VOLUME II

EIS Guidelines Referenced to the EIS Document

WHITES POINT QUARRY & MARINE TERMINAL

ENVIRONMENTAL IMPACT STATEMENT

BILCON OF NOVA SCOTIA

March 31, 2006

EIS GUIDELINES	EIS DOCUMENT
3.0 PRINCIPLES	***EIS Section***
3.1 Use and Respect for Traditional and Community Environmental Knowledge Aboriginals Acadians African-Canadians Loyalists Existing communities	**3.1** **9.3.3** **Ref. Vol. IV** **Tab 23** **9.3.22** **Ref. Vol. VI** **Tab 33**
3.2 Public Involvement **How the Proponent has:** Continually and promptly provided project information to the public, especially to communities potentially most affected Expediently updated this information to reflect any changes Explained the environmental assessment process and results in a clear and direct manner to make all issues comprehensible to as broad an audience as possible	**8.2**
3.3 Sustainable Development **The factors the Panel will take into consideration which are directly pertinent to assuring sustainability and measures of sustainable development** The extent to which the project affects biological diversity The capability of renewal resources that are likely to be significantly affected by the project to meet the needs of present and future generations The preservation of ecosystem integrity, including the capability of natural systems to maintain their structure and functions and to support biological diversity Respect for the right of future generations to the sustainable use of renewable resources	**3.3**

3.0 PRINCIPLES	*EIS Section*
3.3 Sustainable Development - *continued*	
The Panel will evaluate the project's contribution to sustainability on the basis of: The extent to which the Project makes a positive overall contribution toward the attainment of ecological and community sustainability, at local and regional levels The effort made to enhance positive effects of the project on the physical, biological and human environment, as well as as mitigation of adverse effects How the planning, design and operation of the project will strengthen local and regional capacities and opportunities to achieve a sustainable future How monitoring, management and reporting systems will attempt to ensure continuous progress toward sustainability Appropriate indicators to determine whether this progress is being maintained	**3.3**
3.4 The Ecosystem Approach	**3.4**
The Panel will expect evaluations of the potential impacts of the project on: The interconnections betweent he physical, biological and human environment The links between terristrial, coastal zone and oceanic process The interchanges between the subsurface, surface and atmosphere The repercussion of the potential local impacts at the regional, national and global level	
3.5 The Precautionary Approach	**3.5**
The precautionary principle requires: That the onus of proof shall lie with the Proponent to show that a proposed action will not lead to serious or irreverisble environmental damage, especially with respect to overall environmental function and integrity, considering system tolerance and resilience Verifiable scientific research and high quality information Access to information, public participation and open and transparent decision making	

3.0 PRINCIPLES	*EIS Section*
3.5 The Precautionary Approach - *continued*	
The Proponent shall indicate how the project conforms to the precautionary principle at least in the following ways:	**3.5**
In designing and operating the project, priority has been given to strategies that avoid the creation of adverse impacts	
Control of deleterious outputs or other potentially damaging activity goes beyond current emmission standards where warranted by the potential environmental effects	
Contingency plans explicitly address worst case scenarios and include risk assessments and evalusations of the degree of uncertainty	
Monitoring programs are designed to ensure rapid response and corrections where adverse effects are detected	
Liability and insurance regimes are established that hold the Proponent and its contractors accountable for adverse effects and associated damages, and their limitation and control, throughout the life of the project including its decomissioning and rehabilitation	

4.0 CONTEXT OF THE REVIEW	*EIS Section*
4.1 Use of existing information	
The panel encourages the proponent to make use of existing information related to the environment affected by the project in preparing the EIS.	**9.0** **9.1** **9.2** **9.3** **10.0**
When that information is used to meet some of the EIS requirements, include it directly in the EIS or identify its source through: Cross referencing Direct citation or any other means that permits immediate access.	 **8.2**
When relying on existing information, comment on its appropriateness and/or relevance over space and time with perceived limitations regarding the inferences or conclusions that have been drawn	**Ref. Vol. IV** **Tab 21** **Tab 22** **Tab 23**
The EIS must provide sufficient information to identify, describe and determine the significance of potential impacts on the environment that could arise from the project	
With the cooperation of appropriate parties, obtain and incorporate TK into the EIS	
4.2 EIS Format	
Present the EIS in the same general order as the guidelines	**4.2**
Describe The project The existing environment Potential impacts on the environment	 **7.3** **9.1** **9.2** **9.3**
Explain the approach to: Managing Monitoring Mitigating potential impacts	 **9.2, 11.0** **9.2, 11.4** **9.3, 11.5**
Since some monitoring and mitigation measures will apply to multiple environmental components and multiple potential effects, treat them collectively	
Provide a table that cross-references the EIS guidelines with the location of the information in the EIS.	**Vol. II EIS**

4.0 CONTEXT OF THE REVIEW	*EIS Section*
4.2 EIS Format *(continued)*	
Provide sufficient detail to help readers locate information easily.	**Vol. IV EIS Master Table of Contents**
Include: References to appendices Supporting documents Cited materials	
Reference rather than repeat information presented in other sections of the EIS	
Include: A key subject index Glossary of technical terms and acronyms Detailed table of contents	**Vol. IV EIS Glossary Acronyms**
Provide supporting documentation in separate volumes including Background studies Technical documents	**Appx. Vols. I-IV**
Reference supporting documentation by: Volume Section Page In the text of the main EIS	**Ref. Vols. I-VI** **Text EIS**
Include a commitments table in order to summarize planned mitigation measures and stated company intentions **This should be cross-referenced with environmental issues and/or potential impacts**	**Executive Summary Vol. IV EIS**
Provide wherever useful to clarify the text: Charts Tables Diagrams Maps Perspective drawings that clearly convey what the developed project site would look like at various stages during its lifetime	**Vol. IV EIS Table of Contents Map Vol. III**

4.0 CONTEXT OF THE REVIEW	*EIS Section*
4.2 EIS Format *(continued)*	
Produce maps using a limited number of common scales in order to permit inter-comparison and overlay of mapped features	**Vol. II EIS**
Provide the EIS in both print and digital format according to digital format specifications provided by the Panel	**Vol. I-VI, EIS**
4.3 Expectations	
The Panel expects the Proponent to observe the intent of the Guidelines and to identify and describe all significant environmental effects likely to arise from the Project, including situations not explicitly identified in these Guidelines Biological Physical Human	
If the Proponent omits from the EIS any matters required in these Guidelines, then that omission must be clearly indicated so that the Panel, the Public and other interested parties will have an opportunity to comment on and respond to this judgement	
If the Panel disagrees with the Proponent's judgement, it may require the Proponent to provide additional information	
The Panel expects the Proponent to make use of environmental assessment guidance materials published by federal and provincial departments (see appendix 3) and to respect the principles identified by the Panel as guiding its evaluation	
The Panel expects the Proponent to employ properly qualified and knowledgeable professionals to conduct the assessment according to the highest standards in each subject area and Document the credentials of experts in an appendix	**Appx. Vol. I**
The EIs must support by providing all relevant references, any Analyses Interpretation of results Conclusions	

5.0 EXECUTIVE SUMMARY	*EIS Section*
Provide a plain language Executive Summary with a complete and concise overview of the EIS: Background on the Proponent Brief Project overview Project setting - physical, biological and human environments Key findings of the assessment	**Vol. I EIS**
Present the information in a general manner focusing on main issues: Maps Tables Figures	**Map Vol. III**

6.0 INTRODUCTION TO THE EIS	*EIS Section*
Provide an introductory chapter giving a brief overview of the context for the ER: Identify Proponent Describe the setting Discuss the assessment process Describe the regulatory environment Highlight the study strategy and methodology	**6.0** **6.01** **6.02** **6.03** **6.04** **6.05**
6.1 The Proponent	
Identify the ownership arrangements for various portions of the project:	**6.1**
Clarify the links between: Bilcon of NS Global Quarry Products Nova Stone Exporters Inc. Clayton Block Company Bilcon of Delaware	
Provide summary information on the nature of the management structure and organizational accountability: Design Construction Operation Modification Implementation of environmental mitigation measures and environmental monitoring Management of potential adverse environmental effects	**6.1.1**
Provide details on relevant corporate experience (Proponent and related companies) with similar large-scale operations in Canada and other countries with similar regulatory and social policy regimes Describe experience in operating other quarry or industrial operations Related transportation systems (including marine terminals)	**6.1.2**
Provide a record of the environmental performance and capability conducting this type of project: Proponent Management of the quarry site to date Indicate the environmental record of key subcontractors (e.g.. Shipping companies)	**6.1.2**

6.0 INTRODUCTION TO THE EIS	*EIS Section*
6.2 Project Overview and Purpose **Summarize the Project including:** Purpose Location Components and phases Workforce and equipment Associated activities Schedule Cost	**6.2**
6.3 The Project Setting **Provide an overview of the following setting which may affect or be affected by the project:** Geographic Ecological Social Cultural **Explain the interrelationships between the people and their communities and the environment:** Physical Biological **Provide a list and map of communities affected by the Project:** Indicate distance between those communities and specific Project components Identify proposed shipping routes to take aggregate to market	**6.3** **Map Vol. III**
6.4 The Environmental Impact Assessment Process and Approvals **Identify the planning context for the environmental assessment of the Project:** Discuss Government policies Regulations Land Use Plans The requirement for the environmental assessment under the CEAA and NSEE	**6.4**

6.0 INTRODUCTION TO THE EIS	*EIS Section*
6.4 The Environmental Impact Assessment Process and Approvals - *continued* **Summarize the main steps in the environmental assessment of the Project:** The establishment of the Panel The main approvals required to undertake the Project Explain the environmental assessment review process Describe the role of the EIS in the overall environmental assessment process	**6.4**
6.5 Regulatory Environment **Describe the existing regulatory environment:** Federal Provincial Municipal	**6.5**
Include requirements that apply to all phases of the Project and associated infrastructure: All permitting, licensing and regulatory requirements Any municipal planning and bylaw requirements Describe the guidelines and standards that apply **List each regulatory approval required in a table with the following details:** Activity requiring approval and when required Regulatory agency Name of approval or permit Associated legislation	**6.5** **6.5**
6.6 International Agreements **Describe the implications of International agreements, designations or action plans that may influence the project or its environmental effects:** NAFTA Kyoto protocol World Biosphere Reserve Gulf of Maine	**6.6** **6.6.1** **6.6.2** **6.6.3** **6.6.6**

6.0 INTRODUCTION TO THE EIS	*EIS Section*
6.7 Study Strategy and Methodology	
Outline the main steps carried out in conducting the environmental assessment	
Describe:	
Approach	**4.1, 4.2**
Strategy	**6.7**
Methodology	**6.7**

7.0 PROJECT DESCRIPTION	*EIS Section*
Provide specific and sufficient detail to clarify the nature of the project: Identify its potential effects **The Project description should, when read in combination with the description of the existing environments, allow the Panel to understand the selection of VEC's:** Interactions that may be caused on them by the Project Potential Impacts Describe environmental protection and monitoring strategies later in the EIS	**7.0**
7.1 Need for, Purpose of, and Alternatives to the Project **From the perspective of the Proponent, describe the need for and purpose of the project:** Explain the problem or opportunity that the Project is intending to solve or satisfy Clearly identify the fundamental rationale Identify the main function Explain who will benefit	**7.1**
Describe alternatives to the Project Include the "do nothing" scenario Discuss the reasons for selecting the Project as the preferred alternative Discuss the reasons for rejecting other alternatives Describe criteria used for assessing each alternative Identify the major beneficial and adverse effects of the alternatives considered	**7.1**
7.2 Alternative Means of Carrying out the Project **Identify technically and economically feasible ways that the Project can be carried out:** Identify the potential impacts associated with them	**7.2**
Describe alternative means of carrying out the Project including alternatives regarding: Location Size of the quarry Use of existing marine infrastructure	**7.2**

7.0 PROJECT DESCRIPTION	*EIS Section*
7.2 Alternative Means of Carrying out the Project *(continued)* Quarrying methods Production rates Alternative means of transportation	**7.2**
Describe criteria used to determine the technical and economic feasibility of the alternatives Identify potential beneficial or adverse effects	**7.2**
Consider options for the location of and timing for the Project: Discuss how the environment influenced the choice of alternative means	**7.2**
Include an analysis of alternative means of carrying out the Project: In each phase In each component	**7.2**
Provide reasons for selecting the proposed alternative means including: Alternative sites of aggregate Extraction methods Recycling of materials Technologies for wastewater treatment Transportation modes and routes Ship loading methods Timing and scheduling Reclamation and decommissioning options Selection of mitigation measures Alternatives to marine transportation of the aggregate	**7.2**
Identify the reasons for selecting the proposed Project including justification for rejecting alternates:	**7.2**
Provide an analysis to determine feasibility of alternatives: Include any criteria and assumptions used Summarize and reference supporting studies used to establish criteria Discuss how traditional knowledge was considered Discuss how the public was involved in identifying and selecting alternative means	

