

Addendum: DFO Concerns – Potential Harmful Effects of Blasting at Whites Point

Fish species

Although the protection of most fish is achieved by DFO "Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters" – 1998, the presence of species at risk requires a closer examination than a guideline can provide.

The inner Bay of Fundy Atlantic salmon is listed endangered by the Committee on Status of Endangered Wildlife in Canada (COSEWIC). Historic fishing, scientific sampling and theoretic modeling indicates that there could be migrating or resident iBoF Atlantic salmon in the Whites Point, Digby Neck area from May until October.

The coastal area of Digby Neck on the Bay of Fundy is a known area of cooler oceanic water entering the Bay of Fundy. These currents enter through the trough north of George's Bank, are driven to the surface and circulate in a counter clockwise pattern. The cooler portions are located toward the mouth of Bay of Fundy and are preferred habitat areas for Atlantic salmon. These cool water areas fluctuate monthly. Habitat area, suitable for Atlantic salmon, is available in this area during May and June and again in October and November. During July to September the cool water south of Digby Neck is perhaps critical to iBoF salmon. In general from December to April there is virtually no habitat suitable for Atlantic salmon in that area and few migrating Atlantic salmon.

Of particular note is the fact that Atlantic salmon, both post-smolt (50 to 150 g) and adult, (1000 to 2500 g) tend to travel in very close proximity to the shoreline. In fact, many shore mounted stake nets were once fished in the inter tidal zone along the southeast shore of the Bay of Fundy. This fishery was a consistent source of tagged smolt, many from inner Bay of Fundy rivers. The fisheries were closed or restricted since 1983.

Based on these observations it is likely that Atlantic salmon of iBoF could be found in close proximity to the shore line of Whites Point from May to October.

Habitat Management Division (HMD) have calculated that a horizontal set back distance from the shore line of 500 meters would be required to protect iBoF Atlantic salmon of the size that could be found at Whites Point from May to October.

The recovery plan for iBoF Atlantic salmon is described in the document titled **National Recover Strategy for iBoF Atlantic salmon (salmo salar) Populations 2002** and a recovery team is also in place. The recommendations of this recovery strategy must be considered explicitly.

Marine Mammals

The following table shows the marine mammals at risk found in the Bay of Fundy (BoF) that need consideration for potential harmful effects from blasting at Whites Point.

<u>Species</u>	<u>Found in BoF</u>	<u>Species at Risk Status</u>
Northern Right Whale	June -- November	Endangered
Blue Whale (occasional sightings)	June -- November	Endangered
Harbour porpoise	All Year	Threatened
Fin whale	All Year	Special Concern
Minke whale	All Year	Special Concern
Humpback whale	June- November	Special Concern

The blasting proposal reveals an active whale watching activity and the presence of humpback and right whales at 5 miles from shore. The presence of an endangered species within a few miles of the site requires special consideration. The recommendations of the **Canadian North Atlantic Right Whale Recovery Plan** must be considered explicitly.

Marine mammals are well known to be acoustic animals that react to and are adversely affected by noise. The distance of disturbance of marine organisms by sound may well be beyond the 500m suggested in the proposal.

Additional information submitted for the blasting plan suggested that a colony of Harbour seals at Crowell's Cove is within 3 Km of the blasting. DFO is concerned that there may be potential harmful effects on the colony during the breeding season.