

EXECUTIVE SUMMARY

Introduction

The Department of Works, Services and Transportation (WST) is proposing to construct an approximate 250-km highway between Happy Valley-Goose Bay and Cartwright Junction. The Trans Labrador Highway (TLH) - Phase III will be the final section of an all-season ground transportation route that links central and southern Labrador, and connects, through western Labrador, with the provincial highway network in Québec and the highway system on the island of Newfoundland via a ferry connection in southern Labrador.

The TLH - Phase III project was registered under provincial environmental assessment legislation on April 3, 2002. Following both government and public review, the Minister of Environment determined on June 19, 2002 that an environmental impact statement (EIS) was required for the project. The TLH - Phase III is also subject to the *Canadian Environmental Assessment Act*. The Department of Fisheries and Oceans (DFO), the lead Responsible Authority for the federal assessment, determined that a comprehensive study would have to be conducted for the project. At the provincial level, the environmental assessment is also subject to a Memorandum of Understanding between Innu Nation and the Departments of Environment, and Labrador and Aboriginal Affairs. The TLH - Phase III project will also be subject to federal, provincial and municipal approvals, permits and authorizations prior to project initiation.

The Proposed Undertaking

The TLH - Phase III will be a two-lane, all-season, gravel surface highway constructed to a Rural Collector Undivided 80 km/hr design standard with a posted speed limit of 70 km/hr. Similar to the existing sections of the TLH, the highway will have a 9.5-m wide gravel surface and a right-of-way width of 40 m. The normal clearing width of 30 m will be reduced wherever possible, particularly around waterbodies. Grubbing width will be limited to 20 m rather than the standard 30 m. Intersections on the TLH - Phase III will occur at the junction with the Phase I portion of the TLH near Happy Valley-Goose Bay and the Phase II portion at Cartwright Junction.

Other features of the highway are watercourse crossing structures, borrow pits and major excavations, maintenance depots, signage and roadside pull-off locations. Most borrow pits established for the TLH - Phase III will be temporary. However, some may continue to be used during operation for road maintenance and winter ice control materials. The project will also involve other temporary features during construction, including temporary watercourse diversions, construction camps, laydown areas and waste disposal facilities.

The TLH - Phase III will cross 95 watercourses between Happy Valley-Goose Bay and Cartwright Junction. The majority of the crossings will be made using cylindrical culverts or corrugated steel pipe (CSP) ranging in size from 1,200 to 3,000 mm. Seventeen of the crossings will require pipe arch structures, while six of the watercourses (Churchill River, Traverspine River, Kenamu River, South Branch of the Eagle River, Otter Brook and Paradise River) will require bridges. The Churchill River will also require a partial causeway of 500 m to be built in conjunction with the bridge.

Construction of the TLH - Phase III will begin in 2003 and occur in several phases between 2003 and 2008. Pre-design work for the highway is currently underway and detailed design will be ongoing throughout construction. Procurement/tendering will be completed each year prior to the start of the construction season, which will extend from mid-May to the end of November. Construction will start at both ends of the route (i.e., at Happy Valley-Goose Bay and at Cartwright Junction on the Phase II portion of the TLH) in 2003, and will involve:

- site preparation, including surveying, right-of-way clearing, and grubbing and debris disposal (including disposing of organic soil, slash, grubbed material and wood fibre);
- transporting equipment, construction materials and related supplies to construction sites, including transporting, storing and handling hazardous materials, fuels, lubricants and explosives;
- establishing, operating and removing construction camps and laydown areas;
- blasting operations;
- excavating, including disposing of excess/waste rock, overburden and potential acid-generating rock;
- establishing and operating borrow pits, including identifying sources of borrow material;
- subgrade construction;
- installing watercourse crossing structures, and activities in and around watercourses; and
- site rehabilitation and environmental monitoring.

It is anticipated that the TLH - Phase III will be operated and maintained in perpetuity, and will require seasonal maintenance and periodic repair. Maintenance depots will be established for storage of highway maintenance equipment. Traffic volume is expected to be light, with most travel occurring between spring and fall. Appropriate signage, including directional and safety signs, and wildlife crossing signs, where necessary, will be posted.

