

NOTICE OF AGENCY RULE-MAKING ADOPTION

AGENCY: Department of Marine Resources

CHAPTER NUMBER AND TITLE: Chapter 2 Limited Purpose Aquaculture License Program

ADOPTED RULE NUMBER:
(LEAVE BLANK-ASSIGNED BY SECRETARY OF STATE)

CONCISE SUMMARY:
This rulemaking implements a number of changes to the Limited Purpose Aquaculture License (LPA). It deletes a number of references to other chapters of regulation to reduce redundancy. It includes several changes to reduce risk to public health, including prohibiting siting LPAs for shellfish in prohibited, restricted and conditionally restricted areas, with certain exceptions. It prohibits siting of marine algae or shellfish seed LPAs within the 300:1 dilution zone around wastewater treatment outfalls and prohibits the use of MOU or biotoxin monitoring protocols for LPAs. It limits the dimensions of LPAs to no longer than 1x400 ft, square or rectangular. It requires LPA license holders to complete an educational program prior to renewal of their license in 2019 and future years. It amends gear marking requirements, so that each individual piece no longer needs to be marked and requires buoys to be marked with the LPA identification number. It limits an individual to being listed on no more than eight additional LPAs other than their own. The rule also clarifies numerous provisions including allowable amendments mid-year, notice to municipalities, site identification on the application, and who must sign the application.

EFFECTIVE DATE:
(LEAVE BLANK-ASSIGNED BY SECRETARY OF STATE)

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DEPARTMENT OF MARINE RESOURCES

2.90 Limited-purpose aquaculture (LPA) license

1. LPA License

- A. No person may engage in the activities described in Chapter 2.90 and 12 M.R.S.A. §6072-C without a current LPA license issued by the Department of Marine Resources (DMR) in accordance with these regulations. An LPA license may be issued only to an individual or to a municipal shellfish management committee established pursuant to 12 MRSA §6671. The Department shall make application forms available. A non-refundable application fee in the amount of \$50 per license application for Maine residents or \$300 for non-residents must be paid when the application is submitted. LPA licenses expire at the end of each calendar year. No more than four (4) licenses may be held by any licensee at the same time. LPA licenses are non-transferable.

- B. Density standard. There can be no more than three (3) LPA licensed sites within a 1,000-foot radius of any other existing LPA licensed site. This standard does not require a minimum separation between individual licenses; rather it is a density of licenses within any area of a 1,000' radius. See Figure 1 below for four examples of this standard where a license site is encircled by a radius of 1,000 feet.

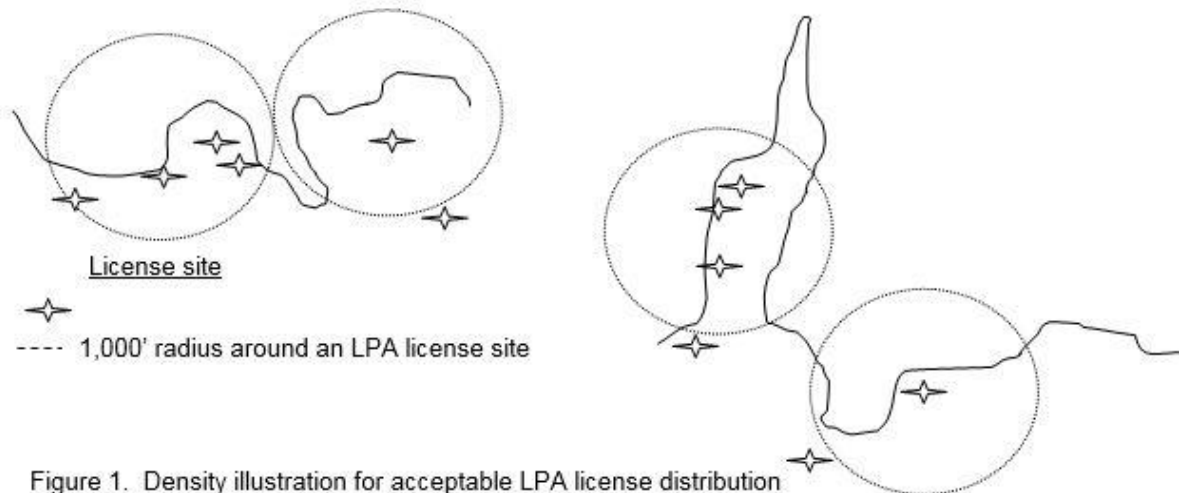


Figure 1. Density illustration for acceptable LPA license distribution

Exemption for riparian landowners. LPA licenses held by riparian property owners that are used to place authorized gear as listed in Chapter 2.90(2)(F)(2), ~~with the exception of shellfish rafts, immediately offshore within the length of shoreline under their ownership within 150' of the riparian's property at mean low water and perpendicular to the property boundaries,~~ are exempt from this density standard. Riparian landowners are responsible for demonstrating this requirement has been met. Requests for this exemption must be indicated on the application and are limited to one exemption per riparian property. The presence of a riparian landowner LPA does not count toward the density standard.

Exemption for certain sites. LPA licenses for gear installed within marina slips, lobster pounds, or similar enclosed or partially-enclosed sites in the coastal waters that are under the ownership or control of an entity which has the legal authority to restrict access to or use of the site and which

has consented in writing to the placement of the gear on the site are exempt from this density standard.

C. ~~Up to three (3) unlicensed assistants per license may be declared as helpers. An individual may be listed as an assistant on no more than eight (8) LPAs, other than their own, except that individuals who were listed on more than eight (8) LPAs as of March 1, 2018 may remain on the same additional LPAs until December 31, 2020, at which point they will be limited to being an assistant on no more than eight (8) LPAs. The list of unlicensed assistants may be amended, per instructions from the Department, to include new unlicensed assistants, but never to include more than three (3) individuals, by clearly indicating the new name(s) and having the license holder sign the Department approved amended copy of their application. When the license holder is a municipal shellfish management committee, the chairperson of the committee shall sign the copy on the committee's behalf. If the LPA license holder represents an educational institution, students are authorized to work under the direct supervision of the license holder who signed the application, as well as any listed helpers.~~

D. ~~A license holder shall comply with all applicable statutes and regulations pertaining to the harvest, handling, sanitation, processing, storage, possession, transport, sale and consumption of shellfish. The issuance of an LPA license conveys only those rights specified in Chapter 2.90 and 12 M.R.S.A. §6072-C.~~

~~Persons who are issued a limited purpose aquaculture (LPA) license pursuant to 12 M.R.S.A. §6072-C must comply with DMR regulations Chapters 2.95, 9 and / or 15, 21, and 23, established in accordance with the National Shellfish Sanitation Program Model Ordinance for the sanitary control of shellfish and Chapter 24.~~

E. ~~The Department may issue an LPA license when it determines that the requirements of 12 M.R.S.A. §6072-C and these rules have been met. In making this determination, the Department shall consider the information contained in the application, as well as other information relevant to the license criteria.~~

F.D. ~~When a proposed LPA license site falls within the bounds of a pending aquaculture lease application, the Department may, in its discretion, postpone the decision on that LPA license application until after the final decision on the pending application has been made.~~

2. Application requirements

A. Species

Applications must indicate the common and scientific names of the species to be cultivated under the license in accordance with Chapter 2.90(4).

B. Sources

Shellfish stock or seed may be obtained from either wild sources, hatcheries, or nurseries, with the exception of stock or seed of Hard Clam / quahog (*Mercenaria mercenaria*), Hen Clam (*Spisula solidissima*), or Soft shelled clam (*Mya arenaria*). Hatcheries or nurseries are the only permitted sources for these clam species, unless the Department issues a shellfish transplant permit that authorizes the collection of undersized animals. Marine algae (all seaweeds such as reds, greens, browns or kelps) and green sea urchins shall be obtained or cultured from stock originating in Maine coastal waters.

Applications must identify the source of the stock or seed to be cultivated or grown for each species, and for hatcheries or nurseries list the current name, address and phone number of the hatchery or nursery source for each species listed under Chapter 2.90(2)(A) above. ~~Applications must also include additional applicable information required pursuant to Chapter 2.90(4) and Chapter 24. A licensee may not change the source of stock without written authorization from DMR.~~

All sources of hatchery supplied seed or stock must be from hatcheries approved by DMR.

~~Annual inspection of a molluscan hatchery will involve:-~~

~~Laboratory and diagnostic examination of representative lots of shellfish to determine that seed or stock are free from evidence of infectious diseases, pests, parasites or other organisms other than the intended species;~~

~~Evaluation of the disease history and other problems associated with the hatchery or the source or area from which the seed or stock originates; and~~

~~An audit and evaluation of biosecurity practices used in the production of the seed or stock.~~

~~It is the responsibility of the hatchery or the importing grower to provide the Department with the annual inspection and pathology reports in a timely manner so that proper review can be conducted prior to the permit deadline.~~

~~Authorized shellfish species must be free from evidence of infectious diseases, pests, parasites or other organisms other than the intended species pursuant to Chapter 24.~~

~~No shellfish seed or stock may originate from a closed area pursuant to Chapters 95 and 96.~~

All wild shellfish stock or seed used for cultivation or grow-out must originate from within the same Health Area defined under Chapter 2.05 (1) (J) as the LPA site.

Use of wild shellfish stock or seed originating from outside the Health Area of the LPA site will require evidence that the seed or stock is consistent with the species authorized under Chapter 2.90(4) and may require evidence that the seed or stock is free from ~~evidence of disease~~, and will require a permit from DMR. ~~The permit shall be reviewed according to the requirements outlined in Chapter 24.05 through 24.10.~~

C. Site location

- (1) The application must provide one (1) geodetic coordinate in degrees/minutes/seconds to the hundredths place, the coordinate source (nautical chart number, the edition and its date or software name) and the datum of the coordinate source, for the center of the longest axis of the license site, and identify the directional orientation of the longest axis. The license site must be accurately depicted on a portion of a US Geologic Survey Topographic map or nautical chart.
- (2) The application must provide a brief description of the license site, ~~in particular noting~~ including the bottom characteristics of the license area and whether there are eelgrass beds present in proximity to the site.
- (3) The application must include a description of current commercial and recreational fishing and other uses of the proposed license area and the immediate vicinity of the proposed license area. The description should include type, duration and amount of activity.
- (4) The application must include a certified copy of the municipal tax map for the area in the vicinity of the license site. On the map, the applicant must indicate the actual scale of the copy of the map, the location of the proposed site, and a circle drawn to scale depicting a 300-foot radius from the site. The application must also include a list of the names and current mailing addresses of the riparian owners of shorefront property within 300 feet of the site, certified by the municipal clerk or by the Bureau of Revenue Services, Unorganized Division, for unorganized territory. If the license site is located in a marina slip or lobster pound or similar site as described in C. 2.90 (1) (B) ~~above~~, the owner or controlling entity of which has consented in writing to the placement of the gear, the map and list are not required.

D. Required Signatures

The application form shall require the following signatures:

- (1) Applicant. The individual applicant's signature, including printed name and date, which shall verify that the application does not contain false information, and that the applicant will comply with all applicable laws and regulations, and that the applicant agrees to comply with biotoxin monitoring requirements pursuant to Chapter 2:90(5)(C) is required. When the applicant is a municipal shellfish management committee, the chairperson of the committee shall sign the application on its behalf, and a primary point of contact shall be provided including name, address, email address and phone number. When the applicant represents an educational institution, the administrator or an instructor shall sign the application on its behalf.
- (2) Municipality. Harbormaster's signature, which shall verify that it is the harbormaster's opinion that the license activities will not unreasonably impede safe navigation, will not unreasonably interfere with fishing or other uses of the area, and will not unreasonably interfere with riparian ingress and egress.

In municipalities not served by a harbormaster, a municipal officer (~~selectman, councilor, alderman, or mayor, see 30-A MRS §2001 (10))~~ or other elected municipal official may sign the application. For the unorganized territory where a harbormaster does not have jurisdiction, a marine patrol officer may sign.

The opinion of the harbormaster, municipal officer or official, or marine patrol officer that the license activities will not will not unreasonably impede safe navigation, will not unreasonably interfere with fishing or other uses of the area, and will not unreasonably interfere with riparian ingress and egress, shall not be determinative, but may be considered by the Department as a factor in deciding whether the criteria for the issuance of an LPA license have been met.

(3) Intertidal sites

- (a) Municipal Shellfish Management Committee. If the proposed location is above the extreme low water mark in a municipality with a municipal shellfish management committee established pursuant to [12 MRSA §6671](#), the signature of the chairperson of the municipal shellfish management committee, which shall verify that the proposed LPA will not unreasonably interfere with the activities of the municipal shellfish management program, is required.
 - (b) Riparian landowner. For license sites located above the mean low-water mark, the signature of the riparian landowner, which shall verify that the landowner consents to the licensed activity being conducted on the intertidal land, is required.
- (4) Signature missing or withheld. The absence of any required signature will result in the denial of the application. At the request of the applicant the Department may review the basis for a harbormaster's or municipal officer's or official's denial of a signature. The Department may, following such review and upon a determination that the signature was withheld without basis, approve a license application. Such a determination must take into consideration a review by the local marine patrol officer of the application and a statement from the marine patrol officer that the license activities will not unreasonably impede safe navigation, will not unreasonably interfere with fishing or other uses of the area, and will not unreasonably interfere with riparian ingress and egress.

E. Notification of riparian property owners & municipalities

- (1) The applicant shall notify all riparian owners within 300 feet of the LPA site by sending, by certified mail, a copy of the LPA application, including information about how riparians can submit comments to the Department regarding issuance or renewal of the license, to the address certified by the municipal clerk or Bureau of Revenue Services, Unorganized

Division for unorganized territory. ~~Failure to include a copy of the receipt for certified mailing must be included with the application will be grounds for denial of the application.~~ If the license applicant is the only riparian, or if the license site is located in a marina slip or lobster pound or similar site as described in subsection (1)(B) above, the owner or controlling entity of which has consented in writing to the placement of the gear, the notification requirement is waived.

- ~~(2) Failure to notify riparians and include copies of the receipts for certified mailing with the submitted application will result in the denial of the application.~~
- ~~(3)~~ (2) The Department shall notify any town or plantation of the final status of an application. Failure to do so does not invalidate a license.

F. Site Plans

(1) Plan view

The application must include a plan view, which must be on 8.5" x 11" size paper and show the maximum layout of gear to be deployed drawn to scale, with the scale indicated to verify the 400 square foot limit. The site plan must include a north arrow with True or magnetic clearly indicated, arrows that indicate the tide's primary ebb and flood directions, mean high and low-water marks, and the distance from the license to these mean high and low-water marks. The site plan shall also include to a distance of 1,000 feet from the license in all directions, the locations of any federal or local channels, anchorages, moorings, structures ~~(including other LPA sites)~~, existing lease boundaries, other LPA licenses (including whether or not they are exempt from the density requirement in 2.90 (1)(B)), DMR water quality closure lines (including distances), and property lines for all riparian owners within 300 feet.

(2) Gear description:

If gear is to be used, it may be deployed on the surface, in the water column, on the sea bottom, or below the surface of the bottom. The applicant shall indicate which of the following authorized gear will be used, and include an overhead view and cross-sectional elevation view of the gear that includes specifications on all mooring equipment to be used. ~~Aquaculture gear, other than the list of equipment described in this section, listed below, may not be used. The descriptions are generalizations of the physical appearance, purpose and uses of each type of gear and are not a substitute for a project specific description with the dimensions of the gear to be used on site.~~ All dimensional information on the mooring equipment contained inside and outside the boundaries must be included pursuant to 12 M.R.S.A. §6072-C (5)(E)(2).

(a) Upweller or "FLUPSY"

~~An upweller device or "floating upweller system" (FLUPSY) is a self-contained approximately 8 by 20 foot raft similar to a floating dock that sits above the surface of the water roughly 2 feet. The raft generally contains approximately 12 circular "silos" or 30-inch by 20-inch diameter culture tubes that are partially constructed with fine mesh that allows ambient seawater to be pumped or tidally driven through the silos. The flow of seawater provides nutrients to shellfish "spat" or tiny seed contained within the silos. The spat are removed when they are large enough to be transferred to a grow-out site. These devices are most conveniently placed in marinas where power is available to operate a noiseless ¾ horsepower axial flow submersible electric pump.~~

(b) Shellfish rafts, associated predator nets and spat collectors

~~A shellfish raft is similar to a floating dock utilized as a working platform from which seed shellfish are suspended or contained by some form of device in which the shellfish are reared to a market size product. The raft may also be used as a work site to seed, sort, clean or harvest product and perform maintenance on the culture devices. A typical blue mussel raft is a floating square frame with beams spaced every foot spanning the raft width from which numerous ropes or dropper lines are suspended but do not touch the seafloor, to inhibit predators climbing up the ropes to eat the mussels. Seed mussels are attached to dropper lines mechanically or by hand with a biodegradable cotton mesh and~~

prevented from slipping off the lines by the placement of 6-inch pegs every foot or so. The vertical profile of an unseeded raft ranges from 2.5 feet above the water surface to roughly a 1-foot elevation when seed mussels are attached. A shellfish raft can be a solid platform from which shellfish tray racks and or mesh bags containing shellfish are suspended beneath the raft in the water. The suspended devices would be accessed through openings similar to a trap door in the surface of the float. Predator nets are commonly suspended with weights for adequate tension and have large diagonal mesh openings of at least four (4) inches. Dropper lines may be used to collect mussel spat from the water column when they attach to the lines.

- (c) Shellfish tray racks and over wintering cages
Shellfish tray racks have a cubic dimension similar to a box, cage or column-like unit that is made of coated wire mesh or rigid plastic on a wood, plastic or metal frame. A rack will generally contain interior shelves that can hold 1-2 mesh bags per shelf and is used to contain seed shellfish. The mesh material allows water to pass through providing nutrients to the shellfish.
- (d) Soft bags, semi rigid bags and floating trays
Bags and tray devices are generally constructed of a plastic or similar material of various mesh sizes that are changed throughout the growing season to accommodate greater water flow as the shellfish increase in size. The bags and trays vary in size. Bags have general dimensions of 16-22 inches wide by 28-40 inches long by 2-3 inches in height. Bags are most often connected end to end, floated on the surface using pipe insulation placed inside the bags on the sides and moored at each end of length or string of bags. Trays may refer to the shelves contained in the shellfish tray racks described under Chapter 2.90(2)(F)(2)(c). Tray may refer to a rigid plastic or wire mesh container generally 3 feet wide by 4 feet long by 6 inches high that is deployed between parallel lines and may be floated on the surface or submerged.
- (e) Lantern nets and pearl nets
A lantern net typically is a five or ten tier set of circular nets of approximately 18-inch diameter and 6-inch depth suspended from a central line. Mesh sizes typically vary from 1/8-inch mesh to 1.5-inch mesh size. A pearl net is a single, pyramidal mesh enclosure that is used to hold shellfish. Pearl nets are typically tied together in a string extending vertically in the water column.
- (f) Fencing and brushing
Fencing and brushing are most commonly used by municipal shellfish programs in the intertidal zone for the collection of soft shell clam spat in their management plans in conjunction with intertidal anti-predator netting.
- (g) Moorings
Mooring devices vary in terms of materials, tension ratings and range of sizes available and are generally site specific. For the purposes of Chapter 2.90, they include the anchor type and all tackle securing fixed or floating gear.
- (h) Scallop spat collector bags
Scallop spat collector bags are mesh bags containing additional mesh material to increase the volume of the bags. They are placed in the water column to catch larval scallops and allow settlement and initial growth inside the bags. Multiple collector bags are often attached to a single vertical line.
- (i) Scallop ear hangers
Scallop ear hangers are devices that attach individual scallop shells to suspended line. Each line typically has multiple individual scallops attached by ear hangers.
- (j) Marine algae — seaweed (rope, rafts with ropes attached, bags, long Long lines (vertical or horizontal), or /rope grids. Ropes or bags may be placed on the surface or submerged.