7.0 PROJECT DESCRIPTION	*EIS Section*
7.3 The Project	
Summarize the Project: Character Location Timeline Scale	**7.3**
Describe all Project components and activities: On land In the marine environment	**7.3**
Describe by location and Project phase from site preparation to decommissioning and abandonment: Permanent facilities Temporary facilities	**7.5**
Address all phases and components in detail to predict potential environmental effects:	**8.2, 5.0**
Address public concerns about the project	**7.10**
Discuss the planned uses of the marine terminal and potential uses for the marine terminal other than for the Project during and after the decommissioning of the quarry	
Use to support the description:	**Map Vol. III**
Plans	”
Diagrams	”
Photographs	”
Maps	”
Elevations	
Preliminary designs	
The scale and detail of the graphics should facilitate the understanding of project components as they affect the following environments:	
Physical	
Biological	
Human	

7.0 PROJECT DESCRIPTION	*EIS Section*
7.3 The Project - *continued*	
Indicate boundaries of the Project in relation to:	
Features such as other rights of way (e.g. rail lines, roads, shipping lanes)	**Map Vol. III**
Existing infrastructure	
Land uses	
Waste disposal areas	
Transportation systems and routes	
Important environmental features	
Structures	
Wells	
Identify key design features including:	
Safety features	**7.3**
Efficiency measures	**11.0**
	7.8
Describe any relationship of the proposed Project to a series of separate projects or to a larger project and consider:	
Alternatives	
Cumulative environmental effects	**7.1, 7.2**
Mitigation options	**10.0**
	9.1, 9.2, 9.3, & 11.5
Discuss the relationship of the Project to applicable policy plans at the following levels:	
Local	
Regional	
Provincial	**9.3.9**
National	
Regional-scale management efforts	
Describe and identify the location of the major physical components of the quarry such as:	
Aggregate extraction and processing equipment	**Map Vol. III**
Loading facilities	**Figures**
Stockpiles	
Roadways	
Topsoil and overburden piles	**7.7**
Retention and settling ponds	**7.8**
Fuel and dangerous goods storage areas	
Administrative buildings	

7.0 PROJECT DESCRIPTION	*EIS Section*
7.3 The Project - *continued*	
Describe proposed distances from private property not owned or leased by the Proponent:	**Map Vol. III Map 2A**
Describe and identify the location of the major physical components related to the marine terminal: Conveyors Ship loaders Berthing dolphins Mooring buoys Fuelling facilities	**Map Vol. III Figures 1,2,3, &4**
Describe the properties and anticipated volumes of any product to be: Produced Transported Disposed of during the operation of the proposed facilities	**7.0 - 9.1.2** **7.5**
Describe relating to the Project: Phasing Schedules Hours of operation Management plans	**7.3** **Map Vol. III** **6.1.1** **11.0** **9.1.9** **9.1.6**
Include for the above Excavating Drilling Blasting Sediment Control Shipping (including ballast water control)	 **9.2.9** **9.2.10** **9.2.11** **9.2.12** **9.2.14**
7.4 Land Requirements	
Describe the land requirements and arrangements for the Project and provide: Maps showing dimensions Location of facility sites Indicate any land use designations that may apply	**7.4** **Map Vol. III**

7.0 PROJECT DESCRIPTION	*EIS Section*
7.4 Land Requirements- *continued*	
Provide evidence of clear legal title to all lands within the footprint of the project: Or evidence of agreement with those who hold clear legal title to develop the project on these lands	**7.4**
Identify the implications of the private property held by others and the public right-of-way within the quarry site:	**7.4**
Identify any existing right-of-ways or legally entitled access: Include access from the water	**7.4**
Clarify the status of claims of fishing or fishermen's privileges on properties within the quarry:	**7.4**
7.5 Schedule and Boundaries	
For each project phase, describe in detail: (including a mining plan) The scheduling and relative timing and duration of major activities The factors that influence scheduling or that could cause schedule changes	**7.5**
Describe the boundaries for Project facilities and activities and the rationale for their delineation: Spatial Temporal Their change over time	**8.4**
7.6 Cost and Workforce	
For each Project phase, describe: Capital costs Number of workers required by occupation and/or skill Education requirements by occupation or skill Training provided by employer An estimate of the proportion of local and regional workers	**7.6** **7.6** **9.3.23** **9.3.23** **9.3.23**

7.0 PROJECT DESCRIPTION	*EIS Section*
7.7 Construction Phase	
Identify and describe all physical works and activities carried out during the construction phase by:	**7.7**
Location	
Timing	
Frequency	
Duration	
Describe:	**7.7**
Types	
Amounts	
Schedule of materials	
Equipment	
Workers transported	
Describe work required for site preparation and construction of quarry:	
Associated activities	
Techniques	
Explain the following (and others as appropriate):	
Drilling and Blasting	**9.1.9**
Handling procedures	**Appx. 9**
Frequency and size	**9.1.3**
Pre-blast surveys	**9.1.9**
Weather condition considerations	
Site Clearing (topsoil and overburden storage areas by):	
Location	**7.5**
Dimensions	**Plan OP 1-8**
Protective measures	
Describe:	
Site access roads (locations, gradient)	**7.7**
Public roadways	**7.7**
Sewage treatment and waste management systems	**7.8**
Dangerous goods storage areas	**7.8**
Watercourse crossings and diversions	**9.1.6**
Wetland alteration	**9.1.6**

7.0 PROJECT DESCRIPTION	*EIS Section*
7.7 Construction Phase - *continued*	
Location and type of structures (e.g. offices and warehouses)	**7.7**
Utilities	**7.7**
Identify structures and facilities associated with:	
Erosion and sedimentation control	**9.1.6**
Visual effect management (e.g. landscaping, screening mounds and plantings)	**7.10, 9.3**
Techniques for noise abatement during construction (on land and through water)	**9.1.9, 9.1.10**
Describe the physical components required for constructing the marine terminal and associated infrastructure:	**7.7.2**
Techniques to be used	
Describe the following: (and others as appropriate)	
Site preparation activities including any land based activities associated with the installation of marine infrastructure	**7.7.1, 7.7.2**
Describe the following: (and others as appropriate)	
Requirements for any drilling, blasting or dredging - *including*:	
Handling and disposal procedures	**9.1.9**
Frequency and size	**Appx.9**
Pre-blast surveys	**9.1.3**
Weather condition considerations	**9.2.9**
Fishing-related activity considerations	**9.2.10**
Mechanisms for anchoring of pile support structures	**9.2.11**
Construction of concrete caps as dolphins	**9.2.12**
Any use of rock fill or armour stone	
All structures and utilities	
Describe proposed construction schedules:	**7.7**
Days of the week	
Times of day	
Seasonal schedules	
Anticipated commencement and completion dates	
Describe clean-up and restoration of work areas:	**7.10**
Strategies for reducing risks	
Identify criteria selected to measure construction and clean-up success	

7.0 PROJECT DESCRIPTION	*EIS Section*
7.8 Operation and Maintenance Phase	
Describe the physical components required for Project operation and maintenance	
Associated activities and techniques	**7.8**
Explain the lifespan of the Project:	
Annual average rates	**7.0**
Maximum production rates	
Describe all drilling and blasting:	**Appx. 9**
Frequency	
Size	
Blast geometry	
Pre-blast surveys	
Weather condition considerations	
Equipment used for:	
Crushing	**7.8**
Screening	
Sorting	
Washing facilities	
Identify the location and nature of materials stockpiled:	**7.8**
Describe all water management:	
Detailed water budget	**Ref. Vol. V Tab 30**
Effluents	
Treatment	
Water recycling opportunities	**9.1.3**
Management of acid-generating rock	**9.1.2**
Management of ammonia from blasting activities	**7.8**
Sewage and solid waste management	**11.2**
All dangerous goods use and waste dangerous goods management	
Describe the Project's requirements for land transportation:	
Modes	**9.3.8**
Routes	
Load size and frequency	
Describe any goods other than aggregate likely to be carried in transportation vehicles and vessels	

7.0 PROJECT DESCRIPTION	*EIS Section*
7.8 Operation and Maintenance Phase - *continued*	
Describe goods (other than aggregate) likely to be carried in transportation vehicles and vessels:	
Describe the Project's requirements for marine transportation: Routes Vessel size and type Frequency Duration of berthing Contingency plans for storms or extreme conditions	**9.3.8** **11.1, 11.2**
Explain: Ballast and bilge water management Cargo loading and unloading practices and precautions	**9.2.14** **7.8**
Indicate whether the marine terminal will be used for purposes other than those associated with the Project:	**7.8**
Describe structures and facilities associated with environmental controls for: Noise Dust Protection of views from both land and sea	**9.1.9, 10 &11** **9.1.8** **9.3.6**
Discuss anticipated repair and maintenance activities that could result in interactions with the environment: Replacement of Project components Maintenance dredging including disposal of dredged materials	**7.8**
7.9 Modification	
Describe the management approach to the physical works or activities described above: Conceptual plans Potential modifications (including expansion or discontinuation) Specify the conditions or potential risks which would necessitate modifications to the project	**7.9**

7.0 PROJECT DESCRIPTION	*EIS Section*
7.10 Decommissioning and Reclamation Phase	
Describe the proposed approach to decommissioning Project facilities including the marine terminal: Conceptual plans Timing Nature of site clean-up and rehabilitation activities Reclaiming the site for future use	**7.10**
Detail plans for progressive reclamation of the quarry site as operations advance: Removing equipment and structures on land Removing equipment and structures in the marine environment Reclaiming exploration boreholes and test pits Proposed future uses of the property following decommissioning	**7.10** **Plan OP 1-8**
Specify as they pertain to the Project Components: Ownership Transfer Control Fiscal and legal responsibility for ensuring the integrity of decommissioned facilities	**6.1 Commitment Table**

8.0 IMPACT ASSESSMENT METHODOLOGY	*EIS Section*
8.1 Methods	
Explain and justify the methods used to predict potential impacts of the Project:	**8.1**
On the VEC's	
On interactions among these components	
On any broader relationships with the physical, biological and human environements	**3.4**
Describe linkages between Project-related effects:	
How impacts on the biological environment could affect the human environment	**9.3**
Explain how knowledge was used to describe the existing environment, evaluate potential impacts and reach conclusions:	**9.1** **9.2** **9.3** **Impact Summary Table 2**
Scientific	
Engineering	
Traditional	
Other	
Identify and justify any assumptions made:	**See each VEC**
Indicate the degree of certainty in the impact predictions:	
Determination of significance	
Identify measures used	**8.0**
Document all models and studies so that to the extent possible:	
Analyses are transparent and reproducible	**Ref. Vol. I-VI**
Support analyses and conclusions with reference to appropriate literature	
Provide all relevant references	
Identify which studies included the assistance of communities:	
Who was involved	**Ref. Vol. IV Tab 21, 22, 23**
Specify &reference sources for any contributions based on traditional knowledge	
8.2 Public Participation	
Outline the engagement activities undertaken in respect of the environmental assessment:	**8.2**
Identify and report on key issues raised	
Describe how those issues have been addressed	

8.0 IMPACT ASSESSMENT METHODOLOGY	*EIS Section*
8.2 Public Participation - *continued*	
Describe methods used to identify, inform and solicit input to the assessment:	**8.2**
Outline the types of support provided by the Proponent to those involved in the public participation process: Communities Organizations Individuals	**8.2**
Identify and document the Writers of comments and input: Residents and organizations in affected communities Other organizations Resource users Government agencies	**5.0**
Document outcomes of public engagement: Additional information provided to those consulted Additional information provided by those consulted	**8.2**
Document the role of public engagement in identifying: VEC's Issues Impact prediction and mitigation Explain how the results of that engagement influenced the design of the Project	**9.0** **9.1** **9.2 / 9.3**
Describe the principles and methods of Project activities regarding: Obtaining information, obtaining input or otherwise engaging communities and groups Fisheries Tourism sectors Document, track and describe any issues raised by stakeholders that may	**8.2** **Ref Doc Vol IV Tabs 21, 22**
8.3 Selection of Valued Environmental Components	
For additional VEC's not identified at the public scoping sessions and the Panel describe methods by which VEC's were identified: The basis or justification for their selection Identify any indicators used in the assessment of impacts on VEC's and provide the basis for their selection	**8.3**