WST's environmental management strategy includes application of the Precautionary Principle, incorporation of environmental protection measures, environmental protection planning, rehabilitation of disturbed areas and monitoring, as required. Construction and operation will comply with all applicable standards and regulations, environmental protection guidelines and regulations, and WST specifications. An environmental protection plan (EPP) will be prepared for each construction phase.

Issue Scoping and Stakeholder Consultation

An issue scoping process was undertaken to identify the VECs, both biophysical and socio-economic, for the TLH - Phase III environmental assessment and the issues and concerns to be considered in the assessment. The issue scoping process involved:

- reviewing the guidelines issued by the Department of Environment for the assessment;
- consulting with the Innu, including meetings with Innu Nation, a consultation program on route selection, information leaflets, public meeting, presentation to high school students, radio announcements and interviews with elders and others familiar with the area;
- holding public information sessions in Happy Valley-Goose Bay, North West River, Cartwright and Port Hope Simpson between October 7 and 10, 2002;

- consulting with outfitters, municipalities, and economic development and tourism organizations;
- reviewing public submissions received during the public review period for the project registration, including submissions from the Labrador Métis Nation and outfitters;
- reviewing results of field and archival research undertaken in relation to the assessment; and
- reviewing reports and documents related to work undertaken on Phases I and II of the TLH.

Issues and concerns identified regarding the project includes items relating to highway design and construction, highway operation and maintenance, biophysical environment, resource use and users, cultural and historic resources, tourism and recreation, Aboriginal way-of-life, culture and resource use, socio-economic environment, and aspects of environmental assessment and planning.

Through the issue scoping process, 16 Valued Environmental Components (VECs) were identified. The environmental assessment focuses on raptors, waterfowl and passerine birds, caribou, furbearers, fish and fish habitat, species at risk, geomorphology, water resources, wetlands, riparian habitat, historic resources, resource use and users, Akamiupishku/Mealy Mountains National Park, tourism and recreation, employment and business, and community life. These VECs were considered in the environmental effects assessment.

Environmental Effects Assessment

This EIS and Comprehensive Study fulfills the cooperative environmental assessment requirements of both the provincial and federal environmental assessment processes, and presents information about the project and results of the environmental assessment. Information is presented on each of the 16 VECs as collected from existing literature and database sources, interviews and field studies. A series of component studies were also prepared to support the environmental assessment by addressing gaps in information/data availability and quality. The studies covered raptors, waterfowl and passerine birds, caribou, fish and fish habitat, historic resources, resource use and users, tourism and recreation, and community life (employment and business). An additional study was also completed on Innu land and resource use. Armitage and Stopp (2003) provide detailed information on Innu land and resource use and discussion of potential environmental effects resulting from the project. As a result, Innu land and resource use was not considered in this environmental effects assessment.

The methods used for this environmental assessment are largely based on the work of Beanlands and Duinker (1983) and the Canadian Environmental Assessment Agency (1994;1999). The approved guidelines for the EIS and Comprehensive Study also shaped the strategy for the environmental assessment. Mitigation and monitoring/follow-up programs were identified. The assessment is conducted on a VEC-by-VEC basis, with each VEC being addressed in a single section. Specific steps for assessing each VEC are:

- determining assessment boundaries;
- describing the existing environment;
- identifying potential interactions between the project and VEC;
- identifying issues and concerns;
- presenting existing knowledge about the potential project-VEC interactions;
- identifying issues and concerns;
- identifying mitigation measures;

- assessing environmental effects;
- evaluating environmental effects significance;
- assessing and evaluating cumulative environmental effects; and
- identifying environmental monitoring and follow-up programs, if required.

Project-VEC interactions were analyzed to determine potential effects associated with project components and activities. The analysis for each VEC was carried out for each project phase and potential accidental and/or unplanned events. Potential accidental or unplanned events considered are: highway failure; fires; fuel or chemical spills; vehicle and equipment accidents; and vehicle failure. The analysis used qualitative and, where possible, quantitative information available from existing knowledge and appropriate analytical tools, as well as considering identified mitigation measures. To eliminate or reduce any predicted environmental effects, mitigative measures were incorporated into the project design. Residual environmental effects were predicted for VECs following the application of proposed mitigation measures.

