State of New Hampshire
New Hampshire Fish and Game Department

APPLICATION FOR AN AMENDMENT TO MARINE AQUACULTURE LICENSE #2017-21

1. Applicant: Isles of Shoals Mariculture, LLC
Contact: Vincent Prien
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2. The species to be cultivated are the sea scallop (*Placopecten magellanicus*) and the Belon oyster (*Ostrea edulis*), and six common seaweed species: horsetail kelp (*Laminaria digitate*), winged kelp (*Alaria marginata*), Dulse, (*Palmaria palmata*), Laver, Nori (*Porphyra spp.*), sugar kelp (Saccharina latissimi), and sea lettuce (*Ulva lactuca*).

Isles of Shoals Mariculture, LLC is currently permitted to culture blue mussels (*Mytilis edulis*) using submerged longlines at the site off the NH coast. We are seeking an amendment to this permit to allow us to cultivate the sea scallop (*Placopecten magellanicus*), the Belon oyster (*Ostrea edulis*) and six seaweed species using the existing longline system.

3. A. Culture Technology

The same growout platform (submerged longline) currently used for mussel culture will be used for these additional species. The longline system was described in detail in our original permit application. The only modification to currently permitted activities is that a portion of the existing mainline would be used to suspend scallops and oysters in pearl and lantern nets as well as ear hanging. The six seaweed species will hung from the mainline droppers.

3.B. Type of Culture

The culture technology is a submerged longline form of shellfish suspension culture.

3.C. Project Location

The site is located about 2.4 nautical miles east southeast of Little Boars Head, North Hampton, NH. The coordinates for the site are:

N. latitude	W. longitude
42.969533	-70.700200
42.967833	-70.697517
42.960833	-70.710083
42.960933	-70.706867

Should there be any movement of gear due to natural ocean forces, new coordinates must be submitted to New Hampshire Fish and Game Department as soon as possible. The licensed site area consists of a 2.75 acre parcel. Within this area 20 mussel lines may be deployed.

3.D. Site Specific Information

Detailed site-specific information was provided in the original application.

4. Source of organisms

Sea scallops: Sea scallops are an indigenous species and are naturally occurring in the vicinity of the aquaculture site. The applicant will consult with NH Fish and Game regarding disease diagnostics that need to be conducted prior to importation. The applicant will also collect local wild spat and seed.

Belon Oysters: Belon oysters (*Ostrea edulis*) were introduced to NH waters as an aquaculture species in the late 1970's. Importation of this species into New Hampshire waters was permitted by New Hampshire Fish and Game from the late 1970's through the mid 1980's. Naturally reproducing populations can be found in many areas of the Maine/New Hampshire coast, including Gosport Harbor at the Isles of Shoals, Little Harbor, Rye Harbor, Spinney Creek, Portsmouth Harbor and the Piscataqua River. They continue to be cultivated as a commercial aquaculture species in a number of locations in Maine. They thrive in cooler, higher salinity water than the native Eastern oyster, and there is no evidence of competition with the native species. The applicant will consult with NH Fish and Game regarding disease diagnostics that need to be conducted prior to importation. The applicant will also collect local wild spat and seed.

Horsehair Kelp: Horsehair Kelp (*Laminaria digitata*) is an indigenous species and naturally occurring in the vicinity of the aquaculture site. *L. digitata* is a leathery brown seaweed that can grow up to 9 feet in length. *L. digitata* is a perennial and is harvested in the spring from March thru May.

Winged Kelp: Winged Kelp (*Alaria marginata*) is an indigenous species and naturally occurring in the vicinity of the aquaculture site. *A. marginata* is a brown seaweed that can grow up to 13 feet in length. *A. marginata* is a perennial and is harvested in the spring from March thru May.

Sugar Kelp: Sugar Kelp (*Saccharina latissima*) is an indigenous species and naturally occurring in the vicinity of the aquaculture site. *S. latissima* is a yellowish brown seaweed that can grow up to 16 feet in length. *S. latissima* is a perennial and is harvested in the spring from March thru May.

Dulse: Dulce (*Palmaria palmata*) is an indigenous species and naturally occurring in the vicinity of the aquaculture site. *P. palmata* is a redish alga that can grow up to 20 inches in length. *P. palmate* is a perennial and is harvested in the summer from June thru September.

Laver, Nori (*Porphyra spp.*) Laver, Nori is red alga and can be the chief ingredient wrap for sushi. Laver, Nori is an indigenous species and naturally occurring in the vicinity of the aquaculture site. Laver, Nori is an annual and is harvested in the early spring from March thru April.

Sea lettuce: Sea lettuce (*Ulva lactuca*) is an indigenous species and naturally occurring in the vicinity of the aquaculture site. *U. lactuca* is a green alga that can grow up to 7 inches in length and 12 inches is width. *U. lactuca* is a pseudo-perennial and is harvested in the spring from March thru April.

5. Disposition of organisms

Market size scallops, oysters, and seaweed will be sold by the Isles of Shoals Mariculture, LLC.

6. Use of chemical additives

No feeds, biocides, algicides, or antibiotics will be used for the project.

7. Public restrictions

Ingress or egress to and from any point of land by boat would not be restricted, prohibited, or impaired by the project.

8. Site Access

Vessel access to the site will be by fishing vessels associated with Isles of Shoals Mariculture, LLC and captains Vincent Prien and Peter Flanigan.

9. List of Agencies to whom copies of the completed application will sent

The applicant will notify any and all parties that the Fish and Games determines to be relevant to this amended application

10. Riparians

The applicant seeks guidance from the NH Fish and Game regarding the need to contact riparians.