Farm Management Plan for

Noble Sea Farms Inc.

“We deliver pride”

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Species Grown: Hard Clam or Northern Quahog, *Mercenaria mercenaria*; American Oyster, *Crassostrea virginica*
Location of Farm: Great Bay New Jersey
Description of Basic Farm Process: Noble Sea Farms grows hard clams under predator control screening and oysters in a floating array in Great Bay.

EAST COAST SHELLFISH GROWERS ASSOCIATION CODE OF CONDUCT:

Shellfish farmers shall:

- Conduct aquaculture operations in accordance with all applicable laws and regulations, and acquire and maintain all pertinent permits.
- Make the best effort to produce and handle products of the highest quality and ensure product safety.
- Make a best effort to communicate early and openly with water based and land based neighbors about all facets of their operation.
- Work to benefit the local economy by patronizing local businesses and through employment and contributions to the tax base and infrastructure.
- Site, plan, develop and manage aquaculture operations in a manner that minimizes environmental impacts.
- Site, plan, develop and manage aquaculture operations in a manner that ensures the economic and social sustainability of the operation.
- Take all appropriate measures to avoid and contain disease outbreaks and report them quickly to the proper authorities if suspected.
• Dispose of culturing waste and chemicals in a manner that does not constitute a hazard to human health or to the environment.
• Consult and collaborate with government authorities, researchers, other producers and stakeholders for the development and implementation of regulations, technologies and standards to achieve environmentally, economically and socially sustainable shellfish culture when feasible.
• Encourage other growers to adopt the shellfish code of conduct and better management practices.

**BMP ELEMENTS FOR NOBLE SEA FARMS INC.**
**PERMITS AND TITLES HELD**
We have all of the permits required by the state to operate a shellfish farm and to sell our product in-state and out-of-state.
• Our farm site is leased from the state and we pay an annual fee to maintain this lease.
• We have an aquaculture permit issued by the state.
• We are a licensed shellfish dealer that allows us to sell our product in interstate commerce.

**THE FARM SITE**
It is important to have a farm site that will support good shellfish survival and growth, and at the same time avoid unnecessary conflicts with navigation, traditional fishing and protected habitats and species. It is a state requirement to mark the farm site, and these markers also serve to keep recreational and commercial boat traffic away from the site to avoid damage to the boats and to the growing shellfish. Site marking also serve to minimize inadvertent or intentional poaching. A good farm site also need to be protected from future changes that could make the farm site unusable or less valuable, especially upland or upstream development that could negatively impact water quality or reduce access to the sites.

**FARM SITING**
- Our farm site and plan was reviewed in a public scoping session held in 2006.
- Our farm site is in a state-approved aquaculture zone.
- Our farm site was chosen to avoid sensitive habitats.
- Our farm site chosen to avoid submerged aquatic vegetation.

**SITE MARKING**
**SITE SECURITY**
- We participate in programs to educate the public and other fishermen about the farm.
- Farm personnel are instructed to take a firm but friendly approach with those suspected of doing harm.
- Farm personnel notify marine police if illegal activity is suspected
- We will assist in the prosecution of known offenders.

ACCESS TO SITES
- Access to the farm site is by boat.
- Farm personnel are instructed to avoid routes to farm sites that might damage submerged aquatic vegetation.

POTENTIAL CHANGES TO SITES AND SITE ACCESS
- We monitor and evaluate the potential effects of proposed development projects that might interfere with farm operations.
- We participate in public hearings for projects that will negatively affect farm operations.
- We look for opportunities, and when possible make presentations at public events in order to educate stakeholders about shellfish farming and its benefits.
- We take the time to talk to the owners of homes adjacent to the farm site in order to keep relations friendly.

GOOD NEIGHBOR POLICY
We recognize that even though we took care to properly site our farm that there are still some cases where we need to take extra care to be good neighbors. The following are some of the things we do to be good neighbors.

NOISE
- We operate boats and machinery to minimize noise.

ODORS
- We clean gear before storage to minimize foul odors.
- We store gear at an industrial site to keep potential odors away from populated areas.

RECREATIONAL AND COMMERCIAL BOATING
- Our submerged farm gear is exposed at low tide, and the farm area is clearly marked with buoys to keep recreational boats away from the area.
- Farm gear is regularly inspected for damage caused by boats.

UPLAND GEAR STORAGE AREAS
- Gear is usually cleaned before it is brought to storage area.
- Gear is stored in a neat and orderly fashion.

