8.1 Methods

EIS Reference: EIS Volume V, Chapter 8, Section 8.1

INDEX OF COMMENTS

8.0 Impact Assessment Methodology

8.1 Methods

8.1 Methods

WP 1452 – Joint Review Panel

The Panel will determine the likelihood of the Project causing significant adverse environmental effects. The Panel will use the systematic framework from the Canadian Environmental Assessment Agency Reference Guide: Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects (November 1994).

The Panel will assess predicted residual effects (the effects that remain after mitigation) through the application of a combination of criteria that are appropriate to each potential effect. The criteria will normally include the magnitude, geographical extent and duration of the effect and may also include the frequency, reversibility and ecological context. Each effect will therefore be described in terms of a combination of factors.

The Panel will determine what would constitute a significant effect on an environmental component using these same parameters. This judgment will draw from environmental standards, guidelines and objectives, advice from experts, risk assessments, results of past environmental assessments, and other relevant sources. The Panel will then be able to compare the predicted effects to effects that, should they occur, would be considered as "significant".

If the Panel determines that a component of the Project could cause a significant adverse environmental effect on an environmental component, it will then decide whether this effect is likely by determining t probability of the occurrence and the scientific certainty associated with the prediction.

The approach that the Proponent has used in the EIS to form the Impact Statements is not entirely compatible with the methods above (which were recommended in the EIS Guidelines). The Panel expects the Proponent to provide data and information in a form that is compatible with and uses the methodological terminology described in the Guidelines and summarized above.

RESPONSE

In response to the Panel's request Bilcon has summarized the results of the environmental effects assessment for each of the VECs and is submitting the following additional material:

1. Summary of approach to effects assessment
2. Effect Assessment Summary Tables including potential
    a. Project – environment interactions
    b. Potential effects
    c. Proposed mitigation measures

8.1 Methods

d. Effects evaluation based on magnitude, geographic extent, duration/frequency, reversibility, ecological /socio-economic context
e. Significance rating

3. Effect Assessment – Decommissioning Phase

The approach followed is compatible with the CEAA guidelines (CEAA 1994) and the requirements of the EIS Guidelines (Fournier, R. 2005). It builds on the information contained in the EIS and provides a transparent and traceable evaluation of the significance of residual effects.

The tables document that, following the consideration of mitigation; none of the potential adverse effects of any of the Project activities is expected to be significant. In compliance with CEAA guidelines the likelihood of the effects was not assessed. This assessment needs to be conducted only for effects that are considered significant.

1. Summary of the Approach to Affects Assessment

In accordance with the provisions of the EIS Guidelines (Fournier, R. 2005) the environmental effects assessment was conducted in a step-wise fashion involving:

- Identification of potential Project-environment interactions;
- Identification of Valued Environmental Components (VECs);
- Prediction and evaluation of Project-related environmental effects;
- Identification of necessary avoidance, mitigation, remediation, and/or compensation; and
- Determination of residual effects and their significance.

Identification of Potential Project-environment Interactions

As part of the initial scoping exercise, potential Project-environment interactions were identified. This involved an understanding of the project works and activities as well as a general understanding of the bio-physical and socio-cultural environments associated with the Project site. The identified issues and interactions of concern are discussed in the EIS. They have been clarified and highlighted in table format presented in the response to IR-2 *EIS Format* (IR-2, page 3).

Identification of Valued Environmental Components (VECs)

The identification of Valued Ecosystem Components resulted from the scoping exercise mentioned above. Where a potential for an interaction between Project works and activities and an environmental component was identified, the component was determined a VEC provided the VEC it also deemed to be of public concern, protected by a statutes or guidelines, or otherwise considered valuable.

8.1 Methods

Environmental Effects Assessment
In this step, the potential effects resulting from interactions with the Project, either directly or indirectly via pathways, were investigated in detail for each VEC. This effects assessment involved qualitative and, where possible, quantitative analyses using existing knowledge, professional judgment, and computer modeling where appropriate and feasible. The results of this effects assessment are presented in Chapter 9 of the EIS. For clarity purposes and improved transparency of the effects assessment, key findings have been documented in the attached tables.

Mitigation
Where an adverse environmental effect was identified, mitigation was proposed. Where possible, mitigation measures were incorporated into the Project design and implementation in order to eliminate or reduce potential adverse effects. Mitigation at the receptor end was considered if avoidance and mitigation at the source of the effect was deemed not feasible or not sufficiently effective.

In those instances where an adverse effect is unavoidable and cannot be mitigated to insignificant levels, options for remediation and/or compensation were investigated.

For interactions where positive effects are anticipated, opportunities were determined for maximizing the positive effects.

Residual Effects and Their Significance
Residual effects refer to those environmental effects predicted to remain after the application of all proposed mitigation measures. The predicted residual effects are considered for each Project phase (construction, operation, decommissioning) and for potential accidental events.

In accordance with the Provincial EA regulations and Canadian Environmental Assessment Agency guidelines (1994, 1997), the significance of the residual effects is evaluated for each VEC. For adverse impacts, significance is determined based on the following criteria:

- magnitude;
- geographic extent;
- timing, duration and frequency;
- reversibility; and
- ecological and socio/cultural context.

For magnitude a relative rating was established as defined in Table 1. Where possible, the evaluation applied absolute values for the geographic extent, frequency, and duration. Reversibility was considered as the ability of a VEC to return to an equal or improved condition once the interaction with the Project has ended. The judgment about the reversibility was based on previous experience and research and stated as "reversible" or "irreversible." Interactions with the potential for beneficial effects were not evaluated with

8.1 Methods

respect to reversibility as this was considered meaningless in the context of the EA. Subsequently, those effects considered significant would undergo an additional consideration of the likelihood of their occurrence and the level of confidence underlying the effects prediction. However, following the consideration of mitigation measures, none of the residual effects was considered significant.

TABLE 1 Definitions for Levels of Magnitude

Rating	Magnitude*
High	Bio-physical VECs: An environmental effect affecting a whole stock, population, or definable group of people, or where a specific parameter is outside the range of natural variability; Socio-Economic VECs: Has a measurable and sustained adverse effect on socio-economic components; has the potential to affect the entire community.
Medium	Bio-physical VECs: An environmental effect affecting a portion of a population, or one or two generations, or where there are rapid and unpredictable changes in a specific parameter so that it is temporarily outside the range of natural variability. Socio-Economic VECs: Has a measurable effect on socio-economic components, but is temporary and/or is highly localized; has the potential to affect portions of the community
Low	Bio-physical VECs: An environmental effect affecting a specific group of individuals in a population in a localized area, one generation or less, or where there are distinguishable changes in a specific parameter; however, the parameter is within the range of natural variability. Socio-Economic VECs: No measurable environmental effect; has the potential to affect some individuals, households, or institutions within the community.
Nil	No environmental effect.
Unknown	An environmental effect affecting an unknown portion of a population or group or where the changes in a specific parameter are unknown.

*Note: For some VECs these definitions for magnitude (e.g., air and water quality) do not apply. For these VECs, absolute values where stated where available or expert judgment applied to provide a qualitative rating.

For adverse residual effects, the evaluation for the individual criteria was combined into an overall rating of significance:

- **Major**: Potential impact could jeopardize the long term sustainability of the resource, such that the impact is considered sufficient in magnitude, geographic extent, duration/frequency, as well as being considered irreversible. Additional research, monitoring, and/or recovery initiatives should be considered.
- **Medium**: Potential impact could result in a decline of a resource in terms of quality/quantity, such that the impact is considered moderate in its combination of magnitude, aerial extent, duration, and frequency, but does not affect the long term sustainability (that is, it is considered reversible). Additional research, monitoring, and/or recovery initiatives may be considered.
- **Minimal**: Potential impact may result in a small scale, localized or short-term decline in a resource during the construction and/or operation phase of the Project. The effect

is negligible to the overall baseline status of the resource. Typically, no additional research, monitoring, and/or recovery initiatives are considered.

An adverse impact was considered "significant" where its residual effects were classified as major; while they were considered "not significant" where residual effects were classified as medium, or minimal.

In accordance with the EIS Guidelines (Fournier, R. 2005, p.69, item p), only adverse residual effects were evaluated in terms of their significance.

2. Effects Assessment Summary Tables

The effects assessment addresses the construction and operation phases of the Project for all VECs (Table 2). The results of the effects assessment and determination of the significance of any residual effects has been summarized in the attached tables (Table 2.1 to 2.18). The potential effects associated with the decommissioning phase are discussed in text format following the tables.

8.1 Methods

Table 2 Valued Environmental Components Assessed

Table #	VEC	Table #	VEC
3.1	**Climate**	3.13	**Aboriginal Land and Resource Use**
3.2	**Geology & Hydrogeology**	3.14	**Aesthetics**
	Basalt Rock		On-shore (HWY 217)
	Residential Well Water Yields		Bay of Fundy
	Residential Well Water Quality	3.15	**Transportation**
3.3	**Surficial Geology and Soils**		Land
3.4	**Surface Water**		Marine
	Little River Watershed	3.16	**Economy**
	On-site Surface Water Drainage/Wetlands		Employment
	On-site Surface Water Quality		GDP
3.5	**Physical Oceanography**		Municipal Taxes
	Turbidity		Economy – Fishery (/Aquaculture)
	Tides and currents		Economy – Fishery/Intertidal
3.6	**Air Quality**		Economy – Fishery/Nearshore
3.7	**Noise and Vibration**		Economy – Tourism
3.8	**Light**		Economy – Land Value
3.9	**Terrestrial Ecology**		Recreation
	Habitat (incl. plants, wildlife)	3.17	**Human Health, Wellness and Socio-Cultural Environment**
	Wetlands		Drinking Water Quality
	Migratory Birds		Marine Contaminants
	Species at Risk		Land Contaminants
3.10	**Aquatic Ecology – Freshwater**		Country Foods
	Fish habitat		Quality of Life
	Fish Species		Social Capital
3.11	**Aquatic Ecology - Marine**		Commercial Patterns
	Marine Fish Habitat incl. Species (Intertidal, Nearshore)		Community Infrastructure; Institutional Capacity
	Marine Mammals (incl. NARWCA)		Education, Training, Skills
	American Lobster		
	Marine Waterbirds		
	Marine Species at Risk (fish, mammals, reptiles, waterfowl)		
3.12	**Heritage Resources**		
	Marine Archaeology		
	Land Archaeology		
	Heritage Properties and Site History		

8.1 Methods

3. ***Effects Assessment – Decommissioning Phase***

The Decommissioning Phase of the Project is described in Chapter 7.10 of the EIS. The Phase will commence in year 50 of the Project life and will entail the removal of all processing equipment, conveyors and ship loaders. Some of the site infrastructure will remain in place (e.g., access road, electrical services) for future use. Portions of the marine infrastructure will also remain in place (conveyor support system, gallery trusses, mooring dolphins, buoys, navigational lighting).

The work will be conducted in full compliance with all the federal, provincial and municipal regulations and guidelines that apply at the time of the decommissioning.

Details of the site decommissioning and the associated site reclamation will depend on the applicable legislation as well as potential subsequent land uses at the site. Community and stakeholder input will also be considered in the development of a detailed plan.

In principle, no additional new adverse effects other than those identified for the construction and operation phases are expected. With the completion of the decommissioning of the site, the overall effects are considered to be beneficial for the bio-physical environment.

In particular, the proposed development of new habitat will benefit terrestrial and freshwater environments. No underwater demolition will be conducted and on-shore operational activities will terminate. If any, the consequences for the inter-tidal and near-shore marine environments would be positive.

Effects on socio-economic environment cannot be predicted as this will depend on the future local economic conditions. It is foreseeable that the termination of the quarry may have adverse effects on local job opportunities. In contrast, the termination of the operation and the site reclamation may also have beneficial effects it that it can offer new opportunities for economic activities at and or near the site as in context of subsequent development (e.g., recreational uses, residential development).

TABLE 3.1: Environmental Effects Summary for Climate

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction								
• Quarry and terminal site clearing	• Loss of carbon storage with removal of trees for development • CO_2 , methane and NO emissions from burning brush during clearing (A)	• Chip and compost wood fibre resulting from land clearing (rather than burning); • Develop quarry in increments to conserve forest resources (maintain carbon sink function); • Conduct reclamation incrementally so land is reforested soon after rock is extracted (re-establish carbon sink function); • Approximately 20% of quarry site conserved in a preservation zone (maintain carbon sink function); • Manage over 120 hectares (300 acres) of buffer land adjacent to the quarry property as a forest resource (maintain carbon sink function); • Ongoing examination of evolving technologies for reducing or offsetting emissions (e.g., opportunities for energy conservation, use of biodiesel, contribution to carbon capture initiatives)	Low	Local to global	Short to long term	NR	Proposal supported by provincial policies on economic development	**Minimal** **Not Significant**
• Development of infrastructure • Construction of buildings and plant facilities • Construction of marine shipping terminal	• Exhaust emissions from operation of heavy equipment; • Exhaust emissions from employee and truck traffic. (A)	• Heavy operational equipment diesel engines meeting EPA Tier 3 emission specifications • Maintain vehicles and equipment in good working condition; • Maintain speed restrictions on roads.	Low	Local to global	Short term to long term	NR	See above	**Minimal** **Not Significant**
Operation								
• Clearing and quarry face development;	• Exhaust emissions from heavy equipment during quarry	• Heavy operational equipment diesel engines meeting EPA Tier 3 emission specifications	Annually 0.03-0.05% of	Local to global	Short to	NR	See above	**Minimal**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
• Drilling and blasting (aggregate production); • Crushing, screening, and wash plant operation; • Aggregate stockpiling;	operation • Exhaust emissions from employee and truck traffic. (A)	• Stationary equipment using electrical energy • Transport of quarry products directly by ship once per week rather than by ground transportation to port • Develop quarry in increments to conserve forest resources (maintain carbon sink function); • Conduct reclamation incrementally so land is reforested soon after rock is extracted (re-establish carbon sink function); • Maintain speed restrictions on roads; • Maintain vehicles and equipment in good working condition; • Ongoing examination of evolving technologies for reducing or offsetting emissions (e.g., opportunities for energy conservation, use of biodiesel, contribution to carbon capture initiatives).	regional emissions		long term			**Not Significant**
• Quarry reclamation	• Re-vegetation of quarry site – increase of vegetation functioning as carbon sink (P)	• Follow up and monitoring to ensure success of reclamation work; • No other measures required; activity in itself is a mitigation measure	NA	Quarry site; local to global	Long term	NA	See above	NA

* For definition of levels of magnitude (high, medium, low, nil, unknown) refer to text
** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.2: Environmental Effects Summary for Geology and Hydrogeology

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects**					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
Geological and hydrogeological effects as a result of: • All construction activities	• No effects identified	• NA	Nil	NA	NA	NA	NA	**Minimal** **Not Significant**
Operation Phase								
Geological and hydro-geological effects as a result of: • Clearing and quarry face development	• Irretrievable loss of basalt rock (A)	• Production of high grade aggregate for value added construction industry products	100 million tons of basalt rock	Quarry site	Long term	NR	Large quantities of basalt rock available in region	**Minimal** **Not Significant**
Geological and hydrogeological effects as a result of: • Clearing and quarry face development • Drilling and blasting • Quarry reclamation	• Loss of residential well water yields • Deterioration of well water quality (A)	• Pre-quarrying survey of water quality and quantity of neighbouring • Bilcon of Nova Scotia Corporation will replace any existing water supply lost or damaged within 800m of active quarry • Quarrying will take place above the groundwater table with no groundwater withdrawal or drawdown • Rock extraction will not be carried out below the contact of the middle and upper flow units • Quarrying will maintain a 1 to 2 m cap of the UFU above the MFU; • Groundwater monitoring (monitoring wells, on-site supply wells, residential wells)	Low	Site vicinity (max19 residential wells)	Long term	NR (yield) R (quality)	No residents adjacent to site; site vicinity sparsely populated	**Minimal** **Not Significant**

* For definition of levels of magnitude (high, medium, low, nil, unknown) refer to text

8.1 Methods

** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

TABLE 3.3: Environmental Effects Summary for Surficial Geology and Soils

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction								
• Quarry and terminal site clearing • Development of Infrastructure • Construction of buildings and plant facilities	• Soil erosion caused by lack of vegetation during quarry preparation. (A)	• Implementation of erosion and sediment control plan • Incremental reclamation procedures will reduce area susceptible to erosion • Recycling of soils for use in incremental reclamation will use existing resources	Low	<150 ha (380 acres)	Short-term	R	**Quarry site**	**Minimal** **Not Significant**
Operation								
• Clearing and quarry face development	• Soil erosion caused by exposed land during quarry operation (A)	• Implementation of erosion and sediment control plan • Incremental reclamation procedures will reduce area susceptible to erosion	Low	<150 ha (380 acres)	Long term	R	Quarry site	**Minimal** **Not Significant**
• Quarry reclamation • Slope stabilization, revegetation	• Recycling of soils uses existing resources for incremental reclamation • The addition of organic compost and other amendments will produce a healthier soil regime than previously existed • (P)	• Follow up and monitoring to ensure success of reclamation work; • No other mitigation required as activity in itself is a mitigation measure; • Sediment and organic disposal areas will be dyked to control soil erosion and dykes will receive erosion control measures during construction	NA	<150 ha (380 acres)	Short to long term	NA	Quarry site	NA

* For definition of levels of magnitude (high, medium, low, nil, unknown) refer to text

8.1 Methods

** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

TABLE 3.4: Environmental Effects Summary for Surface Water

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction								
• Quarry and terminal site clearing • Development of infrastructure • Construction of buildings and plant facilities • Construction of marine shipping terminal	• Contamination of Little River Watershed through surface water runoff during site preparation (A)	• Implementation of erosion and sediment control plan • The minimum 30m preservation zone around the quarry perimeter has been expanded to include all quarry lands that contribute surface water to the Little River Watershed;	Nil	NA	NA	NA	Watershed mostly residential; Designated "important freshwater wetlands" in south portion	NA
Operation								
Effects on the Little River watershed through: • Clearing and quarry face development • Storm and waste water management	• Contamination of the watershed through surface water runoff • Loss of water from the watershed through groundwater loss during quarry operation (A)	• The minimum 30m preservation zone around the quarry perimeter has been expanded to include all quarry lands that contribute surface water to the Little River Watershed; • Design and implementation of stormwater management plan in accordance with regulatory requirements; • Surface water drainage from the compound area will be directed toward the active quarry and away from Little River Watershed; • The minimum 30m preservation zone around the quarry perimeter has been expanded to include all quarry lands that contribute surface water to the Little River Watershed;	Low	Local/ Regional	Long term	R	Watershed mostly residential; Designated "important freshwater wetlands" in south portion	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
		• No water loss is expected due to groundwater loss. • Follow up monitoring of water level and flow in Little River Watershed.						
Effects on on-site surface water drainage /wetlands through: • Clearing and quarry face development • Drilling and blasting (aggregate production) • Storm and waste water management	• Alteration of existing site topography and drainage patterns due to quarry operation (A)	• The quarry floor will be back sloped to direct runoff waters away from the Bay of Fundy; • Natural surface runoff from the mountainside will be diverted into controlled drainage ways and sedimentation ponds and constructed wetlands before entering the Bay of Fundy; • The bog area is in the identified preservation zone and existing natural habitat requirements, such as intermittent surface water flow, will be maintained; • Monitoring of water quality and flow at stormwater inflow and outflow points	Low to mediu m	<150 ha (380 acres)	Long term	R	**Quarry site**	**Minimal** **Not Significant**
Effects on on-site surface water quality through: • Clearing and quarry face development • Drilling and blasting (aggregate production) • Storm and waste water management	• Surface water contamination from quarry operation (A)	• Design and implementation of stormwater management plan in accordance with regulatory requirements; • All water from the working area of the quarry will enter sedimentation ponds before entering the constructed wetlands; • Monitoring of effluent quality at all outflows from sediment retention ponds.	Low	Local	Long term	R	Quarry site	**Minimal** **Not Significant**
Quarry reclamation affecting surface water run off and erosion potential	• Re-establishment of vegetation (P)	• Follow up and monitoring to ensure success of reclamation work; • No other measures required; activity in itself is a mitigation measure	NA	<150 ha (380 acres)	Long term	NA	Quarry site	NA

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** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.5: Environmental Effects Summary for Physical Oceanography

