

March 9, 2019

Re: EA Northern Pulp Replacement Effluent Treatment Facility

Dear Minister Miller,

I live in Pictou County, overlooking the River John, as it flows into the Northumberland Strait. I have spent the last 16 months educating myself about what Northern Pulp's proposed new ETF could mean for the Strait, for those who fish its waters, enjoy its beaches, value its complex ecosystem and love its beauty.

In that time, I have learned from fishermen many things I did not know before. I learned that lobster thrive on the rock crab that are plentiful in Caribou Harbour, that scallops release 6 million eggs, but only one develops into a scallop, that small changes can lead to marine life leaving an area where they were previously plentiful. I have learned to appreciate these waters in a way I did not before. Fishermen understand ecosystems, that the smallest to largest of marine life, plant and animal, depend on each other and the conditions they live in. I am in awe of the detailed knowledge that fishermen have of the waters, tides, currents, bottoms and creatures where they fish, because their livelihoods and their safety and the safety of their crews depend on this knowledge.

I also learned that fishermen make changes every year at their own expense in order to protect the future of their industry and to protect the environment. One example is voluntarily increasing the carapace size of lobsters which they take, which means a smaller catch in the short term but a healthier and more productive population in future years. Another example is the changes in quota which can be announced suddenly by DFO, and may mean a 50% or more decrease in allowable catch from one year to the next. Or, as last year, the closure of the lucrative snow crab fishery for part or all of a season in order to protect Right Whales.

This is the reality of life for fishing families. They do not have an automatic entitlement to make maximum profit – their profits are constantly balanced by the need to protect the environment and the future of the fisheries.

Lack of adequate public consultation

I have spent the last month immersed in 1700 pages of documentation which the public was given only 30 days to read, understand and respond to. I believe that this was not an adequate process of public consultation, especially as no Open Houses were conducted on the proposal including the new route, new outfall location, and many differences in technology, including a missing oxygen delignification system.

Lack of critical information

In those 1700 pages there are many issues to comment on. Among other issues, there is the lack of critical information on effluent composition and on the majority of the VECs, the absence of water analyses from Caribou Harbour, and the use of baseline water data from Pictou Harbour as "proxy"-- which Northern Pulp itself admits is more polluted than Caribou

Harbour -- and the very strange use of an HHE report based on a human health risk analysis of a mill-that-never-existed. I would have thought those omissions would have led you as Minister to refuse registration of the project documents as incomplete. But that did not happen, so I would hope these serious omissions will stand as red flags to your department now.

A vibrant ecosystem

Northern Pulp either exhibits no understanding of ecosystems, or does not want the Minister to understand that Caribou Harbour is a complex and vulnerable ecosystem full of life.

There is one photo which I found particularly striking.



Figure 8.12-1 on page 363 is a still photo of the bottom of Caribou Harbour. The caption states that it is devoid of macro flora and macro fauna. What is odd is that, according to Graham Edgar, Professor of marine ecology and conservation science at the University of Tasmania macro fauna are "the small invertebrates that are just marginally too small to see with the human eye." So macro fauna would not be seen -- how can the author conclude it is devoid of macro fauna?

