STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
Standard Aquaculture Lease Application
Suspended culture of oysters and kelp
Medomak River, Muscongus Bay, Friendship

K2 Science LLC
Lease MUS WHAR
Docket #: 2015-01

March 18, 2016

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION

K2 Science LLC, a New Hampshire Limited Liability Corporation, applied to the Department of Marine Resources ("DMR") for a standard aquaculture lease on 1.0 acre for 10 years located in the coastal waters of the State of Maine, in the Medomak River in Muscongus Bay in the Town of Friendship in Knox County, for the purpose of cultivating American oysters (*Crassostrea virginica*) and sugar kelp (*Saccharina latissima*) using suspended culture techniques. DMR accepted the application as complete on January 8, 2015. No one intervened in this case. A public hearing on this application was held on February 9, 2016 in Friendship.

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 Friendship and the Friendship Harbormaster, members of the Legislature, representatives of the press, riparian landowners, and other private individuals. Notice of the hearing was published in the Rockland *Courier Gazette* on Thursday, December 31, 2015 and January 21, 2016; and in the *Commercial Fisheries News* December 2015 edition.

Sworn testimony was given at the hearing by: Ray Konisky, owner of K2 Science, and by DMR Aquaculture Scientist Marcy Nelson. Mr. Konisky described his proposed project. Ms. Nelson described the site visit but did not present video of the site, as the camera had malfunctioned during the site visit.

Each witness was subject to questioning by the Department, the applicant, the intervenors, and members of the public. The hearing was recorded by DMR. The hearing officer was Diantha Robinson.

The evidentiary record before the Department regarding this lease application includes three exhibits introduced at the hearing (see exhibit list below), 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, 2015-01 ("CF").
2. Application signed and dated by Raymond A. Konisky on October 3, 2014 ("A").
3. DMR site report dated November 30, 2015 ("SR").

[1] In references to testimony, "Smith/Jones" means testimony of Smith, questioned by Jones.

2. DESCRIPTION OF THE PROJECT

A. Site History

Ray Konisky holds two Limited-Purpose Aquaculture (LPA) licenses, KON-2-13, which is located within the boundaries of Tract 1 of the proposed lease; and KON-1-12, located approximately 450 feet to the east of proposed Tract 3. These LPAs have provided the applicant with three seasons of growing experience in the same location as the proposed lease (A 2).

B. Site Characteristics

The proposed lease consists of three small tracts located along the eastern shore of the Medomak River between Delano Cove to the north and Ames Cove to the south in Muscongus Bay (A 2). The upland is developed with seasonal homes. Tract 1 (0.18 acre), the northernmost tract, lies directly off Mr. Konisky's shore and includes his dock and the surrounding waters. Tract 2 (0.62 acre) is located south of Tract 1. Tract 3 (0.20 acre) is located south of Tract 2 (A 10-11, 14).

On August 6, 2015, DMR biologists visited the proposed lease site and assessed it and the surrounding area in light of the criteria for granting a standard aquaculture lease, as described in the site report. At mean low water (MLW) the proposed lease site is located in water depths ranging from 6 feet along the eastern boundary to 13 feet along the western boundary of Tract 1; 13 feet along the southwest corner and 16 feet in the north corner of Tract 2; and depths ranging from 6.5 feet to 14 feet in Tract 3 (SR 2)

Tract 1 of the proposed lease is located adjacent to the property of the applicant and includes his existing dock and float. The substrate in this area is a mixture of sand and shell hash to the east of the applicant's ramp and float; mud dominates in the deeper waters to the west. A patch of eelgrass (*Zostera marina*) was present within the southeastern corner of the proposed lease site (SR 2). Tract 2 of the proposal is bounded by intertidal ledge to the east. The Department's dive assessment confirmed a mixture of subtidal ledge, sand, and shell hash substrates within the general area (SR 2). The benthos within proposed Tract 3 is comprised of fine sediments (mud) with little topographical relief and no observed rooted or attached flora (SR 2).

All lease tracts are located in DMR Pollution area 26. Tracts 2 and 3 are in areas classified as "Open/Approved" by the DMR Bureau of Public Health (A 10). Tract 1 of the proposed lease is in an area currently classified as "Prohibited" for the harvest of shellfish. The applicant will be required to obtain a permit from the DMR Bureau of Public Health to relay oysters from Tract 1 to Tracts 2 or 3 for a minimum of 6 months prior to harvest (SR 9).