~~(k) Bottom anti-predator netting~~

~~Anti-predator netting may be spread over the bottom or over gear placed in or on the bottom to exclude predators from the species being cultured. Mesh sizes should be appropriate to the type of predator being excluded. Nets must be anchored so as to prevent shifting due to tides or currents in order to reduce the risk of entangling birds.~~

G. Renewal of licenses

- (1) ~~In order to~~ To be eligible to renew an LPA license, a license holder in 2019 or in any subsequent year, the applicant must have completed any educational requirements established pursuant to 12 M.R.S.A. §6072-C(3)(A) and must submit an application for renewal to the Department online or postmarked no later than December 31st. If a renewal application is not submitted to the Department by December 31st, the license holder is required to insure that remove all gear and equipment at that licensed site is removed from the water from the licensed site on or before the termination of the license on December 31st.
- (2) Renewal applications shall be submitted on a form provided by the Department. A non-refundable application fee must be paid in the amount of \$50 per renewal application for Maine residents and \$300 for nonresidents.
- (3) The Department shall send an annual notice of ~~the all~~ proposed renewals to the municipality in which ~~the those~~ licenses is are located and request that the municipality post the notice. The notice shall state that ~~the municipality and riparians~~ anyone may provide comments to the Department on the proposed renewals within 14 days of the date of the notice.
- (4) An LPA license may be renewed if the license activities continue to meet the provisions of Chapter 2.90 and 12 M.R.S.A. §6072-C.

3. Site Limitations

A. Maximum size

Gear on any one LPA, excluding mooring equipment, may not occupy an area larger than 400 square feet. An LPA may be contiguous to another LPA.

B. Dimensions

The site must include four 90-degree angled corners, and may be no less than 1' or greater than 400' on any one side. Dimensions must be provided in whole feet.

BC. Territorial waters

LPA license sites must be located within Maine's territorial waters as defined in 12 M.R.S.A. §6001(48-B) and pursuant to 12 M.R.S.A. §6072-C(2).

CD. DMR Water Quality Program Closure Areas

- (1) LPA license sites may not be located within 300 feet of any area classified as prohibited closure boundary line.
- (2) Except as provided in subsection (3) below, LPA license sites may only be located in areas that are classified as approved, or conditionally approved, restricted, or conditionally restricted, pursuant to DMR regulations Chapters 95 and 96. Should an area be downgraded, an LPA located within the area may be renewed for one additional year at the next date of renewal.
- (3) Exemptions for shellfish seed.
 - (a) Shellfish seed. An LPA license site may be located within an area classified by DMR as prohibited, restricted, or conditionally restricted under Chapters 95 and 96, provided that

only shellfish seed is cultured on the site. An LPA license site for shellfish seed may not be located within the 300:1 dilution zone around a wastewater treatment plant outfall. Shellfish seed from an LPA site in a prohibited, restricted, or conditionally restricted area can be moved only to another aquaculture lease or license site and only as provided in this subsection. The seed must be segregated from other shellfish on the destination site as required by the DMR Public Health Bureau.

aj. Seed that is 25 mm or less in size can be moved to another aquaculture site without a relay permit under Chapter 21. The lessee or licensee of the destination site must notify the DMR Public Health Bureau at least eight days in advance that the seed will be moved. If there is harvestable product on the destination site, the area around the seed will be closed to shellfish harvesting for six months by DMR.

bij. Seed that is mixed in size, both over and under 25 mm or that is greater than 25 mm, requires a relay permit under Chapter 21 ~~in order~~ to be moved to another aquaculture site. The area around the seed will be closed to shellfish harvesting for six months by DMR.

(4)(b) Marine algae and green sea urchins

The boundary line and prohibited, restricted and conditionally restricted area prohibitions in Chapter 2.90(3)(C)(1 and 2) above do not apply to the sole culture of marine algae or green sea urchins. If the LPA site species list includes molluscan shellfish authorized according to Chapter 2.90(2)(B) this exemption does not apply.

(c) Marine algae

The boundary line and prohibited, restricted and conditionally restricted area prohibitions in Chapter 2.90(3)(C)(1 and 2) above do not apply to the sole culture of marine algae, except that an LPA license site may not be located within the 300:1 dilution zone around a wastewater treatment plant unless marine algae or seaweed cultured on the site is not for human consumption and applicants have provided satisfactory evidence to the Department that the site is for remediation purposes only, or there is a plan for destruction or compost.

DE. Department of Inland Fisheries and Wildlife (IF&W) Essential Habitats

LPA license sites may not be located within the areas regulated pursuant to 12 M.R.S.A. §§~~7753-12803, 7754(2)(3)-12804 and 7755-A(1)(2)(3)-12806~~ and pursuant to IF&W regulation 09-137 CMR Chapter 8, Endangered Species. Maps showing the boundaries of essential habitat are available from the IF&W regional headquarters, municipal offices, the Land Use Regulation Commission for unorganized territories and DEP regional offices.

EF. United States Army Corps of Engineers (ACOE) Authorization

Upon receipt of an LPA license application, the Department shall forward a copy of the application to the ACOE for their review and approval. A permit from ACOE is required prior to the placement or use of any gear proposed in a LPA application. No structures may be located within the boundaries of a Federal Navigation Project.

4. Authorized Species

An LPA license may be issued only for the cultivation of the following species: blue mussel (*Mytilus edulis*), hard clam / quahog (*Mercenaria mercenaria*), hen clam (*Spisula solidissima*), American or eastern oyster (*Crassostrea virginica*), European oyster (*Ostrea edulis*), sea scallop (*Placopecten magellanicus*), soft-shelled clam (*Mya arenaria*), razor clam (~~*Ensis directus*~~ *Ensis leei*), green sea urchin (*Strongylocentrotus droebachiensis*), bay scallops (*Aequipecten irradians*), and for marine algae (all seaweeds, including kelp). Notwithstanding 12 M.R.S.A. §6001 (41), for purposes of Chapter 2.90, the terms "shellfish" and "seed" include sea scallops (*Placopecten magellanicus*) and bay scallops (*Aequipecten irradians*).

5. Activity limitations & requirements

- A. The licensed activity must not generate a discharge into territorial waters pursuant to 12 M.R.S.A. §6072-C (2)(A), 38 M.R.S.A. §413 and DMR regulations Chapter 2.05(7-1-G). ~~The use of marine algae legally obtained from Maine waters without significant modification as food for green sea urchins on an LPA site does not constitute a discharge.~~
- B. An LPA license applicant may declare assistants to be named on any LPA license. Declared assistant(s) named on any LPA license must be in possession of a copy of the LPA license whenever engaged in any activity at that licensed site. Individuals other than the license-holder's declared assistants may assist the license holder and, in that capacity, utilize, raise, lift, transfer or possess any approved aquaculture gear belonging to that license holder if a hurricane warning issued by the National Weather Service is in effect for any coastal waters of the State.

C. Marine Biotoxins

(1) Closed Area compliance

~~Harvest of shellstock is prohibited in areas that are closed due to marine biotoxins pursuant to Chapter 96 and bacterial pollution pursuant to Chapter 95, and in those areas that may be closed by the Department. There shall be no provisions made for biotoxin monitoring or testing for LPA sites. For details about closure lines contact Marine Patrol Division I, west of Port Clyde, Tel. (207) 633-9595 or Marine Patrol Division II, east of Port Clyde, Tel. (207) 667-3373, or telephone the Shellfish Sanitation Hotline at 1-800-232-4733 or on the web at: http://www.maine.gov/dmr/rm/public_health/closures/shellfishhotline.htm.~~

~~(2) Monitoring requirements~~

~~For any marine biotoxin-producing organism for which criteria have not been established under the National Shellfish Sanitation Program Model Ordinance, either cell counts in the water column or biotoxin meat concentrations may be used by the Department as the criteria for not allowing the harvest of shellstock.~~

~~(a) Paralytic Shellfish Poisoning (PSP); Diarrhetic Shellfish Poisoning (DSP); Domoic Acid (ASP) and Neurotoxic Shellfish Poisoning (NSP)~~

~~When local sampling by the Department indicates PSP, DSP, ASP or NSP toxin is present in the area, or phytoplankton which may cause PSP, DSP, ASP or NSP toxin are found in the area, then analysis for PSP, DSP, ASP or NSP will be required prior to DMR approval for the harvest or sale of shellstock from the LPA site or by persons who are registered or permitted as indicated above. A minimum of twelve (12) shellfish must be submitted by the LPA license holder, registrant or permit holder to the DMR Public Health Division Biotoxin Laboratory, by contacting the Boothbay Harbor facility at (207) 633-9555 or the Lamoine facility at (207) 667-2418, at least five (5) business days prior to anticipated harvest.~~

~~Prior to approving the harvest or sale of shellfish from any lease or LPA site, or by a registrant or permit holder, which has submitted shellfish samples to DMR, the DMR may, in its sole discretion, send samples to an accredited analytical laboratory for analysis for PSP, DSP, ASP or NSP toxin.~~

~~(3) Requirements and procedures~~

~~Sample results will be reported to the license holder on a marine biotoxin analysis certificate issued by the DMR Public Health Division.~~

~~(a) Monitoring~~

~~The cost of monitoring for marine biotoxins, when required under the provisions of this section, shall be paid for by the license holder. When monitoring is required, it must be done prior to the harvest of shellfish from the site for human consumption, or for any other commercial or non-commercial use.~~

D.C. Record keeping

Complete, legible and accurate records of transport, transfer, harvest, and monitoring must be maintained by the license-holder and be made available for inspection for at least two (2) years. The records must include the:

- (1) Department's LPA license number, site location, and date and data related to marine-biotxin analyses;
- (2) Source of shellfish, including seed if the seed is from growing areas which are not in the approved classification status pursuant to Chapter 2.90 and/or Chapter 15;
- (3) Dates of transplanting and harvest;
- (4) Detailed records of sales; and
- (5) Water source, its treatment method, if necessary, and its quality in land based systems pursuant to Chapter 15.32, 15.33, 15.34 and or 15.35; and
- (6) ~~Records of the origin and health status of all seed or shellfish stocks reared on the site must also be maintained.~~

E. Prohibitions

~~Commingling of shellstock is prohibited, except that primary dealers, as defined in Chapter 15.02(65), who are authorized by the Department in accordance with Chapter 16.21(C), may commingle shellstock. See Chapter 9.01(B).~~

~~Harvesters may not conduct wet storage activities. Wet storage of shellstock is prohibited, except by certified dealers pursuant to a current permit issued by the Department in accordance with Chapter 15. See Chapter 9.01(C).~~

D. Amendments

No changes may be made to the LPA license during the licensing term without a written amendment of the license by the Department. Allowable mid-term amendments include the following:

1. Source of stock
2. Species
3. Mooring Type/Layout
4. Assistants
5. Contact information

6. Maintenance Standards

- A. All aquaculture gear must be maintained, and kept in a fully operational condition. The license holder is obligated to collect and or remove any loose or errant gear or equipment that is dislodged from the licensed site.
- B. Each LPA site that has gear on it must be clearly marked at each corner, centerpoint, or at the ~~center~~ each end of the gear, as is appropriate to the gear type deployed, with a marked floating device, such as a buoy, or buoys able to support at least two (2) inch high letters spelling "Sea Farm". ~~The license holder's name, homeport or home address, and LPA license number~~ Site ID and "Sea Farm" must be clearly displayed on every marked buoy floating device and piece of gear or equipment. The marked buoys floating devices shall be readily distinguishable from interior markers and aquaculture gear.
- C. LPA license sites must be marked in accordance with the United States Coast Guard's Aids to Private Navigation standards and requirements.

2.95. Water Quality Classifications and Shellfish Aquaculture

A. Compliance

1. **Applicability:** This section applies to those persons who are issued an aquaculture lease pursuant to 12 M.R.S.A. §6072, §6072-A, or 6072-B, or a limited-purpose aquaculture (LPA) license pursuant to 12 M.R.S.A. §6072-C
2. **Water Quality:** Water quality at any site used for aquaculture shall meet the criteria for the approved, conditionally approved, restricted or conditionally restricted classification, except for the culture of seed, as described in Chapter 2.90(3)(D)(C)(3) and 2.95(A)(4).

Any shellfish harvested pursuant to an aquaculture lease, LPA, or permitted site, shall be subjected to relaying or depuration prior to direct marketing if the culture area or facility is located in or using water which is in:

- (a) The closed status of the conditionally approved classification;
- (b) The restricted classification; or
- (c) The open status of the conditionally restricted classification.

Relaying of shellfish requires a permit pursuant to DMR Regulations Chapter 21 Relay of Shellfish.

Depuration of shellfish requires a permit pursuant to DMR Regulations Chapter 20 Depuration.

3. **Closed Area compliance:** Direct market harvest of shellstock is prohibited in areas that are closed due to marine biotoxins pursuant to Chapter 96 and bacterial pollution pursuant to Chapter 95, and in those areas that may be closed by the Department. For details about closure lines contact Marine Patrol Division I, west of Port Clyde, Tel. (207) 633-9595 or Marine Patrol Division II, east of Port Clyde, Tel. (207) 667-3373, or telephone the Shellfish Sanitation Hotline at 1-800-232-4733 or on the web at: <http://www.maine.gov/dmr/shellfish%20sanitation%20hot%20line.htm>.
4. **Seed Shellstock source:** Seed that comes from an approved hatchery will not require a permit, except for any applicable permits for importation or introduction. Seed that comes from any growing area in the approved classification or the conditionally approved classification in the open status will not require a permit. Seed that comes from growing areas in any other classification will require a permit. A permit may be issued by the department provided that:
 - (a) The movement of the seed is approved by the Commissioner if it is from a growing area in other than the approved or conditionally approved classification. Applications may be requested to be mailed by writing the Department of Marine Resources, attn: Public Health Division, 21 State House Station, Augusta, Maine 04333-0021 or may be printed from the Department's web site;
 - (b) Seed from growing areas in the restricted or prohibited classification have poisonous or deleterious substances that are at or below acceptable levels.
 - (c) Seed from growing areas in the prohibited classification are cultured for a minimum of 6 months.
 - (d) Seed for LPAs must meet the requirements of the Health Areas in Chapter 2.90(3)(D)(C)(3) and 2.05(1)(J).
 - (e) **Inspection:** The Commissioner and his/her agents may inspect the lease site, seed, operations, and business records of seed permit holders.

B. Definitions

In addition to the definitions set forth in 12 M.R.S.A. §6001, Chapters 2.05 and 15.02, the following definitions shall apply in interpretation of this chapter.

1. "Approved" means a classification used to identify a growing area where harvest for direct marketing is allowed by the Department.
2. "Classification of Growing Areas" means that the growing area has been subjected to a sanitary survey and shall be correctly classified based on the twelve year sanitary survey, and its most recent triennial or annual reevaluation when available, as any one or combination of the following:

- (a) Approved;
- (b) Conditionally approved;
- (c) Restricted;
- (d) Conditionally Restricted; or
- (e) Prohibited.

Growing areas not subjected to a sanitary survey every twelve years shall be classified as prohibited. Growing areas which do not have a completed written triennial reevaluation report shall be placed in the closed status immediately.

3. "Closed Status" means any classified growing area closed for a limited or temporary period because of:
 - (a) An emergency condition or situation;
 - (b) The presence of biotoxins in concentrations of public health significance;
 - (c) Conditions stipulated in the management plan of conditionally approved or conditionally restricted areas; or
 - (d) Failure of the DMR to complete a written sanitary survey or triennial review reevaluation report.
4. "Conditionally approved" means a classification used to identify a growing area which meets the criteria for the approved classification, only under certain conditions described in a management plan. See Ch. 15.02(A)(16).
5. "Conditionally restricted" means a classification used to identify a growing area which meets the criteria for the restricted classification, only under certain conditions described in a management plan. See Ch. 15.02(A)(17).
6. "Growing area" means any site which supports or could support the propagation of shellstock by natural or artificial means. See Ch. 15.02(A)(36).
7. "Open Status" means, except for an area in the prohibited classification, any correctly classified growing area that is normally open for the purposes of harvesting shellstock, subject to the limitations of its classification.
8. "Reopened Status": a growing area temporarily placed in the closed status shall be returned to the open status only when:
 - (a) The emergency situation or condition has returned to normal and sufficient time has elapsed to allow the shellstock to reduce pathogens or poisonous or deleterious substances that may be present in the shellstock to acceptable levels. Studies establishing sufficient elapsed time shall document the interval necessary for reduction of contaminant levels in the shellstock to pre-closure levels. In addressing pathogen concerns, the study may establish criteria for reopening based on coliform levels in the water; or
 - (b) The requirements for biotoxins or conditional area management plans as established in the Department's Biotoxin Contingency Plan or Conditional Area Management Plans, respectively, are met; and
 - (c) Supporting information is documented by a written record in the central file.
9. "Restricted" means a classification used to identify a growing area where harvesting shall be by special license and the shellstock, following harvest, is subjected to a suitable and effective treatment process through relaying or depuration. See Ch. 15.02(A)(75). (The term "special license" in this chapter section does not refer to licenses issued pursuant to 12 MRSA §6074.)
10. "Seed" means any juvenile shellstock that meet one of the following criteria:
 - (a) Which are obtained from hatcheries.
 - (b) Which do not exceed 10 percent of the market weight.
 - (c) Which are 6 months or more growing time from market size.Note: Seed mussels are defined separately in Chapter 12.03(B).

11. "Shellfish" means all species of:
 - (a) Clams, mussels, quahogs and oysters, whether:
 - (1) Shucked or in the shell;
 - (2) Fresh or frozen; and
 - (3) Whole or in part.
 - (b) Scallops in any form, except when the final product form is the adductor muscle only.
See Ch. 15.02(A)(81)
12. "Shellstock" means live molluscan shellfish in the shell; and shellfish which have not been removed from their shells (12 MRSA §6001(42) and Ch. 15.02(A)(82)).
13. "Status of Growing Area" means that the status of a growing area is separate and distinct from its classification and may be open, closed or inactive for the harvesting of shellstock.

