

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
Standard Aquaculture Lease Application
Suspended culture of seaweeds, Casco Bay

Ocean Approved, Inc.
Docket #2015-16
CAS-CHEB2
October 21, 2016

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Ocean Approved Inc., a Maine corporation, applied on July 29, 2015, to the Department of Marine Resources (“DMR”) for a standard aquaculture lease for a 3.03-acre site located in the coastal waters of the State of Maine, southwest of Indian Point, north of Little Chebeague Island in the town of Chebeague, Maine, for the purpose of cultivating the following seaweeds:

- Sugar Kelp (*Laminaria saccharina*)
- Fingered/Horsetail Kelp (*Laminaria digitata*)
- Winged/Edible Kelp (*Alaria esculenta*)

The application was determined complete on August 5, 2015. No one intervened in this case. A public hearing was held on September 27, 2016 at the Chebeague Island Hall Community Center, Chebeague Island, ME.

1. THE PROCEEDINGS

Notices of the hearing and copies of the application and DMR site report were provided to numerous state and federal agencies for their review, as well as to various educational institutions, aquaculture and environmental organizations, the Town of Chebeague and the Chebeague Harbormaster, members of the Legislature, representatives of the press, riparian landowners, and other private individuals. Notice of the hearing was published in *Commercial Fisheries News* August 2016 edition, and in *The Forecaster*, northern edition, on August 25, 2016 and September 8, 2016.

Sworn testimony was given at the hearing by the applicant, represented by Paul Dobbins, and Marcy Nelson, DMR’s Scientist for the Division of Aquaculture. The applicant described its proposed project. Ms. Nelson described the site visit, conducted on April 13, 2016 and reported on July 1, 2016, and presented a video of the proposed lease bottom.

Each witness was subject to questioning by DMR, the applicant and members of the public. No representatives from federal agencies attended the hearing, but Marjorie E. Stratton, the Chebeague Town Administrator, attended. In addition, the following Chebeague residents attended the hearing: Erno Bohebakker, Eldon Mayer, Tad Runge, and Bob Earnest (DMR Shellfish Committee member and representative of Chebeague Island Oyster Company). In addition, Heather Lynch, an employee of Ocean

Approved Inc., attended the meeting as an audience member, but did not offer testimony. The residents and Town Administrator had some clarification questions for the applicant and for DMR staff, including questions concerning other nearby operations, the timing of the hearing, and the commercial market in Maine and globally for kelp. However, none of the questions posed substantially addressed criteria that must be considered by DMR when determining whether to grant an aquaculture lease.

The hearing was recorded by DMR. The Hearing Officer was Hannah Dean. The evidentiary record before the Department regarding this lease application includes three exhibits and the record of testimony at the hearing itself. The evidence from all of these sources is summarized below.¹

LIST OF EXHIBITS

1. Case file (CF).
2. Application signed and dated (App).
3. DMR site report dated (SR).

2. DESCRIPTION OF THE PROJECT

A. Site History

The proposed site follows the same boundary as the existing experimental lease currently held by the applicant (CAS CHEB). The applicant, Ocean Approved, Inc., was previously incorporated as a limited liability corporation (“LLC”), but as of the hearing date on September 27, 2016, it had filed articles of incorporation with the State of Maine to incorporate as a business corporation (“Inc.”). The applicant has operated the experimental lease located at the same proposed site for 3 years, and has also operated a nearby site CAS LCI2 for 5 years. As testified to during the hearing, the Department has not received any complaints regarding the operations of the existing experimental lease.

B. Site Characteristics

The proposed lease site is located southwest of Indian Point and north of Little Chebeague Island in the town of Chebeague, Maine. The site is bounded to the southeast by Little Chebeague Island and to the northeast by Great Chebeague Island. A sandbar connecting the two islands lies to the east. A navigational channel marked by USCG navigational aids lies to the west. Depths during the site visit on April 13, 2016 were recorded in the afternoon at approximately 1 pm (SR 2). Water depth averaged 31 ft. with a maximum depth on the site being 35 ft. (SR 2). The distance to the shore at MLW is over 1,300 ft.