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction								
Effects on turbidity caused by: • Construction of marine shipping terminal • On-site development	• Increased turbidity with construction of the marine terminal caused by the placement of piles. (A)	• Selection of site for terminal on exposed bedrock; • The marine terminal extends into deep enough water to eliminate the need for blasting or dredging to achieve adequate water depth; • Use of pipe pile construction method; causes less turbidity than placing rock infill in intertidal and sublittoral zones • Silt curtains will be installed if turbidity exceeds thresholds during pipe pile installation.	Low	Local	Short term	R	Stable and hard bedrock seabed; no anomalies	**Minimal** **Not Significant**
Effects on tides and currents caused by: • Construction of marine shipping terminal	• Obstruction of tides and currents from the placement of the pipe pile of the marine terminal (A)	• Selection of deep water site; • Use of pipe pile construction method; • Spanning of majority of sublittoral, intertidal and shoreline	Low	Local	Long term	R	Stable and hard bedrock seabed; no anomalies	**Minimal** **Not Significant**
Operation								
Effects on turbidity caused by: • Quarry site development • Vessel transport	• Increased turbidity caused by discharge of surface water run off to marine environment and additional ship traffic in the area; (A)	• Selection of site for terminal on exposed bedrock; • Recycling of washwater; on-site sediment retention ponds; controlled water discharge and effluent monitoring; all discharges to meet applicable regulatory standards • Selection of deep water site;	Low	Local	Long term	R	Stable and hard bedrock seabed; no anomalies	**Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Effects on tides and currents caused by: • Existence of marine shipping terminal	• Obstruction of tides and currents from the placement of the pipe pile of the marine terminal (A)	• Selection of deep water site; • Spanning of majority of sublittoral, intertidal and shoreline	Low	Local	Long term	R	Stable and hard bedrock seabed; no anomalies	**Minimal** **Not Significant**

* For definition of levels of magnitude (high, medium, low, nil, unknown) refer to text
** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.6: Environmental Effects Summary for Air Quality

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
Air Quality Effects as a result of : • Quarry and terminal site clearing • Development of infrastructure • Construction of buildings and plant facilities • Construction of marine shipping terminal	• Dust generated by on-site haul and access roads; • Emission of gases from burning brush during land clearing; • Diesel emissions from heavy equipment; • Exhaust emissions from vehicles during construction; (A)	• Dust control via water spray or other approved methods; • Brush will be chipped, composted and used during land reclamation to eliminate gas emissions caused by burning brush; • All heavy mobile equipment to have approved emission controls and be well maintained; • Paved access road from HWY 217 to the quarry property; • Monitoring of particulate emissions (dust)	Dust levels at property line within NSDEL requirements	Local	Short term	R	Rural, sparsely populated location; nearest residence approximately 150m off-site	**Minimal** **Not Significant**
Operation Phase								
Air Quality Effects as a result of : • Clearing and quarry face development • Drilling and blasting (aggregate production) • Crushing, screening and wash plant operation • Aggregate stockpiling, reclaim and loading	• Dust generated by on-site haul roads and rock processing; • Diesel emissions from heavy equipment; • Emissions from vehicles during operation; • Dust generated on the access road to the quarry; • Particulate emissions from crushing and screening; (A)	• Dust generated on-site will be controlled with water spray or other approved methods; • All heavy mobile equipment will have approved emission controls and be well maintained; • There will be a paved access road from HWY 217 to the quarry property; • Use of electric power for stationary land operations; • Crushing and screening will take place approximately 1000m from the nearest residence; • Crusher and screens to be enclosed, conveyor systems hooded.	Dust levels at property line within NSDEL requirements	Local	Long term	R	Rural, sparsely populated location; nearest residence approximately 150m off-site	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
		• Dust emissions within regulatory standards; • Monitoring of particulate emissions (dust)						
• Aggregate/ Vessel transport	• Diesel exhaust emissions from vessels used to haul basalt rock from site. (A)	• Employment of large marine bulk carriers as energy efficient mode of transportation; • No land transport;	Low	Local	1 vessel/ wk; long term	R	See above	**Minimal** **Not Significant**
• Quarry reclamation, re-vegetation	• Erosion and dust control, and, carbon sinks caused by revegetation of the quarry (P)	• Follow up and monitoring to ensure success of reclamation work; • No other measures required; activity in itself is a mitigation measure.	NA	Quarry site	Long term	NA	See above	NA

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** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.7: Environmental Effects Summary for Noise and Vibration

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction								
• Development of infrastructure; • Quarry and terminal site clearing; • Construction of buildings and plant facilities; • Construction of marine shipping terminal.	• Noise from heavy equipment and construction of buildings and marine terminal. (A)	• A 30 m environmental preservation zone is proposed around the quarry perimeter and White's Cove Road; • The 30m preservation zone will remain forested to help absorb and deflect sound waves; • Sockets will be drilled into the bedrock for seating the piles of the marine terminal rather than continuous pile driving.	Low Noise levels at property line within NSDEL requirements	Local	Short term	R	Rural, sparsely populated location; nearest residence at approximately 150m	**Minimal** **Not Significant**
Operation								
• Clearing and quarry face development; • Drilling and blasting; • Crushing, screening, and plant operation; • Vessel transport.	• Concussion and ground vibration from blasting • Noise from loading rock into trucks and from the aggregate screening process. • Noise from loading vessels for transport. • Increased sound levels in marine environment (blasting; ship traffic) (A)	• A 30 m environmental preservation zone is proposed around the quarry perimeter and White's Cove Road; • The 30m preservation zone will remain forested to help absorb and deflect sound waves; • Incremental reclamation of quarry site to re-establish/increase noise attenuating vegetation buffers; • No blasting is proposed within 800 m of residential structures not located on the quarry property without written permission; • Crusher and screens to be completely enclosed in a building and conveyors to be covered to minimize noise emissions; • Blasting will not be conducted during times of thermal inversion, on foggy, cloudy or overcast days to minimize sound propagation • Each blast will be monitored for concussion and ground	Low Noise levels at property line within NSDEL requirements; blasting in marine environment within DFO Guidelines	Local	Long term start up; once / week operation; once every 2 weeks	R	Rural, sparsely populated location; nearest residence at approximately 150m	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
		vibration. • Rubber lined truck beds will be used to reduce noise of truck loading and rubberized screens will be used in the aggregate screening process; • Environmental preservation zones along the coast line and property lines of the quarry to attenuate noise from ship loading activities. • Horizontal separation distance of about 1.5km between ship loading activity and the nearest residence • Noise and vibration from the quarry to meet the requirements set forth in the NSDEL "Pit and Quarry Guidelines" at the quarry property line • Blasting in compliance with Department of Fisheries and Oceans "Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters" • Monitoring of noise level at property line and receptor locations; reporting to NSDEL • (see Aquatic Ecology -Marine Mammals and Species at Risk for additional noise related mitigation measures))						
• Quarry reclamation, revegetation	• Revegetation to provide for noise abatement (P)	• Follow up and monitoring to ensure success of reclamation work; • No other measures required; activity in itself is a mitigation measure.	NA	Quarry Site	Long term	NA	NA	NA

* For definition of levels of magnitude (high, medium, low, nil, unknown) refer to text
** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.8: Environmental Effects Summary for Light

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
• Development of infrastructure; • Quarry and terminal site clearing; • Construction of buildings and plant facilities; • Construction of marine shipping terminal.	• Security lighting and lights required for the construction of the quarry and marine terminal will change light environment at and adjacent to the site • Pole mounted security lighting may cause night sky "glow" (A)	• Limit construction activities (e.g., 7:00 am to 7:00 pm) • Preservation of a 30 m environmental preservation zone to screen site;	Low to medium	Local	Short term	R	Rural, sparsely populated location; nearest residence at approximately 150m	**Minimal** **Not Significant**
Operation Phase								
Light effects as a result of: • Clearing and quarry face development; • Crushing, screening, and wash plant operation; • Vessel transport;	• Security lighting and lights required for the operation of the quarry and marine terminal will change light environment at and adjacent to the site • Pole mounted security lighting may cause night sky "glow" • Lighting of the shiploader and conveyor systems will be required for night time shiploading and the elevated shiploader will be equipped with lighting directed downward to the holds of the ship	• Conveyor system lighting will be shielded and directed onto the conveyor belts; • Minimal light spill from the elevated shiploader lighting is expected into the marine waters and into the night sky; • Whenever feasible, ship loading would be conducted in daylight hours to avoid night light that could attract fish or birds; • Preservation of a 30 m environmental preservation zone to screen site; • Incremental reclamation of quarry site to re-establish/increase screening effect of vegetation buffers; • On-land lighting plans will be developed considering the criteria proposed by the International Dark-Sky Association (IDA). Design criteria would include: o keeping artificial lighting to a minimum	Low to medium	Local	Long term	R	Rural, sparsely populated location; nearest residence at approximately 150m	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
	• Possible collision with quarry buildings by night migrating birds (A)	o security lighting to be motion activated o reduction of "light trespass" on to neighbouring properties o selection of luminaries (lighting fixtures) that reduce glare o selection of luminaries that are designed to not pollute the night sky • Each fixture will be provided with shields to prevent light spill beyond the area of illumination and to contain all lighting effects within the property line of the quarry						

8.1 Methods

TABLE 3.9: Environmental Effects Summary for Terrestrial Ecology

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
Effects on terrestrial habitat (incl. plant and wildlife species) as a result of : • Quarry and terminal site clearing • Development of infrastructure	• Removal of habitat from active areas of the quarry and the lands immediately adjacent to the active areas; (A)	• The scheduling of any habitat alteration will be done to minimize direct impacts on all bird species. • A minimum 30m environmental preservation zone is proposed, extending from the mean high water mark, inland along the 3 km (1.9 mi.) coastline of the property, to protect the coastal rare plants identified; • The constructed wetlands will create aquatic habitat and add to the natural habitats already existing	Low to medium	<150 ha (380 acres)	Long term	R	Quarry site; no particular protective status	**Minimal** **Not Significant**
Effects to wetlands as a result of : • Quarry and terminal site clearing • Development of infrastructure	• Existing wetlands are in protected areas, and a constructed wetland will be put in place; (A)	• Storm water management plan to ensure water supply for wetlands is maintained;	Low	Small portion of 150 ha site	Long term	R	Quarry site; no particular protective status	**Minimal** **Not Significant**
Effects on migratory birds as a result of : • Quarry and terminal site clearing • Development of infrastructure	• Loss/alteration of migratory bird habitat; (A)	• The scheduling of any habitat alteration will be done to minimize direct impacts on all bird species. Clearing activities for quarry expansion will generally take place during late fall through winter to avoid spring and fall migrations and to avoid the most sensitive spring and summer nesting period; • The constructed wetlands will be designed to attract avian wildlife, especially resident waterfowl and migratory species that may use them for both nesting and staging sites.	Low	Local/ Regional	Long term	R	Quarry site; no particular protective status	**Minimal** **Not Significant**
Effects on species at risk as a result of :	• Loss of habitat for and removal of existing species at risk;	• The preservation zone will include all habitats where the three plant species at risk identified on this property	Medium	Local/ Regional	Long term	R	Plant species	**Medium**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
• Quarry and terminal site clearing • Development of infrastructure	(A)	occur;					with provincial status of "blue" and "yellow"	**Not Significant**
Operation Phase								
Effects on terrestrial habitat (incl. plant and wildlife species) as a result of : • Clearing and quarry face development • Drilling and blasting (aggregate production) • Crushing, screening and wash plant operation	• Removal habitat from active areas of the quarry and the lands immediately adjacent to the active areas; (A)	• The scheduling of any habitat alteration will be done to minimize direct impacts on all bird species. • A minimum 30m (100 ft.) environmental preservation zone is proposed, extending from the mean high water mark, inland along the 3 km (1.9 mi.) coastline of the property, to protect the coastal rare plants identified; • The constructed wetlands will create aquatic habitat and add to the natural habitats already existing	Low	<150 ha (380 acres)	Long term	R	Quarry site; no particular protective status	**Minimal** **Not Significant**
Effects to wetlands as a result of : • Clearing and quarry face development • Drilling and blasting (aggregate production) • Crushing, screening and wash plant operation •	• Wetlands are in protected areas, and a constructed wetland will be put in place; (A)	• Storm water management plan to ensure water supply for wetlands is maintained;	Low	Small portion of 150 ha site	Long term	R	Quarry site; no particular protective status	**Minimal** **Not Significant**
Effects on migratory birds as a result of : • Clearing and quarry face development • Drilling and blasting	• Loss/alteration of migratory bird habitat; • Possible collision with quarry buildings by night migrating birds.	• The scheduling of any habitat alteration will be done to minimize direct impacts on all bird species; • Minimal night lighting is proposed to reduce the possible collision hazard for night migrating birds;	Low	Local/ Regional	Long term	NR	**Quarry site; no particular protective status**	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
(aggregate production) • Crushing, screening and wash plant operation	• Blasting may startle birds in area • Noise from the extraction, transportation, and crushing activities could exclude some of the more sensitive species from adjacent, undisturbed habitats and possibly reduce the reproductive success of those that do remain (A)	• Security lighting will be motioned activated; • The constructed wetlands will be designed to attract avian wildlife, especially resident waterfowl and migratory species that may use them for both nesting and staging sites; • The infrequent occurrence of blasting should not be a significant stressor for wildlife using these areas.						
Effects on species at risk as a result of : • Clearing and quarry face development • Drilling and blasting (aggregate production) • Crushing, screening and wash plant operation	• Loss of habitat for and removal of existing species at risk; • Potential for spread of invasive plant species (A)	• The coastal preservation zone will include all habitats where the three plant species at risk identified on this property occur; • Monitoring of plant populations that are considered at risk would be conducted for as long as the quarry is operated along with monitoring of invasive plant species. • The coastal preservation zone will include all habitats where the three plant species at risk identified on this property occur. • Consideration of new information on the protection of Species at Risk (e.g., recovery strategies or action plans) throughout the life of the Project; and implementation of the new information into Project management if feasible; • Regular consultation with regulatory agencies to ensure Project remains in compliance with SARA. • Monitoring and control of invasive species. • Yearly review (and implementation if warranted) of new guidelines and action plans with respect to invasive alien species and approaches to control/management of these species.	Low to Medium	Local/ Regional	Long term	R	**Plant species with provincial status of "blue" and "yellow"**	**Medium** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Quarry reclamation affecting habitat and species as a result of re-vegetation, habitat creation and management and	• Re-establishment of habitat (P)	• Follow up and monitoring to ensure success of reclamation work; • No other measures required; activity in itself is a mitigation measure	NA	<150 ha (380 acres)	NA	NA	Quarry site	NA

* For definition of levels of magnitude (high, medium, low, nil, unknown) refer to text
** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.10: Environmental Effects Summary for the Fresh Water Aquatic Environment

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
Effects on the freshwater aquatic environment as a result of : • Quarry and terminal site clearing • Development of infrastructure • Construction of marine shipping terminal	• Impairment/loss of fish habitat and communities through site clearing and siltation caused by erosion. (A)	• The water courses near the north and south property lines will be included in the minimum 30 m buffer zone proposed around the perimeter of the property; • All surface runoff from disturbed land, before restoration is complete, will flow through a series of sediment retention ponds and then into a constructed wetland; • Department of Fisheries and Oceans, Habitat Management Division, have concluded that the only watercourse within the active quarry area is not suitable as fish habitat.	Low	Quarry site	Short term	R	On-site no watercourses suitable for freshwater fish habitat	**Minimal** **Not Significant**
Operation Phase								
Effects on the freshwater aquatic environment as a result of : • Clearing and quarry face development	• Impairment / loss of fish habitat and communities through site clearing and siltation caused by erosion; • Impairment/ loss of fish habitat and communities due to water loss as a result of quarrying. (A)	• The water courses near the north and south property lines will be included in the minimum 30 m buffer zone proposed around the perimeter of the property; • All surface runoff from disturbed land will flow through a series of sediment retention ponds and a constructed wetland; • Department of Fisheries and Oceans have concluded that the only watercourse within the active quarry area is not suitable as fish habitat; • Quarrying will be in the upper flow unit, quarrying below the upper flow unit will not be carried out, and no loss of groundwater through this fractured zone to the south water course is expected; • Monitoring of all outflows from sediment retention ponds for Total Suspended Solids (TSS), pH, and total water flow will take place weekly.	Low	Quarry site	Long term	R	On-site no watercourse suitable for freshwater fish habitat	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Quarry Reclamation	• Site re-vegetation, slope reduction, slope stabilization (P)	• Follow up and monitoring to ensure success of reclamation work; • No other mitigation required as activity in itself is a mitigation measure	NA	Quarry site	Long term	NA	See above	NA

8.1 Methods

TABLE 3.11: Environmental Effects Summary for the Marine Aquatic Environment

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
Effects on marine fish and fish habitat and lobster as a result of : • Construction of marine shipping terminal	• Loss of bottom fish and lobster habitat and alteration of water column habitat due to placement of pipe piles in nearshore waters • Introduction of disease organisms from ballast water (A)	• No filling such as a rock causeway or infilled crib work or sheet piling within the intertidal zone is proposed; • Lost habitat will be replaced with an area of bottom habitat three times the size of the area lost and with features attached to selected pipe piles in various depths in the water column to enhance food sources for pelagic fish. • Monitoring of alien disease organisms at/near marine terminal	Low (habitat compensation at 3x the loss of bottom habitat)	Local	Short term	R	Commercial fishing area	**Minimal** **Not Significant**
Effects on marine waterbirds as a result of : • Construction of marine shipping terminal	• Loss of wintering habitat for Harlequin Duck, Barrow's Goldeneye; (A)	• No Harlequin Ducks have been observed in the waters near the site and Barrow's Goldeneye have not been observed either to winter at site, so no mitigation is proposed.	Low	Local	Short term	R	Commercial fishing area Area without protective status	**Minimal** **Not Significant**
Operation Phase								
Effects on marine fish and / or habitat as a result of : • Drilling and blasting • Vessel transport	• Pressure from blasting can cause lethal damage to fish and incubating eggs, and noise can cause behavioural changes. (A)	• Timing of blasting activities is proposed within 3 hours of low tide, and at low tide whenever possible; • The explosive ANFO will be used instead of TNT whenever possible. • Blasting will be guided by "Bilcon of Nova Scotia Corporation's 'Blasting Protocol'" and adhere to the Department of Fisheries and Oceans "Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters"	Low Blasting in compliance with DFO Guideline	Local	1 vessel/wk; Blasting: approx. once/ week Later: once/ 2 weeks	R	Commercial fishing area	**Minimal** **Not Significant**
Effects on marine mammals as a result of :	• Subtle changes in marine mammal activity;	• Blasting will be guided by "Bilcon of Nova Scotia Corporation's 'Blasting Protocol'" and adhere to the	Medium	Bay of Fundy;	1 vessel/wk;	NR	Proj. Site approximately 12	**Medium**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
• Drilling and blasting • Vessel transport	• Contact with vessels and marine mammals. (A)	Department of Fisheries and Oceans "Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters" • Blasting will not be conducted if pinnipeds are within 170m of the detonation point or if cetaceans are within 500m; • Blasting will not be conducted if marine mammal species at risk (fin, blue or North Atlantic right whales) are observed within 2500m of the detonation site • Observation of shipping channel and safety zone for presence of marine mammals • Vessel speed reductions and/or course alteration in case of whale sightings within designated approach/departure route • Marine mammal interactions within the vessel turning radius are unlikely due to the slow movement of the vessel while maneuvering into and out of the berth.	Should be Low as per DFO	national/ internati onal	Blasting: approx. once/ week Later: once/ 2 weeks		km away from Right Whale Conservation Area	**Not Significant**
Effects on American lobster as a result of : • Drilling and blasting	• Harm to lobster from pressure and sound is possible; (A)	• Timing of blasting activities is proposed within 3 hours of low tide, and at low tide whenever possible; • The explosive ANFO will be used instead of TNT whenever possible; • Blasting activity to adhere to "Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters"	Low	Local	Blasting: approx. once/ week Later: once/ 2 weeks	R	Commercial lobster fishing area	**Medium** **Not Significant**
Effects on marine waterbirds as a result of : • Drilling and blasting • Vessel transport	• Harm to marine water birds caused by noise/vibration; • Contact with waterbirds and vessels (A)	• Timing of blasting activities is proposed within 3 hours of low tide, and at low tide whenever possible; • Blasting will not be conducted if waterbirds are within 170m of the detonation point • Waterbird interactions within the turning radius are unlikely due to the slow movement of the vessel while	Low	Local	1 vessel/wk; Blasting: approx. once/ week Later: once/2	R	Area without protective status Commercial fishing area	**Medium** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
		maneuvering into and out of the berth			weeks			
Effects on marine species at risk as a result of : • Drilling and blasting • Vessel transport	• Harm to Inner Bay of Fundy Atlantic Salmon and/or Leatherback Turtle • Behavioural changes in marine mammals; • North Atlantic Right Whale strikes by marine vessels (A)	• Blasting activity to adhere to "Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters" • Application of three times the designated setback indicated in the Guidelines for Use of Explosives in or near Canadian Fisheries Waters to be applied from May to October (i.e., during iBoF Atlantic salmon migration) • Blasting will not be conducted if endangered marine mammals are within 2500m blast; • Employment of trained observer for sighting mammals and waterfowl within defined safety zones and vessel approach/departure route (observations from elevated on-shore location and work boat) • Reduced vessel speed (10 knots or less) and/or alteration of course in case of sighting of marine mammals within designated shipping route • Consideration of new information on the protection of Species at Risk (e.g., results of Allowable Harm Assessment for right whale; recovery strategy for iBoF salmon; other restrictions of critical habitat; recovery strategies or action plans) throughout the life of the Project; and implementation of the new information into Project management if feasible; • Regular consultation with regulatory agencies to ensure Project remains in compliance with SARA • Coordination during initial and subsequent one year monitoring phase with DFO on details of monitoring program for CONWEP model verification and finalization of safety zone distances • Implementation of Canadian Ballast Water Control and	Medium	Bay of Fundy	1 vessel/wk; Blasting: approx. once/ week Later: once/2 weeks	NR	Proj. Site approximately 12 km away from Right Whale Conservation Area Commercial fishing area	**Medium** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 - Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
		Management Regulations under the Canada Shipping Act. • Monitoring of alien disease organisms at/near marine terminal • Vessels will use designated inbound/outbound shipping lanes shown on the Canadian Hydrographic Chart.						