Basis Statement

This rulemaking implements a number of changes to the Limited Purpose Aquaculture License (LPA). It deletes a number of references to other chapters of regulation to reduce redundancy. It includes several changes to reduce risk to public health, including prohibiting siting LPAs for shellfish in prohibited, restricted and conditionally restricted areas, with certain exceptions. It prohibits siting of marine algae or shellfish seed LPAs within the 300:1 dilution zone around wastewater treatment outfalls and prohibits the use of MOU or biotoxin monitoring protocols for LPAs. It limits the dimensions of LPAs to no longer than 1x400 ft, square or rectangular. It requires LPA license holders to complete an educational program prior to renewal of their license in 2019 and future years. It amends gear marking requirements, so that each individual piece no longer needs to be marked and requires buoys to be marked with the LPA identification number. It limits an individual to being listed on no more than eight additional LPAs other than their own. The rule also clarifies numerous provisions including allowable amendments mid-year, notice to municipalities, site identification on the application, and who must sign the application.

Based on the comments received during the rulemaking process, the Department has made the following changes:

- **Dimensions:** As originally proposed, the rule would have limited the dimensions of LPAs to no longer than 4x100 feet, square or rectangular. The Department concurs with the comments received that this change would negatively impact many existing operations, and inhibit the use of LPAs for scallop and seaweed aquaculture. However, the Department does feel that it is necessary to create some parameters for the allowable dimensions of LPAs. Rather than create dimensions that are species specific, the final rule limits dimensions for any LPA to 1'x400'.
- **Assistants:** The proposed rule would have limited an individual to being listed on no more than four LPAs as an assistant. Several comments were received that indicated existing operations rely on being able to be listed on more than four LPAs as assistants and that limiting it to that number would have negative impacts on the operation. In consideration of those comments, the Department has amended the rule to allow an individual to be listed as an assistant on up to eight other LPAs. Individuals who are currently listed on more than eight other LPAs will be allowed to continue to be listed on those same LPAs until 2021.
- **Riparian Landowner Density:** Based on a comment that requested further clarification, the final rule specifies that the riparian landowner density exemption does not restrict either the riparian or non-riparian density.
- **Siting Prohibitions:** The rule prohibits siting LPAs for shellfish in prohibited, restricted and conditionally restricted areas with certain exceptions. Based on comments received, the Department amended the rule to allow for a one-year license renewal to provide an opportunity to identify a new site should an area's classification be downgraded and require the termination of the LPA due to water quality classification.

Summary of Comments

Notice of this proposed rulemaking appeared on January 3, 2018 in the five major daily newspapers as published by the Secretary of State. On January 3, 2018, the rule was posted on the DMR website, and electronic messages were sent to individuals who subscribe to DMR notices. Public hearings were advertised in compliance with the procedures outlined in the Maine Administrative Procedures Act and were held as follows: January 22, 2018, 6:00PM, Yarmouth Log Cabin, 196 Main Street, Yarmouth, Maine; January 24, 2018, 6:00PM, Rockland Ferry Terminal, 515 Main Street, Rockland, Maine.

- Total comments received: 39
- Total comments in opposition: 34
- Total comments in favor: 1
- Total neutral comments: 4

I. Yarmouth Public Hearing Attendance

Members of the Public (37)	DMR Staff (4)
Adam St. Gelais, Sebastian Belle, Thomas Henninger, Lori Howell, Terry Watson, Sally Atwater, Merritt Carey, Nate Perry, Todd Jagoutz, Dana Morse, Derek Devereaux, Dan Devereaux, Jesse Devereaux, Peter Stocks, Marlow Kendall, Tollef Olson, Nelson Marass, Laura Marass, Doug Niven, Jordan Kramer, Willy Leathers, Julia Maine, Matt Moretti, Jessica Joyce, Sean Bergen, Stephen King, Carol White, Hugh Cowperthwaite, Cameron Thompson, Randy Hamilton, Chris Green, Joe Hauzner, Bob Earnest, Theodore Willis, Jim Buxton, Eric Oransky, Tom Klodenski	Jon Lewis, Flora Drury, Kohl Kanwit, Amanda Ellis

Opposed (12)

Tollef Olson, President, Oceans Balance

I want to testify towards the LPA for seaweed. The 4x100 would be prohibitive for seaweed. The seaweed is underwater, first off, so there isn't a lot of surface action to cause the problems that have potentially been mentioned. Also, there are rules in place already if a site becomes a nuisance the DMR already has the law and teeth to go to that site and take it away or shut it down. I would also like to comment that a raft doing a circle on a mooring is no different than the deflection that you see in the lines on the seaweed. The 4x100 would be extremely detrimental to seaweed because of the

crop we are growing and we do stay within those confines with the new gear we've designed. We're able to tighten our mooring systems at low tide and keep them nice and snug, so I am against changing the dimension for seaweed lines.

Jordan Kramer, Winnegance Oyster Farm

Just to note this has already been submitted in writing. The changes proposed to the Limited Purpose Aquaculture program would very adversely affect my oyster farming business.

Specifically, the changes to the dimensions of LPA sites, limiting footprints to minimum width of four feet and a maximum length 100 feet in length would force me to shrink my existing permitted operation by as much twenty-five percent. This threatens the viability of my business, and I imagine the businesses of the many others who use floating bags or cages.

My oyster cage, like most commercially available floating oyster cages and bags, are three feet wide. Complying with the existing rule, I have deployed these cages on 133 foot longlines. The proposed rules would cost me twenty-five percent of my longline length, with no way to fully recoup the lost growing space using my existing gear. I obviously can't make my existing cages wider, and custom building four-foot wide gear to replace my current cages would be prohibitively expensive. Fitting all of my existing cages into the proposed shorter footprint wouldn't address the effective reduction of each of my LPAs from 400 to 300 square feet and closer cage-spacing would cause substantially more wear and tear on equipment, reducing its life and creating the potential for runaway gear from increased rope chaffing. The changes would force me to "rest" a quarter of my oyster cages- one of my biggest capital expenditures- and would take a quarter of my operation out of production. To implement new shorter lines with fewer cages I would incur substantial costs replacing or modifying farm equipment and moving helical moorings.

During the permitting process, farms already have to ensure that equipment and the farm-layout do not impede navigation. There is already a means to prevent the implementation farms that are too long for their surroundings. The single longline farms affected by the proposed rule change are simpler and cheaper to implement and have less of a fouling-risk in storms. There are also valid needs for farms with even longer and narrower footprints such as offshore longlines for kelp or ear-hung scallops. The new restrictions could reduce the financial viability of experimenting with these species and growing techniques.

The proposed rule change offers no grandfather clause- harming farmers who have already spent substantial sums of money and devised business plans based on the ability to fully utilize the 400-square foot footprint of an LPA using the most common growing equipment on the market. The new rule places a new and unfair financial burden on small businesses that are already operating under high risk and slim margins.

Terry Watson, Clam Hunter Seafood

I have four LPA permits and my wife has four LPA permits. We did it in two separate areas in Spirit Pond and the Kennebec River. My son put some in Spirit Pond also. My son is 21 and at Farmington

College. We put each in as helpers on each other's, all three of us. The idea of being in the Spirit Pond and the Kennebec River is that the Kennebec River historically doesn't get red tide. That way between us, between my wife and I we can always have a supply for our shop. Our son, like I said, is going to college in Farmington and his gear is in shallow enough water that we don't want to leave it out for the winter. If I can't pull his gear up while he's at college, then he'd have to pull it up at the end of the summer. When I am driving out by my wife's gear while I am clamming I can't tend to her gear. If I see something going wrong, I have to go home and get her and then she has to deal with it, because I can't handle the gear unless it is a hurricane. I just don't see. One person can only be in one place at one time. If I was on 100 LPAs, I still can only be working one LPA at a time. I don't see limiting it as fixing the problem of having babies with an LPA. Honestly, I don't see the issue with that. If someone wants to be sure that there's a spot saved for their child when they grow up, I don't see a problem with that. If you want to fix it put an age limit like 14 or something on it. I just don't see limiting all of us. Especially the ones that have already put them in with a plan. Now we have to totally change our plans. One other thing I would like to suggest is on the gear changes mid-season. One thing I've already run into is the sand shifted more than what I thought this year with the storms we've had. I'd like to have it so you can change your winter plan. If your winter plan was to have them on the bottom you should be able to change it. Just adding that in there. But that's my two comments. I don't see the limit on the four helpers LPA as fixing the issue. These are supposedly for public health and to cut out redundancies, but this doesn't do either one.

Matt Moretti on behalf of Paul Dobbins

I am speaking today on behalf of Paul Dobbins of Ocean Approved. I had a conversation with Paul Dobbins earlier today and he is on the west coast for business and asked me to speak on his behalf. He wanted me to make clear that he thought the size restrictions on LPAs, that limiting them to 4x100 feet, would cripple the emerging seaweed industry, because it is so reliant on new, beginning farmers. He thought it would be bad for industry and a bad rule.

Merritt Carey, Maine Aquaculture Co-op

I am testifying against the dimension restriction. Specifically, with respect to scallop aquaculture and the burgeoning scallop aquaculture industry that's coming up through. Our co-op is made up of primarily fishermen and they are getting involved in scallop aquaculture mostly as an income diversification mechanism. We currently have six LPAs owned by fishermen all of which have width far less than four feet. They're typically 18 inches by 260 feet. One of the impediments to getting fishermen involved in aquaculture is the cost with respect to scallops so the return on investment for your anchors, lines, and time. If your fishing line can be much longer obviously, your return on investment will be better. If it is restricted that return is going to be mitigated, or really wiped out. I think it would discourage a lot of folks. Fishermen, in particular, who are starting to get interested. With respect to grandfathering or not grandfathering, this is an industry that is just getting going, so in one way, yes you want to grandfather those folks if you do make these changes. By the same token, you are just going to discourage a whole bunch of people and you are giving a competitive advantage to those folks who just happened to get their LPA license in 2016 or 2017. I don't know that grandfathering is a good solution.

Nelson Marass, New Meadows Oyster

I want to go on record regarding the dimensions. At this point it would be problematic because I would be reducing things, much like Jordan would have to reduce things. It seems somewhat arbitrary. Most gear is 36 inches long, bags are 34. If sway is a problem, I can tighten lines. But in the New Meadows, where there is 10 to 12 feet depending on the storm, unless they invent a bungee cord that I can use as a mooring line, I really can't make it stay in one column. Another concern would be helpers. I guess I oppose limiting the number of assistants you can have or the places you could be an assistant. It's hard enough to get help as it is and if you have someone who is competent having them help on as many as possible would be better than having random people show up and help.

Lori Howell, Spinney Creek

I have two points of concern and one thing in favor at the same time. I have a concern about the limitation on operating in restricted waters. As the owner of a depuration plant that seems to be unduly harsh to our own operations. We do operate 12 LPAs in a particular area. I would also point out it would limit the opportunity to try an area before actually applying for a lease. It would also limit somebody whose area or LPA may be located in an approved area that then becomes downgraded. I also have a concern about the number of helpers. Operating 12 LPAs among three family members who are not in diapers and actually do work on the farm, makes it very contrived. In the sense that you work the first eight and then you have to go back to the dock to pick up a different body, so they can go out to the third set of LPAs. It is very contrived and interferes with operating a business. I would also point out that if you have good help, one of the things we are trying to do is to run businesses here. We would like to offer employment to somebody and limiting to someone, who you may hire to work on your LPAs. It's not going to provide them a fulltime job, if you are limiting them to working on eight. Let's not limit that, so they can earn a living. If we are going to limit the number, put an age limit on it or make the number larger than eight, but I do think it is difficult to operate in those confines.

I strongly support the education component. I think that is a great idea, perhaps long overdue, but I applaud the Department. Write a curriculum I don't care who implements it, but I think that's a really good idea.

Jim Buxton, Nomad Inc

I don't personally have any LPAs, but I have assisted many of the people in the audience putting in mooring fields and helping install and maintain their equipment. I am opposed to the change in the size and shape of the lease, because you're essentially limiting the flexibility of the different species and 1X400 is not that burdensome on people working around it. These operations are too small to be viable as it is. By taking a seaweed farm and making it four feet wide you destroy its ability to cover its own costs.

Cameron Thompson, Deep Blue Aquaculture

I think the diversity of comments here and questions points to an overarching problem. We understand that there is this administrative difficulty. I am very sympathetic towards that, what you

are dealing with the LPAs. When I look over all these rule changes I can see that there's a lot of things are trying to be targeted at the same time. There's a lack of education in regards to biotoxins and public health, there is an abuse of the system, and a lot of clarification efforts being made. I am not opposed to these rule makings as a whole, but making so many at once it is hard to target these different aspects. We don't know what sort of unintended consequences are going to result. Specifically, as a small business this dimension change is going to greatly increase our cost per foot, which will obviously negatively impact us.

Eric Oransky, Maine Ocean Farms

I want to speak in opposition to the new size restrictions with particular interest to the emerging seaweed industry. I know it's pretty standard right now for a 1X400 foot longline as well as the limiting of being a helper on four other sites, other than your own. There's three of us so it would give us an option for 12 LPAs and if we can't work it together, on all our sites, it's going to be a logistical nightmare.

Tom Klodenski, Maine Ocean Farms

We're doing oysters and in opposition to the helper rule change. My two other business partners, one of the reasons we started the business was for the opportunity the rule gave us. Not only for us, but other people looking to start an aquaculture business. That type of restriction would limit their enthusiasm for trying to get into the industry. With most small businesses, partnerships can be a good thing when they're first starting out.

Doug Niven, Mere Point Oyster

I tend to agree with many of the comments, so far, with regards to the restrictions on the footprint. I think it was Jordan that said the 3 foot X 130 seems to make the most sense as a compromise for oyster application as most of the oyster gear is a 3-foot dimension. Most of the oyster grow cages and bags, but I am not really sure how that impacts seaweed and other species. The other is my opposition to the helper rule. My family and I have 12 LPAs. My two kids are commercial lobstermen. They go off to school in the fall, out of the area, and I get stuck sinking the cages in the fall. I am out there sinking cages on 12 different sites. Without having that helper ability, it would really shorten their growing season. They are trying to make a little extra money before going off to college. Maybe a solution would be to try to get in some education. Some requirement for helpers who want to be on more. Maybe like something you have for the apprentice program for lobster.

In favor (1)

Bob Earnest, Chebeague Island Oyster

I want to speak in favor of the proposed education requirements. I think you are doing the industry and the state a big favor by putting that in place. I am assuming the curriculum will be professionally developed and hopefully you can tie together all the pluses and none of the negatives of all the various training programs floating around out there now.

**I. Rockland Public Hearing
Attendance**

Members of the Public (14)	DMR Staff (4)
Donna Brewer, Marsden Brewer, Robert Brewer, Dana Morse, Molly Miller, Gordon Connell, Karen Cooper, Jason Wilhan, Peter Miller, Merritt Carey, Christian Brayden, Josh Stoll, James Crimp, Tristan Smith	Jon Lewis, Flora Drury, Meredith Mendelson, Amanda Ellis

Opposed (5)

Karen Cooper, Kelp Aquaculture

There's a few things. With the size 4X100 some of us don't have the depth that we need in an area that size. We might need to go longer because that is what the bottom looks like. Right now, I have it longer because of the bottom and you can't have it touching. Saying that you don't want a star shape, you don't want a parallelogram, or whatever it might not be what the bottom looks like and that's not how we can fish in an area. I am not sure what the riparian landowners is in here, and I don't even know if I can speak to this now, but being a winter fishery, the kelp, and I have to let the riparian landowners know where I am from. They are only there in the summer and if they don't like all the lobsters buoys out there in the summer, why would they complain about the few that I have in the winter when they are not there? I am not sure if you can separate kelp from your shellfish in your LPAs just because the rules don't really apply a lot to both things. Just to change that. Really the size is the thing. I don't want to not be able to fish the area, or separate them out because it is going to cost me more gear to do that. I am doing this to make money. Also, the longer your run in your kelp farm you are going to yield more product. The shorter you are not going to get as much. I don't want to take a class every year, but I don't mind taking a class. I am sure it is not going to be a six-month long class or like a college course, or anything like that.

Marsden Brewer, Scallop Aquaculture

The size on this. I remember when it started and it was 20X20 and thank God for the kelp people because they got it straightened out to 1X400. That change allowed us to use LPAs to look over sites to grow scallops, which is what I believe they were intended to do. It wasn't meant to be a game player, you know a business plan. It's a convenient tool for scallops from your up and down lines on your ends. You got a space you need to stay away from and you stretch them out 400 feet you have two in the middle you need to stay away from. You are cutting down your length to make it really cost prohibitive with the price of the anchors and rigging and stuff. You don't have room to grow anything when you get done. For me it's important if you are going to develop the scallop fishery, you know I understand you don't want lines strung out all over the place, but in the fishery we fish with lines all the time. Whether it was trawls for ground fish or lobster trawls, lines are there all over the place. So if you can leave that part in. I've got no problem with the limit on the amount of LPAs, because once it again it wasn't meant to be a business plan, but for this size you are cutting it down. By the time it takes to get a lease you can find out if the area is good enough, quicker than you

can get a lease. The education component is a good thing, but it needs to be delivered in a way for a guy who gets up at four o' clock in the morning to milk his goats and gets in at six-thirty at night can still get the education too. If it is delivered in a way that be done through technology that would be a wonderful thing. On being able to work on eight LPAs. Sometimes people get into a mess and they need a hand, so if there is a way or process to talk with a patrol officer and let them know you are helping someone out, like we do with lobsters that would be a big help.

Peter Miller, Scallop Aquaculture

I have a couple of LPAs that I am doing scallops with. I am very much against the changing of the size to 4X100. Right now, I have two LPAs and with those two LPAs I can get more fishing line than with those two than I could with four LPAs under this new proposal. To go along with that I would have an additional expense of at least \$3,200.00 for anchors and another \$1,000.00 plus for mooring lines for these additional anchors. So it is going to be another \$4,000.00 to \$5,000.00 more just to comply. It is more for less. Like Marsden said, it is like you're restricting us too much and it is just not workable. I don't see anyone being interesting pursuing aquaculture, at least on the scallop end. Kelp on ropes and stuff too. I am very much against that. The classes, I think, I don't see any problem with taking a class myself. I think it is a good idea. In the lobster industry they have the apprentice program. Maybe as a comment to prevent some of the stacking. LPAs in my mind are a way to get my feet wet, to figure out if I really want to do this or not. I would look at a three-year LPA and then you either go experimental or commercial or you are done. Anyone who wants it as a hobby can just have one. Maybe you could eliminate some of that problem. The size dimensions that fit mine nicely are 18X240 feet. Depending on what happens with this, I would like DMR to strongly consider grandfathering existing licenses as they currently exist.

