



November 13, 2018

Gregg Wood  
Maine Department of Environmental Protection  
Division of Water Quality Management Bureau of Water Quality  
17 State House Station  
Augusta, ME 04333-0017

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit Application by Nordic Aquafarms, Inc.

Dear Mr. Wood:

I am writing on behalf of the Atlantic Salmon Federation (ASF) in support of Nordic Aquafarms, Inc.'s permit application for its proposed land-based salmon farm in Belfast, Maine. We believe Nordic Aquafarms, Inc. is proposing the most advanced technology available to reduce nutrients and the resulting discharge will have no negative impact on the coastal and marine environment.

Over the past decade, ASF has partnered with the Conservation Fund's Freshwater Institute on a series of trials and workshops around the developing technology of land-based recirculating aquaculture systems (RAS). Our experience has demonstrated that RAS can be an environmentally sustainable industry and that the by-products of salmon production can be greatly reduced, including all solids along with the majority of phosphorous and nitrogen. The Nordic Aquafarms, Inc.'s application is consistent with our own experience and reduces all the key nutrients to levels lower than from other industrial dischargers we are familiar with in Maine.

As evidenced in their permit application, Nordic Aquafarms, Inc. has spared no cost to hire expertise to assess local conditions in the coastal waters around Belfast. This includes collection of field data, modeling, and third party assessments of this work along with recommendations for further ongoing monitoring once the farm is up and running. This is just the kind of approach that should be applauded and has the potential to set new industrial standards for discharges into Maine waters.

The wastewater treatment plant proposed by Nordic Aquafarms, Inc. draws upon international expertise and their own experience in Norway. Its features include an aerobic moving bed bio-reactor; chemical precipitation of total phosphorous; micro-filtration system in membrane bio-reactors; sludge dewatering, decanter centrifuges, supernatant returned to biological treatment; and final liquid effluent UV-C sterilization prior to discharge. Their proposed biological pre-treatment of wastewater from the RAS units is led directly to an equalization tank/pump station and into the primary biological treatment for additional total nitrogen removal. The resulting nitrogen, phosphorous, and various solids are all well below recommended safeguards for eelgrass beds and other sensitive areas and fall below ambient background levels prior to or soon after being discharged from the outfall pipe.



We would like to see the final permit include requirements for a Containment Management System intended to prevent any live fish of any age escaping the facility, though it is difficult to imagine how this would happen with the system proposed.

We recommend that DEP approve this permit application.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andrew Goode', is written over a light blue horizontal line.

Andrew Goode  
Vice President, US Programs  
Atlantic Salmon Federation