The lease tracts are in a well-flushed environment. From May through October, salinity is close to seawater salinity levels (30-32 ppt) and temperatures are cold to moderate (50-64 F). The bottom substrate is coarse sand, cobble, and shell and is protected from wave energy (A 9).

C. Proposed Operations

The applicant proposes to grow oysters and kelp on the lease, using submerged cages on all three tracts and floating oyster bags tied to the dock on Tract 1. The oyster cages (or "condos") are 4'x 3'x 2.1' black wire mesh that hold eight plastic mesh grow-out bags, each 20"x 39"x 2". All cages will be placed on the bottom in groups no larger than 10, tethered to a 3/8" line anchored with twin helix anchors (A 3). According to the application, Tract 1 will have 50 bags tied to the float and 30 cages in groups of ten on the bottom. Tracts 2 and 3 will each have 50 cages in groups of ten on the bottom (App 18-20). All cages are expected to be at least three feet below the surface at mean low water (SR 7). Mr. Konisky testified that he will mark the center of each "pod" of cages with a marking buoy (Konisky, testimony).

The applicant will acquire seed sufficient to result in 100,000 to 400,000 oysters for annual production. Maximum stocking density will be 1,000 oysters per bag, with 8 bags per grow-out system, or a total of 8,000 oysters per grow out system. Density of grow out operations will be 50 systems per tract, arranged in clusters of 10, at maximum capacity (A 7).

The three tracts will be used for different stages in the cultivation process. On Tract 1 (classified "Prohibited"), cultivation for each year class will begin in summer with seed acquisition and immediate grading into the small mesh grow-out bags and/or upweller compartments on the existing float. Summer seed oysters will then be moved to mid-mesh bags in early fall and placed in oyster cages for overwintering. During the second summer, one-year-old seed will be relayed to Tract 3 (classified "Open/Approved"). Tract 3 will then be closed for the next six months, and prior to the next year's seed movement, Tract 3 oysters from the previous year will be relayed to Tract 2 (classified "Open/Approved"). Harvesting will only be conducted on Tract 2 (A 6).

Small-scale kelp growing and harvesting operations will be conducted from November through April. In November, three kelp lines will be set, one on each tract between outside boundary markers; lines will be fortified with additional floats and mooring blocks. The lines will be less than ten feet below the surface, according to Mr. Konisky (Konisky, testimony). Ms Nelson noted that the commercial kelp farms in Casco Bay submerge their lines seven feet below the surface (Nelson, testimony). Kelp spores will be collected on the lease tracts or acquired from Ocean Approved, LLC, in Portland, Maine, and applied to the growing lines in November. In April, the lines and additional floats will be removed as the kelp is harvested (A 6).

Harvestable oysters will be hauled aboard a boat, which will then be docked at the existing float for sorting, scrubbing, bagging, and tagging. Market oyster bundles will be brought to the onshore cottage garage for icing and packing in transport coolers. Those oysters not suitable for harvest will be returned to Tract 2 and empty bags will be stored behind the Konisky cottage for drying (A 7). Kelp harvest processing will be done on the vessel as the line is collected, which will include cutting off the stem and packing kelp sheets in coolers (A 7).

Mr. Konisky currently operates a 14-foot skiff with a 20 HP engine to tend his LPA sites. According to the application, this will be "upgraded to an approximate 20 foot work boat with a mounted table and power hauler," which will be docked at Mr. Konisky's float (App 7)

The float on Tract 1 will be used as both a work float and a nursery with an upweller, as has been the practice under Mr. Konisky's LPA license. The float is customized with two removable 4' x 6' decking bays separated into sections to hold oyster seed in fine mesh compartments. A ¾ horsepower noiseless submersible electric pump (powered from the dock or a solar source) circulates water through the oyster seed. The raft will also be used as a staging site for docking a work boat, launching and retrieving gear, tumbling and grading oysters, and hauling oysters during harvest. The applicant also plans to have up to 50 floating bags attached to the perimeter of the float (A 4).

Buoys marking the lease boundaries will be secured by 3/8" lines to 50-lb concrete blocks.

Sugar kelp will be grown on 3/8" sinking lines attached to the outer pair of marker buoys on each of the tracts. These buoys are 8" float balls secured by 3/8" lines to 50-lb. concrete blocks. Kelp growing lines will installed only on the outside edge of each tract with lengths of 75, 300, and 125 feet on Tracts 1-3, respectively (A 4). To maintain the lines at the proper depth despite the weight of the growing kelp, 8" surface floats will be attached to the lines every 10 feet, and line floats with 100 lb. moorings will be installed every 50 feet (A 4-5).