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** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.12: Environmental Effects Summary for Heritage Resources

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
Effects on marine archaeology as a result of: • Construction of marine shipping terminal	• Damage, loss of marine artifacts (A)	• The location of the marine terminal and of the shipping route will avoid the possible archaeological sensitive underwater ridge extending from Sandy Cove west during either construction or subsequent shipping activities • Prior to marine construction, Bilcon of Nova Scotia Corporation will have the appropriate archaeological investigations conducted under permit with the Nova Scotia Museum: if archaeological resources are discovered as a result of this investigation, appropriate mitigation actions will be taken in consultation with the Nova Scotia Museum	Low	Marine terminal	Long term	NR	Coast line with long history of shipping and fishing activities	**Minimal** **Not Significant**
Effects on land archaeology as a result of: • Quarry and terminal site clearing • Development of infrastructure • Construction of buildings and plant facilities	• Damage/loss of archaeological resources (land-based) (A)	• On-site archaeological survey • Archaeological recording and limited testing of the Hersey House foundation plus an area within a 250m radius around the house will be conducted under permit with the Nova Scotia Museum if the foundation cannot be avoided during quarry construction or operations • Before construction, an educational briefing concerning archaeological/historical resources will be conducted for quarry employees; training program to be established in consultation with regulatory agency. • Further investigate location of the historic Indian Hill Camp prior to construction/ site development • If any evidence of archaeological materials or human remains is discovered during construction, activities will not recommence until the artifacts are evaluated and permission is granted by the Museum to resume work. Additionally, a local site archaeologist will be on call if immediate situations arise.	Low	Quarry site	Long term	NR	No archaeological /cultural resources identified on-site;	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Effects on heritage properties as a result of: • Quarry and terminal site clearing • Development of infrastructure • Construction of buildings and plant facilities	• Negative visual influences on heritage properties (A)	• Since the quarry operation is not visible from Highway #217, no negative visual influences on heritage/cultural tourism travelers would result. • View planes from existing heritage properties would not be affected since the quarry is not visible from any of the registered or designated heritage properties.	Nil	NA	NA	NA	Site and abutting properties not identified as heritage property	**Minimal** **Not Significant**
Effects on historical resources/site history as a result of: • Quarry and terminal site clearing • Development of infrastructure • Construction of buildings and plant facilities	• Damage/loss of historical resources (A)	• Before construction, an educational briefing concerning archaeological/historical resources will be conducted for quarry employees. • If any resources are uncovered such as potential human remains, procedures outlined in the Cemeteries Protection Act will be followed; • A local archaeologist will be on call if immediate situations arise.	Low	Quarry site	Long term	NR	No historical resources identified on-site;	**Minimal** **Not Significant**
Operation Phase								
Effects on land archaeology as a result of: • Clearing and quarry face development	• Damage/loss of land archaeological resources (land-based); (A)	• On-site archaeological survey • Before construction of the quarry infrastructure and operation, an educational briefing concerning archaeological/historical resources will be conducted for quarry employees. If any evidence of archaeological materials or human remains is discovered during; • Construction will not recommence until the artifacts are evaluated by the Museum and permission is granted by the Museum to resume work. Additionally, a local site archaeologist is on call if immediate situations arise	Low	Quarry site	Long term	NR	No archaeological /cultural resources identified on-site	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Effects on heritage properties as a result of: • Clearing and quarry face development	• No interaction identified - quarry operation is not visible from Highway #217	• Since the quarry operation is not visible from Highway #217, no negative visual influences on heritage/cultural tourism travelers would result. • View planes from existing heritage properties would not be affected since the quarry is not visible from any of the registered or designated heritage properties.	Nil	NA	NA	NA	Site and abutting properties not identified as heritage property	**Minimal** **Not Significant**
Effects on historical resources/site history as a result of: • Clearing and quarry face development	• Damage/loss of historical resources (A)	• Before construction, an educational briefing concerning archaeological/historical resources will be conducted for quarry employees. • If any resources are uncovered such as potential human remains, procedures outlined in the Cemeteries Protection Act will be followed; • A local archaeologist will be on call if immediate situations arise. • Also, a local archaeologist is on call if immediate situations arise.	Low	Quarry site	Long term	NR	No historical resources identified on-site;	**Not Significant**

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** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.13: Environmental Effects Summary for Aboriginal Land and Resources

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
Effects on aboriginal land and resources as a result of : • Quarry and terminal site clearing • Development of infrastructure	• Loss or damage of aboriginal artifacts; • Loss of fishing grounds, lobster traps. (A)	• Archaeological survey of quarry site; • Should any artifact be discovered during the clearing and grubbing operation, all work will be stopped in the area until an investigation is carried out by a qualified archaeologist under the direction of Nova Scotia Museum; • The only impact expected on the fishery is possible trap loss near the marine terminal, this loss will be compensated.	Low	Quarry site	Short term	NR & R	No archaeological /cultural resources identified on-site; General area used by First Nations (fishing, hunting)	**Minimal** **Not Significant**
Operation Phase								
Effects on aboriginal land and resources as a result of : • Clearing and quarry face development • Vessel transport	• Loss or damage of aboriginal artifacts; • Disruption/ loss of fishing grounds,; loss of lobster traps; • Effects on terrestrial and aquatic environment; • Contaminants in marine and terrestrial environment and country foods. (A)	• Archaeological survey of quarry site • Should any artifact be discovered during the clearing and grubbing operation, all work will be stopped in the area until an investigation is carried out by a qualified archaeologist under the direction of Nova Scotia Museum; • The only impact expected on the fishery is possible trap loss near the marine terminal, this loss will be compensated; • For mitigation related to the terrestrial and aquatic environment, contaminants in these environments and in country foods refer to the relevant VECs.	Low	Local	Long term	NR & R	See above	**Minimal** **Not Significant**
Quarry Reclamation	• Re-establishment of habitat (P)	• No mitigation required as activity in itself is a mitigation measure	NA	Quarry site	Long term	NA	See above	NA

* For definition of levels of magnitude (high, medium, low, nil, unknown) refer to text
** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.14: Environmental Effects Summary for Aesthetics

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 (Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
Aesthetic Effects as a result of : • Quarry and terminal site clearing • Development of infrastructure • Construction of buildings and plant facilities	• No interaction identified - quarry operation is not visible from Highway #217 (A)	• Maintenance of a 30m environmental preservation zone will be maintained along the perimeter of the property; • No further mitigation measures required since the quarry will not be visible from the road;	Nil	NA	NA	NA	Rural, sparsely populated location; nearest residence at approximately 150m	**Minimal** **Not Significant**
Aesthetic Effects as a result of : • As above plus: • Construction of marine shipping terminal	• Quarry activity/infrastructure seen from the Bay of Fundy; (A)	• The operational schedule proposes to limit site disturbance to 2.5 hectares a year; • The 30m environmental preservation zone will include a preservation zone along the Bay of Fundy.	Low	Local	Short term	R	Remote coastline; outside of area frequented by (whale watching) tour boats	**Minimal** **Not Significant**
Operation Phase								
Aesthetic Effects as a result of : • Clearing and quarry face development • Rock processing • Vessel transport (ship loading)	• Effects (night glow) seen from on-shore (HWY 217); (A)	• Site not directly visible from Hwy; effects limited to night glow – see mitigation measures listed under Light;	Low	Local	Long term	R	Rural, sparsely populated location; nearest residence at approximately 150m	**Minimal** **Not Significant**
Aesthetic Effects as a	• Quarry activity/infrastructure seen	• The operational schedule proposes to limit site	Low	Local	Long	R	Remote	**Minimal**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 (Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
result of : • Clearing and quarry face development	from the Bay of Fundy. (A)	disturbance to 2.5 hectares a year; • Reclamation of previously disturbed land will be implemented on a five-year schedule, this would give priority to enhancing the aesthetics between the shoreline and land based infrastructure. • The 30m environmental preservation zone will include a preservation zone along the Bay of Fundy. • The buildings at the processing plant be gray or dark green in colour and made of non-reflective materials to blend with the surrounding forest and rock outcrops. • The ship loader components are to be a "battle ship" gray colour to blend with the marine environment.			term		**coastline; outside of area frequented by (whale watching) tour boats**	**Not Significant**
Quarry reclamation	• Re-establishment of vegetation; slope reduction and stabilization (P)	• Reclamation on the basis of detailed landscape plan including tree and shrub plantings and seeding of herbaceous communities with the purpose of habitat creation, visual site integration, and provision of recreational opportunities • Follow up and monitoring to ensure success of reclamation work; • No other mitigation required as activity in itself is a mitigation measure	NA	Quarry site	Long term	NA	See above	NA

* For definition of levels of magnitude (high, medium, low, nil, unknown) refer to text
** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.15: Environmental Effects Summary for Transportation

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
Land Transportation Effects as a result of : • Quarry and terminal site clearing • Development of infrastructure • Construction of buildings and plant facilities • Construction of marine shipping terminal	• Inconvenience of heavy truck traffic on HWY 217; • An increase in truck and private automobile traffic for the year long construction phase. • Alterations/ upgrades to Whites Cove Road (A)	• Whites Cove Road will be upgraded to ensure safe access to the quarry property from Highway 217; • Whenever possible deliveries of machinery, equipment, and construction materials will be made by water; • Consultation with TPW prior to any upgrades to Whites Cove Road	Low	Local	Short term	R	Rural 2-lane Hwy with heavy commercial traffic	**Minimal** **Not Significant**
Sea Transportation Effects as a result of : • Construction of marine shipping terminal	• Inconvenience to the fishery of marine vessel traffic in the Bay of Fundy. (A)	• Advanced notice of shipment schedules will be provided to local fishermen as well as the designated shipping route and docking radius. • Losses of fishing gear will be compensated for.	Low	Local	Short term	R	Commercial fishing area	**Minimal** **Not Significant**
Operation Phase								
Land Transportation Effects as a result of : • Clearing and quarry face development • Drilling and blasting (aggregate production) • Crushing, screening and wash plant operation • Aggregate stockpiling, reclaim and loading	• Truck traffic from delivery of fuel and explosives once every two weeks; (A)	• Whites Cove Road will be upgraded to ensure safe access to the quarry property from Highway 217; • Quarry products will be shipped directly from the site by water, eliminating heavy truck traffic, noise, vibration, and inconvenience to residents; • There will be fuel storage on-site to minimize the frequency of tanker truck deliveries.	Low	Local	Long term	R	**Rural 2-lane Hwy with heavy commercial traffic**	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Sea Transportation Effects as a result of : • Vessel transport	• Inconvenience to the fishery of marine vessel traffic in the Bay of Fundy. (A)	• The location of the marine terminal will provide a short distance and direct route to and from the designated in bound/outbound shipping lanes • The location of the marine terminal will be along a homogenous section of the coastline without islands or other physical navigational hazards • Definition of vessel approach / departure course in consultation with local fishermen • Completion of Port Procedures Manual at least six months before arrival of first vessel in conjunction with Transport Canada Marine Safety Group; • Advanced notice of shipment schedules will be provided to local fishermen as well as the designated shipping route and docking radius. • Losses of fishing gear will be compensated for.	Low	Local	1 vessel/wk	R	Commercial fishing area; navigation mostly within designated shipping lanes	**Not Significant**

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** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.16: Environmental Effects Summary for Economy

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
Economic Effects as a result of : • All quarry activities	• Increase in employment (P)	• Local labour markets will be utilized to the extent possible • Implementation of employment policy that ensures gender equality • No others proposed; effect is beneficial	45 person-years	County	Short term	NA	Area with high dependency on employment insurance benefits	**NA**
Economic Effects as a result of : • All quarry activities	• Increase in GDP and Municipal Taxes (P)	• None required	NA	County	Short term	NA	See above	**NA**
Economic Effects on the nearshore fishery as a result of: • Marine terminal construction	• Disruption of lobster and herring fishery (A)	• Compensation will be provided for lost traps and gear related to shipping activities.	Low	Regional	Short term	R	Important commercial fishery	**Minimal** **Not Significant**
Operation Phase								
Economic Effects as a result of : • All quarry activities	• Increase in employment • Increase in municipal tax revenue (P)	• Local labour markets will be utilized to the extent possible; • No others proposed; effect is beneficial.	51.8 person-years	County	Long term	NA	Area with high dependency on employment insurance benefits	**NA**
Economic Effects as a result of : • All quarry activities	• Increase in GDP (P)	• None required	NA	County	Long term	NA	See above	**NA**
Economic Effects on aquaculture as a result of: • Drilling and blasting (aggregate production)	• Adverse effects on pelagic fish including eggs and larvae (A)	• Weights of explosive charge will be kept to a minimum; • Time-delay detonators will be used to create a series of	Low	Regional	Long term	R	Nearest licensed land-based aquaculture; 2.5 km off-site;	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
		single explosions, larger charges will be subdivided into a series of smaller charges; • Blast holes will be backfilled with gravel or sand; • All blasts will be monitored for noise and ground vibration at the east and west property lines.					nearest water-based aquaculture 8 km off-site	
Economic Effects on the intertidal fishery as a result of: • All quarry activities	• Loss of access to intertidal zone where local harvesting of periwinkles and dulse takes place (A)	• Access to the coast through quarry property is proposed upon appropriate arrangements; • A check in procedure will be put in place to protect harvesters during periods of blasting.	Low	Local	Long term	R	Intertidal zone used for harvesting of periwinkle and dulse	**Minimal** **Not Significant**
Economic Effects on the nearshore fishery as a result of: • Vessel transport	• Disruption of lobster and herring fishery (A)	• Definition of vessel approach / departure course in consultation with local fishermen; • Establishment of toll-free phone number for fishers and tour boat operators to obtain up-to-date information on vessel arrivals and departures; • Advance notice will be given of shipment schedules; • Compensation will be provided for lost traps and gear related to shipping activities. • Re-establishment of the Community Liaison Committee with a local fisherman representative is proposed to maintain lines of communication between the quarry and fishing industries.	Low	Regional	Long term	R	Nearshore fishery is important component of local economy	**Minimal** **Not Significant**
Economic Effects on tourism as a result of: • All quarry activities • Vessel transport	• Visibility of the quarry from tourist attractions/ accommodations (A)	• The quarry will not be visible from surrounding land tourist attractions; • Adventure tour boats are not as frequent as offshore Long Island and Brier Island; views of site and terminal mostly from distances beyond 3 km where facility begins to blend in with background.	Low	Regional	Long term	R	Tourism is important component of local economy; little tour boat activity near site	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
		• Establishment of toll-free phone number for fishers and tour boat operators to obtain up-to-date information on vessel arrivals and departures; • See also mitigation for Transportation – Marine and Aesthetics • Bilcon to explore, together with representative of local tourism industry, options for contributing to enhancement of the area's tourism and recreation opportunities						
Economic Effects on property value as a result of: • All quarry activities	• Changes in property values in areas immediately adjacent to the operation (A)	• Evaluation of the residential properties within 800m of the active quarry by a qualified real estate appraiser prior to construction and a re-evaluation carried out five years later to determine if value has been lost. Loss will be compensated by Bilcon.	Low	Local	Long term	NR	Considerable interest in properties in Digby and Annapolis County; particularly properties with waterfront or water view	**Minimal** **Not Significant**
Economic Effects on recreation as a result of: • All quarry activities	• Loss of access to Bay of Fundy coastline by Whites Cove Road for recreational purposes (A)	• Unrestricted access along the shoreline on Crown lands below the ordinary high water line would be maintained. A check in procedure would be initiated for the safety of the recreational users. • A minimum 30m wide environmental preservation zone will be maintained along the coastline of the quarry as a buffer to enhance visual qualities • A security fence will be installed along public property lines for public safety	Low	Local	Long term	R	Site not a designated recreation area	**Minimal** **Not Significant**
Quarry reclamation	• Re-establishment of vegetation and access	• Follow up and monitoring to ensure success of reclamation measures	NA	Quarry site	Long term	NA	Rural, sparsely populated area	**NA**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
	(P)	• Consultation with local community with respect to details of site reclamation and after use						

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** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.17: Environmental Effects Summary for Human Health and Wellness and Socio-cultural Environment

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
Effects on social capital as a result of : • Pre-project planning	• Differences in opinion about the project among residents of the community create a disruption of social cohesion (A)	• Re-establishment of the community liaison committee that was established when a 4 hectare quarry was permitted in 2002.	Medium	Community	Short term	R	Area with high dependency on employment insurance benefits	**Medium** **Not Significant**
Operation Phase								
Effects on quality of life as a result of : • All operational quarry activities	• Perceived impairment of environmental health and quality (A)	• On-going community consultation • Environmental monitoring and disclosure of monitoring results	Low	Residents in Site vicinity	Long term	R	Nearest residence approximately 1km off site	**Minimal** **Not Significant**
	• Increased health programs; • Increased income and financial security, and increased presence of family opportunities for employees. (P)	• None required	NA	Community	Long term	NA	Area with high dependency on employment insurance benefits	NA
Commercial pattern effects as a result of : • Quarry operation	• Inconvenience to nearshore fishermen as a result of marine terminal activities; • Visual degradation if tourism cruises venture along this section of coastline. (A)	• Specific shipping lanes will be designated; • Advance notice will be given of shipment schedules; • Compensation will be provided for lost traps and gear related to shipping activities. • Views from the water from adventure tour boats are anticipated to be infrequent and mostly at considerable distance from site.	Low	Community	Long term	NR	See above; Nearshore fishing and boat tours component of local economy	**Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
	• Opportunity for diversification/broadening of local economy (P)	• Implementation of a local hiring policy with training of all employees at Bilcon's expense.	NA	Community	Long term	NA	Area with high dependency on employment insurance benefits	**NA**
Effects on education, training, and skills as a result of: • Quarry operation	• Improved opportunities for education and training (P)	• Implementation of a local hiring policy with training of all employees at Bilcon's expense.	NA	Regional	Long term	NA	Area with level of education lower than in urban areas	**NA**
Effects on infrastructure and institutional capacity as a result of: • Quarry operation	• Additional burden on local services (A)	• burden is expected to be compensated by beneficial effects (see below)	Low	Regional	Long term	NR	Area with declining population base	**Minimal** **Not Significant**
	• Opportunity for improvement of local services based on increased tax base, income, and employment (P)	• None required	NA	Regional	Long term	NA	Area with declining population base	**NA**
Effects on quality of life as a result of : • Quarry operation - reclamation	• Improved perception of site based on site re-vegetation, habitat creation, visual integration, provision of recreation opportunities (P)	• None required; activity is mitigation measure sin itself	NA	Local	Long term	NA	Area with declining population base	**NA**

* For definition of levels of magnitude (high, medium, low, nil, unknown) refer to text
** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Methods

TABLE 3.17: Environmental Effects Summary for Human Health and Wellness and Socio-cultural Environment