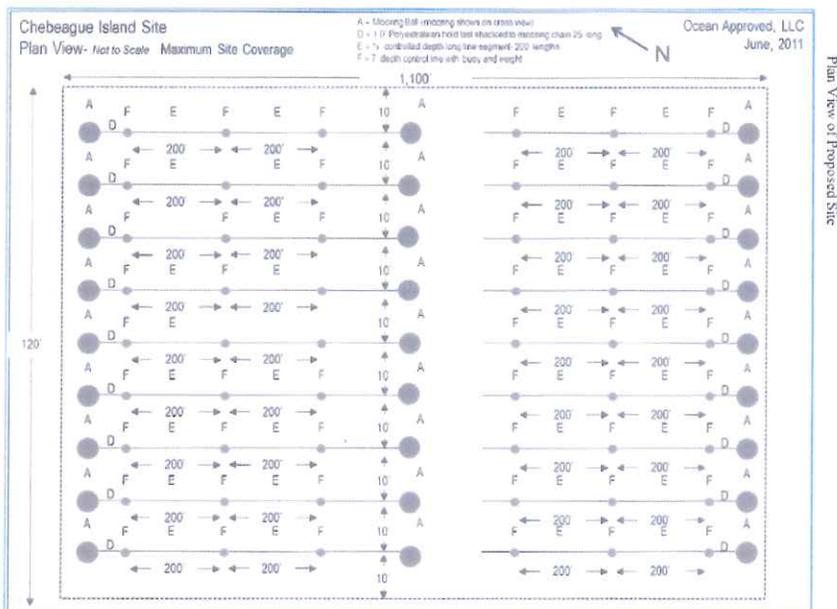
¹ In references to testimony, “Smith/Jones” means testimony of Smith, questioned by Jones.

from the northeast corner and greater than 700 ft. from the southeast corner. The southwest corner is approximately 1,167 ft. from the nearest navigational channel marker to the west (SR 3).

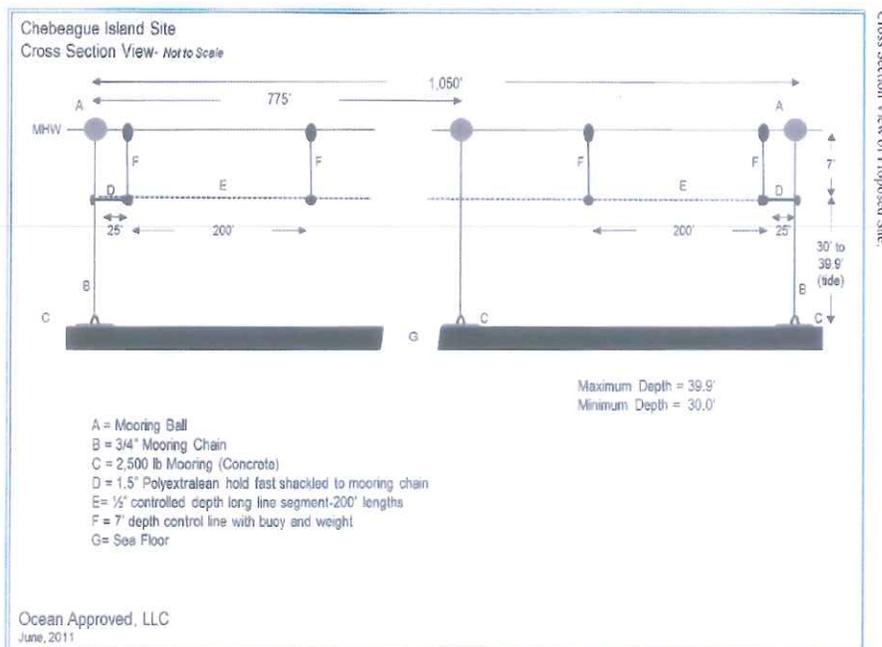
The bottom of the proposed lease site consists of soft mud with little topographic variation (SR 2). The area around the site is currently classified by DMR's Water Quality Classification program as "open/approved for the harvest of shellfish" (SR 10). However, as noted in the site report, water classification would not impact the harvest of algae from the proposed lease site, nor would biotoxin or PSP closures (SR 10).

