

# GEORGE MASSEY TUNNEL REPLACEMENT PROJECT

## MONTHLY STATUS REPORT DECEMBER 2016

FINAL

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## PROJECT STATUS DASHBOARD

### Scope

Status\*

- A reference concept has been developed, and 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.



### Schedule

Status\*

- **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. The Project office in Richmond is open to the public daily.
- **Environment:** EA Application formally submitted to EAO on July 27, 2016. The Project Team is engaged in the Application Review Phase, including stakeholder consultation. The ALC Application was submitted to the Agricultural Land Commission for approval on June 24, 2016.
- **Technical Studies:** Engineering, traffic, geotechnical and other technical studies continue to further inform the reference concept in support of the procurement process.
- **Procurement:** A business case has been completed. The Request for Qualifications evaluation has been completed and a Proponent shortlist has been selected. The RFP was issued to short-listed Proponents in October 2016.
- **All key Project activities are proceeding on schedule.**



### Cost

Status\*

- The forecast for the current fiscal year is \$24.2M; to date, \$16.0M has been spent (this includes actuals plus commitments).
- The approved capital budget for the Project is \$3.5B.



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

## Report Structure

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

<b>1. Introduction</b>	<ul style="list-style-type: none"><li>• Project overview and goals, key milestones achieved and current month highlights</li></ul>
<b>2. Schedule</b>	<ul style="list-style-type: none"><li>• High-level Project schedule including major milestones and deliverables</li></ul>
<b>3. Project Management</b>	<ul style="list-style-type: none"><li>• Objectives, monthly accomplishments and upcoming activities related to Safety, Quality and Project Controls</li></ul>
<b>4. Project Development</b>	<ul style="list-style-type: none"><li>• Scope, monthly accomplishments and upcoming activities for the each of the major disciplines: Stakeholders, Environment, Agriculture, Aboriginal Groups, Procurement, Engineering, Construction and Property</li></ul>
<b>5. Cost Report</b>	<ul style="list-style-type: none"><li>• Fiscal year cost summary</li></ul>
<b>6. Risk Management</b>	<ul style="list-style-type: none"><li>• Key risks and mitigation strategies</li></ul>

# 1. 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.

<b>Consultation</b>	<ul style="list-style-type: none"><li>• Project Definition Report</li><li>• Completion of Phase 1, Phase 2 and Phase 3 Consultation, including summary reports</li></ul>
<b>Environmental Review</b>	<ul style="list-style-type: none"><li>• Baseline studies</li><li>• Application Information Requirements</li><li>• Environmental Assessment Application</li><li>• Environmental Assessment Application public comment period</li></ul>
<b>Agriculture</b>	<ul style="list-style-type: none"><li>• ALC Application</li></ul>
<b>Design/ Engineering</b>	<ul style="list-style-type: none"><li>• Draft reference concept for EA application and RFP</li><li>• Multiple traffic data and analysis reports</li><li>• Multiple geotechnical studies</li><li>• Pile Load Test</li></ul>
<b>Procurement</b>	<ul style="list-style-type: none"><li>• Business Case</li><li>• Capital Cost Estimate Report</li><li>• Operations, Maintenance and Rehabilitation Base Cost Estimate Report</li><li>• Procurement Options Report</li><li>• Risk Report</li><li>• RFQ Issued</li><li>• Proponent Shortlist</li><li>• RFP Issued (including draft Concession Agreement)</li></ul>

