Comments on SEA for Sydney Basin and Orpheus Graben by Greg Organ on behalf of N-ENS Snow Crab Assoc representing 58 members in 18 ports from Dingwall to Gabarus, Sydney Basin being the main focus.

In general the document does a decent job describing the area, however there are several mistakes in the commercial fishery section, mostly with outdated information. I do not believe the SEA fully captures the importance of the commercial fishery in the areas involved and I am concerned the SEA mainly focuses on species of special concern and commercially fished species. Lobster snow crab and halibut are presently the three main inshore fisheries in the Sydney Basin, crab got some attention, however lobster and halibut were rarely mentioned. Although these three fisheries generate most of the income, the fishery also depends on several other species for bait and foraging to support the commercial fishery.

Hunt oil completed a seismic survey in Nov 2005 over part of the crab area fished by members of N-ENS, in 2006-2007 it was observed by members that crab were far less abundant and showed signs of carapace damage in the more heavily surveyed areas than in the areas less or not surveyed at all. DFO science had predicted a drop in biomass but not as much as actually observed and there was no reason for the lack of crab in the heavily surveyed area other than seismic. The members of N-ENS Snow Crab Assoc are positive that the stock was damaged by seismic testing, our members were the only group seeing this damage in the years following the seismic. Hunt Oil stated during the 2002 public review that"they are prepared to work with the industry to develop mutually acceptable arrangements for compensating fishers for any loss of income they may incur because of exploratory activity", Hunt left with no follow up on any possible damages to our fishery There was some testing for possible damage to snow crab in the 2003 corridor seismic program in the Gulf of St Lawerence, however I believe the strength of seismic used by Corridor was much weaker than the levels

used by Hunt, it is interesting to note that the study found internal bruising, this test was performed on adult crab which like all animals are much stronger than the very young and vulnerable which is the future of all fisheries, if the very young snow crab are damaged the result would not show up in the fishery for 6-8 yrs. (earlier in the trawl survey) The snow crab grounds available in N-ENS for 78 license holders is 10 -20 times smaller than in S-ENS (where present oil and gas activity is ongoing) for 116 license holders, if the bottom is affected by exploratory drilling > 6 KM as stated on pg 330 of the SEA it would be devastating to the N-ENS fishery as we are the most congested snow crab fleet in all of Eastern Canada.

The N-ENS snow crab license holders are currently working with EMERA to determine any effects on snow crab stocks by the Maritime Link to be installed in 2017, EMERA began a study on movement using acoustic tags and receivers in 2014 and it will continue for several years after the Link is in operation, the N– ENS snow crab license holders in conjunction with Ocean Tracking Network and DFO science are also doing a study of snow crab movement on a larger scale than EMERA, the two projects represent a total investment well in excess of a quarter million dollars with more to be invested in the coming years, any oil and gas exploration would no doubt damage this long term study with possible negative financial consequences for the snow crab fleet. Some other observations I have are

Pg119 it is well known that the majority of mackerel spawn in the Gulf of St Lawerence but some also spawn in the Sydney Basin and mackerel is a very important bait fish.

Pg 144 some of the North Atlantic Right Whales changed their migration pattern in 2015 with a group of 35 spotted near Prince Edward Island and several sightings in the local area including one documented by DFO being released from a fish trap near Ingonish, in a post season snow crab advisory meeting Dec 10 2015 we were advised of a concern

for possible Right Whale entanglements in our fishery and the possibility of modifications to our fishery and gear in the future.

Pg 226 there are several licensed sealers in the SEA area with a historical documented harp seal hunt in northern Cape Breton, harp seals are common off northern Cape Breton in Mar-Apr.

Pg 248-251 the chart shows 72 active snow crab licenses, while this number may be accurate, there are 78 quotas caught as some are temporarily transferred.

There are no landings of Atlantic Halibut, in 2015 there was in excess of one million dollars landed value in the Sydney Basin area.

The snow crab landings are confusing, areas 20,21,22 I and 22 O have been consolidated into one area since 2005, the landings for 2015 were in excess of 600 tonnes and have been more than double that in past years.

Pg 276-278 the information is outdated with several groups and buyers left out and several listed that have been out of business for years.

Pg 347,352,355 the charts on these pages clearly show the Sydney Basin is vastly important for Sea Turtle species of special status, Marine Mammal species of special status and Marine Fish species of special status.

Pg 370 the season for sea ice is listed as Jan - mid Mar, it is common to have heavy ice well into Apr and this past year the ice was present into May

Pg 375 it is stated that the information on the fishery is adequate and appropriate for this SEA ,I disagree with this statement, the fishery has the most to lose from oil and gas exploration, so it is extremely important to have an accurate measure of any possible losses before any exploration is even considered

The following is taken from the Mar 29 2002 Commissioners Report On the Effects of Potential Oil and Gas Exploration Offshore Cape Breton and I strongly believe it still applies in 2016.

"These two areas, they note, are biologically productive and diverse and contain many species of fish and invertebrates that support a variety of successful inshore industries. They provide important spawning grounds, nurseries, feeding areas, migratory routes and over wintering grounds. Neither the life cycles of these commercially important species nor the attributes of the non commercial biomass which represents an important part of the food chain, are sufficiently understood to provide a basis for proceeding with seismic testing."

There were several recommendations for CNSOPB in the Commissioners Report and I am pleased to see that at least the communication between CNSOPB and the public has improved.

In conclusion I admit I am naturally opposed to the Oil and Gas industry operating in this special area, having been born and raised here and fished for the past 40+ years, however I was somewhat surprised by the detail in this document on the special natural and cultural details of the study area including the National historic sites, National and Provincial Parks, important bird habitats, species of concern and species at risk using the area and with statements like "the scale of migration through the Cabot Strait is unparalleled in Canada" I do not understand why this close to shore special and unique area so dependant on fishing and tourism would even be considered for possible Oil and Gas exploration.