C. Proposed Operations

The applicant proposes the following layout in order to grow lines of the seaweed species listed above (App Appendix 1 & 2):



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The moorings used will be concrete and weigh 2,500 lbs. each. They will be connected to the growing lines by 3/4 inch mooring chains. The applicant testified that these same moorings have proven adequate over the course of the life of the experimental lease. Weighted buoys will be attached to each line at 200 ft. intervals to maintain the lines at the optimum depth for kelp to grow. This design differs somewhat from the existing experimental layout at the same location, in that each line was formerly weighted at 100 ft. intervals. Because the lines are sunk and suspended at 7 ft. below the surface of the water, recreational boats that are typical to the area will not have difficulty clearing the lines and avoiding entanglement. Therefore, the site structure design will allow for recreational boaters to transit through the site (App 5-6). The same mooring system has been in place for the past three growing seasons, including a season from 2014/15 with major ice coverage (App 6).

Mooring and site corner markers will be orange or white with green printed letters 2" in height reading "Sea Farm." Long lines will be marked with white buoys and green lettering 2" high, also reading "Sea Farm" (App 8). On-site support structures will include a company owned, non-motorized 24' x 8' pontoon barge, with a deck about 2' above the water which will be employed during harvests and site maintenance. The barge will be moored in Falmouth, Maine on a commercial mooring or removed by trailer from the water when not in use. In addition, a 12 gallon gas tank will be for the outboard motor on the skiff used to harvest and maintain the site will be kept on the applicant's boat at all times. The tank will be refilled when the boat is on trailer on land indicating that it will not pose a hazard. No sanitary facilities will be located on the site (App 6).

Operation activities will depend on the season and are proposed as follows:

September – December: Mooring inspection and maintenance (1-2 days/week, 7 am - 5 pm). Long line installation and seeding (5 days/week, 7 am – 5 pm). Monitoring and maintenance as needed (1 day/week, 1 hour visit). These activities will be conducted with a chartered lobster boat and an 18' skiff (App 8).

January – February: Monitoring and maintenance (1 day/week, 1 hour visit). This activity will require use of an 18' skiff (App 8).

March – June: Monitoring and maintenance (1 day/week, 1 hour visit). Harvesting (14 days from April to June, 7 am – 5 pm). Long line retrieval (5 days, 7 am – 5 pm). These activities will require the use of an 18' skiff and 24' harvest barge. Long lines will be stored at the applicant's land-based facilities (App 9).

July – August: The applicant testified that the only gear remaining on site during these months will be the moorings. All lines will be removed. However, moorings will remain in place and could potentially become tangled if operations such as dragging and lobstering are allowed on the site.

Harvest techniques will involve using the barge to raise long lines above the surface of the water, cutting the kelp, and then placing the kelp in insulated boxes. Kelp will be processed at a food processing facility owned by the applicant. Maximum production on the site is 100,000 lbs. wet weight, and the maximum stocking density is 198,000 mature plants in total (App 9) (22 mature plants per foot of long line) x (9,000 ft. of long line). The applicant noted that the equipment and technology it is proposing to use has been tested over 21 growing cycles (seasons), and the design is currently in use by other successful kelp growers (App 9). In total, Ocean Approved, Inc. operations create 35 part time positions, including a nursery manager, 2 seeding, monitoring and harvesting positions, and 32 processing positions. In addition, the operations will create 3 full time positions in sales and administration (App 10).

