

Standard Aquaculture Lease Application
Suspended Culture of Marine Algae
Casco Bay, Long Island, Maine

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Findings of Fact, Conclusions of Law, and Decision

Ocean's Balance applied to the Department of Marine Resources ("DMR") for a twenty-year standard aquaculture lease on 4.61¹ acres located west of Cow Island Ledge in Casco Bay, in Long Island, Maine. The proposal is for the suspended culture of sugar kelp (*Saccharina latissimi*), skinny kelp (*Saccharina angustissima*), winged kelp (*Alaria esculenta*), dulse (*Palmaria palmata*), and sea lettuce (*Ulva lactuca*).

1. Proceedings

DMR held a pre-application meeting on this proposal on March 15, 2022, and a scoping session on May 20, 2022. DMR accepted the final application as complete on November 22, 2022.² Notice of the completed application and public hearing was provided to state agencies, the Town of Long Island, and subscribers to DMR's aquaculture email listserv. There are no riparian landowners within 1,000 feet of the proposed site. DMR sent a Harbormaster Questionnaire to the Harbormaster for the Town of Long Island, requesting information about designated or traditional storm anchorages, navigation, riparian ingress and egress, fishing or other uses of the area, among other considerations but did not receive a response. Notice of the hearing was published in the Portland Press Herald on February 20, 2025, and provided to state agencies, the Town of Long Island and subscribers to DMR's aquaculture email listserv. The public notice for the hearing stated that the proceeding would be conducted in-person and remotely and directed interested persons to register to provide testimony or ask questions during the proceeding. The registration deadline was March 9, 2025. The deadline for requesting intervenor status was March 9, 2025. No applications for intervenor status were received by DMR. Six individuals registered to participate in the hearing. DMR held a public hearing on this application on March 24, 2025.

Table 1. Individuals who provided sworn testimony at the hearing.

¹ Applicant originally requested 4 acres. DMR calculations in the site report, using ArcPro GIS software and based on the provided coordinates, indicate the area is 4.61 acres.

² Because this application was deemed complete on November 22, 2022, DMR has applied the versions of the applicable statutes and rules that were in effect at that time.

Name	Affiliation
Mitchell Lench, David Labbe, Cliff Gowdy	Applicant, Ocean's Balance
Kenneth Sparta	Member of the public

Additional DMR staff and members of the public attended the hearing but did not offer testimony. The hearing was recorded by DMR. The Hearing Officer was Joshua Rozov. The record was closed on March 24, 2025.

The evidentiary record before DMR regarding this lease application includes the record of testimony at the hearing. The evidence from all sources is summarized below.

A. List of Exhibits

1. Case file (CF)
2. Application deemed complete on November 22, 2022 (App)
3. DMR site report, issued on June 28, 2024 (SR)

The case file, application and site report are referred to in the decision with their designated abbreviations.

2. Description of the Project

A. Site History

Experimental lease CAS CIX is currently located in the footprint of this lease proposal. CAS CIX is owned by Ocean's Balance. CAS CIX was granted on September 12, 2018, for a period of three years.³ The following conditions were imposed on CAS CIX: the lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80; other public uses that are not inconsistent with the purpose of the lease are permitted within the lease boundaries; except for required marker buoys, no gear shall be deployed on the lease site from June 1 through October 31; and lobster fishing is prohibited within the lease boundaries from November 1 through May 31.

³ The Experimental lease expired on November 14, 2021. 12 M.R.S. §6072-A(20) provides that if the lease holder applies for a Standard lease under 12 M.R.S. § 6072 prior to the expiration of the Experimental lease and that application encompasses all or a portion of the Experimental lease area then the holder may continue to operate the site while DMR considers the Standard lease application. On November 1, 2021, the applicant submitted an application to renew their experimental lease. The applicant was informed that a commercial experimental lease, which they had been granted on September 12, 2018, cannot be renewed. 12 M.R.S. §6072-A(19). DMR received the first draft application for the Standard lease on November 17, 2021, three days after the expiration of the experimental lease. On March 24, 2022, DMR emailed the applicant stating that they must submit a new application by May 16, 2022. The applicant then submitted a draft application on May 6, 2022. While the applicant was three days past the expiration of the experimental lease, the applicant had attempted to begin the renewal/conversion process as early as September 2021 and was in constant communication with the DMR who authorized them to submit a new application before May 16, 2022.

CAS CIx is permitted to culture sugar kelp (*Saccharina latissimi*), winged kelp (*Alaria esculenta*), rockweed (*Fucus vesiculosus*), and *Ascophyllum nodosum*. CAS CIx is permitted to deploy seven 1,000 foot long lines, each submerged seven feet below the surface.

The application states that this proposal would replace CAS CIx if granted (App 12).

B. Proposed Operations

The applicant proposes to culture sugar kelp, skinny kelp, winged kelp, dulse, and sea lettuce (App 2). The applicant does not intend to possess, transport, or sell whole or roe-on scallops (App 2).

