

TO: **Beth Callahan**, Project Manager,
Dept. of Environmental Protection (DEP),
Bureau of Land and Water Quality Control - Augusta

FROM: Department of Marine Resources (DMR)

SUBJECT: Addendum Comments on impacts to fishing activity during construction of intake and discharge pipes and haul route for transport of excavated material

PROJECT: DEP Application #: L-28319-26-A-N/L-28319-TG-B-N/L-28319-4E-C-N/L-28319-L6-D-N/L-28319-TW-E-N

Applicant: Nordic Aquafarms
Location: Belfast
Type of Project: Construction of Intake and Discharge pipes

The above proposed project has been carefully reviewed and considered by DMR personnel. The following are DMR's comments:

Nordic Aquafarms, Inc. is proposing to develop a land based recirculating aquaculture system (RAS) to raise Atlantic salmon in Belfast Maine. This facility will require the construction of two 30-inch intake pipes draw in seawater from Belfast Bay. A single 36-inch discharge pipe will discharge in 35 to 36 feet of water. The discharge pipe will have 12-inch diameter flexible duckbill diffuser valves and spaced 50 feet apart.

At approximately 38 feet of mean low water depth the pipes will be laid directly on the sea floor. The pipes laid directly on the seafloor will be anchored with concrete pipe collars spaced every 15 feet on center. The total direct impact to the marine floor by the pipes and concrete anchors is 6703 square feet. These structures will be buried for a portion of their length, and then will emerge to a height between two to nine feet above the sea floor.

The proposed construction time window is November through March. The inter-tidal and shallow sub-tidal section where the pipes will be buried would take place in the November through the December period. All excavated material will be placed on a flat-top barge barges with concrete barriers and silt barriers to contain material as it is de-watered. It is expected to take 2-3 weeks to complete the inter-tidal construction work, and construction of the pipeline will be conducted 7 days a week. A silt barrier will be employed along the trench to minimize the turbidity of excavated material outside the trench construction area.

The submerged section of the buried pipes will be done from a spud barge with an excavator, and a clam-shell crane dredge will be utilized at deeper depths until approximately the 36 foot mean low water depth. Excavated material will be placed on flat-top barges with concrete barriers and silt barriers to contain material as it is de-watered.

Marine barge hauling operations will take place during daylight hours. The haul route will be a straight line from the Little River construction location to Mack Point Terminal in

Searsport approximately 5.5 miles away and the haul trip should take approximately one hour. A total of approximately 100 to 120 trips will be made to Mack Point, with each trip moving approximately 100 cubic yards of material. Approximately 20,000 cubic yards of material will be removed and the excess material will be disposed of at a licensed upland disposal site. The remaining material will be suitable for replacement back into the trench.

All barge transport activities will take place during daylight hours. At night, the barge will be anchored either at the construction site or off Mack Point in Searsport, depending on weather and timeline of construction activities. Anchorage will adhere to Coast Guard regulations to anchoring and lighting of commercial vessels.

DMR held a public meeting to take comments on the impact to commercial fishing activities in the construction site and along the proposed haul route on March 2, 2020. DMR heard from numerous individuals both at the public meeting and by written comment. One commenter, a shellfish aquaculture operator who holds a lease from DMR, expressed concerns about potential impacts to her nearby lease site, but these comments pertained to the discharge from the pipes rather than their construction and siting. Four individuals, all of whom are DMR-licensed commercial fishermen, provided relevant comments on impacts to fishing activities due to the construction activities and the haul route of the barge. Relevant written comments submitted for the record are attached for inclusion in the DEP record.

These individuals expressed concerns about issues beyond the scope of the hearing, including potential reduction in landings due to physical and biochemical changes of the marine environment resulting from the discharge through the pipelines and potential impacts to fishery resources due to concerns about possible resuspension of mercury during construction of the pipelines. Concerns regarding the impact of this project on spawning of cod and haddock were also mentioned though there is no active groundfish fishery in the area. DMR has already provided comment to DEP on potential impact to marine resources and the marine environment, and those comments remain an accurate representation of the Department's assessment of the overall project's impacts on resources and habitat within its jurisdiction. The comments that follow detail the relevant comments received through this public hearing and comment period, and DMR's assessment of the overall impact to fishing activity from the construction of the pipelines and the associated haul route to dispose of excavated material.

DMR recommends the use of a closed bucket dredge, where practicable for excavation activity in the sub-tidal to minimize the re-suspension of the sediments. This will minimize any potential impacts to shellfish and other marine species within the direct project location, including nearby aquaculture facilities. The use of turbidity curtains around the barge and excavation site will minimize impact to the nearshore marine environment.

Two fishermen expressed concerns with the haul route and anchoring of the barge interrupting fishing activities and possible gear loss. Fishermen in this area utilize traps while fishing for both lobster and crab throughout late summer and early fall months, and a directed crab fishery persists through the winter months. The exposed section of the pipes will pose a navigational hazard and entanglement risk to fishing gear if not adequately

marked. Traps are connected to a surface buoy by a vertical endline through the water column, and this line, as well as potential groundlines, if multiple traps are connected to the same endline, may become inadvertently entangled in these pipes. This impact can be mitigated with adequate measures to ensure fishermen are aware of their location, but adequate buffering to reduce the risk of entanglement also will increase the loss of available fishing area. We strongly encourage marking for navigational safety and to avoid entanglement, and would recommend marking requirements be determined in consultation with the United States Coast Guard.