3. STATUTORY CRITERIA & FINDINGS OF FACT

Approval of standard aquaculture leases is governed by 12 M.R.S.A. §6072. This statute provides that a lease may be granted by the Commissioner of DMR upon determining that the project will not unreasonably interfere with the ingress and egress of riparian owners; with navigation; with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in an area; with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; or with the public use or enjoyment within 1,000 feet of beaches, parks, docking facilities, or conserved lands owned by municipal, state, or federal governments. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site; that the lease will not result in an unreasonable impact from noise or lights at the

boundaries of the lease site; and that the lease will be in compliance with visual impact criteria adopted by the Commissioner relating to color, height, shape and mass.

A. Riparian Access

The site report indicates the following distances from the proposed lease boundary to nearby shore:

Distances to Shore

NE Corner to nearest MLW – Indian Point ~1,312 feet

NE Corner to dock at Indian Point ~1,330 feet

SE Corner to nearest sandbar (N end Little Chebeague Is.) ~1,495 feet

SE Corner to 12' depth contour (MLW) ~710 feet

SW Corner to Nun "14" ~1,167 feet

These distances indicate there is ample room between the proposed lease and the shore, suggesting that ingress and egress from shore to navigable water would not pose a problem for the types of vessels utilized in the area. DMR staff determined during the visit that there is adequate room to approach the Indian Point dock from the north and the south (SR 4). The site report indicates that the southwestern corner of the proposed site is located approximately 1,100 ft. from the navigational channel, indicating that there is ample room for riparian access to the navigational channel (SR 4).

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.

B. Navigation

The proposed lease site occupies 3.03 acres (120 ft. by 1,100 ft.) and is outside of the primary navigational channel located to the west (SR 2). The town of Chebeague Harbormaster was provided with a questionnaire from DMR on September 11, 2015, and in his response, the Harbormaster stated that the proposed site would not interfere with navigation or moorings (SR 4). Over the course of the three years during which the experimental site has been in operation, the applicant observed recreational boaters transiting the site to access the sand bar between the Islands at low tide (App 21). The applicant has also consistently met the requirement that aquaculture lease sites are required to be marked for navigation purposes in accordance with U. S. Coast Guard requirements, and testified that these markings will continue to be in place if the standard lease is granted.

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with navigation.

C. Fishing & Other Uses

The site was originally chosen, in part, based on an examination of lobster activity. Prior to submitting the experimental lease application located in the same footprint, the applicant spent 12 months during 2011 visiting the site on average once every three days to observe and record lobster fishing activity within or adjacent to the site boundaries. The activity observed was minimal and, over the course of 12 months, 10 lobster boats were observed in total – usually one or two at most on a single day (App 20). During the site visit DMR staff observed no fishing activities within the boundaries of the proposed lease site. Furthermore, no epibenthic fauna in commercial quantities were observed during the dive assessment of the lease site. Benthic assessment confirmed that the bottom under the site is composed of soft mud, meaning it is likely that lobster would move over this bottom during certain times of year, but there is not enough structure on the bottom to attract lobsters to the area as a permanent habitat. Recreational hook and line fishing may also occur in the area adjacent to the lease. The lease site will be empty of gear during the months of July and August, when recreational fishing and the commercial harvesting of lobster and crabs is likely most prevalent in the area (SR 5).

The evidence indicates that while some level of commercial and recreational fishing is likely to occur in the area, it is unlikely that the presence of the aquaculture lease site will interfere significantly with fishing of any kind. The lease must be marked in accordance with DMR Rule 2.80.²

Other aquaculture leases. According to the site report, the following aquaculture activities are occurring within the vicinity of the proposed site (SR 5-6):

- Henry Whetham, Little Chebeague Island, LPA for the suspended culture of American oysters (WHET1 14): ~1,793 feet to the south.
- Ocean Approved, Inc., Little Chebeague Island, long-line culture of seaweed (CAS LCI2): ~4,214 feet to the south.

