

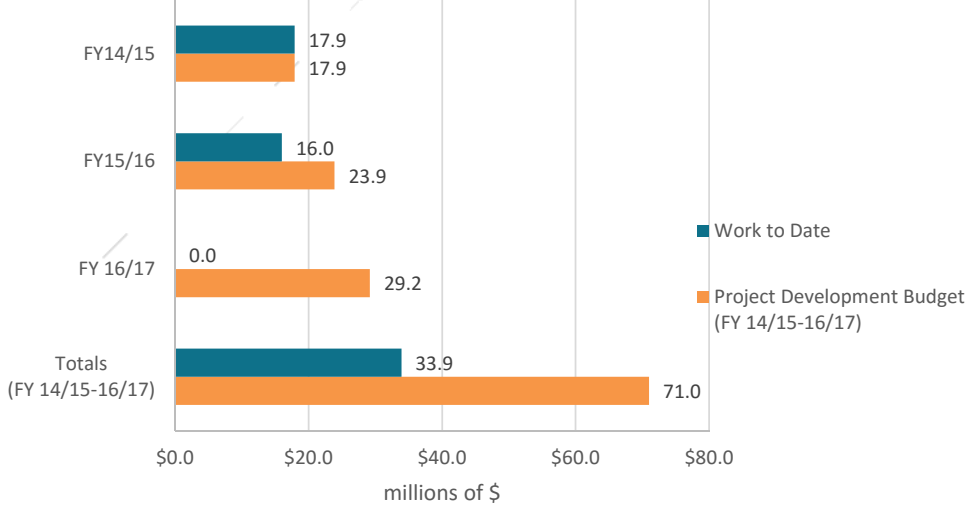



GEORGE MASSEY TUNNEL REPLACEMENT PROJECT

MONTHLY STATUS REPORT FEBRUARY 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 Project Definition Report was released on December 16, 2015. The project scope will be refined following Project Definition Report consultation, technical studies and the environmental review. 																
Schedule																
<ul style="list-style-type: none"> Consultation: Public and stakeholder consultation on the Project Definition Report has been completed. Environment: Consultation on the Project Description component of the Environmental Assessment (EA) Application is ongoing; the public comment period ended in February. Development of the EA Application will continue in preparation for a May/June 2016 submission. Technical Studies: Engineering, geotechnical and other technical studies are underway to further inform the reference concept which will support the procurement process. Procurement: A business case has been completed. Procurement is expected to begin in spring 2016. All key Project activities are proceeding on schedule. 																
Cost																
<ul style="list-style-type: none"> The Project is on budget at February 29, 2016.  <table border="1" data-bbox="337 1226 1299 1730"> <caption>Cost Data (millions of \$)</caption> <thead> <tr> <th>Fiscal Year</th> <th>Work to Date</th> <th>Project Development Budget (FY 14/15-16/17)</th> </tr> </thead> <tbody> <tr> <td>FY14/15</td> <td>17.9</td> <td>17.9</td> </tr> <tr> <td>FY15/16</td> <td>16.0</td> <td>23.9</td> </tr> <tr> <td>FY 16/17</td> <td>0.0</td> <td>29.2</td> </tr> <tr> <td>Totals (FY 14/15-16/17)</td> <td>33.9</td> <td>71.0</td> </tr> </tbody> </table>	Fiscal Year	Work to Date	Project Development Budget (FY 14/15-16/17)	FY14/15	17.9	17.9	FY15/16	16.0	23.9	FY 16/17	0.0	29.2	Totals (FY 14/15-16/17)	33.9	71.0	
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* **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 and Phase 2 consultation, including summary reports • Phase 3 consultation
Environmental Review	<ul style="list-style-type: none"> • Submission of Environmental Assessment Pre-Application to the BC Environmental Assessment Office
Design/Engineering	<ul style="list-style-type: none"> • 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

