

**STATE OF MAINE  
DEPARTMENT OF MARINE RESOURCES**

**Kenneth Curtis Sparta**

**CAS CR**

Standard Aquaculture Lease Application  
Suspended and Bottom Culture of Oysters,  
Clams, Scallops, and Marine Algae  
Casco Bay, Freeport, Maine

**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION**

Kenneth Curtis Sparta applied to the Department of Marine Resources (DMR) for a twenty-year standard aquaculture lease on 7.85<sup>1</sup> acres located in Casco Bay, west of Crab Island, Freeport, Maine. The proposal is for the suspended and bottom culture of marine algae (*Laminariales spp.*), American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), sea scallops (*Placopecten magellanicus*), and quahogs (*Mercenaria mercenaria*).

**1. PROCEDURAL HISTORY**

The pre-application meeting on this proposal was held on October 18, 2019, and a scoping session was held on November 1, 2020. DMR accepted the final application as complete on March 4, 2022. Notice of the completed application and public hearing was provided to state agencies, the Town of Freeport and its harbormaster, and subscribers to DMR's aquaculture email listserv. The application identified no known riparian landowners within 1,000 of the proposed lease site. A Harbormaster Questionnaire was sent to the harbormaster on March 20, 2022, requesting information about designated or traditional storm anchorages, navigation, riparian ingress and egress, fishing or other uses of the area, among other considerations. No response was received by DMR. Notice of the public hearing was published in the *Northern Forecaster* on March 21 and April 11, 2024. The public notice for the hearing stated that the proceeding would be conducted in-person and directed interested persons to register to provide testimony or ask questions during the proceeding. It also directed interested persons to contact DMR for an intervenor application. No applications for intervenor status were received by DMR. A public hearing on this application was held on May 1, 2024. Five individuals registered to participate in the hearing.

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<sup>1</sup> Applicant originally requested 8.25 acres. DMR calculations indicate the area is 7.85 acres.

Sworn testimony was given at the hearing by the following witnesses:

Name	Affiliation
Kenneth Sparta	Applicant
David Leith	Member of the public
Nichole Potter	Member of the public
Mayzie Corman	Member of the public
Amanda Ellis	Director, DMR Aquaculture Division

The hearing was recorded by DMR. The Hearing Officer was Maria Eggett.

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.<sup>2</sup>

#### **LIST OF EXHIBITS**

1. Case file
2. Application
3. DMR site report, issued on February 26, 2024

## **2. DESCRIPTION OF THE PROJECT**

### **A. Proposed Operations**

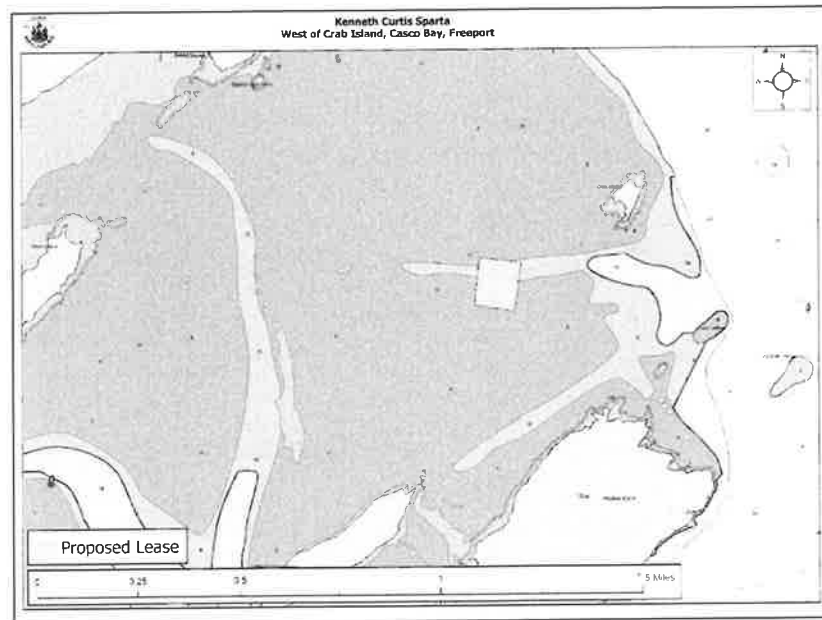
The applicant proposes to culture marine algae (*Laminariales spp.*), American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), sea scallops (*Placopecten magellanicus*), and quahogs (*Mercenaria mercenaria*) using suspended and bottom culture techniques (App 1-2). The applicant proposes to use 240 OysterGro cages (54-inches by 36-inches by 32-inches), 160 floating oyster bags (32-inches by 22-inches by 3-inches), 96 oyster bottom cages (44-inches by 36-inches by 32-inches), 36 scallop lantern nets (60-inches by 24-inches by 24-inches), 120 scallop cars (48-inches by 23-inches by 15-inches), 500 quahog bottom bags (32-inches by 22-inches by 3-inches) and twelve kelp long lines (500 linear feet) as well as buoys, moorings, and lines. On cross-examination at the hearing, the applicant testified that 72 helical anchors and eight 150-pound mushroom anchors would be used (Sparta testimony). Yellow lease marking buoys will be deployed at the corners (App 7). Gear will remain on-site year-round in varying configurations with long lines deployed and shellfish cages submerged in the winter (App 9, 30).