²**2.80 Marking Procedures for Aquaculture Leases**

1. When required by the Commissioner in the lease, aquaculture leases shall be marked with a floating device, such as a buoy, which displays the lease identifier assigned by the Department and the words SEA FARM in letters of at least 2 inches in height in colors contrasting to the background color of the device. The marked floating device shall be readily distinguishable from interior buoys and aquaculture gear.
2. The marked floating devices shall be displayed at each corner of the lease area that is occupied or at the outermost corners. In cases where the boundary line exceeds 100 yards, additional devices shall be displayed so as to clearly show the boundary line of the lease. In situations where the topography or distance of the lease boundary interrupts the line of sight from one marker to the next, additional marked floating devices shall be displayed so as to maintain a continuous line of sight.
3. When such marking requirements are unnecessary or impractical in certain lease locations, such as upwellers located within marina slips, the Commissioner may set forth alternative marking requirements in an individual lease.
4. Lease sites must be marked in accordance with the United States Coast Guard's Aids to Private Navigation standards and requirements.

- David Whiston, Great Chebeague Island, LPA for the suspended culture of shellfish (WHIS416): ~4,761 feet to the east.
- Chebeague Island Oyster Company, LLC, for the suspended culture of American oysters (CAS NLCx): ~1,850 feet to the south.

Based on DMR Staff review of the site and the proximity to other aquaculture operations, as well as the history of the already operating experimental site in the same location without any complaints of interference, a standard lease at this location would not interfere with nearby aquaculture operations.

Exclusivity. The applicant has observed recreational boaters transiting the existing site layout and notes in the application that the site was designed to allow for recreational transit. However, the applicant requests that fishing in the form of both lobstering and dragging be restricted to minimize the risk of gear entanglements (App 22). Although lines will be removed during the summer months, moorings which may become tangled will remain (App 22).

These restrictions are reasonable in order to enable the aquaculture project to be carried out while encouraging the greatest number of compatible uses of the area, as provided in 12 M.R.S.A. §6072 (7-B). Conditions reflecting these restrictions will be included in the lease.

Therefore, considering the number and density of aquaculture leases in the area, I find that the aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area.

D. Flora & Fauna

Site observations. Species of marine flora and fauna observed by DMR biologists during the site visit included occasional burrowing anemones (*Edwardsia sp.*) and lobster (*Homarus americanus*) or crab burrows. The benthos consisted of relatively featureless soft mud covered by a layer of benthic diatoms (SR 7). DMR staff did not observe attached or rooted submerged aquatic vegetation, such as eel grass, during the site visit (SR 8). Furthermore, documented eel grass from a survey conducted in 2013 in Casco Bay indicate that any historical eel grass is over 700 ft. to the east of the proposed site boundaries (SR 8).

Fisheries & wildlife. Copies of the application were provided to the Maine Departments of Environmental Protection and Inland Fisheries and Wildlife (IF&W) for comment. IF&W indicated that there are no endangered, threatened, or species of concern within the proposed lease site, and that there are no essential or significant habitats or fisheries habitats that would be impacted by the proposed project (App 15).

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

E. Public Use & Enjoyment

During the site visit, DMR staff observed no docks or moorings within 1,000 ft. Access to Indian Point dock, located on Great Chebeague Island, is more than 1,300 ft. from the proposed lease – indicating that access would not be restricted (SR 4).

Therefore, I find that the aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, docking facilities, or certain conserved lands owned by municipal, state, or federal governments.

F. Source of Organisms

The application indicates that the source of stock for this proposed lease site will continue to be Ocean Approved, Inc., at the Marine Science Center SMCC (App 1).

Therefore, I find that the applicant has demonstrated that there is an available source of stock to be cultured for the lease site.

G. Light

The application indicates that no lights will be used at the proposed lease site, and that seeding, site maintenance, and harvesting will take place during the day. Night work would only take place in the case of an emergency (App 10).

Therefore, I find that the aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.