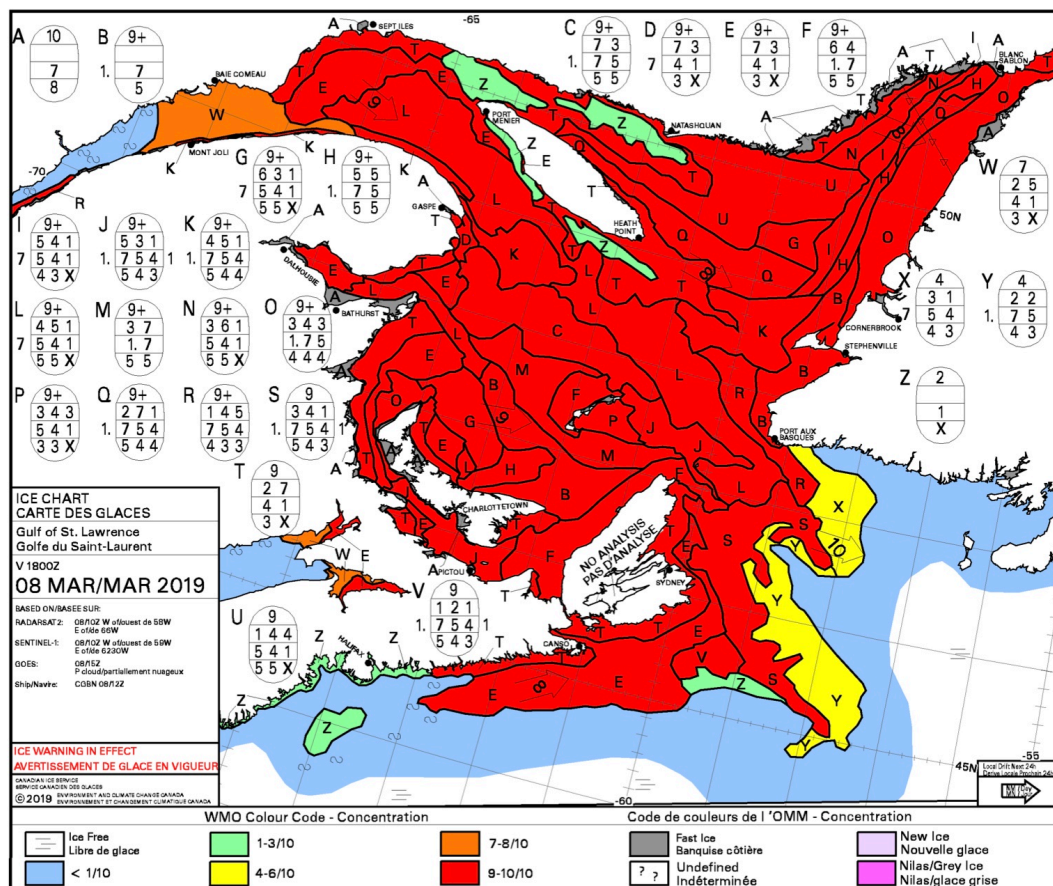
The purpose of the photo seems to be to imply that the bottom of Caribou Harbour is devoid of life. Nothing could be farther from the truth. Under that sand there could be a thriving population of bar clams, rock crab, and other species for whom Caribou Harbour serves as habitat and nursery. Floating in the water there could be many life forms, from plankton up, in various life stages, all of which are critical to a healthy ecosystem.

Ice

I would like to point to the high likelihood of ice damage to the pipe, and the inability of Northern Pulp to repair that damage in a timely way, even if it were identified in a timely way.

Northern Pulp only looks at the possibility of ice damage to the diffusers, which is dismissed as being taken care of by normal tides and currents. If that were true, diffusers would not be required. And differences of diffusion under ice conditions are ignored.

But an even greater issue is the risk of damage to the pipe itself in the shallow waters of Caribou Harbour. The proposed outfall location is in a “hole” 20 metres deep, in a narrow channel. The depth of the majority of Caribou Harbour, both closer to shore and on the far side of the proposed diffuser location, is from 0 to 8 metres deep. Damage to the pipe before it reaches the diffuser would take place in a shallow area, where sufficient flushing would not occur. The result of damage to the pipe could damage the entire rich ecosystem of Caribou Harbour for many decades. This is not a small possibility, it is a likelihood, according to fishers and a master diver I have spoken with, all of whom have watched the force of ice in the area for years and have made their own submissions to this EA.