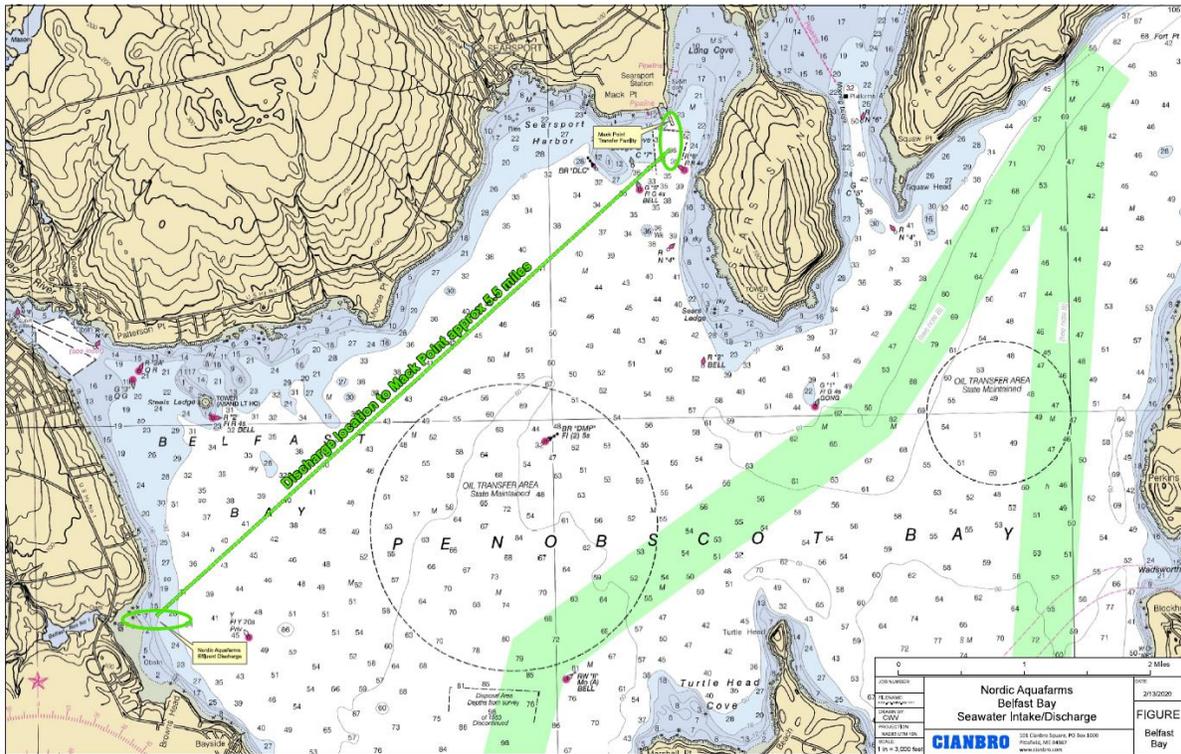
While this area is not noted for high landings in the lobster fishery, compared to other parts of Penobscot Bay, the lobster fishery is territorial in nature; this area remains an important resource to local harvesters who are limited in their ability to move into other parts of the bay. For this reason, any loss of fishing bottom will have some impact on local fishermen. There were no specific comments about the particular location of the pipelines; rather, the concerns expressed were more about the general loss of fishing area. An area around Verona Island, down the Stockton Springs shore and across to Castine has already been closed by DMR to lobster and crab fishing due to mercury contamination in the area. This closure has impacted local fishermen by forcing them to move further down into the bay and has reduced the footprint of their winter crab fishery. While the pipeline area alone is not a significant area, it represents an additional area of exclusion in a discrete part of the bay.

At the hearing, fishermen expressed concerns that some barge companies tend to “lay” on tow cable off Moose Point and “tear up” the bottom and entangle gear. The Department believes these interruptions will be manageable, and gear loss largely avoidable with appropriate notice and monitoring of the barge’s adherence to the noticed haul route. The DMR is not aware of any mobile gear fishing activity occurring in this area in recent years and received no comments on fishing activity related to the use of mobile gear.

In order to mitigate fishermen’s concerns, DMR requests the contractor conduct outreach via written notice thirty days in advance of the project start date to the local Lobster Zone Council, and coordinate with DMR staff who will send email notification to all Zone D members.¹ Notice should include specific nautical bearings of the haul route and width for the safe travel of the spoils barge to avoid entanglement with fishing gear. DMR further requests the anchorage of the barge at either the construction site or at a safe location off Mack Point, and the anchorages be included in the notice. DMR also requests the construction company contracted by Nordic Aquafarm equip their barge with a VMS (Vessel Monitoring System) to track its transit activity along the haul route, and provide a mechanism by which area fishermen may seek compensation for lost gear should the barge deviate from the specified haul route.

¹ Lobster Zone D Council membership contact information can be found at: <http://www.maine.gov/dmr/council/lobsterzonecouncils/addresses.pdf>

DMR can assist with an email notification to all Zone D members. The contractor should provide information to Sarah Cotnoir, sarah.cotnoir@maine.gov.



Finally, DMR notes that in relation to its previous comments on impacts to the marine environment and marine resources, it is the agency’s understanding that the U.S. Army Corps of Engineers intends to permit this project in accordance with its usual dredging standards, and will determine appropriate sediment analysis needed in accordance with that process. DMR is satisfied that this process will be adequate to resolve our concern.

Denis Marc Nault

Denis-Marc Nault
 DMR Environmental Coordinator
 Date: April 7, 2020