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
Construction Phase								
No interaction with construction activities identified	• No effects identified	• No mitigation required	NA	NA	NA	NA	NA	NA
Operation Phase								
Effects on,on and off-site drinking water quality as a result of: • Clearing and quarry face development • Drilling and blasting (aggregate production)	• Damage to off-site water supply quality; (A)	• See mitigation for Geology and Hydrogeology • The quarry activity will take place in the upper basalt flow unit, while the off-site wells are in the middle flow unit or deeper and will not be affected by the quarry. • Water wells on-site and in the adjacent area will be monitored.	Low	Local	Long term	NR	**Rural, sparsely populated area; nearest residence approximately 1000m off-site**	**Minimal** **Not Significant**
Effects on marine contamination as a result of: • Clearing and quarry face development • Drilling and blasting (aggregate production) • Crushing, screening, and wash plant operation • Operation of marine terminal and marine – based aggregate transport	• Marine contamination from surface water and sediment runoff (A)	• A system of drainage channels and sediment retention ponds is proposed to control on-site contaminants from entering marine waters; • A closed circuit recycling of aggregate wash water is proposed; • Sediments from the ponds will be kept on-site and used in reclamation; • Controlled discharge with effluent quality monitoring; • Electrical motors for the conveyor systems over the intertidal and near shore (requires minimal lubricants), equipped with drip pans; • Incremental reclamation will stabilize areas disturbed by quarrying and reduce erosion;	Low	Local	Long term	R	**Active fishing and harvesting of marine resources at and near the Project site**	**Minimal** **Not Significant**

8.1 Methods

Project-Environment Interaction	Potential Positive (P) or Adverse (A) Effect	Mitigation (for comprehensive listing see Table 2 Section 11.0 Env. Management)	Significance Criteria for Environmental Effects					Residual Effects and Significance**
			Magnitude*	Geographic Extent	Duration/Frequency	Reversibility (R= reversible NR = Not reversible)	Ecological/ Social-cultural and Economic Context	
		• Monitoring of periwinkles for contaminants.						
Effects on land contamination as a result of: • Clearing and quarry face development • Drilling and blasting (aggregate production) • Crushing, screening, and wash plant operation	• Land contamination from herbicides/pesticides, hazardous materials, diesel fuels, oils, greases, coolants, sewage, or solid waste. (A)	• Implementation of Environmental Protection Plan including spill prevention and clean up procedures, provision of clean up equipment and training; • Qualified persons will handle hazardous materials such as explosives, and no explosives will be stored on site; • Diesel fuels, oils, greases, and coolants will be stored on site in spill containment areas; • Vehicle fuellings, oil and coolant changing will be done using closed systems with dry break disconnect couplings; • Automatic greasing systems will be used on off-road mobile equipment, and grease used will not contain heavy metals; • Sewage disposal will be by an on site sewage disposal system; • A local hauler will dispose of solid waste in an approved landfill site; • Monitoring of raspberries for contaminants.	Low	Local	Long term	R	**Rural, sparsely populated area; nearest residence approximately 1000m off-site; Berry picking at and near the Project site**	**Minimal** **Not Significant**
Effects on country food as a result of: • Clearing and quarry face development • Drilling and blasting (aggregate production) • Crushing, screening, and wash plant operation	• Impacts on country foods through air, water, and soil pathways. (A)	• Measures will be taken to reduce the contamination of air, water, and soil through quarry activities • Air, water, and soil pathways will be monitored for contamination over the life of the quarry; • Every five years laboratory analysis of the metal content in raspberries and periwinkles will be conducted.	Low	Local	Long term	R	**Berry picking at and near the Project site**	**Minimal** **Not Significant**

* For definition of levels of magnitude (high, medium, low, nil, unknown) refer to text
** For definition of levels of significance (major, medium, minimal) refer to text
NA = not applicable; magnitude, reversibility, and significance have not been assessed for positive effects

8.1 Impact Assessment Methodology

WP 1625 – Partnership for Sustainable Development
Deficiency Statement 17
EIS Guidelines
4.3 – Expectations - 'The Panel expects the Proponent to make use of environmental assessment guidance materials published by federal and provincial departments..." 'The EIS must support any analyses, interpretation of results and conclusions by providing all relevant references."
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; and other social and economic features or implications."
The EIS Guidelines provide a clear description of the logical sequence and elements required in the examination of significance. The Guidelines draw specifically on both federal and provincial guidance. In particular, the CEAA Reference Guide: Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects (Nov. 1994) identifies the following factors in the assessment of significance:

- *magnitude*
- *geographic extent*
- *duration and frequency*
- *reversibility*
- *ecological context*
- *probability of occurrence*
- *scientific uncertainty*

The Nova Scotia Environmental Assessment Regulations, Section 2, similarly defines significance, with respect to an environmental effect, in terms of 'its magnitude, geographic extent, duration, frequency, degree of reversibility, possibility of occurrence or any combination of the foregoing'
EIS
While the EIS makes passing reference to these criteria, it fails to make use of them in the assessment of significance. Specifically, 'The determination of whether an effect is considered insignificant or significant is based primarily on the level of spatial scale (local, regional, provincial, national/international) and after mitigation measures are considered."[47] *The EIS bases its determination of significance on only one (geographic extent) of the possible seven criteria included in the CEAA guidance. No justification or reference is provided for this method. The significance methodology employed in the EIS represents a clear deficiency with respect to the EIS Guidelines. This deficiency has the effect of dramatically altering the conclusions of the EIS. The Proponent should revise the significance methodology used to correspond with the Guidelines and CEAA guidance.*

RESPONSE
Please refer to Bilcon's response to Panel in this Section..

8.1 Impact Assessment Methodology

EIS Guidelines – Section 8.0 – Impact Assessment Methodology
Deficiency Statement 37
EIS Guidelines
8.1 - Methods - 'Indicate the degree of certainty in the impact predications and determination of significance (identify measures used)."
EIS
The EIS provides impact predictions on 76 Valued Environmental Components.[83] *As noted above, the EIS Guidelines require an indication of the level of certainty with impact predictions and significance determination. The EIS addresses this requirement with the single statement 'Considering the amount and quality of on-site investigations, baseline data collected, modeling and trend analysis within the region, the reliability of effect prediction is high."*[84] *A mere reference to studies and analysis undertaken does not satisfy the EIS Guidelines requirement to identify the measures used to indicate the degree of certainty of impact predictions. A clear and detailed rationale is required to support the statement "reliability of effect prediction is high." The individual sections of the EIS which deal with specific VECs (Chapter 9) appear to provide no further information on the level of certainty with impact predictions and significance determination. The Proponent should revise impact predictions for the 76 VECs to include an estimate of certainty.*

RESPONSE
Please refer to Bilcon's response to Panel in this Section.

Deficiency Statement 41
EIS Guidelines
8.1 – Methods – "Explain and justify the methods used to predict potential impacts of the Project on the VECs..."
EIS
8.0 – Impact Assessment Methodology – The EIS defines the term "local" to "...include Project effects on valued environmental components on the quarry and marine terminal site and adjacent surrounding land and water area." To meet the requirements of the section 8.1 of the EIS Guidelines the spatial boundary "adjacent surrounding land and water area" must be defined.

RESPONSE
Please refer to Bilcon's response to Panel in this Section.

Deficiency Statement 42
EIS Guidelines
8.1 – Methods – "Identify and justify any assumptions made"

8.1 Impact Assessment Methodology

EIS

8.1 – Methods – The EIS refers to three environmental evaluation criteria used to determine the type of effect - positive, negative or neutral. The criteria used to determine a neutral or negative effect are based solely on a regulatory framework. The criteria used to determine a positive effect is not based on a regulatory framework. Section 8.1 of the EIS Guidelines is not met because there is no justification provided for the assumption that any effect that meets a regulatory requirement is neutral. Many of the VEC's identified in the EIS are not regulated. The fact that a regulation or guideline exists does not preclude an adverse environmental effect even where the regulation or guideline is not exceeded. Furthermore, if the EIS uses regulations and guidelines as the criteria to determine neutral and negative effects, why is the same criteria not applied to positive effects. For example, positive effects occur only where Project development or activities improve upon regulatory requirements.

RESPONSE

Please refer to Bilcon's response to Panel in this Section.

Deficiency Statement 43

EIS Guidelines

8.1 – Methods – "Explain and justify the methods used to predict potential impacts of the Project on the VECs..."

EIS

8.1 – Methods – Significance - The EIS states, "The determination of whether an effect is considered insignificant or significant is based primarily on the level of spatial scale (local, regional, provincial, and national/international)..." Arguably this is an explanation, however, there is no justification provided for this method. The EIS goes on to state, "Generally, to be considered significant the influence of effect would have to be greater than a regional scale ..." The statement fails to explain what is meant by 'generally'. Under what circumstances would an effect that is local or regional be considered significant? Furthermore, there is no justification or rationale for the assumption that any effect that is local or regional is not significant.

RESPONSE

Please refer to Bilcon's response to Panel in this Section.

Deficiency Statement 44

EIS Guidelines

8.1 – Methods – "Explain and justify the methods used to predict potential impacts of the Project on the VECs..."

EIS

8.1 – Methods – Probability - The EIS identifies 76 VECs. Of those 76 only 9 fall into the categories identified as provincial or national/international. Presumably, this means that

only 9 of the 76 VECs have the potential to be significant. The Proponent has indicated that 1 of the 9 VECs (terrestrial floral species at risk) is effected in a 'significant positive' way. The Proponent identified 3 other VECs as being effected in a 'significant positive' way. All 3 of these VECs fall into the scale category 'regional." According to the EIS methodology set out in the subsection of section 8.1 entitled Significance this determination is not possible. However, the Proponent appears to change the methodology in the subsection of section 8.1 entitled Probability. The EIS states, "In the case of human components, a significant positive or significant negative effect must be judged to have a regional, provincial or national/international scale of effect..." Not only is this change in methodology out of context (it should appear in the subsection on Significance) there is no explanation or justification provided.

RESPONSE

Please refer to Bilcon's response to Panel in this Section.

Deficiency Statement 91

EIS Guidelines

Section 12.7 - Residual Impacts - 'Describe and document: how significance was determined (i.e. the process carried out or the methods used); the basis for determining significance, along with documentation for existing thresholds (e.g. stakeholder input, traditional knowledge, standards, guidelines or quantitative risk assessment)."

EIS

For the assessment of significance, the EIS Guidelines require the Proponent to document the basis for the assessment, including existing thresholds (e.g. stakeholder input, traditional knowledge, standards, guidelines or quantitative risk assessment). The criteria used within the EIS are more limited than those suggested in the Guidelines, specifically, 'If the project development or activities are within environmental regulatory regulations or guidelines established for a particular environmental component, a neutral effect would result." It is unlikely the regulatory standards or guidelines exist for all possible impacts. This would necessitate the use of stakeholder input, traditional knowledge and quantitative risk assessment is establishing appropriate thresholds. Based on the EIS methodology, this was not done. The EIS methodology also fails to consider how sub-threshold effects may contribute to cumulative effects. The EIS is deficient in following the Guidelines in this respect.

RESPONSE

Please refer to Bilcon's response to Panel in this Section.

EIS Reference: EIS Volume V, Chapter 8, Section 8.2

INDEX OF COMMENTS

8.0 Impact Assessment Methodology

8.2 Public Consultation

8.2 Public Consultation

WP 1452 - Joint Review Panel

8.2 Public Consultation
8.2.2 Provide the updated communications plan referred to in the last paragraph of pg. 10 and show how the public consultation initiatives have influenced the plan.

RESPONSE
Communications Plan
The Communications Plan referred to on page 10 of Chapter 8.2 of the EIS refers to "a regularly updated communications plan to address and integrate feedback." The Plan provided in Chapter 8.2 is an iterative process and, as with most projects and activities, will be updated as the project proceeds in order to adjust to changing situations.

Bilcon received a clear message from the community that more information was required to better understand the project and its effect on their wellbeing. Since the EIS has been submitted, Bilcon has made efforts to keep the community informed of the EA process via regular Quarry Update newsletters, distributed to all residences and businesses in Digby, Digby Neck and Islands (Freeport, Little River, Sandy Cove, Westport, Tiverton), Bear River, Clementsport, Clementsvale, Cornwallis, Smith's Cove, Granville Ferry and Annapolis Royal (**see Appendix 1**). These updates have fostered open communication within the community, resulting in telephone calls, emails, regular mail and office visits (**see Appendix 2).**

Bilcon hosted an employment information meeting on October 2, 2006 at its satellite office in Little River at the request of the young people who live on Digby Neck and Islands. Some community members were under the impression that Bilcon would hire quarry workers "from away" and wanted to meet with Bilcon to clear up any misconceptions. Approximately 22 young people signed the attendance sheet, with ages ranging from 17 to 24. On Nov 15, 2006, Bilcon held another employment information meeting. Notices were placed in the communities of Digby Neck and Islands. Bilcon also invited people who had expressed interest in employment opportunities with Bilcon. Approximately 45 people attended. Handouts included job descriptions, rates of pay, benefits, skills and education required. Bilcon also addressed the issue of training for local people. Residents were also interested in discussing the effects of quarry operations on their community, consequently the topics of discussion turned to subjects such as air quality, noise, surface water, groundwater and wells, aesthetics and light. Both meetings were very positive and Bilcon plans more public information meetings at its office in Little River in the New Year.

The approach, methodology and process described on pages 6-10 of Chapter 8.2 of the EIS as well as the communications tools and methods described on pages 15 and 16 of the same chapter are appropriate to and will continue throughout the construction and operations

phases (i.e. Please note the references to the construction and operations phases on pages 11 and 14 of the same section). However, once the project starts the Communications Plan will be updated on an annual basis to reflect all recent public consultation activities, changing issues and how they were addressed.

The Joint Review Panel has asked for further information on other aspects of the PCDP including the Community Liaison Committee and a more effective role for it; the project mitigation and monitoring process as it related to public participation and appropriate conflict resolution measures. These are outlined below.

Community Liaison Committee
Bilcon sees the CLC committee as helping to achieve the following two very important objectives:

- input into the monitoring and evaluation of consultation activities; and
- bringing project related issues to the attention of the proponent and providing input on how to best achieve resolution of these issues.

CLC Membership
Representatives of the community will include but not be limited to the following groups and should consist of no less than ten and no more than 16 members with an equal representation of men and women:

- local government
- education
- business
- environment
- social and community welfare
- safety and protection
- fishing industry
- tourism industry
- immediate neighbourhood, re: noise, air quality, water monitoring and property values (4)
- youth
- senior citizen

Individuals will be appointed for a three year term and will be appointed by an independent body consisting of three representatives: one from Bilcon, one from the Municipality District of Digby and one from the Digby and Area Board of Trade.

8.2 Public Consultation

Frequency of Meetings
Meetings will be held at a minimum of once a month upon project approval and no less than four times a year once operational; one of these meetings must be held with local residents on an annual basis. These meetings will be known as Community Forums. If, upon project start-up, more meetings are necessary, they will be held. However, their purpose will be to mutually resolve ongoing issues.

Outcomes
Monitoring of public consultation activities will focus on consultation events and, in particular, methods and tools used for consultation and disclosure throughout the life cycle of the Project.

Monitoring will be directed at the following consultation aspects:

- Consultation processes;
- Management of expectations, particularly as they relate to access to employment and other potential opportunities;
- Anticipation and management of potential issues before they become conflicts, particularly input into how they might be addressed and communicated back to the community;
- Any comment received on consultation methods, positive and negative.

Disclosures and information dissemination include the following:

- Disclosure methods and materials;
- Types of disclosures and frequency of information disclosures;
- Location of disclosures (poster boards, information centre, website etc)
- Any comments received on disclosure materials, positive or negative.

An annual Communications Plan monitoring report will be developed by Bilcon and posted on the Project's website.

Conflict Resolution
In this case, conflict resolution refers to the implementation of an effective grievance procedure that is necessary when a conflict cannot otherwise be resolved.

Bilcon will work pro-actively towards the prevention of conflicts through the implementation of impact mitigation measures and community liaison activities as described in the EIS and previously in this Information Request that enable it to anticipate and address potential issues before they become conflicts and result in grievances. Nevertheless, should grievances emerge, Bilcon is committed to addressing these in a timely and effective manner in

accordance with good management practices and the Company's internal grievance procedure.

Bilcon has a public grievance procedure that advises those with a grievance on how they can lodge a grievance related to the proposed project. Anyone can raise a grievance with the Company if they believe the Company's business practices or development is improper or illegal. Examples of improper or illegal behaviour may include:

- Provable negative impacts on an individual (e.g. financial loss, physical harm)
- Dangers to Health & Safety
- Failure to comply with standards or legal obligations
- Harassment of any nature
- Criminal activity
- Improper conduct or unethical behaviour
- Financial malpractice or impropriety or fraud
- Attempts to conceal any of the above.

Bilcon will review all grievances. Sometimes a grievance is not connected to a project activity or an activity is within an applicable provincial or federal standard (e.g. noise standard). In these cases, this will be explained to individuals filing the grievance. In all other cases, the Company will investigate whether it has failed to work to its intended standard and if so, measures will be identified to prevent the incident from occurring again.

Reporting a Grievance
Several methods will be available to report a grievance including:

- Send a Grievance form to the Company which will be available from the CLC;
- Contact the Company office; and
- Send an email to a purpose e-mail address that will be available.

Grievance Procedure
If the grievance cannot be immediately resolved, a number of steps will be followed that are outlined below:

- Once the grievance form is received or notification of a problem is received, someone will be assigned to that grievance;
- Acknowledgement of the grievance will occur within 10 working days of having received it;
- The acknowledgement will specify a contact person, their reference indicators and an anticipated target date for resolution;

8.2 Public Consultation

- The Company will work to understand the cause of the grievance which may result in contacting the individual filing the grievance during the time period;
- Once the grievance is investigated, the result of the investigation and the Company's proposed course of action, if required, will be communicated to the person;
- If the individual filing the grievance considers the matter to be satisfactorily resolved, a "Statement of Satisfaction" will be signed by the individual;
- If the grievance remains unresolved, it will be reassessed and the Company will have further discussion as to what future steps can be taken;
- The Company will also contact the individual at a later stage to ensure that Company activities continue to pose no further problems regarding this grievance;
- All grievances will be monitored by the project management team who will be responsible for ensuring that a plan is developed and internally approved as soon as reasonably practicable for any unresolved grievances. The objective will be to bring unresolved grievances to a swift and fair resolution.

Confidentially and Anonymity
An individual may wish to provide a concern in confidence under this procedure. If that is the case, the Company will not disclose the individual's identity without consent. Details of submissions and allegations will remain secure within the team responsible for investigating the concern. However, a situation may arise where it will not be possible to resolve the matter without revealing the identity of the individual (e.g. if it is necessary to give evidence in court). The investigative team will discuss with the individual whether and how best to proceed.

An individual may also choose to raise a concern anonymously. However, this may make it more difficult to look into the matter or provide feedback. Accordingly the Company will consider anonymous reports, but they are not encouraged. If a concern is raised anonymously, sufficient facts and data will need to be supplied to enable the investigative team to look into the matter in detail.

Public Consultation Initiatives that have influenced the Plan
It is unclear whether "the plan" refers to the Communications Plan or the Project Plan. Therefore, examples of both are provided.

Some of the ways in which public consultation has influenced the actual Project Plan are listed below:

- modification of the ship turning circle
- possible modification of the location of the access road
- research into the possibility of a rare plant on the quarry site by a local resident
- incorporation of operational training plan into the construction phase

- enhancement of the training program to recognize the existing skill sets in the local area
- modification of the monitoring program with respect to the possibility of an "Indian Camp" on the site
- modification of compensation plans for residential wells and property values
- development of lobster trap compensation fund

Further monitoring and evaluation of consultation will also occur through the Community Liaison Committee (CLC).

- Despite using many standard public consultation methods to engage the public (e.g. store front office, advisory committees, news letters, public meetings) Bilcon realized that it was not receiving a sufficient range of viewpoints regarding the project and that some individuals felt intimidated if they voiced their opinions publicly regardless if they were for, neutral or against the project. Thus, the Company initiated a confidential Attitude Survey in order to obtain a representative sample of input from individuals living within the employment catchment area.
- Bilcon also realized that it needed a systematic way in which to record all viewpoints and to ensure that all issues were addressed in the EIS. Accordingly, it initiated an issues management system. (**see Appendix 2**)
- Bilcon also realized that while it had held numerous meetings and open houses, it needed a way of recording issues and concerns regarding the project and, as result, initiated the exit survey system.

8.2.3 The stakeholders' consultation list is presented in Appendix 6 (not Appendix 34 as reported).

RESPONSE

Bilcon acknowledges that Appendix 34 is public notification of the open houses and that Appendix 6 is the stakeholders' consultation list.

8.2.4 Describe the Attitude Survey information in a table that identifies and differentiates responses by geographical location (so that the Panel can identify local responses from the larger survey area, for example).

RESPONSE

The table that identifies and differentiates responses by geographical location has been prepared and can be found in 2005 and 2006 Attitude Surveys – AMEC Earth and Environmental Inc. in Section 12.

8.2 Public Consultation

8.2.6 Provide full details (past and future plans) of the issues management system, community forums and the stewardship process for community grants.

RESPONSE

Full details (past and future) of the Issues Management System, Community Forums and Stewardship process for Community Grants:

Issues Management System

The issues management system is described on page 14 of Section 8.2. A company internal system, it will be used in the future, as it was in the past, to log issues.