The applicant proposes seven 5-line spreader bar arrays (App 7). Each bar array would have a 10-inch aluminum bar on each side (App 6). Each aluminum bar would have a 1/2-inch spreader bar bridle attached to it, which would then attach to a 7/8-inch mooring line (App 6). The mooring line would attach to 3/4-inch galvanized chain, and the chain would attach to a 200-pound plow anchor (App 6-7). Each aluminum bar would have five 784-foot long lines attached to them, with buoys every 187 feet (App 7). An aluminum support/spreader would also be placed every 187 feet (App 7). The five-line bar arrays would be deployed from November through May (App 8). In June, all gear except for moorings, galvanized chain, and the mooring line would be removed (App 8). All gear left in the off-season would rest on the seabed (App 8).

Seeding would occur in November and December (App 10). Seeding would take approximately three days to complete (App 10).

Tending and maintenance activities would occur once a week after seeding has occurred (App 11). The applicant would check the integrity of the equipment, sample grow lines, and adjust the spreader bar during maintenance (App 11).

Harvesting would occur from April through May and would take place over a maximum of 10 days (App 10). During harvest, long lines would run through a winch on the applicant's boat and be placed into tote bags (App 11).

Table 1. Power equipment proposed for the lease site

Equipment	Description	Frequency of Use
Mechanized hauler	Used to grapple, tighten, and inspect grow lines	Once every two weeks
Hydraulic reel	Used to haul grow lines during harvest	Three days during the harvesting process

C. Site Characteristics

Description. DMR scientists conducted a site visit on August 23, 2023. The proposal is located in subtidal waters to the west of Cow Island Ledge in Casco Bay, Long Island (SR 2, 5). The proposal is located approximately 21 feet to the west of Cow Island Ledge and approximately 157 feet to the northwest of Cow Island Ledge Light (SR 2). There is no shoreline within 1,000 feet of the proposed lease area (SR 2). Cow Island Ledge Light consists of a cylindrical, concrete base with steel light and marker tower (SR 2).

During the site visit, depths were determined to be between 31-45 feet (SR 3). Correcting for tidal variations derives depths at mean low water (MLW, 0.0 feet) to be between 22-36 feet (SR 3). The bottom characteristics of the proposed lease site were observed via a remotely operated vehicle (SR 3). The bottom was observed to consist of mud (SR 3).

Growing Area Classification. Growing Area Classifications are pertinent to bivalve shellfish species cultured and harvested for human consumption. The proposal does not include the cultivation or harvest of any bivalve shellfish species, so Growing Area Classifications do not apply. However, if the lease is granted, and bivalve shellfish were proposed to be added within the boundaries of the site, it would be the responsibility of the leaseholder to comply with any harvest requirements applicable to the respective Growing Area.

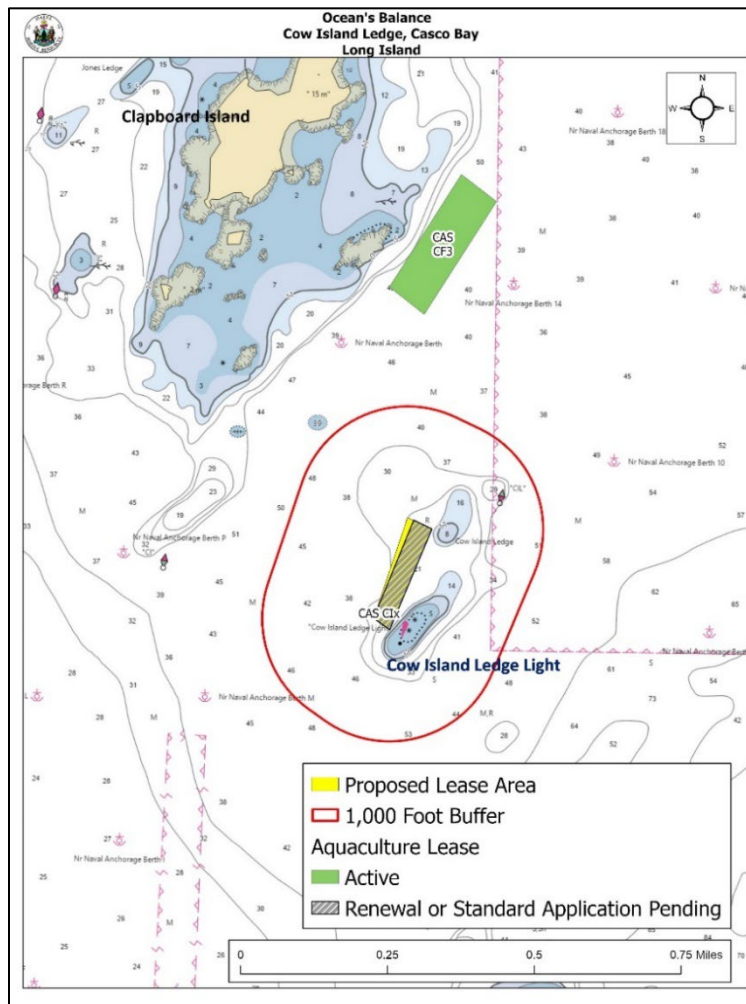


Figure 1. Proposed lease site and surrounding area

3. Legal Criteria and Findings of Fact

Approval of Standard aquaculture leases is governed by 12 M.R.S.A. §6072 and DMR Regulations, Chapter 2.37.⁴ The statute and regulations provide that a lease may be granted by the Commissioner upon determining that the project will not unreasonably interfere with: the ingress and egress of riparian owners; navigation; fishing or other uses of the area; other aquaculture uses of the area; the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; and 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

⁴ 13-188 C.M.R. ch. 2, § 2.37.

in an unreasonable impact from noise or light at the boundaries of the lease site; and that the lease will comply with visual impact criteria adopted by the Commissioner.