8.0 IMPACT ASSESSMENT METHODOLOGY	*EIS Section*
8.4 Boundaries	
8.4.1 Spatial Boundaries	
When determining appropriate spatial boundaries for the assessment of potential environmental effects, consider (but do not be limited to) the following criteria:	**8.4**
The physical extent (terrestrial and marine) of the proposed Project	**8.4.1**
Any offsite facilities or activities (such as shipping)	**8.4.1**
The extent of aquatic and terrestrial ecosystems and communities potentially affected by the Project	**8.4.1**
The extent of potential effects arising from noise, light and atmospheric emissions, liquid emissions	**9.1.9, 9.1.10, 9.1.11**
Land and ocean use for commercial, cultural, agricultural, recreational and aesthetic purposed by communities and Aboriginal peoples whose areas may be affected by the Project	**9.3.3**
The size, nature and location of past, present and reasonably foreseeable projects and activities that could interact with the items above	**10.0**
Define appropriate scales over which baseline descriptions and assessments of environmenta effects are presented: Ecosystem Local Regional National	**8.4.1**
The Proponent must provide sufficient detail to address the relevant environmental effects of the Project:	**EIS**
The EIS must contain a justification and rationale for all boundaries and scales chosen:	**8.4**
8.4.2 Temporal Boundaries	
When characterizing potential environmental effects of the Project consider: Historic and current baseline trends within the study region with sufficient completeness	**8.4.2**

8.0 IMPACT ASSESSMENT METHODOLOGY	*EIS Section*
8.4 Boundaries - *continued*	
to permit evaluation of the effects on VEC's	
Include consideration of past projects and activities conducted by the Proponent and/or others	**6.1**
Consider a time frame that encompasses the onset of Project-related pre-construction planning: Site clearing Construction Operation Maintenance and modifications	**EIS**
Consider a time frame that encompasses: The proposed duration of the Project Eventual decommissioning Reclamation Abandonment	**EIS**
When assessing cumulative environmental effects, consider Project impacts combinedwith other projects: Past Present Reasonable foreseeable future	**10.0**
8.5 Application of the Precautionary Principle	
Identify elements of the assessment where application of a precautionaryprinciple approach warrants: Specific methods Specific evaluations	**8.5**
Discuss whether a potentially serious or possibly irreversible Project-related adverse impact can be avoided: Where adverse impacts cannot be avoided, describe ways to reduce environmental risk Include a discussion of Project design and available technology with reference to effectiveness and cost	**9.1** **9.2** **9.3** **Mitigation Table** **11.5**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
8.5 Application of the Precautionary Principle - *continued*	
Provide baseline descriptions of these environments:	**9.0**
Biological	**9.1**
Human (socio-economic)	**9.2**
	9.3
Include elements that are valued by the public:	
Processes	
Interrelationships and interactions	”
Some measure of the inherent variability of elements and relationships	
Express the information over time scales appropriate to the identified VEC’s	
Evaluate the quality, reliability and applicability of data used:	
Identify any data gaps, insufficiencies and uncertainties	”
Those that will need to be remedied for monitoring purposes	
Provide detail to allow determination and assessment of effects that might be potentially caused by the Project:	”
Adverse	
Beneficial	
Baseline data developed from recent data should reflect its true state of continuous change;It should include:	
Processes and interactions such as those specified in these Guidelines	”
Legislated or regulated by government; identified in the scoping process *or*	
Judged by the Proponent to be important.	
Indicate to whom specific concerns might be important along with reasons why they are considered so	
Take an ecosystem approach, integrate perspectives on ecosystem health and integrity drawn from:	
Scientific knowledge	”
Traditional knowledge	
Identify and justify the various indicators chose to define the ecosystem including:	
Measure of economies and social health and integrity	”
Relate these measures to Project monitoring, follow-up and mitigation	
Define the geographic area represented by ecosystems:	
Relate it to the broader regional environment and economy	

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
8.5 Application of the Precautionary Principle - *continued*	
Relate it to Digby Neck to: Critical habitats Bird and fish stocks The presence of particular species, including species at risk The economic dependence of the region on the fisheries and tourism	**9.1, 9.2, 9.3**
Provide information as to the health and importance of social and economic issues which broadly encompass and affect people and communities in the study area: Historical Current Projected information	”
Use a comprehensive and holistic approach that acknowledges any distinctiveness in: Economy Life style Social traditions Quality of life Critical requirements for their maintenance and enhancement	”
Consider the local economy in relation to the physical and biological environments: Status Health Persistence Vulnerability Resilience	”
Provide context-sensitive information in sufficient detail To address a range of public interests and concerns To assist in recognition of the varying significance of the potential impacts on communities throughout the region	”

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.1 Existing Physical Environment	
9.1.1 Terrain, Geology and Soils	
Describe the regional/area setting with reference to: Topography Geomorphology Bedrock geology Surficial geology	**9.1.2** **9.1.4**
Provide specific information for the Project site for the bedrock geology that includes: Geologic structures (e.g.) faults, joint patterns and frequency Bedrock type (lithology) Stratigraphy	**9.1.2**
Provide up-to-date geological maps and available core sample descriptions that delineate the distribution of basalt suitable for quarrying vs. possible waste material: Provide information on the bedrock's chemical and petrologic character and its acid producing/ consuming potential	**9.1.2** **Ref. Vol. V Tab 29**
Describe and provide maps of the surficial materials: Soils Glacial regolith	**Map Vol. III**
Characterize these materials by: Chemistry Particle size distribution Permeability Porosity Erosion risks	**9.1.2**
For the Project site provide slope/aspect maps:	**Map Vol.III**
Identify landscape processes & areas of possible occurrence of: landslides Mudflows Creep Slumping Debris flow	**9.1.2**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.1 Existing Physical Environment - *continued*	
Identify fault zones and active seismic areas: Regional scale Local scale	**9.1.2**
Indicate any sites of special geoscientific interest within the Project area:	**9.1.2**
9.1.2 Physical Oceanography	
Describe local and regional oceanographic conditions using: Bathymetry (seabed topography) Shoreline character Intertidal zone dynamics	**9.1.7**
Provide information on the potential for sea ice formation: Distribution Movement	**9.1.7.1**
Assess the possible magnitude and frequency of extreme events involving the cumulative effects of: Storm surges Tides Meteorological conditions	**9.1.7.1**
9.1.2.1 Marine Sediment Quality and Quantity	
Describe marine sediments in the area affected by the Project, including an overview of the physical and biological processes related to : Sediment deposition Movement Quality	**9.1.7.1**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.1.2.1 Marine Sediment Quality and Quantity - *continued*	
Include: Sediment type Particle size Spatial distribution Sediment thickness Vertical profiles (cores) Sediment chemistry Organic content & quality such as heavy metals, organochlorines & nutrients Mechanisms and rates of sediment transport in relation to water depths	**9.1.7.1**
Develop a conceptual/analytical model that describes the Debris Cycle on and around the site: Erosion Transportation Deposition of sediment	**9.1.7.1**
In marine areas that could be disturbed by the Project including areas to be dredged or used for dredge spoil disposal, characterize sediments in relation to parameters identified in: The Canadian Sediment Quality Guidelines for the Protection of Aquatic Life The *Canadian Environmental Protection Act* 1999 and; its Disposal at Sea regulations	**9.1.2** **9.2.3** **9.2.4**
9.1.2.2 Ocean Currents and Tides	
Describe for the Project site and adjacent areas affected by Project components (such as shipping): The Average and maximum current speeds and directions Wind and swell characteristics Fetch Tidal characteristics (range, period, seasonal variation) Coupling between wind and currents	**9.1.7.1**
For the marine terminal site provide information on: Net current flow Tidal component flows Wind-driven responses on a seasonal basis	**9.1.7.1**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.1.2.3 Water Quality **Describe and quantify the water column characteristics and their spatial and temporal variability for the Project site and adjacent areas in terms of:** Temperature Salinity Suspended sediments Nutrient concentrations Optical transmissivity **Evaluate current levels and trends in any environmental contaminants:** Provide information on mixing and stratification of the water column: At different seasons Its impact on the above listed parameters	**9.2.2** **9.2.3** **9.2.4** **Ref. Vol. III** **Tab 15**
9.1.3 Terrestrial Water Quality and Quantity **Describe terrestrial water quality and quantity in:** Surface water Groundwater Wetlands Pay particular attention to the interactions of the hydrologic components:	**9.2.2**
9.1.3.1 Surface Water Provide a map delineating the watershed(s) and sub-watersheds within the quarry site and in the vicinity of the Project: **Within the watershed(s) identify and delineate all:** Recharge and discharge areas Ponds Lakes Wetlands	**Map Vol. III** **Map 14** **Map 15**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.1.3.1 Surface Water- *continued*	
Describe and quantify the hydrological conditions and water quantity and quality for all surface waters, including ephemeral streams, which may be potentially be affected by pit dewatering, water extraction, or diversion by:	**9.1.3**
Describing flow regimes	**9.2.2**
Seasonal flow patterns	**9.1.6**
Channel/bed/drainage basic morphology and stability	**9.1.2**
Sediment load-suspended and bedload	**9.1.6**
Providing estimates of normal (base and mean) flows and extreme (high and low) flows and water levels	**9.1.6**
Water chemistry and turbidity	
Identifying all freshwater streams whose groundwater supplies originate within the projected quarry area even though they may surface and flow outside the quarry site	**9.1.6**
In each watershed, identify locations of existing and planned water use in relation to proposed facilities:	
Domestic	
Municipal	**9.1.3**
Industrial	**9.1.5**
Camp	
For each area of water use that may be affected by the Project, identify:	
The quantity of use	**9.1.3**
Existing water quality	**7.8**
Seasonal or other temporal variation of water quality and use	
Identify existing sources of water quality impairment and their locations in relation to Project facilities:	**9.1.3**
	9.1.6
Include a consideration of relevant:	
Federal and provincial guidelines	
Criteria	**6.4**
Legislation applicable to water usage	