Community Forums

These are previously described in the section on the CLC.

Stewardship Process for Community Grants

Bilcon has been supporting community programs for the past 4 years and will continue to do so in the future. Community grants have been made primarily in the areas of school programs, heritage conservation and health, but contributions have also been made to promote women in the workplace, alternate transportation, seniors' safety programs and business promotion in the Digby area. Examples of contributions are as follows:

- Digby Alternate Transportation Society (DATS)
- South West Nova Transition House Association
- Digby and Area Board of Trade - Donation for Scottish Trade Mission
- Digby "Business Discovery Expo"
- Digby Water Commission - Summer Concert Series
- Shoppers Drug Mart Tree of Life
- Seniors' Safety Program
- All Saints Church
- Digby and Area Board of Trade - Travel Fund for Atlantic Provinces Chamber of Commerce
- Annual Meeting in Saint John
- RONA MS Bike Tour
- Digby Scallop Days
- Heritage Building - Digby Neck

8.2 Public Consultation

9.3 Human Environment and Impact Analysis
The Panel expected that in assessing the effects on the human environment the Proponent would take full advantage of traditional knowledge and of public involvement as a strategy.

The Panel needs to understand how the community functions to assess fully the effects of the Project.

RESPONSE
Please refer to:
EIS Volume VII
9.3.7 Community Profile, page 28
9.3.10 Economy Fishery, page 85
9.3.11 Economy – Fishery/Aquaculture, page 88
9.3.12 Economy – Fishery/Intertidal, page 90
9.3.13 Economy – Fishery/Nearshore, page91
9.3.14 Economy – Tourism, page 97
9.3.15 Economy – Land Value, page106
9.3.17 Human Health and Community Wellness, page 119
9.3.22 Socio-cultural Patterns, page 136
9.3.23 Education, Training and Skills, page 150

Bilcon's Response to Comments
Section 8.1 – Impact Analysis

WP 1541 – Fisheries and Oceans Canada

Volume V – Chapter 8
Page 12 – According to the "Issues Scoping" section consultants met with Whites Cove lobster fishermen three times: Nov. 2003; Feb 2004; and Mar 2004. Are these the licensed fishers who fish lobster near the proposed marine terminal? Harvester operation will need to adapt to the marine terminal and new vessel traffic patterns – has this been discussed and supported? Was the displaced effort a concern for harvesters?

RESPONSE
Three meetings were held with licensed lobster fishers who traditionally fish in the nearshore Whites Cove area. Agreement was reached on the establishment in consultation with lobster fishers of a designated inbound and outbound route, the increase in turning radius of the ship immediately adjacent to the Whites Point terminal and the establishment of a compensation fund to be administered by a committee of lobster fishers. No specific details of the compensation plan have been established pending a meeting with the Lobster Fishing Area #34 Management Board. Please refer to Bilcon's responses to Fisheries and Oceans Canada in Section 9.2.5 – Economy

8.2 Public Consultation

Page 14 – The website http://www.bilconof.ns.ca/is not working as of July 25th, 2006

RESPONSE
Bilcon's website is www.bilcon.ca

Page 22 – Various "Business Meetings" and "Focus Groups" were held. Meetings included six fishing processing operators but no fishing associations. Focus Groups included the Full bay Scallop Association. Although "Bilcon has made an effort to invite any and all interested parties or individuals to become involved in the project", no specific mention is made of licensed harvesters in this Section. Did the Whites Cove meetings described above adequately engage individuals using areas near the project site and in the proposed shipping Route?

RESPONSE
As noted in other responses, the attendees at the three meetings held with licensed lobster fishers who traditionally fish in the nearshore Whites Cove area were of the view that the inconvenience from shipping activities was not an issue. Since a decision has now been made to construct the terminal from drilling barges which can only operate during the summer months, the lobster fishery will not be inconvenienced since no construction activities at the terminal will take place during the lobster season.

Please refer to Bilcon's responses to Fisheries and Oceans Canada in Section 9.2.5 – Economy

WP 1542 - Health Canada

Public Information and Consultation Process
Health Canada acknowledges the effort invested by the proponent regarding the public information and consultation process as detailed in the EIS Guidelines. Communication activities and information are well presented and easy to retrieve. The newsletters and the creation of a Community Liaison Committee (CLC) are good practices that help the proponent inform the community and at the same time receive feedback from the community on the project.

RESPONSE
Comment noted. Please see Bilcon's response to Panel in this Section.

Health Canada notes that primary public concerns identified were related to the preservation of the environment and indirect effects of the project on income sources (fishing, lobster, tourism, etc.) and quality of life of local residents.

8.2 Public Consultation

RESPONSE
Bilcon will be happy to work with the local tourism association to help objectively assess any changes in tourism visitation to Digby neck that can be directly attributed to the quarry.

Health Canada also identified a gap in the public information and consulting process among First Nations in the regional and local area. As the proponent recognizes, good communication has not been established with First Nations living in the area and despite the numerous documented attempts, Health Canada would support any future attempt to consult with the local First Nations group.

RESPONSE
Please refer to Bilcon's response to the Panel under Section 3.1 Traditional and Community Knowledge.

Bilcon will continue to make efforts to establish contact with the Confederacy of Mainland Mi'kmaq and would welcome an opportunity to discuss the project and any issues the Confederacy has regarding the project.

Traditional Knowledge and Social Impacts on First Nations' Quality of Life and Well-being
Realizing previous consultation difficulties encountered by the proponent, Health Canada would like to see more information about whether the project may limit access to traditional hunting/gathering or fishing grounds used by local First Nations people.

RESPONSE
Bilcon would be pleased to meet with the Confederacy to further discuss questions concerning access to traditional hunting/gathering or fishing grounds by the First Nations people on the proposed White's Point Quarry site.

WP 1630 - Environment Canada

Item #3 Taking a Long Term View
Information Request

Identify the public consultation methods and criteria used for determining decommissioning and reclamation plans.

RESPONSE
Please refer to:
EIS Volume V – Chapter 8.2 Public Consultation
EIS Appendix Volume II – CLC Minutes
Section 3.2 – Public Involvement in this submission
Section 8.2 – Public Consultation in this submission

WP 1625 – Partnership for Sustainable Development

EIS Guidelines -- Section 2.0 -- The Review Process
Deficiency Statement 1
EIS Guidelines
2.1 - Scope of the Project - 'The scope of the Project is described in Part I of the Panel's TOR (Appendix 1)."
2.3 - Environmental Impact Statement - 'The Environmental Impact Statement (EIS) document produced by the Proponent will identify the effects (both beneficial and adverse) of the Project on the environment."
EIS
The EIS Guidelines (Appendix – Part I) provides a description of the Project under consideration. As is widely known, the Proponent is Bilcon of Nova Scotia Corporation, which proposes to construct a 120 ha quarry and marine terminal, with a planned duration of 50 years.
The EIS makes reference to public consultation undertaken through the Community Liaison Committee (CLC) at least nine times, in terms of information provided and comments received. An example is where the EIS states 'Activities initiated by Bilcon include stakeholders' interviews conducted by Elgin Consulting and meeting notes from the CLC meetings (See Appendix 2)." The CLC was established as a result of an application for a 3.9 ha quarry. This approval differed from the Project in terms of scale (3.9 ha versus 120 ha), duration (10 years versus 50 years) and the fact that the original approval did not include a marine terminal. The CLC was also established under Nova Stone Exporters Inc., a company that has no involvement in the Project. As the CLC addressed a project that was not that described in the Appendix to the EIS Guidelines, it should not be cited as such in the EIS. The Proponent should amend the EIS to remove references to the CLC as part of the public consultation process for the White's Point Quarry and Marine Terminal.

RESPONSE
The Community Liaison Committee (CLC) was not established as a result of an application for a 3.9 ha Quarry. The CLC was established under the terms of the Permit for the 3.9 ha Quarry and at the request of NSDEL. Under the Terms and Conditions of the Permit, NSDEL could require Bilcon to establish a Community Liaison Committee, and NSDEL activated this condition and so notified Bilcon on June 17, 2002. The first meeting of the CLC took place at the Sandy Cove Fire Hall July 18, 2002. At that meeting, Bilcon advised committee members that it intended to file a Registration of Undertaking with the intention of extending the quarry beyond the permitted area and that Bilcon would answer questions with respect to this larger quarry.

8.2 Public Consultation

Reference to the minutes of the CLC meetings contained in Volume II of the Appendices establishes that the vast majority of the discussions held by the Committee concerned the larger quarry operation and the joint Environmental Assessment Process. Bilcon contends that the CLC was a significant part of the consultation process with respect to the larger quarry operation.

Deficiency Statement 3
EIS Guidelines
3.2 - Public Involvement - 'Public participation is a central objective of the overall review process and a means by which the concerns and interests of the public are taken into account."
8.2 - Public Participation - 'Identify and report on key issues raised, and describe how those issues have been addressed." 'Explain how the results of that engagement influenced the design of the Project." 'Document, track and describe any issues raised by stakeholders that may remain outstanding."
EIS
One of the key purposes of the Canadian Environment Assessment Act is to 'ensure that there be opportunities for timely and meaningful public participation throughout the environmental assessment process." Meaningful public participation implies a two-way dialogue where a developer provides information on an undertaking, receives feedback on the possible impacts and how the Project can be improved. In this interactive process, the design of the Project is amended, public consultation repeated, and further changes made if necessary.
The EIS documents the public consultation activities of the Proponent. These activities have been largely confined to providing information on the Project and recording comments and concerns. While considerable effort is made to ask for individual's opinions on the Project, there is little information available on how these opinions and concerns were addressed, beyond simply making reference to them in the Concordance Table (Section 5).
The EIS Guidelines explicitly require the Proponent to identify how the comments received through public input have influenced the design of the Project. This has not been done. The Guidelines also require the Proponent to identify those concerns which remain outstanding. This has not been done. The EIS fails to document how meaningful public consultation was undertaken and its results.

RESPONSE
As with Statement 2, reference to the comments requested throughout the Public Consultation Process clearly demonstrate that the design of the project took into account all the concerns raised during the Public Consultation Process.

Please refer to Bilcon's response to Panel in this Section.

8.2 Public Consultation

Deficiency Statement 46
EIS Guidelines
8.2 – Public Participation – "Describe the methods used to identify, inform and solicit input to the assessment process."
EIS
8.2.1 – Requirements, Approach and Methodology – Approach – The EIS describes the public consultation principles used by Bilcon. Included in the list of principles is "A systematic public consultation process is rigorously followed based on a work plan that includes specific milestones, locations, dates, times, responsibilities, audiences, intended outcomes and communication tools."[101] There are several tables provided in the section 8.2 of the EIS but none of them appear to be a work plan with specific milestones. To meet the requirements of section 8.2 of the EIS Guidelines, this work plan should be included in the EIS.

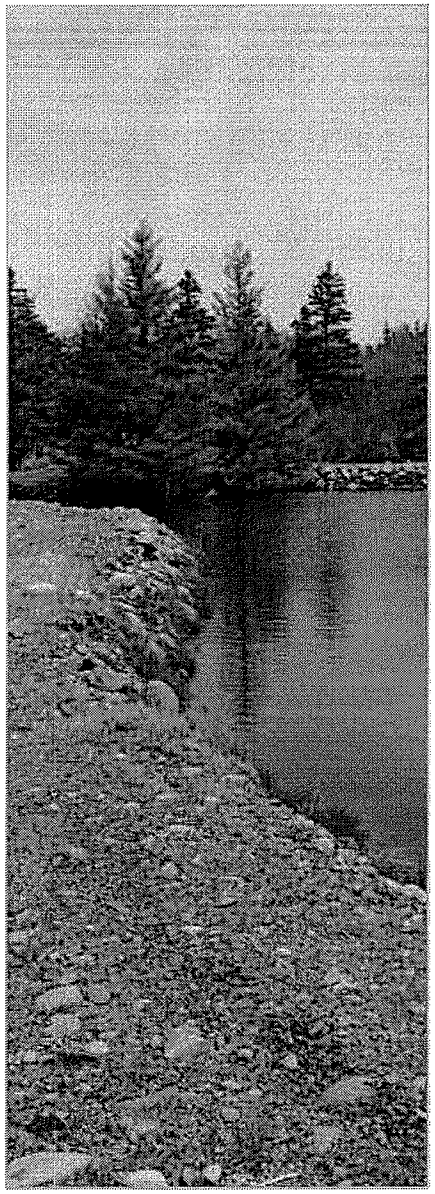
RESPONSE
Please refer to Bilcon's response to Panel in this Section.

Deficiency Statement 47
EIS Guidelines
8.2 – Public Participation - "Public participation plays a vital role in the assessment process." "Document the role of public engagement in identifying VECs, issues, impact prediction and mitigation."
EIS
8.2.1 – Requirements, Approaches and Methodology – Geographical Scope – The EIS states, "As a general principle, the scale and effort of public consultation decreases with increasing distance from the Project."[103] As described above, see Deficiency Statement 17, spatial scale is the primary basis for the determination of significant or insignificant in the EIS. The EIS states, "...to be considered significant the influence of effect would have to be greater than a regional scale."[104] How can public participation play a vital role in the assessment process and particularly in impact prediction, as required by the EIS Guidelines, if the focus of the public consultation is local/regional but significant effects can only occur at the provincial, national or international scale? The public consultation approach taken by the Proponent is not consistent with their approach to impact assessment methodology. How can the public participation program described in the EIS be considered anything other than an exercise in public relations with local community members?

RESPONSE
Please refer to Bilcon's response to Panel in this Section.

8.2 Public Consultation

Appendix 1
Whites Point Quarry Updates



How much rock will be taken out?

About two-million tonnes of basalt would be extracted each year for the 50-year life of the quarry and transported by ship to New Jersey.

How do you plan to turn the quarry location back into a useable area once your quarrying operations are complete?

Reclaiming and restoring the land we intend to quarry at Whites Point on Digby Neck is an integral part of Bilcon of Nova Scotia's commitment to the environment and the local community. We have already developed an extensive, ongoing reclamation plan for the site. We intend to create terraced, green space as each phase of the quarry operation is completed. This means that we will be working to reclaim the quarried lands approximately every five years. In locations around the world, previously quarried lands have been turned into recreational sites such as parks, nine-hole golf courses and amphitheatres.

Would you like to submit a question for our Glad You Asked column? Email: **questions@bilcon.ca**

Want to know more?

If you're looking for additional information on any aspect of our project, please visit our website at www.bilcon.ca, contact us by phone at (902) 245-2567, or by email at newsletter@bilcon.ca. You're also welcome to drop by to see us in person anytime during regular business hours, Monday to Friday. Our offices are located at 305 Hwy 303, Suite 3 in the Town of Digby.

publication printed on recycled paper

BILCON OF NOVA SCOTIA

Whites Point Quarry Update

Environmental impact report due March 31

A report on the environmental impact of the Whites Point Quarry project will be completed and submitted to the Canadian Environmental Assessment Agency (CEAA) by March 31, 2006.

This report includes the findings of a number of independent consultants, specializing in fields ranging from geology to the economy. The document will take an in-depth look at and evaluate how the quarry project could affect:

- Groundwater quantity and quality
- Land and marine water quality
- Earth ecology including endangered species
- Marine ecology including endangered species, with particular emphasis on the North Atlantic right whale and inner Bay of Fundy salmon
- Heritage resources including land and marine archaeology
- Social resources including economics, community well-being and quality of life
- Fishing industry, with particular emphasis on the lobster fishery
- Property values
- Tourism industry including ecotourism
- Human health, including air and water quality, noise and land and marine contaminates.

This study is required for the panel review of the project that is currently underway. This type of review is the most stringent environmental assessment process, and it involves a lot of opportunity for public participation.

Once the report has been submitted, CEAA will review it and post the document on their website, **www.ceaa.gc.ca**. Next, members of the public will be given an opportunity to comment and ask questions. Bilcon must respond within 15 days. After this, public hearings will be held (dates to be determined), and finally a decision about whether or not the project will be allowed to proceed will be made.

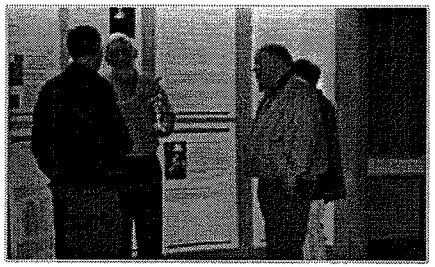
Please see our website at **www.bilcon.ca** for a complete list of environmental items being evaluated as part of the Environmental Impact Statement (EIS) for the project.

Open house welcomes local residents

A recent open house at the Sandy Cove Fire Hall provided an opportunity for local residents to learn more about the Whites Point quarry project.

Forty-six people, including the students of Island Consolidated School on Digby Neck, took part. The event gave those who attended a chance to speak directly with independent consultants about their findings and to view information displays. It was also a great opportunity for our team here at Bilcon of Nova Scotia to meet members of the community and answer questions.

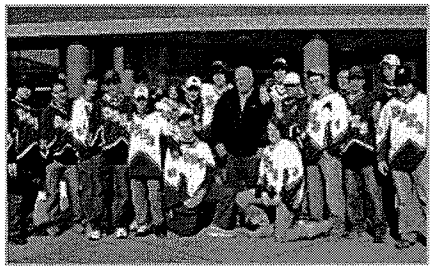
Thanks to everyone who took the time to drop by!



Bilcon supports community causes

Players on the Digby Mariners high school hockey team have brand new uniforms this year, thanks to a $2,500 sponsorship from Bilcon of Nova Scotia.

The team is just one of several community organizations to receive support from Bilcon in recent months. The company also made a donation to Christmas Daddies, sponsored lunch for participants in a health fair on Digby Neck, supported a seniors' safety program and a local hospice society, and assisted a scout member with the cost of his registration and uniform. Bilcon has also sponsored four Digby Neck students over the past two years, making it possible for them to attend the 'Encounters with Canada' program in Ottawa.



Digby Mariners high school hockey team

In supporting community organizations, Bilcon is following in the footsteps of its parent company, New Jersey-based Clayton Concrete, Block and Sand. Clayton's founders are well-known for their volunteerism and support of a wide variety of causes.

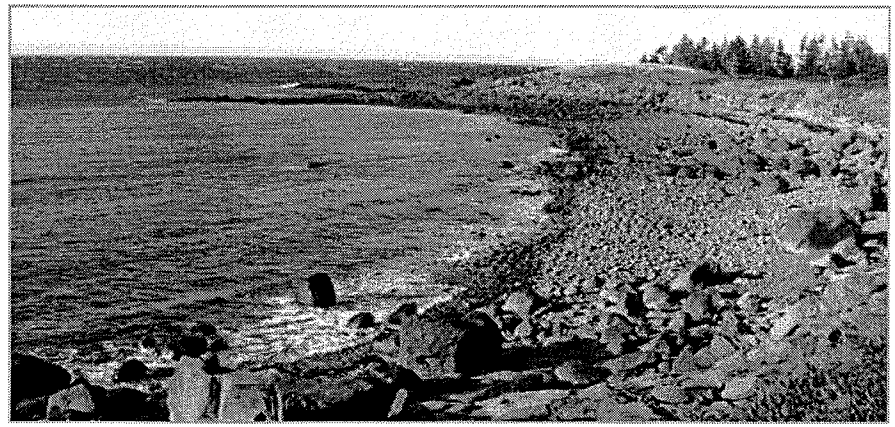
Bilcon is continuing to accept sponsorship requests from residents of Digby Neck and the Digby area. Anyone interested in asking the company to support a particular cause should outline their request in writing, and forward a letter to Paul Buxton of Bilcon. Requests can be mailed to:

Bilcon of Nova Scotia,
PO Box 2113, Digby, NS B0V 1A0;
sent by fax to (902) 245-5614;
or email bilcon.ns@ns.aliantzinc.ca

Facts about Quarries

A quarry is a type of open-pit mine from which rock or minerals are extracted. Quarries are generally used for extracting building materials and are usually shallower than other types of open-pit mines.

You might be surprised to discover just how many quarries are operating in Nova Scotia. According to Nova Scotia's Department of Environment and Labour, there were 1,171 permitted quarries of varying sizes operating in the province in 2003. The former Western Valley Development Authority determined in 1998 that there were 87 identified quarry sites in Digby County, although not all were active at that time. Right here in the Digby area, the provincial Department of Transportation and Public Works says they use 13 privately-owned sites for their sand and gravel needs.



In addition to sand and gravel, the type of rock extracted from Nova Scotia quarries includes: Granite, Limestone, Marble, Sandstone and Slate.

Glad you asked

We've received a number of questions about the Whites Point quarry project. In each issue of this newsletter, we'll feature the answers to several of your most recent questions. You can also find a detailed list of questions and answers on our website at **http://www.bilcon.ca.**

What types of jobs will the quarry create?