The residual environmental effects of each project phase were evaluated as either significant, not significant or positive, based on the definitions of significance developed for each VEC. Specific definitions of significance are developed for each VEC. Where appropriate, significant and not significant ratings are further rated as major or moderate (significant) and minor or negligible (not significant). The significance of residual environmental effects, as determined for each of the VECs, is summarized in Table 1. For any adverse significant effects identified, likelihood, level of confidence and the sustainable use of renewable resources were also considered (as required by CEAA).

Table 1 Summary of Residual Environmental Effects Significance

VEC	Construction	Operation	Accidental Events
Raptors	Not Significant (Minor)	Not Significant (Minor)	Significant (Moderate)
Waterfowl and Passerine Birds	Not Significant (Minor) (Waterfowl and Passerines)	Not Significant (Minor) (Waterfowl and Passerines)	Not Significant (Minor) (Waterfowl) Significant (Moderate) (Passerines)
Caribou	Not Significant (Minor)	Not Significant (Minor)	Not Significant (Minor)
Furbearers	Not Significant (Minor)	Not Significant (Minor)	Significant (Moderate)
Fish and Fish Habitat	Not Significant (Minor)	Not Significant (Minor)	Significant (Moderate)
Species at Risk	Not Significant (Minor)	Not Significant (Minor)	Not Significant (Minor)
Geomorphology	Not Significant (Minor)	Not Significant (Minor)	Not Significant (Minor)
Water Resources	Not Significant (Minor)	Not Significant (Minor)	Significant (Moderate)
Wetlands	Not Significant	Not Significant	Not Significant

VEC	Construction	Operation	Accidental Events
Riparian Habitat	Not Significant	Not Significant	Not Significant
Historic Resources	Not Significant (Minor)	Not Significant (Minor)	Significant (Major)
Resource Use and Users (not including Innu land and resource use, see Armitage and Stopp (2003))	Not Significant (Minor)	Not Significant (Minor)	Not Significant to Significant (Minor to Major)
Mealy Mountains National Park	Not Significant	Not Significant	Not Significant
Tourism and Recreation	Not Significant (Negligible)	Not Significant (Minor)*	Not Significant to Significant (Negligible to Major)
Employment and Business	n/a	Not Significant (Negligible)	Not Significant (Minor)
Community Life	Not Significant (Minor)	Not Significant (Minor)	Not Significant (Minor)
* With appropriate enforcement and planning by relevant agencies, effects will not be significant.			

Although the proposed highway may result in adverse environmental effects, overall project construction and operation are not likely to result in significant adverse environmental effects on any of the VECs identified for the environmental assessment.

However, the potential residual effects of accidental events, depending on the nature, timing and duration of the events, may range from negligible (not significant) to major (significant).

Subsection 16(2)(d) of CEEA indicates that a comprehensive study must consider the capacity of renewable resources, that are likely to be significantly affected by a project, to meet the needs of the present and those of the future. As the proposed project is not likely to cause significant adverse environmental effects, there are not likely to be adverse effects on renewable resources.

Cumulative Environmental Effects

Cumulative environmental effects are the likely effects of the project on the environment combined with other past, existing and imminent projects and activities.

Determining cumulative environmental effects of the TLH - Phase III project considered the following existing, planned or potential projects and activities:

- existing sections of the Trans Labrador Highway (Phases I and II);
- other roads in central and southern Labrador;
- Akamiupishku/Mealy Mountains National Park;
- hydro development, including transmission lines;
- forestry activities;
- tourism and recreation activities, including outfitting operations;
- land and resource use activities, including consideration of increased access, by Innu and other residents of Labrador;

- Voisey's Bay mine/mill development;
- mineral exploration; and
- low-level military flight training.

As the likelihood, nature, location and timing of any actions induced by the TLH - Phase III are not known and control of most potential induced actions and related effects is beyond the responsibility of WST, assumptions were made for assessing cumulative environmental effects of induced actions, including:

- other projects and activities will be subject to appropriate planning and management;
- other projects and activities will be subject to the appropriate government requirements (e.g., legislation, regulations and guidelines) for protecting crown resources;
- relevant government agencies will have adequate resources to effectively carry out their mandate with respect to enforcement;
- adherence to existing regulatory requirements will not measurably change; and
- the TLH - Phase III will be designated a protected road and subject to the *Protected Road Zoning Regulations* administered by the Department of Municipal and Provincial Affairs.