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.1.3.2 Groundwater	
Provide a map delineating the groundwater regime(s) within the vicinity of the Project area:	**9.1.3**
Identify and describe the hydrostratigraphic units in the region that could be affected by the Project: Depth and thickness of aquifers Their water quality Yield characteristics	**Map Vol.III** **Map 12** **Figure 6A, 6B**
Evaluate the current vulnerability of aquifers to contamination by: Atmospheric or surface water pollutants Saltwater intrusion Wells running dry through normal water withdrawal	**9.1.3**
Provide a pre-development well-water survey to establish baseline baseline well-water quality and quantity:	**9.1.3.3**
Include detail on all wells that might be impacted by quarry development: Type Depth Yield Number Location	**9.1.3.1**
Describe the characteristics of surface water and groundwater interactions: Physical features or mechanisms influencing recharge or discharge characteristics potentially affecting shallow and deep groundwater resources Groundwater contributions to stream base flows in the study area Different climatic and seasonal conditions	**9.1.3**
Synthesize the groundwater and surface water data to produce a conceptual/ analytical model of the hydrological cycle under and around the Project site:	**9.1.3**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.1.3.3 Wetlands	
Identify the location, size and class of any wetland that may be affected by the Project: On-site Downstream	**9.2.1.1** **Map Vol. III**
Evaluate the above including: Their wildlife potential (including wildlife at risk) Groundwater recharge role and potential Their role in surface flow regulation (storm water retention and flood control)	**9.2.1**
Describe potential roles of the wetlands water treatment and their potential importance forpaleo-ecological studies:	
9.1.4 Climate	
Describe the existing or baseline climate conditions and climatic variability and trends including: The location of recording stations and length of record for any meteorological data presented Prevailing climatic conditions Seasonal variations Predominant winds - including directions and velocity Temperature and precipitation (snowfall, snow depth, rain, fog) Occurrence and frequency of storm and extreme weather events Spatial and temporal boundaries for the description of climate Any current or historical climate-related extreme events that may affect the Project including shipping and frequency of occurrence	**9.1.1** **Appx. Vol. III** **Tab 14** **Appx. Vol. IV** **Tab 46** **Tab 48**
In support of the baseline description define the 'current' climate normal (baseline) period reliedon by describing: How it was determined The variability/trends within the 'current' climate normal period Within the period of instrumental record	**9.1.1.1**
Discuss the contribution of traditional knowledge to the understanding of climate conditions and variability:	**Ref. Vol. IV** **Tab 23**
Present the description of baseline conditions in a manner that reflects climatic variability and facilitates subsequent discussion of how changes in climate could change the Project orparticular Project components	**9.1.1.1**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.1.5 Air Quality	
Describe existing air quality in the area affected by the Project and define the spatial boundaries of the airshed(s) including a rationale for its delineation:	**9.1.8**
Provide:	
The location of recording stations	**Ref. Vol. V**
Length of record for and air quality data presented	**Tab 31**
For each airshed, identify:	
Current sources of emissions	
Seasonal variations	**Ref. Vol. V**
Climatic conditions affecting air quality (wind direction and velocity)	**Tab 31**
Assimilative capacity	
Characterize the existing air quality and precipitation chemistry in each airshed based onparameters identified in:	**Ref. Vol. V**
National	**Tab 31**
Provincial	
Or other relevant air quality standards and objectives	
Particularly emphasize information on substances that may be emitted due to the Project such as:	**Ref. Vol. V**
Ambient dust levels in areas where quarry or loading activities may contribute to increased dust levels and decreased visibility	**Tab 31**
9.1.6 Noise and Vibration	
Describe the existing ambient acoustical environment:	**9.1.9**
At the Project site	**9.1.10**
Offshore	**9.1.11**
In any other areas where Project activities could be expected to have an environmental affect	**Ref. Vol. V** **Tab 31**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.1.6 Noise and Vibration - *continued*	
Provide the spatial boundaries of: Existing noise and vibration levels Locations of recording stations Length of record for any acoustic or vibration data presented.	**Ref. Vol. V** **Tab 31** **9.1.9** **9.1.10** **9.1.11**
At these sites describe existing sources of noise and vibration including : Duration Types of variation Timing Frequency Levels	**9.1.9** **9.1.10** **9.1.11** **Ref. Vol. V** **Tab 31**
Consider the effects of different meteorogical conditions on noise propagation:	
Provide information on any existing of the following with respect to noise and vibration levels: Standards Guidelines Objectives	**Ref. Vol. V** **Tab 31** **9.1.9** **9.1.10** **9.1.11**
9.1.7 Light	
Describe existing ambient levels at the Project site and any other areas where Project activities could have an environmental effect on light levels:	**9.1.12** **Ref. Vol. V** **Tab 31**
Describe night-time illumination levels during different weather conditions and seasons:	
9.2 Existing Biological Environment	
9.2.1 Species at Risk	**9.2** **9.2.0.1**
Identify all aquatic and terrestrial listed species (*found on the SARA List of Wildlife Species at Risk*)	**9.2.5** **9.2.6** **9.2.7**
Their critical habitat (if identified in a recovery strategy or action plan) found within the regional study area	**9.2.8** **9.2.13**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.2.1 Species at Risk - *continued*	
Identify any additional species listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) found in the regional study area: Indicate when each species is expected to become listed under SARA	**9.2**
Consider all species listed as VEC's in the assessment : Endangered Threatened Rare Extirpated Of special concern	**9.2**
For all of the above mentioned species, provide information on: Seasonality Frequency Habitat (as defined in Section 2 of SARA) Critical habitat (if identified in a recovery strategy or action plan) Current ranking (e.g. endangered, threatened or species of special concern)	**9.2**
Useful resources pertaining to these topics include: Species specialists The primary scientific literature COSEWIC status reports Recovery strategies and action plans	**9.2** **9.2**
If a critical habitat has not yet been identified for a given species, this should be noted:	
Identify and consider all species listed under the NS Endangered Species Act as: Endangered Threatened Vulnerable	**9.2**
Identify species listed under the NS General Status of Wild Species including those designated as: Red Yellow	**9.2**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.2.1 Species at Risk - *continued*	
To satisfy provincial requirements, include the required information as stated in the *Standards and Process Applied to Provincial Environmental Impact Assessments: Wild Species Priorities, Inventory and Mitigation Standards for Reporting* prepared by the NSDNR	**9.2**
Conduct appropriate surveys to identify the presence of floral and faunal species, include anyspecies at risk that might occur: Near the Project site Or throughout other areas that may be affected by the Project	**9.2**
Conduct surveys during appropriate times of the year: Identify the time(s) each study was conducted	**9.2**
Identify all federal, provincial and municipal protected/conservation areas in the vicinity of the Project: National migratory bird sanctuaries and wildlife management areas Provincial wilderness parks Sites of ecological significance Municipal water supply areas	**9.2**
Identify marine and fresh water fish and invertebrates occurring in any identified or receiving watercourses contiguous to the quarry site that might be impacted by the Project and its associated shipping activities including:	**9.2**
Harvested and non-harvested finfish (pelagic and demersal) ,shellfish and crustaceans	
Seasonal and life cycle movements and sensitive periods	**9.2.3**
Habitat requirements for each life stage (e.g. spawning, rearing, nursing, feeding)	
Description of any seasonal variation in the location, abundance and activities of aquatic species	**9.2.4**
Local and regional abundance, distribution and use of habitat types, including aquatic and riparian vegetation	**9.2.5**
Migratory routes of appropriate species and the foods upon which they depend	

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.2.2 Fish, Invertebrates and Habitat - *continued*	
Sensitive, important or at-risk species and/or habitat types	**9.2.5** **9.2.6**
Baseline contaminant concentrations in harvested species that may change as a result of the Project	**Appx. Tab 31**
Any known issues with respect to the health of harvested species (e.g. parasites, disease, condition)	**9.2**
Harvest pressures (subsistence, sport fishing and commercial harvesting) by species, season and geographic area	**9.2**
A listing of existing non-native species	**9.2**
Potentially invasive species that might be carried in the ballast water of ships that will service the Project (Consult appropriate agencies for current lists)	**9.2**
For species of concern, also describe: Specific location Population status Limits Size Sensitivity Limiting factors	**9.2**
In the course of describing aquatic species and habitats, consult with local fishermen and fishermen's associations to document traditional knowledge:	**Ref. Vol. IV Tab 23**
9.2.3 Birds and Bird Habitat	
Describe existing birds and bird habitat within the areas affected by the Project, including: Permanent bird species Migratory On land Shoreline Offshore Occurrence	**9.2.1** **9.2.7**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.2.3 Birds and Bird Habitat - *continued*	
Abundance	
Distribution	**9.2.1**
Range	**9.2.7**
Seasonal movements	
Habitat requirements (breeding, moulting, staging, feeding)	
Sensitive periods	
Migratory routes that may exist within the quarry site, or in areas affected by the Project	
Habitat types including local and regional abundance and distribution	
Habitats or sites of special value or sensitivity including species use and timing	
For species of concern, describe:	
Specific location(s)	
Population status and trends (seasonal variability over multiple years)	
Limits and size	**9.2.7**
Critical habitat	
Sensitivity	
Limiting factors, status and trends	
9.2.4 Wildlife and Wildlife Habitat	
Describe existing wildlife resources within the areas affected by the Project with special attentionto the uniqueness of any organisms or:	**9.2.1**
The kind and degree of interaction that might exist with other regional ecosystems	
For any species of concern considered to be unique or integral to the regional ecosystem in relation to the Project facilities and activities, provide evidence of:	**9.2.1**
Abundance and distribution	
Seasonal movements	
Habitat requirements	
Sensitive periods	
A description of specific location(s)	
Population status and trends	
Limits and size	
Critical habitat	
Sensitivity and limiting factors	
Habitat types including local and regional abundance and distribution	
Habitat or sites of special value or sensitivity	
Species use and timing	
Migratory patterns, routes and timing	

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.2.5 Marine Mammals	
Identify existing marine mammal species and their habitat within the areas affected by the Project:	**9.2.4**
Actual species	**9.2.11**
Their abundance and distribution	**9.2.13**
Seasonal and life cycle movements	**9.2.8**
Sensitive periods	
Local and regional abundance	
Distribution and use of habitat types	
Habitat or sites of special value or sensitivity including species use and timing	
Known sensitive areas in terms of habitat type, species and timing of use	
Species of concern (e.g. Northern Right Whale)	
Describe:	
Distribution	
Population status	
Sensitivity to disturbance	
Factors that limit their distribution and population	
9.2.6 Vegetation	
Describe and map the existing vegetation on the Project site and in offshore waters:	**9.2.1**
Place the resulting information into a broader regional setting to provide a context for the Project, specific information required includes:	
Vegetation and vegetation assemblages	
Identification of species or assemblages that are rare, valued, protected or designated (e.g. vulnerable,threatened, endangered or extirpated	**9.2.1**
	Ref. Vol. I
For species of concern, describe :	**Tab 6**
Specific location	**Tab 7**
Population status	
Limits and size	
Sensitivity and limiting factors	
Baseline contaminant concentrations in harvested species or vegetation (e.g. berries) that may change as a result of the Project	
Potentially invasive species that might be carried in the ballast water of ships	
Current lists of these organisms are available from the National Botanical Services in Ottawa, ON	

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.3 Existing Human Environment	
9.3.1 Community Profile	
Describe the profile of the existing human environment in such a way that the potential impacts on the functioning and health of the human environment and the significance of the effects can be assessed including:	**9.3.7**
	9.3.9
Socio-economic conditions at the community level	**9.3.10**
Socio-economic conditions at the regional level (e.g. South West Nova Scotia)	**9.3.11**
	9.3.12
Employ social and economic indicators to help define the features of the human environment:	**9.3.13**
	9.3.14
Ensure these are relevant to:	**9.3.15**
The selected VEC's	**9.3.16**
Direct and indirect potential impacts	**9.3.17**
Affected communities	**9.3.18**
Concerns identified during public consultations	**9.3.19**
	9.3.20
Social and economic indicators should include:	**9.3.21**
Measures of demography	**9.3.22**
Employment	
Income	**Ref. Vol. IV**
Education and skills	**Tab 23**
Use of land (including water and shore lines)	
Resources	**Ref. Vol. VI**
Fishing	**Tab 34**
Tourism	
Quality of life	**Ref. Vol. VI**
Health	**Tab 32**
Where possible, provide social and economic information by:	
Age	
Occupation	
Community	
Describe the following affected by the Project:	
History	
Demography	
Economy	
Community characteristics	

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.3.1 Community Profile- *continued*	
Identify those likely to be affected:	**see previous page**
Residences	
Communities	
Workplaces	
	9.3.9
Identify the various perspectives and aspirations for the future within the region:	
Consider the relationship between the Project and the relevant community and regional:	**9.3.9**
Social and economic development strategies	
Policies	
Plans	
Obtain information on social and economic matters from sources that include:	**9.3.9**
Existing literature	**9.3.10**
Existing administrative and monitoring data held chiefly by responsible governments and agencies	**9.3.11**
	9.3.12
Social surveys	**9.2.13**
Traditional knowledge	**9.3.14**
	9.3.15
Ethical social research standards require that the last two can only be obtained with the consent and cooperation of local residents. Demonstrate that the Proponent has made best efforts either to obtain this information itself or to assist the appropriate Aboriginal or local organizations and persons to:	**Ref. Vol. VI Tab 32**
Provide it for the inclusion in the EIS	**Ref. Vol. IV**
Or to present to directly to the Panel during the course of the review	**Tab 23**
9.3.2 Demographics	
Provide a demographic profile(s) of the region affected by the Project include:	**9.3.7.1**
Population and population trends by community	
Population and population trends by region	
	9.3.7.1
Identify in/out migration by:	**Table CP-6**
Community	**Tble CP-7**
Region	
Factors that could contribute to migration patterns	