The types of positions that will be available at the quarry include: mechanics, office clerk, equipment operators, general labourers, electricians, welders, quality control technicians, rock drillers, water/quarry truck drivers, plant operators and rock drillers.

We are looking forward to working with the pool of skilled and highly motivated people on Digby Neck who will be capable of successfully operating this project. The initial construction of the quarry and terminal will create work in the local area for about one year. Competitive wages (in the range of $12.50 - $20 an hour) will be paid. As well, extensive training for the ongoing operation of the project will be provided for at least 34 full-time people.

How big will the quarry be?

The entire quarry property is approximately 380 acres. This includes a permanent environmental preservation zone of 80 acres that will surround the quarry.

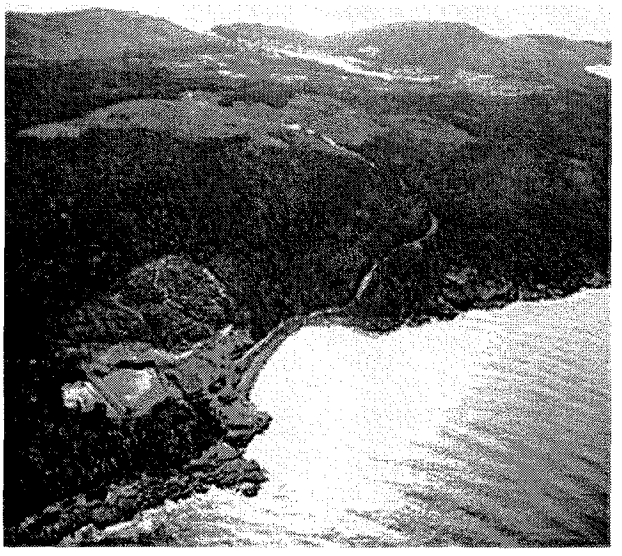
What effect will this quarry have on the lobster fishery?

We believe the month of December will be the most difficult for the lobster fishery because weather conditions may be acceptable for the shipment of quarry product and, at the same time, December is a crucial period for lobster fishing. We will work closely with the lobster fishermen who use Whites Cove to establish an acceptable procedure.

Sediment control structures will be built, including sediment ponds, to prevent any sediment from directly entering the marine environment. Additionally, a sediment monitoring program will be initiated to ensure the standards set by the Nova Scotia Department of Environment and Labour are met.

BILCON
OF NOVA SCOTIA

Whites Point Quarry Update



The Project

Bilcon of Nova Scotia Corporation is proposing to construct, operate and decommission a basalt quarry, ship loading facility, and marine terminal for the production and export of crushed rock at Whites Point on Digby Neck.

The project is subject to a Joint Panel Review under an agreement between the Federal Government and the Province of Nova Scotia and an environmental assessment has been carried out in accordance with the agreement. The entire 17 volume 3035 page Environmental Impact Statement including a Plain Language Summary may be viewed on the Panel website at www.wpq-jointreview.ca.

The components of the project are:

- Rock extraction
- A rock crushing and screening plant
- A loading tunnel
- A ship loading facility
- A marine terminal

Works associated with the construction, operation and decommissioning of the project include: site access road, sediment retention ponds, maintenance area, preservation areas and sediment and topsoil storage areas.

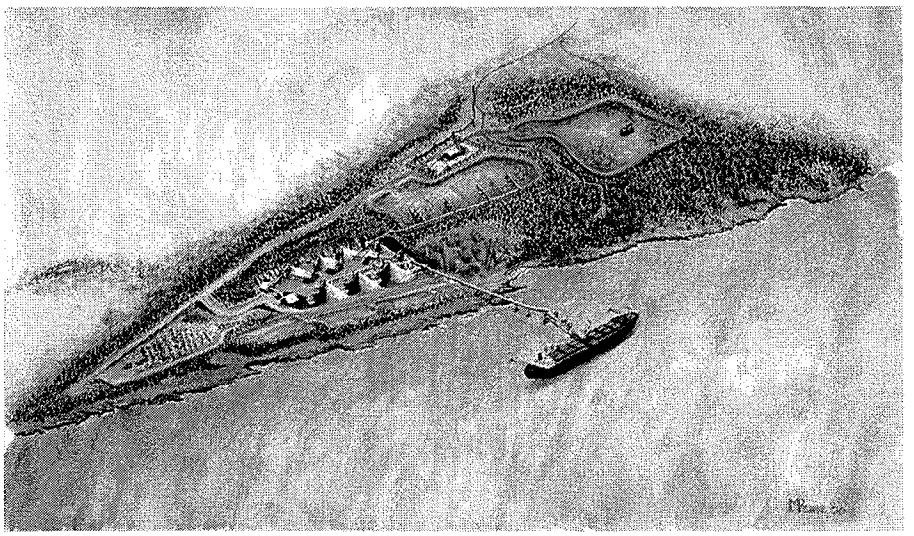
The lifespan of the project is projected to be 50 years, with the annual production of 2 million tons being shipped to the United States for use by Bilcon's parent company Clayton Concrete, Block and Sand. Bilcon expects to employ 34 people full-time and will provide extensive training.

Bilcon Partners with Industry Experts to Conduct Environmental Research

Bilcon engaged expert individuals or companies and institutions to provide the research to carry out the Environmental Impact Statement including:

- Acadia University

  Dr. Michael Brylinsky Ph.D. - Acting Director Acadia Centre for Estuarine Research
  Dr. Michael Dadswell Ph.D. - Professor of Biology
  Dr. Barry Moody Ph.D. - Professor, Department of History and Classics
  Dr. Ken Neil Ph.D. - Research Scientist - Lepidoptera (Butterflies)
- Ruth (Hersey) Newell M.Sc. - Botanist
- Dr. George Alliston Ph.D. in Wildlife Science - Certified Wildlife Biologist
- AMEC Earth and Environmental- Public Consultation, Health and Community Wellness
- John Amirault - M. Eng, P. Eng., Consulting Engineer, Process and Risk Assessment, Environmental Assessment
- Atlantic Marine Geological - Gordon Fader M.Sc. - Marine Geology
- Paul-Michael Brunelle B.Des., FGDC - Atlantic Dragonfly Inventory Program and Entomological Society of Canada
- Canadian Seabed Research - Bathymetry
- Elgin Consulting - Traditional Knowledge Study
- Gardner Pinfold - Economic Analysis
- Jacques Whitford - Hydrogeology
- Jasco Research - Concussion and Ground Vibration
- David Kern B.Sc. - Environmental Consultant, Contributing Writer
- LGL - Impacts on the American Lobster
- John Lizak M.Sc. - Geological Assessment Whites Point
- Mallet Research - Ballast Water Research
- O'Halloran Campbell - Dolphin Design
- James Ross M.Sc - Fish Habitat Management
- XY GeoInformatics - Geospatial Data Comparison and Compilation



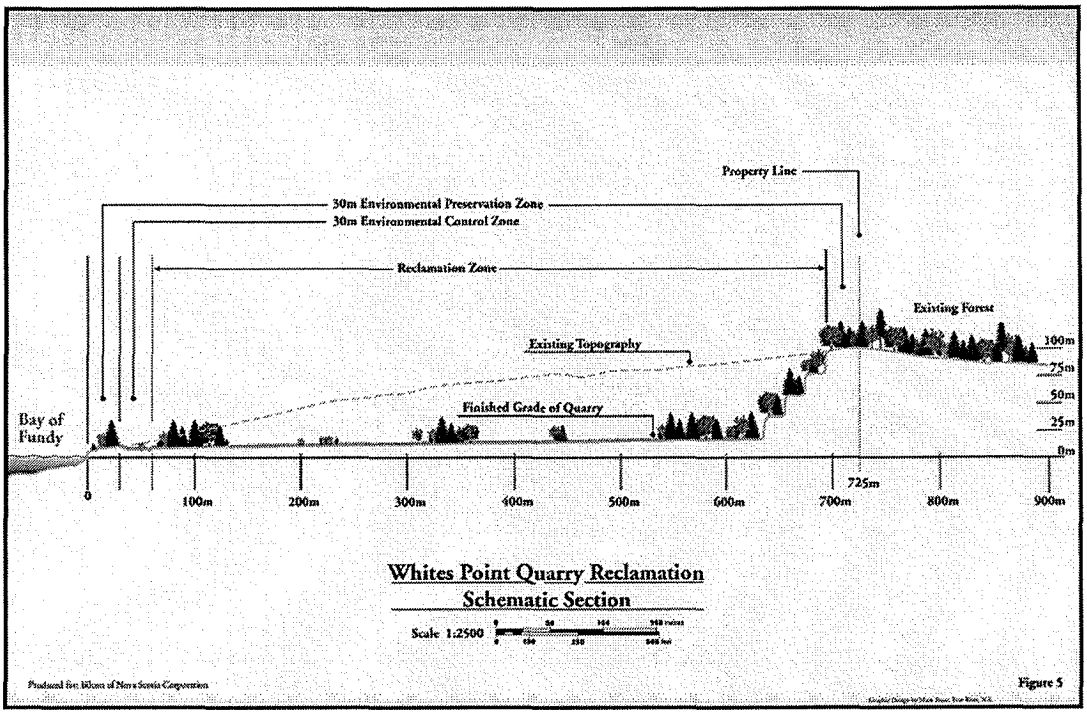
Only Whites Point is Being Considered by Bilcon for Quarrying

While the basalt formation extends 200 kilometres from Brier Island to Cape Blomidan, only Whites Point is being considered by Bilcon.

Whites Point was selected for the following reasons:

- The Quality and Availability of the Basalt: Whites Point is situated on a thick layer of massive basalt which, when crushed, becomes a high-quality aggregate for use in concrete and road-paving.
- Easy Access to the Bay of Fundy: The fact that the rock is located on the coast is a key consideration for transportation.
- Minimum Truck Traffic: Because all rock will be transported by ship, there will be minimum truck traffic from the site on Digby Neck.
- Visual and Noise Protection: The ridge of the North Mountain range provides a visual barrier so that the quarry will not be visible from Highway #217 or from anywhere on the Eastern side of the Neck. The same ridge provides noise protection from sound generated by a typical quarry operation.
- Presence of Skilled Employees: There is a pool of skilled and highly motivated people on Digby Neck capable of operating this project.
- Deep Water: Feasible water depth for the location of a marine terminal to ship aggregates rather than trucking through rural communities.
- Marine Terminal Site Characteristics: Limits the potential for turbidity production during constructions.
- Presence of Bedrock: Construction of the marine berthing facilities will be on bedrock thereby eliminating the necessity for dredging and dredge material disposal during construction and operations.
- Area of Low Seismic Hazard: The quarry site is located in an area of low seismic hazard and no earthquakes have been recorded on Digby Neck.
- Absence of Freshwater Habitat for Salmon at the Quarry Site
- No Significant Wetlands on Quarry Site: The quarry site is not a winter refuge habitat for the Harlequin Duck, a protected species.
- Limited Interactions with Ecotourism Activities: Whale watching tours, recreational boating and adventure boating primarily travel off Long and Brier Island.
- Avoidance of the North Atlantic Right Whale Conservation Area: Location of marine terminal means that Bilcon's ships avoid passing through the designated conservation area of the endangered North Atlantic Right Whale.
- Artifacts or Heritage Values: Studies show that the quarry site is highly unlikely to contain artifacts of archaeological significance.

A recent story in the Halifax Chronicle Herald quoted someone as suggesting that the granting of a permit to Bilcon at Whites Point would lead to a multitude of quarries along this basalt formation. Unless some other location has all the above attributes, it will not be considered by anyone for a quarry and marine terminal. Bilcon does not know of any other location on the North Mountain from Brier Island to Blomidon where a quarry and marine terminal could be constructed to meet all the economic and technical requirements required for feasibility.



Environmental Reclamation Plan

Reclamation of the Whites Point Quarry lands is proposed to proceed incrementally over the 50 year life of the project. Approximately 6 acres of quarry will be opened each year. Reclamation includes: site grading and drainage, soil preparation and planting.

The priority area for reclamation is lands along the coastline north of the Whites Cove Road and landward from the environmental preservation zone and environmental control/ constructed wetland area.

Reclamation of this coastal area first will increase the buffer area between the quarry and the marine environment providing more effective erosion control, noise attenuation, and wildlife habitat. As quarrying is completed inland from the coast, additional lands will be reclaimed on an incremental basis.

The environmental reclamation program for the quarry will maintain and increase a more ecologically diverse and productive site, during and after completion of resource extraction.

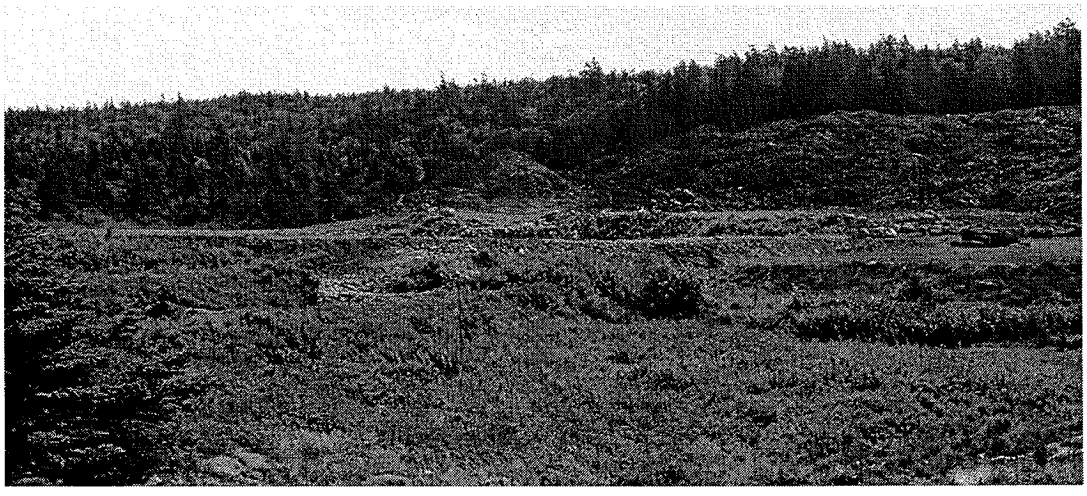
During project operation, maintaining sensitive habitats and creating habitat diversity is a primary objective.

The reclamation process begins after the environmental controls (sediment retention ponds, drainage channels, etc.) are in place.

We Will Accomplish This By:

- Maintaining an environmental preservation zone, especially along the sensitive coastline
- The creation of constructed wetlands and incremental planting to create various successional stages of vegetation
- The establishment of cover for wildlife
- The establishment of a more productive soil regime and forest.

Glaucous Rattlesnake Root - Photo by Ruth Newell



Bilcon Hosts Visitors to the Whites Point Site

On Wednesday, May 17th, 2006 a group of people interested in the Whites Point Project visited the site. The group was led by Lisa Mitchell of LJM Environmental Consulting. Local residents Ashraf Mahtab, Kemp Stanton and Andy Sharp were in attendance as well as former Executive Director of the WVDA, Janet Larkman. Three academics from Dalhousie University, Bill Freedman (Biology), David Hansen and Steve Zou (Civil and Resource Engineering) also attended. Discussions surrounded hydrogeology (groundwater), the crushing and loading operation and incremental reclamation. A future visit to the quarry site is scheduled for June, 2006.

Brier Island Quarry?

Bilcon wishes to assure residents of Digby Neck and Islands that neither Bilcon nor any representative of Bilcon has ever given any consideration to Brier Island as a potential quarry site. The only quarry site in the Province of Nova Scotia being considered by Bilcon is at Whites Point.

Mega Quarry?

The Whites Point Quarry will have a capacity of 2 million tons per year at full capacity. This would be considered a small to medium export quarry and for example, smaller than the Auld's Cove operation in Cape Breton and similar to the Bayside quarry on the other side of the Bay of Fundy in New Brunswick. The newly permitted quarry in Port McNeil on Vancouver Island will export 6 million tons per year and the Vulcan Quarry in Cancun, Mexico exports 10 million tons per year. Several quarries in Halifax and Dartmouth produce between 1 and 2 million tons a year to supply the metro market.

Bilcon Continues to Support Community Wellbeing

Bilcon's parent company, Clayton Concrete, Block and Sand has a 50 year history of community participation and charitable donations.

Bilcon is proud to continue this tradition by sponsoring such events as:

- Digby Regional High School - Hockey Team
- Christmas Daddies
- RCMP Seniors's Safety Program
- The Apple Blossom Festival
- Digby Scallop Days - Wharf Activities
- Digby Summer Concert Series
- Digby and Area Board of Trade's delegate to Chamber of Commerce Annual Meeting - titled "Reaching Atlantica" in Saint John, New Brunswick

Questions or Concerns About the Quarry?

Bilcon is interested in hearing from you. The Canadian Environmental Assessment Agency has set up a website for you to voice your opinions. The website may be accessed at www.wpq-jointreview.ca.

You may also visit us at 305 Highway #303, Suite 3, P.O. Box 2113, Digby, Nova Scotia, B0V 1A0, telephone: 245-2567 between 10:am and 3pm. Our website is: www.bilcon.ca and email can be sent to Bilcon.NS@NS.aliantzinc.ca

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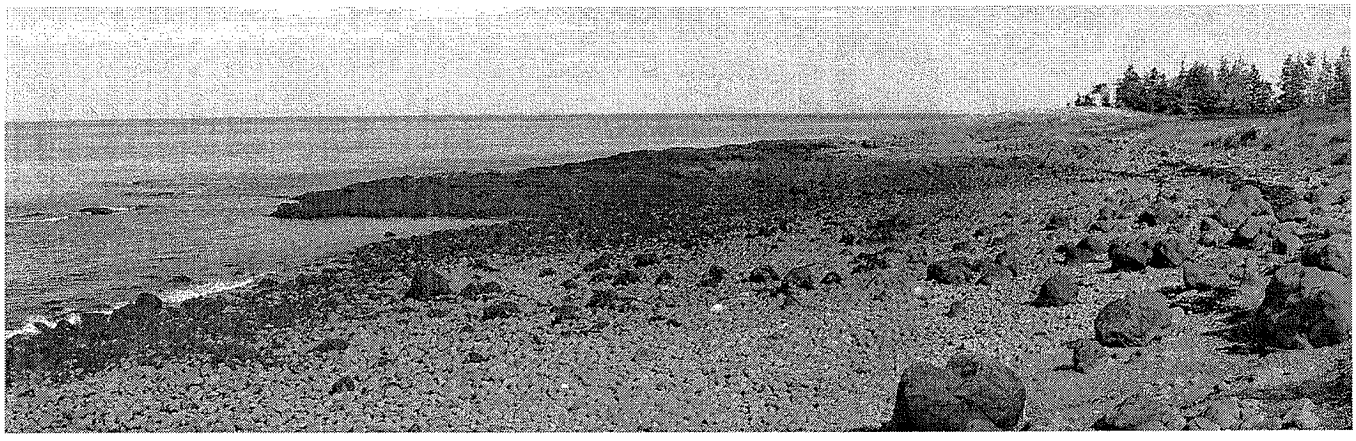
Whites Point Quarry Update



The Project

Bilcon of Nova Scotia Corporation proposes to construct and operate a basalt quarry, a crushing operation, and a ship loading terminal at Whites Point on Digby Neck. Bilcon has leased 150 hectares of land and, at a production rate of 2 million tonnes per year, anticipates a quarry life of 50 years. Shipment of crushed product is anticipated to be approximately 40,000 tonnes per week, though this will vary with ship availability and weather conditions.

The quarry will operate at full capacity for 44 weeks of the year with a scheduled shut-down for maintenance and bad weather during the winter months. The quarry will directly employ 34 people working two shifts and Bilcon is committed to hiring and training local people. The quarry is expected to expand its operational footprint by 2.5 hectares during each year of operation and reclamation will be carried out on an incremental basis, rather than at the end of quarrying operations.

Land-based structures include rock crushers, screens, closed circuit wash plant, conveyors, environmental control structures and a load-out tunnel. Marine-based facilities will include berthing dolphins, mooring buoys and a quadrant loader capable of loading 5,000 tonnes per hour. The berthing dolphins and the quadrant loader will be supported on pipe piles anchored to the sea floor.

Bilcon will ship the crushed rock by common carrier to New Jersey for use by its parent company, Clayton Concrete Block and Sand, in the manufacture of concrete and concrete block. Testing of the Whites Cove rock indicates that it will produce a high-quality crushed product meeting the standards required in New Jersey and New York.

