

# AQUACULTURE DESCRIPTION FORM

Name: Last Cotter First Michael M.I. J

Business Name (optional): Minot Light Oyster Farm

Mailing Address 42 Scituate ave

City/Town Scituate State ma ZipCode 02066

Telephone [REDACTED] Cell Phone [REDACTED]

E-Mail Address [REDACTED]

## A. SITE DESCRIPTION

Location of proposed aquaculture license sites and access routes (Include site map in USGS

1:24,000 or 1:25,000 format with boundaries clearly outlined)

City/Town: Scituate

Shellfish Growing Area (SGA): MB 10.0

# of Acres: 1

Site boundaries in decimal degrees ( i.e. 42.36115, -71.057083):

42.248214, -70.778531 to 42.248445, -70.778153

42.247868, -70.777343 to 42.247590, -70.777780

Have you conducted a survey of the site (Y/N)? No  Date? \_\_\_\_\_

Method of Survey:

Average Depth at Mean Low Tide (MLW): 2 feet

Mean High Tide (MHW): 11 feet

What type of sediment or bottom substrate is on the site? (Benthic Habitat Conditions):  
Hard bottom, cobble and rock

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Is eelgrass present on or within twenty-five (25) ft. of the proposed grant site (Y/N)? No

Are there shellfish currently on the site (Y/N)? No

If yes what species and approximate densities?

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Is the proposed grant site located within an Area of Critical Environmental Concern (ACEC) (Y/  
No

Is the proposed grant site located within an Natural Heritage Endangered Species Project (NHESP)  
mapped habitat (Y/N)?

No

Is the proposed grant site located within an Outstanding Resource Waters (Y/N)?

No

Is the proposed grant site located in whole or in part within a 1-mile and 5-mile radius of  
Environmental Justice (EJ) Populations (See EEA EJ Maps Viewer) (Y/N)?

Additional information

**B. SPECIES TO BE CULTURED**

What species of shellfish do you plan to cultivate? (Select all that apply)

- o Eastern Oyster
  - o Quahog or Hard Clam
  - o Soft Shell Clam or Steamer
  - o Surf Clam
  - o Razor Clam
  - o Bay Scallop
  - o Blue Mussel
  - o Other
- 

**C. GEAR**

What methods of culture will be used (specify by species if necessary)?

On- bottom  Off- bottom  Both

Describe the type of gear to be utilized, include dimensions (Cages, Racks, Trays, Bags, Nets, Floating):

We plant to use bottom cages that won't be more than 18" off the ocean floor. We also plan to use aqua trays and wire tray systems that will also not be more than 18" off the ocean floor.

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(Include with your submission of this form a site map on a USGS 1:24,000 map with site boundaries clearly outlined and a cross-section schematic of the gear to be deployed on the site.)

If you will utilize floating gear, what measures will you take to deter birds?

- Zip ties/spikes
- Kites/streamers
- Faux predators
- Wire cage exclusion
- Sweeps/spinners
- Other

Please describe your bird deterrence plan:

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What methods will you utilize to harvest shellfish? (Hand, Drag, Other) Please describe:  
Will will harvest the oysters by hand.

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How will the proposed license site be marked? (Buoy color, Type, Lines, Anchor)

The 4 corners will be marked by 12" diameter orange buoys. Using polysteel line and attached to helical anchors that screw into the ocean floor. All of this is in accordance with Scituate Aquaculture regulations.

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How will you access the license site?

We plan to launch our boat from the boat ramp on Parker Ave. in Cohasset, MA

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What equipment do you plan on utilizing to maintain the license site and transport product?

Vehicle: Make: Ford Model: F600

Boat: Make: Carolina Skiff Model: 2180 DLX

Will any accessory structures be used on the license site? (barge, float, upweller, etc.)

No

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Has the site been used for private shellfish propagation within the last two years (Y/N)?

Has the site been used for municipal shellfish propagation within the last two years (Y/N)?

No



All information furnished on this application is true and accurate to the best my knowledge. I will notify the Marine Fisheries Shellfish Sanitation and Management Program immediately of any changes.

Signature of Applicant \_\_\_\_\_ Date Michael J Cotter 8/12/2

Division of Marine Fisheries  
ATTN: Aquaculture Coordinator  
706 South Rodney French Boulevard  
New Bedford, MA 02744  
Phone: (508) 742-9766

Scituate Aquaculture Proposed Sites March 15, 2023. Public Hearing.