Tristan Smith, Commercial Fisherman

So, first of all I think that any sea urchin LPAs should be exempt from all the rules you guys are talking about completely. There's only one or two, maybe sea urchin LPAs. We have to make it inviting for anyone to do any LPA research in the sea urchin situation as much as we can. Sea urchins should be exempt from all the rules you are talking about. As for the classes, it seems to me that there are three different categories of LPAs seaweed, shellfish, and sea urchins which are in their own category. I think they should be treated as such. Just a single year class, because people don't need to hear the same thing every year. I back up the all the guys, everything all the previous speakers said. Except there should be a sea urchin exemption.

Robert Brewer, Scallop Aquaculture

I agree with what my father and Peter were saying. It works really well for us the way we got it now. It would be too cost prohibitive to shorten up because of the anchors and you wouldn't have any room to put anything on it when you got done. Seems like some of these fisheries are different from one another and it is hard to make one rule that fits everyone, so maybe consider making separate rules. I support what you guys are trying to do and people shouldn't be taking advantage of the situation, I guess.

Neutral (1)

James Crimp, Marine Business Specialist, Island Institute

My name is James Crimp, and on behalf of the Island Institute, we would like to thank DMR for bringing these proposed regulations forward and we believe that for the most part, they make improvements to the existing process for getting LPAs.

I am a Marine Business Specialist at the Island Institute, a nonprofit organization that works to sustain Maine's island and coastal communities, and exchanges ideas and experiences to further the sustainability of communities here and elsewhere. One program we run is our Aquaculture Business Development Program with the goal of helping coastal and island communities diversify their local economies for a resilient future. Aspiring shellfish or seaweed aquaculturalists apply to this program and successful applicants receive intensive and multi-year, one-on-one support as well as group training that helps participants successfully start strong aquaculture businesses along Maine's coast. While this program attracts applicants with diverse backgrounds, we encourage applications from those who currently are fishermen or have strong ties to fishing communities in Maine. We look for applicants who have demonstrated a strong social network in the marine industry and a high amount of practical experience on the water. A goal of the program is to provide support to responsible individuals so that they may become positive representatives of the aquaculture industry as well as leaders in Maine's marine industry as a whole.

Based on our experience working with this group, the Island Institute supports the following changes to the regulations:

Gear marking requirements for LPAs are a sensible simplification to existing regulations

The ability to be a helper on a small number of LPAs recognizes that often people team up to start aquaculture businesses. Holding 4 LPAs and being a helper on another 4 LPAs allows people to share the use of boats and tend their partners gear when something unexpected comes up and also helps prevent people from abusing the LPA process. Some flexibility in this rule in order to allow extra hands on a farm under extenuating circumstances would be helpful.

Requiring LPA holders to participate in an educational program helps protect the investment that existing lease holders and LPA holders have already made in their businesses. Receiving training in biosecurity, public health, and community relations will help ensure new aquaculturists are responsible neighbors and have a baseline knowledge about the risks to their businesses, other aquaculture businesses and the public that these topics pose.

As you move forward with this rule, we hope that the training provided through programs like our ABD where DMR public health and aquaculture staff raise awareness of issues meets the criteria. DMR's participation in our programming is incredible important and valuable and we look forward to continuing to work with.

The one area where we see room for improvement in the proposed rule changes is the 4' minimum limit on width of an LPA, primarily due to it's detrimental effects on the ability of seaweed growers

to test out new sites. Based on experience helping 10 new growers through the LPA process for kelp, we believe the proposed changes neither further the goals of the LPA program nor help the industry.

Current practice for LPAs growing kelp is to have multiple 1 foot by 400 feet long LPAs in a row. From the people we have worked with, 800, 1000, and 1200 feet seem be the desired length.

Seed spools are 200' long so sticking to multiples of this size is important. Seaweed farmers wouldn't be able to adequately test whether their moorings are suitable to hold the increased drag of a longer line if they were limited to a single 400' line. Installing 4, 100' lines would not be practical if seaweed farmers wanted to test multiple sites (because of spool length, and the lack of ability to test their anchors as stated above). Being able to install at least 4, 200' lines would more easily allow for testing of multiple sites, as is one of the original goals of the LPA system. Lowering the limit to 2' minimum width, or keeping it at 1' as is would be better.

To that end, we will be submitting additional comments for consideration and would be happy to help the Department develop regulations for kelp LPAs that achieve departmental goals and are feasible for those looking to get into the industry.

Please let me know if you have any questions from this testimony, and we look forward to helping create sensible rules that promote responsible growth of the aquaculture industry in Maine.

Written Comments

The comment period closed on February 5, 2018

Opposed (17)

James Belano, Wheeler's Bay Oyster Company, submitted via email, January 10, 2018

We respectfully submit the following comments and observation in relation to certain proposed rule changes to LPA's

The following comments are primarily from the point of view of oyster growers. We understand that some of the rule changes are an effort to encourage LPA permit holders to move from LPA's to standard leases and simultaneously reduce some of the paperwork involved in the annual renewal process and department man hours devoted to inspection requirements. For clams, seaweed, kelp or even mussels and scallops the standard lease is certainly to be encouraged after the initial research and development stage. If aquaculture is to be a significant economic driver for the State of Maine the larger commercial operations are to be encouraged.

Oysters are very different. Like wines, they take on distinctive qualities depending on location. They speak of the "terroire" of wines where the same grape raised in different soils and climates take on distinctive qualities. This is true of oysters. Part of the appeal of oysters is the "merroire".

Not everyone wants to become large and the small mom and pop "boutique" business that sells a very distinct type of oyster to one or two restaurants can also be a significant economic driver. Such

an enterprise can be managed by one or two people and add significantly to individual and family incomes with very little overhead. A regular employee for more than 4 LPA's might be desirable on a seasonal basis. It would be helpful if the same assistants can be named on more than 4 LPA's. We would suggest 8 LPA's.

We believe that encouraging business on multiple scales, large and small is to the benefit of everyone.

We understand that those who possess 16 or 20 LPA's in the names of multiple family members are using the system in a way that was not intended and that limiting the assistants to no more than 4 LPA's is a way to inhibit the practice. Once you've achieved this scale it makes more sense to go for the standard lease and it makes a lot more economic sense. I think that many people avoid the next step because they are hesitant to face the scrutiny of public hearings given the historical pushback on aquaculture in many coastal communities. This may become less of an issue as aquaculture becomes more mainstream.

To allow more latitude to the small enterprise that doesn't wish to grow beyond a certain point I would suggest that the rule should allow for the same assistant to appear on no more than 8 LPA's. This allows for movement from one site to another for the purpose of winterization or relay using the same people.

In regard to this last point, we suggest that siting of shellfish LPA's should not exclude restricted and conditionally restricted areas and pertain solely to prohibited areas. On balance there appear to be more and more restricted areas being upgraded to 'approved' rather than the reverse. Our cove is an example where just this year we have gained approval and had the restriction lifted. In our case, having 4 LPA's in the restricted area was viable as long as we had 4 LPA's further out in an approved area. This allowed for relay for depuration and winterization. Once the restriction was lifted, depuration was no longer an issue but the problem of ice remained and moving the oysters to a point outside the ice line is still an annual necessity regardless of sanitation issues. Having the restriction lifted simply made life easier by eliminating the need for a relay permit and the inspection process.

In terms of the gear marking requirements, we wholeheartedly agree that it makes no sense to mark each individual piece of equipment. In our case this amounts to several hundred shellfish bags and other related raft equipment.

This said, we intend to apply for standard leases but feel that the LPA option should still be a choice and would promote interest in experimentation and small-scale aquaculture.

Jordan Kramer, Winnegance Oyster Farm, submitted via email, January 10, 2018

The changes proposed to the Limited Purpose Aquaculture program would very adversely affect my oyster farming business.

Specifically the changes to the dimensions of LPA sites - (limiting footprints to width a minimum width of 4ft and a maximum length 100ft in length) would force me to shrink my my existing permitted operation by as much 25%. This threatens the viability of my business (and I imagine the businesses of the many others who use floating bags or cages).

My oyster cages (like most commercially available floating oyster cages and bags) are 3ft wide. Complying with the existing rule, I have deployed these cages on 133ft longlines. The proposed rules would cost me 25% of my longline length- with no way to fully recoup the lost growing space using my existing gear. I obviously can't make my existing cages wider, and custom building 4ft wide gear to replace my current cages would be prohibitively expensive. Fitting all of my existing cages into the proposed shorter footprint wouldn't address the effective reduction of each of my LPAs from 400 to 300sqft and closer cage-spacing would cause substantially more wear and tear on equipment- reducing its life and creating the potential for run-away gear (from increased rope chaffing). The changes would force me to "rest" a quarter of my oyster cages- one of my biggest capital expenditures- and would take a quarter of my operation out of production. To implement new shorter lines with fewer cages I would incur substantial costs replacing or modifying farm equipment and moving helical moorings.

*During the permitting process, farms **already** have to ensure that equipment and the farm-layout do not impede navigation. There is already a means to prevent the implementation farms that are too long for their surroundings. The single longline farms affected by the proposed rule change are simpler and cheaper to implement and have less of a fouling-risk in storms. There are also valid needs for farms with even longer and narrower footprints such as offshore longlines for kelp or ear-hung scallops. The new restrictions could reduce the financial viability of experimenting with these species and growing techniques.*

The proposed rule change offers no grandfather clause- harming farmers who have already spent substantial sums of money and devised business plans based on the ability to fully utilize the 400 sqft footprint of an LPA using the most common growing equipment on the market. The new rule places a new and unfair financial burden on small businesses that are already operating under high risk and slim margins.

Erin Gott, Pope's Creek Oyster, submitted via email, January 22, 2018

My name is Erin Gott and I own Pope's Creek Oyster Farm in Wells Maine. Unfortunately I can't make it to the meeting on the proposed LPA rule changes, but would like to voice some personal concerns on the subject. Currently I have 4 LPA's and my wife has 4. At the moment I'm working on a standard lease that will replace 6 of these LPA's. As i'm sure you're well aware the lease process is lengthy and not guaranteed. I think I'm on year 2 or 3 trying to obtain my lease. Also the LPA permits were a lot of work and we now count on them for the operation of our company. The two LPA's that will not be included in the standard lease (if it is approved.) are also important. One is used for first year spat and the other is in a small body of water in Kennebunkport. The one in Kennebunkport is such a small area of open water that a full lease procedure would not warrant the

amount of product produced. Is there anyway to allow a LPA or two to be Grandfathered? If the rules are suddenly changed there's a lot of gear and oysters that will be homeless!

Peter Stocks, Trundy Point, LLC, submitted via email, February 2, 2018

- A. The proposal to restrict LPAs to a minimum width of 4 feet seems too restrictive and will harm many existing and future legitimate users of the LPA regime. With respect, the proposal does not seem to be designed with the best practices or interests of grower in mind, but primarily for ease of administration. It is a hard and fast rule easily measured or inspected. However, if a grower needs to test an area to determine whether scallops or mussels for example, will grow in new area and a long-line system best suits the applicant's needs, restricting the long-line to 100' is very detrimental. To adequately test how a species will grow in a new environment, you need to grow thousands of each animal to ensure you get a fairly accurate assessment of mortality, grow rates, etc. In some cases, long-line droppers need to be spaced at 15-20 feet apart due to current, tide, etc. Six or seven droppers each with a hundred or even several hundred animals growing on it is not enough for a valid grow-out experiment. Being able to grow three to four times the amount of droppers by using 300' or 400' long LPA is a great improvement.*

- B. Any proposed rule change should not be retrospectively applied to existing LPAs; it should be phased in or "grandfathered" as applied to such LPAs. There are many approved LPAs being used now that will legitimately and necessarily need to be used for a couple more years. Requiring significant changes or restrictions on the use of that LPA will be very harmful to that user and the industry. Short-term experimentation via LPA use has been part of the foundation of the growth of Maine's aquaculture industry. To suddenly have to reduce a 1' x 400' long-lined LPA to a 4' x 100' will be very harmful. The law strongly frowns upon retroactive application of the law. The Department could try to argue that the LPA is a one-year license and thus the new rules are not retrospective. The reality is however, each LPA "rolls-over" every year by filing a simple form and paying a minimal fee, unless there has been significant change. On a year-over-year basis the use of the LPA including the gear in the water does not change and there is strong user reliance on this virtual automatic rollover.*

- C. The proposed education requirements are very broad and unclear. We believe education in this area would be positive if it is very reasonably priced, very accessible all over coastal area in Maine AND it is designed with significant industry input and agreed to by Maine Aquaculture Association.*

- D. We support the proposed rule change limiting the marking of gear with the I.D. of the LPA. Effectively marking each piece and type of gear in the ocean environment is not sensible.*

- E. We suggest the annual cost of an LPA be increase significantly, after its been used for more than a couple of years and if it is being used commercially to generate revenue. Part of the reason the LPA option is over used is they only cost \$50 annually and there is minimal reporting required. The application fee, alone, of leases is much higher. After the initial use*

to determine if a species can be viably grown (again 2-3 years) and/or if the holder is generating revenue the LPA cost should similar to that of an experimental lease. Whether it is being held by a riparian land owner to raise shellfish for her/his personal consumption or by a holder experimenting for a commercial purpose, the LPA is in effect being used a small lease. If it were treated more like a lease, there would be less incentive for many to use the LPA year after year.

- F. We suggest that with a few exceptions the LPA should only be allowed to be used for a fixed amount of time. With the exception of riparian landowners, who many states encourage to grow shellfish in front of their property solely for personal consumption, we don't think the true legislative intent underpinning LPAs was for them to be used in perpetuity. Allowing a spouse or "significant others" and their children to amalgamate 12 LPAs and use them for commercial purposes in perpetuity does not seem supported by the Legislatures' intent and gives those operators not insignificant economic advantages. Why shouldn't they use a lease? Based on shellfish grow-out cycles, we believe a valid approach would be to limit LPA use to three to four years. In most cases this would adequately allow the LPA holder to determine if he / she or their company want to apply for a lease. The DMR should be allowed to extend this time frame for extenuating circumstances that can be documented and verified.*
- G. We support a rule that disallows the siting of LPAs in "prohibited" areas. We do not support an absolute ban on the use of LPAs in "restricted" or "conditionally restricted" area. There are valid circumstances where this should be allowed. It looks like the proposed exceptions cover this.*
- H. We do not support the complete ban on MOUs being used for LPAs. The DMR should allow flexibility in this area. MOUs have generally been somewhat flexible and consensual in use. This have been beneficial for the industry and the DMR regarding gathering date, as well as protecting public health.*
- I. It is not clear from the public hearing in Yarmouth the benefit for the industry or public safety limiting mid-year amendments of gear type, species modifications, etc. LPA use is often an experiment. Allowing LPA users to only modify once per year is not in the best interest of the industry.*

We believe another primary factor in the proliferation of LPAs is the length of time it takes to complete the experimental and standard lease process. The combination of a very inexpensive application cost and only a month or two of DMR processing time makes the LPAs very attractive to many, who should be using leases. We hope in the future the aquaculture industry and the DMR can work more closely and in advance of the "role-out" of new legislation and/or rules. If we can, we strongly believe new statutes rules and regulations will be better crafted, more effective and more widely accepted.

Lori Howell, Spinney Creek Shellfish, submitted via email, February 2, 2018

Spinney Creek Shellfish, Inc. is a family owned and operated shellfish depuration and aquaculture business located in Eliot, Maine. Since 1983 we have been growing, harvesting and depurating several species of molluscan shellfish. We have two concerns about the proposed rule and one compliment. Section I (C.) proposes to limit the number of times a person may be listed on an LPA as an assistant. The Department' proposal would limit an individual to working more than 4 LPAs in addition to their own LPAs. If a limitation is imposed, it should be a number significantly higher than 4. In our case, working a series of LPAs as a family, where all LPA owners are involved in the farm work as well as paid staff, the limit of 4 would cause unnatural steps to be taken as we work our LPAs and would substantially restrict our operations. In addition, we hire several non-family members to help us working our LPAs.Restricting paid personnel to working on just 4 LPAs would make it impossible for a person to make even a seasonal income on LPAs.We oppose the limitation as proposed. We support the proposed Section G requiring annual education as a requirement for LPA renewal. In order to protect both grower investment and public health, it is important that LPA holders have the same knowledge base more "mature" aquaculturists, dealers, and shellfish professionals. We look forward to participating in this proposed requirement and seeing the content of the training. Finally and most important to Spinney Creek Shellfish, we strongly oppose the exclusion of LPAs to market size from restricted waters, at least for owners of depuration plants. In particular, we suggest that section D (3) contain an additional exemption: "Shellfish may be grown to market size within an area classified as restricted or conditionally restricted provided that the holder of the LPA have a contractual arrangement with a depuration plant for depuration processing. The LPA holder would be required to abide by the requirements of depuration harvesting." This exception would allow use of restricted areas for those that may wish to use depuration. It would also allow flexibility protecting those LPA locations that may be downgraded in water quality to continue to be utilized. We urge the Department to work with this firm to come up with a non-disruptive solution, such as the above or a Special License.

Tom Adamo, submitted via email, February 4, 2018

I am writing to you to register my concerns as they relate to the above chapter rule change. I apologize for what might appear as poor organization or incomplete sentence structure however I am currently recovering from both the flu and pneumonia. Thank you for your compassion and understanding.

I itemize below my concerns:

1) Marking LPA's. Please consider that a 300' string of baskets are difficult to see especially in a small chop on any body of water. At least mark the beginning and the end. I would prefer all 4 corners marked as limited marking increases navigational hazards. Also gear which is accidentally cut off will add to micro plastics in the food chain if unrecovered. If there are no clear ownership markers they cannot easily be returned or reported to Marine Patrol. Additionally I am unaware of other fisheries which require limited markings.

2) The monitoring program for biotoxins must be in force at all times for all license holders. Please apply the Precautionary Principal here as being proactive is more effective than managing a crisis. The negative impact to the health of consumers and the financial impact on the aquaculturist is not worth the risk involved. I recognize that DMR maybe be short handed for monitoring the announced

expansion statewide, however if there are not enough code enforcement officers in town to monitor construction projects, building permits should not be issued. The same principle might logically apply here.

3) Experimenting with foreign made or designed gear is unnecessary as the foreign gear makers must have done field testing. Give Americans the resources to develop new gear and let's not create more waste and pollution with gear that does not work.

4) The notification to elected official is too broad. The proposal would allow, as an example, notification to go to a member of the local school board. The first Selectman should be the ONLY contact person. DMR is usurping local authority by this change. I do not think this is your motivation however. " Don't fix something if it is not broken"

5) Annual inspections for hatcheries keep seed clean and safe. Eliminating or extending them beyond annual inspection increase disaster risk. Again if the problem is staffing let us try to find the funding for a worthwhile program. The Precautionary Principle applies here as well.