A. Riparian Owners Ingress and Egress

When examining riparian access, the Commissioner considers whether the proposed lease will unreasonably interfere with the ingress and egress of riparian owners. 12 M.R.S.A. § 6072(7-A)(A). The Commissioner shall examine whether the riparian owners can safely navigate to their shore and consider the type of shore, the type of vessel that can reasonably land on that shore and the types of structures proposed for the lease and their potential impact on the vessels which would need to maneuver around those structures. Chapter 2.37(1)(A)(1).

The nearest land is Clapboard Island is located approximately 2,760 feet northwest of the proposal (SR 5). Cow Island is located approximately 3,566 feet southeast of the proposal (SR 5).

The application states there are no riparian owners using the area for ingress and egress and the nearest shorefront is over 3,000 feet away (App 14).

During the site visit, DMR staff did not observe any docks or moorings near the proposed lease site. The nearest shoreline is approximately 2,760 feet from the proposed lease site. This distance would allow vessels of all sizes to access the shoreline without interference caused by the lease site.

Therefore, the aquaculture activities as proposed will not unreasonably interfere with riparian owner ingress and egress.

B. Navigation

When examining navigation, the Commissioner considers whether the proposed lease will interfere with navigation. 12 M.R.S.A. § 6072(7-A)(B). The Commissioner shall examine whether any lease activities requiring surface and or subsurface structures would interfere with commercial or recreational navigation around the lease area and consider the current uses of the navigational channels in the area. Chapter 2.37(1)(A)(2).

The proposal is located approximately 157 feet to the northwest of the Cow Island Ledge Light and directly to the west of Cow Island Ledge (SR 5). The proposal is located within a secondary marked channel between Clapboard and Cow Islands (SR 5). A primary marked navigation channel in the area is located approximately 3,969 feet to the east of the proposal (SR 5). During the site assessment DMR staff observed seven recreational powerboats operating in the area and a sailboat traveling in the vicinity of the proposal (SR 5).

The application states recreational boating activity occurs primarily during the summer months when the lease is not active and there is little boating activity adjacent to Cow Island Ledge where the proposal is located (App 14). The application also states the proposal is 3/4 of a mile to the west of the main navigational channel to Cousins Island (App 14).

Cow Island Ledge is a rocky outcropping which is much shallower than the water surrounding the ledge (Gowdy/Rozov). The area around Cow Island Ledge is generally avoided by people navigating in the area (Gowdy/Rozov). Recreational and commercial vessels navigating in the area are usually observed in the navigational channels to the west and east of the ledge due to the shallower depths that occur within closer proximity to Cow Island Ledge (Labbe/Rozov).

While there are recreational and commercial vessels that have been observed navigating in the area around the proposed lease site, the proposed site is located directly to the west of Cow Island Ledge, an area testified to that is commonly avoided by vessels due to shallow depths. Additionally, while the proposal is located within a secondary navigational channel, Clapboard Island is located approximately 2,760 feet northwest of the proposal, giving vessels room to navigate the navigational channel without interference cause by the proposal.

Therefore, the aquaculture activities as proposed will not unreasonably interfere with navigation.

C. Fishing and Other Uses

When examining fishing and other uses, the Commissioner considers whether the proposed lease activities will unreasonably interfere with fishing or other uses of the area. 12 M.R.S.A. § 6072(7-A)(C). The Commissioner shall examine whether the lease activities would unreasonably interfere with commercial or recreational fishing or other water-related uses of the area. Chapter 2.37(1)(A)(3).

Fishing. During the site visit on August 23, 2023, DMR scientists observed one lobster buoy within the boundary of the proposal and two buoys approximately three and four feet from the western boundary (SR 6). Two additional lobster buoys were observed approximately 194 and 268 feet to the northeast of the proposal, as well as two clusters of lobster buoys located around Cow Island Ledge Light (SR 6). The clusters of lobster buoys contained approximately two to four buoys each (SR 6).

CAS CIX has been operating in the proposed footprint since 2018 and DMR has not received any complaints regarding impacts to fishing.

The applicant states commercial fishing and lobstering and recreational fishing are not active in the lease area from November through May when the lease would be active (App 14).

When asked about the lobster buoys observed by DMR scientists, the applicant testified that they had not observed any buoys within the vicinity of the proposed lease site (Lench/Rozov). The applicant

testified that due to only being present at the proposed lease site from November to May, it is unlikely that buoys would be present due to lobstering activity being more prevalent in summer months (Lench/Rozov).