H. Noise

The application states that an 18' skiff powered by a 50 hp four stroke motor will be utilized on the site for the majority of the work. In addition, a chartered lobster boat boom will be employed as required for mooring maintenance, but these activities would only take place 1-2 days per year. Seeding will take place over 5 days between September – December. Monitoring and maintenance will take place 1 day/week from September – June. Harvesting will take place 14 days throughout April and June. Long line removal will take place over the course of 5 days from April – June (App 10).

The site report observes that the engine that the applicant has proposed to use (a four stroke outboard engine) is one of the quietest on the market. In addition, the site report notes that the non-motorized barge will not contribute to noise on the site (SR 10).

Based on this evidence, it appears that any noise generated by operations on the site is unlikely to have a significant effect at the boundaries of the lease.

Therefore, I find that the aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease.

I. Visual Impact

The site report notes that all long lines will be submerged 7 feet below the surface of the water, and 27 mooring balls and 54 depth control buoys will be the only visible gear at the surface. Furthermore, there will be no permanent structures, and the 24' pontoon barge will be moored in Falmouth, ME and removed from the site when not in use (SR 10). This indicates that the visual impact will be minimal.

The Department's visual impact rule requires structures and gear on lease sites to blend with the surroundings as much as possible. The evidence shows that this will be the case on the proposed lease site.

Therefore, I find that the equipment, buildings, and watercraft to be used at the proposed lease site will comply with the visual impact criteria contained in DMR Regulation 2.37 (1) (A) (10).

4. CONCLUSIONS OF LAW

Based on the above findings, I conclude that:

- a. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner.
- b. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.
- c. The aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area.
- d. The aquaculture activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.
- e. The aquaculture activities proposed for this site will not unreasonably interfere with the public use or enjoyment within 1,000 feet of beaches, parks, or docking facilities owned by municipal, state, or federal governments.

- f. The applicant has demonstrated that there is an available source of Sugar kelp (*Laminaria saccharina*), Fingered/Horsetail kelp (*Laminaria digitata*), and Winged/Edible kelp (*Alaria esculenta*) to be cultured for the lease site.
- g. The aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.
- h. The aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease site.
- i. The aquaculture activities proposed for this site will comply with the visual impact criteria contained in DMR Regulation 2.37(1)(A)(10).

Accordingly, the evidence in the record supports the conclusion that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072.

5. DECISION

Based on the foregoing, the Commissioner grants the requested lease of 3.03 acres to the applicant, Ocean Approved Inc., for ten years for the purpose of cultivating Sugar kelp (*Laminaria saccharina*), Fingered/Horsetail kelp (*Laminaria digitata*), Winged/Edible kelp (*Alaria esculenta*) using suspended culture techniques. The lessee shall pay the State of Maine rent in the amount of \$100.00 per acre per year. The lessee shall post a bond or establish an escrow account pursuant to DMR Rule 2.40 (2) (A) in the amount of \$5,000.00, conditioned upon performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

6. CONDITIONS TO BE IMPOSED ON LEASE

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities, pursuant to 12 MRSA §6072 (7-B)³ Conditions are designed to encourage the greatest multiple compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the lease.

The following conditions shall be incorporated into the lease:

- a. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.

³ 12 MRSA §6072 (7-B) states: "The commissioner may establish conditions that govern the use of the leased area and limitations on the aquaculture activities. These conditions must encourage the greatest multiple, compatible uses of the leased area, but must also address the ability of the lease site and surrounding area to support ecologically significant flora and fauna and preserve the exclusive rights of the lessee to the extent necessary to carry out the lease purpose."

- b. Dragging and lobster fishing, except by the leaseholder or its authorized agents, are prohibited on the lease site.
- c. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.

7. REVOCATION OF LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 MRSA §6072 (11) and DMR Rule Chapter 2.42 that no substantial aquaculture has been conducted within the preceding year, that the lease activities are substantially injurious to marine organisms, or that any of the conditions of the lease or any applicable laws or regulations have been violated.

Dated:

10/21/14



**Patrick C. Keliher, Commissioner,
Department of Marine Resources**