6) Allowing a contiguous string of 300' creates a navigational hazard especially if the configurations possible as indicated by your illustrations. Again with only one marker and a configuration not in a straight line will cause problem for both boaters and aquaculturists.

7) With all due respect for you and other species might I suggest a concerted governmental interagency and NGO updating of essential habitats for all nurseries for both surface and subsurface species. We all recognize that monoculture creates unintended consequences. If we are unaware of nurseries and other essential habitats we damage the natural world beyond repair.

I would like to thank Rep. Ward and Rep. Kumiega for writing and referring me to DMR and would also like to thank Commissioner Mendelsohn for her telephone call to me. Also to Rep. Chapman for sharing his wisdom and experience with the process of government.

Paul Dobbins, Ocean Approved, submitted via email, February 4, 2018

Ocean Approved lauds and supports your effort to improve the lease process and rules. It is our strong belief that we as a State should be supporting the growth of aquaculture on our coast as a means of diversifying revenue generation and economic development in our coastal communities. Creating the appropriate regulatory environment to ensure that existing use, the environment, and economic development are adequately addressed will be the foundation of this growth. While we support many of the proposed rule changes for LPA's, there are 2 proposed changes that unnecessarily hinder the development of seaweed long line aquaculture, a sector that may not have been anticipated when LPA's were first conceived.

1. The proposed change of creating a minimum width for an LPA limits the length to 100' given the current 400sqft. size. Long lines are by definition "long". To properly benefit from the ability of a long line LPA to provide education and experience to farmers, or assess a site or species for long line suitability, 100' is too short for the following reasons:

- a. *The industry standard for seed deployment is 200'. This is predicated by the most economically and operationally efficient size seed spool. All nurseries in New England (and other regions in the U.S.) have standardized on this length. Having at least 200' long line section allows new farmers to ensure full utilization of a seed spool- which is the most expensive variable component of seaweed aquaculture.*
- b. *A 400' long line section is required to learn and practice the most difficult part of seeding. This maneuver of switching out an empty seed spool for a full one, and then splicing the break in the long line, adding weight and a depth controlling buoy cannot be accomplished with just 100' unless the farmer is willing to waste 300' of seed string (150' on each spool). If they were to do this, it would increase the cost of seed for that line by 200%.*
- c. *The proposed change cuts in half the total long line deployable by a farmer starting out in the field of kelp farming. This will reduce their yield by half, yet expenses are the same. This will discourage entrants into the field and slow economic development, with no discernible benefit, supported by data, to either the environment or existing use.*
2. *The proposed change to the maximum number of people able to work at an LPA will inhibit the great advantages of the LPA.*

Having as many people tend a site as possible creates greater exposure of our workforce and coastal community residents to aquaculture. Given that the best way to learn is to "do" rather than to "observe", the proposed rule change would inhibit the ability to educate and conduct research

a. *We are constantly bringing people out to LPA seaweed sites to show them:*

1. *How to seed*
2. *How to harvest*
3. *To see what a longline looks like in the water, and to discuss gear.*

b. *Long line LPA's are used for research. This often involves scientists from different disciplines working the site during different times of the season, and in our experience, given schedule conflicts, many times the scientists are out at a site without the leaseholder or lease holder employees present. Limiting the number of people able to work a site would inhibit long line farm research.*

Ocean Approved strongly encourages the creation long line specific LPA rules that would:

- *Encourage rather than discourage entrants into the industry*
- *Allow for utilization of and education with industry standard seed spools*
- *Encourage exposure to aquaculture to as many of our coastal citizens wishing to work in the sector*
- *Allow for research scientists to work a site in collaboration with a leaseholder*

Mark Green, submitted via email, February 5, 2018

I am writing to formally protest the pending LPA rule change regarding placement of LPA's within the 300:1 dilution zone of a WWTP. I believe this rule change, as defined, is too broad and, at least

in terms of my ability to grow 'seed' oysters in an upweller to a maximum size of 1/2", is not based on sound science.

Specifically, it is imperative for my business that I be allowed to place an upweller at Yankee Marina at the head of the Royal River in Yarmouth. There are VERY few ideal spots for upweller's in Casco Bay, with most water being either too cold, too rough, or both. The southern most dock at Yankee is the perfect location for me to place my upweller and I have permission from the marina owner. Although the recent permit by the Town of Yarmouth and approved by DMR appears to show that the dilution at the diffuser part way up the Royal River is greater than 300:1 (harmonic mean), I was recently informed by DMR that my LPA request for a seed upweller at Yankee Marina would likely be denied. My business, as well as at least 10 others that will be dependent on purchasing seed from me this summer, depends on access to this location. I will lose at least \$30,000 gross in seed sales this summer if this particular rule change occurs. Likewise, growers dependent on me for purchase of 3/8-1/2" seed also stand to lose their livelihood. It is true that I may not survive this financial hit at this stage of my business growth.

We need to do everything we can to help grow this industry in Maine, so that good paying jobs and working waterfront revitalization continues to be an evolving reality in Maine. This can be done, without any threat to human health, by slightly altering the DMR proposed rule change for LPA's within the dilution zone of WWTP while still abiding to the proposed rule changes by the ISSC in 2017. As an oyster grower, the LAST thing I want to do is get anyone sick. Maine is known for a superior oyster product and it is imperative that we do everything we can to prevent threats to human health and potentially tarnish Maine's sterling reputation as a region that produces some of the world's best seafood. This can be done by only slightly modifying the 'no LPA's within the 300:1 dilution zone' rule now under consideration. This rule, as currently written, will hurt me, my fellow growers and, ultimately, the growth of the shellfish aquaculture industry in Maine.

I believe that the rationale for the rule change is too broad and can be easily modified, multiple ways, to ensure the protection of human health and the economic livelihood for Maine oyster farmers. As written, the rule to ban LPA's from this dilution zone is beyond the recommendations of the ISSC. From my understanding and others, the ISSC allows the culture of seed anywhere, providing you have 6 months of growout in clean water. The ISSC, as you know, passed a depuration period of even less, at 4 months, but the FDA has not yet concurred. Does Maine require regulations for growing seed oysters that are more stringent than ISSC recommendations?

Some suggestions are as follows. I know that there is considerable redundancy in some of my statements below. I only want that those members of DMR that read this memo please consider my argument from various perspectives. Some ideas are as follows:

- 1) The proposed rule regarding placement of LPA's within a 300:1 dilution zone could be modified to only allow the use of a FLUPSY within these zones. FLUPSY's are only used for part of a season so that the oyster seed themselves don't stay within this zone for too long. Perhaps mandate that FLUPSY's can be approved but seed must be removed and*

transported out of the region within a certain time period (12 weeks for example)? The LPA owner must inform DMR when the seed is being placed in the upweller. At that time, the owner has a 12-week window after which all seed must be transported to an approved locale. Failure to inform DMR of the start and removal date of the seed should result in loss of the LPA. Notification of seed arrival into an upweller can be done with a simple email to DMR and can be verified, if needed, by sales receipt of seed from the hatchery of purchase. A maximum 12-week period is simply not long enough for a small seed (for example, seed retained on 1/2" mesh at most (R1/2", see below)) to sequester enough biological, heavy metal, viral, pharmaceutical, etc. toxins that could then not be purged from the animal over an adequate time in 'approved' waters, in this case, at least several growing seasons. Without scientific evidence to prove otherwise, I simply do not see how modifying the proposed rule as such could risk human health.

- 2) As you know, the ISSC mandated this year that each state must designate a "maximum size seed" and all animals must be removed from polluted waters before they reach this size or they will be destroyed. So, since Maine currently does not have a maximum seed size, DMR is going to have to change the definition of what constitutes a seed oyster. To be cautious, DMR could define all seed oysters as anything smaller than 1". In the relatively slow growing waters of Maine, this would ensure sufficient margin of error (certainly longer than the proposed 4 months) in clean water prior to harvest for consumption to mitigate health concerns.
- 3) As mentioned in point #1, DMR could require seed grown in an upweller in a prohibited area of a dilution zone be grown to NO LARGER than 1/2". The DMR document "Rational for no LPA's with the 300:1 dilution zone around a WWTP..." states that "Maine currently has no definition for American oyster seed so in practice American oysters could be grown to any size in a prohibited area, moved to an approved area and cultured for a minimum of four months before sale". This is crazy and represents what I believe is the actual problem here. Without a defined seed maximum and without a minimum size for an oyster to be sold in Maine, a grower could spend as little as 4 months in approved water before harvesting and selling his/her product. However, removing R1/2" seed from an upweller and moving it within a 10-12 week period to an open area for an additional several years of growout represents no health threat. Simply defining what constitutes 'seed' to an appropriate size (for example 1") ensures that oysters will be in approved water for a sufficiently long depuration period before harvest for consumption, far longer, at this size, than the 4-6 period currently required. Changing the size which seed is allowed to be grown in an upweller within the 300:1 dilution zone to no greater than R1/2" before being moved to an approved area will eradicate any threat to human health. The new rule, as proposed, would allow a grower to grow an oyster to within 4-6 months of market in a location just on the 'good' side of the 300:1 dilution, yet a grower would not allow to place an upweller on the 'bad' side of the 300:1 dilution line and grow seed that would still require several growing seasons (2 years in my case) to reach market size. This is too broad, to unfair, and the result of the change would significantly damage my ability to operate an oyster farm in Southern Maine.

Not all sized oysters can be treated the same and this ruling would do just that. In addition, the definition of where the 300:1 line is based on model assumptions that are inherently error prone. One set of boundary conditions will generate the 300:1 line in one location and only a slight altering of these boundary conditions might shift the line significantly. Not all sized oysters are equal.

- 4) The rule change proposed is too broadly defined and hurts growers that have no desire to spend more than ~2 months within a prohibited zone. These regions are “prohibited” after all.... However, it is nearly impossible to find regions in southern Maine with adequate environmental conditions for a FLUPSY. They cannot just go anywhere. They need warm and calm water. Tidal creeks are ideal. However, these regions are also the locations for WWTP diffusers. Likewise, the inability of Maine growers to import larger seed from out of state makes it imperative that more regions for upwellers exist, not fewer, which is what this rule change will result in. Every other New England state allows import of seed from out of state waters assuming adequate water quality standards are met. Not Maine.... My inability to import larger seed makes my dependency on an upweller even greater. Unlike other regions that can choose to go the upweller route or simply buy larger seed from elsewhere, there is no alternative in Maine and there is very limited access to larger seed. Access to large seed is an industry bottleneck in Maine and my ability to grow seed and provide to other growers and myself is critical. This rule change will ruin my ability to do that and could easily cost me my business. After nearly 4 years of serious struggle, I am almost profitable. I don't think I can withstand another hurdle placed in my way. My credit line is essentially maxed out. This year is it for me. In the event that this rule change occurs, it is likely that I will be forced to travel at least 2X daily from Peaks Island, Portland to the New Meadows River throughout a 10-12 week period this summer to tend to my upweller's if this rule change is instigated. And this, only if I am able to find a suitable marina for my upweller. Either way, this is not feasible. In the absence of scientific data, please modify this LPA rule change to allow upwellers within these dilution zones to grow seed to a maximum size of $R\frac{1}{2}$ ”.*
- 5) The problem in Maine results from the fact that we have neither a formal definition of ‘maximum seed size’ and we have no minimum size for harvest and sale for consumption. All ‘seed’ are not equal and all oysters smaller than market size cannot be grouped together. ‘Seed’ that are near market size, but not yet market size, should obviously not be grown within this 300:1 dilution zone. Yet, the current rules allow this to happen and for oysters from these regions to be sold for human consumption in as little as 4-6 months. This is a problem that will have to be addressed but not by a broad rule change such as the one proposed. It is incumbent on the State of Maine to determine a formal definition of maximum seed size that will still give some assurance that people won't be eating polluted ‘seed’ right out of a polluted area. However, simply banning all LPA's within the 300:1 dilution zone is overkill and is completely unfair to those of us that simply wish to place our upwellers within these zones for a short period of time each summer. Mandating that seed in an upweller be removed from the prohibited area by $R\frac{1}{2}$ ” will ensure human health is not compromised.*

Seed that is only grown within this 300:1 dilution zone to a maximum size of R½” will pose no human health effect if an additional several years are required to reach market size. Depuration/decay will ensure clean and healthy product. Please consider that there is a big difference in seed of different sizes. In Rhode Island, for example, the state has no regulated minimum sale size and oysters can be grown as ‘seed’ in ‘any and all waters’. However, they use a 36mm maximum seed size which gives the state agency some discretion in ensuring oysters ultimately sold will have been transferred to approved waters for a sufficiently long period of time. Maine will need to adopt a suitable maximum seed size that provides sufficient margin of error to ensure safe product is harvested for consumption.

- 6) *The DMR “Rational” memo goes on to state “This will most certainly resolve any bacterial contamination issues, however viral contamination as well as chemicals, heavy metals, pharmaceuticals, nanoparticles and other contaminants will likely not be resolved in a four month grow out. It is likely that some of the contaminants and deleterious substances seed are exposed to never resolve through natural relay process as conventionally practiced”. Firstly, the words will likely not and it is likely are purely subjective. I, at least, was unable to find any peer-reviewed studies that showed that small seed (9-12 mm) retained ANYTHING deleterious to human health after relay to ‘clean’ water and grown to market size. In fact, at the recent ISSC 2017 conference all kinds of data were presented that showed the complete opposite. Researchers saw no build up of deleterious substances in upwellers. Heavy metals are known to absorb onto particles, not in seed in upwellers, and end up in sediments. This would be particularly true in the Royal River where my proposed upweller location is nearly ½ mile from the Yarmouth Town Waste Water Treatment Plant diffuser. Data was presented that bacteria are known to depurate in a few days or weeks (above 50F). Growing seed to R1/2” and moving to an approved region for several years can’t possibly constitute a bacterial threat. We all have concerns regarding viral depuration. However, data I saw (Bob Rheaults) suggested viral depuration was adequate in about 2 months. FDA is considering 4 months of depuration, but certainly seed grown to only R1/2” before moving for several additional growing seasons provides a HUGE margin of error for viral depuration. I would ask DMR to PLEASE not threaten the livelihood of growers like myself, who have struggled for years to start a viable business, based on words such as will likely and it is likely. This cannot be argued for small oyster seed (1/2”) without concrete evidence or data. Please consider simply changing the rule to allow seed grown in an upweller to a maximum size of R½” within these dilution zones.*
- 7) *Please, modify the proposed rule change to mandate that seed must be removed from the location at no larger than R½”. Seed can be grown to R½” under the right conditions in 8-12 weeks (slower growers can take up to 12 weeks). This is a very small window of time over an oysters entire life history and would require at least an additional 2 full growing seasons before reaching market size. My oysters, for example, at R½” when I always remove them from my upweller have a total meat weight (wet) of 0.113 ±0.03 grams (n=20). A 3” market size oyster has an average meat weight (wet) of 12.5g ±2.5 grams (n = 18). This represents a 110X increase in body mass of the organism. This is a ‘dilution factor’ that should also be*

included in your decision making process. Without the guidance of sound science, I refuse to believe that a R½” oyster seed, grown nearly ½ mile from a WWTP diffuser, removed from the Royal River after 8-12 weeks, and then allowed to grow for an additional 2 years in an open area, increasing its body mass by over a factor of 100, poses a health risk.

- 8) *Lastly, DMR should consider increasing the price of an LPA to more than \$50. At \$50 each, these licenses are virtually free. DMR could easily double or triple the price and use the added income to hire a part-time code enforcement officer to ensure individuals with LPA’s are in compliance. This would be a great opportunity for a summer employee. This individual could also be charged to visit upwellers and, if within the 300:1 dilution zone, ensure that oyster seed is removed by the required size and/or time limitation. I feel DMR’s pain when it comes to the explosion of LPA’s and the enforcement that needs to occur with the proliferation of these licenses within the state. Increasing the cost may help alleviate some of those issues.*

As a scientist I can appreciate the difficulty the role of DMR has in taking science and using the data generated to guide sound regulation and policy that will protect, in this case, public health. However, the proposed rule change for the LPA’s is too broad and can be modified to both protect the States concern of human health while still not impeding the growth of this industry in Maine. I ask you to please modify the proposed rule change to allow for the use of LPA upwellers within the 300:1 dilution range to grow oyster seed to a maximum size of R½”.

Bailey Bowden, Chair, Town of Penobscot Shellfish Conservation Committee, submitted via email, February 5, 2018

- *No meetings held in Downeast Maine. From the Penobscot Narrows Bridge, that spans between Waldo and Hancock counties, Augusta is only 10 minutes further than Rockland.*
- *2.90 1 A Licenses issued to a municipal shellfish program should be free*
- *2.90 1 C Strike “if the license holder is an educational institution,” K-12 students taking part in an educational program should be exempt.*
- *2.90 2 D2 Keep the struck municipal officials and strike “or other elected municipal official”. The road commissioner, tax collector, and dog catcher may not be the best folks to sign the application – 2.90 2 D4 allows a MPO to sign if municipal officers refuse.*
- *2.90 2 E3 lack of communication between the Department and the municipality is the source of great friction. This should be a transparent process. This is not an unreasonable requirement on the Dept’s behalf.*
- *2.90 3 B There needs to be an exception for submerged gear like seaweed lines, pearl nets and ear hanging – where small craft navigation can take place between the end line markers. There is no way kelp could be profitable in a four foot by one hundred foot box.*
- *2.90 3 D 3 “An LPA license site for shellfish seed may not be located within the 300:1 dilution zone around a wastewater treatment plant outfall.” I believe this is new language that should be underlined. I cannot find maps of the 300:1 dilution zone on the Bureau of Public Health website.*

- *2.90 3 D 4 c seaweeds do not bioaccumulate – lobsters do. Will the Bureau of Public Health be closing areas within the 300:1 dilution zone to lobster and crab fishing ?*
- *2.90 6 B Sailboats and other craft can drag floating gear for miles. Gear from the infected Damariscotta could be dragged into the open ocean and drift into another watershed – without identification, those finding the loose gear would not know to destroy the animals on site. Loose gear is litter – marked gear would allow Patrol to issue a littering summons. This is adding to the microplastics in our seas. Lobstermen must tag all 800 of their traps. This is a huge biosecurity concern.*
- *Shellfish committees must have a transplant/ relay permit. Why is aquaculture, a citizen or company, allowed privilege over the municipality.*
- *DMR needs to rein in the unfettered movement of shellfish along our coast. Currently shellfish need to be keep within the health zone, or some such name, where one zone stretches from New Hampshire to Schoodic Point – with the exception of Casco Bay and the Damariscotta. It looks to me like quahogs from the New Meadows can be transplanted anywhere and they contain vibrio.*
- *A better rule would be that shellfish must remain in the watershed they were raised in.*
- *With no size limits – oysters that are years from market size are being sold and transferred from site to site.*
- *Will Chris Davis or Dana Morse get credit for taking the LPA class if they are teaching it?*
- *Historically the State of Maine has been the worst bucket stocker offender. Landlocked alewives, German brown trout, and oysters have all been introduced into our waters by the State. Please act with “an abundance of caution” when allowing the movement of shellfish and any contaminated water associated with the shellfish.*

Maine Aquaculture Co-op, Board of Directors (Marsden Brewer, Bobby Brewer, Peter Miller, Merritt Carey, Gordon Connell, Ryan McPherson, Luke Holden, Brendan Atwood), submitted via email, February 5, 2018.

