Mr. Gordon Wilson

Minister of Environment

## Re: Northern Pulp Nova Scotia Focus Report for the Replacement Effluent Treatment Facility Project

My name is Peter Grant from New Glasgow with property in Chance Harbour approximately 1,800 meters from the mouth of Boat Harbour. I am anxious to see the closure of Boat Harbour as an ETF, but I also have concerns with the proposed AST being implemented. Technology has advanced by leaps and bounds in the last few decades and no significant traces of effluent should be dumped in our waters.

The EA 1 does not provide adequate time for a proper and thorough assessment. The proposed ETF is significant and complex, and sufficient time is needed for engineers to be diligent in their testing, such as, weather conditions can be different from one year to the next and seasonal conditions should be studied over a five year period.

### Oxygen Delignification

Page 34 of the Focus Report (FR) states that COD can be reduced by 55% without an oxygen delignification system. The oxygen delignification system will not be included until after the proposed EST is operational and no time frame is established by NPNS for its installation. This means effluent with only a 55% reduction will be dumped into the receiving water for an undetermined time frame. (Ref. pg. 191 FR)

# **Performance Temperature**

Temperatures of the effluent from NPNS dumped into the receiving water are similar to temperatures at the Howe Sound and Port Alberni mills. What will be the long term effect to the Northumberland Strait that is relatively shallow with warm summertime water? Is the 37°C measured at the diffusers? If so, then heat transfer along the pipeline will be added to temperature of Caribou Harbour. The FR states designed temperature controls should prevent thermal shock that may affect marine life. How accurate and reliable are these controls. Will the failure of the controls default to shut down the system? (Ref pg. 152 FR)

### Modelling

The MIKE21 far field model and CORMIX near field model are computer generated simulations. There is no evidence backing up the accuracy of these models like how often these programs were used to design AST systems and how close the modelling predictions were to actual results. The ambient water conditions were taken from Pictou Road instead of the area around CH-B. The report states the ambient conditions would be worse than water around CH-B. However; would not the report be more authentic, if the ambient conditions around CH-B were used? (Ref pg.16 Appendix E1-E2)

#### **Pipeline Protection**

NPNS has chosen SDR17 as a suitable protection for the pipe. This is a heavier gauge 53.8 mm thick pipe, but there is no mention of the manufacturer's test results and expected life.

#### Air Quality

The study done on air quality using discrete receptor sites show TRS exceeded 10-minute limit. (Ref pg. 110 FR) Will the new ETF get the TRS to acceptable levels? Will odour from the TRS and particulate matter and other noxious gases be released from the sludge when it is burned in the power boiler?

Sufficient air monitoring sites should be located downwind from the mill to capture all regional wind directions. It seems the current sites are inadequate to measure stack emissions at any given time. (Ref Section 6.3)

# Conclusion

The AST is 30 year old technology and in this day and age industry should do much better disposing their effluent. I am opposed to the current ETF proposal. Nova Scotia should be on the leading edge of a clean environment and we should expect any new project to achieve a stack emissions effluent discharge to within 95% of normal ambient conditions. Discharge temperatures should not have a negative impact on the receiving water.

The EA should not be approved based on the information supplied. There is insufficient data and testing to support the model simulations. I am definitely opposed to the extension of Boat Harbour even though it puts NPNS in an awkward position to carry on its operation. However; your decision should be based solely on the environmental impact this project could have. Inadequate testing to back up the modelling kept jumping out at me as I read through the report.

Peter Grant