## December 2016 Highlights

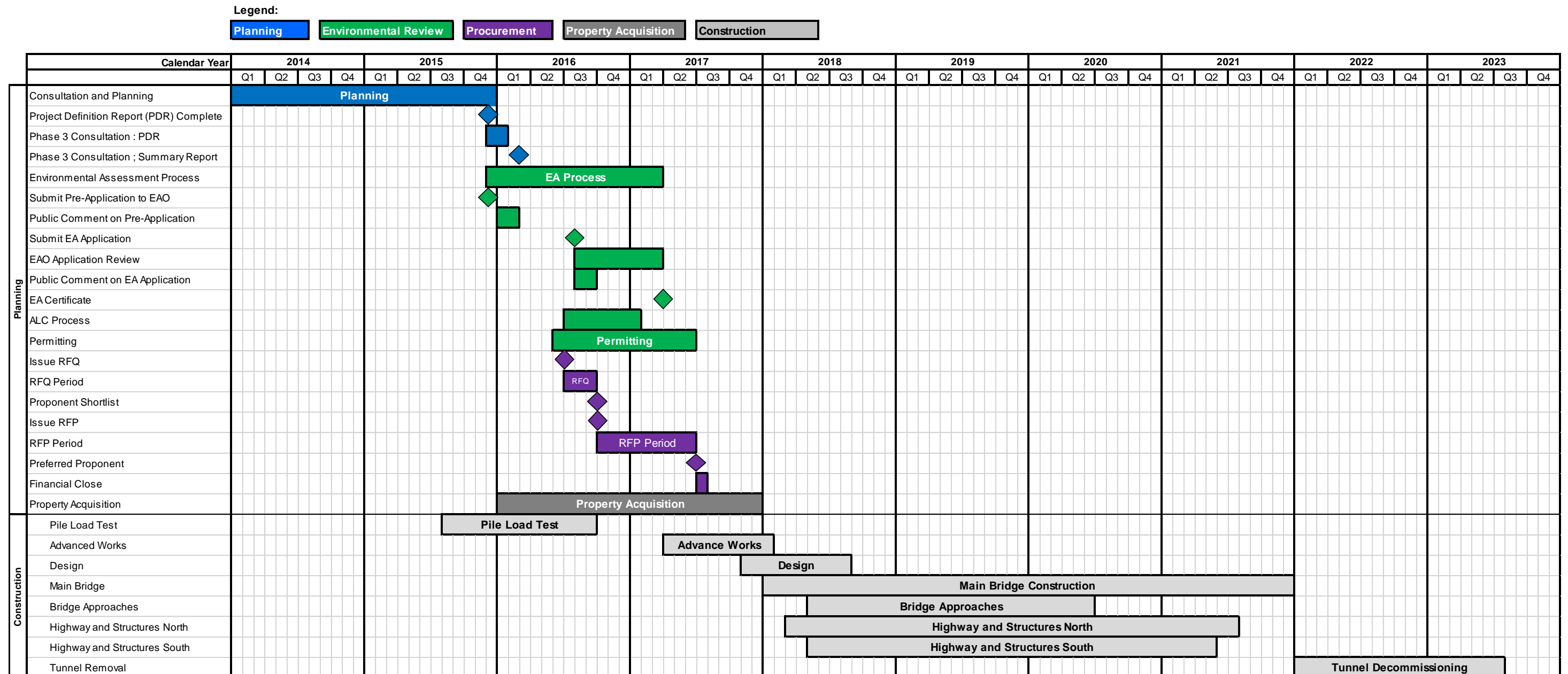
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<b>Environment</b>	<ul style="list-style-type: none"><li>• Submitted permit application to the Ministry of Forests Lands and Natural Resources.</li><li>• Submitted permit application to the Department of Fisheries and Oceans.</li></ul>
<b>Procurement</b>	<ul style="list-style-type: none"><li>• Conducted topic meetings with Proponents.</li><li>• Issued RFP addenda to Proponents, including amendments to the Instructions to Proponents and second draft of Concession Agreement.</li></ul>

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## 2. 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.





### 3. PROJECT MANAGEMENT

#### Safety

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

#### Quality

<b>Objectives:</b>	<ul style="list-style-type: none"><li>• Ensure design services and construction works delivered to the Province are implemented within a quality standard consistent with Ministry standards and ISO 9001.</li></ul>
<b>Accomplished in month:</b>	<ul style="list-style-type: none"><li>• Provided Quality Management input to draft Project Agreement and Advance Works contracts.</li><li>• Completed internal audit on Environmental Management processes.</li></ul> <p>For the Pile Load Test:</p> <ul style="list-style-type: none"><li>• Reviewed Contractor's final audit records for Project close-out.</li></ul>
<b>Key activities for next 3 months:</b>	<ul style="list-style-type: none"><li>• Continue quality management input and support to procurement activities.</li><li>• Conduct and report on internal audits.</li><li>• Develop and deliver Quality Management training to Project Team.</li></ul>

