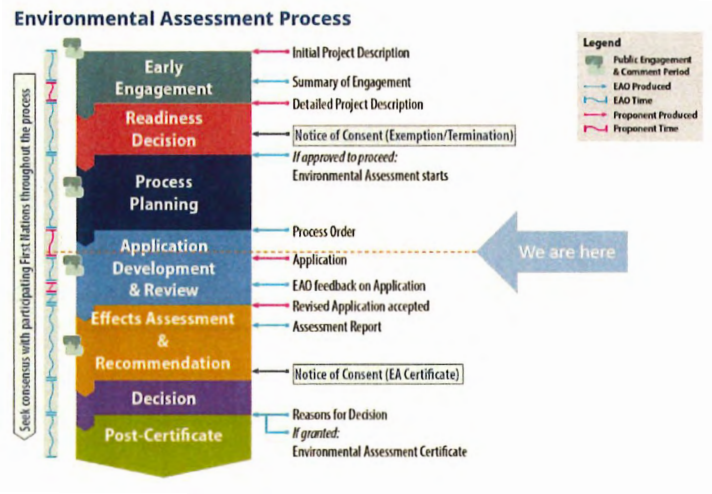

Figure 2: Typical Phasing of the BC Environmental Assessment Process

Application Review Phase

The Project application was received by the BC EAO on May 12, 2025. The deadline for the submission of comments is June 25, 2025. The public comment period on this phase of the Fraser River Tunnel Project Environmental Assessment is available from May 22, 2025 to June 23, 2025. Staff participate in working groups with the Province and through these forums there is opportunity to provide comments outside of this public comment period.

Two public open houses were held, one in Richmond and the other in Delta. The Richmond Open House was held at the UBC Boathouse from 4:00 to 8:00 pm on June 5, 2025. There were approximately 70 attendees, including City staff at the Richmond Open House.

Summary of Project Changes

Two changes have been made to the Project components since the last phase of the environmental assessment and are described below:

Tunnel Removal

The Project previously identified the complete removal of the existing tunnel following commissioning of the new immersed tube tunnel. However, concerns were raised during engagement with First Nations and other stakeholders regarding the degree of environmental effects associated with deconstructing and removing the existing tunnel. The Project now plans for the existing tunnel to be filled with clean suitable material and water, the entry portals sealed, and the upland portion of the portals backfilled. Some partial removal of tunnel sections may also be required.

Canfisco Property

The Project footprint was expanded to include the Canfisco property at 13140 Rice Mill Road. This property will be utilized during project construction as a laydown area for construction equipment and materials.

The City will benefit from additional dike upgrades extending within this property provided by the Project.

Comments on Current EA - Application Review Phase

The application generally addresses previous City comments. Remaining gaps are identified in Attachment 3 and include the following:

- The application is to acknowledge the BC Hydro George Massey Tunnel Transmission Relocation Project can be accommodated in the new tunnel. The City's preference is that the replacement of the BC Hydro infrastructure be installed underground rather than overhead.
- Adequate flood protection within and adjacent to the Project footprint must be maintained throughout construction of the Project. All permanent flood protection works within the MoTT ROW should be designed and constructed for the future to match the expected lifespan of the tunnel. All flood protection works shall be in alignment with the City's Flood Protection Management Strategy and dike master plans and be completed in coordination with the City.
- Restoration and habitat off-setting: Interest expressed about the need for effective restoration and habitat offsetting to compensate for environmental effects resulting from the Project.
- Recognize use of City lands for temporary and permanent components will require Council approval for City owned properties and potentially the ALC for any ALR designated lands.

Next Steps

After the public comment period closes on June 23, 2025, the EAO will analyze feedback from the public, First Nations, local governments and other participants in the environmental assessment process and direct Transportation Investment Corporation to make any necessary revisions to their application.

Once the EAO is satisfied that the application is accurate and complete, the next phase of the environmental assessment process includes effects assessment and recommendation.

In this phase, the EAO will draft its final report assessing the anticipated impacts from the Project and how significant they may be, as well as recommending how those impacts could be reduced if the Project gets approved to proceed. The public will have a chance to give feedback on that report before it is finalized.

Financial Impact

None.

Conclusion

Staff are seeking Council endorsement of comments on the Fraser River Tunnel Project – Application Review Process (Attachment 3). These comments include reiterating the City's position for the BC Hydro transmission line relocation to be underground. Should Council endorse these comments, staff will submit them to the Environmental Assessment Office. The BC EAO will review the comments on the application received during the public consultation phase and provide direction to the proponent on revisions that should be reflected in the revised application. The next phase of the process will be the effects assessment, resulting in development of a draft Assessment Report and draft environmental assessment certificate (with conditions).