No significant adverse cumulative environmental effects were identified for the TLH - Phase III project. While increased use of the area may result due to the improved access provided by the highway, the planning and control measures in place to govern other activities and development that may be carried out in the area act to reduce the potential for adverse cumulative effects.

Monitoring

WST will conduct environmental compliance monitoring throughout project construction to ensure that EPP provisions, permits, approvals and authorizations are followed. Prior to each construction season, a survey for active raptor nests (specifically osprey and bald eagle) will be completed within 800 m of the construction zone. Prior to the start of any construction on the TLH - Phase III, the following will be completed:

- breeding songbird surveys;
- study to further assess acid-generating rock potential;
- field investigations to assess geotechnical parameters of materials to be used for construction;
- study to further assess the potential for encountering rare plants; and
- historic resources survey.

WST will also support fish population studies to be completed during the construction phase. The protocols for these studies have been developed by the Inland Fish and Wildlife Division, who will take the lead in the survey. No environmental effects monitoring program is proposed for the TLH construction and operation.

The following tables identify where information is presented in the EIS/Comprehensive Study. A Table of Concordance (Table 2) with the EIS/Comprehensive Study guidelines for the TLH - Phase III indicates where specific items from the guidelines are addressed within the EIS/Comprehensive Study, while a Table of Concordance with Sections 16(1) and 16(2) of CEAA is provided as Table 3.

Table 2 Table of Concordance with the Trans Labrador Highway - Phase III Environmental Impact Statement and Comprehensive Study Guidelines

EIS Guideline Requirements	Where Addressed in the EIS
Executive Summary	
Executive Summary	Executive Summary
Table of Concordance	Executive Summary
Introduction	
Name of Undertaking	Section 1.1
Identification of Proponent	Section 1.2
Purpose of the Environmental Impact Statement	Section 1.4.1
The Proposed Undertaking	
The Prospective Site and Study Area	Section 2.1.1
Rationale/Need/Purpose of the Project	Section 2.1.2
Alternatives	Section 2.2
• Alternatives to the Project	Section 2.2.1
• Alternative Methods of Carrying out the Project (including outfitter's preferred route and routing criteria)	Section 2.2.2
Relationship to Legislation, Permitting, Regulatory Agencies and Policies	Sections 1.3 and 2.3
General Project Description (Project Features)	Section 2.4
Construction	Section 2.5
Operation and Maintenance	Section 2.6
Abandonment (Decommissioning)	Section 2.7
Environment	
Existing Environment	Chapter 3
• Meteorological Conditions	Section 3.1.2
• Atmospheric Conditions	Section 3.1.2
• Ambient Noise Levels	Section 3.1.1
• Hydrological Conditions, including hydrologic, hydraulic and design parameters	Section 3.3.2
• Hydrological Conditions, including hydraulic and water quality	Section 3.3.2
• Geography and Topography	Section 3.1.3
• Geology and Geomorphology	Sections 3.1.3.1 and 3.1.3.2
• Wetlands	Section 3.2.1.2
• Flora (including species at risk)	Section 3.2.1

EIS Guideline Requirements	Where Addressed in the EIS
• Fauna (including species at risk)	Sections 3.2.2 and 3.2.3
• Fish	Section 3.3.3
VEC-Specific Discussion of Existing Environment	Chapter 6
• Raptors	Section 6.1.3
• Caribou	Section 6.3.3
• Furbearers	Section 6.4.3
• Migratory Birds	Section 6.2.3
• Species at Risk (flora and fauna)	Section 6.6.3
• Geomorphology	Section 6.7.3
• Water Resources	Section 6.8.3
• Wetlands	Section 6.9.3
• Riparian Habitat	Section 6.10.3
• Historic Resources	Section 6.11.3
• Tourism and Recreation	Section 6.14.3
• Akamiuapishku/Mealy Mountains National Park	Section 6.13.3
• Resource Use and Users	Section 6.12.3
• Fish and Fish Habitat	Section 6.5.3
• Community Life, Employment and Business	Sections 6.15.3 and 6.16.3
Component Studies (report summaries)	Section 1.4.3
• Land and Resource Use	Section 1.4.3.5
• Migratory Birds (including but not limited to harlequin duck)	Section 1.4.3.1
• Raptors	Section 1.4.3.2
• Caribou	Section 1.4.3.3
• Fish and Fish Habitat	Section 1.4.3.4
• Historic Resources	Section 1.4.3.6
• Tourism and Recreation	Section 1.4.3.7
• Community Life, Employment and Business	Section 1.4.3.8
Data Gaps	Section 3.5
Future Environment without the Project	Section 3.6