The applicant anticipates seeding oysters, quahogs, and scallops in June, July, and August, as well as direct seeding oysters on the bottom in September. Marine algae will be seeded in November and

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<sup>2</sup> Exhibits 1, 2, and 3 are cited below as: Case file – “CF”, Application – “App”, site report – “SR”.

December. The applicant anticipates tending the site five days per week year-round and harvesting the site 2-4 days per week year-round (Sparta testimony). The applicant currently operates two Limited Purpose Aquaculture (LPA) sites, KCSP319 and KCSP419, within the boundaries of the proposal. These two LPAs would be relinquished if the proposal is approved.



**Figure 1:** Vicinity map. Image from DMR site report.

## **B. Site Characteristics**

On August 10, 2023, DMR scientists assessed the proposed lease site. The proposal is in a shallow, subtidal embayment between Moshier Island, Crab Island, and Stockbridge Point on the mainland. A slightly deeper channel runs through the lease proposal and ends approximately 1,000 feet to the west (Figure 1). There is no land within 1,000 feet of the proposal. Moshier Island and Little Moshier Island to the south have a rocky shoreline with forested uplands. Crab Island, to the northeast, has a small beach on the western shore with the remainder of the shoreline consisting of rock ledges. Uplands are forested with an area of grass lawn around the house that is located on the interior of the island.

DMR began collecting depths at the proposed site at approximately 1:35 PM. The tide was flooding with the next high tide predicted at 7:43 PM. Depths were determined to be between 5.6-9.1 feet at the corners of the proposal and 10.4-13.6 feet in the channel that runs through the middle of the proposal area. Correcting for tidal variations derives depths at mean low water (MLW, 0.0 feet) to be from 4.2-7.7 feet at corners of the proposal and 9-12.2 feet in the channel (SR 2).

### **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 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, taking into consideration other aquaculture uses of the area; the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna; or 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 comply with visual impact criteria adopted by the Commissioner.

#### **A. Riparian Access**

Before granting a lease, the Commissioner must determine that the proposed project “will not unreasonably interfere with the ingress and egress of riparian owners[.]” 12 M.R.S.A. § 6072(7-A)(A). In examining riparian owner ingress and egress, the Commissioner “shall consider the type of structures proposed for the lease site and their potential impact on the vessels which would need to maneuver around those structures.” Chapter 2.37(1)(A)(1)<sup>3</sup>.

There is no land within 1,000 feet of the proposed lease boundaries. During DMR’s site assessment, scientists observed a dock with a powerboat tied to it on the western side of Crab Island approximately 1,700 feet to the northeast. Based on aerial imagery<sup>4</sup>, there are approximately six docks on the northern end of Moshier Island. The closest of these docks is approximately 1,685 feet to the southwest (SR 4). No moorings were observed in the area. During the public hearing, no one offered testimony or evidence regarding riparian ingress and egress. Based on the record in this case, the proposal will not unreasonably interfere with riparian ingress and egress.