On behalf of the Maine Aquaculture Co-op please accept these comments regarding the Department’s proposed changes to the PLA license requirements. The Maine Aquaculture Co-op is Maine’s first aquaculture co-op with a board and membership made up primarily of commercial fishermen. We currently have upwards of 10 members, and consistent interest from fishermen and coastal community members in our operations. Our member-farms are primarily located in Penobscot Bay. With respect to Section (G)(3)(B) Dimensions, we strongly oppose requiring the minimum size of a site to be 4’ x 100’. As noted in the record by several of our members, limiting the size in this manner would considerably reduce the ability of a scallop farmer to produce a viable crop on an LPA. Currently our members with LPAs have dimensions of 16” x 240’, giving them the ability to grow a viable scallop crop and recoup the considerable investment required to set up a scallop operation. Limiting the length of an LPA to 100’ would cut down the amount of growing space by more than half, and would have a chilling effect on this emerging and promising industry. We understand the need to create some restrictions on the size and so

suggest a minimum width of 12” or 1 foot. We are in support of the educational requirements outlined in the proposed rule, but request any educational requirements are scheduled so that fishermen, and those who do not keep a typical 9-5 workday, can attend with reasonable ease.

Theodore Willis, submitted via email, February 5, 2018

- *2.90 1 A Licenses should work on a fiscal year basis. It costs \$100 per license to complete a sea vegetable crop because they have to be “planted” under one license and then harvested under another. The licenses should go from July 1 to June 30.*
- *2.90 1 C The number of licenses for which a license holder can be assistant should be higher than 4. Eight would be a more reasonable limit.*
- *2.90 3 B*
 - o There needs to be an exception for submerged gear like seaweed lines, pearl nets and ear hanging – where small craft navigation can take place between the end line markers. I would rather see minimum depth requirements of 5 ft or a determination made between the harbor master and license holder.*
 - o There is no way kelp could be profitable in a four foot by one hundred foot rectangle. That area will allow for only one kelp line without fouling and twisting of lines taking place. Sarah Redmond at Sea Grant found an average yield of 3.43 lb per foot, wet. That is 343 lb per LPA. At the going wet purchase price of \$0.60 per lb each LPA would yield \$206, not enough to cover the cost of anchors, chain, rope and floats. If DMR wants to end the kelp sea farm business model, this regulation will certainly accomplish that. If the point is to keep one license holder from putting out 1200 continuous ft., then put minimum separation rules in place for 400 ft lines.*
- *2.90 3 D 3 “An LPA license site for shellfish seed may not be located within the 300:1 dilution zone around a wastewater treatment plant outfall.” I believe this is new language that should be underlined. I cannot find maps of the 300:1 dilution zone on the Bureau of Public Health website. How is 300:1 dilution zone to be determined? Lobsters and crabs are shellfish as well, will these areas be closed to lobster and crab fishing?*
- *2.90 3 D 4 c Seaweeds do not bioaccumulate, unlike lobster and crabs. I cannot find maps of the 300:1 dilution zone on the Bureau of Public Health website. How is 300:1 dilution zone to be determined?*

Nate Perry, submitted via email, February 5, 2018

I would like to formally comment on some of the proposed rule changes. As you know, scallop and seaweed culture methodology has gained significant ground the last several years. Specifically two of the proposals might harm that progress.

- 1) Not allowing DMR to make provisions for biotoxin monitoring or testing on LPA sites (as a blanket rule), could unnecessarily and unintentionally limit on-going cooperation between the Department and the private sector. Aquaculturists have already accepted that we'll likely shoulder lab costs. When it comes to exploring the growing market for new sea scallops products, it is unclear what roadblocks this proposed change might inadvertently throw up. There are several very legitimate reasons why a budding scallop operation may wish to use an LPA versus a lease and I would imagine DMR still has the right not to engage in any testing protocol if it seems fruitless, unwarranted, or a drain on resources.*

However, to ensure that this rule doesn't tie any hands, the language could be amended to allow for the consideration, solely at the discretion of DMR, of provisions for biotoxin monitoring, testing, and MOU protocols ONLY for projects also operating under DMR Special License for research.

- 2) Limiting the dimensions of an LPA to 4' x 100' would severely impact growers who wish to experiment with 'long lines' of lantern nets, ear-hung scallops, and kelp. It seems to most of us out working on these sites, that by requiring LPA dimensions in whole feet, a reasonable limit on size has already been achieved.*

Perhaps, term limits for LPAs, appropriate to the growth cycle of the listed species with some exceptions for alternate uses of the license (e.g. relaying, overwintering, conditioning, etc.), might help curtail over use of the LPA license by operators.

- 3) Finally, I strongly oppose a requirement for all LPA applicants and renewals to take a class. Perhaps, this would help first time applicants or even Harbor Masters, however, many of us in the industry have operated with LPAs for 10 or more years and successfully applied for myriad LPA licenses. Again, perhaps a webinar or online course for first time applicants and Harbor Masters would help accomplish the same goal without wasting the time of others, who already have thousands of hours of experience.*

Thank you for considering my input and I assure these opinions echo that of many in the industry. I would also like to thank the DMR in attempting improved and efficient management.

Carol White, C.A. White & Associates, LLC, submitted via email, February 5, 2018

GENERAL COMMENTS:

Given the proliferation of LPAs in Maine, and the challenges it presents from a regulatory and community standpoint, I think the purpose and limitations of the LPA license should be re-examined. The Limited Purpose Aquaculture license can be a good tool for evaluating the commercial viability of various sites, but due to its lack of public process, it should not be used as a mechanism to permit commercial aquaculture operations on the long term. I recommend DMR consider limiting the number of times an LPA can be renewed and restricting commercial harvesting from an LPA site. Similar to the State of Rhode Island's system, LPAs for a specific site could be limited to maximum of 3 to 4 years in duration, and to a one year or even a one-time harvest of the product. This would allow ample time to evaluate site suitability, but serve to encourage commercial growers to go through the more comprehensive lease process which includes a more thorough evaluation by DMR staff and a public review process. As in done in other states, a recreational LPA or license could be established for non-commercial growers who operations would have limited footprint and impact.

SPECIFIC COMMENTS

Section 2.90 Limited Purpose Aquaculture (LPA) license

Comment #1: Section 2 Application Requirements F. Site Plans; (2) Gear Description

I agree with the revision to include just a listing of gear types and elimination of the detailed descriptions under each gear type.

Comment #2: Section 2 Application Requirements G Renewal of licenses; (1)

I support the requirement that an LPA license holder complete an approved educational program, but I think that program should be completed prior to issuance of the initial LPA license for any new applicants, and prior to LPA renewal for any existing license holders. This requirement should also apply to Lease holders.

Comment #3: Section 3 Site Limitations D. DMR Water Quality Closures Areas

(1) LPA license site may not be located within 300 feet of any area classified as prohibited

I find this statement confusing considering the exemption for shellfish seed under (3) (a). Perhaps it can be reworded to say Except as provided in subsection (3) below, an LPA license site may not be located within 300 feet of any area classified as prohibited.

While I agree with the intent of limiting aquaculture in prohibited areas I don't understand the basis for the 300-foot setback from the prohibited boundary. Absent a technical explanation, I suggest that it read an LPA site may not be located within an area classified as prohibited. Furthermore, I recommend that with this revision to Chapter 2 this restriction apply to seed from both LPA's and Leases.

Comment #4: Section 3 Site Limitations D. DMR Water Quality Closures Areas

(2) Except as provided in subsection (3) below, LPA license sites may only be located in areas that are classified as approved, or conditionally approved, pursuant to DMR regulations Chapters 95 and 96.

Although I generally agree with this condition of limiting LPAs to approved or conditionally approved waters, there is no mention of how any existing LPAs in prohibited or conditionally restricted waters will be handled; this should be clarified. Will existing LPAs be "grandfathered" and allowed to renew their license, or will their license expire?

Comment #5: Section 3 Site Limitations D. DMR Water Quality Closures Areas

(3) Exemptions; (a) Shellfish Seed

I support the requirement that an LPA license site for shellfish seed not be located within the 300:1 dilution zone around a wastewater treatment plant outfall. Its seems appropriate to reference the method used or basis for the determination of 300:1 zone i.e. as determined by Maine DMR, NSSP or other? In order to facilitate planning in the industry, maps depicting these 300:1 dilution zone should be made public as soon as possible. There is no mention of how any current LPA sites located within the 300:1 dilution zone will be handled; this should be clarified. I recommend that this restriction apply to seed from both LPA's and Leases. This language could be incorporated into Section 2.95 Water Quality Classifications and Shellfish Aquaculture.

Comment #6: Section 3 Site Limitations D. DMR Water Quality Closures Areas

(3) Exemptions (c) Marine Algae

If I understand it correctly; with the adoption of these proposed rule changes, nothing prohibits Marine Algae from being grown within the 300:1 dilution zone on a Lease site. I recommend that the 300:1 prohibition be applied to both LPA and Lease sites for Marine Algae.

Comment #7: Section 5 Activity limitations & Requirements; (C) Marine Biotoxins

It appears that the objective of this revision is to clarify that it will not be possible for an LPA holder to "test out" of a biotoxin closure, but this revision may be misunderstood. Given the potential

health threats associated with a biotoxins, this section should reinforce that “harvesting from an LPA is prohibited during a biotoxin closure that covers the LPA site, or alternatively refer to: Direct market harvest of shellstock is prohibited in areas that are closed due to marine biotoxins. For details about closures see.....In my experience, many current LPA holders are not aware of the extent and seriousness of biotoxin closures. LPA holders should be encouraged or required to subscribe to the DMR notification system. I recommend that this section of Chapter 2 clearly state that it is the responsibility of the LPA holder to be aware of and abide by biotoxin closures. Section 2.95 Water Quality Classifications and Shellfish Aquaculture.

Comment #8: A. Compliance 3. Closed Area compliance:

This Section on Water Quality Classification is not specific to LPAs, but refers only to shellfish. Consequently, I infer that there are no restrictions on the harvesting of Marine algae in areas that are closed due to marine biotoxins pursuant to Chapter 96 and bacterial pollution pursuant to Chapter 95, and in those areas, that may be closed by the Department. Hopefully the Department has confirmed that there are no potential health hazards associated with harvesting marine algae for human consumption during either biotoxin and bacterial closures.

Comment #9: B. Definition

The definition of “seed” is confusing in light of the description of shellfish seed in Section 3 Site Limitations D. DMR Water Quality Closures Areas (3) Exemptions; (a) Shellfish Seed. Perhaps a 25-mm size classification could be added to the definitions as a maximum size for shellfish seed that can be moved without relay permit?

Tom and Emily Haslett, Pemetic Sea Farms, submitted via email, February 5, 2018

I am writing to provide comments and express several concerns regarding certain proposed changes to the Maine Department of Marine Resources (DMR) administrative rules pertaining to Limited Purpose Aquaculture License Program (LPA). By way of background, my wife Emily and I are principals in a newly formed aquaculture business called Pemetic Sea Farms LLC (PSF) with offices in Winterport ME. We are seasonal residents of Milbridge ME where we own a property. Emily and I share with our principal partners in Pemetic Seafarms a collective interest in making a decent financial return on our investment, create jobs for people living in Washington and Hancock county, and supporting the eco-system of the Gulf of Maine with innovative and sustainable aquaculture business practices.

When we review the proposed changes to the regulatory framework for LPA’s we see a number of inconsistencies and hope that our views might inform decisions that align with our business goals and DMR’s mission. We actively welcome information and perspective that you have that caused you to promulgate the regulations proposed to 2.90 Limited Purpose Aquaculture License.

A) 2.90(1)(C) An individual shall be listed as an assistant on no more than four LPAs, other than their own.

As a practical matter – PSF is organized with four partners. Collectively, we have plans to build out 16 LPA’s over the next three years in order to establish an evidence based decision on where to site a larger, commercial scale leasehold. The proposed limitation on where and how we can deploy our resources is arbitrary and will impede our ability to operate efficiently. We need the flexibility to deploy assistants (and ourselves) across all of our LPA’s.

B) 2.90(1)(G) To be eligible to renew an LPA license, in 2019 or in any subsequent year, the applicant must have completed any educational requirements established pursuant to 12 MRSA§6-72-C(3)(A) and must submit an application for renewal to the Department online or postmarked no later than December 31st.

My wife and I spend the majority of a given year in Massachusetts. As noted, we are seasonal residents in Milbridge. Our role in the newly formed partnership is providing managerial, financial and business support to the nascent enterprise. Requiring my wife Emily and me to take an annual educational course offers limited benefit to our efforts to build a business. Moreover, scheduling such a program seems like a very unrealistic burden if you are trying to attract business people to invest in this sector.

C) 2.90 The site must include four 90-degree corners, and may be no less than 4' or greater than 100' on any one side.

From our perspective, the LPA arrangement is a good tool for entrepreneurs who are trying to develop site plans and who are working to optimize the efficiency of innovative technologies. Moreover, we have developed clear understandings of optimal growing conditions for sugar kelp and bivalves that don't comport to a 4' x 100' plan design. Why would you seek to standardize how to lay out a 400 square foot plan; why not provide the persons taking the risk with their money and time an opportunity to have flexibility? We are interested in laying out our farms with a 200' x 2' plan to maximize the yields of the vegetables and shellfish we want to grow.

Thank you for taking the time to consider our comments. As mentioned, we sincerely welcome the chance to talk about the motivations that are causing you to promulgate these changes. From our perspective, they are arbitrary and they will severely limit our capacity to move ahead with our plans to invest in the aquaculture sector.

Sebastian Belle, Executive Director, Maine Aquaculture Association, submitted via email, February 5, 2018.

As per the Department's request the Maine Aquaculture Association (MAA) would like to offer the following comments on the Agency Rule-making Proposal on Chapter 2; Limited Purpose Aquaculture (LPA) License Program. These comments are based on polling our membership and on discussions with non-members about their concerns.

General Comments: The LPA system was created to help lower the barrier to entry into the aquaculture sector and to allow aquaculturalists to trial a specific area to determine if it would be good for full scale commercial production. LPA's were also created to allow small scale recreational growers to grow small quantities of their own aquaculture products for their own consumption. Inherent in the LPA system was an acknowledgement that by limiting the size, type and length of aquaculture operation permitted, the potential risks of negative impact were also limited. The LPA system was developed in the context of a leasing system for larger more long-term leases that was and is comprehensive, protective of the public trust and the environment but often lengthy and expensive. As the rapid expansion of LPA's show the LPA system has been a resounding success. As the LPA numbers expanded MAA began to hear concerns from members and non-members about several potentially unintended consequences. In particular MAA heard concerns

about biosecurity, new growers lack of training, public health and the ability of the LPA system to be “gamed” as an end run around the more comprehensive leasing program. As such MAA supported an examination and adjustment in the LPA rules to evolve the LPA system and address some of these challenges.

MAA would like to commend the department and its hard-working staff for proposing changes to the current rules as they relate to LPA’s. As the Department has noted the number of LPA’s has increased dramatically in recent years and this appears to be creating a significantly increased work load for department staff. MAA is sensitive to that challenge and has consistently supported the department’s request for increased appropriations to increase staff capacity. In addition, MAA has over the years supported a number of significant increases the fees and rents our members pay to the department to help support the departments management of the aquaculture sector.

Specific comments:

2.90 (1.)(B.) Density standard.

The current rule gives riparian landowners an exemption to the LPA density rule. The draft rule clarifies that exemption. As currently drafted and as proposed This exemption is NOT a “two way” exemption. That is to say riparian landowner LPA’s count against the density standard for non-riparian LPA holders but non-riparian LPAs do not count against the density standard for riparian landowners. MAA would suggest that riparian landowner LPA’s if they are exempted from the density standard they should not count against the density standard for non-riparian LPA holders.

2.90 (1.)(C). Assistants.

MAA understands that the departments intent in limiting the number of assistants is to address the problem of people using the LPA system as an “end run” around the more traditional leasing system. MAA supports the departments intent and as such supports the limits on the number of assistants allowed on an LPA and an assistant being prohibited from being declared as an assistant on more than 4 LPAs other than their own. Having said that the draft rule presents some challenges for some existing operations and certain specific uses of LPAs. In particular LPAs are often used in training programs and research projects. Those programs and projects often do not occur on LPAs held by educational institutions. MAA would like to suggest that an exemption be created for both scientists and students and that those exemptions apply to any LPA not just those held by educational institutions. In order to prevent this from becoming a loop hole in the proposed limits MAA would suggest that scientist or student exemptions must include some documentation as to the active employment and/or enrollment status of the scientist or student. In addition, MAA would suggest the department consider a limit on the number of student or scientist exemptions allowed on any given LPA and a cap on the total number of LPAs any student or scientist could be on.

MAA would like to also note that an alternative method to address the issue of LPAs being used to “game” the leasing system might be to establish time limits on LPAs that would encourage LPA holders to apply for conventional leases after they have tested a site with an LPA. If LPAs (with some specific exemptions for shellfish upwellers, relay stations, wet storage sites and recreational

LPAs for personal consumption only) had sunset clauses linked to the production cycle of the species being grown to allow an adequate assessment of the site but to encourage the LPA holder to apply for a standard lease that might help address the current problem.

2.90 (2)(B) Sources.

MAA is concerned that shellfish seed is being moved around in state waters with little attention to the risk of transferring, pest, pathogens or parasites. MAA understands there are currently regulations that limit movement within state waters between “health zones”. MAA supports the requirement that “sources of seed or stock must be from hatcheries approved by DMR” Having said that there appears to be a grey area with respect to the movement of seed or stock from “nurseries”. Nurseries are not clearly defined and should be. In addition, by eliminating the section of 2.90(2)(B) that apply to inspection of hatcheries department appears to loosen not tighten the regulations with respect to hatchery biosecurity and aquatic animal health protection.

2.90 (2)(D)(3) Required signatures, intertidal sites.

MAA would note that the LPA rules use a different definition (extreme low water mark vs. mean low water mark) of the intertidal zone than the rest of the aquaculture statutes. MAA would like to see a consistent definition (waters between the high and mean low water mark) of the “intertidal zone” used throughout the DMR statutes to avoid confusion and ensure consistency across state statutes.

