




GEORGE MASSEY TUNNEL REPLACEMENT PROJECT

MONTHLY STATUS REPORT JULY 2016

FINAL

PROJECT STATUS DASHBOARD

Scope	Status*
<ul style="list-style-type: none"> A Project Definition Report draft reference concept has been completed, which includes the main bridge and interchanges at Steveston Highway, Highway 17A and Westminster Highway as well as Highway 99 corridor improvements from Bridgeport Road in Richmond to Highway 91 in Delta. The reference concept incorporates a continuous dedicated transit/HOV lane between Highway 91 in Delta and Bridgeport Road in Richmond, which will also support potential future rapid transit expansion. The Project Definition Report was released on December 16, 2015. The Project scope, along with the draft reference concept, will be refined following technical studies, the environmental review and Concession Agreement development. 	
Schedule	
<ul style="list-style-type: none"> Consultation: Public and stakeholder consultation on the Project Definition Report has been completed; the Phase 3 - Project Definition Report Consultation Summary Report was released in March. Environment: Finalized EA Application and formally submitted to EAO on July 27, 2016. The Project Team is preparing for the Application Review Phase, including public comment period and other consultation activities. The ALC Application was submitted to the Agricultural Land Commission for approval on June 24, 2016. Technical Studies: Engineering, geotechnical and other technical studies are underway to further inform the draft reference concept and in support of the procurement process. Procurement: A business case has been completed. The Request for Qualifications (RFQ) has been issued for registered parties. All key Project activities are proceeding on schedule. 	
Cost	
<ul style="list-style-type: none"> Oversight of the Project was transferred to Transportation Investment Corporation (TI Corp) as of July 1, 2016. TI Corp is now incurring costs against the capital project budget. The forecast for the current fiscal year is \$31M. To date, \$6.9M has been spent. The estimated capital cost of the Project is \$3.5B. 	

* **Status Legend:** Green = No issues to report; Yellow = Minor issues to report; Red = Significant issues to report.

INTRODUCTION

Project Overview

The George Massey Tunnel is an important link in the regional and provincial transportation system, carrying an average of 80,000 vehicles each day. It connects to key gateways such as Vancouver International Airport (YVR), the Peace Arch and Pacific Canada-U.S. border crossings, BC Ferries' Tsawwassen terminal, Deltaport and the Boundary Bay Airport. It is a vital goods movement route that fuels our local, regional, provincial and national economies, and a key access point for businesses in Delta, Surrey, Richmond, and Tsawwassen First Nation.

Since the Tunnel opened in 1959, Metro Vancouver's population and economy have grown, and its population is forecast to continue to grow by more than one million people over the next 30 years. Without improvements to this crossing, economic growth and regional livability will be constrained by congestion and increasing travel times for commuters, goods movers, commercial traffic and other traffic.

With growing concerns about public safety and congestion in and near the Tunnel, in 2012, the government of B.C. commenced a study of options to address the Highway 99 corridor. After analysis and consultation, a new bridge to replace the Tunnel emerged as the most appropriate and supported solution. Construction is anticipated to begin in 2017.

Project Goals

Based on the Ministry's mandate and results of consultation to date, six primary goals have been identified for the Project:

1. **Reduce congestion.** Improve travel times and reliability for all users.
2. **Improve safety.** This includes improving traffic and seismic safety, as well as emergency response capabilities.
3. **Support trade and commerce.** Improve access to local businesses and gateway facilities, and improve travel time reliability for goods movers and service providers.
4. **Support increased transit on the Highway 99 corridor.** Provide dedicated transit/HOV lanes on the new bridge to improve travel time reliability and add capacity for long-term transit improvements.
5. **Support options for pedestrians and cyclists.** Provide a multi-use pathway on the new bridge to connect cycling and pedestrian corridors in Richmond and Delta.
6. **Enhance the environment.** Enhance the environment under the new bridge and in the Project right-of-way on Deas Island.

