

Environmental Assessment Branch
Nova Scotia Environment
PO Box 442
Halifax, Nova Scotia
B3J2P8

Christina McKay
1104 Belmont on the Arm
Halifax, N.S.
B3H 1J3

To the Minister of the Environment,

I am writing regarding Northern Pulp's proposal to pipe effluent from their plant at Abercrombie out into the Northumberland Strait through Caribou Harbour.

My family have owned cottages at Moodie Cove for over one hundred years. We share this cove, and the beautiful Lighthouse Beach, with the Pictou Landing First Nation. We, like the PLFN, have suffered from the air emissions and water pollution coming from Northern Pulp and Boat Harbour for over 50 years. As successive generations of McKay children have come to play at the beach, we have noted, even in our small cove, the effects of eutrophication and warming in the Strait. There is less biodiversity: the tidal pools are empty of creatures. The mud is black and oozing at low tide, and the shellfish are dead near the tide lines. There are fewer fish. It is clear that Northern Pulp, and its predecessors, Scott Paper and Kimberley Clark, have poisoned this place, its people, and all its living creatures. It is a beautiful place, but it is blighted.

I am writing to you to tell you that the proposed pipeline will deliver the same destruction only a few kilometres down the shoreline. The whole Strait is under threat from Northern Pulp's plans to spew its effluent into prime fishing grounds and a vulnerable ecosystem.

In this letter, I will outline some of my many grave concerns about Northern Pulp's plan. These include:

- 1. The actual safety and maintenance of any pipeline, both over land and underwater.**
- 2. The failure to take ice scour into account in the current pipe models**
- 3. The effects of high effluent temperatures on an already-warming Strait. There is a lack of climate-change modeling to account for higher ocean temperatures.**

- 4. The lack of current, peer-reviewed studies on the effects on human health from both this proposed pipe and the burning of sludge and its contribution to toxic air emissions**
- 6. The lack of specific detailed information about the content of this future effluent to be piped into the Strait.**
- 7. The lack of any current, peer-reviewed studies to demonstrate the lack of toxic effects from the effluent on lobsters or other fish in the Strait and the fact that this proposal claims to meet current regulations when in reality, the regulations themselves are outdated and weak.**
- 8. The fact that our province, in making plans for our environmental future, needs to apply the precautionary principle.**

The fact is that to our knowledge, Northern Pulp's current effluent pipe has leaked at least twice since 2014. It was this first leak, and the spillage of over 47 million litres of effluent onto the sacred burial grounds of the PLFN that precipitated the signing of the Boat Harbour Act. Northern Pulp, despite previous legislation and regulations that should have forced them to monitor their equipment with the utmost diligence and meticulousness, failed to discover their own failure. And even more stringent requirements four years later did not produce any better effects: a neighbour, walking their dog, discovered that the current pipeline had leaked yet again.

Surprisingly, no official government reports are available to let the public know the amount, and the damage resulting from, October 2018's effluent spill. Should Northern Pulp carry out its plan to place an even more contentious and unwanted pipe along the #106 and out into Caribou Harbour, I fear that such a pipe would not only be subject to the poor maintenance record of its own corporation, but also to potential sabotage from angry citizens. How safe is a pipe, either overland or underwater, when so many cannot countenance its presence in their community and over their watershed?

The real dangers of ice in the shallow waters of the Strait also pose a significant threat to an underwater pipe. According to a report from the Canadian Coast Guard on Ice Climatology and Environmental Conditions (CCG, 2012), ice rafting is a frequent occurrence. In this case, huge sheets of ice can drift or be blown up to override each other and form stacks along the shoreline. In addition, ice scouring along the shallow bottom poses a risk to pipelines, outfalls, diffusers and submarine cables.

There is no section of this report that addresses eventual ice scour or ice rafting and the definite damage it would do to a pipe spewing effluent in to the Strait at shallow depths.

The current EA proposal estimates that the temperature of the effluent exiting into the Strait via the pipe could be up to 37 degrees in the summer and 23 degrees in the winter. The current modelling accounts for an area of dispersal, and estimates that the temperature changes could be negligible in a wider area beyond the pipe. However, recent media reports this week brought forth research that demonstrates that there are marine heatwaves sweeping through the world's oceans as a result of rapidly accelerating climate change.

According to an article in The Guardian from March 4, 2019, "Global warming is gradually increasing the average temperature of the oceans, but the new research is the first systematic global analysis of ocean heatwaves, when temperatures reach extremes for five days or more." In addition, the article states that "The scientists compared the areas where heatwaves have increased most with those areas harbouring rich biodiversity or species already near their temperature limit and those where additional stresses, such as pollution or overfishing, already occur. This revealed hotspots of harm from the north-east Atlantic to the Caribbean to the western Pacific." Ocean systems are increasingly battered by multiple stressors.

The double-barreled punch of a high nutrient load along with higher temperatures will be absolutely devastating for the Strait. Boat Harbour currently buffers these stressors by lowering the temperature of the pollutants and removing a great deal of the solid biomass. With current ocean research demonstrating that our waters cannot adjust, cannot adapt and are indeed suffering much like our forests are with the effects of climate change, how can we justify adding up to 90 million litres of effluent per day into an already-stressed ecosystem?