In 10.4.4.1, Northern Pulp states, “Upon detection of any marine outfall pipe damage or diffuser fouling, repairs would be promptly performed.” **This is impossible.** Ice locks in Caribou Harbour for four months or more in the winter. The ice map of March 8, 2019 gives an indication of the thickness of ice in the area as well as the presence of fast ice in the Caribou area. It is during these winter months when the likelihood of damage to the pipe itself or diffusers, is greatest.

The Minister should consider the issue of likely ice damage to the pipe as establishing a likelihood of harm which is not mitigable. The force and duration of ice cannot be changed. The vulnerability of a pipe in those conditions is established in other submissions. The danger to Caribou Harbour is established by the fact that Northern Pulp did not choose an outfall location in the Harbour itself.

As well, the Minister should be warned by this casual reassurance of timely repair which is clearly impossible for 1/3 of the year. The Minister should take this example as a caution in relation to Northern Pulp’s many other breezy reassurances that no harm will be done or that it is mitigable, with no detail provided.

Mercury risks

Finally, I would like to raise the issue of the known presence of mercury contamination from the Canso Chemicals plant in bedrock and in 1990s era “secure landfills”, on the site adjacent to Northern Pulp very close to where the plan is for components of the proposed ETF to be set into the ground at a depth of 7 feet, requiring digging to that depth or more.

This issue only came to public attention several days ago through the release of information from the 2000 Decommissioning Report of Canso Chemicals. This raises complex risk issues which the Minister must insure are fully investigated and evaluated in the public eye, not behind closed doors, to determine whether the construction or operation of the proposed new effluent treatment plant could increase or hasten release of mercury in soil, air or water. Given that the previous elemental chlorine process used at the mill would have involved mercury, the attention given to Canso Chemicals raised questions for me as to whether the Northern Pulp site itself might also have some mercury contamination that could be released during construction or operation. These are issues that must be fully examined prior to approval of this project.

Northern Pulp’s summary no-harm-ever-to anything chart is not credible

Northern Pulp’s summary chart says that under no conditions, normal operation, malfunctions, accidents, will any significant residual harm be done to anything. That conclusion is not credible.

We can look at dead zones and environmental degradation attributed to pulp and paper mills in other locations or we can look in our own back yard to question that sunny conclusion. For almost three decades now, Boat Harbour Basin has been the Receiving Water for treated pulp

effluent from Northern Pulp. The effluent entering Boat Harbour meets PPER regulations, but Boat Harbour is far from a healthy, or even recovering, ecosystem today.

Northern Pulp's registration documents mock the Environmental Assessment process. Northern Pulp may as well have said: "We don't need to provide any hard information about the effluent, we don't need to do any studies, decades old data from other locations are good enough, we don't need to seriously consider the harm this project might do, and there is no need for the public to have the required information and scrutinize it to point out potential risks. We dare Nova Scotia Environment not to approve our application."

The proponent has addressed the risks of this project with a lack of seriousness. The proponent has provided no proof that harm will not be done. The proponent has neglected to provide the most basic data and science, e.g. no effluent composition, no water analysis of the outfall location, no lobster larvae studies, no evidence to even show that the effluent will meet federal regulations or provincial standards.

The Minister cannot make a science-based decision to approve this project, as there is no science on which to base a decision. The proponent's past record of poor compliance with regulations and a proven inability to identify leaks in a timely manner, despite being required in their Industrial Approval to have a system in place that that would insure timely detection of leaks, adds significantly to the risk of this proposed project.

I believe the Minister has grounds to reject this proposal on the basis that it has a likelihood of adverse effects or significant environmental effects, and I urge you do so. If the minister approves this project now, she will be setting a very dangerous precedent and encouraging other proponents to follow a similar path, which is inconsistent with the Environment Act.

If the Minister chooses not to reject this project, at the very least she must not accept Northern Pulp's proposal to provide future information to NSE behind closed doors, away from public examination and input. The minister must require a process which allows for full public examination and input into the many issues for which data has not been provided. That would require the Minister to order a full environmental assessment report.

Sincerely,

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