Key Milestones Achieved to Date

Key milestones achieved to date are listed by category below. The reports can be found within the Document Library of the George Massey Tunnel Replacement Project website.

Consultation	<ul style="list-style-type: none"> • Project Definition Report • Completion of Phase 1, Phase 2 and Phase 3 Consultation, including summary reports
Environmental Review	<ul style="list-style-type: none"> • Baseline studies • Application Information Requirements • Environmental Assessment Application
Agriculture	<ul style="list-style-type: none"> • ALC Application
Design/Engineering	<ul style="list-style-type: none"> • Draft reference concept for EA application • Project Definition Report Draft Reference Concept • Multiple traffic data and analysis reports • Multiple geotechnical studies
Procurement	<ul style="list-style-type: none"> • Business Case • Capital Cost Estimate Report • Operations, Maintenance and Rehabilitation Base Cost Estimate Report • Procurement Options Report • Risk Report • RFQ Issued

July 2016 Highlights

Environment	<ul style="list-style-type: none"> • Submitted EA Application to the Environmental Assessment Office (EAO) on July 27, 2016.
Construction	<ul style="list-style-type: none"> • Pile Load Test – completed shop fabrication on load frame and delivered to site.

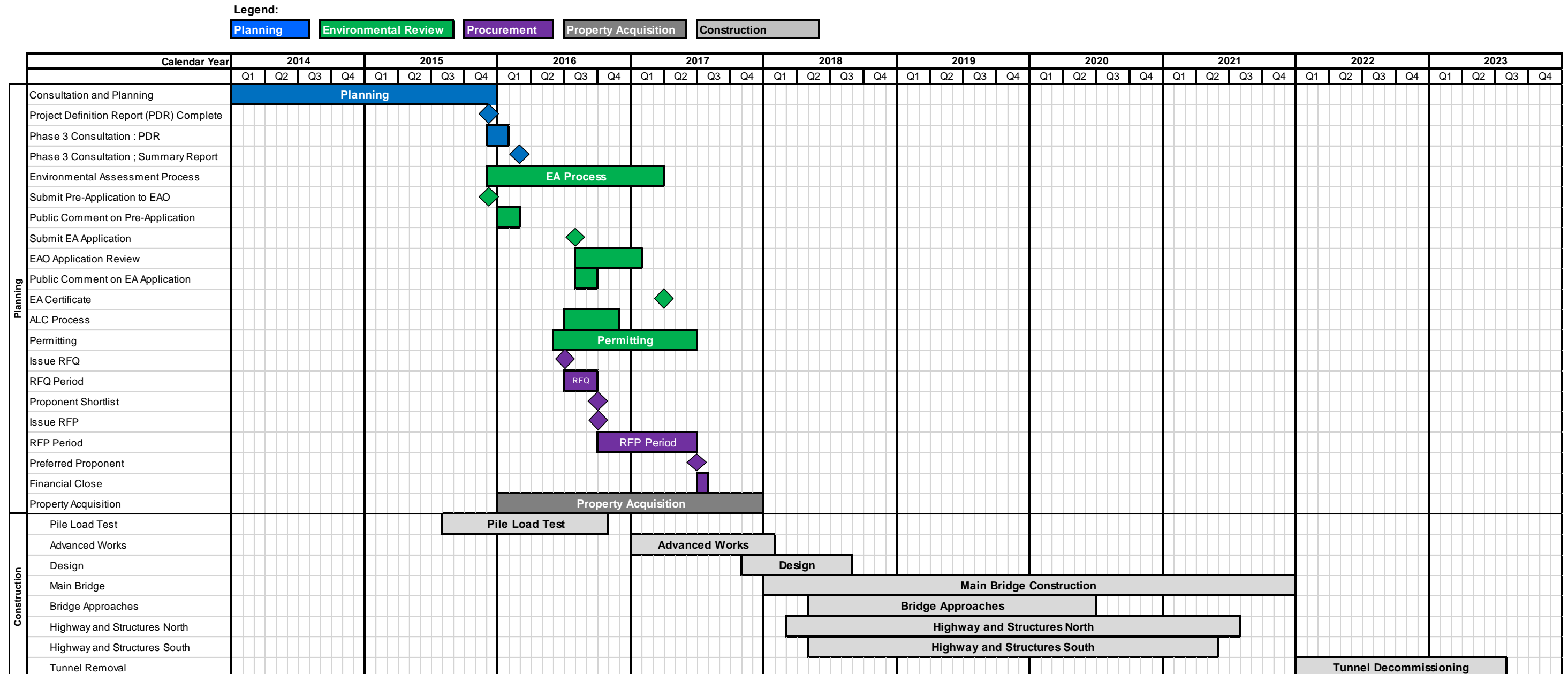
Report Structure

The table below provides a brief description of the contents of this report.

1. Schedule	<ul style="list-style-type: none"> • High-level Project schedule including major milestones and deliverables
2. Project Management	<ul style="list-style-type: none"> • Objectives, monthly accomplishments and upcoming activities related to Safety, Quality and Project Controls
3. Project Development	<ul style="list-style-type: none"> • Scope, monthly accomplishments and upcoming activities for the each of the major disciplines: Stakeholders, Environment, Agriculture, Aboriginal Groups, Procurement, Engineering, Construction and Property
4. Cost Report	<ul style="list-style-type: none"> • Fiscal year cost summary
5. Risk Management	<ul style="list-style-type: none"> • Key risks and mitigation strategies

1 SCHEDULE

The following schedule depicts deliverables, milestones and associated dates and timelines for the planning and procurement phases of the Project as well as high-level construction timelines.



2 PROJECT MANAGEMENT

2.1 Safety