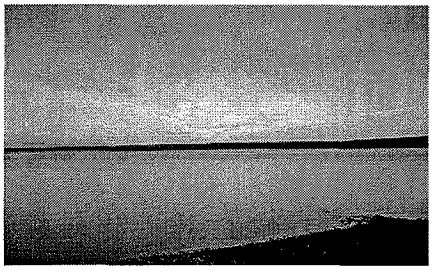
All projects of this magnitude are required to undergo an environmental assessment to determine how the project could affect people, the environment, and the economy. The Environmental Impact Statement (EIS) is in itself a part of the environmental impact assessment which is a planning tool to identify and mitigate any significant environmental effects.

Bilcon's Commitments

All projects of this type are subject to environmental approvals and must comply with all relevant regulations. In addition to compliance with regulations, Bilcon has made additional commitments to the community. On the following pages is a condensed version of the Commitment Table. The complete version can be found in the Whites Point Quarry Environmental Impact Statement (EIS). The EIS may be viewed on the Panel's website at www.wpq-jointreview.ca

In summary, Bilcon commits to:

- Hiring local residents first
- Maintaining a healthy, environmentally safe quarry and marine terminal site - including a 78.9 acre preservation zone
- Providing a safe haven for wetland flora and fauna
- Monitoring noise levels in the marine environment as set out in the EIS and working with the Department of Fisheries and Oceans (DFO) to increase the knowledge base with respect to species at risk
- Monitoring and preserving the water table, ensuring fresh water for future generations
- Procuring supplies in the local area and generally supporting local business both during construction and operation



Whites Point Quarry and Marine Terminal
Commitments Table

Bilcon Commitment	Phase	Responsibility	Approving Agency
Project Design Bilcon of Nova Scotia Corporation will design, construct, operate and decommission the project as set out in the EIS including subsequent specific changes required in future permits or authorizations.	Construction Operation Closure	Bilcon	Environment Canada, Transport Canada, Dept. of Fisheries & Oceans, NS Dept. Environment & Labour,NS Museum, Municipality of Digby
Physical Environment No excavation will be carried out below sea level, nor will excavation be carried out below the upper basalt flow unit.	Operation	Bilcon	
Groundwater Quarrying will not take place below the groundwater table. Groundwater levels will be monitored in the existing wells both on and off site. Water for the wash cycle will be made up from surface water storage. No groundwater will be used for processing.	Operation	Bilcon	Nova Scotia Department of Environment and Labour
Air Quality Bilcon will enclose processing equipment which will be located approximately 1000 m from the nearest residence. All pit roadways will be watered during dry conditions to minimize dust.	Construction Operation	Bilcon	
Marine Water Quality No bilge discharge or fuelling operations will be permitted at the marine terminal.Bilcon will require its shippers to comply with Transport Canada Guidelines for ballast water management.	Operation	Bilcon	Transport Canada
Noise Monitoring – All blasts will be monitored for concussion and ground vibration in consultation with NSDEL. Preservation zones will be kept in a forested condition between the quarry and adjacent residences.	Operation	Bilcon	Nova Scotia Department of Environment and Labour
Employment and Training Bilcon will engage staff whenever possible from the local area and will not recruit from existing businesses. Bilcon will establish a training program for all staff. All training will be funded by Bilcon.	Operation	Bilcon	
Archaeology Monitoring – if significant heritage resources are discovered an appropriate monitoring or recovery program will be developed in consultation with the Nova Scotia Museum.	Operation	Bilcon	Nova Scotia Museum

Whites Point Quarry and Marine Terminal
Commitments Table

Bilcon Commitment	Phase	Responsibility	Approving Agency
Marine Fish Habitat Bilcon has received approval in principle for a Compensation Plan under Section 35(2) Fisheries Act. Bilcon will further develop a monitoring plan in concert with DFO.	Construction	Bilcon	Department of Fisheries and Oceans
Lobster Fishery Bilcon will advise lobster fishers using Whites Cove on the arrival and departure times of all bulk carriers during the lobster season. Bilcon will provide compensation to a Committee of Whites Cove Lobster Fishers who will assess and compensate for loss of lobster gear due to ship movements. Compensation as a fixed sum will be paid on an annual basis.	Operation	Bilcon	
Marine Species Bilcon will not carry out any blasting in marine waters. Bilcon will conduct on land blasting in accordance with the "Guidelines for the Use of Explosives in or near Canadian Fisheries Waters". Bilcon will monitor noise levels in the marine environment as set out in the EIS and will work with DFO to increase the knowledge base with respect to species at risk. Bilcon will maintain communications with local whale watch and seabird curise operators in the Digby Neck Area.	Operation	Bilcon	Department of Fisheries and Oceans
Terrestrial Species Bilcon will establish and maintain 78.9 acres of environmental preservation zone as set out in the EIS. Monitoring-Floral, faunal and invertebrate surveys will be conducted every five years to document any changes in species composition.	Construction Operation	Bilcon	Nova Scotia Department of Environment and Labour
Land Values Bilcon will carry out an appraisal of residential properties within 800 m of the quarry prior to operations and after five years of operation. Compensation will be offered where property values have been diminished.	Construction Operation	Bilcon	
Economy Bilcon will wherever possible, procure supplies in the local area and generally support local business both during construction and operation.	Operation	Bilcon	

Glad You Asked

We've received a number of questions about the Whites Point Quarry Project. In each issue of this newsletter, we'll feature answers to your most recent questions.

Since the whole area is a prime tourism destination has any consideration been given to visual impacts?

Several years ago Highway #217 was designated the "Digby Neck and Islands Scenic Drive" from Digby to Brier Island. The site of the proposed Whites Point Quarry property lies between Highway #217 and the Bay of Fundy.

The working area of the quarry will be located on the western slope of Digby Neck and down slope from the ridge to the Bay of Fundy shore. Whale and seabird cruises have become popular ecotourism attractions on the Bay of Fundy and St. Mary's Bay. Presently, cruises originate from East Ferry, Tiverton, Freeport, and Brier Island during the tourist season. The peak tourist season (June – September) generally coincides with the season when the most whales appear in the Lower Bay of Fundy. Operators offer daily cruises during the summer months. Other than whale and seabird cruises, the Lower Bay of Fundy experiences little recreational boating activities such as sea kayaking, sailing, or pleasure cruising, when compared to the Atlantic coast.

Due to the horizontal set back and vertical change in elevation, the quarry will not be visible from Highway #217 nor from residential dwellings located along the highway.

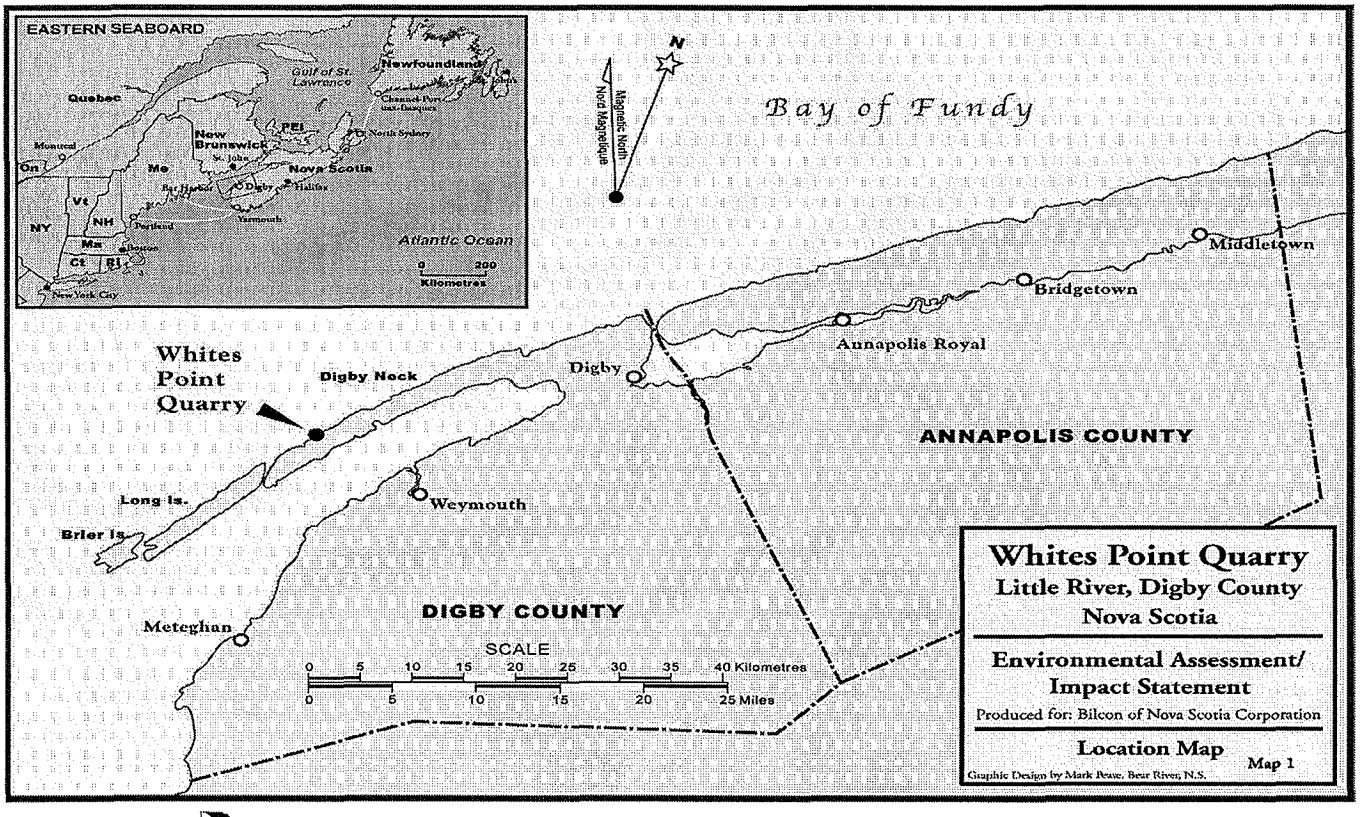
Additionally, a 30 metre wide environmental preservation zone will be located within the quarry property along all property lines adjoining the quarry property. This will act as a further visual buffer zone in relation to existing adjoining properties as well as for environmental purposes.

However, the proposed onshore infrastructure and marine terminal development will be visible from the Bay of Fundy waters. The marine facility will not be the typical massive sheet pile wharf structure common to container terminals but a less intrusive system of three independent mooring dolphins and individual conveyor support systems. Since whale and seabird cruise operators tend to take tourists to where whales are most frequent, views of the quarry from the water by visitors would be infrequent. Also, since this area of the Bay is not a high use recreational boating area, views of the quarry from the water by recreational boaters or pleasure craft would be infrequent.

Questions or Concerns about the Quarry?

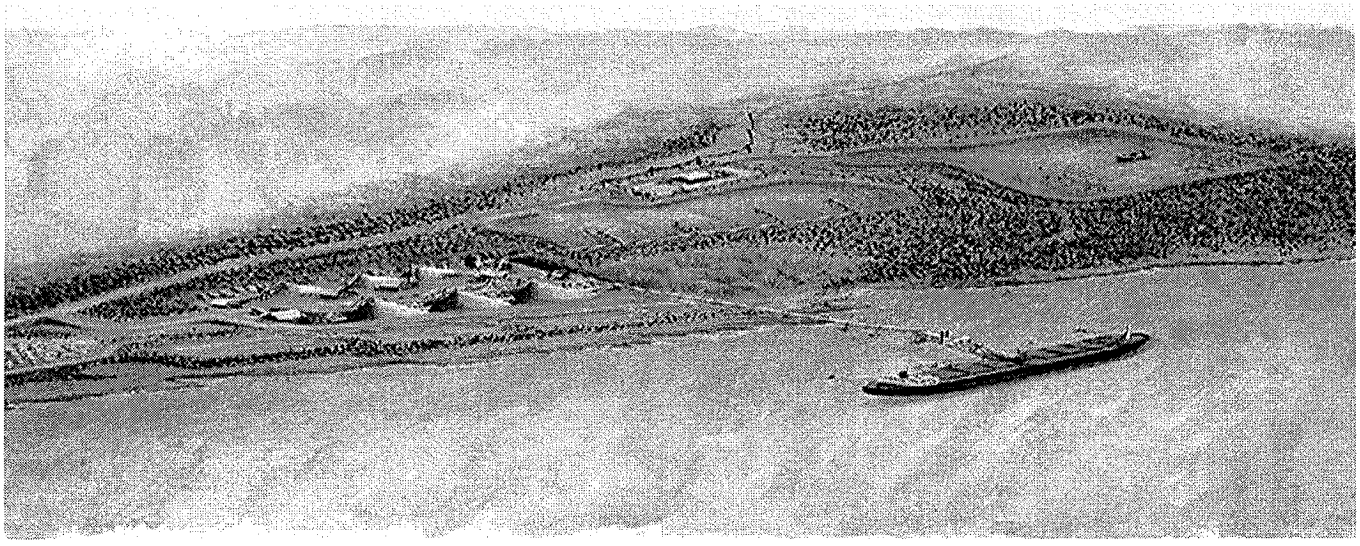
If you are looking for additional information on any aspect of our project, please visit our website at www.bilcon.ca, contact us by phone at 902 245-2567, or email us at bilcon.ns@ns.aliantzinc.ca

You are also welcome to visit us in person anytime Monday to Friday 10am to 3pm. Our office is located at 305, Highway #303, Suite 3 in Digby.



BILCON OF NOVA SCOTIA

Whites Point Quarry Update



The Panel Review Process

The Environmental Impact Statement (EIS) released this past April, examined 76 subjects under the physical, biological and human environment categories. Nineteen scientific and engineering experts carried out the research, and the EIS is available for public review prior to the public hearing phase of the environmental assessment review process, expected in the fall.

Bilcon is responsible for providing data and analysis on any potential adverse environmental effects to permit proper evaluation by the Joint Review Panel, the public and technical and regulatory agencies. The Panel received written comments during the review period which ended August 11th, 2006. Comments submitted in writing to the Panel were provided to Bilcon and added to the Public Registry. The registry is part of the Joint Panel Review website and can be accessed at: www.wpq-jointreview.ca.

Bilcon will provide a response to written comments from the public, the Panel, interested parties and regulatory agencies. Once the Panel is satisfied that the EIS is complete, it will hold public hearings. Within 90 days of completion of public hearings, the Panel will prepare and submit its report to the federal and provincial Ministers of the Environment. This report will include recommendations on all factors set out in the *Canadian Environmental Assessment Act* and the Nova Scotia *Environment Act.*

The Environmental Impact Statement

The purpose of the EIS is to identify the potential effects of the project on people, the environment and the economy. It further proposes mitigation measures to be taken to diminish or eliminate potential adverse effects and details monitoring procedures to verify the accuracy of the predictions.

The EIS demonstrates to the community that there are no significant harmful environmental effects and the following conclusions can be drawn from the document:

- The assessment is based on science carried out by highly qualified and experienced scientists and engineers rather than conjecture.
- The exaggerated perceptions of the risk of this project are not supported by the science.
- There are no significant negative environmental effects if the mitigation and compensation measures are followed.
- There are several significant positive effects of the project.
- The project will be undertaken by a Proponent who is well financed, experienced, and with an excellent safety, environmental, and community record.
- The project will be reclaimed incrementally, leaving a site landscaped for future development.
- The project will improve the economy and economic diversification in the local area and will contribute to the municipal, provincial and federal tax bases.

The project will create employment beneftits for the community

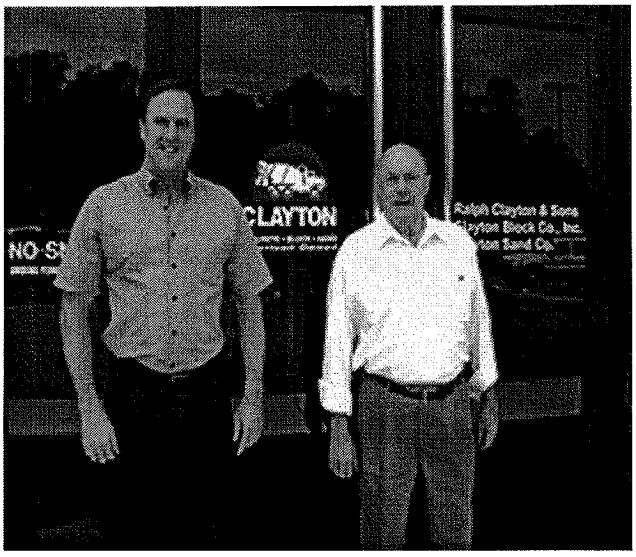
Bilcon will hire local people first for this project. Thirty-four full time positions paying in the range of $13.75 to $20.00 an hour will be created during the normal operation of the quarry.

The types of positions available include mechanics, general labourers, electricians, welders, quality control technicians, equipment operators, office clerks, water/quarry truck drivers, plant operator, rock drillers and environmental technicians

These 34 people will work full time, with some reduction of the work force depending on weather conditions.

Between 60 and 85 construction jobs will be required to build the Whites Point Quarry and Marine Terminal. At an annual salary of $30,000 year, over $1.5 million will be earned by Digby County construction workers alone.

Bilcon will invest $40.6 million in the construction of this project. The funding for this initiative is entirely private - no government investment has been sought.



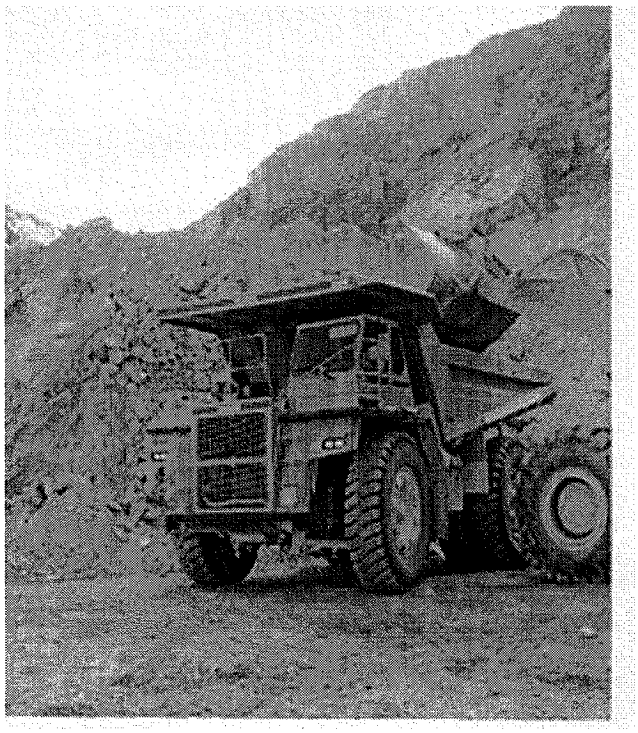
Bill Clayton Jr. and Sr. - Clayton Concrete Block and Sand

Bilcon and its parent company, Clayton Concrete Block and Sand, have a history of doing right by communities.

Bilcon's parent company is widely recognized for its high standards and outstanding corporate citizenship. Bilcon understands the importance of community involvement, having participated as a sponsor of a number of local events and organizations. Bilcon has also provided information and presentations about the project to schools, environmental groups, business groups and the general public.

Bilcon now has an office in Little River.

We will be setting up a series of information meetings at the Towle House in Little River. Watch for advertisements in the Digby Courier and the Clare Shopper for dates and times.



BILCON OF NOVA SCOTIA

Proposed Quarry Manpower

First Shift

1	Operations Manager
1	Plant Operator
1	Quarry Operator
2	Quarry Rock Truck Drivers
1	Class A Mobile Equipment Mechanic
2	Ground Labourers
1	Electrician (Back up Plan Operator)
1	Quality Control Technician
1	Fuelman/Greaser
1	Water Truck Driver
2	Misc. Equipment Operators (Bulldozer, Excavator,Cleanup Loader)
1	Office Clerk
2	Welder/repairmen
2	Environmental Positions
1	Occupational Health, Safety, Security and Environment Officer

Second Shift

1	Plant Operator
1	Electrician (Back up Plant Operator)
2	Ground Labourers
2	Welders/repairmen
1	Quality Control Technician
1	Shift Foreman
1	Mechanic/Fuel greaser
1	Face Operator
1	Misc. Operator
2	Quarry Rock Truck Drivers
1	Water Truck Driver

One of the reasons for selecting Whites Cove was the availability of a trained or at least partially trained work force. As of 1998 there were 87 identified quarry sites in Digby county. The general skills for a quarry operation are clearly available in Digby County and Bilcon is committed to hiring locally.