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

#### **B. Navigation**

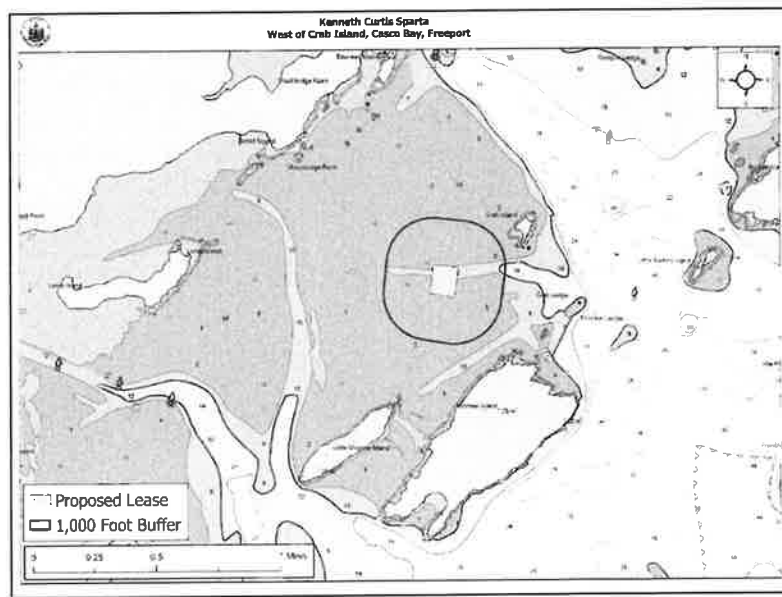
When examining navigation, the Commissioner considers whether the lease activities would interfere with commercial or recreational navigation around the lease area and considers the current uses of the navigational channels in the area (12 M.R.S.A. § 6072(7-A)(B); Chapter 2.37(1)(A)(2)).

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<sup>3</sup> 13-188 C.M.R. ch. 2.

<sup>4</sup> Aerial imagery is from 2022 and is provided by The Maine Office of GIS

The proposal is in a shallow embayment approximately 2,700 feet to the west and south of a marked navigational channel. Another marked channel is on the southwestern side of the embayment approximately 5,140 feet to the southwest of the proposal. According to navigational charts, an unmarked channel of deeper water runs through the northern portion of the proposal that ends approximately 1,000 feet to the west of the proposal. Navigation within the embayment is restricted for deeper draft vessels around mid and low tidal stages due to charted depths at MLW of 0.5-2 feet within much of the embayment (Figure 2).



**Figure 2:** Navigational channels in the vicinity of the proposed lease area.

During DMR's site assessment, scientists observed several powerboats and sailboats transiting the marked navigational channel to the north of the proposal (SR 5). During the public hearing, no one offered testimony or evidence regarding potential impacts to navigation. Based on the record in this case, the proposal will not unreasonably interfere with navigation.

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

### **C. Fishing & Other Uses**

When examining fishing and other uses, the Commissioner considers whether the lease activities would unreasonably interfere with commercial or recreational fishing or other water-related uses of the area

(12 M.R.S.A. § 6072(7-A)(C); Chapter 2.37(1)(A)(3)). Additionally, the Commissioner considers any evidence concerning other aquaculture uses of the area (Chapter 2.37(1)(A)(4)).

**Fishing.** During the site assessment, evidence of limited lobstering activity was observed in the general vicinity of the proposal. There were four lobster buoys observed within the proposal area and eight more were observed within 1,000 feet of the proposal to the west and south.

On February 22, 2020, a scientist with the DMR Nearshore Marine Resources Program responded by email to a “Request for Agency Review and Comment”, stating that intertidal wild harvest of softshell clams (*Mya arenaria*) should not be impacted due to the subtidal location of the proposal. The comments also stated that dragging for European oysters (*Ostrea edulis*) has occurred between Little Moshier and Moshier Islands, as well as around Bowman and Lanes Islands to the north of the proposal (SR 6). The comment did not raise concerns about this proposal interfering with dragging.

The application states that some lobstering occurs in and near the proposed lease boundary. Two lobster buoys were observed by the applicant within the proposed boundaries; however, according to the application, both were in the northern channel and gear will be removed from that portion of the site during the summer months (App 14).

No testimony was given at the public hearing concerning impacts to commercial or recreational fisheries. Based on the record in this case, the proposal will not unreasonably interfere with commercial or recreational fisheries.