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.3.2 Demographics - *continued* **Detail the number and map the location of residences within 4km of the quarry site:**	**Map Vol.III Map 3A, 3B, 3C, 3D, 3E**
9.3.3 Economy **Describe the economies and their performance:** Local Regional **Indicate the contribution of various industries and economic activities to:** Local economy Regional economy **Indicate employment rates:** Part-time Full-time Seasonal Self employment **By:** Industry Occupation **Describe the current status of the main industries in the region:** The factors that affect them **Discuss current and projected land-based and marine-based enterprises and economic activities:** Tourism Outfitting Agriculture Commercial harvesting Hunting Recreation Renewable resources Non-renewable resources	**9.3.9** **9.3.10** **9.3.11** **9.3.12** **9.3.13** **9.3.14** **9.3.15** **9.3.16** **9.3.7** **Ref. Vol. VI Tab 32** **9.3.22**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.3.3 Economy **Discuss local and regional economic development goals and objectives as identified in:** Public consultations: Community economic development plans and strategies Regional economic development plans and strategies Territorial economic development plans and strategies	**9.3.9**
9.3.3.1 Fisheries and Harvesting **Identify the geographical locations of regional freshwater and marine fishing operations:** Historical Current **Identify the seasonal variations of fishing activities for:** Commercial Recreational Aboriginal uses Current use of the area or its potential use for aquaculture **Describe fishing and harvesting activities in the area:** Current Historic **Describe types and values of fisheries including:** Lobster Scallops Crab Herring Mackerel Gaspereau Periwinkles Marine plant harvesting **Identify any fishing grounds and boats operating within 2km of the marine terminal:**	**9.3.10** **9.3.11** **9.3.12** **9.3.13** **Ref. Vol. VI Tab 32**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.3.3.1 Fisheries and Harvesting- *continued* **Identify the potential for new fisheries or harvesting of resources (e.g. sea urchins, aquaculture)that may be affected by the Project:** **In the course of describing the fisheries and harvesting, consult with the following to document Traditional Knowledge:** Local fishermen Fishermen's associations	**Ref. Vol. IV Tab 23**
9.3.3.2 Tourism and Recreation **Discuss the location, level, and value of existing and planned tourism and recreational activities for the region that may be affected by the Project:** Hunting Fishing Hiking Bird watching Sea kayaking Whale watching Associated businesses **Identify the contribution of tourism to the regional economy:**	**9.3.14** **9.3.16** **9.3.14** **Ref. Vol. VI Tab 32**
9.3.4 Education, Training and Skills **Describe the education, skills and training levels that may be relevant to or affected by the Project:** **Identify programs available within the region that may be appropriate to workers employed by the Project:** Education Training Certification programs **Describe the timing and duration of education and skills development programs that would be required for Project-related employment:**	**9.3.23**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.3.5 Land Use and Value	
Identify the history of land use(s) of the site:	**9.3.4**
Past	**9.3.15**
Current	
	9.1.16
Describe the land uses within the Project site and in other areas that may be affected by theProject development:	
Planned	
Existing	
	9.1.3
Identify and describe existing land based infrastructure likely to be affected by the Project:	
Wells	
Waste management areas	
	9.1.16
Identify any traditional activity areas or trails that may be affected by the Project:	
Describe land use and shoreline use patterns in the region affected by the Project:	
Historic	**9.1**
Current	**9.2**
Protected areas	**9.3**
Special harvesting sites	
Transportation corridors	
Recreational areas	
Ecologically important areas	
Critical wildlife habitats and movement areas	
	9.3.1
Identify:	**9.3.2**
Valued locations and their attributes	**9.3.5**
Lands and features of special interest or value, and their attributes	**9.3.15**
	Appx. 35
Describe property values in the area to be affected by the Project:	

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.3.5.1 Aboriginal Land and Resource Use	
Identify the lands and resources in the area affected by the Project of specific value to Aboriginal and current lands and resources for traditional purposes: Social Economic Cultural Spiritual	**9.3.3**
Uses may include: Camping Travel on traditional routes Hunting Fishing Trapping Planting Harvesting Collecting	
9.3.6 Heritage Resources	
Identify and describe features of importance in terrestrial and marine areas associated with the project: Historical Archaeological Paleontological Architectural Cultural	**9.3.1** **9.3.2** **Ref. Vol. VI** **Tab 33** **Tab 35** **Ref. Vol. III** **Tab 14**
Give particular attention to these cultural and historical resources: Aboriginal African-Canadian Acadian Traditional	**9.3.2** **9.3.4**
Evaluate: Culturally important sites Burial sites Sites with heritage resource potential that may be affected by the Project	**Ref. Vol. VI** **Tab 33** **Tab 35** **Ref. Doc. III** **Tab 14**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.3.7 Human Health and Community Wellness **Assess the health and well-being of residents of the areas affected by the Project:** Physical Mental Social **Employ appropriate qualitative and quantitative indicators regarding elements of health (such as respiratory health) that may be affected by the project to create baseline data:** **Address issues of potential concern identified during Scoping sessions:** **Where data on people in the region allow, provide baseline data on the prevalence of contaminants expected to be produced by the Project that might impact human health**	**see previous page** **9.3.17** **9.3.18** **9.3.19** **9.3.20** **9.3.21** **Ref. Vol. VI Tab 34** **Ref. Vol. IV Concordance Table 5.0** **9.3.19** **9.3.20**
9.3.8 Socio-Cultural Patterns **Describe socio-cultural patterns and social organization in the communities in the areaaffected by the Project:** **Describe patterns of family and community life:** Community social organization The organization of work **Discuss perceptions people have about their quality of life and their sense of place:** **Describe social relations between:** Residents Among generations Between seasonal and year-round residents **9.3.9 Infrastructure and Institutional Capacity** **Describe the infrastructure to indicate the baseline of existing services and their capacity to meet new needs:** Local Regional	**9.3.22** **Ref. Vol. VI Tab 34** **Ref. Vol. IV Tab 23** **9.3.24**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.3.9 Infrastructure and Institutional Capacity- *continued* **Describe the role of different orders of government in providing services that may be impacted by the Project:** Federal Provincial Local **Services:** Financing Public services Maintaining infrastructure **Discuss the status of:** Community institutions Local government institutions Organizations And their capacity to deal with the Project **Describe current levels of existing services to meet additional and new needs:** Social Health Community **Discuss the ability of emergency response services to address current demands:**	**9.3.24**
9.3.10 Transportation **Describe existing land-based and marine based transportation infrastructure and networks:**	**9.3.8**
9.3.10.1 Land Based **Describe the existing conditions of the proposed modes and routes of transportation that will be used throughout the Project development:** Provincial roads and highways Arterial highways On-site access roads	**9.3.8**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.3.10.1 Land Based- *continued* **Include information on the existing types and volumes of traffic on roads near the site:** **Describe the areas through which trucks will travel (e.g residential or school areas):** **Discuss:** Volume of traffic Times Weights of trucks Other relevant details	**9.3.8**
9.3.10.2 Marine Based **Describe existing marine transportation in the shipping lanes and near shore area of the Bay of Fundy and in other areas to be affected by the proposed Project:** Patterns Volumes Types **Discuss current and historic risks of:** Collisions Accidents Spills **Explain how current (and expected) vessel traffic is managed in the vicinity of the proposed marine terminal:** Recreational boating Shipping Fishing Commercial and passenger traffic **Focus on navigation safety and avoidance of collisions with marine mammals:** **Describe mechanisms in place to deal with marine emergencies:**	**9.3.8** **11.2** **9.3.8** **9.2.13** **11.2**

9.0 DESCRIPTION OF EXISTING ENVIRONMENTS	*EIS Section*
9.3.11 Other Undertakings in the Area	
Indicate undertakings or developments in the area to be affected by the proposed quarryand the marine terminal: Type Size Location Other relevant information Current Historic	**9.3.25**
Identify proposals for other undertakings in the area that may affect cumulative impactsfrom the Project:	**10.0**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
This section of the EIS must assess potential impacts of the Project on the selected VEC's over the lifespan of the project: Physical environment Biological environment Human environment **For each VEC, or its indicator, provide sufficient information to allow the Panel to understand the nature of the potential effects:** How the Proponent's conclusions were reached **The assessment must provide a clear, traceable path of information from the baseline conditions through the identification of:** Potential impacts Monitoring Mitigation Residual impacts Determination of significance of effects **When appropriate, consider how natural variation or events might affect Project impact** **With regard to the physical and biological effects, consider:** Environmental sensitivity Trends Natural variation The capacity of natural systems to recover from potential Project impacts **Describe the effects of the Project on the capacity of renewal resources to meet the needs of** The present The future **When considering local impacts on the human environment, have due regard for the attitudesand perceptions of local residents, and how they are grounded in:** Culture Social organization Historical experience	**EIS General**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
The Proponent shall, to the best of its ability, indicate how direct or indirect Project impacts might enhance and/or impair current activities in the community as well as future economic planning: Social Cultural Economic **Consider possible reactions to Project-related effects and the capacity of the following to respond:** People Communities Institutions **Discuss the range of changes that may be induced:** **The assessment must recognize not only the complexity and inter-connectedness of all parts that comprise a single environmental entity (e.g. the physical environment) but also the broader,even more complex inter-connectedness between these components:** Physical Biological Human **Awareness of this multi-layered, multi-dimensional inter-connectedness will offer guidance for :** Monitoring and mitigation Determining significant effects Identifying residual effects (in later sections of the EIS) **The assessment must identify the capacity of renewable resources that are likely to be significantly affected by the Project to meet the needs of the present and those of the future:**	**EIS General**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.1 Physical Environment Impact Analysis **10.1.1 Terrain, Geology and Soils**	
Describe and evaluate the potential impacts of the Project on the topography of the site and theconsequent changes in slope and soil stability:	**9.1.2**
Assess the effects of the quarry activities and quarry faces on erosion: Including erosion of overland low-angle sloping terrain and working surfaces	**9.1.2**
Evaluate the chemical interaction, including acid producing and consuming potential of newlyexposed stockpiles with precipitation and surface waters: Bedrock Crushed rock Waste-rock	**9.1.2.1**
Provide information on the potential impacts of: On-site waste rock Soil disposal Product stock piling Settling ponds The disposal of solid washing residue	**9.1.2** **7.8**
Appraise the possible influence blasting on local and regional seismic activity:	**9.1.2.1**
Provide information on measures taken to preserve/document of sites of special geoscientific interest:	**9.1.2**
10.1.2 Physical Oceanography	
Provide an assessment of the potential impacts of disturbances and modifications during the marineterminal construction, quarry construction and production phases: Seabed morphology Shoreline character Intertidal zone dynamics	**9.1.7** **9.2.3** **9.2.4**
Evaluate the effect of the marine terminal on: Sea ice Its distribution and movement	**7.2.1**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.1.2 Physical Oceanography - *continued*	
Assess the impact of extreme climatic events, possibly involving the cumulative effects on the structural integrity of the marine terminal and loading operations: Storm surges Tides Meteorological conditions	**9.1.1** **9.1.7.1**
10.1.2.1 Marine Sediment Quality and Quantity	
Describe and evaluate the potential impacts of the Project on: Sediment influx due to terrestrial surface disturbance during the construction and operational phases Aggregate washing operations Sediment redistribution during the construction of the marine terminal and its interaction with tides and currents	**7.7** **9.1.6**
Changes in sediment character and chemistry due to accidental or uncontrolled releases of solids fromaggregate washing or releases of: Fuels Heavy metals Organochlorines Nutrients	**9.1.4** **7.8**
In disturbed marine and intertidal areas, characterize sediments in relation to parameters identified in: the Canadian Sediment Quality Guidelines for the Protection of Aquatic Life the *Canadian Environmental Protections Act*, 1999 its *Disposal at Sea Regulations*	**9.1.7.1**
10.1.2.2. Ocean Currents and Tides	
Evaluate how currents and tides may be affected due to the construction or operation of the marine terminal:	**9.1.7** **9.2.3.3**
Explain how the following will be impacted by such changes in tides and currents: Nearshore navigation The marine ecology Harvesting	**9.1.7**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.1.2.2. Ocean Currents and Tides - *continued*	
For the marine terminal site, provide information on changes in: Net current flow Tidal component flows Wind-driven responses on a seasonal basis	**9.1.7**
10.1.2.3 Water Quality	
Describe and evaluate potential impact on the marine water column, including consideration of changes in the following during construction and operational phases: Temperature Salinity Nutrient concentration Suspended sediments Changes in these parameters due to intentional releases of washing water	**9.2.2**
Changes in these parameters and water chemistry due to accidental or uncontrolled releases from: Aggregate washing Fuel oils Heavy metals Organochlorines Nutrients	**9.2.2**
Impact of construction and loading operations on seasonal mixing and stratification of the water column and its impact on the above listed parameters and pollutant dilution:	**9.2.4**
10.1.3 Terrestrial Water Quality and Quantity	
Describe and evaluate the potential effects of the Project on terrestrial water quality and quantity in: Surface water Ground water Wetlands	**9.1.3**
Pay particular attention to the effects on the interaction of these hydrologic components:	**9.1.6**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.1.3.1 Surface Water	
Assess the potential impacts of Project-related changes in:	**9.1.3**
Topography	**9.1.6**
Terrain	
Soil cover	
On:	
Surface drainage patterns	
Recharge areas	
Other hydrologic components	”
Evaluate changes in seasonal flow patterns (including extreme high & low flows) of:	
Streams	
Channel/bed/drainage basis morphology and stability	”
Resulting from:	
Surface/groundwater withdrawal	
Pit dewatering	
Diversion	
Topographic alteration	
Evaluate the alteration of sediment load (suspended and bedload) of streams and their destinations :	
Appraise the impact of seepage and/or accidental atmospheric or aqueous releases on:	”
Water chemistry	
Turbidity	
Evaluate effects on every freshwater stream whose groundwater supply originates within the quarry site even though the stream may surface and flow outside the property:	”

