PLAIN LANGUAGE SUMMARY

1.0 Background

The Proponent, Bilcon of Nova Scotia Corporation (Bilcon), is proposing to construct and operate a basalt quarry, a crushing operation, and a ship loading terminal at Whites Point on Digby Neck (Map 1). 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 is anticipated to be operating 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 and 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 by common carrier the crushed rock and grits 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), of which this plain language summary is a part, is in itself a part of the environmental impact assessment which is a planning tool to identify and mitigate any significant environmental effects.

The EIS is a large, technical document which can be viewed at the places listed in Section 11.0 of this summary. This plain language summary is intended to give an overview to provide an understanding of the issues surrounding this project.

Units of Measure

%	Percent
^{0}	Degrees
°c	Degrees Celcius
cm	Centimetres
DWT	Deadweight metric tonnes
g	Grams
g/cc	Grams per cubic centimetre
g/m^3	Grams per cubic metre
h	Hour(s)
ha	Hectares (10,000 square metres)
HP	Horsepower
kg	Kilograms
km	Kilometres
km^2	Square kilometres
kW	Kilowatts
l/s	Litres per second
M	Millions
m	Metres
m^3	Cubic metres

Units of Measure

masl	Metres above sea level
mm	Millimetres
Mm^3	Millions of cubic metres
Mtpy	Millions metric tonnes per year
Mt	Metric tonne
MW	Megawatts
ppm	Parts per million
ST	Short ton (2,000 lbs)
tph	Metric tonnes per hour
tpy	Metric tonnes per year
C$ M	Millions Canadian dollars
US$ M	Millions US dollars
C$/t	Canadian dollars per metric tonne
US$/t	US dollars per metric tonne
wt%	Weight percent
mg/l	Milligrams per litre
µg	Micrograms
dbA	Decibel
Rms	Root mean square

1.0 ENVIRONMENTAL ASSESSMENT OF THE PROJECT

1.1 Background

A Joint Review Panel (the Panel) has been established by the Minister of the Environment, Canada (under the authority of the Canadian Environmental Assessment Act), and by the Minister of Environment and Labour, Nova Scotia (under the authority of the Nova Scotia Environment Act), to consider the possible environmental effects associated with the Whites Point Quarry and Marine Terminal Project (the Project), proposed by Bilcon of Nova Scotia Corporation (the Proponent/Bilcon).

The Proponent is proposing to construct and operate a basalt quarry, processing facility and marine terminal on Digby Neck, Digby County, Nova Scotia, where quarrying and associated activities are scheduled to take place on 150 hectares of land. Production is expected to reach 2 million tonnes of aggregate per year, or approximately 40,000 tonnes per week. The quarry is expected to expand its operational footprint by four hectares each year of operation. Land-based operations are expected to occur year-round, with aggregate stockpiled for ship loading once each week. Drilling and blasting of basalt rock, loading, hauling, crushing, screening, washing and stockpiling will be done on-site.

Land-based structures will include: rock crushers, screens, closed-circuit wash facilities, conveyors, load-out tunnel, support structures and environmental control structures. Associated construction processes will include erection of on-land aggregate processing equipment, conveyors and wash-water pumping systems.

Marine facilities will include a conveyor, ship loader, berthing dolphins and mooring buoys. Construction processes for the marine terminal infrastructure would include the anchoring of pile support structures to the seafloor, along with the construction of concrete caps as dolphins. Ship visits for the purposes of loading aggregate will occur weekly - (See Reference 37 - EIS Guidelines, Chapter 1 Background).

1.2 The Joint Panel Review Mandate

The Panel has been charged with the responsibility to identify, evaluate and report on the potential impacts (adverse and beneficial effects) of the Project on the physical, biological and human environments. The mandate of the Panel is defined in the Agreement signed by Federal and Provincial levels of government (See Appendix 24). The Agreement explicitly states, "The Panel shall conduct its review in a manner that discharges the requirements set out in the Canadian Environmental Assessment Act, Part IV of the Nova Scotia Environment Act and the Terms of Reference attached hereto as an Appendix."