February 2016 Highlights

Environment	<ul style="list-style-type: none"> • The public comment period for the Project Description and Key Areas of Study closed on February 16, 2016 • The draft Application Information Requirements (dAIR) was revised based on Technical Working Group (TWG) review comments
Construction	<p>For the upcoming Pile Load Test:</p> <ul style="list-style-type: none"> • Completed baseline monitoring and structure condition assessments

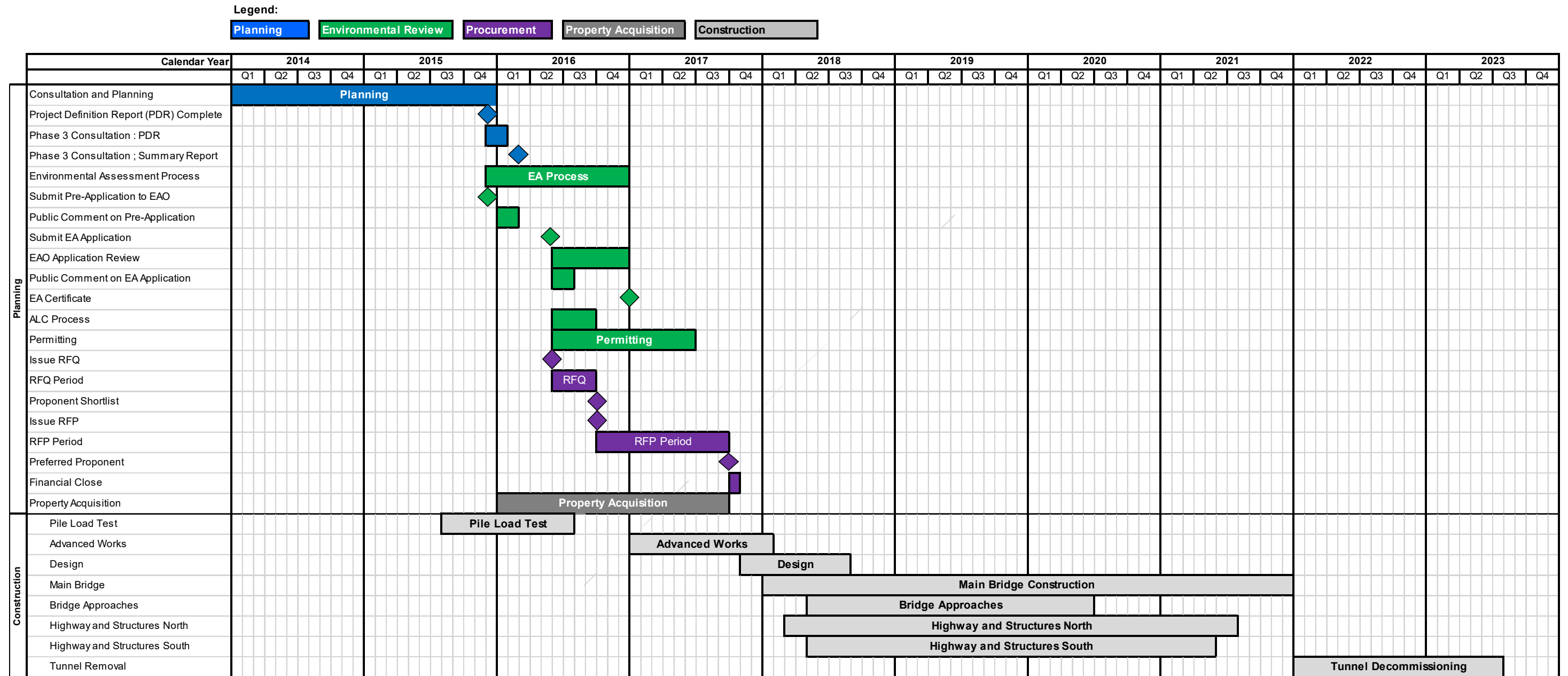
Report Structure

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"> • Annual budgets and actual cost by fiscal year
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 phase 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 presented 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.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Safety training will be provided on a continual basis to the project team and for new team members. • Safety audits / inspections on field operations. • Occupational Health and Safety committee meetings. • Office safety inspections. • Field safety audits for Pile Load Test project.