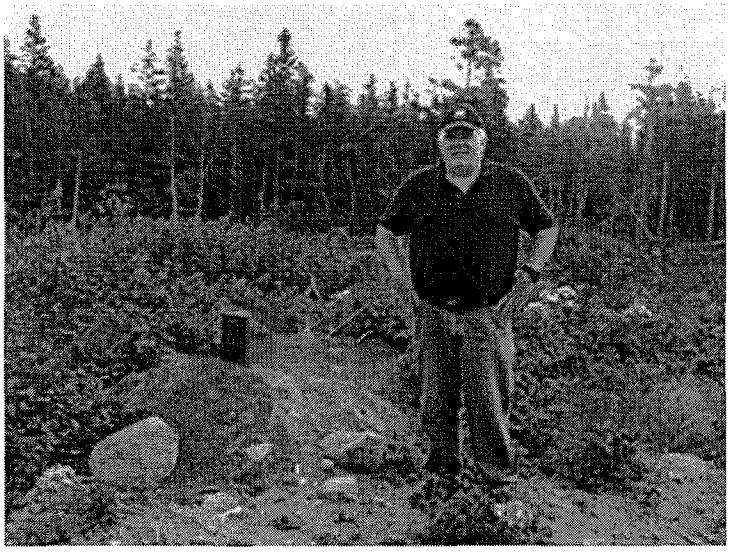
- Bilcon has not received nor will apply for any government funding for the construction and operation of the project.
- Staff will be hired locally on a priority basis and training will be provided by Bilcon at its expense.
- All staff will be paid industry competitive wages.
- Hiring preference will be given to women.
- Great care will be taken to ensure that staffing does not negatively affect local businesses.
- Bilcon will wherever possible purchase supplies in the local area and generally support local business both during construction and operation of the facility.

As Bilcon is still in the environmental assessment process, we are not hiring at this time but welcome inquiries regarding employment and encourage you to submit a resume or application to P.O. Box 2113, Digby, NS B0V 1A0 or visit us at the Bilcon office between 10:00 am and 3:00 pm. Feel free to call us at 245-2567 or email us at bilcon.ns@ns.aliantzinc.ca.

Operations Manager for Whites Point Quarry

John Wall, Operations Manager for Whites Point Quarry and Marine Terminal relocated to the Digby area from New Jersey in August 2006. John is joined by his wife and two daughters. The family looks forward to settling in Digby.

With over 25 years experience in the quarry and mining industry worldwide, John is confident that the project will benefit Digby Neck and area and is looking forward to construction and operation of the Whites Point Quarry and Marine Terminal.



Glad You Asked

We have received a number of questions about the Whites Point Quarry Project. In each newsletter, we'll feature answers to your most recent questions.

I'm concerned about noise

Excessive noise, particularly in rural areas, can have a negative effect on the residents' quality of life.

Concerns have been raised over the level of noise which will generated by the quarry construction and operation, by the blasting which will occur every two weeks during regular operation and by the shiploading operation which will occur once a week.

The Nova Scotia Department of Environment and Labour sets out limits in the Pit and Quarry Guidelines for noise levels at the quarry property line for daytime (65 dBA), evening (60 dBA) and night time (55dBA). Limits are also set out for air concussion at 128 dBA within 7 metres of the nearest structure not located on site. These are the levels which Bilcon must not exceed.

Potential Effects

The noise limits at the quarry property line are set to minimize these effects. For example the maximum noise at the property line of the quarry for evening operation is 60 dBA which is the equivalent of normal conversation at the property line.

Managing Potential Effects

The quarry operation will certainly create some noise during construction, rock processing, blasting and shiploading. To reduce noise levels and to ensure that the standards set by the Department of Environment and Labour are met Bilcon will carry out the following measures:

- The processing plant has been located approximately 1000 metres from the nearest residence and approximately 60 metres below the crest of the North Mountain.
- Rubber lined truck boxes and screens will be used.
- The crushing plant will be enclosed wherever practical.
- Bilcon will employ alternate back up warning devices.
- The preservation zones will remain in a forested condition to provide greater sound absorption.
- Monitoring for operational noise will be conducted at the locations indicated and approved by the Department of Environment and Labour to ensure that the standards are not exceeded.
- Monitoring of all blasts will be conducted at three monitoring stations for concussion and ground vibration to ensure that the standards are not exceeded.

Want to know more?

If you are looking for additional information on any aspect of our project, please visit our website at www.bilcon.ca, contact us by phone at 902 245-2567, or email us at bilcon.ns@ns.aliantzinc.ca

You are also welcome to visit us in person anytime Monday to Friday 10am to 3pm. Our office is located at 305, Highway #303, Suite 3 in the Town of Digby.

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Whites Point Quarry Update

Bilcon's office at theTowle House in Little River

Panel Review Update

The Whites Point Quarry and Marine Terminal Project is presently in an Environmental Review process. Bilcon is now preparing responses to questions raised by the Joint Review Panel, Regulatory Agencies, Responsible Authorities, Interest Groups and the General Public. Bilcon takes seriously all comments and questions brought forward and will be addressing those in the forthcoming detailed response to the Joint Panel. Bilcon expects to submit its responses early in the new year.

Some of the issues that are being addressed in further detail are:

- Ecosystem Approach and Precautionary Principle
- Public Consultation and Community Involvement
- Economy: Employment, Tourism, Fishing, Whale Watching
- Quality of Life, Health and Wellness
- Traditional and Community Knowledge, Heritage Resources, Visual Aesthetics, Property Values
- Construction, Operation and Decommissioning
- Reclamation
- Cumulative Effects

After the responses have been submitted, the Panel, Regulatory Agencies, Responsible Authorities (RAs), Interest Groups and the public will have 15 days to review the comments. Following the review period, the Panel will set a date for public hearings. These hearings are an opportunity for people to ask questions about the project and to receive more information.

While it is difficult to predict timelines, public hearings are anticipated in March, 2007.

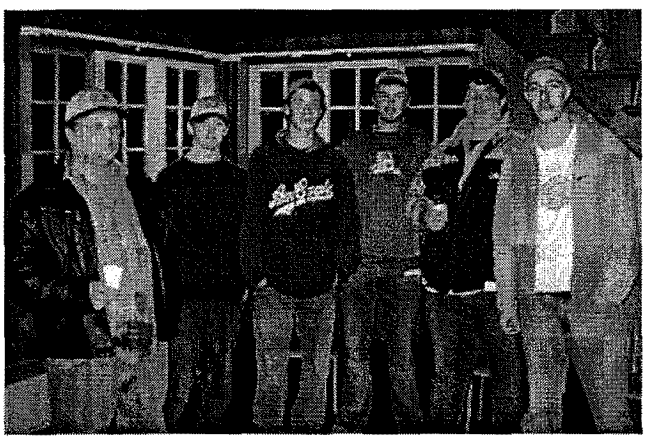
Bilcon will continue to keep the public informed about the Environmental process in the new year.

Bilcon would like to thank all of those who have voiced their support for the Project, and also to those who have shown interest in employment at the quarry.

An update for residents of Digby Neck and surrounding areas
www.bilcon.ca / December 2006

Job Meetings in Little River

Bilcon hosted an employment information meeting on October 2, 2006 at its satellite office in Little River at the request of the young people who live on Digby Neck and Islands. Some community members were under the impression that Bilcon would hire quarry workers "from away" and wanted to meet with Bilcon to clear up any misconceptions. Approximately 22 people attended and discussed job opportunities with John Wall and Paul Buxton. Paul is in charge of the environmental assessment process and obtaining the industrial permit to begin construction, and John is in charge of construction and operations.



Local residents at the job meeting on October 2, 2006

On Nov 15, 2006, Bilcon held another employment information meeting. Notices were placed in the communities of Digby Neck and Islands. Bilcon also invited people who had expressed interest in employment opportunities with Bilcon. Approximately 45 people attended. Discussions surrounded job descriptions, rates of pay, benefits, skills and education required. Residents were also interested in discussing the effects of quarry operations on their community, consequently the topics of discussion turned to subjects such as air quality, noise, surface water, groundwater, wells, aesthetics and light. Both meetings were very positive and Bilcon plans more public information meetings at its office in Little River in the New Year.

Best Wishes for the Holiday Season and a Happy and Prosperous 2007

Want to know more?

If you are looking for additional information on any aspect of our project, please visit our website at www.bilcon.ca, contact us by phone at 245-2567, or email us at bilcon.ns@ns.aliantzinc.ca Our website is in the process of being updated, look for changes in the new year.

You are also welcome to visit us in person anytime Monday to Friday 10am to 3pm. Our office is located at 305, Highway #303, Suite 3 in the Town of Digby.

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Appendix 2
Communications Log

Appendix 2 – Communications Log

April 4th, 2006	Tom Hubley	Walk in	Employment
April 19th, 2006	Claudia Tidd	Email	Informative Website
May 11th, 2006	George Masters	Telephone	Request PLS
May 19th, 2006	Joseph Thibault	Walk in	Employment
May 24th, 2006	Doug Carrigan	Letter – G. Masters	Request PLS
May 26th, 2006	Anonymous	Call	Employment
May 12th, 2006	Lisa Mitchell group	Email	Site Visit
June 8th, 2006	Lisa Mitchell group	Email	Site Visit
June 21st, 2006	Lisa Mitchell Group	Email	Site Visit
June 22nd, 2006	Andy Sharpe	Email	Site Visit
June 23rd, 2006	Mr. Earle	Telephone	Negative feedback
June 27th, 2006	Robert Pettet	Letter/Resume	Employment- Lives in Germany
June 30th, 2006	Barry Conrad	Walk in	Employment
July 3rd, 2006	Mike Arnold	Walk in	Employment
July 3rd, 2006	Anonymous	Telephone	Employment
July 4, 2006	Mike Arnold	Email	employment
July 4th, 2006	Anonymous	Telephone	Employment
July 4th, 2006	Anonymous	Telephone	Employment
July 5th, 2006	Anonymous	Email	Employment
July 5th, 2006	Anonymous	Telephone	Employment
July 7th, 2006	Herbert Deveau	Walk in	Employment
July 10th, 2006	Eldred Guier	Mail	Employment
July 14th, 2006	Mark Barrett	Walk in	Employment
July 14th, 2006	Mr. Farley	Walk in	Employment
July 17th, 2006	Linda Graham	Telephone	Support- is writing letter to panel, will email us first.
July 18th, 2006	Anonymous – Round Hill	Telephone	Employment
July 18th, 2006	Anonymous-woman	Telephone	Employment
July 18th, 2006	Anonymous	Telephone	Employment
July 18th, 2006	Colin Facey	Walk in/resume	Employment
July 18th, 2006	Anonymous-woman (Bill Robichaud on call display	Telephone	Employment
July 18th, 2006	Anonymous- display)	Telephone	Employment
July 18th, 2006	Linda Graham	Email	Letter of support to

Appendix 2 – Communications Log

			the Panel
July 19th, 2006	Matthew Outhouse	Telephone	Employment
July 19 2006	Richard Eldridge	Email	employment
July 19th, 2006	D. Langdale	Email	Support for the Project.
July 20th, 2006	Cory Strong-Bear River	Telephone	Employment
July 20th, 2006	Anonymous	Telephone	Employment
July 20th, 2006	Cory Strong-Bear River	Walk in	Employment
July 21st, 2006	Anonymous	Telephone	Employment
July 21st, 2006	Mark Barrett	Walk in	Returned Employment application – Emailed J. Wall and received a prompt response
July 21st, 2006	Terry Ells	Fax	Resume – Husband
July 21st, 2006	Carolyn Ells	Fax	Resume - Wife
July 21st, 2006	William Robicheau	Walk in	Employment
July 21st, 2006	Ingrid Pruneau	Walk in	Employment
July 27, 2006	Jacqueline Amirault	Email	Ballast water
July 27th, 2006	Donald S. White	Walk in	Employment
July 28th, 2006	Matthew Lent	Walk in	Employment – Lives in Tiverton, doesn't know Don Mullin and wonders why he's speaking for the people of Digby Neck and Islands.
July 30th, 2006	Sue Davis	Email	Wants the newsletter to be printed on recycled paper – email sent telling her it is recycled Domtar Luna Gloss- she also didn't understand the PLS and wanted to know about worst case scenarios
July 31st, 2006	Crystal Haight	Walk in – HRCD	Employment - Shaw

Appendix 2 – Communications Log

		Due Diligence Heavy Operators Course	
July 31st, 2006	Anonymous	Walk in	Employment
July 31st, 2006	Matthew Lent	Walk in	Brought application
July 31st, 2006	Anonymous	Walk in	Quarry Information
Aug 1st, 2006	Charlene Robicheau	Walk in - Wife	Employment - Shaw
Aug 1st, 2006	Jason Gossen	Walk in - Husband	Employment - Irving
Aug 1st, 2006	Mihira Lakshman	Email	PLS Request
Aug 1st, 2006	Anne Smith	Telephone	PLS Request
Aug 2, 2006	Sean Weseloh McKeane	Telephone	PLS Request
Aug 2nd, 2006	Dean and April Gosson	Walk in	Resume- took pl summary, may write to panel
Aug 3, 2006	Corey Strong	Walk in	Resume
Aug 3, 2006	Anonymous	Walk in	Employment
Aug 4, 2006	Faye Andrews	Walk in	Employment
Aug 4, 2006	Heather Cross	Telephone	Request PLSummary
Aug 7, 2006	Donald White	Walk in	Returned application and resume
Aug 10, 2006	Mark Barrett	Walk in	To check on quarry progress
Aug 11, 2006	Anonymous	Telephone	Employment – live in Doucetville
Aug 11, 2006	Greg Dondale	Walk in	Employment
Aug 14, 2006	Rickey Robicheau	Telephone	Employment
Aug 15, 2006	Cory Strong	Email	Employment
Aug 15, 2006	Truman Steele Round Hill	Telephone	Employment
Aug 18, 2006	Lionel Taylor – Little River	Walk in	Employment
Aug 18, 2006	Everett Pyne – Little River	Walk in	Employment
Aug 21, 2006	Kevin O'neil – Rodney's brother	Walk in	Employment- from Digby – Has heavy equip.
Aug 21, 2006	Bryan Simms (Ward Smith)	Walk in – The Forgotten People	Employment – Excavator Ticket, Loader and Truck experience (currently

Appendix 2 – Communications Log

			employed at Elliot in Halifax.
Aug 21, 2006	Matthew Lent	Walk in	Employment – doing his weekly check in
Aug 21, 2006	Lionel Taylor	Walk in	Returned employment application
Aug 23 2006	Cory Strong	Email	Letter in support
Aug 23, 2006	Arnold Doty	Walk in	Employment – update on the quarry – Lee gave PLS and a speech on his responsibility to make his views heard, i.e. Panel, MP, MLA
Aug 29, 2006	Tanya Comeau	Email	Employment consultant in Church Point – asking about employment opportunities
Aug 29,2006	Everett Pyne	Walk in	Employment
Aug 30, 2006	Lois Conner	Email	Doesn't support the project
Aug 30, 2006	Randy Saulnier	Telephone	Employment
Aug 31, 2006	Anonymous	Walk in	support
Aug 31, 2006	Randy Saulnier	Walk in	Employment-brought resume
Sept 1/06	Brad Mansfield	Walk in	Resume
Sept 7, 2006	Mark Barrett	Walk in	Met J. Wall
Sept 11, 2006	Don White	Walk in	Checking on status of Panel Review
Sept 11, 2006	Sandra Freeport Employment Centre	Telephone	Requested faxed copy of Employment Application and discussed ways we accept resumes
Sept 11, 2006	David Hogarth	Walk in	Dropped off employment application and resume

Appendix 2 – Communications Log

Sept 15, 2006	Victoria Outhouse	Telephone	Employment
Sept 20 2006	Gordie O'Neil	Email	employment
Sept 21, 2006	Dwayne Theriault	Walk in	Support – will try to get the young people from Digby Neck to a meeting
Sept 21, 2006	Dwayne Theriault	Email	Letter to the panel - support
Sept 22, 2006	Dwayne Theriault and Stephen Newman	Walk in	Traditional Fishing Knowledge conversation – see notes
Sept 26, 2006	Ken MacPherson – Valley Today Newspaper	Email	Request to do an interview
Sept 29, 2006	Kenneth Alan Clark – Long Island	Telephone	Lost his job at Kenney's fish plant-worked there 7 years. Jr. Theriault told him to call us. Will be in on Tuesday.
Oct 2, 2006	Brandon Comeau	Telephone	Called to ask about meeting on Digby Neck – Tonight at 6:30
Oct 2, 2006	23 people in total	Attendees	Meeting at Towle House - employment
Oct 2, 2006	Jacqueline Titus	Freeport	Meeting at Towle House - employment
	Brandon Comeau	Sandy Cove	
	Clayton Barnaby (?)	Freeport	
	Josh Comeau	Sandy Cove	
	Kyle Ryan	Little River	Called Tony Kelly to ask about his involvement in Stop the Quarry
	Rodney ?	Bear River	
	Kyle Theriault	Little River	
	Joey Newman	Tiddville	

Appendix 2 – Communications Log

	Tyler Nesbitt	Freeport	
	Kaylen Theriault	Digby	
	Matthew ?	Bear River	
	Randy Nesbitt	Freeport	
	Brent Newell	East Ferry	
	Aaron Trask	Gilbert's Cove	
	Tyler Harris	East Ferry	
	Nathan Tidd	Sandy Cove	
	Dwayne Theriault	Little River	
Oct 3, 2006	Kenneth Alan Clark – Long Island	Telephone	Lost his job at Kenney's fish plant-worked there 7 years. Jr. Theriault told him to call us. – called car starter isn't working, desperate for work, gave him a lead at AF Theriault, will be in next week
Oct 4, 2006	Paul Dugas-Weymouth		Employment
Oct 5, 2006	Chris Barrington	Digby	Employment
Oct 12, 2006	Kathy Millett	Telephoned: Digby	Employment - admin – saw the quarry manpower flyer
Oct 12, 2006	Rex and Beula Trask	Little River- Walk in	Re: well letter, supplying the people across the road, wants to sell their property to Bilcon, support the quarry
Oct 13, 2006	Dean Gosson	Seabrook – Walk in	Took the heavy equip course, brought in an updated resume
Oct 14, 2006	Digby Women in Business Tradeshow at Digby Curling Club 10:00 am to 3:00 pm		38 people stopped by the booth – 2 were openly anti quarry-job applications, newsletters, were handed out.
Oct 16, 2006	Paul Dugas-		Employment-

Appendix 2 – Communications Log

	Weymouth		Brought in Resume
Oct 16, 2006	Anonymous	Telephone	Employment - Thought we were up and running and ready to start in Dec. Has her application on file.
Oct 18, 2006	October Newsletter sent out		
Oct 18, 2006	Steven Millett	Fax – Chester Basin, NS	Employment Application
Oct 20, 2006	Don White	Walk in	Employment
Oct 20, 2006	Scott Bush – Waterford	Telephone	Employment Water truck driver Fuel Man/Greaser Occupational Health and Safety Officer
Oct 20, 2006	Judy McGarrett	Telephone	Occupational health and safety officer
Oct 20, 2006	Terry Height	Walk in	employment
Oct 20, 2006	Curtis Addington	Telephone	Would like to have a new well drilled-spoke with Paul Buxton
Oct 20, 2006	Edward Bunker – Brent Newell's cousin	Brent dropped off resume – lives in Dartmouth, but wants to relocate back to the Neck	employment
Oct 23, 2006	Arnold Doty	Email from Alberta where he moved	employment
Oct 23, 2006	Merwin Haight Jr.	Bloomfield	Vice President Agricultural Association of Digby County - Employment
Oct 25, 2006	Scott Milne	Working in BC, application on file	Employment
Oct 26, 2006	Sandra Blandin - Freeport Employment Centre	Walk in	Freeport Employment Centre is closing – she is

Appendix 2 – Communications Log

			looking for work. Was in the militia – transport – encouraged her to look into heavy equipment operator's course
Oct 26, 2006	Cindy Van Tassell - Digby	Walk-in	employment
Oct 26, 2006	Lyle Harris – Clementsvale	Mail	resume
Oct 26, 2006	Brian Thurber - Freeport	Mail	resume
Oct 26, 2006	Bridgette Height - Rossway	Mail	Resume- referred by Jr. Theriault MLA
Oct 27, 2006	Maxwell Amero	Walk in- Digby	resume
Oct 28, 2006	Andrew Lombard	Walk in	employment
Oct 31, 2006	Barry Conrad	Walk in	employment
Nov 1, 2006	Charlie Thibodeau	Walk in	sign
Nov 7, 2006	Bruce Titus	Walk in	sign
Nov 8, 2006	Brad Mansfield –	Walk in	employment
Nov 8, 2006	Kevin Brown	Walk in	resume
Nov 8, 2006	Carolyn Ferguson – Tiverton	Walk in	Job application
Nov 9, 2006	Andrew Lombard	Walk in - Centreville	Resume
Nov 9, 2006	Charles Stewart – Cornwallis	Walk in	Employment
Nov 9, 2006	Shirley Foley – Cornwallis	Walk in	employment
Nov 9, 2006	Anonymous	Walk in	employment
Nov 10, 2006	Vincent Deveau – Meteghan	Telephone/fax	resume