Another grave concern is the fact that as this EA is a class 1 proposal, limited information is provided about the plan to collect and burn the sludge that will accumulate in the proposed EFT. No Human Health Risk Assessment has been carried out to ascertain additional dangers to human health should the sludge be burned in the stacks belonging to NP. These are stacks which have repeatedly failed emissions testing regulations in previous years. As it seems, according to the EA, the actual content of this sludge is not entirely certain. How can we risk burning it and emitting it into the air breathed by tens of thousands?

According to the EA document Section 9-15, "At this time, it is only possible to identify candidate COPCs [contaminants of potential concern] that may be evaluated should a HHRA [Human Health Risk Assessment] of the project be a regulatory requirement. This is due to the fact that chemical process engineering design work is continuing and

there is presently uncertainty regarding the likely chemical composition and characterization of the marine treated effluent discharge (including the potential concentrations of substances present in the effluent.” As I am to understand this, there is no current certainty about what the effluent will actually contain. Furthermore, according to page 489: “At this time, effluent chemistry characteristics (***including the specific substances present in treated effluent and their anticipated concentrations***) will not be known with certainty ***until the project is operational***”. In other words, we are to take this EA proposal at its word despite the fact that we don’t know what they will be burning in the stacks, or indeed, what exactly they will be spewing out into the Strait.

The proposed Northern Pulp pipe outfall location in Caribou Harbour is a critically important fishing and spawning ground for lobster, rock crab, herring, ground fish, and many other species. Current toxicity tests are based on a “kill test” scenario, where the number of trout left in a bucket of effluent determine how dangerous the effluent might be to the species affected. This is simply not good enough in 2019. The idea that NP’s effluent “passes regulations” is simply inadequate and hollow. Greg Egilsson, Chair of the Gulf NS Herring Federation and who fishes very close to the proposed pipe outlet, estimates that within a radius of just a few kilometres, there are 86 lobster fishermen, of whom 10 to 15 are First Nation, and more than 22,500 traps are set in the area (Halifax Examiner). The deep channel where they want to place the pipeline is crucial for lobster and herring larvae, and that herring spawning stock are already depleted.

In fact, according to the paper “Bleach Chlorine Mills and the Impacts on Marine Life” (Effluents from Pulp Mills Using Bleaching. Environment Canada 1991), “ Seventy-five percent of Canadian bleached pulp mills discharge effluents that are acutely lethal to fish, sometimes at concentrations as low as 3.2% effluent. A few individual chlorinated organic compounds in these effluents approach or surpass concentrations that cause mortalities in aquatic organisms ranging from algae to fish.” In other words, the “kill test” is absolutely inadequate, and more stringent regulations must be applied immediately, and this EA proposal should be required to submit to these, not simply the limp regulations they’ve “adhered” to so far.

The FOIPOP obtained by environmental lawyer Jamie Simpson (Ahern, Brendan “Environmental lawyer says correspondence inside Northern Pulp contradicts company claims to the public” The Chronicle Herald 28 Feb, 2019) contains correspondence within NP that indicates clearly that the mill itself knows that despite their claims to the contrary, the new ETF would be worse than the old facility because of the elimination of the Boat Harbour Basin. Boat Harbour achieves a “polishing” of the

effluent and a removal of a substantial amount of solids. What is pumped out into the Strait through this new proposed pipe is not, in fact, "state of the art": it is worse by far. Northern Pulp might be proposing a newer system, but the location is much riskier. Because of this, more toxins (though, as the report admits, still "unknown") will reach the Strait.

Finally, I beg you to scrutinize the EA proposal put forth by Northern Pulp with utmost care and concern. The same such care and concern were not given to the PLFN, who have endured fifty years of environmental racism with the appropriation of Boat Harbour and subsequent destruction of their air and aquatic environments.

Please be reminded that the Federal Government published a document entitled "A Framework for the Application of Precaution in Science-based Decision Making about Risk" [Privy Council Office (PCO), 2003]. This paper addresses the application of precaution in its various forms - "precaution", "the Precautionary Principle" or "the precautionary approach" - all of which have three basic components: the need for a decision; a risk of serious or irreversible harm; and a lack of full scientific certainty. This guiding document requires that precaution must preside over all decision phases. Precaution must be clearly linked to scientific analysis, and cannot be applied without an appropriate amount of assessment of scientific factors and consequent risks.

Simply the fact that this nearly 2,000 page EA proposal was dumped on the general public with less than 50 days to comment is in itself a cause for grave concern. How can external, peer-reviewed studies be mounted in such a short amount of time? How can the public find time, and expertise, needed to comment effectively?

The 1999 Canadian Environmental Protection Act entrenches the "precautionary principle" in its preamble, where it recognizes that the "Government of Canada is committed to implementing the precautionary principle. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." In addition, section 76.1 of CEPA 1999 specifically directs the Ministers to apply a weight-of-evidence approach and the precautionary principle when conducting and interpreting the results of assessments of existing substances. We do not even know for certain, based on the EA proposal at hand, what these "existing substances" are, or in what quantities they might exist.

The government's precautionary principle must supersede any social, ethical or even political or economic considerations. We can no longer afford to allow the economy to trump our fragile environment. We must, above all, apply caution first.

Please, do not approve this Environmental Assessment for Northern Pulp.

Sincerely,

Christina McKay
1104 Belmont on the Arm
Halifax N.S.
B3H 1J3