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Via e-mail at ea@novascotia.ca and fax 1-902-424-6925

Dear Sir or Madam:

RE: Northern Pulp's Replacement Effluent Treatment Facility Project

I am a commercial fisher and a resident of Pictou County. I grew up in Caribou very near the Caribou ferry terminal. My father and many other family members were commercial fishers in Caribou. I fished in the industry since the 1970's, starting when I was 8 years old. Following attendance at university, I was drawn back home by the Northumberland Strait. I have owned my own fishing enterprise for the last 26 years. I fish rock crab, herring and scallops out of Caribou. I fish lobster in another area. I have a large financial investment in the fishing industry. The health of the Northumberland Strait is vital to my retirement and my future. My son has recently started fishing with me and a clean and sustainable Northumberland Strait is essential for him to have a future in the fishing industry.

As fishers, we invest a lot of time, energy and money to maintain the sustainability of the fishing industry. We regulate ourselves by proposing and agreeing to such things as catch limits, buffer zones, reduced efforts, and modified nets and traps. The EA proposal will harm the Northumberland Strait, our fishery, and our future.

There are many errors and missing information in the proposal, as follows:

- 1. The proposal did not consider the behaviour of herring. Herring gather in the deep waters of the ferry channel and other deep water areas to get away from predators. They come out of the deep waters at night to spawn on the shallow banks in the adjacent areas. If fresh, hot water containing who knows what is pumped into their deep water hiding zone, the herring will not go there and will have no where to hide. I believe this will have irreversible effects on the herring species in the area, and their spawn.
- 2. Tuna are in the area of the outfall. While fishing herring last year, I saw approximately 6 tuna charter vessels at one time in the area outside Caribou Harbour. Last year, tuna washed ashore in

Caribou Island and Simpsons Beach (part of Caribou - Munros Island provincial park).

- 3. Contrary to what is showing in Figure 8.12-3 of the proposal, rock crab is fished all over the proposed effected area. The rock crab fishing area we call "Africa" because of its shape, runs from Caribou Island, Pictou Island to about Arisaig. The footprint of the pipe runs through a vital rock crab nursery where juvenile crab are spawned and grow to maturity.
- 4. As fishers, we are required to maintain a log book while fishing rock crab, herring, scallops and lobster. Although we fish these species in a very large area throughout a day of fishing, we are required to record our fishing location just once per day. As such, our logs do not accurately reflect the expansive areas where we fish. For example, in one day, a fisher may leave Caribou Harbour and travel to Charlottetown Harbour and fish everywhere in between. In the fishery log, if a fisher records fishing in Charlottetown Harbour, the fishing effort in all other areas is not reflected.
- 5. Fishing of some sort is conducted everywhere in the Northumberland Strait. It is fair to say there is no area of the strait that is not fished. Fishing areas for a certain species may vary from year to year. Therefore, using data of fishing areas from 2001, for example, as was used in the proposal, may not accurately reflect the fishing area in 2018 for that same species. Fish move and follow food sources. Piping of effluent will be detrimental to phytoplankton and zooplankton which are the food source for fish and mammals and are building blocks for all ocean creatures.
- 6. Some fishing bottoms also may change over time, or from year to year, due to storms or man made causes. I have fished lobster in Wallace since 1993. The construction of the fixed link between New Brunswick and Prince Edward Island took place between 1993 and 1997. The building of the fixed link brought great changes to the lobster fishery in my area huge decline in lobster catches and changes to the sea floor. I witnessed a change in the water which went from clear to very muddy everyday. I lost a large area of my fishing bottom due to sedimentation. What was once a rocky floor was covered by mud or silt. When I pulled my lobster traps, they were covered with a fine muddy film. The film also covered the bait on my traps which hindered their ability to attract lobster, caused the bait to rot, and attracted sand fleas which ate the bait. I suspect that the silt interfered with the lobster's respiratory and other functions as they were covered with the muddy film as well.

The lobster fishery in that area is only very recently starting to recover. I notice less silt in my traps and the water is becoming clearer. Things are going back to where they were when I first bought my lobster licence in 1993 before the start of the fixed link construction. My catches are finally returning to what they were before the construction. The value of fishing enterprises was greatly reduced in this area for the last 20 years or so, and they are now just recovering to be on par with fishing areas not effected by the fixed link. I did not receive any compensation for my economic loss or the damage to the environment. I don't want that to happen again.