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

Mr. Konisky has access to the water from his own land and dock; no other riparian lands will be used to access the lease tracts (A 10). The site report notes that there are three docks south of Mr. Konisky's, the nearest being 108 feet away, but the report states that the floating bags and submerged cages around the Konisky float on Tract 1 "will not impede the ingress or egress of neighboring riparian landowners" (SR 5).

Tract 2 lies west of a line of intertidal ledges that border both a small cove and the adjacent extensive mudflats bordering the shore. According to the site report, no docks or moorings were observed within the vicinity of Tract 2 (SR 6). One of the riparian properties (the Goodman property) directly east of Tract 2 has a large pier more than 400 feet south of this tract. Activities on Tract 2 will not obstruct this existing pier (SR 6).

Jason Goodman testified at the hearing that his family supports the Konisky lease proposal but want to be able to install another dock on the intertidal ledges east of Tract 2 to provide water access to their adjacent shore, should they wish to develop that portion of their land (Goodman, testimony). Mr. Konisky stated that he had discussed this with the Goodman family and that he believes that the configuration of Tract 2 allows adequate space for a dock on the ledges to the northeast of the lease tract, allowing access to deeper water from that part of the Goodman property (Konisky, testimony).

Tract 3 lies at the southwest edge of a small cove 377 feet south of the existing Goodman dock. According to the site report, the Goodmans have a mooring 409 feet northeast of Tract 3. Another mooring in the cove is approximately 170 feet north of Tract 3, and a float moored in the cove at the time of the site visit was 193 feet northeast of Tract 3. It does not appear that the proposed lease activities on Tract 3 will interfere with access or use of either the moorings or the float (SR 6-7).

As the site report notes, the nearest riparian landowner to Tract 3, the Turner Trust, has an Army Corps of Engineers permit to construct a 60-foot pier with 40-foot ramp and 12-foot by 24-foot float off the Turner shore (SR 6-7). Although no construction was undertaken during the five years for which the permit was originally issued in 2011, the Army Corps advised the Department that "This permit was issued in August of 2011. Due to language in our new General Permit (released on Oct. 13th), prior authorized projects such as this (built or not built) are still authorized."[2]

Mr. Konisky testified that he is aware of the permit and that he made numerous attempts to contact the Turners to discuss the matter but received no response. He said that no construction activity has been observable along the Turner shore, but that there is ample space for both the lease gear on Tract 3 and the proposed dock. There is ledge between the likely location of a Turner dock and Tract 3, Mr. Konisky said (Konisky, testimony; SR 6).

According to the site report, the dock as described in the permit would lie approximately 50 feet south of the southern boundary of Tract 3 (SR 6). Ms. Nelson testified at the hearing that the activities on the proposed lease tract would not interfere with the proposed dock. She said that the 50-foot separation was calculated assuming that the dock would extend in a straight line at right angles to the shore. Up to 50 bottom cages on the tract would have a minimum of three feet of water above them at all tidal stages (SR 7). This is adequate for navigation across the lease tract. The kelp line would be deployed on the northwest side of Tract 3, away from the shore, in the fall and winter months and would not affect navigation to and from the dock, should it be constructed (A 7).

---

[2] CF, e-mail from Jon Lewis, DMR to Diantha Robinson, DMR, 2-2-16

It appears from this evidence that the three lease tracts will not hamper riparian access to and from the shore.

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

A Harbormaster Questionnaire was sent to James Bolen, the Town of Friendship Harbormaster, on January 23, 2015 (CF). No response from the Harbormaster was received.

All three tracts of the proposed lease site occupy nearshore subtidal waters along the eastern shore of the Medomak River. Tract 1 surrounds the applicant's existing dock and float; only ingress and egress from the applicant's property would be affected. Tract 2 encroaches approximately 100 feet into a secondary channel to the west, between Hungry Island and the mainland. More than 500 feet of navigable waters would remain to the west of Tract 2 (SR 6).

Tract 3 is at the entrance to a small cove with a dock and pier. Approximately 180 feet of navigable water would be available in the cove to the north of Tract 3 (SR 7).

Vessels transiting through the general area will not be impeded by the proposed activities. All gear for Tracts 2 and 3 will be submerged. The planned "oyster condos" would protrude ~2.1 feet into the water column. A minimum of approximately 3 feet of water is expected to remain over the submerged cages at all tidal stages (SR 7).

Aquaculture lease sites are required to be marked for navigation purposes in accordance with U. S. Coast Guard requirements.