**Therefore**, the aquaculture activities proposed for this site will not unreasonably interfere with fishing.

**Other aquaculture uses:** The applicant currently operates two Limited Purpose Aquaculture (LPA) sites, KCSP319 and KCSP419, within the boundaries of the proposal. These two LPAs would be relinquished if the proposal is approved. The nearest aquaculture lease is approximately 1,375 feet to the east of the proposal (SR 7).

No testimony was received by other aquaculture lease or license holders in the area to indicate they have concerns regarding the proposed activities. Based on this evidence, the proposed lease will not unreasonably interfere with other aquaculture activities in the area.

**Other water-related uses.** The application states no kayaking or swimming has been observed by the applicant near the proposed site (App 14). No evidence or testimony was provided at the hearing concerning kayaking or swimming in the area.

**Therefore**, the aquaculture activities proposed for this site will not unreasonably interfere with existing aquaculture operations, or other water-related uses of the area.

#### **D. Flora & Fauna**

When examining existing system support, the Commissioner considers the degree to which the use of the lease site will interfere with significant wildlife habitat and marine habitat or with the ability of the lease site and marine and upland areas to support ecologically significant flora and fauna (12 M.R.S.A. § 6072(7-A)(D); Chapter 2.37(1)(A)(5)).

**Site observations.** DMR scientists conducted three dives using a Remotely Operated Vehicle (ROV) to assess the epibenthic ecology of the proposed lease. The relative abundance of epibenthic flora and fauna observed in the video transects is described below in Table 1.

**Table 1. Species observed using underwater camera footage.**

Species Observed	Abundance
Hermit Crab ( <i>Paguroidea</i> spp)	Rare
American/Eastern Oyster ( <i>Crassostrea virginica</i> )	Occasional
Filamentous red algae, possibly <i>Dasysiphonia japonica</i>	Occasional
European oyster ( <i>Ostrea edulis</i> )	Occasional
Green crab ( <i>Carcinus maenas</i> )	Occasional
Sand shrimp ( <i>Crangon septemspinosa</i> )	Common

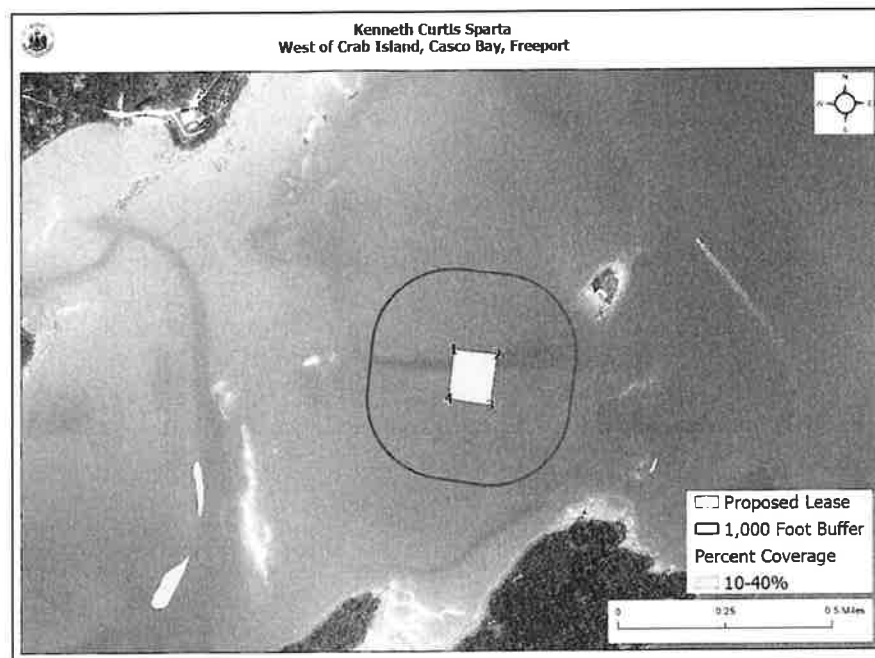
#### **Eelgrass (*Zostera marina*)**

Historical records of eelgrass collected in 2022<sup>5</sup> indicate that there is no mapped eelgrass within 1,000 feet of the proposal. The nearest mapped eelgrass is approximately 2,169 feet to the southeast of the proposal. During the site assessment, scientists observed sparse, individual blades of brown colored eelgrass attached to the seafloor. The unhealthy eelgrass was occasionally observed in the southeastern corner (corner 3) of the proposal. Near the middle of the proposal, eelgrass was rarely observed (SR 9).