## Project Controls

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

## 4. PROJECT DEVELOPMENT

### Stakeholders

<b>Scope:</b>	<ul style="list-style-type: none"><li>• Management of phased and ongoing public and stakeholder consultation, community relations and Project communications.</li></ul>
<b>Accomplished in month:</b>	<ul style="list-style-type: none"><li>• Continued development of interchange renderings to support Community Relations activities.</li></ul> <p><i>Meetings were held with the following stakeholder groups:</i></p> <p>Government</p> <ul style="list-style-type: none"><li>• City of Richmond</li><li>• Corporation of Delta</li><li>• BC Environmental Assessment Office</li><li>• Ministry of Forests, Lands and Natural Resources</li></ul> <p>Other</p> <ul style="list-style-type: none"><li>• BC Hydro</li><li>• BC Ferries</li><li>• Community groups</li></ul>
<b>Key activities for next 3 months:</b>	<ul style="list-style-type: none"><li>• Continued stakeholder engagement.</li><li>• Business and community group presentations on request.</li></ul>

## Environment

<b>Scope:</b>	<ul style="list-style-type: none"> <li>• Development of the Environmental Assessment (EA) Application as well as management of the Project monitoring and permitting process.</li> </ul>
<b>Accomplished in month:</b>	<ul style="list-style-type: none"> <li>• Continued consultation with stakeholders on the EA Application, permits and the Environmental Management Plan.</li> <li>• Submitted permit application to the Ministry of Forests Lands and Natural Resources (MFLNR).</li> <li>• Submitted permit application to the Department of Fisheries and Oceans (DFO).</li> <li>• Completed draft of Environmental Management Plan and submitted to EAO and agencies for review.</li> </ul>
<b>Key activities for next 3 months:</b>	<ul style="list-style-type: none"> <li>• Continue consultation with stakeholders on the EA Application, permits and the Environmental Management Plan.</li> <li>• Finalize Environmental Management Plan following consultation</li> </ul>

## Agriculture

<b>Scope:</b>	<ul style="list-style-type: none"> <li>• Identify and work with farmers and other agricultural stakeholders potentially affected by the Project.</li> <li>• Prepare and submit the application to the Agricultural Land Commission (ALC).</li> <li>• Continue to revise detailed Project design and prepare appropriate plans to mitigate agricultural effects to enhance agricultural land use.</li> </ul>
<b>Accomplished in month:</b>	<ul style="list-style-type: none"> <li>• Responded to ALC staff and other stakeholder queries regarding the ALC application.</li> </ul>
<b>Key activities for next 3 months:</b>	<ul style="list-style-type: none"> <li>• Meet with ALR property owners and operators to review project status and to work on mitigation and compensation strategies.</li> <li>• Prepare plans for disposition of right-of-way to be made available for agriculture, including reclamation plans for existing highway right-of-way parcels to be made available for agriculture.</li> <li>• Review progress on meeting application approval conditions with the ALC.</li> </ul>

## Aboriginal Groups

<b>Scope:</b>	<ul style="list-style-type: none"><li>• Consultation and engagement with Aboriginal Groups.</li></ul>
<b>Accomplished in month:</b>	<ul style="list-style-type: none"><li>• Conducted permit application and/or Project update meetings with six Aboriginal Groups.</li><li>• Continued to engage Aboriginal Groups with respect to their review and comment on the Environmental Assessment Application and prepared formal responses to comments.</li><li>• Shared draft Aboriginal Consultation Report 3 with Aboriginal Groups and commenced revisions based on feedback received to date.</li><li>• Revised Aboriginal Consultation Report 3 based on feedback from Aboriginal Groups.</li><li>• Prepared consultation packages for two Water Sustainability Act Permits, draft Environmental Management Plan and DFO authorization, and shared with Aboriginal Groups for review and comment.</li></ul>
<b>Key activities for next 3 months:</b>	<ul style="list-style-type: none"><li>• Continue consultation with Aboriginal Groups including meetings, community meetings and other activities in accordance with each group's Aboriginal Consultation Plan.</li><li>• Continue issues resolution and identification of Project-related opportunities for Aboriginal Groups.</li><li>• Finalize Aboriginal Consultation Report 3 and share with Aboriginal groups.</li><li>• Continue consultation on permit applications and draft Environmental Management Plan.</li><li>• Consult Aboriginal Groups on construction-related opportunities.</li></ul>