Objectives:	<ul style="list-style-type: none"> • Provide clear information on health and safety responsibilities. • Ensure all required training is provided and evaluated. • Ensure a safe worksite at all times.
Accomplished in month:	<ul style="list-style-type: none"> • Conducted Occupational Health and Safety Committee meeting. • Conducted Project safety orientations at the Project Office. • Conducted office safety inspections. • Conducted field safety audit for the Pile Load Test Project.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Provide ongoing safety training to project team. • Conduct Occupational Health and Safety Committee meetings.

2.2 Quality

Objectives:	<ul style="list-style-type: none"> • Ensure design services and construction works delivered to the Province are implemented within a quality standard consistent with Ministry standards and ISO 9001.
Accomplished in month:	<ul style="list-style-type: none"> • Provided Quality Management input to draft Project Agreement and RFP. <p>For the Pile Load Test:</p> <ul style="list-style-type: none"> • Ongoing quality management input as required. • Ongoing review and monitoring of contractor quality management activities including quality control and quality assurance activities per contractor's Quality Management Plan, and work plans for Adjacent Structures Monitoring, Pile Installation, Static Load Test and Construction Site Health, Safety and Environment Management. • Ongoing daily site surveillance monitoring. • Conducted surveillance audit on instrumentation.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Continue quality management input and support to procurement activities as required. • Carry out internal audits. <p>For the Pile Load Test:</p> <ul style="list-style-type: none"> • Continue review and monitoring of contractor quality management activities including observation and review of contractor's internal and external audits. • Continue ongoing daily site surveillance monitoring; the focus will be on completing the static load test and final reporting.

2.3 Project Controls

Objectives:	<ul style="list-style-type: none">• Effectively manage the Project's contracts, scope, schedule and cost.
Accomplished in month:	<ul style="list-style-type: none">• Held regular monthly Project controls meetings with all discipline leads.• Ongoing development and updates to the Project schedule.
Key activities for next 3 months:	<ul style="list-style-type: none">• Conduct monthly project controls meetings with all discipline leads.• Monitor project schedule.