It appears from this evidence that the proposed lease tracts will not hamper navigation in their vicinity.

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

C. Fishing & Other Uses

The site report indicates that limited lobster (*Homarus americanus*) fishing (3 pot buoys) was observed within the boundaries of proposed Tract 2. All other observed lobster/crab fishing occurred within the deeper channel waters to the west of the proposed lease tracts. No other species were observed in commercially exploitable quantities during the site review (SR 7). Recreational hook-and-line fishing is expected to occur within the nearshore rocky habitat bordering the proposed lease tracts, so if the lease is granted, the potential exists for some line entanglement in the submerged gear (SR 7).

According to the application, between June and September, approximately 20-30 boats fish for lobster in the vicinity of the lease tracts, with up to ten of them hauling their traps on any given day (A 11). The majority of lobster traps are set in deeper channels of the bay, 100 yards or more away from lease

tracts. In the early part of the season (June – July) one or two lobstermen typically position 1-3 traps in total on portions of lease Tracts 1 and 2 for a few weeks before moving out into deeper waters. The applicant held discussions with the Friendship Harbormaster and discovered no other commercial fishing in the vicinity (A 11).

There are substantial soft shell clam resources in Muscongus Bay, but most are located over 5 miles to the north of the lease tracts in Waldoboro near the Medomak River head of tide (A 9). The applicant noted that current migratory fish activity in the Medomak is limited but includes juvenile American eel which often seek refuge in aquaculture grow-out bags (A 9).

The evidence indicates that while some level of commercial and recreational fishing is likely to occur, it is unlikely that the presence of the aquaculture lease site will interfere significantly with fishing of any kind.

Other aquaculture leases. The applicant holds two Limited Purpose Aquaculture (LPA) licenses for the suspended culture of American oysters within the general vicinity of the proposed lease; LPA KON-2-13 is located within the boundaries of proposed Tract 1 whereas LPA KON-1-12 is approximately 450 feet to the east of proposed Tract 3 (SR, Figure 2). The next-nearest aquaculture sites are located more than 3 miles to the east (straight-line distance) in the Meduncook River, Cushing and at Gay Island, Friendship (SR 7).

Exclusivity. The Applicant is not requesting exclusive use of the lease tract. The lobstermen who currently fish short-duration traps on or near the lease tracts will be able to continue without interference from the farm operations. According to the application, oyster cages will be moved away from any lobster use areas and marked to show where submerged gear is located. No lobstermen attended the public scoping session or the hearing (A 11).

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 Department biologists during the site visit are as follows:

The general nearshore area is characterized by scattered rocks, ledge outcrops, and sand and shell hash covered in various species of seaweed, including *Laminaria sp.*, and the invasive tunicate *Didemnum vexillum*. To the west the water deepens and the rocks and soft-shell clam hash give way to mud. Lobsters (*Homarus americanus*), particularly in the deeper holes between Tracts 1 and 2, rock crabs (*Cancer sp.*), green crabs (*Carcinus maenas*), hermit crabs (*Pagarus sp.*), mud snails (*Nassarius sp.*), periwinkles (*Littorina sp.*), frilled (*Metridium senile*) and burrowing (*Edwardsia sp.*) anemones, finger sponges (*Haliclona oculata*), and quahogs (*Mercenaria mercenaria*) were the primary epibenthic fauna observed. A small patch of eelgrass was discovered within the boundaries of proposed Tract 1 to the south of the existing dock and float (SR 7-8, A 9).

No attached or rooted vegetation was observed near Tract 3, although Ms Nelson noted that eelgrass historically grew about thirty feet from this tract (Nelson, testimony). Burrows presumably belonging to lobsters (*Homarus americanus*) and/or crabs (*Cancer sp.*) were commonly noted. Other than an occasional rock crab, little in the way of epibenthic fauna was seen. The area is typical of soft mud habitat. Data obtained from DMR document the historic presence of eelgrass approximately 20-30 feet to the southeast of the proposed lease tract (SR 8, A 9-10). Ms Nelson recommended that Mr. Konisky avoid setting gear on the small patch of eelgrass located in the southeast corner of Tract 1 (Nelson, testimony).

Fisheries & wildlife. According to data collected by The Maine Department of Inland Fisheries and Wildlife (MDIF&W), the proposed lease activities are not located within any designated Essential or Significant Wildlife Habitat (SR 9). Copies of the application were provided by DMR to the Maine Departments of Environmental Protection and Inland Fisheries and Wildlife for review. A letter to the applicant from MDIF&W indicated that the site locations are not in the vicinity of endangered, threatened, or special concern species and that no essential or significant wildlife habitat or fisheries habitats would be affected by the project (A 29-30).

