Key Objections to the Environmental Impact Assessment for the Proposed Three Sites – Shoal Bay, Spry Harbour, Beaver Harbour – prepared by Sweeney's for the Proponent, Snow Island Salmon, Inc.

The Environmental Impact Assessment is seriously flawed, replete with errors and lacunae. The proposed sites do not even meet the requirements for appropriate siting of open pen fin fish aquaculture outlined in both the federal and provincial governments' own commissioned guidelines:

- 1. A guide to the Decision Support System for Environmental Assessment of Marine Finfish aquaculture (Hargrave & Doucette);
- 2. Environment Canada Guidance Related to Environmental Assessment of Marine Finfish Aquaculture Projects in Canada;
- 3. Numerous studies by D.F.O. and Environment Canada (many done on or near finfish farms); and,
- 4. Stantec Document (NS Department of Fisheries and Aquaculture, industry representatives and departmental scientists).

Large sums of money have been spent by the aquaculture industry and both levels of government to come up with guidelines to site selection criteria for fish farms. The proponents of the three sites in our area have not followed many of the recommendations put forth in the above documents. I will list a few items of concern:

- 1. Sites are being put into protected wildlife and waterfowl areas;
- 2. Bays are grow-out areas for herring, scallops, mackerel, crab, lobster, salmon and trout;
- 3. Snow Island Salmon work boats going to and from these sites will have to pass through nesting areas for endangered birds (piping plover, roseate turn, Harlequin ducks, purple knots and many more);
- 4. Sites are next to a Provincial Park and beach;
- 5. Area contains many recovering wild salmon and trout streams;
- 6. These sites will be in conflict with commercial wild catch fishermen and recreational fishermen;
- 7. The wild salmon and trout populations will be devastated by these farms (a look at the history of these farms and their effects on the fish shows that wild stocks of salmon and trout have been wiped out in the rivers near such farms);

- 8. Thousands of tons of salmon excrement is deposited into the ocean during each grow out period. In addition to sulfites produced by excrement, Section two of the Environment Canada guidelines documents list the following as being in salmon food: Zinc, cadmium, iron, manganese, cobalt, nickel, lead, magnesium, selenium and mercury. These are added to the food as NUTRITIONAL supplements;
- 9. The accumulation of the above heavy metals under pens would be most pronounced in areas such as protected bays with limited currents. The water depth at all three of these sites on the Eastern Shore is very shallow (10-12 m). In water this shallow, the accumulated waste under these pens would be stirred up by wind storms (which are more frequent in recent years). This leads to re-suspension and the chemical cocktail under the pens being carried to all shorelines around these bays; and,
- 10. Lobster fishing areas around these farms will be put at risk by the aforementioned chemicals. International and national scientific studies published in refereed journals have proven that chemicals used to treat farmed salmon are lethal to lobster larvae and to lobster. All three of these sites are in heavily fished lobster areas.

Additional problems and items of concern

Nick Joy, CEO of Loch Duart Salmon, the Scottish owner of Snow Island Salmon, stated that he is going to raise salmon using his Scottish plan. He also stated at a meeting (Feb 6, 2012) at Sheet Harbour Legion that he does not use chemicals or antibiotics. I have attached examples from a 70 page ledger obtained from the Scottish Environmental Protection Agency (SEPA) in Dingwall, Scotland to this document. When I brought Loch Duart's chemical use forward at a meeting with MLA Jim Boudreau and Fisheries Minister Belliveau on March 14, 2012, they stated that the only chemical used by Loch Duart was hydrogen peroxide. Loch Duart's name appears on almost every page of the SEPA register and not once is there any mention of hydrogen peroxide. To date there is no known example of open pen salmon feedlots in the world where eventually chemicals are not used.

SEPA files, unlike ours in Canada are open for public scrutiny. Forms must be compiled and put into the register every time chemicals are used on the fish farms.

The "Environmental Impact Assessments" put forth by Sweeney International Co. are, with all due respect, nothing short of a joke. Bob Sweeney sits on the board of the Atlantic Canada Fish Farmers Association as its secretary-treasurer. This would appear to be a conflict of interest that has compromised the quality and objectivity of the Environmental Impact Assessments we're seeing for open pen fin fish farms in Nova Scotia.

Examples of poor work in those EIAs include the fact that, for example, in one report, wave height data is taken from LaHave Bank and the Gulf of Maine--hardly relevant to Shoal Bay, which is on the Eastern Shore—and some of the data is 20 years old. I could cite many other such examples.

Water depths for these farms proposed for the E. Shore are in the 10-12 meter range. In all recommended site selection criteria data, it states there should be a minimum of 20 m. Current speeds at these sites averages 0.08 knots. This gives the sites little or no flushing.

Dissolved oxygen data is taken from a buoy 35 miles away and 18 miles off Halifax. What does this have to do with Shoal Bay?

In March 2009 a herring seiner was chartered from a Yarmouth company to remove dead fish from a fin fish farm at Owls Head (adjacent to the proposed Shoal Bay site). The seiner pumped 175+ tons of fish parts on board. The farm at that time was called Ocean Legacy. The owners said that the fish had died of super chill. Super chill occurs when sea water cools below a temperature lethal to salmon (-0.75 C). I was on board the seiner and witnessed the pump out.

The salmon that were still alive in the cages were covered with large open sores. The owners stated this was caused by the cold water. The seiner Captain was told "Do not to bring those G.D. fish past Halifax." The plant owner (seiner owner) did not want those contaminated fish touching his dock. The fish were later loaded onto trucks and dumped in a landfill site at Concession, Digby County.

A check was made with the Atlantic veterinary College in PEI. A doctor who specializes in fish diseases could only state those fish would have died from a bacterial infection caused by one of four salmon diseases. A sample would have had to be taken and a culture grown to determine which disease might have killed them. The company, then owned by Shane Borthwick, now under the employ of Loch Duart, did not do this sampling or reveal the cause of death of these salmon.

Loch Duart and Snow Island salmon are still adamant in saying Owl's Head is a very good wintering-over site for salmon. They also state that if Owl's Head is so good, Shoal Bay must be very good also. Shoal Bay is very close to Owls Head. Our observations of water temperatures in this area and our witnessing of the large salmon kill at Owl's Head lead us to seriously question this claim.

Concerns about Undemocratic Processes

Our group, APES, has submitted to the federal and provincial licensing bureaus a vast amount of data and objections to the Environmental Impact Assessment, contesting the appropriateness of our bays and harbours for this industry. Much of our data comes from some of the best marine scientists in the world. No one involved in this process has to get

back to us; Loch Duart/Snow Island do not have to answer our concerns, nor are we seeing government offices answer our concerns. Loch Duart/Snow Island are part of working groups with the NSDFA, but we cannot be. We don't understand why. We're interested parties here too, and what happens in our waters affects all of us.

The members of APES are not a lot of tree hugging lunatics like some people would have you believe. We have very serious concerns about what is happening here. We have put forth tons of paperwork regarding this issue. Our concerns are backed up by scientific evidence of what happens following the start up of these farms. It is very frustrating when those who you elected to represent your constituency, abandon you.

The aquaculture industry has not delivered on promises of employment in Nova Scotia to date. So far there are only a few low paying jobs in the South West. Why ever would the NDP place at risk the commercial and recreational wild catch fishery, tourism, insettlement, building trades, the sustainable environment and a multitude of at risk species?

There is much more information which can be made available from our group. We ask you to visit our website at www.nsapes.ca

Bill Williams Responsible for Responding to the Environmental Impact Assessments Association for the Preservation of the Eastern Shore