Sonali Hingorani, P.Eng.
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(604-276-4049)

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Att. 1: Fraser River Tunnel Project
2: Project Footprint and Components
3: Application Review Comments

Fraser River Tunnel Project

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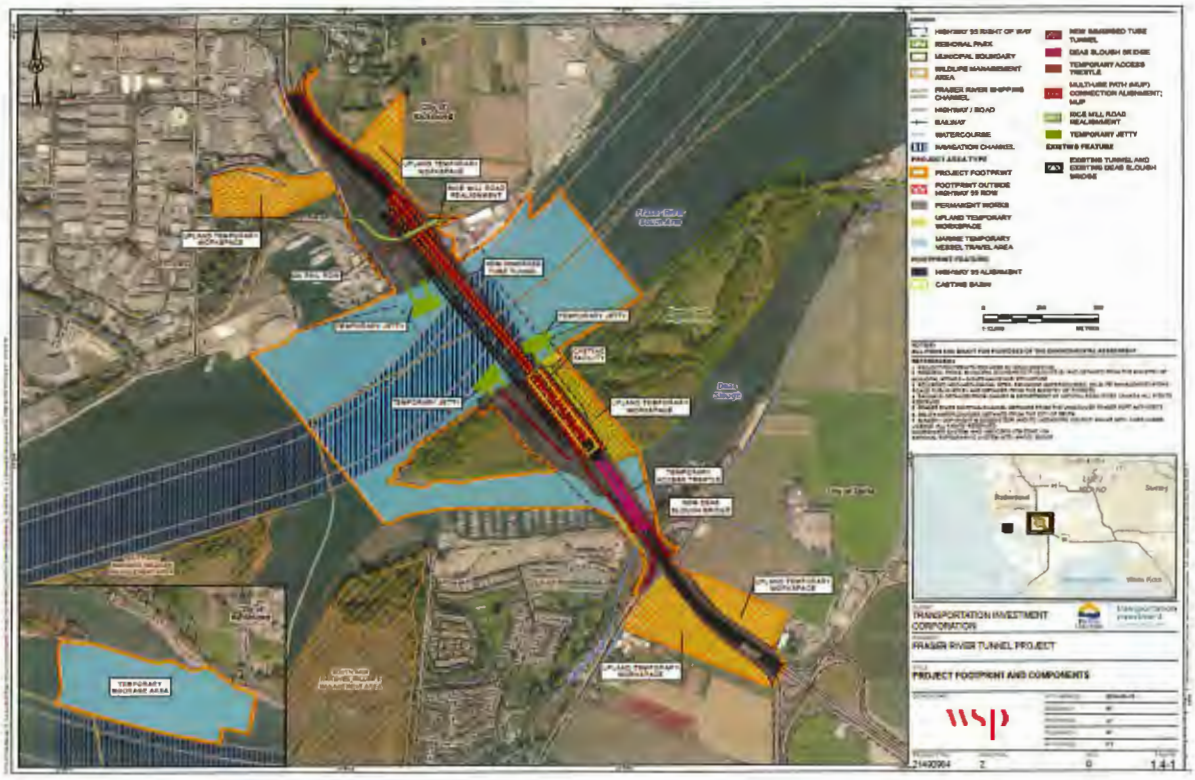
Project Footprint and Components



Application Review Comments

Valued Component	Application Review Comments
Fish and Fish Habitat	The application mentions mitigation procedures to be developed as part of the construction environmental management plan CEMP. City of Richmond would like the opportunity to review the CEMP and related documents as developed.
Fish and Fish Habitat	Riparian areas not required to be removed for Project activities within the project footprint will be identified and delineated using exclusion barriers, such as snow fencing prior to construction. These barriers will remain in place for the duration of construction and will be inspected and maintained and integrated into the CEMP. City of Richmond would like the opportunity to review the CEMP and related documents as developed.
Fish and Fish Habitat	A restoration plan will be developed for the Project and will describe how and where to contour the landscape to elevations that can support native ecosystems, including wetlands. The plan will address onsite restoration approaches during the construction and closure of the existing tunnel and removal of infrastructure phase. City of Richmond would like the opportunity to review the restoration plan as it is developed.
Fish and Fish Habitat	The monitoring program will be developed during the permitting process in consultation with relevant permitting agencies, local governments, and First Nations. City of Richmond would like to be engaged regarding monitoring program development.
Draft Fisheries Offsetting Plan	Preliminary offsetting concepts include Rice Mill Road foreshore and Steveston Harbour salt marsh habitat creation and the plan refers to ongoing engagement. City of Richmond would like to be engaged in further development of offsetting projects within jurisdiction and in proximity to drainage infrastructure (pump station) and the dike.
Surface Water and Sediment Quality	Application mentions mitigations procedures to be developed as part of the CEMP in relation to potential effect #1 and #3 related to the temporary moorage area design. City of Richmond would like the opportunity to review the CEMP and related design documents as developed.
Vegetation	Section 7.8.5.3.2.4 speaks to consultation for the draft Fisheries Habitat Offsetting Plan. The City of Richmond requests that staff are included in the consultation process for developing the habitat offsetting plan.
GHG Emissions	The assessment of GHG emissions is not scoped to include embodied emissions from materials used in the tunnel project, including, but not limited to the concrete and rebar steel required for the tunnel sections. The City of Richmond requests that APPENDIX 8-1: Regional Greenhouse Gas Emissions Technical Report be amended to include embodied emissions for the materials used in the Project.
GHG Emissions	There would appear to be opportunities to achieve significant GHG reductions in the embodied GHG emissions of the proposed tunnel project (relative to existing levels) using lower-GHG concrete mixes, "green steel" etc. The City of Richmond requests that Section 8.6 (Greenhouse Gas Mitigation Measures / Best Available Technologies) be amended to include measures to reduce the embodied emissions of materials used in the Project.
GHG Emissions	The City of Richmond requests that APPENDIX 8-1: Regional Greenhouse Gas Emissions Technical Report be amended to assess the amount of carbon in the soils that are to be removed and re-emplaced over the course of the Project.
GHG Emissions	The City of Richmond requests that Section 8.6 (Greenhouse Gas Mitigation