2.90 (2) (F)(2) Gear description:

MAA would note that by removing the specifics of all the gear in the gear description sections the department is opening the door to many new and unanticipated forms of the gear on LPAs.

2.90 (2)(F)(2)(j) Marine Algae-

MAA notes that this is the only gear description section that includes descriptors for a number of different gear types “(rope, rafts with ropes attached, bags, long lines (vertical or horizontal), or rope grids.” Most of those gear types are in fact already addressed in other sections of the same gear description section. MAA would suggest clarifying the gear description section by striking the word “shellfish” from (2)(F)(2) (b,c) and clarifying (2)(f)(2)(j) to apply to “longlines (horizontal or vertical) and rope grids” only. All the other sections focus on the type of gear not what is grown on them.

2.90 (2)(G)(4) Renewal of licenses;

MAA has long held that if a license holder complies with the requirements of the license that license should be renewed. As such MAA suggests changing 2.90(2)(G)(4) from “may be renewed” to “shall be renewed”.

2.90(3)(B) Site limitations, Dimensions;

MAA opposes the draft rule limitation on the width of an LPA to be no less than 4 feet across. This discriminates against longline gear for scallops and/or algae which is inherently long and narrow. MAA would suggest developing separate dimensional limits for this type of gear due to the nature of the gear that acknowledge the “long and thin” nature inherent to this gear type. As currently drafted

the rules will present a significant barrier to both existing and potential start up seaweed and scallop longline operations.

2.90(3)(D) Site Limitations, DMR Water Quality Program Closure Areas.

MAA is concerned that certain shellfish operations, in particular “FLUPSYS” upwellers will be unduly impacted by provisions (1) (2) and (3a) in this section. MAA knows of no peer reviewed literature that suggests that growing seed less than 25mm that will be moved to an approved growing area represents any risk to public health. MAA supports these prohibitions for shellfish above that maximum size and for marine algae in general unless the marine algae are part of a mitigation project and when the products grown on that mitigation project will not be for direct human consumption.

2.90(5) Activity limitations and requirements.

MAA opposes the removal of the clarification that marine algae legally obtained from Maine waters and fed to green sea urchins does NOT constitute a discharge. Although these activities have occurred infrequently, the original reason for the exemptions inclusion remains the same which is to effectively exempt urchin growers from having to apply for a clean water act permit.

2.90(5)(C) Marine Biotoxins

MAA opposes the blanket prohibition of harvesting and monitoring of shellstock from Marine Biotxin Closed Areas. MAA is sympathetic to the Departments concerns about workloads but would respectfully suggest in a time of limited budgets and changing environmental conditions the department may want to retain the ability to consider data for monitoring of LPA sites.

John E. Noll, Pemetic Sea Farms, submitted via email, February 5, 2018

The purpose of this letter is to provide comments and express my concerns regarding certain proposed changes to the Maine Department of Marine Resources' (DMR) administrative rules pertaining to the Limited Purpose Aquaculture License Program (LPA). These changes, if implemented, will not only place an undue regulatory burden on a nascent industry but will also likely result in discouraging new individuals from entering the field of aquaculture. Our cold, clear coastal waters offer an economic bright spot for Maine and a resource which, unlike traditional lobster and groundfish industries, is well below capacity. Currently, aquaculture offers anybody with a modest financial investment, hard work and an acceptance of the risk vs. reward dynamic, to build a small business, create jobs and help grow a sustainable ocean based economy. As we all know, fresh, quality seafood is an integral component to Maine's “brand.”

Specifically, I offer the following comments:

2.90(1)(C) An individual shall be listed as an assistant on no more than four LPAs, other than their own.

My business venture, Pemetic Sea Farms, consists of myself and three other individuals, each of whom have or will have four LPAs as we determine whether site conditions will allow for the profitable raising of shellfish and seaweed. The proposed rule change that limits assistants to no more than four LPAs, other than their own, will place unreasonable limitations on our ability experiment at various LPA locations while we assess the best locations to convert LPA license(s)

into a standard aquaculture lease(s). There must be a better way than the proposed rule change to reign in the abuses of a handful of existing LPA license holders that does not penalize the majority of existing license holders or those new to the sector.

2.90(1)(G) To be eligible to renew an LPA license, in 2019 or in any subsequent year, the applicant must have completed any educational requirements established pursuant to 12 MRSA §6-72-C(3)(A) and must submit an application for renewal to the Department online or postmarked no later than December 31st.

While I can see merit in some form of an educational requirement for an individual prior to receiving their first LPA license, this must not be an annual requirement for all LPA license holders. This would not only discourage investment from out of state individuals but would also place an unrealistic burden for those of us that reside here year round. Many LPA license holders, including myself, maintain a fulltime job in addition to attempting to establish a profitable business. I completed the Shared Waters aquaculture program in Ellsworth in 2017 which I found to be worthwhile. However, attending these classes required a time commitment that was not insignificant when, for most of us, time is at a premium. If DMR requires LPA holders to complete any educational program, class locations, at a minimum, should be held across four regions of coastal Maine. Expecting someone from the downeast area to travel to Rockland or Boothbay one evening per week for 12 weeks is unrealistic.

2.90 The site must include four 90-degree corners, and may be no less than 4' or greater than 100' on any one side.

I chose my current LPA configuration of 2' x 200' because it is the most efficient use of the existing maximum LPA size of 400 square feet. I plan to grow seaweed and oysters within the same LPA footprint with the goal of having an annual income from the yearly harvesting of seaweed which will help offset some of the operating costs related to the farming of oysters which generally take three or more years to reach marketable size. The proposed rule change limiting site configuration will impact my fledgling farm operation in two significant ways:

1) Sugar kelp grows best if the seaweed lines are spaced 10 feet apart. A 4' separation is too narrow and is likely to result in less growth, lower quality product and gear and kelp entanglement. This proposed rule change will result, at a minimum, in reducing our projected sugar kelp production by half.

2) Oyster Grows are approximately 18 inches in width. Placing the Oyster Grows side by side with an 18 inch separation will increase costs both in terms of 1) additional gear required to keep the cages from contacting and thus damaging one another and 2) more time required for gear maintenance and harvesting. This proposed rule change, if it is allowed to stand, will have a profound impact on my business model resulting in Pemeti Sea Farms to reconsider sugar kelp as a viable product while lowering profit expectations on the remaining oyster operations. This is not conducive to encouraging new start up businesses in the sector. Finally, I need to point out that the DMR's public outreach efforts on this matter have fallen short of what constitutes the making of good public policy. DMR conducted only two public hearings which took place in Yarmouth and Rockland. Given that DMR's proposed rule changes will have significant impacts to the growth of the aquaculture industry and that existing aquaculture operations are located along the entire coast of Maine, additional public hearings should have been held in Ellsworth and Machias.

Anne Bowden, Pemetic Sea Farms and Sea to Hearth R&D, submitted via email, February 5, 2018.

The purpose of this letter is to provide comments and express our concerns regarding proposed changes to the Maine Department of Marine Resources (DMR) administrative rules pertaining to Limited Purpose Aquaculture License Program (LPA). Maine's coastline and marine resources represent key assets for economic prosperity of the State, and aquaculture is an important, and growing sector supporting traditional and economic working waterfront activity. The cold, clear waters of coastal Maine offer an economic bright spot and a resource which, unlike traditional lobster and groundfish industries, is well below capacity. Currently, aquaculture offers anybody with a modest financial investment, hard work and an acceptance of the risk vs. reward dynamic, to build a small business, create jobs and help grow a sustainable ocean based economy. Indeed, in 2014 Maine's aquaculture sector had a direct economic impact of \$73.4 million in output, 571 in employment, and \$35.7 million in labor income. Including multiplier effects, Maine's aquaculture sector generates a statewide annual economic contribution of \$137.6 million in output (i.e., sales revenue), 1,078 full- and part-time jobs, and \$56.1 million in labor income (Cole, Langston & Davis, 2017; Gabe & McConnon, 2016). The report by Cole et al, 2017 shows that a large portion of Maine's aquaculture sector is new, experienced considerable recent sector growth, and is largely composed of small to medium-sized businesses (with size of business demonstrated in revenue, leases held and farm acreage). The economic development of the sector has been driven by these small, start-up farms. These proposed LPA rule changes, if implemented, will not only place an undue regulatory burden on a nascent industry but will also likely result in discouraging new individuals from entering the field of aquaculture. Limited Purpose Aquaculture (LPA) Permits have played a major part in enabling economic development of Maine's aquaculture sector, and allow beginning farmers to carry out farm start-up, and site testing whilst full lease applications are obtained. However, these LPA sites are small, and can represent a substantial challenge for a beginning farmer to develop a viable business. The proposed rule changes restrict the ability of beginning farmers to become economically viable, impacting start-up business success, and will ultimately hinder economic development of the entire sector.

Specifically, we offer the following comments:

2.90(1)(C) An individual shall be listed as an assistant on no more than four LPAs, other than their own.

Pemetic Sea Farms, LLC consists of four individuals, each of whom have or will have four LPAs as we determine whether site conditions will allow for the profitable raising of shellfish and seaweed. This proposed restriction will impact our time to break-even, farm profitability and value, as well as increase operation costs. Ultimately this reduces growth potential for our new business, and will impact the number of jobs we can offer.

2.90(1)(G) To be eligible to renew an LPA license, in 2019 or in any subsequent year, the applicant must have completed any educational requirements established pursuant to 12 MRSA §6-72-C(3)(A) and must submit an application for renewal to the Department online or postmarked no later than December 31st.

While I can see merit in requiring some form of an educational requirement for an individual prior to receiving their first LPA license, this must not be an annual requirement for all LPA license holders. This would not only discourage investment from out of state individuals but would also

place an unrealistic burden for those of us that reside here year round. Many LPA license holders, including myself, maintain alternative job in addition to attempting to establish a profitable sea farm. If DMR requires LPA holders to complete any educational program, class locations, at a minimum, should be held across four regions of coastal Maine.

2.90 The site must include four 90-degree corners, and may be no less than 4' or greater than 100' on any one side. We chose the current LPA configuration of 2' x 200' because it is the most efficient use of the existing maximum LPA size of 400 square feet. We plan to grow seaweed and oysters on the same LPA footprint with the goal of having an annual income from the annual harvesting of seaweed which will help offset operating costs related to the farming of oysters which generally take two-three years to reach marketable size. The proposed rule change limiting site configuration will impact my fledgling farm operation in two ways:

1) Sugar kelp grows best if the seaweed lines are spaced 10 feet apart. A 4' separation is too narrow and is likely to result in less growth, lower quality product and gear entanglement. This proposed rule change will result, at a minimum, in reducing our projected sugar kelp production by half.

2) Oyster Grows are approximately 18 inches in width. Placing the Oyster Grows side by side with an 18 inch separation will increase costs both in terms of 1) additional gear required to keep the cages from contacting and thus damaging one another and 2) more time required for gear maintenance and harvesting. This proposed rule change, if it is allowed to stand, will have a significant impact on our business model resulting in Pemeti Sea Farms reconsidering sugar kelp as a viable product while lowering profit expectations on the remaining oyster operations.

Finally, I need to point out that the DMR's public outreach efforts on this matter have fallen short of what constitutes the making of good public policy. DMR conducted only two public hearings which took place in Yarmouth and Rockland. Given that DMR's proposed rule changes will have significant impacts to the growth of the aquaculture industry and that existing aquaculture operations are located along the entire coast of Maine, additional public hearings should have been held in Ellsworth and Machias.

Neutral (3)

Carter Newell, submitted via email, January 21, 2018

The Department underlined sections of this comment to distinguish the text of the proposed rule summary from the commenters suggestions.

This rulemaking proposes a number of changes to the Limited Purpose Aquaculture License (LPA). It deletes a number of references to other chapters of regulation to reduce redundancy. It proposes several changes to reduce risk to public health, and would prohibit siting LPAs for shellfish in prohibited, restricted and conditionally restricted areas with certain exceptions. It would prohibit siting of marine algae or shellfish seed LPAs within the 300:1 dilution zone around wastewater treatment outfalls and prohibit the use of MOU or biotoxin monitoring protocols on LPAs. It would limit the dimensions of LPAs to no longer than 4x100 feet, square or rectangular (2x 200 feet)

It would require LPA license holders to complete an educational program prior to renewal of their license in 2019 and future years.

(exempt people who had experimental or 10 year leases)

It would amend gear marking requirements, so that each individual piece would no longer need to be marked and require buoys to be marked with the LPA identification number.

The proposal would allow an individual to have three helpers, but limit an individual to being listed on no more than four LPAs as an assistant. The proposal clarifies the riparian landowner density exemption, notice to municipalities, site identification on the application, and who must sign the application. The proposal would also limit the allowable mid-year amendments to source of stock, species, mooring type/layout, assistants, and contact information.

(the proposal would require a 200 foot buffer zone away from existing experimental or 10 year lease sites)

(the proposal would require a 200 foot buffer zone for other LPA's from different applicants)

(the proposal would require the notification of existing leaseholders within 1000 feet of the LPA application)

Robert Rheault, Executive Director, East Coast Shellfish Growers Association, submitted via email, February 5, 2018.

I am writing to address your rulemaking (no number provided) proposal that would introduce a number of changes to the Limited Purpose Aquaculture License (LPA). The East Coast Shellfish Growers Association represents over a thousand small farms from Maine to Florida that collectively harvest over \$155M in sustainably cultured shellfish while providing thousands of green jobs in rural coastal communities. The East Coast shellfish aquaculture industry has been growing at 20% a year, putting out-of-work fishermen back to work while providing much-needed quality domestic seafood in the market and yielding tangible environmental benefits to our growing waters. Your proposal “would prohibit siting LPAs for shellfish in prohibited, restricted and conditionally restricted areas with certain exceptions.” The rationale provided was that this would “reduce risk to public health.” Growing seed in prohibited waters does not pose a public health risk as long as seed are given an adequate time to purge themselves of viral and bacterial contaminants prior to sale for consumption. The best available data indicates that this would be a period of about two months as long as the shellfish are metabolically active. The ISSC agreed to a period of four months at the latest conference. There is no scientific evidence that shellfish seed in prohibited waters are accumulating deleterious substances at levels of concern that are not addressed by the 4-month purge period. To document this I suggest you examine the heavy metals data that I provided in my proposal to the ISSC for the facilities inspection issue (available on the ISSC website). To come into compliance with the new aquaculture chapter in the NSSP your state will need to adopt a maximum seed size, above which it would be illegal to maintain shellfish seed in prohibited waters. If there are administrative or training concerns such that DNR feels they cannot adequately patrol or regulate seed production in prohibited waters, then I suggest implementing a record keeping requirement to force growers to document the date(s) they removed seed from the upwellers in prohibited waters – and when they started selling those animals for consumption. If they cannot maintain such documentation then their permit renewal should be denied. Prohibited waters often make an excellent nursery culture area for seed. They are typically well protected from waves and weather, and often are in some biologically rich and productive waters. Furthermore, there are fewer user conflicts in these areas, so it makes good sense to use them for productive seed aquaculture as long as we can be confident that we are not jeopardizing public health.

Nick Batista, Policy Officer, Island Institute; and James Crimp, Marine Business Specialist, Island Institute, submitted via email, February 5, 2018

The Island Institute thanks DMR for bringing these proposed regulations forward and we believe that, with a few exceptions, they are improvements to the existing regulatory process for LPAs. The Island Institute works to sustain Maine's island and coastal communities, and exchanges ideas and experiences to further the sustainability of communities here and elsewhere. The goal of our Aquaculture Business Development (ABD) Program is to help coastal and island communities diversify their local economies for a resilient future. Aspiring shellfish or seaweed aquaculturalists apply to this program and successful applicants receive intensive and multi-year, one-on-one support as well as group training to help them successfully develop and launch strong aquaculture businesses along Maine's coast. While this program attracts applicants with diverse backgrounds, we encourage applications from current fishermen or people who have strong ties to fishing communities in Maine. We look for applicants who have demonstrated a strong social network in the marine industry and a high amount of practical experience on the water. A goal of the program is to provide support to responsible individuals so that they may become positive representatives of the aquaculture industry as well as leaders in Maine's marine industry as a whole. Since 2015, we have provided direct support through ABD to 17 new aquaculture businesses in Maine, including effectively doubling the number of edible seaweed farms. We expect to have supported the start of 60 new aquaculture businesses by 2020, and to have added \$36million to the economy. Based on our experience working with this group, the Island Institute supports the following changes to the regulations:

- Gear marking requirements for LPAs are a sensible simplification to existing regulations.*
- Due to the complexity of the process, potential aquaculturists often team up on both the start-up of their business as well as the LPA process. It is reasonable to limit the number of LPAs somebody can assist on to prevent the abuse of the LPA process, but we would encourage DMR to avoid being so restrictive as to prevent LPA holders from getting the help they need. Additionally, some flexibility in this rule in order to allow extra hands on a farm under extenuating circumstances would be helpful.*
- Requiring LPA holders to participate in an educational program helps protect the investment that existing lease holders and LPA holders have already made in their businesses. Training that provides a baseline knowledge in biosecurity, public health, and community relations helps ensure new aquaculturists are responsible neighbors and better understand the risks to their businesses, other aquaculture businesses, and the public that these topics pose. As you move forward with this rule, we hope that the training provided through our ABD program that included presentations and conversations with DMR public health, and aquaculture staff on these topics meets the educational criteria. DMR's participation in our programming is incredibly important and valuable, and we look forward to continuing to work with the department. The main area where we see room for improvement in the proposed rule changes is the 4' minimum width of an LPA. Our concerns are focused on the detrimental constraints this width will place on seaweed growers' ability to test new sites. Such a dimensional restriction on LPA holders who want to grow seaweed burdens an emerging industry with unnecessary restrictions.*

Based on experience helping 10 new growers through the LPA process for kelp, we have learned the following:

- Kelp lines are typically submerged under the water, 7 feet down, and their presence does not normally impede navigation or boat traffic.*
- Kelp lines are typically set in reasonably shallow water – 20-40 feet deep – and are normally set out around the time lobsters start moving to deep water. Lines are taken in during the late spring, usually around the time lobsters begin to migrate inshore. There is little impact to the lobster industry from a kelp farm, almost no impact from small farms made up of one to two kelp long lines. Other winter fisheries, such as scalloping or shrimping, might be impacted by a specific site.*
- Kelp seed is grown on lines that are typically 200' long; farmers wrap these seed lines around long lines that are multiples of 200' in length.*
- Full-size kelp farms have leases that allow them to deploy five or more long lines that are 1,000' in length (though farms sometime deploy lines that are up to 1,600').*
- For beginning farmers using LPAs, stringing two, 1' by 400' long LPAs in a row into one or more, 800' long lines is common practice.*
- The growers we work with have not been able to run a profitable business solely on LPAs. We strongly encourage emerging kelp growers them to apply for a lease.*

Based on this information, we believe the proposed changes neither further the goals of the LPA program, nor help the industry, for the following reasons:

- Seaweed farmers wouldn't be able to adequately test whether their moorings are suitable to hold the increased drag of a longer line if they were limited to a single 400' line.*
- Installing 4, 100' lines would not be practical if seaweed farmers wanted to test multiple sites (because of spool length, and the lack of ability to test their anchors as stated previously). Being able to install 2, 800' lines allows for more thorough testing of multiple sites in a way that mirrors a full-sized farm, as is one of the original goals of the LPA system.*

We therefore would like to propose that the DMR consider the following changes as they go forward:

- Allow an exception to the minium width of an LPA for seaweed long lines that would allow growers to apply for 1 or 2 long lines for a cumulative total of 1,600' in length.*
- Minimize the paperwork associated with applying for multiple, contiguous LPAs that are going to be used for a long line: allow the applicant to submit 1 LPA application with all the necessary information for the long line, instead of 3 or 4 separate LPAs with similar information, but slightly different locations and maps.*
- Reduce the administrative burden associated with applying for a long line LPA by having applicants indicate the beginning and end coordinates of the long line, instead of the midpoint coordinates. Changing both the written requirements in the application and also the vicinity map would be helpful here.*
- Allow a grower to simultaneously test multiple lengths, such as a 1000' line and a 600' line, improving the quality and comprehensiveness of information they are able to learn about their site and, ultimately, improving their application for a lease. Current LPA*

regulations do not allow a farmer to test lines of these lengths.