EIS Guideline Requirements	Where Addressed in the EIS
Environmental Effects	
<p>The following must receive particular attention:</p> <ul style="list-style-type: none"> • land and resource use; • Akamiuapishku/Mealy Mountains National Park; • fish and fish habitat; • water resources; • tourism and recreation; and • community life, employment and business. 	<p>Section 6.12 Section 6.13 Section 6.5 Section 6.8 Section 6.14 Sections 6.15 and 6.16</p>
Scope of the Assessment	Appendix A (Terms of Reference)
Effects of the Environment on the Highway	Section 2.10
Capacity of Renewable Resources that are Likely to Significantly Affected by the Project	Section 7.5
Predicted Environmental Effects	Chapter 6
<ul style="list-style-type: none"> • Methodology 	<p>Sections 6.1.2, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, 6.10.2, 6.11.2, 6.12.2, 6.13.2, 6.14.2, 6.15.2, and 6.16.2</p>
<ul style="list-style-type: none"> • Spatial and Temporal Boundaries 	<p>Sections 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, and 6.16.1</p>
<ul style="list-style-type: none"> • Temporal Boundaries for Construction and Operation 	<p>Sections 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, 6.10.1, 6.11.1, 6.12.1, 6.13.1, 6.14.1, 6.15.1, and 6.16.1</p>
<ul style="list-style-type: none"> • Project-VEC Interaction Determination Strategy 	Section 4.4
<ul style="list-style-type: none"> • Cumulative Environmental Effects Methodology 	Section 5.5
<ul style="list-style-type: none"> • Environmental Assessment Methodology 	Section 5.4
<ul style="list-style-type: none"> • Definitions of Significance 	<p>Sections 6.1.9, 6.2.9, 6.3.9, 6.4.9, 6.5.9, 6.6.9, 6.7.9, 6.8.9, 6.9.9, 6.10.9, 6.11.9, 6.12.9, 6.13.9, 6.14.9, 6.15.9 and 6.16.9</p>
<ul style="list-style-type: none"> • Potential Interactions 	<p>Sections 6.1.4, 6.2.4, 6.3.4, 6.4.4, 6.5.4, 6.6.4, 6.7.4, 6.8.4, 6.9.4, 6.10.4, 6.11.4, 6.12.4, 6.13.4, 6.14.4, 6.15.4 and 6.16.4</p>
<ul style="list-style-type: none"> • Issues and Concerns 	<p>Sections 6.1.5, 6.2.5, 6.3.5, 6.4.5, 6.5.5, 6.6.5, 6.7.5, 6.8.5, 6.9.5, 6.10.5, 6.11.5, 6.12.5, 6.13.5, 6.14.5, 6.15.5 and 6.16.5</p>
<ul style="list-style-type: none"> • Existing Knowledge 	<p>Sections 6.1.6, 6.2.6, 6.3.6, 6.4.6, 6.5.6, 6.6.6, 6.7.6, 6.8.6, 6.9.6, 6.10.6, 6.11.6, 6.12.6, 6.13.6, 6.14.6, 6.15.6, and 6.16.6</p>
<ul style="list-style-type: none"> • Environmental Effects Analysis 	<p>Sections 6.1.8, 6.2.8, 6.3.8, 6.4.8, 6.5.8, 6.6.8, 6.7.8, 6.8.8, 6.9.8, 6.10.8, 6.11.8, 6.12.8, 6.13.8, 6.14.8, 6.15.8 and 6.16.8</p>
Sustainable Development	<p>Sections 6.1.9, 6.2.9, 6.3.9, 6.4.9, 6.5.9, 6.6.9, 6.7.9, 6.8.9, 6.9.9, 6.10.9, 6.11.9, 6.12.9, 6.13.9, 6.14.9, 6.15.9, 6.16.9 and 7.5</p>
Cumulative Environmental Effects	<p>Sections 6.1.10, 6.2.10, 6.3.10, 6.4.10, 6.5.10, 6.6.10, 6.7.10, 6.8.10, 6.9.10, 6.10.10, 6.11.10, 6.12.10, 6.13.10, 6.14.10, 6.15.10 and 6.16.10</p>