Given the sparse and unhealthy condition of the eelgrass, it is unlikely that this is a viable community and that the proposed lease would adversely impact it.

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<sup>5</sup> Data obtained from The Maine Office of GIS “GISVIEW.MEDEP.Seagrass2022”. Widgeon grass was observed only in the New Meadows River area off Old Brunswick Road near shore. Eelgrass was the dominant vascular species in all other locations. This is the most current record of mapped eelgrass within the vicinity of the proposal.



**Figure 3:** Mapped eelgrass (*Z. marina*) in the vicinity of the proposed lease area.

## Wildlife

According to Geographic Information System (GIS) data maintained by the Maine Department of Inland Fisheries and Wildlife (MDIFW) and available through the Maine Office of GIS (MEGIS), the proposed lease is not within 1,000 feet of mapped tidal waterfowl and wading bird habitat. The nearest mapped waterfowl habitat is located approximately 1,247 feet to the west of the proposal. The nearest mapped bald eagle nest is located approximately 6,279 feet to the west of the proposal.

On March 22, 2022, a Wildlife Biologist with MDIFW responded by email to a “Request for Agency Review and Comment”, stating that minimal impacts to wildlife are anticipated<sup>6</sup>.

During the site assessment, scientists observed double-crested cormorants (*Nannopterum auritum*), common terns (*Sterna hirundo*), herring gulls (*Larus argentatus*), a loon (*Gavia immer*), and an osprey (*Pandion haliaetus*) in the vicinity of the proposed lease (SR 10). No testimony was provided at the hearing concerning impacts on flora and fauna. Based on the record in this case, the aquaculture activities proposed for this site will not unreasonably interfere with ecologically significant flora and fauna.

**Therefore,** 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.

<sup>6</sup> Email from MDIFW dated March 22, 2022.



#### **E. Public Use & Enjoyment**

When examining interference with public facilities, the Commissioner considers the degree to which the lease interferes with public use or enjoyment within 1,000 feet of beach, park, docking facility, or certain conserved lands owned by the Federal Government, the State Government, or a municipal government (12 M.R.S.A. § 6072(7-A)(F); Chapter 2.37(1)(A)(7)).

The proposal is not within 1,000 feet of any beach, park, or docking facility owned by federal, state, or municipal governments or certain conserved lands owned by the Federal Government, the State Government, or a municipal government (SR 11).

**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, docking facilities, or certain conserved lands owned by municipal, state, or federal governments.

#### **F. Source of Organisms**

In accordance with 12 M.R.S.A. §6072(7-A)(E), standard lease applicants are required to demonstrate that there is an available source of organisms to be cultured for the lease site. When examining the source of organisms, 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)).

According to the application and Mr. Sparta's hearing testimony, the source for marine algae (*Laminariales spp.*) would be the University of New England (UNE) in Saco, Maine or the Maine Family Sea Farm Cooperative (MFSFC). According to DMR records, UNE is not currently providing marine algae to aquaculturists. However, Mr. Sparta testified that marine algae may also be sourced from the MFSFC. The MFSFC currently collects sorus tissue from Maine's coastal waters for growout and deployment on aquaculture sites. If the lease is granted, Mr. Sparta could obtain marine algae from this source.

European oyster (*O.edulis*) would be wild spat collected on-site and quahogs (*M.mercenaria*) would be sourced from Muscongus Bay Aquaculture in Bremen, Maine. American oyster (*C.virginica*) would be sourced from Thomas Henniger (App 2, Sparta testimony). Mr. Sparta testified that Mr. Henniger gets most seed from Mook Sea Farm and then places it in an upweller in the Cousins River in Yarmouth.<sup>7</sup> These are all approved sourcing methods, so Mr. Sparta has demonstrated an available source for oysters, and quahogs. Mr. Sparta testified that sea scallops (*P.magellanicus*) will be sourced from Dan Harriman, who collects wild spat. However, according to DMR records, Mr. Harriman is not currently licensed to collect scallop spat. Therefore, Mr. Sparta has not demonstrated a source of stock for scallops, so this species would not be authorized if the lease is approved. If the site is approved and Mr. Sparta would like

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<sup>7</sup> According to Mr. Henniger's Limited Purpose Aquaculture (LPA) license, the stock for THEN522 is obtained from Mook Sea Farm, Muscongus Bay Aquaculture, Downeast Institute, or Hoopers Island.

to culture scallops, he would need to find an alternate, approved source, and then apply to DMK for a species amendment.