- Consider making LPA renewal deadlines a year after the LPA was first approved, rather than requiring renewal by the start of each calendar year. This will allow kelp farmers to make adjustments to LPAs and configurations at the start of each growing season, instead of petitioning DMR for an amendment to the LPA or having to reconfigure the LPA in January, during the middle of the growing season.

- Allow long lines to be placed seasonally, rather than specifying dimensional requirements as proposed in this rule, is preferable. As the seaweed growing season runs primarily from October to early June, allowing for the placement of a seasonal long line over the winter would help minimize concerns about conflicts with other uses.

It is important to note that, in terms of timing, the new regulations have the potential to slow the growth of the kelp industry. Without the changes we recommended to Chapter 2; Limited Purpose Aquaculture License Program, LPA holders in 2018 who have a 800' or 1000' of kelp lines would need to reconfigure their LPA while their kelp was growing in order to meet the 2019 requirements or they would need to reapply for their 2018 LPA so the fall seeding would be on a reconfigured farm that meets the proposed width. Further more, depending on when these regulations are finalized, it may be difficult for an applicant to navigate the experimental lease process in time to seed the farm in the fall. This creates a significant disadvantage for any emerging kelp farmer who to date has had 4 LPAs and 2 long lines and is considering an experimental lease but has not yet applied for it.

We appreciate DMR's attention to sensible regulations that promote responsible growth of the aquaculture industry in Maine.

Department response to comments (similar comments have been consolidated and grouped by topic):

LPA Application Criteria

Dimensions of LPAs

LPAs were originally conceived to allow LPAs to occupy 400' square feet. This dimension was originally proposed to allow the installation of a 20' x 20' mussel raft and allow primarily oyster aquaculture in a non-commercial, seed production, or activities ancillary to commercial leases. Seaweed and scallop longline aquaculture were not anticipated at the time of the original LPA rulemaking. The Department agrees with numerous comments that the LPA is adequate for some businesses, and that it provides a useful mechanism to evaluate sites prior to lease application.

Currently, the regulations provide no guidance as to how the 400-square foot LPA license can be arranged. Therefore, DMR could technically issue a 1 inch x 4,800 foot LPA.

Changing the rule to allow for maximum dimensions of 4' x 100' would provide the LPA regulations with the structure and clarity it needs, but would negatively impact industry as outlined in the comments received.

Comments were received from 27 individuals in opposition to this proposal. After reviewing the data, it appears that 127 existing LPAs would be impacted by this proposed rule change. Most of these are LPAs issued for the culture of either marine algae or for the culture of scallops and

therefore the proposed changes would negatively impact new forms of aquaculture being tested in Maine. Several commenters suggested a 1'x400' dimension was a more appropriate dimension.

There are locations where a 1'x400' would have not impact other uses of the area and other locations where a 400' length would be problematic. The Department recognizes that the local Harbormaster might be best suited to making that distinction and intends to work with the Maine Harbormaster Association to ensure all Harbormasters are informed about their authority and discretion in providing their signature under the LPA program.

Based on the above, the Department intends to restrict LPA dimensions to no more than 1'x400', to require four 90-degree angles, and require all dimensions be in whole foot increments.

Helper/Assistant Limitations

Currently an individual can hold no more than 4 LPAs but can be an assistant on an unlimited number. This has resulted in individuals being a license holder on 4 LPAs and being listed as an assistant on additional LPAs where the actual license holder has minimal involvement in the aquaculture operations. Several comments made a strong business case for limiting participation to 4 LPAs under the individual's name, and allowing that person to help on up to 8 other LPAs, as this would provide adequate employment opportunity for an individual on a small operation.

Several commenters also requested that existing LPA holders be "grandfathered" or that there be a phase-in period under which those LPA holders would have to come into compliance with a new limit. Several commenters also suggested that in lieu of limiting the number of LPAs on which an individual could assist, the Department should limit the amount of time someone can hold an LPA license. A limit on duration is difficult to implement, because an LPA is "new" if it is located in a different location. The Department recognizes that many LPA licensees have placed gear and cultured product in the water on more than 8 LPAs, so without a phase-in period the rule as proposed would be onerous to growers in terms of moving, handling or consolidating the already "planted" product.

The Department therefore will provide a three-year phase-in period in which to come into compliance. Effective immediately no new LPAs will be issued where a person is listed as an assistant on more than 8 LPAs. An individual may still only be listed as a licensee on four LPAs, giving them a combined potential of 12 LPAs. As of 2021, the maximum of 12 LPAs on which a person can be the licensee or assistant will come into effect. This three-year phase-in period would allow sufficient time for LPA holders to submit an aquaculture lease application to the Department.

Density Standard

One commenter suggested that the exception for riparian owners in the density standard should also be interpreted to say that a riparian LPA does not impact the density standard for others in the area. The Department agrees with this suggestion and has modified the rule to clarify this.

Gear Description

One commenter suggested that the marine algae gear description should be modified to reflect the nature of the gear rather than what is grown. DMR agrees and has changed the description to longlines and rope grids rather than marine algae. Another comment also suggested that deleting the detail of gear descriptions would allow new gear. However, that is precisely the Department's intent; to facilitate gear innovations. It is also unlikely that the Department will be able to regularly update the descriptions to accommodate changing industry use.

LPA Mid-Year Amendments

Under existing regulations, DMR may only amend the assistants and contact information on an LPA license. This proposed rule would increase DMR's authority to allow changes to be made to the source of stock, species, mooring type, and layout in addition to contact information and assistants. The LPA licensing process has limited public participation and the Department believes this change appropriately balances public notice with increased flexibility for the LPA holder to make changes that do not significantly alter the scope of operations beyond which was originally contemplated in the LPA approval. An LPA holder can always make other, more substantive changes at any time by submitting a new LPA application.

Municipal Signature

This language change would create consistency between our lease and LPA regulations, eliminate a duplicative reference to statute and does not broaden the elected municipal officials who can provide municipal approval to an LPA application.

Marking Requirements

Leases are not required to mark each piece of gear, while LPAs are required to under existing regulation. This rule change creates consistency between regulations and does not significantly increase risk of lost or errant aquaculture gear.

Public Health Concerns

Biotoxin MOU Ban

To harvest cultured product during a biotoxin closure, an aquaculturists must currently enter into a Memorandum of Understanding with the Department regarding product handling and testing requirements before being able to market their product. The Department has encouraged LPA applicants to avoid sites where biotoxin closures are likely. Due to workload, staffing, and resource constraints, the Department believes restricting biotoxin testing under these MOUs to leaseholders is an administrative necessity. If an MOU for biotoxin testing is a business requirement, applicants may utilize the experimental or standard lease instead of an LPA.

Educational Requirement for LPA license holders

The intent of this requirement is to educate new aquaculturists and ensure that all aquaculturists are being apprised of changes in public health and biosecurity risks to the aquaculture industry. Many comments DMR received focused on the burden of participating in such a requirement. The Department is cognizant of this concern and intends that this program would consist of one class, no more than a half day in length, to be offered on a range of dates and in numerous parts of the coast (at least during the first year when many existing license holders would need to meet the requirement). While an annual refresher course will be required to renew an LPA, the Department anticipates the refresher would be available online and therefore of limited burden. However, the intent is to make this course applicable to all LPA license holders, regardless of whether or not they also hold a lease, as the Department believes this class will serve to protect public health, inform the industry of emerging biosecurity concerns, and ensure appropriate adherence to state and federal regulations in a changing environment. The Department intends to run this course itself and fees will be reasonable.

Restrictions on LPAs in 300:1 dilution area around WWTP

Several comments questioned the basis for this restriction and raised concerns about whether this was more restrictive than the National Shellfish Sanitation Program Model Ordinance (NSSP MO) and requested that this be addressed by defining seed.

DMR is not proposing to limit the culture of shellfish seed in Prohibited areas outside of the 300:1 dilution zone of a WWTP outfall or Prohibited areas that are not linked to a WWTP outfall.

DMR is basing this change on the EPA Toxic Dilution Zone which is 320:1. The dilution is based on the effluent and permitted flow rates as define in the National Pollution Discharge Elimination System permits. The 300:1 calculations will not be made under “worst case scenarios” or other variable conditions. While independent testing has not been conducted by DMR, there is enough evidence based on EPA guidance to support this change in regulation given the enforcement considerations and lack of definition of maximum seed size currently. A review of additional information, testing results specifically related to WWTP outfall areas, may result in a revision of these regulations at a later date. The 2017 revision of the NSSP does include guidance for the state shellfish authority to consider the 320:1 dilution around wastewater treatment plant outfalls (WWTP) based on the EPA Toxic Dilution Zone. This guidance is based on cumulative impacts of deleterious substances that are directly linked to WWTP outfalls.

One of the major considerations leading to implementation of the 300:1 dilution zone is DMR’s ability to track and enforce the duration of culture and seed transfer to open areas for grow out. DMR is required through the 2017 revision of the NSSP MO to create a definition for maximum seed size. While development of this definition will be beneficial to mitigating public health concerns related to the potential for long-term grow out in contaminated waters, it will not resolve enforcement issues nor address the concerns related to shellfish grown within the EPA Toxic Dilution Zone. Furthermore, the Department believes that adequate locations exist for upwellers to be sited outside of the dilution zones in most areas such that this change does not pose an undue burden on industry that outweighs the interest in protection of public health.

Maps of the dilution areas will be available from the Department during Spring 2018. In the interim, LPA holders and applicants are encouraged to contact DMR Bureau of Public Health staff for information if they are considering applying for or renewing an LPA in an area near a WWTP outfall. This prohibition applies to aquacultured species on LPAs as an administrative measure, not to all marine organisms.

No LPA within 300 feet of a Prohibited Water Quality Classification

One commenter questioned why LPAs may not be sited within 300 feet of an area classified as Prohibited, rather than simply within the Prohibited Area. This is not a change; LPAs may not be sited within 300 feet of a Prohibited Area boundary under current regulation. This wording clarifies the language of the regulation, and is intended to ensure that public health is adequately protected when an LPA is approved by providing a small siting buffer between the LPA and the Prohibited Area. Leaseholders are not subject to these restrictions because lease coordinates are confirmed with a site visit prior to approval.

LPA's in Restricted or Conditionally Restricted Waters

One commenter was concerned about not allowing LPA's in restricted or conditionally restricted waters. With the proliferation of LPA's, the Department's ability to oversee the relay of shellfish from these areas to areas classified as "Approved" is limited. They felt the ability to "test the waters" for growth using LPA's prior to applying for a lease was unreasonably constrained. In lieu of LPA's, however a mechanism currently exists to "test the waters" under the experimental lease program.

The other concern was how the Department would handle a situation where water quality declines and is reclassified from "Approved" to "Restricted." The Department believes such instances are likely to be rare. In such a situation, the Department would allow renewal for one additional year. The Department believes this amount of time will be adequate to identify and approve an alternative LPA, or potentially a lease, where product could be moved.

Other Comments

Increasing the LPA Fee

Some commenters recommended increasing the \$50.00 LPA application fee. However, the \$50.00 is set in statute and would need to be addressed by the Legislature. Therefore, the Department cannot consider raising the fee.

Public Process

At least three commenters felt that the Department should have held a hearing in either Machias or Ellsworth and that the agency did not conduct enough outreach regarding the proposed changes. The Maine Administrative Procedure Act (A.P.A) 5 M.R.S.A. §8001-11008 applies uniform requirements to state agencies with rule-making power and sets minimum standards for agencies to follow when conducting rule-making activity, including public notice of proposed rule changes. The A.P.A. itself does not require public hearings, but the Department elected to hold two hearings. In deciding where to hold the hearings, the Department evaluated the regional distribution of LPA's and how to best maximize the public resources it takes to conduct hearings. In this instance, more than 75% of LPA's are located west of Belfast and tend to be concentrated in mid-coast and southern Maine regions. Based on this distribution, staffing, and other administrative considerations the Department decided it could reach the greatest number of LPA holders by conducting hearings in Rockland and Yarmouth. Members of the public who were unable to attend the public hearings could participate in the process through the submission of written comments. With regards to outreach, notice of this proposed rulemaking appeared on January 3, 2018 in the five major daily newspapers as published by the Secretary of State. On January 3, 2018, the rule was posted on the DMR website, and electronic messages were sent to individuals who subscribe to DMR notices. In addition, the Department sent notice to individual LPA holders via email. The Department also held two outreach meetings on aquaculture in 2016, notifying all LPA and leaseholders at that time, with the intent of engaging the industry in discussion around statutory and regulatory changes. This rulemaking is an outgrowth of the statutory changes that occurred in 2017.

Definition of Intertidal

One commenter suggested that the definition of intertidal should be standardized across DMR statute and regulations. As this is currently being addressed by the Legislature, this regulation will not address this issue.

Shellfish movement and LPA Health Zones

Two commenters felt that existing shellfish health zones were too large and allowed for movement of shellfish throughout large portions of the State. These commenters felt that shellfish movement between LPA sites and lease sites should be more restrictive to ensure adequate biosecurity. The Department is aware of movement between LPAs and leases and the secondary sales of “large seed” from nurseries to other growing areas. Any change to existing rules on shellfish movements cross rules pertaining to both leasing and LPAs. The appropriate place to address these movements is in Chapter 24.

Hatchery Information and Inspection

One comment suggested that the hatchery information requirements and inspections should not be deleted. This language is duplicative of other regulations in Chapter 2 that apply broadly, and the deletion only eliminates the duplication, not the requirements themselves.

Green Sea Urchins

One comment was concerned that the rule would strike language stating that the use of marine algae as food for green sea urchins does not constitute a discharge. The Department believes it does not have the authority to determine what constitutes a discharge as it has no authority under the Clean Water Act.

Rule-Making Fact Sheet

(5 M.R.S., §8057-A)

AGENCY: Department of Marine Resources

NAME, ADDRESS, PHONE NUMBER OF AGENCY CONTACT PERSON:

Amanda Ellis, Department of Marine Resources, 21 State House Station, Augusta, Maine 04333-0021 Telephone: (207) 624-6573; web address: <http://www.maine.gov/dmr/laws-regulations/proposed-rulemaking.html>

CHAPTER NUMBER AND RULE: Chapter 2; Limited Purpose Aquaculture License Program

STATUTORY AUTHORITY: 12 M.R.S. §6072-C

DATE AND PLACE OF PUBLIC HEARING:

January 22, 2018, 6:00PM, Yarmouth Log Cabin, 196 Main Street, Yarmouth, ME

January 24, 2018, 6:00PM, Rockland Ferry Terminal, 515 Main Street, Rockland, ME

COMMENT DEADLINE: **02/05/2018**

PRINCIPAL REASON(S) OR PURPOSE FOR PROPOSING THIS RULE: [see §8057-A(1)(A)&(C)]

This rulemaking proposes a number of changes to the Limited Purpose Aquaculture License (LPA). These changes are intended to reduce risks to public health, implement statutory changes, and improve the overall administration of the LPA program.

IS MATERIAL INCORPORATED BY REFERENCE IN THE RULE? ___ YES ___ **X** NO [§8056(1)(B)]

ANALYSIS AND EXPECTED OPERATION OF THE RULE: [see §8057-A(1)(B)&(D)]

This rulemaking proposes a number of changes to the Limited Purpose Aquaculture License (LPA). It deletes a number of references to other chapters of regulation to reduce redundancy. It proposes several changes to reduce risk to public health, and would prohibit siting LPAs for shellfish in prohibited, restricted and conditionally restricted areas with certain exceptions. It would prohibit siting of marine algae or shellfish seed LPAs within the 300:1 dilution zone around wastewater treatment outfalls and prohibit the use of MOU or biotoxin monitoring protocols on LPAs. It would limit the dimensions of LPAs to no longer than 4x100 feet, square or rectangular. It would require LPA license holders to complete an educational program prior to renewal of their license in 2019 and future years. It would amend gear marking requirements, so that each individual piece would no longer need to be marked and require buoys to be marked with the LPA identification number. The proposal would allow an individual to have four helpers but limit an individual to being listed on no more than four LPAs as an assistant. The proposal clarifies the riparian landowner density exemption, notice to municipalities, site identification on the application, and who must sign the application. The proposal would also limit the allowable mid-year amendments to source of stock, species, mooring type/layout, assistants, and contact information.

BRIEF SUMMARY OF RELEVANT INFORMATION CONSIDERED DURING DEVELOPMENT OF THE RULE (including up to 3 primary sources relied upon) [see §§8057-A(1)(E) & 8063-B]

Recommendations from the aquaculture industry, input from the DMR Aquaculture Advisory Council, and feedback from DMR staff members who administer the LPA program.

ESTIMATED FISCAL IMPACT OF THE RULE: [see §8057-A(1)(C)]

Enforcement of this rule will not require additional activity in this agency.

FOR EXISTING RULES WITH FISCAL IMPACT OF \$1 MILLION OR MORE, ALSO INCLUDE:

ECONOMIC IMPACT, WHETHER OR NOT QUANTIFIABLE IN MONETARY TERMS:

[see §8057-A(2)(A)]

INDIVIDUALS, MAJOR INTEREST GROUPS AND TYPES OF BUSINESSES AFFECTED AND HOW THEY WILL BE AFFECTED: [see §8057-A(2)(B)]