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.1.3.2 Groundwater	
Describe and evaluate the potential impacts of the Project on groundwater quantity and qualitythrough alteration to the groundwater regimes & neighbouring regimes by Project-related changes in: Topography Terrain Soil cover	**9.1.3** **9.1.6**
Assess groundwater quality changes arising from: Sedimentation Chemicals Leaching Use of explosives Fuel spills Quarry dewatering	”
Provide information on anticipated changes in yield characteristics of aquifers due to: Project-related groundwater withdrawal Topographic and terrain changes	”
Evaluate the potential effects on the existing and future off-site wells by repeated blasting operations Stability Yields Chemical characteristics	”
Assess any alteration of aquifer vulnerability to contamination by atmospheric or surface waterpollutants as a result of Project activities:	”
Evaluate the potential of: Saltwater intrusion Wells running dry through Project-related groundwater withdrawal Alterations to the groundwater regimes	
Assess changes in recharge or discharge characteristics affecting: Shallow and deep groundwater resources Groundwater contributions to stream base flows under varying climatic conditions	”

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.1.3.3 Wetlands	
Assess the potential impacts of the Project on any wetland on-site or downstream: Size Viability Habitat potential	**9.2.1** **Map Vol. III**
Evaluate the effects on: Contributions of impacted wetlands Groundwater recharge potential Surface flow regulation (stormwater retention, flood control) Changes in their potential role in water treatment	”
Assess the value of the wetlands for paleo-ecological studies:	
10.1.4 Climate	
Describe and evaluate the potential impacts of the Project on climate by identifying: Sources of greenhouse gas emissions (carbon dioxide, methane, nitrous oxide, halocarbons) Quantities Frequencies	**9.1.1**
By: On-site activities Land-based transportation related to Project activities Marine based transportation related to Project activities On an annual basis Over the lifespan of the Project	” ”
Assess the relative size of the potential GHG emissions from the Project from a regional perspective:	”
Evaluate how changes in climate could affect the Project or particular Project components:	”

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.1.5 Air Quality	
Identify the Project activities and components which would be sources of air emissions:	**9.1.8 Ref. Vol. V Tab 31**
For each emission of concern, provide estimates including: Quantity Timing Duration	
For normal operational conditions and upsets, provide air quality parameters that could be affected by these emissions: Dust Particulates Sulphur oxides Nitrogen oxides Methane Carbon dioxide Carbon monoxide Volatile organic compounds Formaldehyde Ground-level ozone Odour Acid deposition	”
Provide geographic dispersal patterns for emissions (concentrations and elevations) from the Project site and their variability with climatic conditions:	”
Provide an assessment of the potential health impacts related to Project emissions to : Humans Wildlife Vegetation (short-term and over Project lifespan)	**9.3.18** **9.3.19** **9.3.20** **9.3.21**
Consider how aerosols and particulate emissions affect the frequency and intensity of: Fog Ice fog Related impact on day and night visibility	**9.1.8**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.1.5 Air Quality- *continued*	
Discuss relevant air quality standards or guidelines: Provincial Federal	**9.1.8**
Include their purpose and use in relation to Project phases:	
10.1.6 Noise and Vibration	
Describe and evaluate the effects of Project-generated noise and vibration levels by identifying sources and types of variation in Project-related noise and vibration levels, particularly during blasting. Provide information on: Duration Frequency	**9.1.9** **9.1.10** **9.1.11**
Provide information on levels of noise and vibrations in: The atmosphere Subsurface Marine water column	**9.1.9** **9.1.10** **9.1.11** **9.1.15**
Assess the effects of weather and terrain (including seabed morphology) on: Noise and vibration in the atmosphere Subsurface The marine environment (water column and seafloor)	”
Provide an assessment of effects of acoustic and vibrational disturbances on: Fish Marine mammals Wildlife Birds	”
Evaluate how such disturbances affect: Individuals/communities and their harvest Commercial and recreational activities - including tourism	”
Provide an assessment of the potential health impacts related to Project-induced changes in noise and vibration levels: Sleep disturbance Annoyance	**9.1.9** **9.1.10** **9.1.11** **9.3.17**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.1.6 Noise and Vibration - *continued*	
Describe the proximity of the Project to sensitive receptors: Residences Workplaces Fishing grounds Camps Schools Recreational areas Hospitals	**9.1.9** **9.1.10** **9.1.11** **Ref. Vol. V** **Tab 31**
Discuss relevant provincial or federal noise standards or guidelines, as appropriate, including their purpose and use in relation to the Project phases:	**9.1.9** **9.1.10** **9.1.11**
10.1.7 Light	
Identify sources and types of variation in Project-related night-time light levels by providing information on light emissions: Duration Frequency Levels	**9.1.12** **Ref. Vol. V** **Tab 31**
Provide an assessment of effects of night-time light levels on: Fish Marine mammals Wildlife Migratory birds	**”**
Evaluate how such disturbances impact on: Individuals/communities and their harvest Commercial and recreational activities- including tourism	**”**
10.2 Biological Environment Impact Analysis	
10.2.1 Species at Risk	**9.2**
Consider any change the Project might cause to the following as defined in subsection 2 (1) of SARA: A listed species Its critical habitat Individual residences	**9.2.01** **9.2.5** **9.2.6** **9.2.7** **9.2.8** **9.2.13**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.2.1 Species at Risk	
Take account of SARA requirements. Describe and evaluate potential Project effects on species identified in the Act:	
Discuss potential Project impacts on species of concern in relation to :	
Applicable legislation	**9.2**
Policy	**9.2.01**
Management plans	**9.2.5**
Recovery strategies	**9.2.6**
Action plan	**9.2.7**
Land use planning initiatives	**9.2.8**
	9.2.13
10.2.2 Fish, Invertebrates and Habitat	
Describe and evaluate potential Project impacts on VEC's related to:	
Fish	
Invertebrates	**9..2**
And their habitats	**9.2.3**
Consider disruption of sensitive life stages or habitat:	
Spawning and incubation	**9.2.4**
Rearing	
Refugia	**9.2.5**
Over wintering	
Loss of seabed habitat	**Ref. Vol. II**
Known sensitive or important sites and/or habitats	**Tab 8**
Introduction of non-native species	**Tab 9**
Disruption of food resources	**Tab 10**
Changes to water quality or quantity	**Tab 11**
Distribution or abundance	**Tab 12**
Contaminant levels in harvested species that could be changed by the Project	
Fish health and condition	**9.2.9**
Blockages to movement	**9.2.10**
Blasting	**9.2.11**
Dredging or disposal of sediments	
Underwater noise associated with Project activities	**9.1.6**
Water withdrawal	
How Project-related changes in harvest pressures could impact the resource	
Document any streams with fish habitats	

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.2.2 Fish, Invertebrates and Habitat- *continued* **Specifically, discuss the duration and geographic extent (distance downstream impacts can be anticipated) of potential impacts in relation to how fish and invertebrate population and harvest activities could be affected:**	
10.2.3 Birds and Bird Habitat **Describe and evaluate the potential impacts of the Project on VEC's related to birds and bird habitat including a consideration of:** *Disruption of sensitive life stages or habitat e.g.* Nesting Rearing Staging Moulting Migrating *Direct and indirect alteration of habitat e.g.* Location of Project facilities Habitat quality Footprint Sensitive or important areas or habitat Visual or auditory disturbance, including habitat avoidance in relation to Project facilities, activities and light disturbance Bird distribution or abundance Bird health and condition	**9.2.1** **Ref. Vol. I** **Tab 2** **Tab 3**
10.2.4 Wildlife and Wildlife Habitat **Describe and evaluate the potential impacts of the Project on VEC's related to wildlife or wildlife habitat including a consideration of:** Direct or indirect alteration of habitat (including its physical extent) Visual or auditory disturbance, including habitat avoidance in relation to Project facilities or activities Disruption of sensitive life stages or habitat Wildlife movement patterns, home ranges, distribution or abundance Sensitive or important areas or habitat	**9.2.1** **Ref. Vol. I** **Tab 1**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.2.4 Wildlife and Wildlife Habitat - *continued* Population cycles Predatory-prey relationships Wildlife health and condition **Specifically, discuss the duration and geographic extent (e.g. distance of noise-related disturbance) of potential impacts in relation to how wildlife populations could be affected:**	**9.2.1**
10.2.5 Marine Mammals **Describe and evaluate the potential impacts of the Project on VEC's related to marine mammalsand their habitat, including a consideration of:** Disruption of sensitive life stages or habitat Disruption of feeding activities Distribution of abundance Contaminant levels in species that could be changed by the Project Marine mammal health and condition Sensitive or important areas or habitat Migratory patterns Potential for interaction between marine mammals and ships **In particular, describe and evaluate the potential effects of:** Dredging Spills Accidents Disposal of sediments Project-related increases in ambient underwater noise on marine mammals	**9.2.4** **9.2.13** **9.2.11** **9.2.15** **11.2**
10.2.6 Vegetation **Describe and evaluate the potential impacts of the Project on vegetation on land and in the water including a consideration of:** Alteration or loss of species, or vegetation assemblages that are rare, valued protected or designated sensitive or important areas or habitat Sensitive or important areas	**9.2.1**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.2.6 Vegetation - *continued*	
Introduction of non-native species Re-establishment of vegetation (including replanting plans) Vegetation control	**Ref. Vol. I** **Tab 6** **Tab 7**
10.3 Human Environment Impact Analysis	
10.3.1 Community Profile	
Describe and evaluate the beneficial and adverse effects of the Project on those VEC's selected for the human environment, explaining the rationale used:	**9.3.7** **Ref. Vol. VI** **Tab 34**
Identify changes to the environment induced by the Project: Human Physical Biological How people and communities could adapt to these changes	**Ref. Vol. VI** **Tab 32**
Describe and evaluate changes to conditions that may occur as a result of Project-related impacts to the biological and physical environments: Health Social Economic	**"**
Identify and take into account the particular needs, interests and values of various segments of the local population and consider how the Project may affect them: Youth Seniors Fishers	**"**
In assessing the effects of the Project on fishing and tourism activities, give particular attention to the comparative adverse and beneficial effects: Social systems Economic systems Human health	**9.3.10** **9.3.11** **9.3.12** **9.3.13** **9.3.14**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.3.2 Demographics and Mobility	
Describe and evaluate the potential impacts of the Project on demographics and mobility, include: Age distribution Residence patterns In/out migration	**9.3.7**
10.3.3 Economy	
Describe and evaluate the potential effects of the Project (by Project phase) on the economy: Local Regional Provincial National **Estimate employment and income for each year of :** Construction Operation **Indicate:** Numbers Length of employment Form of employment (full-time, part-time, seasonal) Skills category **Estimate the proportion of participation:** Regional Local Aboriginal **Discuss the extent to which skills of the available workers match the job requirement:** Describe the level of interest in Project-related work Hiring practices Policies Preliminary arrangements already made for labour Indicate if these provisions will apply to any sub-contractors	**9.3.9** **9.3.10** **9.3.1l** **9.3.12** **9.3.13** **9.3.14** **9.3.15** **9.3.23**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.3.3 Economy - *continued*	
Identify any impacts Project employment may have on the local economy: Include any effects on the cost of living Viability of other industries	**9.3.9** **9.3.10** **9.3.1l** **9.3.12** **9.3.13**
Identify spin-off economic activity from wages and purchases related to the proposed Project: Local Regional	**9.3.14** **9.3.15** **9.3.23**
Consider how Project-related impacts may affect harvested resources or harvest activities and thereby affect household economies and the sustainability of traditional economic activities:	”
Discuss the effect of the Project on land values in the region: Identify constraints that could affect economic benefits or opportunities	”
Describe consistency of the Project with goals and objectives identified in economic plans and strategies: Provincial Regional Community	”
10.3.3.1 Fishing and Harvesting	
Identify the predicted effects on the fisheries and/or loss of access to particular fishing grounds due to the Project: Construction phase Operation of the marine terminal Navigational restrictions during berthing Escape of sediments from retention ponds Contaminated bilge water Invasive organisms in ballast water	**9.2.2** **9.2.3** **9.2.4**
Discuss potential damage to fishing gear or vessels: Plans for monitoring and mitigation of those effects	**11.8 Commitment Table**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.3.3.1 Fishing and Harvesting	
Consider ways in which the Project may help or undermine efforts to restore the health of marine ecosystems to enhanced the fisheries:	**9.2.2**
Discuss potential impacts of the Project on fishing and harvesting, include a consideration of changes in: Harvester access Travel patterns Costs Disturbance of harvest patterns Loss or alteration of high-value harvest areas	**9.2.3** **9.2.4**
Changes in response to changes in: Light Noise Dust Silt Harvest level The abundance and distribution of harvested resources	**9.1.9** **9.1.10** **9.1.11** **9.1.12**
Describe consequent impacts on the well-being and income of harvesters from potential losses:	
Discuss potential competition between harvesters within and between communities as a result of: Loss from the land or marine sites due to the Project Alteration Displacement	
Consider changes in the quality of harvested species (e.g. contamination) that would adversely affect their consumption or sale:	**9.2.2** **9.2.3** **9.2.4**
Identify the quantity of forest products that would be harvested as a result of the Project: Commercial Non-commercial	

