

To: HEI MacPHAIL

White Point Quarry, 2002

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**WHITES POINT QUARRY – PROJECT DESCRIPTION****Location**

The proposed Whites Point Quarry and marine facility is located in Digby County, Nova Scotia on Digby Neck in the community of Little River. Access to the 380 acre site is via Whites Point Road from Route 217. See Map .

**Infrastructure – Land Based Construction**

The land based infrastructure required for the quarry operation is shown schematically on Plan and Section . This infrastructure includes the construction of the following.

1. Upgrading of the existing access road (old Whites Point Road) widened with a gravel surface.
2. New utilities (power and communications) along the access road.
3. Well and septic system construction.
4. Office facilities (12' x 60') with gravel parking area.
5. Workshop facilities (50' x 100') with equipment parking area.
6. Fuel tanks with a capacity of 20,000 gallons, double walled with alarm systems.
7. Stationary rock crushers.
8. Load out tunnel (12' high, 16' wide, 600' long), with conveyor.
9. Environmental control structures including rock lined drainage channels with check dams, wash water ponds, sedimentation ponds and constructed wetlands.

**Infrastructure – Marine Based Construction**

The infrastructure required for ship loading is shown schematically on Plan and Section . This infrastructure includes the construction of the following.

1. Mooring dolphins (3) approximately 600' from shore in a water depth of 60 feet.
2. Support structures for the loading conveyor system.
3. Conveyor system.
4. Environmental control measures including the construction of

**Construction Procedure – Land Based Infrastructure**

The land based infrastructure proposed, will be constructed on the previously approved 3.9 hectare quarry site. Site development will use the environmental controls already in place for the 3.9 hectare quarry (see Plan and Section ). Delivery of facility components – for example building materials, tanks, crushers, conveyors etc. will be delivered to the site via Route 217 and the upgraded access road. Construction of the land based facilities is expected to take one year.

### **Construction Procedure – Marine Based Infrastructure**

The marine based infrastructure proposed will be constructed as shown on Plan and section . Construction materials will be delivered by either land or water depending upon the type and origin of the materials. Construction of the marine based facilities below the tidal range is expected to take six months and be done during the May to October construction season. Installation of facilities above the tidal range for example conveyor support systems, conveyors etc. is expected to take six months. Land and marine based construction is proposed to take place concurrently.

### **Operation**

The life of the quarry is expected to be 30 to 50 years. Approximately 10 acres of quarry will be opened each year. Environmental controls will be expanded and connected to the previous year controls as quarry operations move to the adjacent 10 acre site. The first level of quarrying will follow the shoreline at approximately the 5 meter to 33 meter contour. Restoration will proceed every two years following the previous years 10 acre quarrying completion to minimize exposed surface soils and to restore wildlife habitat. This first level of the quarry is expected to take 15 years to complete. The next level from approximately the 33 meter to 67 meter contour an additional 10 to 15 years and the third level from the 67 meter to 100 meter contour another 10 to 15 years. A schematic section of the quarry and restoration is shown on Section .

Blasting of the rock will follow a similar procedure as done for the previously approved 3.9 hectare quarry. All blasting will be done following the Department of Fisheries and Oceans guidelines (ref) and the previously approved blasting plan for the 3.9 hectare quarry. In this case, a maximum 100 kg explosive charge per detonation with a minimum setback from fin fish spawning habitat of 150.9 meters. Blasting will only be carried out within two hours of low tide to insure maximum separation of blasting activities and fin fish spawning habitat. This will be done in accordance with the previously approved blasting plan (ref) for the 3.9 hectare quarry site.

Loading, crushing, and aggregate washing will take place in an environmentally controlled area. This area will contain perimeter drainage control, wash water settling ponds and an overall site sedimentation pond. Out flow from the sedimentation pond will be filtered through a constructed wetland before discharge into the Bay of Fundy. Water quality control will be as prescribed by the Nova Scotia Department Environment and Labour. Dust suppression will be done in accordance with Environment Canada guidelines (ref) using an on-site water source and recirculated water from the wash water

ponds. Noise levels will meet the guidelines set forth by the Nova Scotia Department of Environment and Labour. Aggregate stockpiles will be placed over the load out tunnel for conveyor loading of the aggregate to the bulk carrier. Electrical energy is required for the crushers and conveyors and diesel fuel for the remaining equipment.

### **Equipment**

The equipment required to operate the quarry includes the following.

1. Three 100 ton rock quarry trucks.
2. Two 14 yard rock loaders.
3. One dozer
4. One excavator
5. One water truck
6. One 70 – 80 ton crane
7. Stationary rock crushers.

### **Transportation**

All the aggregate produced at the quarry will be shipped by water, thus eliminating truck traffic on local roads and through local communities. An increase in road traffic is expected during the one year construction period resulting from material/equipment delivery and workmen. Shipment of the aggregate by water will involve approximately 40 to 50 shipments per year by bulk carrier. The proposed ship is the Canadian Steamship Lines "Spirit" with an overall length of 225.02 meters and a gross tonnage of 41,428.

Ship approaches to the Whites Point marine facility from the proposed new inbound/outbound shipping lanes are shown on Map . These lanes are located to insure least probability of ship interaction with the endangered right whale and other species of whales.

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