3 PROJECT DEVELOPMENT

3.1 Stakeholders

Scope:	<ul style="list-style-type: none"> • Management of phased and ongoing public and stakeholder consultation, community relations and Project communications.
Accomplished in month:	<ul style="list-style-type: none"> • Continued drafting content and graphics for EA Application Review Public Comment Period. • Completed logistics coordination for upcoming open houses. <p><i>Meetings were held with the following stakeholder groups:</i></p> <p>Government</p> <ul style="list-style-type: none"> • Metro Vancouver • City of Richmond • Corporation of Delta <p>Other</p> <ul style="list-style-type: none"> • Cycling Working Group
Key activities for next 3 months:	<ul style="list-style-type: none"> • Continued stakeholder engagement. • Business and community group presentations on request. • Complete EA Public Comment Period preparations and implementation.

3.2 Environment

Scope:	<ul style="list-style-type: none"> • Development of the Environmental Assessment (EA) Application as well as management of the Project monitoring and permitting process.
Accomplished in month:	<ul style="list-style-type: none"> • Submitted EA Application to the Environmental Assessment Office (EAO) on July 27, 2016. • Prepared for Public Open Houses including the development of presentation materials. • Undertook consultation with stakeholders on the EA Application.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Submit permit applications to the Ministry of Forests, Lands and Natural Resources and the Department of Fisheries and Oceans. • Participate in EAO-led public open houses. • Participate in EAO-led Technical Working Group meetings • Review and respond to public comments on the EA Application. • Continue consultation with stakeholders on the EA Application.

3.3 Agriculture

Scope:	<ul style="list-style-type: none"> Identify and work with farmers and other agricultural stakeholders potentially affected by the Project. Prepare and submit the application to the Agricultural Land Commission (ALC). Continue to revise detailed Project design and prepare appropriate plans to mitigate agricultural effects to enhance agricultural land use.
Accomplished in month:	<ul style="list-style-type: none"> Met with staff of the Agricultural Land Commission (ALC). Met with Agricultural Land Reserve (ALR) property owners and operators. Ongoing liaison with the City of Richmond, the Corporation of Delta, the Delta Farmers Institute (DFI) and the Richmond Farmers Institute (RFI). Continued agricultural ditch mapping and drainage system analysis.
Key activities for next 3 months:	<ul style="list-style-type: none"> Ongoing meetings with farmers and stakeholders including the City of Richmond, the Corporation of Delta, the Ministry of Agriculture, the RFI and the DFI. Conduct on-site tour of Project with the ALC. Finalize assessment of existing highway ditch drainage/irrigation system. Continue to liaise with ALR property owners and operators.

3.4 Aboriginal Groups

Scope:	<ul style="list-style-type: none"> Consultation and engagement with Aboriginal Groups.
Accomplished in month:	<ul style="list-style-type: none"> Conducted EA Application and Project update meetings with 4 Aboriginal Groups. Supported Aboriginal Groups in their review and comment on draft documents required for the environmental assessment (EA) process. Integrated EAO and Aboriginal input into Part C of the EA application and other relevant sections/documents. Finalized Aboriginal Consultation Report 2 based on input received from Aboriginal groups and EAO. Responded formally to comments received from Aboriginal Groups on draft documents provided for review (Aboriginal Consultation Report 1, Aboriginal Consultation Report 2 and Part C – Existing Conditions). Responded to questions and information needs of Aboriginal Groups through the Ministry's ongoing consultation program.
Key activities for next 3 months:	<ul style="list-style-type: none"> Continue consultation with Aboriginal Groups including meetings, community meetings and other activities in accordance with each group's Aboriginal Consultation Plan. Revise each Aboriginal Group's Aboriginal Consultation Plan as required. Consider input from Aboriginal Groups on the Effects Assessment (Part B) and Aboriginal Consultation (Part C) sections of the EA Application. Support Aboriginal Groups in their review of the EA application. Respond to questions and information needs of Aboriginal Groups through the EAO-led working group process and through the Ministry's consultation program.