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.3.3.2 Tourism and Recreation	
Describe and evaluate the predicted effects the Project will have on current and projected tourism and recreation activities and opportunities within the region and in the province: Whale-watching Bird-watching Kayaking Coastal trail development Tourism-related businesses	**9.3.14** **9.3.16**
Discuss the effect of the Project on the regional strategy of sustainable development through ecotourism:	**9.3.14**
Discuss the effects of the quarry operation on landscape aesthetics and views from: Land Water	**9.3.6**
Describe consequent impacts on the well-being and income of communities from the potential loss of tourism opportunities: Local Regional	**9.3.14** **Ref. Vol. VI** **Tab 32**
10.3.4 Education, Training and Skills	
Discuss the education and training programs required for Project-related employment in relation to the Project schedule: Each phase Local training opportunities Regional training opportunities Timing and duration of programs	**9.3.23**
Which skills and experience gained in the Project could be applied to other available projects or sectors:	**”**
Describe any education programs the Proponent would provide or sponsor:	**”**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.3.4 Education, Training and Skills - *continued*	
Discuss which types of programs could be completed in time to qualify for Project-related employment:	
Construction phase	
Operation phase	
And which could not	
Identify when training would have to start in order to be complete when jobs would be available:	
10.3.5 Land Use and Value	
Describe and evaluate the predicted effects that the proposed Project will have on land and water use:	**9.3.15**
Existing	
Planned	
Changes in aesthetics and/or economic, education and recreational opportunities caused by :	**9.3.6**
Construction	**9.3.9**
Operation	**9.3.16**
Modification	**9.3.23**
Of the Project in terms of :	
Increased noise levels	**9.1.8**
Lowered air and water quality	**9.1.9**
Alteration of visual and topographic characteristics of the area	**9.1.10**
	9.1.11
Describe and evaluate the potential effects on existing structures caused by activities associated with the Project:	**9.3.6** **9.1.9**
Building foundations	**9.1.3**
Wells	
Discuss temporary and permanent restrictions on land use and water-based activities during:	
Construction	**9.3.16**
Operation	

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.3.5 Land Use and Value - *continued*	
Assess effects of the Project on land values during operation: On-site Local Regional	**9.3.15**
After decommissioning: On-site Local Regional	
Describe and evaluate how the Project could affect the Bay of Fundy as an important conservation site and world biosphere reserve:	**6.6**
10.3.5.1 Aboriginal Land and Resource Use	
Describe and evaluate the effects on traditional and Aboriginal land and resource use from:Construction activities The presence of the quarry and marine terminal And associated activities After decommissioning And abandonment	**9.3.3**
10.3.6 Heritage Resources	
Describe and evaluate the potential impacts of the Project on physical and cultural Heritage: Historic Archaeological Paleontological Trails and traditional use sites Valued locations and their attributes	**9.3.1** **9.3.2** **Ref. Vol. VI** **Tab 33** **Tab 35** **Ref. Vol. III** **Tab 14**
Describe proposed measures to: Preserve Protect Recover Document these resources	**9.3.1** **9.3.2**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.3.6 Heritage Resources - *continued*	
Discuss the effects that site grubbing and clearing may already have had on potential heritage resources and identify measures taken to minimize adverse impacts:	
10.3.7 Human Health and Community Wellness	
Describe and evaluate the potential effects of the Project on: Human health Community wellness	**9.3.17** **9.3.18** **9.3.19** **9.3.20**
Consider effects on health and well-being: Physical Mental Social	**9.3.21** **9.3.22**
Address issues of concern about potential changes in the quality of life as a result of the Project:	**Ref. Vol. VI Tab 34**
Describe and evaluate potential effects on measures of health (such as respiratory health) that may be affected by the Project:	**9.1.8** **11.3** **11.2**
Consider how Project-related changes in the quality of food may affect health and community wellness. Characterize possible sources of: Contaminants Exposure pathways Consumption patterns that may generate health impacts	
Describe and evaluate potential health impacts that may arise from changes : in water quality and quantity	
Describe and evaluate the effects of the Project on the health and safety of: Project workers Those working in the areas affected by the Project Including the possible effects of any accidents or spills	

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.3.7 Human Health and Community Wellness - *continued*	
Consider any potential effects of air emissions associated with the Project on human receptors within the region: Health effects of dust Nitrogen oxides Volatile organic compounds Carbon monoxide Dioxins/furans Metals	**9.1.8**
Describe and evaluate any potential effects of Project-related noise or blast-generated materials on human receptors within the region:	**9.1.9** **9.1.10** **9.1.11**
10.3.8 Social and Cultural Patterns	
Describe and evaluate the potential impacts of the Project on: Social patterns Cultural patterns Social organization Consider effects on traditional lifestyles, values and culture	**9.3.22** **Ref. Vol. VI** **Tab 34**
Consider any effects on patterns of family and community life: Household organization Community organization Organization of work	**”**
Consider implications of the Project on resident’s perceptions of: Quality of life Sense of place	**”**
Describe and evaluate potential impacts on social relations: Between residents Among generations Between seasonal and full-time residents Among those who are employed and unemployed Among those who support and oppose the Project	**”**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.3.8 Social and Cultural Patterns - *continued* **Describe and evaluate how Project-related impacts on harvested resources or economic activities such as tourism may affect social and cultural patterns:**	**9.3.22 Ref. Vol. VI Tab 34**
10.3.9 Infrastructure and Institutional Capacity **Describe and evaluate the potential impacts of the Project on:** Infrastructure Institutional capacity **Discuss any temporary and permanent changes to:** Infrastructure and services The capacity of institutions and organizations to deliver those services **Describe measures proposed to reduce the financial burden caused by the Project on:** Infrastructure and institutional capacity To enhance local and regional resources **Estimate incremental costs to Government resulting from the Project:** Municipal Provincial Federal	**9.3.24** **"** **"** **"**
10.3.10 Transportation **Describe and evaluate the potential effects of the Project on transportation:** Land-based Marine	**9.3.8**
10.3.10.1 Land Based **Discuss the predicted effects on local and regional traffic volumes and road conditions including:** Provincial highways Arterial highways On-site access roads that will be used throughout the Project	**9.3.8**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.3.10.1 Land Based - *continued*	
Include information on the potential effects on the areas through which trucks will travel: Residential School areas	**9.3.8**
Address concerns related to the transportation of explosives:	
10.3.10.2 Marine Based	
Discuss the predicted effects of increased ship traffic on existing marine transportation in: The Bay of Fundy Whites Cove	**9.3.8**
Assess the risk of potential conflicts including navigation restrictions between: Marine traffic and Project-related construction vessels Conflicts between marine traffic and aggregate carriers	**”**
Indicate effects associated with all components of the Project: Vessel type Size Route Schedule Number	**”**
Discuss the risks of disruption of marine traffic through accidents associated with: The loading and transport of aggregate Groundings Fuel spills Collisions with whales	**11.2**
Consider potential interference with navigation and fishing activities due to the presence of: Berthing dolphins Mooring buoys Dredged material disposal sites	

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
10.3.11 Other Undertakings in the Area **Describe and evaluate the predicted effects that the proposed Project may have on other undertakings in the:** Region Province	**9.3.25**
10.4 Summary Table of Impacts **Develop a table that summarizes the identified potential effects of the Project on all components and relationships in the environment:**	**Table 2 Executive Summary 9.4**

10.0 ENVIRONMENTAL IMPACT ANALYSIS	*EIS Section*
Identify and assess the cumulative adverse and beneficial environmental effects of the Project in combination with projects or activities in the Bay of Fundy region: Past Present Reasonably foreseeable future	**10.0 Cumulative Impact Table**
Explain and justify the approach and methodologies used to identify and assess cumulative impacts:	"
Identify the VEC's or their indicators, on which the cumulative impacts assessment is focused: Including the rationale for their selection	"
Present spatial and temporal boundaries for the cumulative impact assessment for each VEC selected:	"
Emphasize VEC's with special environmental sensitivities or where significant risks are involved:	"
Identify the sources of potential cumulative impacts:	"
Specify other projects or activities that have been or will be carried out that could produce impacts on each selected VEC: Within the boundaries defined Whose impacts would act in combination with the residual impacts of the Project	"
Evaluate the likelihood of development by the Proponent or others that may appear feasible because of the proximity of the Project's infrastructure: Quarry operations Aggregate operations	"
Limit assessment to cumulative impacts on the environments that are likely and for which measurable or detectable residual impacts are predicted: Physical Biological Human	"

11.0 CUMULATIVE IMPACTS	*EIS Section*
11.0 Cumulative Impacts - *continued*	**10.0**
A reasonable degree of certainty should exist that proposed projects and activities will actually proceed for them to be included. Projects that are conceptual in nature or limited as to available information may be insufficiently developed to contribute to this assessment in a meaningful manner. In either case, provide a rationale for inclusion or exclusion:	"
Analyse the total cumulative effect on a VEC over the life of the Project recognizing the incremental contribution of all projects and activities in addition to the Project:	"
Include different forms of impacts: Synergistic Additive Induced Spatial Temporal	"
Identify: Impact pathways Trends	"
The impact assessment must consider how a Project-specific effect, or suite of Project-specific effects would interact with potential impacts on VEC's that are not necessarily the result of one project:	"
Make clear the contribution of the Project to a total potential cumulative effect:	"
Place potential cumulative Project impacts in an appropriate regional context to understand the aspirations of people and communities in the region: Regional plans Community conservation plans Species recovery plans Management plans Objectives and/or guidelines	"

11.0 CUMULATIVE IMPACTS	*EIS Section*
11.0 Cumulative Impacts - *continued*	
When assessing cumulative environmental impacts, identify any changes in: Environmental effect predictions Changes in assessing their significance The effectiveness of proposed mitigation and compensation measures Any response to such changes Any implications for monitoring and follow-up programs	**10.0**
Prepare a summary table of cumulative impacts:	**10.0**

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
Describe the approach to environmental management, outline strategies for: Monitoring Mitigation Follow-up Compensation for all VEC's	**11.0** **11.1** **11.4** **11.5** **11.8**
Describe and evaluate residual effects and their significance:	
12.1 Management Criteria	
Describe plans for environmental management through the Project to: Identify strategies to avoid or reduce adverse effects Maximize beneficial effects	**11.1**
Identify commitments for: Monitoring Follow-up Mitigation Compensation	**Commitment Table** **11.4** **11.5** **11.8**
Identify and describe proposed environmental monitoring programs in terms of Compliance Inspection; activities, procedures and programs undertaken to: Confirm the implementation of approved design standards Mitigation Conditions of approval Company commitments including proposed mitigation	**11.4**
Monitoring: Programs to track conditions or issues during the Project lifespan Or at certain times	**11.4**
Follow-up: A program to verify the accuracy of impact predictions Determine the effectiveness of mitigation measures	**11.4**

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.1 Management Criteria - *continued*	
Detail should be adequate to allow an understanding of the purpose of the programs: How issues, subjects or indicators would be selected How the programs would function Who would be responsible for their implementation How reporting would take place	**11.0**
Identify any regulatory requirement relevant to monitoring as well as: Corporate management plans Programs Policies Quality assurance/quality control measures	**11.4**
Describe how the results of the programs would be used to refine or modify the design and implementation of: Management plans Mitigation measures Project operations	**11.0** **11.4** **11.5**
Include the process by which programs would be developed: The timing of program development and updating The method(s) by which adequacy and effectiveness of the programs would be evaluated and tracked	**11.0**
Discuss how programs would be managed over the lifespan of the Project:	**"**
If adaptive management is proposed, explain: How it will operate The role of the public in the process	**"**
Identify who would be involved during the preparation and management of the programs: Agencies Boards Regulators Independent researchers	**"**