DMR's site visit occurred in August, during the peak session of commercial lobstering activity. The activity proposed by this lease would occur from November through May, a time when commercial lobstering is less common. While DMR scientists did observe lobster buoys near the proposed lease boundary, the proposed lease will only be active from November through May, when lobstering is less likely to occur, meaning the proposal would not cause interference to any lobstering in the area.

Other Uses. During the site visit, DMR staff did not observe any other uses occurring in the area of the proposed lease site.

The application states there is no kayaking, swimming, or other recreational activities that are conducted in the lease area from November through May when the lease would be active (App 14).

Therefore, the aquaculture activities as proposed will not unreasonably interfere with fishing or other uses, including water-related uses of the area.

D. Other Aquaculture Uses

Pursuant to 12 M.R.S.A. § 6072(7-A), in evaluating the proposed lease, the commissioner shall take into consideration the number and density of aquaculture leases in an area. The Commissioner shall consider any evidence submitted concerning other aquaculture uses of the area, the intensity and frequency of such uses, the degree of exclusivity required for each use as well as the number, size, location, and type of other aquaculture leases. Chapter 2.37(1)(A)(4).

The applicant currently operates experimental lease CAS CIx within the boundaries of the proposed standard lease (SR 6). There are no other active aquaculture leases or Limited Purpose Aquaculture (LPA) sites within 1,000 feet of the proposal (SR 6).

Therefore, the aquaculture activities as proposed will not unreasonably interfere with other aquaculture uses in the area.

E. Existing System Support

When examining the existing system support, the Commissioner considers whether the proposed lease activities will unreasonably interfere with significant wildlife and marine habitat or with the ability of the lease site and surrounding marine and upland areas to support existing ecologically significant flora and fauna. 12 M.R.S.A. § 6072(7-A)(D). Such factors as the degree to which physical displacement of rooted or attached marine vegetation occurs, the amount of alteration of current flow, increased rates of

sedimentation or sediment resuspension, and disruption of finfish migration shall be considered by the Commissioner in this determination. Chapter 2.37(1)(A)(5).

Site Observations. During the site visit, DMR scientists observed the bottom characteristics in the vicinity of the proposed lease site via remote operated vehicle (ROV) (SR 7). The relative abundance of epibenthic flora and fauna observed in the video is described below in Table 2. Numerous American lobster (*Homarus americanus*) burrows were observed, but no lobsters were observed on underwater footage (SR 7).

Table 2. Species observed on underwater footage during the site assessment.

Species Observed	Abundance
Red algae (<i>Dasysiphonia japonica</i>)	Rare
Sugar kelp (<i>Saccharina latissimi</i>)	Rare
Sand shrimp (<i>Crangon septemspinosa</i>)	Common

Marine Vegetation. Records of seagrass collected in 2022 indicate that there are no mapped eelgrass beds within 1,000 feet of the proposal (SR 8).⁵ The nearest mapped eelgrass is a patch approximately 2,037 feet to the northwest of the proposal (SR 8). During DMR’s site assessment, scientists observed unattached eelgrass floating in the vicinity of the proposed lease area, but no eelgrass was observed on underwater footage (SR 8).

Wildlife. According to Geographic Information System (GIS) data maintained by the Maine Department of Inland Fisheries and Wildlife (IFW) and available through the Maine Office of GIS, there is no mapped Tidal Waterfowl and Wading Bird Habitat (TWWH) within 1,000 feet of the proposal (SR 9)

During the site assessment, DMR staff observed osprey (*Pandion haliaetus*) and Bonaparte’s gulls (*Chroicocephalus philadelphia*) in the vicinity of the proposal.

On December 6, 2022, a Wildlife Biologist with IFW responded by email to a “Request for Agency Review and Comment”, stating that minimal impacts to wildlife are anticipated.

Due to there being no eelgrass present in the area and the proposal is not located within mapped TWWH, this proposal will not interfere with flora and fauna in the area.

Therefore, the aquaculture activities as proposed will not unreasonably interfere with significant habitat and the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

⁵ Data obtained from The Maine Office of GIS “GISVIEW.MEDEP.Seagrass2022”. This is the most current record of mapped eelgrass within the vicinity of the proposal.

F. Source of Organisms to be Cultured

Pursuant to 12 M.R.S.A. §6072(7-A)(E), in evaluating the proposed lease, the commissioner shall determine that the applicant has demonstrated there is an available source of organisms to be cultured for the lease site. The Commissioner shall include but not be limited to, consideration of the source's biosecurity, sanitation, and applicable fish health practices. Chapter 2.37(1)(A)(6). Applicants need to obtain proper licenses and follow all regulations governing the take of any respective species. Applicants are responsible for ensuring that they are properly licensed by the state and municipality (if applicable).