Grant #1- Orange dotted line (One Acre). Applicant Jamie Davenport and Gregory Wallingford

Grant #2- Purple dotted line (One Acre). Applicant Michael Cotter

Grant #3- Red dotted line (One Acre). Applicant Lawrence Trowbridge

MA ShellFAST Snip 2023



## EXPERIENCE

Applicant: Michael Cotter

### INTRODUCTION

By way of background, I am a third generation Scituate resident with deep roots in the community. My grandparents, Robert and Dorothy Sullivan, were members of the Scituate community since the 1950's. My mother, Sherry Cotter, has lived here her entire life, and was employed as Scituate school teacher for over 40 years. I attended and graduated from public schools here in Scituate before moving on to Merrimack college. I now own/operate a landscaping business, which his based here in town. My wife and I raise our two young children (the oldest started kindergarten at Wampatuck this year) here in town. I have one adult sibling and three adult cousins, all of whom have reside here in Scituate as well.

#### **A) Knowledge, Experience and Commitment in shellfish aquaculture**

I have not only worked on oyster farms in the intertidal zone, but I have met and consulted with various wholesalers regarding industry trends, conducted independent research, have taken relevant courses from industry leaders concerning the business management of an oyster farm. In meeting and speaking with wholesaler Bill Mook of Mook Sea Farm, Bristol, Maine, I have come to understand that oysters are a product of their environment. That is, oysters have distinct briny or sweet flavors (or something in between) depending upon the salt content of the water, the ph, and whether they grow in sand, floating devices, or off bottom structures. These characteristics can be unique to each site, and in that respect, each grower's oyster can be different from another's. This is a marketing concept that has taken the industry by storm, and is implemented throughout the country.

I also have past commercial fishing experience. Based out of Scituate Harbor, I was a crew member of a 96 foot by 24 foot commercial fishing boat. In that role, I was out at sea for approximately two weeks at a time in an effort to catch fish. On average, we accumulated approximately forty thousand (40,000) pounds of fish per trip. I did this for multiple years.

In working on a commercial fishing boat, I was also partly responsible for the rebuild of the boat. I gained valuable experience in boat repair, as the 96 foot boat was completely gutted and rebuilt. One challenging aspect in this project, which I believe is relevant to working in an intertidal zone, was that we worked at town pier, which was subject to the tides. This required me to become more familiar with the schedule of the tides and how much water we could float the boat in before we had to move it into deeper waters. This was a daily issue, which I became very skilled in handling.

My knowledge of the aquaculture industry also comes from the classroom. I have taken the Applied Shellfish Farming course with Professor (and grower) Dale Leavitt, Ph.D of Roger Williams University. This course works in conjunction with the University of Rhode Island. The State of Rhode Island requires that anyone who wishes to obtain an aquaculture farm



permit (commercial or recreational) passes this 15 week course first before applying. Professor Leavitt is considered one of the leading figures in the Northeast with regard to fisheries and oyster propagation. I have also taken two courses with Professor Jenn Bender from UMass-Boston, The Business of Aquaculture and Aquaculture Production. In promoting education about the aquaculture industry, Professor Bender is working to develop emerging technologies in the industry, testing of the water and product, and assess issues related to shellfish diseases. She has brought in numerous guest speakers, ranging from farmers to attorneys, addressing all aspects of the industry.

In working with Professor Bender, I am collaborating with her on setting up an internship program with UMass. The internship would enable college students to receive course credit for working on oyster farms in the Commonwealth. In developing this program, I intend to simultaneously coordinate the same with Scituate High School, so as to promote more locally based business.

### **B) Knowledge and Experience with use and maintenance of fisheries and/or aquaculture gear**

In visiting/working on oyster farms, I have become familiar with grow out methods, including rack and bag, aquatrays, cages, and floating systems. In the intertidal zone, off bottom structures, namely cages, have been the most commonly used farming methods. Cages are designed to be easily stackable in a boat and are relatively lightweight. Cages also allow for adequate water flow, given the square spacing in the cages. Aquatrays, consisting of PVC piping at the four corners of a plastic tray, have also proven successful down in the Cape Cod Area.