**Therefore**, the applicant has demonstrated an available source of stock for marine algae (*Laminariales spp.*), European oyster (*O.edulis*), American oyster (*C.virginica*) and quahogs (*M.mercenaria*) to be cultured for the lease site. The applicant has not, however, demonstrated an available source of stock for scallops to be cultured for the lease site.

#### **G. Light**

The Commissioner considers whether there will be an unreasonable impact from lighting in accordance with 12 M.R.S.A §6072(7-A)(G) and the regulatory standards specified in Chapter 2.37(1)(A)(8). The statute specifies that a lease must not result in an unreasonable impact from light at the boundaries of the proposed site. The applicable regulation imposes specific requirements related to lighting, including a requirement that the applicant demonstrate that all reasonable measures will be taken to mitigate light impacts associated with the lease activities.

According to the application, lights would only be used on the proposed lease site in emergency situations (App 10). Chapter 2.37(1)(A)(8) exempts the use of lights in such situations.

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

#### **H. Noise**

The Commissioner evaluates noise in accordance with 12 M.R.S.A §6072(7-A)(G) and the regulatory standards specified in Chapter 2.37(1)(A)(9). The statute specifies that a lease must not result in an unreasonable impact from noise at the boundaries of the proposed site. The applicable regulation imposes specific requirements related to noise, including a requirement that the applicant take all reasonable measures to mitigate noise impacts associated with the lease activities.

According to the application, the only source of noise on-site would be two vessels powered by four-stroke outboards and a Honda powerpack. However, on cross-examination, Mr. Sparta stated that the powerpack is no longer proposed for use on the site, nor is any type of generator (Sparta testimony). Therefore, the outboards would be the only source of noise on-site. No testimony was given at the hearing concerning noise.

Based on this information, any noise generated by the proposed operations is unlikely to have a significant effect at the boundaries of the lease site.

**Therefore**, 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**

Before granting a lease, the Commissioner must determine that the proposed project will be in compliance with visual impact criteria adopted by the commissioner relating to color, height, shape and mass (12 M.R.S.A § 6072(7-A)(H)). The Commissioner has adopted such regulatory standards in Chapter 2.37(1)(A)(10).

The application stated that yellow flotation buoys would be used within the proposed site. However, in response to a question from DMR at the hearing, the applicant confirmed that if the project is approved, only buoys in the colors approved by Chapter 2.37(1)(A)(10) (grays, blacks, browns, blues, and greens that have sufficient low value, or darkness, so as to blend in with the surrounding areas) will be used (Sparta testimony). With this change, the proposed lease would be in compliance with the visual impact standards adopted by the Commissioner.

**Therefore**, the equipment utilized on the proposed lease site will comply with the DMR's visual impact criteria.

## **6. CONCLUSIONS OF LAW**

Based on the above findings, it is concluded 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 water-related uses of the area, taking into consideration other aquaculture uses in the area.
- d. 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.
- 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, docking facilities, or certain conserved lands owned by municipal, state, or federal governments.
- f. The applicant has demonstrated that there is an available source of marine algae (*Laminariales spp.*), European oyster (*O.edulis*), American oyster (*C.virginica*) and quahogs (*M.mercenaria*) to be cultured for the lease site.
- g. The applicant has not demonstrated that there is an available source of sea scallops (*Placopecten magellanicus*), 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 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 with the exception of the proposed culture of sea scallops.

## **7. DECISION**

Based on the foregoing, the Commissioner grants a lease to Kenneth Curtis Sparta for 7.85 acres for twenty years for the cultivation of marine algae (*Laminariales spp.*), American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), and quahogs (*Mercenaria mercenaria*) using suspended and bottom culture techniques. The lessees shall pay the State of Maine rent in the amount of \$100.00 per acre per year. The lessees 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.

## **8. 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 M.R.S.A. §6072 (7-B).<sup>8</sup> 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. No conditions shall be imposed on this lease.


## **9. 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 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.

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<sup>8</sup> 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."

Dated: 9/3/24

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