The applicant intends to source stock for sugar kelp, skinny kelp, winged kelp, dulse, and sea lettuce from the wild then cultivate the seed at a land-based aquaculture facility (LBA) (App 2; Lench/Rozov). The applicant proposes to bring the seed to LBA license MELBA0038 to culture before placing the seed on a seed string and bringing it to the proposed lease site (Rozov/Lench). LBA MELBA0038 was granted on April 9, 2025, and is authorized to cultivate skinny kelp and sugar kelp (CF – MELBA0038). Therefore, the applicant would only be able to source skinny kelp and sugar kelp seed from MELBA0038.

. Municipalities with an approved shellfish program under 12 M.R.S.A. §6671, may also issue licenses for the take of shellfish species contemplated in their respective ordinance.

The applicant stated that they had talked to Atlantic Sea Farms to source any seed they were unable to get themselves. Atlantic Sea Farms is currently a DMR approved source for dulse, winged kelp and sea lettuce. Atlantic Sea Farms would be an approved source of stock for dulse, winged kelp and sea lettuce.

Therefore, the applicant has demonstrated that there is an available source of stock of sugar kelp, skinny kelp, dulse, winged kelp and sea lettuce to be cultured for the lease site.

G. Interference with Public Facilities

When examining interference with public facilities, the Commissioner considers whether the proposed lease will unreasonably interfere with public use or enjoyment within 1,000 feet of a beach, park, docking facility or certain conserved lands owned by the Federal Government, the State Government or a municipal governmental agency. 12 M.R.S.A. § 6072(7-A)(F). In determining interference with the public use or enjoyment of conserved lands, the Commissioner shall consider the purpose(s) for which the land was acquired. Chapter 2.37(1)(A)(7)).

The proposed lease is not within 1,000 feet of any beach, park, docking facility, or conserved lands owned by federal, state, or municipal governments (SR 10).

Therefore, the aquaculture activities as proposed 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 federal, state, or municipal government.

H. Light

When examining light, the Commissioner considers whether the proposed lease will cause an unreasonable impact from light at the boundaries of the lease site. 12 M.R.S.A. §6072(7-A)(G). Compliance with exterior lighting regulations is evaluated along with the requirement that the applicant demonstrate that all reasonable measures will be taken to mitigate light impacts associated with the lease activities. Chapter 2.37(1)(A)(8).

The application states no lights will be used due to all work at the proposed lease site occurring during daylight hours, and the applicant does not anticipate a situation in which they would need to work beyond daylight (App 12).

Therefore, the aquaculture activities as proposed will not result in an unreasonable impact from light at the boundaries of the lease site.

I. Noise

When examining noise, the Commissioner considers whether the proposed lease will cause an unreasonable impact from noise at the boundaries of the lease site. 12 M.R.S.A. §6072(7-A)(G). Compliance with the noise criteria in the Department's regulations is evaluated, including the requirement that the applicant demonstrate that all reasonable measures will be taken to mitigate noise impacts from the lease activities. Chapter 2.37(1)(A)(9). Chapter 2.37(1)(A)(9) applies "to the routine operation of all aquaculture facilities, including harvesting, feeding, and tending equipment at leases authorized by the Department of Marine Resources, with the following exemptions: . . . [w]atercraft, harvest or transport barges, and maintenance equipment while underway" All motorized equipment that does not fall into one of the exceptions "must be designed or mitigated to reduce the sound level produced to the maximum extent practical." Chapter 2.37(1)(A)(9).

The power equipment proposed by the applicant is a mechanized hauler and hydraulic reel (App 12). During sampling activities, the mechanized hauler would be used to grapple and inspect grow lines (App 12). The hydraulic reel would be used to haul in the grow lines during harvest (App 12). Both the mechanized hauler and hydraulic reel would be powered by the vessel's motor (Lench/Rozov). The vessels proposed to be used by the applicant have internal combustion engines with properly muffled exhaust (App 12).

The mechanized hauler would be powered by the vessel's motor. The motor would be muffled to mitigate sound created by the maintenance activities proposed.

The hydraulic reel is proposed to be used during harvesting activities and would be powered by the motor of the applicant's vessel. The proposed vessels motor is an internal combustion engine with a muffled exhaust. A muffle for noise mitigation is a commonly used and acceptable method of noise mitigation for noise generating power equipment used on aquaculture sites.

Both mechanized haulers and hydraulic reels are used commonly in the lobster fishing industry.

Therefore, the aquaculture activities as proposed will not result in an unreasonable impact from noise at the boundaries of the lease.

J. Visual Impact

When examining visual impact, the Commissioner must determine that the proposed lease is in compliance with visual impact criteria relating to color, height, shape and mass. 12 M.R.S.A. § 6072(7-A)(H). Compliance with visual impact criteria set out in DMR's regulations, including building profiles, height limitations, roof and siding materials, and color are evaluated. Chapter 2.37(1)(A)(10).

The application proposes that the outer mooring buoys and corner markers would be yellow (App 9). The line floatation buoys would be yellow or red (App 9).

Chapter 2.37(1)(A)(10) states "Equipment and structures shall be painted, or be of, a color that does not contrast with the surrounding area. Acceptable hues are grays, blacks, browns, blues, and greens that have a sufficiently low value, or darkness, so as to blend in with the surrounding area. Colors shall be flat, not reflective, in appearance."