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

According to the site report, "There are no public beaches, parks, or publicly owned conserved lands within 1000 feet of the proposed lease [and] the parcel adjacent to the applicant's property and proposed Tract 1 is owned by the Town of Friendship" (SR 9). However, only ingress and egress from the applicant's property would be affected by the location of the lease tract (SR 6). Although publicly owned, the town's parcel does not appear to be operated as a public park, dock, beach, or similar town facility. The Town of Friendship did not comment on the application or offer testimony at the public hearing. Thus, there is no evidence suggesting that any interference with the use of the parcel will be created by the proposed aquaculture activities.

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

F. Source of Organisms

Oyster seed will be obtained from Muscongus Bay Aquaculture, located in Bremen, Maine. Kelp seed will be obtained from the wild on the lease site or from Ocean Approved, LLC, located in Portland, Maine (A 1).

The applicant will be required to obtain a permit from the DMR Bureau of Public Health to relay oysters from Tract 1 to Tracts 2 or 3 for a minimum of 6 months prior to harvest (SR 9).

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 there is an existing flood light that shines from the cottage toward the dock on Tract 1 but that otherwise no lights will be used at the proposed lease site. No new lighting on the site is being proposed, and all operations and use of power equipment will be during daylight hours (A 8).

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

H. Noise

Noise-producing operations will consist of maintenance and predator control operations as well as vessel use. Routine maintenance to control fouling on gear and oysters will consist of scrubbing operations done in the water with a wetsuit as well as tumbling, using a low power noiseless electric engine turning a homemade slotted cylinder (A 6-7). This process will also involve transport of larger oysters on Tract 2 to the float for an hour of tumbling and immediate return to Tract 2 (A 7).

Vessel operations will require the use of a motor boat with a powered hauler to place and retrieve oyster grow-out systems and to manage kelp lines and harvest. Currently, the applicant conducts LPA activities using a 14-foot aluminum skiff with a 20 HP engine. This vessel will be upgraded to a 20-foot work boat with a mounted table and power hauler (A 7). Ms. Nelson observed that use of such vessels is consistent with normal activities in the area (Nelson, testimony).

The vessel will be docked from April to November at the existing float. Trips to Tract 3 will be infrequent (once a year move of seed and occasional maintenance visits for scrubbing). Trips to Tract 2 will be more frequent as oysters are maintained and harvested. There will likely be two vessel roundtrips from the dock to Tract 2 per week from April to November in order to harvest market size oysters. In addition, there will be roundtrips from the float to shuttle Tract 2 oysters for tumbling one or two weeks per year. Trips for kelp growing will be limited to line and spore installation in November and harvest and takedown of gear in April (A 7).

The upweller on Tract 1 will use a ¾ horsepower noiseless axial flow submersible electric pump. A similar low-horsepower electric engine will be used to power the tumbler used on occasion on the existing float (A 8). Use of the upweller will be in July and August during daylight hours. The tumbler will be used once a month between June and September and only for an hour at a time. (A 8).

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 overwintering cages and grow-out cages will be deployed under water and will not be visible. No other structures will be placed on Tracts 2 and 3, other than any navigational aids that may be required. On Tract 1, cages will be submerged on the bottom, and floating bags will be attached to the sides of the existing float. Oyster cages and grow-out bags will be black (A 6). Lease corners will be marked with 8" orange plastic buoys clearly labeled "SEA FARM" (A 6).

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:

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

2. The aquaculture activities proposed for this site will not unreasonably interfere with navigation.

3. 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.

4. 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.

5. 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.

6. The applicant has demonstrated that there is an available source of organisms to be cultured for the lease site.

7. The aquaculture activities proposed for this site will not result in an unreasonable impact from light at the boundaries of the lease site.

8. The aquaculture activities proposed for this site will not result in an unreasonable impact from noise at the boundaries of the lease site.

9. 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 1.0 acre to K2 Science, LLC for ten (10) years for the purpose of cultivating American oysters (*Crassostrea virginica*) and sugar kelp (*Saccharina latissima*), 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:

1. The lease site must be marked in accordance with both U.S. Coast Guard requirements and DMR Rule 2.80.[4]

2. Other public uses that are not inconsistent with the purposes of the lease are permitted within the lease boundaries.

---

[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."

[4] **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.

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: 3/18/14

Patrick C. Keliher, Commissioner
Department of Marine Resources