EIS Guideline Requirements	Where Addressed in the EIS
Environmental Protection	
Mitigation	Sections 6.1.7, 6.2.7, 6.3.7, 6.4.7, 6.5.7, 6.6.7, 6.7.7, 6.8.7, 6.9.7, 6.10.7, 6.11.7, 6.12.7, 6.13.7, 6.14.7, 6.15.7 and 6.16.7
Emergency Response/Contingency Plan	Section 2.10.5
Environmental Monitoring and Follow-Up Programs	Sections 2.10.8, 6.1.11, 6.2.11, 6.3.11, 6.4.11, 6.5.11, 6.6.11, 6.7.11, 6.8.11, 6.9.11, 6.10.11, 6.11.11, 6.12.11, 6.13.11, 6.14.11, 6.15.11 and 6.16.11
Rehabilitation	Section 2.10.7
Residual Effects	
Residual Effects	Sections 6.1.8, 6.2.8, 6.3.8, 6.4.8, 6.5.8, 6.6.8, 6.7.8, 6.8.8, 6.9.8, 6.10.8, 6.11.8, 6.12.8, 6.13.8, 6.14.8, 6.15.8 and 6.16.8
Effects Evaluation	Sections 6.1.9, 6.2.9, 6.3.9, 6.4.9, 6.5.9, 6.6.9, 6.7.9, 6.8.9, 6.9.9, 6.10.9, 6.11.9, 6.12.9, 6.13.9, 6.14.9, 6.15.9 and 6.16.9
Public Participation	
Public Participation Program	Section 4.2.4
Public Concerns	Section 4.2.4.4 and 4.3
Environmental Protection Plan	
Environmental Protection Plan Outline	Section 2.10.3
References Cited	
Personal Communications	Section 8.1
Literature Cited	Section 8.2
Personnel	
Brief Descriptions of Personnel Expertise and Qualifications	Appendix B
Studies Undertaken in Conjunction with EIS	
Resource Use and Users Component Study	Section 1.4.3.5; JW 2003a
Waterfowl and Passerine Birds Component Study	Section 1.4.3.1; JW and LMSS 2003b
Raptor Component Study	Section 1.4.3.2; JW and LMSS 2003a
Caribou Component Study	Section 1.4.3.3; Otto 2002a; 2002b
Fish and Fish Habitat Component Study	Section 1.4.3.4; JW and IELP 2003
Historic Resources Component Study	Section 1.4.3.6; IELP 2002
Tourism and Recreation Component Study	Section 1.4.3.7; JW 2003b
Community Life, Employment and Business Component Study	Section 1.4.3.8; JW 2003c
Innu Land and Resource Use Study	Section 1.4.3.10; Armitage and Stopp 2003

Table 3 Table of Concordance with CEAA Section 16(1) and 16(2) for the Trans Labrador Highway - Phase III Environmental Impact Statement and Comprehensive Study Guidelines

Section 16(1) and (2) Requirements	Where Addressed in the EIS
Executive Summary	Executive Summary
Introduction	
Project Overview	Section 1.1
Purpose of the Project	Section 2.1.2
Need for the Project	Section 2.1.2
Timing Considerations	Section 2.5.1
Regulatory, policy and planning context	Section 1.3
Project Description	
The Prospective Site and Study Area	Section 2.1.1
Definition of the Project	Section 1.1
Alternative Means of Carrying Out the Project	Section 2.2.2
Alternatives to the Project	Section 2.2.1
Scope of Assessment	
Scope of the Project	Appendix A (Terms of Reference); Section 4.1
Factors to be Considered	Appendix A (Terms of Reference); Section 4.1
Scope of Factors	Appendix A (Terms of Reference); Section 4.1
Public Participation	
Public Participation Program	Section 4.2.4
Methods and Results of the Program	Section 4.2.4
Description of the Existing Environment	
General Environmental Context	Chapter 3
VECs in the Study Area	Chapter 3
Relationships Between Environmental Components	Chapter 3
Sensitivity to Disturbance	Chapter 3
Environmental Effects	
Project Effects on VECs	Chapter 6
Effects of Environmental Changes on Human Health	Section 6.16
Effects of Environmental Changes on Socio-economic Conditions	Sections 6.12, 6.14, 6.15 and 6.16