The colors proposed by the applicant for the line floatation buoys do not fit into the acceptable hues set forth in Chapter 2. If granted, the applicant would need to follow the proper regulations regarding the color of their equipment, including floatation buoys. Therefore, a condition will be put in place.

The applicant does not propose any building or structures in their application. Therefore, Chapter 2.37(1)(A)(10) criteria regarding buildings and structures will not be applied.

Therefore, the lease site, as conditioned, will comply with DMR's visual impact criteria.

4. Conclusions of Law

Based on the above findings, DMR concludes that:

- a. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of riparian owners.

- 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, including water-related uses of the area.
- d. The aquaculture activities proposed for this site will not unreasonably interfere with other aquaculture uses of the area.
- e. The aquaculture activities proposed will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.
- f. 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 federal, state, or municipal government.
- g. The applicant has demonstrated that there is an available source of stock of sugar kelp, skinny kelp, dulse, winged kelp and sea lettuce to be cultured for the lease site.
- h. The aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.
- i. The aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease site.
- j. The aquaculture activities proposed for this site, as conditioned, will comply with the visual impact criteria.

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 a Standard lease to Ocean's Balance for 4.61 acres for twenty years for the cultivation of sugar kelp (*Saccharina latissimi*), skinny kelp (*Saccharina angustissima*), dulse (*Palmaria palmata*), winged kelp (*Alaria esculenta*) and sea lettuce (*Ulva lactuca*) using suspended culture techniques. The granted lease coordinates are contained in the Appendix to this decision. 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 Chapter 2.40(2)(A) in the amount of \$5000.00, conditioned upon performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

6. Lease Conditions

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities, pursuant to 12 M.R.S.A. §6072 (7-B) and Chapter 2.37(B). 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 condition shall be incorporated into the lease:

1. All line floatation buoys shall comply with Chapter 2 section 37(10) guidelines which states they shall be of a color that does not contrast with the surrounding area. Acceptable hues are grays, blacks, browns, blues, and greens that have a sufficiently low value, or darkness, so as to blend in with the surrounding area. Colors shall be flat, not reflective, in appearance.

7. Revocation of Lease

The Commissioner may commence revocation procedures upon determining, pursuant to 12 M.R.S.A. §6072(11), that no substantial aquaculture has been conducted over the course of the lease, that the lease activities are substantially injurious to marine organisms or public health, or that any condition of the lease or any minimum lease maintenance standard has been violated.

Dated: _____

Carl J. Wilson, Commissioner
Department of Marine Resources

Appendix

Granted Lease Coordinates

Application Coordinates (WGS84) – 4.61 Acres

<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>
NW	43.706111°	-70.188333° then 242.5 feet at 114° True to
NE	43.705833°	-70.1875° then 982.6 feet at 202° True to
SE	43.703333°	-70.188889° then 178.4 feet at 302° True to
SW	43.703611°	-70.189444° then 957.5 feet at 18° True to NW

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES

Oceans Balance
CAS CIx

Experimental Aquaculture Lease Application
Suspended Culture of Marine Algae
Casco Bay, Long Island

September 12, 2018

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

Oceans Balance, Inc., a Maine company, applied to the Department of Marine Resources (DMR) for an experimental aquaculture lease on 3.93 acres¹ located in Casco Bay, west of Cow Island Ledge, Long Island, Cumberland County, Maine, for the cultivation of sugar kelp (*Saccharina latissima*), winged kelp (*Alaria esculenta*), rockweed (*Fucus vesiculosus*), and *Ascophyllum nodosum* using suspended culture techniques. DMR accepted the application as complete on February 13, 2018. No requests for a public hearing were received during the comment period and no hearing was held.

1. THE PROCEEDINGS

Notice of the application and the 30-day public comment period were provided to state and federal agencies, riparian landowners, the Town of Long Island, and others on the Department's mailing list. Notice of the application and comment period was published in the *Forecaster* on March 7, 2018.

The evidentiary record before the Department regarding this lease application includes the application, the Department's site report dated August 17, 2018, and the case file. The evidence from these sources is summarized below.²

2. DESCRIPTION OF THE PROJECT

A. Proposed Operations

¹ Applicant originally requested 4.61 acres. The NW coordinates were modified to ensure the acreage requested was four acres or less. Pursuant to statute, experimental leases are required to be four acres or less in size.

² These sources are cited below, with page references, as CF (case file), App (application), and SR (site report).

The purpose of the proposed lease is to explore the commercial feasibility of cultivating marine algae using suspended culture techniques (App 2). The applicant plans to deploy seven longlines measuring 1,000 feet in length (App 8). The longlines will be submerged seven feet below the surface of the water (App 8). The applicant intends to seed and harvest year-round and will visit the site on a weekly basis (App 2). Most aquaculturists who culture sugar kelp remove their gear during the summer months (SR 7). However, the applicant is also proposing to grow fucoids, a type of algae that would be cultivated throughout the year (App 2). Therefore, the applicant is proposing to have gear on the proposed lease site throughout the year. The applicant will access and service the site from an 18-foot skiff powered by a four-stroke outboard motor (App 2).