3.5 Procurement

Scope:	<ul style="list-style-type: none"> • Development of a business case, Request for Qualifications (RFQ), Request for Proposals (RFP) and subsequent evaluation of submissions.
Accomplished in month:	<ul style="list-style-type: none"> • Held introductory Project meeting for RFQ registered respondents. • Continued development of the RFQ evaluation materials. • Continued development of the RFQ evaluation process including evaluation logistics and resources. • Ongoing development of the draft Concession Agreement with further advancement of technical specifications including operations and maintenance requirements. • Continued development of the Instructions to Proponents (RFP: Volume 1).
Key activities for next 3 months:	<ul style="list-style-type: none"> • Continue developing the RFP data room. • Finalize RFQ evaluation materials and evaluation process • Evaluate RFQ submissions. • Finalize drafting of Instructions to Proponents (RFP: Volume 1) and draft Concession Agreement (RFP: Volume 2).

3.6 Engineering

Scope:	<ul style="list-style-type: none"> • Development of a reference concept, technical requirements/specifications and related technical studies for the Project. • Travel demand forecasting, traffic operations modelling, traffic data collection, and other related services in support of the Project.
Accomplished in month:	<ul style="list-style-type: none"> • Achieved 95% completion of highway reference concept. • Achieved 95% completion of structures reference concept. • Continued to develop design for highway drainage. • Provided ongoing technical support on the Pile Load Test. • Provided technical support to EA process, procurement and stakeholder consultation. • Continued to develop landscaping requirements and concepts. • Completed Steveston Interchange model.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Complete draft reference concept and cost estimate based on the results of the environmental review and additional public consultation. • Finalize reference concept for cycling and pedestrian trail design. • Complete construction staging analysis and constructability assessment. • Provide technical support for procurement including participating in RFQ evaluations and drafting of technical schedules for RFP.

3.7 Construction

Scope:	<ul style="list-style-type: none"> • The overall planning, coordination and implementation of construction activities. • Current construction works include: Pile Load Test (Geotechnical Investigations).
Accomplished in month:	Pile Load Test Update: <ul style="list-style-type: none"> • Delivered load frame to site. • Commenced on site assembly of load frame. • Continued installing instrumentation for static load test.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Complete on site assembly of load frame. • Complete installation of all remaining instrumentation required for static load test. • Perform static load test and gather all related data. • Complete final technical report.

3.8 Property

Scope:	<ul style="list-style-type: none"> • Review of properties along the Project corridor and development of a property acquisition plan. • The acquisition of land required to deliver the Project. • A total of 36 properties have been identified for acquisition, the majority of which are partial acquisitions.
Accomplished in month:	<ul style="list-style-type: none"> • Received three draft appraisals and began preparation of offers to owners. • Completed eleven property surveys.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Continue property negotiations with owners to secure final agreements or agreements in principle. • Meet with affected stakeholders in regards to the ALC application. • Finalize property acquisition plans on remaining properties. • Requisition appraisal reports on selected properties. • Conduct legal surveys on selected properties.

4 COST REPORT

4.1 Project Cost Estimate

Capital costs are estimated to be \$3.5 billion. The detailed cost estimate will be refined and finalized after completion of the Pile Load Test and the Environmental Assessment public comment period.