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:	<p>For the Pile Load Test:</p> <ul style="list-style-type: none"> • 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 and Construction Site Health, Safety and Environment Management. • Full-time site surveillance monitoring.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Continue quality management input and support to procurement activities as required. <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. • Carry out activity-specific Quality Management System and surveillance audits per audit schedule. • Continue full-time site surveillance monitoring.

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.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Conduct monthly project controls meetings with all discipline leads. • Review of annual work plans for the upcoming fiscal year. • Continued development of the project's performance measurement system.

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"> • Ongoing development of Phase 3 – Project Definition Report Consultation Summary Report. <p><i>Meetings were held with the following stakeholder groups:</i></p> <p>Agriculture</p> <ul style="list-style-type: none"> • Richmond Farmers' Institute <p>Business Association</p> <ul style="list-style-type: none"> • Delta Chamber of Commerce • Ladner Business Association <p>Government/Federal</p> <ul style="list-style-type: none"> • MPs <p>Government/Municipal</p> <ul style="list-style-type: none"> • City of Richmond • Corporation of Delta • Metro Vancouver • TransLink <p>Other</p> <ul style="list-style-type: none"> • Boundary Bay Airport • Vancouver Airport Authority • BC Hydro • First Responders
Key activities for next 3 months:	<ul style="list-style-type: none"> • Prepare Phase 3 – Project Definition Report Consultation Summary Report. • Conduct follow up with key stakeholders regarding the opportunity for feedback for the environmental assessment public comment period. • Continued stakeholder engagement and business and community group presentations.

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"> The public comment period for the Project Description and Key Areas of Study closed on February 16, 2016. Prepared responses for Technical Working Group comments on the draft Application Information Requirements (dAIR) document and public comments on the Project Description and Key Areas of Study. Revised the dAIR based on review comments and the EAO distributed the revised dAIR to the Technical Working Group for review and comment. Prepared for the second Technical Working Group meeting to be held on March 10th.
Key activities for next 3 months:	<ul style="list-style-type: none"> Finalize environmental baseline studies. The Technical Working Group will complete its review of the dAIR. Meet with the Technical Working Group on March 10th. The EA application will be finalized by spring 2016 and is expected to be submitted in May/June 2016. Conduct environmental audits on the Pile Load Test.

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).
Accomplished in month:	<ul style="list-style-type: none"> Met with the Richmond Farmers' Institute (RFI). Ongoing meetings with Agricultural Land Reserve (ALR) property owners and operators.
Key activities for next 3 months:	<ul style="list-style-type: none"> Follow-up meetings continue with farmers and stakeholders including the City of Richmond, the Corporation of Delta, the Ministry of Agriculture, the RFI and the Delta Farmers' Institute (DFI). Continued development of the application to the ALC for approval of works within ALR boundaries. Submission of the application to the ALC. Continuing liaison 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"> • Three meetings were held with Aboriginal Groups. • Draft environmental and other Project-related documents continue to be provided to Aboriginal Groups for review and comment. • Aboriginal Groups' traditional use studies and other project-related studies continue to be submitted for Project review.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Aboriginal Groups are actively engaged in the assessment process led by the Environmental Assessment Office. • Aboriginal Groups' consultation activities including meetings, open houses and site visits will continue. Ongoing consultation will focus on identification and resolution of Aboriginal Groups' project-related concerns.