	Measures / Best Available Technologies) be amended to include measures that will limit GHG emissions from the loss of carbon soil from materials displaced during the Project.
GHG Emissions	The City of Richmond requests that reference to GHG emissions from the loss of carbon soil from dredged silt / excavated soil be added to Table 8.4-1.
GHG Emissions	The proponent should encourage contractors bidding for the Project to reduce GHG emissions from the Project.
Acoustic	Acoustic monitoring should be put in place to ensure construction noise occurs within acceptable hours and thresholds.
Infrastructure, Services, and Transportation	The application does not indicate if a multi-use pathway (MUP) on the west side of Highway 99 will be evaluated in consideration of the valued components. Enhancing the interconnectivity of the pedestrian and cyclist networks are to be considered as part of the evaluation.
Infrastructure, Services, and Transportation	The Project scope does not explicitly indicate the connection from the east end of Rice Mill Road to Highway 99 northbound for emergency access is missing. This is essential for emergency response.
Infrastructure. Services and Transportation	The Project Components acknowledges the removal and re-routing of the existing CN railway and Rice Mill Road overpasses, however it does not provide details regarding the replacement of these two overpasses. Please ensure this is included in section 7.13 Land Resource Use.
Transportation	The benefits and timing of increased transit service expansion along the Highway 99 corridor with the dedicated bus lanes in the tunnel are to be evaluated in coordination with TransLink input on planned increased transit service.
Infrastructure, Services and Transportation	The benefit of a more direct Rice Mill Road connection across Hwy 99 is to be evaluated as part of the assessment. The proposed alignment poses challenges for cyclists and emergency response as the 55m increase in length may have significant implications for the walking/cycling experience and emergency response times.
Infrastructure, Services and Transportation	Regarding the relocation of the BC Hydro infrastructure, City of Richmond's strong preference is for this to be underground rather than overhead. Minister Rob Fleming indicated that this is also MoTT's preference at the UBCM meeting in September 2021. He and Minister Bowinn Ma, in a Dec 17/21 letter to Mayor Brodie indicated that the ministry is working with BC Hydro on a design to incorporate the existing hydro lines into the new tunnel.
Infrastructure, Services and Transportation	The assessment should include provisions to ensure the City of Richmond's Peace Arch Drainage pump station will be compatible with the proposed permanent and temporary dike upgrades and alignments. Provisions should be made to ensure that the Peace Arch Drainage pump station be located behind the future permanent dike alignment.
Land and Resource Use	City of Richmond Council approval will be required for the use of City-owned lands. Additional detailed information will determine any permitting and approval processes in accordance with City of Richmond bylaws and policies. The Project will need to demonstrate there are no adverse impacts on the Riparian Management Areas (RMA) & Environmentally Sensitive Areas (ESA) that exist in the Project area.
Land and Resource Use	Any property within the ALR would likely require City of Richmond Council and ALC approval. The Project will need to demonstrate there is no adverse impact to the agricultural capability of the land and the land being restored to support soil based agricultural at the completion of the Project.
Surface Water	The City of Richmond's level of flood protection should not be reduced during

and Sediment Quality	construction of the new tunnel and the elevation of the existing dike system is required to be maintained throughout construction. The description of activities for the temporary and permanent flood protection phase/component should also include upgrades to the City of Richmond dike system that are directly adjacent to the Project footprint.
Surface Water and Sediment Quality	The existing tunnel should be designed to be compatible with the dike and associated infrastructure improvements that will be constructed through the Fraser River Tunnel Project. This includes future dike raising beyond 5.5m. TI Corp noted that for tunnel sections that are left in place, the Province will maintain ownership and liability.
Surface Water and Sediment Quality	Seismic impacts to existing dike and flood protection infrastructure due to the closure of the existing tunnel should be included as an indicator. Both the vertical and lateral deformations that the existing tunnel would undergo during a seismic event could potentially impact the City of Richmond's flood protection infrastructure.