7. The scallop information in Figure 8.12-5 is not accurate. In the scallop logs fishers must complete, there is no place to enter fishing location for every area where scallops are fished. There is no way to determine where scallops are caught in the strait. This figure also shows

scallop catches in areas where there is a buffer zone and therefore no scallop fishing in that area. This proves that the figure is not accurate and should not be relied on. It should also be noted that recreational scallop divers dive for scallops in the area behind Munros Island, and in the area around the outfall location. They are permitted to dive for scallops within the 1 mile buffer zone, but they don't keep logs or report where they have fished.

- 8. Figure 8.12-6 is also not accurate. The map does not show the herring nursery which is in the area of the outfall. Also, there is herring fishing all around Pictou Island and not just as indicated. We also fish for herring in the area of the proposed outfall location. Herring is a fixed gear fishery. We use anchors on each end of our herring nets. The pipe and proposed no anchor zone will significantly interfere with our herring fishery. It is not possible for us to simply go somewhere else to fish if the fish are located in the area of the outfall or the no anchor zone and not anywhere else. The herring pack consists of a large group of boats all fishing for herring at once possibly 200 boats in the same close area at one time. The pack is so large that sometimes the PEI ferry steers out of its normal route to avoid us.
- 9. Figure 8.12-8 is also not accurate. There are mackerel around Pictou Island and Caribou Island and in area of the outfall. There is mackerel in Caribou channel and Pictou channel, and around every wharf. There are many people who fish mackerel from all the wharves in the area, including Caribou. They also fish for bass, smelts, capelin and other fish from the wharves. This is an important healthy food source for many people in our area and part of our tradition and culture and must be protected.

Mackerel like going along the edge of the channel because it is deep, and they are hunting the bait fish which is also in the channel. They tend to swim back and forth from deep to shallow water.

- 10. The scallop buffer zone is not accurately depicted in Figure 8.12-10. The scallop buffer zone extends all around Munros Island and Caribou Island. The buffer zone is 1 mile from any point of land, which includes all islands.
- 11. It is not appropriate or accurate to use the characteristics of Pictou Harbour as a proxy for those of Caribou Harbour. Caribou Harbour is closed except for a narrow opening. It does not flush well. There is more flushing in Pictou Harbour and 3 large rivers flow into it. My father, who grew up in the area, used to tell stories of his grandparents walking cattle from Caribou Island to Munros Island (which in the past, was also known as Doctor's Island) at low tide. This shows how narrow and shallow that area is. The ferry channel is artificial and was created when the ferry services started, and is maintained only through periodic dredging.
- 12. The wharves at Caribou Harbour are used for more than tying up vessels. We sell our catches to the public and commercial buyers at the wharf. During herring season, for example, fish buyers set up buying stations where we off load our catches. Buyers who use the vacuum system to remove herring from the boats, pump water from the harbour onto the vessel in order to suck up the herring. It is like a wet vac.

During lobster season, the buyers tie large numbers of lobster in floats in Caribou Harbour until they are transported for processing. Floats are large containers which allow for water to flow in and out to keep the lobster alive. Will this water be contaminated by effluent thus making the fish toxic?

We use water from the strait to keep our catch alive during the day. I am concerned that I will inadvertently use effluent water on my fish which could cause contamination. How will I know the difference between water that contains toxic effluent and water that does not? I also use that water to wash my fishing boat and gear as I enter the channel at the end of my day. I don't want to use effluent to clean my boat and gear. What effect will this have on my heath and my equipment?

There is a lack of information provided in this proposal and large gaps in terms of the effect on the environment and ecosystem of the Northumberland Strait. Much of the information that is provided is not accurate and there are a lot of discrepancies. This makes me question the credibility of the entire proposal. The proposal must be rejected. Nova Scotia is supposed to be Canada's ocean playground. We don't want it to become Canada's ocean dump. Northern Pulp should give in, give up and get out.

Concerned fisher,

David Scanlan