



NORDIC
AQUAFARMS
SUSTAINABLE AQUACULTURE

NEWS RELEASE

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NORDIC AQUAFARMS INC. CREATES FACT SHEET IN ADVANCE OF MEETING ON UPCOMING PERMIT APPLICATION FILINGS

BELFAST, Maine – In preparation for a Public Information Meeting tonight at 6:00 p.m. at The University of Maine’s Hutchinson Center in Belfast, Nordic Aquafarms Inc. has created a fact sheet highlighting key topics from the company’s Site Location of Development Act (SLODA) and Natural Resources Protection Act (NRPA) permit applications, which will be filed with the Maine Department of Environmental Protection (DEP) next month.

The fact sheet, which also includes information from the company’s previously filed discharge application, will be made available at the meeting. All of the applications will be considered by the Maine Board of Environmental Protection in the coming months.

“Maine has very strong environmental standards, and so do we,” said Commercial Director Marianne Naess. “For many months our team of internal professionals and outside experts have been working diligently to prepare these very comprehensive applications. They will

clearly demonstrate our commitment to environmental stewardship and being a good neighbor, and we look forward to sharing information from the applications with the public.”

The 11-page fact sheet covers a variety of topics in alphabetical order, from minor source air emissions for the company’s back-up electrical generators to wetlands mitigation. Several of the key areas discussed include:

By-products

The company sees opportunities to add value to its organic waste resources and is in discussion with companies that specialize in “upcycling” of these materials. Materials such as excess feed particles and fish feces are high in nutrients and energy and can be used for composting and biogas production, and, as previously announced, Nordic is seeking regulatory changes to allow the use of salmon heads, viscera and other cut-off in lobster bait

Discharge/Wastewater disposal

Nordic held an information meeting last fall specifically around its discharge application, but the company reiterated that its facility will utilize the latest and most advanced recirculating aquaculture system (RAS) technology and will surpass existing facilities in environmental standards.

As noted previously, the discharge pipe will run from the facility approximately one kilometer (.62 miles) into the bay, and the company’s advanced wastewater treatment technology will remove 99% of phosphorus and 85% of nitrogen from the discharge. Total suspended solids will be less than current background levels in the bay.

The company also will implement and support water quality monitoring programs in the bay. The monitoring will be used to document compliance with its permits and also assess any impacts and opportunities for improvement.

Noise

A study conducted by an acoustical consulting firm shows that sounds produced during construction and operation will be within all applicable standards. Neighbors may at times hear sounds associated with the construction, operation, or maintenance of the farm, but sound levels will be modest. Nordic will maintain a regular and open channel of communication regarding noise, and abutters will be consulted regarding any high noise activities.

Odor

The fish farm will not generate any noticeable odors. Since the company plans to capture the value of its waste resources, they will be stored in a manner that does not allow for fermentation and odors. Procedures will include storage of waste materials in sealed containers, freezing and regular removal in tank trucks.

Pipe routes and discharge/intake points

The primary goal of the intake/discharge pipes is to obtain clean, cold salt water from below the natural thermocline, and discharge treated effluent to an area where the bay currents will quickly

dissipate residual nutrients. The discharge location has been thoroughly documented not to impact sensitive eelgrass beds or other special marine resource areas or habitats.

Environmental impacts were mitigated by eliminating unnecessarily long pipe routes, and the permit applications will include a robust discussion of the alternatives considered. The applications also will include a complete package of materials responding to all agency requests for clarification regarding requirements for establishing right, title, and interest.

Both discharge and intake pipes will be buried below the surface in the intertidal area and will not be visible or noticeable to project neighbors or the community.

Project phasing

The proposed facility will be built in phases over the next several years, with the intent to have a fully operational facility at the conclusion of Phase 1 and expansion to full build-out in Phase 2. This phased approach allows for earlier facility startup, system refinement and monitoring before full scale build-out, and a gradual increase of sales volumes in the market. Since the designs are completely modular, scaling up simply involves replicating independent, yet identical tank systems.

Phase 1 focuses on the construction of the smolt 1 facility, along with operational support facilities such as the seawater intake/discharge system, water treatment plant (WTP), central utility plant (CUP), oxygen generation and administrative offices. It also will include supporting infrastructure such as roadways, storm-water management systems, the fish processing facility and the utilities.

Grow-out module construction will also begin during phase 1, with the goal of 2-3 modules in operation before a phase 2 build-out. Phase 2, where the remainder of the modules will be constructed, will not commence until the phase 1 facility is commissioned and operational.

Removal of trees and replanting of the site

Buildings will displace approximately 30 acres of forest that have been logged on a regular basis over the years, including more than 10 acres of private land that was logged by the previous owner as recently as last year. Firewood quality wood generated from site work will be donated to a local non-profit wood bank.

A planting design is being developed to provide visual buffering from surrounding vantage points and integrate the site into the surrounding landscape. The slope along the northern property line will be revegetated with a mix of evergreen and deciduous trees to enhance the buffer between the site and the neighboring properties, and additional screening is proposed at the southeast corner of the site between the buildings and U.S. Route 1/Northport Avenue.