B. Site Characteristics

On June 27, 2018, DMR scientists visited the proposed lease site and assessed it and the surrounding area in consideration of the criteria for granting an experimental aquaculture lease. The proposed site occupies subtidal waters in Casco Bay, west of Cow Island Ledge (SR 2). Clapboard Island is situated to the north of the proposed site, Long Island and Chebeague Island are located to the east, and Great Diamond Island lies to the south (SR 2). At mean low water, the distance from the southeast corner of the proposed lease to Cow Island Ledge is ~110 feet (SR 5). Calculating for mean low water, depths ranged from 25.9 feet at the northeast corner and 36.6 feet at southwest corner (SR 6). According to the application, the bottom of the proposed site is characterized by mud that tapers to ledge near the proposed northeast corner (App 3).

3. STATUTORY CRITERIA & FINDINGS OF FACT

Approval of experimental aquaculture leases is governed by 12 M.R.S.A. §6072-A. This statute provides that a lease may be granted by the Commissioner 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, or docking facilities 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.

A. Riparian Access

Per the site report:

The closest parcel to the proposal is located 2,800 feet to the northeast, on Clapboard Island. Due to its distance from Clapboard Island and other surrounding properties, the proposed lease would not interfere with riparian ingress or egress (SR 7).

Activities at the proposed lease site in subtidal waters are unlikely to hamper access to and from the shore.

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with riparian ingress and egress.

B. Navigation

Casco Bay is utilized frequently by commercial and recreational boaters, particularly during the summer (SR 7). During the site visit, staff observed sailboats, lobster boats, and motorized vessels within the vicinity of the proposed site (SR 7). However, the application indicates that there is little activity close to Cow Island Ledge (App 3). As noted in the site report, it is likely that most mariners try to avoid the ledge:

At the closest point, the proposed lease is located ~110 feet to the west of Cow Island Ledge in Casco Bay. Due to the proposed lease's proximity to this ledge, which is well marked by navigational aids, it is likely that most vessels already avoid the general area in which the proposed lease is located (SR 7).

Vessels that traverse northeast or southwest through the channel separating Cow Island Ledge from Clapboard Island would have ~1,900 feet of navigable area between the proposed site and the red/green nun buoy that marks the western side of the channel (SR 7).

Therefore, the aquaculture activities proposed for this site will not unreasonably interfere with navigation. The lease site must be marked in accordance with U.S. Coast Guard requirements.

C. Fishing & Other Uses

The application indicates that there “is light lobster fishing on the site in the summer and no lobster gear in the winter months” (App 3). The site report describes the following:

...lobster buoys were present around the proposed lease site in all directions. Three lobster buoys were located within, and two additional buoys were located just outside, the proposed lease boundaries...(SR 7).

Given that the applicant intends to cultivate marine algae year-round, lobstermen who deploy their traps to the west of Cow Island Ledge, within the 36-foot contour line, could be affected by the proposal (SR 7). If the lease is granted, the applicant is requesting that lobster fishing be prohibited within the boundaries of the proposed site (App 3). The applicant is requesting exclusive use to avoid lobster gear being deployed over the submerged longlines.

The site report indicates that if the applicant limited proposed operations to fall, winter, and spring months the potential impact to lobstermen would be substantially reduced (SR 7). Aquaculture Division staff discussed the proposal with Marine Patrol and Lobster Policy staff, who are familiar with lobster fishing activities in the area. Based on their feedback, the area is routinely fished by lobstermen during the summer and fall months. The deployment of longlines during the summer and fall months could create gear conflicts between the existing lobster fishery and the proposed operations.

The Department will condition the lease, so that the deployment of longlines from June 1 through October 31 is prohibited.³ Except for required marker buoys, no gear will be allowed on the site during that specified time. This condition is intended to mitigate potential impacts to lobstermen, while also allowing for the proposed aquaculture activities on a seasonal basis.⁴

Exclusivity. To avoid possible entanglement with submerged longlines, the applicant is requesting that lobster fishing be prohibited within the boundaries of the proposed lease site (App 3). For the reasons described above, the applicant will be prohibited from deploying longlines from June 1 through October 31. However, the Department will include a condition that prevents lobster fishing within the boundaries of the proposed lease from November 1

³ Based on feedback from Marine Patrol, this is when lobster fishing occurs in the area.

⁴ The U.S. Army of Corps of Engineers has limited gear deployment from October 15 to May 31 each year.

through May 31. The condition is intended to mitigate the potential of seasonal gear conflict between the existing lobster fishery and the proposed site.

Other aquaculture uses. There is one aquaculture lease located within one mile of the proposal.⁵ The lease is held for the suspended culture of blue mussels (*Mytilus edulis*), sea scallops (*Placopecten magellanicus*) and marine algae (SR 7). In addition, there are four Limited Purpose Aquaculture (LPA) licenses for the suspended culture of marine algae within one mile of the proposed site. The LPAs are held by the applicant for the suspended culture of marine algae⁶ (SR 7). Per the application, the two LPA licenses closest to the proposed site, TOLS316 and TOLS416, would be relinquished if the lease is granted (App 6). Given the distance to the existing lease and the remaining LPA's there is no likelihood of interference from the proposed lease with the activities at those sites.