4.2 Current Fiscal Year Financials

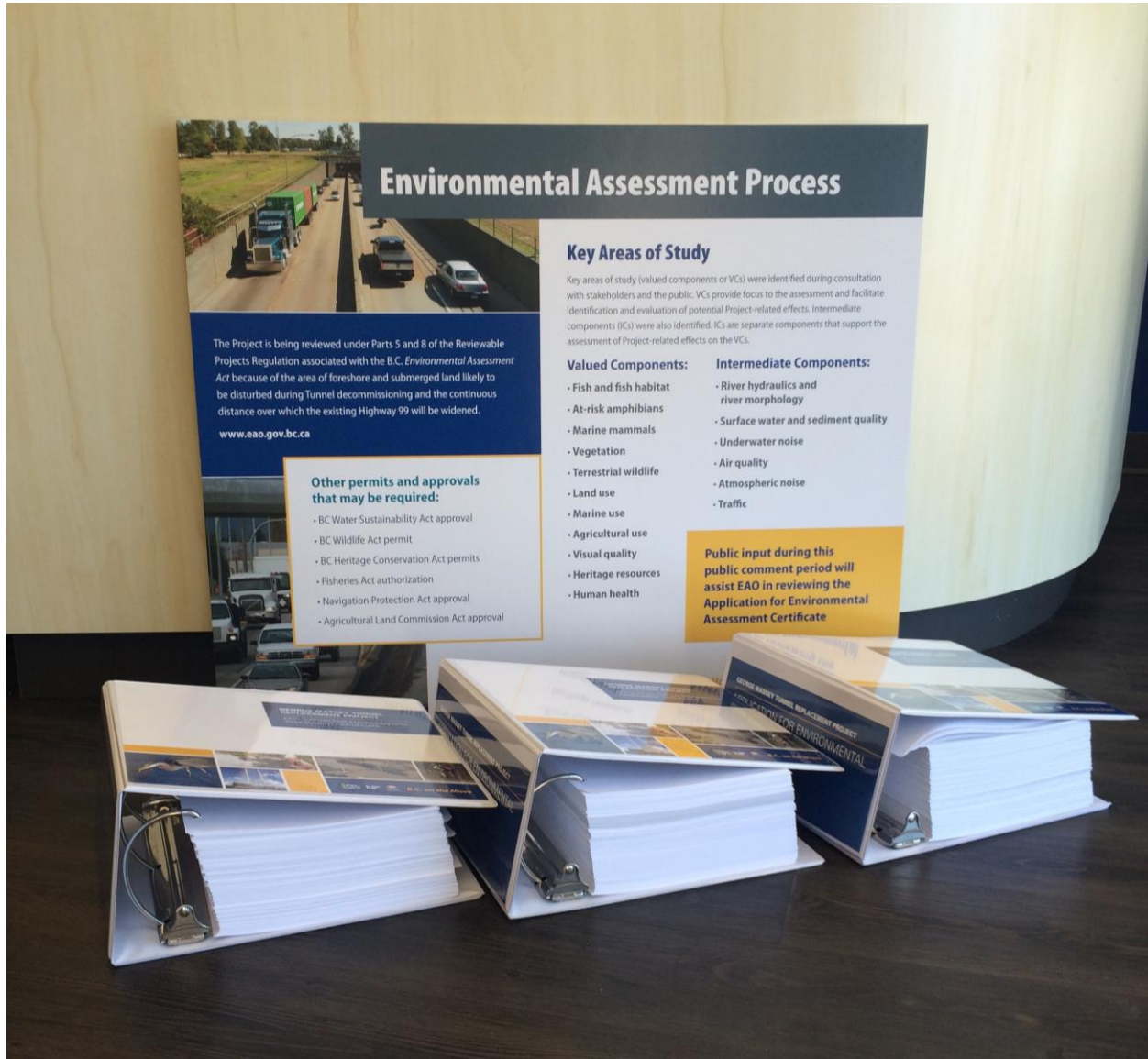
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- The forecast for the current fiscal year is \$31M.
- To date, \$6.9M has been spent.

5 RISK MANAGEMENT

The Project team has developed a risk register for the Project, including risk mitigation strategies. The risk register is reviewed on a regular basis and will evolve as project development progresses.

Soft soil conditions have been identified as a risk. The ministry is undertaking additional geotechnical investigations (Pile Load Test project) to test soil conditions and confirm foundation requirements for the bridge.

6 APPENDIX A – PROJECT PHOTOS



Environmental Assessment Application