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.1 Management Criteria - *continued*	
Identify any opportunities for: Partnerships Coordination Participation	**11.0**
Discuss the ways in which people would be involved in the design and implementation of the Programs: Holders of traditional knowledge Area residents	”
Discuss how monitoring and follow-up results would be communicated back to: The communities Public involvement in program refinement (if refinement is required)	”
12.2 Accidents and Malfunctions	**11.2**
Identify and discuss, the potential accidents or malfunctions that may occur as a result of the Project: For each phase For each activity	
Include consideration of risks such as: Spills of hazardous materials on land Spills of hazardous materials in water Explosion and/or fire Use of explosives and timing of blasts Transportation accidents Destruction of fishing gear Collision with marine mammals Release of invasive or hazardous species through ballast water	”

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.2 Accidents and Malfunctions - *continued*	
Describe and evaluate the potential impacts of Project-related accidents and malfunctions on the environment, including: Impacts on the regional economy Social or cultural elements of the environment and human health	11.2 "
Evaluate worst-case scenarios:	"
Focus particular attention on sensitive components of the environment that could be affected in the event of an accident or malfunction and that could make the consequences major or worse: Proximity of communities Ecosystems of particular value	"
Where potentially significant impacts could occur as a result of an accident or malfunction, assess the probability of such an occurrence, taking into account: Weather External events that present contributing factors	"
Identify the contingency and/or response measures that would be in place should an accident occur:	"
Describe company programs over the lifespan of the Project, by phase: Facility monitoring Emergency preparedness Environmental management	"
Describe plans for managing the risks associated with the Project: Uncontrolled releases of substances	"
Provide sufficient detail to explain: The scope of the programs How they work How they are developed The link to any regulatory requirements The expected components of these programs	"

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.3 Environmental Protection	
Describe the Proponent's planning for environmental protection to avoid or manage potentially adverse effects of the Project on VEC's:	**11.3**
Discuss the environmental management system(s) proposed to guide the protection plan that the Proponent will develop:	"
Consider how the results of the following may guide creation of and revisions to, the environmental protection plan during the Project: The environmental review process Project monitoring Public Consultations	"
Present a draft environmental protection program that includes measures to control, minimize and mitigate any contaminants that may be released or generated by the Project:	"
Contaminants such as: Heavy metals Suspended solids Hydrocarbons Dust Dioxins Carbon monoxide Oxygen demanding materials Organic contaminants	"
Describe plans to control air emissions (including greenhouse gases) from the Project:	"
Describe plans to manage technology/human/wildlife interactions: On-site Adjacent areas In affected marine environments	"
Address hazards presented by the Project:	"
Describe plans for ongoing site management and rehabilitation during the life of the Project:	"

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.3 Environmental Protection - *continued*	
Describe any plans, programs and policies relevant to the design and implementation of standard mitigation practices or monitoring programs that would be followed during the lifespan of the Project:	**11.3**
Explain, relating to the programs: Purpose Scope Function	**"**
Describe: Who would be responsible for their implementation How reporting would take place	**"**
Describe how the results of the programs would be used to refine or modify : The design and implementation of management plans Mitigation measures Project operations	**"**
Describe the process by which the programs would be: Developed Approved Enforced Timing of development and updating Methods by which adequacy and effectiveness of the programs would be evaluated and tracked	**"**
Identify any regulatory requirements relevant to: Monitoring Corporate management plans, programs, policies Quality assurance/control measures	**"**
12.4 Monitoring	
Provide data to ensure that: Regulatory requirements are met Sustainable development objectives are advanced Adverse environmental effects are avoided or minimized	**11.4** **9.1** **9.2** **9.3** **10.0**

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.4 Monitoring - *continued*	
Describe the proposed approach for monitoring each of the VEC's identified:	**11.4**
Justify all decisions regarding: Criteria Indicators	"
Describe the monitoring programs to detect effects for all phases of the Project, on: Physical environment Biological environment Human environment	"
Describe: Timing Frequency Methods Agents responsible for monitoring	"
Where it may not be possible to specify the details of a component of a monitoring program, explain why, when and how the program will be defined: When it will be reviewed by public and regulatory agencies	"
Include a framework for compliance and monitoring of all effects throughout the life of the Project, Including eventual abandonment:	"
Provide information on: All proposed monitoring activities A framework for taking action to respond to monitoring results	"
Describe how the results of monitoring programs will be used to refine or modify the design and implementation of environmental protection and management plans:	"
Describe: Strategies for enforcement Penalties for non-compliance Mitigation measures	"

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.4 Monitoring - *continued*	
Identify the role of the following in the monitoring process: Community members Government agencies	**11.4**
Indicate the level and indicators to be used in proposed monitoring programs: Community Regional Species Ecosystem	”
Describe the criteria used in selecting subjects and indicators, (including the role played by ecological risk monitoring):	”
Identify: Specific regulatory requirements for monitoring Approaches Methods Consultants to be used to analyze monitoring data	”
Describe reporting and response mechanisms, including: Criteria for initiating a response Procedures to be followed Reasons for selecting these criteria	”
Describe how monitoring results will be integrated with other aspects of the Project including: Adjustments for operating procedures Refinement of mitigation measures	”
Describe procedures to assess the effectiveness of: Monitoring programs Mitigation measures Recovery programs for areas disturbed by the Project	”
Describe sources of funding for all monitoring programs:	”
Describe quality assurance and quality control measures to be applied to monitoring programs:	”

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.4 Monitoring - *continued*	
Provide a table showing all VEC's and impacts to indicate where and how monitoring is proposed to manage effects and cumulative effects:	**11.4**
Indicate any regulatory regimes that apply	**"**
12.5 Mitigation Measures	
Describe proposed measures to mitigate any adverse effects and to enhance beneficial effects over the lifespan of the Project that have been identified in the: Environmental Impact Analysis Cumulative Impact Analysis	**11.5** **9.1** **9.2** **9.3**
Place the highest priority on impact avoidance (e.g. pollution prevention): Impact minimization opportunities may be required when avoidance is not possible; this is less desirable Compensation should be recognized as a last resort that depends on the acceptability of predicted effects	**"**
Evaluate the effectiveness of mitigation measures by demonstrating how they contribute positively to sustainable development objectives:	**"**
Identify protection goals and possible mitigation measures for each VEC based on criteria including: Government policies Regulations Standards	**"**
For specific VEC's, identify any relevant: Objectives Policies Guidelines Timing restrictions proposed to be followed when carrying out the Project	**"**

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.5 Mitigation Measures - *continued*	
Describe proposed measures to mitigate adverse impacts of the Project on the environment:	**11.5**
Physical	**9.1**
Biological	**9.2**
Human (ecosystems and communities)	**9.3**
Identify measures used to create or enhance beneficial impacts identified over the lifespan of the Project:	”
Identify trigger points when an adverse effect will result in:	
Remedial action	
Mitigation	
Cessation of activity	”
Indicate which mitigative measures are:	
Proven	
Experimental	”
Provide an analysis that supports any statements regarding the effectiveness of proposed mitigation measures:	”
Outline proposed rehabilitation and revegetation procedures for the Project site, including details on:	
Any plans for landform design and reconstruction to return the site to a stable and functional configuration	”
Erosion controls	
Specifically address the stabilization of settling ponds to a safe, permanent state	
Indicate which measures mitigate or enhance the impact over the lifespan of the Project:	”
Identify the implications of policies suggesting ‘no net loss of wetlands’ and consider the potential for wetlands restoration on the site:	

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.5 Mitigation Measures - *continued*	
Identify relevant policies, management plans or other measures to protect or enhance habitat for:	**11.5**
Fish	**9.1**
Invertebrates	**9.2**
Birds	**9.3**
Marine mammals	
Other wildlife	
Include:	
Timing restrictions	
Regulations	”
Describe the proposed methods for mitigating effects on the existing transportation infrastructure:	”
Describe measures to reduce GHG emissions from the Project through:	
Energy efficiency and reduction measures	
The use of alternative energy sources	”
Describe any initiatives taken to register with the Voluntary Challenge and Registry Program as part of a commitment to reduce emission of GHG:	”
Identify technologies to be used to minimize and to indicate the effectiveness of:	
Gaseous emissions	
Liquid emissions	”
Solid emissions	
Identify and describe:	
Policies	”
Guidelines	
Applicable code of practice and/or best management practices that are proposed to be followed with respect to Project activities	
Identify proposed methods to mitigate changes to the Project caused by the environment:	”

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.5 Mitigation Measures - *continued*	
Provide a commitments table that summarizes planned mitigation measures and stated companyintentions in relationship to identified effects:	**11.5**
Where agreements with the federal or provincial governments will be relied upon as mitigative measures, provide the following information: The impacts which will be mitigated A general description of the mitigation measures The parties to the agreement An overview of implementation Monitoring plans for any such agreement	»
With respect to mitigation measures to reduce of offset adverse effects on the way of life and well-being of individuals, families and communities most directly affected by the Project, indicate how mitigation would address impacts experienced by residents by: Age group Occupation	»
Describe how Aboriginal and community organizations will be involved in the development,application and ongoing evaluation of these measures:	**9.3.3**
Describe criteria for evaluating the success of mitigation or reclamation measures: Indicate when and how this evaluation would be conducted	**7.10**
12.6 Follow-up Program	
Develop plans for a formal follow-up program pursuant to the *Canadian Environmental Assessment Act* to verify the accuracy of the environmental assessment and the effectiveness of the mitigation measures taken:	**11.6**
If the process identifies adverse environmental effects, then the Proponent shall: Adjust existing mitigation measures Or develop new mitigation or compensation measures	»
Identify the need for a follow-up program: Its objectives Main components	»

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.6 Follow-up Program - *continued*	
Describe how it will be structureds, including enforcement and penalties for non-compliance:	**11.6**
Explain which monitoring activities would support the follow-up program by providing relevant information and describing the roles played by: The Proponent Regulatory agencies Community members Independent researchers and others	**"**
Discuss the sources of funding for the programs and describe: Management Reporting schedules	**"**
Describe how the follow-up programs would verify any predictions of significant adverse effects on: Physical Biological Human environment The effectiveness of related mitigation	**"**
Discuss how the programs could identify or measure how the Project advances the objectives of sustainability and maximizes beneficial impacts in the areas affected by the Project:	**"**
12.7 Residual Impacts	
To assist in the characterization of each residual effect, describe: Direction (i.e. adverse, beneficial, neutral) Magnitude Geographic extent Timing and duration Frequency Reversibility Other social and economic features or implications Additional descriptors may be used, if explained and supported	**11.7**

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.7 Residual Impacts - *continued* **Identify and evaluate significant residual Project-related impacts on any of the VEC's including:** Physical environment Biological environment Human environment Ecosystems Communities And the interrelationships between them **This assessment must provide an explicit, traceable link for each VEC between potential impacts and measures of significance:** **Describe and document:** How significance was determined (i.e. the process carried out or the methods used) The basis for determining significance Documentation for existing thresholds (e.g. stakeholder input, traditional knowledge, standards, guidelines or quantitative risk assessment) **Where professional opinion or experience is the basis for determination of significance, identify the individuals involved along with the assumptions they used to form their opinions:** **Both process and criteria for significance can vary among the VEC's. Therefore, describe specific methods where appropriate.** **Discussion of residual impacts and significance should indicate how the Project might contribute to sustainable development in the area affected by the Project:**	**11.7**
12.8 Compensation **Describe any plans to offer compensation or community benefits to enhance the beneficial effects of the Project:**	**11.8**

12.0 ENVIRONMENTAL MANAGEMENT	*EIS Section*
12.8 Compensation - *continued*	
Describe any plans for compensation that would be part of proposed mitigation to address negative or adverse impacts from the Project:	**11.8**
Describe mechanisms to be put in place to finance proposed compensation plans:	”
Describe plans to compensate the following for losses or damages that may occur as a result of the effects of the Project: Resource users Property owners Communities	”
Refer, where appropriate to specific requirements under legislation Subsection 35.2 of the *Fisheries Act*	”
Discuss compensation terms and conditions relating to mitigation measures that would be necessary to address the full range of community concerns about potential adverse environmental effects due to the Project:	”
Describe consultation activities with communities to discuss mitigation and compensation plans:	”

13.0 EIS ATTACHMENTS	*EIS Section*
Reference Documents	**Vols. I-VI**
Describe consultation activities with communities to discuss mitigation and compensation plans:	
Appendices	**Vols. I-IV**