A mix of smaller plants also will be used to emulate existing species diversity and return as much space as possible to pre-development vegetated conditions. Other highly visible areas will be planted with flowering accent trees, low shrubs, and ornamental grasses. All proposed plant materials will be native or adaptive-native, and tolerant of weather conditions in mid-coast Maine.

Water supply

The freshwater supply for the planned facility will come from multiple sources, including the Belfast Water District and a ground well-system. Back-up capacity would be supplied by surface water withdrawal from the lower reservoir, at less than 50% percent of the historical withdrawal by the

Water District (before the district moved its water supply to wells on the city's east side in the 1980s).

An extensive hydrogeologic study has been performed to assess the groundwater capacity of the site, along with the potential impact to the bedrock aquifer. A series of test wells were drilled and tested for productivity, during which the water levels at the test locations were measured and modelled to assess the behavior of the aquifer.

In addition, several private wells in close proximity to the site were monitored during well testing to determine if there would be any risk of impact. Multiple studies were conducted between April of 2018 and January of 2019. The results of the groundwater study and predictive model indicated that using a system of three wells, a groundwater pumping capacity of sufficient volume, in conjunction with the other freshwater sources, could be achieved sustainably.

Nordic has further proposed that, in agreement with neighboring well owners, it will continue to monitor nearby wells.

Wetlands

The project has been designed to be as compact and efficient as possible in order to mitigate impacts to the neighboring property owners. The designs are the most efficient in the industry in terms of footprint – each 112,000 square foot module produces 5400 metric tons of fish per year.

Complete avoidance of all wetlands impacts on the site is not possible. Mitigation will be provided through a combination of the in-lieu fees as administered by the State of Maine and the Army Corps of Engineers, onsite wetland improvements, and creative site-specific measures that have local benefit, including the assessment and addressing of issues at the upper dam and reservoir and improvements of adjacent culverts.

Included in the wetland impact study is the identification of intermittent streams that come under Maine DEP jurisdiction. The proposed impacts to these streams have been reviewed and mitigated through DEP-requested procedures. The stream bed of most significant biological value, located along the eastern edge of the property, will be enhanced as part of the wetland mitigation proposal and several smaller intermittent streams also will be avoided and enhanced as part of the final site design.

“Input from those who have attended our previous public meetings and the many people who have reached out to us directly or stopped by our office, has been incorporated into our permit applications,” said Naess, “We are pleased with the tremendous support we have received from local residents and state leaders, and we look forward to continued public participation as we move through the regulatory process.”

PLEASE NOTE: Marianne Naess will be available to take questions from the news media until 5:00 p.m. today and all day tomorrow.

About Nordic Aquafarms

Nordic Aquafarms (www.nordicaquafarms.com) is one of the premier investors and developers in land-based aquaculture internationally, with production facilities in Norway (Fredrikstad Seafood) and Denmark (Sashimi Royal and Maximus), and two projects under development in the United States. The company is a trailblazer in the land-based fish farming industry with employees in three countries and well-established financial investors. The company has a strong in-house engineering capability that has enabled significant innovation in RAS development.

Nordic Aquafarms is developing sustainable fish farming practices for the future to deliver super fresh high-quality seafood to regional markets and is committed to a low environmental impact and sustainability in every facet of the business, from setting new standards for clean discharge, to energy efficiency and solar power, to refusing to use GMO or antibiotics in its production.

In January of 2018, Nordic Aquafarms Inc., the company's U.S. subsidiary, announced plans for a land-based salmon farm on the Atlantic Coast in Belfast, Maine, to be built in two to three phases. Construction is expected to start in 2019, with operations commencing in 2020.

In February of 2019, Nordic Aquafarms Inc., announced plans to build a land-based fish farm in Humboldt County, Calif., near Eureka, to serve West Coast markets.

Land-based aquaculture

Land-based RAS production is a rapidly emerging method for sustainable production of salmon. It is based on indoor production in a controlled environment using large tanks and water treatment systems. Its benefits include:

- the ability to recycle and treat water on site to reduce overall water consumption;
- recycling of waste resources and nutrients;
- the prevention of sea lice and parasites;
- the elimination of fish escape into the sea and co-mingling with wild species;
- the application of renewable energy concepts;
- a shorter distance to market for a high quality, fresh product, reducing the carbon footprint of air and land transport; and
- consistent quality and traceability all year round

Videos depicting the RAS technology that Nordic Aquafarms will use in Maine and California can be seen [here](#) seen [here](#).

Demand for fresh seafood

The U.S. today imports more than 90% of its seafood and demand continues to grow. The U.S. and many other countries in the world can never become self-sufficient on wild-caught fish, particularly with the many ecological challenges we are seeing in oceans worldwide, such as pollution and climate change effects.

To meet current demand, much of the fresh fish consumed in the U.S. is air-freighted at a significant cost and with considerable carbon dioxide emissions that contribute to global warming. To achieve growth in domestic supply of fresh local fish in a sustainable, environmentally responsible manner, fish farming is a necessity and we will see much more of it in the coming years. Since sea-pen farming is controversial in the U.S. and wild-catch resources are limited, the many benefits of land-based farming should make our approach widely acceptable and a high priority in the US.

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