## Procurement

<b>Scope:</b>	<ul style="list-style-type: none"><li>• Development of a business case, Request for Qualifications (RFQ), Request for Proposals (RFP) and subsequent evaluation of submissions.</li></ul>
<b>Accomplished in month:</b>	<ul style="list-style-type: none"><li>• Ongoing updates to RFP data room materials.</li><li>• Ongoing development of responses to Requests for Information from Proponents.</li><li>• Conducted topic meetings with Proponents.</li><li>• Issued RFP addenda to Proponents, including amendments to the Instructions to Proponents and second draft of Concession Agreement.</li></ul>
<b>Key activities for next 3 months:</b>	<ul style="list-style-type: none"><li>• Continue the competitive selection process with the 3 shortlisted Proponents, including topic meetings and workshops.</li><li>• Ongoing development of responses to Requests for Information from Proponents.</li><li>• Ongoing updates to data room materials.</li><li>• Develop and issue addenda to the Instructions to Proponents and draft Concession Agreement.</li><li>• Prepare for evaluation of technical and financial proposal submissions from Proponents.</li></ul>

## Engineering

<b>Scope:</b>	<ul style="list-style-type: none"> <li>• Development of a reference concept, technical requirements/specifications and related technical studies for the Project.</li> <li>• Travel demand forecasting, traffic operations modelling, traffic data collection, and other related services in support of the Project.</li> </ul>
<b>Accomplished in month:</b>	<ul style="list-style-type: none"> <li>• Provided technical support to procurement process including responding to questions from Proponents and preparation for topic meetings and workshops.</li> <li>• Provided technical support to Environmental Assessment process.</li> <li>• Conducted ongoing geotechnical investigations.</li> <li>• Ongoing development of traffic data collection report.</li> <li>• Finalized traffic performance model and uploaded to data room.</li> <li>• Ongoing development of site preparation tender packages.</li> </ul>
<b>Key activities for next 3 months:</b>	<ul style="list-style-type: none"> <li>• Ongoing support to procurement process including technical meetings with Proponents and responding to questions from Proponents.</li> <li>• Ongoing support to Environmental Assessment process.</li> <li>• Conduct ongoing geotechnical investigations.</li> <li>• Finalize site preparation tender packages and tender work.</li> </ul>

## Construction

<b>Scope:</b>	<ul style="list-style-type: none"> <li>• The overall planning, coordination and implementation of construction activities.</li> </ul>
<b>Accomplished in month:</b>	<ul style="list-style-type: none"> <li>• Ongoing development of project closeout report for Pile Load Test.</li> <li>• Ongoing development of site preparation tender packages.</li> </ul>
<b>Key activities for next 3 months:</b>	<ul style="list-style-type: none"> <li>• Complete project closeout report for Pile Load Test.</li> <li>• Finalize site preparation tender packages and tender work.</li> </ul>

## Property

<b>Scope:</b>	<ul style="list-style-type: none"><li>• Review of properties along the Project corridor and development of a property acquisition plan.</li><li>• The acquisition of land required to deliver the Project.</li><li>• A total of 36 properties have been identified for acquisition, the majority of which are partial acquisitions.</li></ul>
<b>Accomplished in month:</b>	<ul style="list-style-type: none"><li>• Received one draft and one final appraisal and began preparation of offers to owners.</li><li>• Finalized right-of-way required in select areas.</li><li>• Finalized one agreement with property owner.</li><li>• Completed legal surveys on 8 properties.</li></ul>
<b>Key activities for next 3 months:</b>	<ul style="list-style-type: none"><li>• Continue property negotiations with owners to secure final agreements or agreements in principle.</li><li>• Meet with affected stakeholders.</li><li>• Finalize property acquisition plans on remaining properties.</li><li>• Requisition appraisal reports on select properties.</li><li>• Conduct legal surveys on select properties.</li></ul>



## **5. COST REPORT**

- The forecast for the current fiscal year is \$24.2M; to date, \$16.0M has been spent (this includes actuals plus commitments).
- The approved capital project budget is \$3.5 billion. The detailed cost estimate will be refined after completion of the Environmental Assessment review period and procurement.

## **6. 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.