10.0.4 Development by the Proponent or Others That May Appear Feasible Because of the Proximity of the Project's Infrastructure

The development of the Whites Point project by Bilcon is designed to supply Bilcon's parent company, Clayton Concrete Block and Sand, with washed aggregates to be used in the current concrete and block operations in New Jersey.

Clayton's requirement is for 2M tonnes per year and the capacity of the Whites Point Quarry operation has been designed to supply this quantity. Bilcon has no other land holdings capable of producing aggregate other than those in the Little River/Whites Point area.

The capacity of the shiploader is estimated to be 5,000 tonnes per hour and, theoretically, significantly more product could be loaded than the 2 M tonnes per year anticipated; however, while the shiploader has surplus capability, there is no additional space for stockpiling.

Bilcon has no intention of making the shiploader available to other producers in the area, since this would have serious effects on the efficiency of the anticipated operation and would create additional environmental impacts from trucking activities.

Comment

Describe the zone of influence of the marine area expected to be affected by the maneuvering requirements of the ship during varying sea and wind conditions.

Response:

Please refer to Project Description

Comment

Identify factors that may alter the rate of removal of aggregate materials from the site. For instance, the EIS suggests the bulk carriers may range up to 70,000 tons capacity. Could this reduce the number of ship trips required per year? Could enhanced demand by Clayton increase the rate of aggregate extraction?

Response:

Bilcon anticipates employing Panamax-size vessels initially. The carrying capacity is approximately 45,000 tons. However, initial investigations into the use of bulk carriers with up to 70,000 tons capacity have been carried out with the specific intent to reduce the number of ship trips per year. At the present time, there is a general world-wide shortage of bulk carriers due to increased demand for raw material in Asian countries, particularly China. There is currently an approximate three-year waiting list for the construction of new vessels so that in the initial years of the quarry, Bilcon will have to employ what is currently available on the market. It should also be noted that while the Whites Point terminal has been designed to accommodate vessels carrying up to 70,000 tons of aggregate, the unloading ports presently contemplated are restricted due to water depths. Bilcon's parent company, Clayton Concrete Sand and Gravel, is currently investigating alternate sites on the eastern seaboard which would permit the unloading of large vessels. At the present time, Clayton does not anticipate a future demand in excess of two million metric tons a year from the White Point site.

Comment

In some parts of the EIS, the Proponent indicates that it expects it will have a dedicated ship while in other parts it says it will not. Clarify.

Response:

As noted above, there is currently a worldwide shortage of bulk carriers. Initial discussions with potential carriers indicates that with a three-year waiting time for new vessels, a dedicated vessel for Whites Point is not a possibility in the immediate future. Bilcon has also investigated the construction of a vessel for its own specific use but, again, due to waiting time, this is not a possibility in the immediate future.

Comment

Clarify the communications plan that will be used to apprise fishers, whale watchers, or others of Project activities such as blasting or ship loading.

Response:

Please refer to Project Description

Comment

Provide a detailed decommissioning plan.

Response:

Please refer to Project Description

Comment
The lease the Proponent has on the property extends for 90 years, while the Project plan calls for 50 years. Clarify the intended use of the property for the years remaining on the lease.

Response:

There is sufficient rock on the Whites Point site to enable two million metric tons to be extracted for a fifty-year period. However, Bilcon deemed it prudent to enter into a lease arrangement for a ninety-year period. At the present time, Bilcon has no specific plan for the property between the 50 – 90 years, other than to ensure that the reclamation plan is fully functional.

Comment
Facility and Component Locations

The quarry infrastructure plans (Figure 1) for the EIS and the Fish Habitat Compensation Plan of September 2005 (Appendix 17) differ in how they illustrate critical components. Examples include the footprint of the physical plant, orientation of the loading tunnel, the direction of flow in drainage channels, and the use of the " Phase I Reclamation area" .

Resolve discrepancies in the drawings to indicate which of these infrastructure plans represents the final proposed design of the Project.

Response:

Please refer to Project Description