SEED SOURCING
One of the most important aspects of good management on the farm is the selection of seed and its source. Good seed will grow faster and stay healthier. And choosing seed from reputable hatcheries lessens the possibility of introducing diseases and unwanted organisms into our environment. For these reasons we:
- We use only native species on the farm.
- We purchase seed from reputable in-state hatcheries.

OPERATIONAL/MAINTENANCE ISSUES:
IN-WATER NURSERY
We operate an in-water nursery to grow seed to a planting size.
• Our floating nursery under a dock which we rent.
• We take care to service our floating nursery to have minimum impact on other users of the dock.
• We clean our floating nursery frequently to minimize the amount of material entering the water.

FOULING CONTROL
One of the most difficult tasks on our farm is keeping the gear and the shellfish free of fouling organisms. The task is similar to that land farmers face with weed control. And as with land farming, if we allow the fouling organisms to get out of control they will choke our crop and reduce yields.
• We clean our in-the-water gear frequently to minimize the amount of material entering the water.
• All of our in-the-water gear cleaning is done by hand or with a power washer.
• We never use chemicals that could harm the environment at our farm site.
There are a number of predators that prey on shellfish and in some cases can occur in significant numbers and cause a lot of damage to the crop. It is important for us to recognize predators that can cause harm, and either keep them away from our crop through exclusion or directly eliminate them by other means.
• The cages we use keep most predators away from our crop.
• When predators are found in the cages we remove them; minor species are killed and important species are released.
• We use predator control netting over our clam crop.

GEAR MAINTENANCE, DISPOSAL AND RECYCLING
The gear we use to grow our shellfish represents a significant investment, and we do everything we can to make sure it stays in place and doesn't become a hazard or nuisance to others. We are also committed to recycling as much material as possible when it is no longer usable.
- We use robust anchoring systems for our gear to avoid loss in severe weather events.
- We instruct employees to pick up loose gear as soon as possible.
- We instruct employees to discard nothing into the bay where our farm is located.
- We recycle much of our plastic material.
- We keep gear at our on-land site in a neat and orderly fashion.
- We participate in community beach clean-up days.

FUEL HANDLING AND FUEL SPILL CONTINGENCIES
We know that considerable environmental damage can come from gasoline or oil spills. In our case some of the equipment we use in the field runs on gasoline. It is important to us and to the environment to take precautions with fuels.
- Farm employees are instructed in proper fuel and oil handling procedures to minimize possible spills.
- Farm equipment is well-maintained to minimize fuel and oil leaks.
- Farm boats and vehicles carry absorbent materials that can be used to clean up small fuel spills.

HANDLING AND REPORTING DISEASE
The shellfish we grow are susceptible to a couple of diseases caused by microscopic organisms. These diseases do not affect the quality of our product nor do they pose any problems for people who consume them. Keeping disease to a minimum on our farm is important and it is important for us to communicate farm diseases to other growers and to state authorities so that disease outbreaks can be contained as well as possible. In order to control diseases on the farm:
- We monitor our crops and if disease is suspected we will take samples and send them to a competent laboratory for analysis.
- We will communicate confirmed disease events to appropriate authorities and neighboring growers.

PROTECTED SPECIES AND HABITATS
Protecting vulnerable species and sensitive habitats is important to us and to the community.
- The following species may occur in the area of my farm and I will work to minimize interactions with them and avoid doing harm to them: Submerged Aquatic Vegetation

PROTECTING HUMAN HEALTH
Producing and selling a product that is safe to eat is critical to our business. The National Shellfish Sanitation Program, working through our state authorities, sets the food safety standards by which we operate.

- We comply with all state regulations that safeguard consumers who eat our products.
- When we see what may be a red tide, we report it immediately to state authorities.
- Our company is a member of the Interstate Shellfish Sanitation Conference, part of the National Shellfish Sanitation Program.
- We get our shellfish refrigerated as soon as possible after harvest.

RECORD KEEPING

MONITORING THE CROP AND THE ENVIRONMENT

As in any business, maintaining good records is a key part of good management. Having good records of the environment and good data for our crops allows us to become more efficient.

- We maintain detailed records of the physical environment.
- We monitor our crops through careful observations of their condition, and by taking measurements and counts of the stock.

KEEPING THIS BMP DOCUMENT CURRENT

This Code and BMP document is a large part of our operations manual for our farm. Keeping it current is important to our business.

- We review and change our Best Management Plan to account for changes in farming practices.
- We are members of the East Coast Shellfish Growers Association and become aware of changes in regulations and farming practices through their communications.

IMPORTANT PHONE NUMBERS AND CONTACTS

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