Section 16(1) and (2) Requirements	Where Addressed in the EIS
Effects of Environmental Changes on Physical and Cultural Heritage	Sections 6.7, 6.8, 6.9, 6.10, 6.11 and 6.13
Effects of Environmental Changes on Current Use of Land Resources for Traditional Purposes by Aboriginal Persons	Section 6.12
Effects of Environmental Changes on Cumulative Environmental Effects	Sections 6.1.10, 6.2.10, 6.3.10, 6.4.10, 6.5.10, 6.6.10, 6.7.10, 6.8.10, 6.9.10, 6.10.10, 6.11.10, 6.12.10, 6.13.10, 6.14.10, 6.15.10 and 6.16.10
Effects of Environmental Changes on Sustainable Use of Renewable Resources	Sections 6.1.9, 6.2.9, 6.3.9, 6.4.9, 6.5.9, 6.6.9, 6.7.9, 6.8.9, 6.9.9, 6.10.9, 6.11.9, 6.12.9, 6.13.9, 6.14.9, 6.15.9 and 6.16.9
Effects of the Environment on the Project	Section 2.10
Effects of Possible Malfunctions or Accidents	Sections 6.1.8.3, 6.2.8.3, 6.3.8.3, 6.4.8.3, 6.5.8.3, 6.6.8.3, 6.7.8.3, 6.8.8.3, 6.9.8.3, 6.10.8.3, 6.11.8.3, 6.12.8.3, 6.13.8.3, 6.14.8.3, 6.15.8.3 and 6.16.8.3
Methods used to Predict Effects	Chapter 5
Mitigation Measures	
Description of Interventions, Structures, Preventative Measures and Corrective Actions to be Implemented	Sections 6.1.7, 6.2.7, 6.3.7, 6.4.7, 6.5.7, 6.6.7, 6.7.7, 6.8.7, 6.9.7, 6.10.7, 6.11.7, 6.12.7, 6.13.7, 6.14.7, 6.15.7 and 6.16.7
Expected Residual Effects after Mitigation is Applied	Sections 6.1.8, 6.2.8, 6.3.8, 6.4.8, 6.5.8, 6.6.8, 6.7.8, 6.8.8, 6.9.8, 6.10.8, 6.11.8, 6.12.8, 6.13.8, 6.14.8, 6.15.8 and 6.16.8
Determination of Significance	
Methods used to Determine Significance	Sections 6.1.9, 6.2.9, 6.3.9, 6.4.9, 6.5.9, 6.6.9, 6.7.9, 6.8.9, 6.9.9, 6.10.9, 6.11.9, 6.12.9, 6.13.9, 6.14.9, 6.15.9 and 6.16.9
Results of the Determination	Sections 6.1.9, 6.2.9, 6.3.9, 6.4.9, 6.5.9, 6.6.9, 6.7.9, 6.8.9, 6.9.9, 6.10.9, 6.11.9, 6.12.9, 6.13.9, 6.14.9, 6.15.9 and 6.16.9
Follow-up Program	
Objectives	Sections 6.1.11, 6.2.11, 6.3.11, 6.4.11, 6.5.11, 6.6.11, 6.7.11, 6.8.11, 6.9.11, 6.10.11, 6.11.11, 6.12.11, 6.13.11, 6.14.11, 6.15.11 and 6.16.11
Elements	Sections 6.1.11, 6.2.11, 6.3.11, 6.4.11, 6.5.11, 6.6.11, 6.7.11, 6.8.11, 6.9.11, 6.10.11, 6.11.11, 6.12.11, 6.13.11, 6.14.11, 6.15.11 and 6.16.11