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"> • Continued to refine the data room structure and populate with technical documents. • Prepared the draft RFQ for review including proposed submission requirements and evaluation criteria in coordination with best practices and frameworks from similar projects. • Ongoing development of the RFQ evaluation process including advancement of draft evaluation handbook. • Continued development of Concession Agreement with input from technical and legal teams.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Continue populating the data room. • Continue to develop the RFQ including finalizing submission requirements, evaluation criteria, evaluation handbook and the evaluation process. • Continue to work with the technical and external advisors to advance the draft RFP and draft Concession Agreement. • Continued management of the relationship review process

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"> • Ongoing refinement of reference concept and cost estimate. • Provided technical support on the Pile Load Test project. • Reviewed alternative transit stop arrangements. • Ongoing micro-simulation for the Highway 17A interchange. • Developed the design of structures for Highway 17A interchange. • Refined highway design north of Westminster Highway.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Reference concept and cost estimate to be further refined based on the results of the Project Definition Report consultation, technical studies and the environmental review. • Construction staging analysis and constructability assessment will continue. • Technical support for procurement will continue. • Additional seismic analysis related to the new bridge code will be conducted. • Additional drainage analysis will be conducted in Richmond. • Ongoing travel demand forecasting, traffic operations modelling and traffic data collection.

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.
Accomplished in month:	<ul style="list-style-type: none"> • Continued quality testing on steel pipe piles. • Completed preliminary review of load frame drawings. • Completed baseline monitoring and structure condition assessments.
Key activities for next 3 months:	<ul style="list-style-type: none"> • Proceed with installation of reaction piles. • Finalize load frame design. • Conduct the Pile Load Test; anticipated completion is late spring/summer 2016. • Conduct environmental, safety and quality audits on the Pile Load Test.

3.8 Property

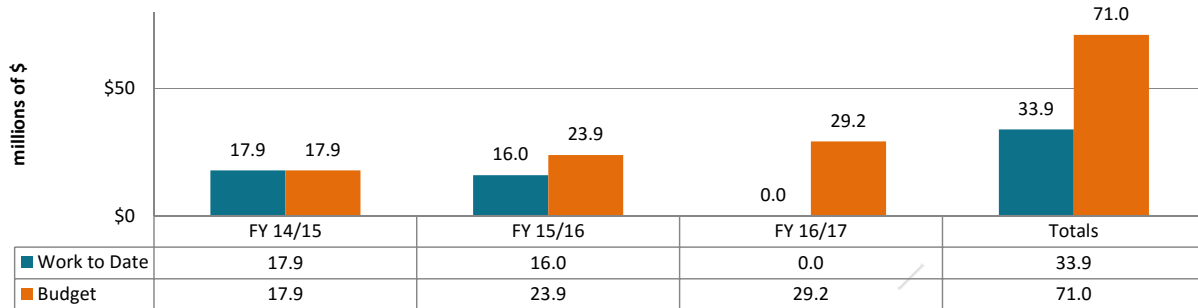
Scope:	<ul style="list-style-type: none">• Review of properties along the Project corridor and development of a property acquisition plan.• The acquisition of land required to deliver the Project.• A total of 34 properties have been identified for acquisition, the majority of which are partial acquisitions.
Accomplished in month:	<ul style="list-style-type: none">• Commissioned eight property appraisal reports.• Completed the purchase of one property.• Continued preliminary discussions and meetings with owners between Blundell Road and Steveston Highway.• Followed up on matters raised by property owners.
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.• Assist in the preparation of the ALR application, including onsite meetings with farmers.

4 COST REPORT

4.1 Project Cost Estimate

Capital costs are estimated to be \$3.5 billion. This estimate will be refined in response to scope changes resulting from public and stakeholder engagement and environmental review. The detailed cost estimate will be refined and finalized after the next phase of stakeholder and public engagement.

4.2 Planning Phase Financials



Notes:

- All expenditures to date have been at or below budget.
- No material variances have been experienced to date.

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.

The Ministry has conducted two independent traffic forecasting methodologies, and is currently considering other methodologies available.