Therefore, considering the conditions imposed on the lease, and existing aquaculture activities, the proposed site will not unreasonably interfere with fishing or other water related uses of the area.

D. Flora & Fauna

Site Observations. During the site visit, Department staff observed black-backed gulls (*Larus marinus*), herring gulls (*Larus argentatus*), eider ducks (*Somateria mollissima*), terns (*Sterna sp.*), and common loons (*Gavia immer*) near the proposed lease area (SR 8). Staff also noted two ospreys (*Pandion haliaetus*) and an occupied osprey nest located on Cow Island Ledge light (SR 8). Based on historical eelgrass (*Zostera marina*) data⁷, in 2013, the closest eelgrass beds were over ~1,900 feet to the northwest of the proposed area (SR 9).

Fisheries and Wildlife. Based on data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW), bald eagle (*Haliaeetus leucocephalus*) nesting habitat is located 4,725 feet to the north of the proposed site (SR 9). The proposed site is also 1,970 feet from an area designated Tidal Waterfowl and Wading Bird Habitat, which is defined as Significant Wildlife Habitat under Maine's Natural Resources Protection Act (SR 8). DMR sent a copy of the lease application to MDIFW for their review and comment. MDIFW indicated that "minimal impacts to wildlife are anticipated."⁸

⁵ Lease acronym CAS CF2 held by Wild Ocean Aquaculture.

⁶ TOLS 116, 216, 316, and 416.

⁷ Data was collected by the Maine Department of Environmental Protection and Casco Bay Estuary Partnership (SR 13).

⁸ CF: Email from J. Perry (Environmental Review Coordinator, MDIFW) to C. Burke dated March 20, 2018.

Based on this evidence, it appears that the culture of marine algae as proposed for this lease site will not interfere with the ecological functioning of the area.

Therefore, given the provisions for gear deployment, 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

Per the site report, there are no beaches, parks, or docking facilities owned by federal, state, or municipal government within 1,000 feet of the proposed lease site (SR 10).

Therefore, 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. Source of Organisms

Seed stock for the proposed lease site will be sourced from the University of New England Marine Science Center located in Biddeford, Maine and Bigelow Laboratory in East Boothbay, Maine (App 1). Both institutions are an approved source of seed stock.

Therefore, the applicant has demonstrated that there is an available source of sugar kelp (*Saccharina latissima*), winged kelp (*Alaria esculenta*), rockweed (*Fucus vesiculosus*), and *Ascophyllum nodosum* to be cultured for the lease site.

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 riparian ingress and egress.
- B. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.
- C. Given the conditions imposed on the lease, the aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration existing aquaculture uses 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 (*Saccharina latissima*), winged kelp (*Alaria esculenta*), rockweed (*Fucus vesiculosus*), and *Ascophyllum nodosum* to be cultured for the lease site.

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-A.

5. DECISION

Based on the foregoing, the Commissioner grants the requested experimental lease of 3.93 acres to Oceans Balance Inc., for three years, the term of the lease to begin within twelve months of the date of this decision, on a date chosen by the lessee⁹; however, no aquaculture rights shall accrue in the lease area until the lease is fully executed.

This lease is granted to the lessee for the cultivation of sugar kelp (*Saccharina latissima*), winged kelp (*Alaria esculenta*), rockweed (*Fucus vesiculosus*), and *Ascophyllum nodosum* using suspended culture techniques. The lessee shall pay the State of Maine rent in the amount of \$100.00 per acre per year. Since this is an experimental lease with more than 400 sq. ft. of structures and no discharge, a bond or escrow account is required. The lessee shall post a bond or establish an escrow account pursuant to DMR Rule 2.64 (10) (D) 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

⁹ DMR Rule 2.64 (14) provides:

“The term of the lease shall begin within 12 months of the Commissioner’s decision, on a date chosen by the applicant. No aquaculture rights shall accrue in the lease area until the lease term begins and the lease is signed.”

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities, pursuant to 12 MRSA §6072-A (15)¹⁰. 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.
- B. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.
- C. Except for required marker buoys, no gear shall be deployed on the lease site from June 1 through October 31.
- D. Lobster fishing is prohibited within the lease boundaries from November 1 through May 31.

7. REVOCATION OF EXPERIMENTAL LEASE

The Commissioner may commence revocation procedures upon determining pursuant to 12 MRSA §6072-A (22) and DMR Rule Chapter 2.64 (13) that no substantial research has been conducted on the site within the preceding year, that research has been conducted in a manner injurious to the environment or to marine organisms, or that any conditions of the lease or any applicable laws or regulations have been violated.

Dated: _____

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

¹⁰ 12 MRSA §6072-A (15) provides that:

“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. The commissioner may grant the lease on a conditional basis until the lessee has acquired all the necessary federal, state and local permits.”