It is understood that the larger the seed, the less likely the seed will suffer from mortality. However, this must be balanced with cost, as the larger the seed, the more it costs. When purchasing seed, most growers who do not have an upweller purchase seed at 9 mm or more. The grow out bags that are used for this seed should be close to 6 mm, but the grower should first consult the hatchery in order to confirm the proper size. It is also preferable that the “diamond cut” bags be purchased, as it leaves only one opening for the seed/oyster to enter and exit from the bag, reducing the risk of seed escaping.

Maintenance of my proposed farming technique – the use of cages with grow out bags inside of them – will likely require power washing of the grow out bags to remove fouling. This can be done on and off site. Rather than power wash the bags and resubmerge in the water on site, I plan to remove oysters from the fouled bag and place in another clean bag. The fouled bags will then be brought to my staging area (on land) and be power washed clean for future use. In this manner, I will not be operating power washers and generators on the water, as it may disrupt upland property owner’s quiet peace and enjoyment of their land.

I anticipate little site maintenance, other than realigning cages, which may shift during a storm surge. Unless required by Army Corps of Engineering or other local agencies, I will not be setting up any buoy lines that could interfere with potential navigation issues. Also, any maintenance needed for the site, including cage drops and cage removal, I will have assistance from the 5 employees who currently work for my landscape company. These employees are all Scituate residents whom I have had a working relationship with for years. They are hardy workers who are

used to working in all types of inclement weather (rain, snow, wind, heat, sun). They are dedicated workers who are accustomed to putting in long hours. With my hard work ethic and their assistance, we will work together as a team, efficiently and competently handling the logistics of transporting gear, maintaining gear, and harvest related activities.

In my landscape business, I am routinely depended upon to grow things and keep things alive. At times, it can be challenging and attention to detail, along with patience, cannot be overlooked. These conditions apply to aquaculture. Failure to enable sufficient water flow and separation among growing oysters optimize growth and to an extent, can be controlled by the grower. Knowing this, and having practiced this in my own business, I have the skill and commitment necessary to make this endeavor succeed.

I also have the tools to execute what I intend to do. I have power washers to clean grow-out bags; I can conduct power washing activities at my staging area, away from upland property owners abutting the site; and I am capable of transporting gear that might need to be changed out due to fowling.

**C) Knowledge and Experience working with residential abutters**

Fielding concerns from abutters are is inherent component of owning a landscape business. Examples include boundary disputes, issues arising out of parking of our vehicles on the street, loud noises from our equipment, neighbors having difficulty accessing their vehicles. I am experienced handling these concerns, and have consistently handled them to the satisfaction of my clients and their neighbors. Power equipment is not started until a reasonable hour. I immediately move any vehicles that present traffic or other concerns for neighbors. When there is a property line dispute, I take no action until all parties have conferred on the issue. While these circumstances may make my operations less productive, it is well worth the extra time to address these concerns. In this regard, I believe we have developed a good reputation, which enables me to continue to receive local business from the community.

Importantly, I have also attended every public Shellfish Advisory Committee meeting and Board of Selectmen/Waterways Committee meeting that concerned aquaculture in the Town of Scituate. At certain times, I have actively participated at some of the meetings. I am unequivocally invested in this endeavor with the intent to be productive, but with respect for the concerns that have been raised at numerous town meetings. I have followed this very issue from the beginning and am prepared to discuss further how I will work around these potential concerns. At a minimum, I am already committed to using any gas powered machinery (excluding my outboard engine), such as power washers and generators, on land at my staging area, instead of on site where abutters would hear and see them. I will also properly mark my site in accordance with the requirements set forth by the Army Corps of engineers/town of Scituate.

**D) Demonstrate understanding of regulatory requirements for running an aquaculture operation**

Through my experience, courses and membership to the Massachusetts Aquaculture Association, the premier statewide aquaculture industry trade organization, I have a thorough

understanding of the regulatory requirements for operating an aquaculture operation. As a starting point, Massachusetts General Law Chapter 130, §57 is the enabling act by which municipalities may issue municipal licenses for shellfish propagation. If authorized by the municipality, I must then seek approval from the Department of Marine Fisheries. DMF will conduct testing to assess: (1) shellfish density, (2) presence of eel grass, (3) tidal depths at high and low tide, and (4) sediment composition. Provided that each of these conditions are at levels satisfactory to DMF, DMF shall submit an approval for the site, which is then reviewed by the Army Corps. of Engineers pursuant to the Clean Water Act. Army Corps. will analyze the area for navigation hazards, and make its determination as to whether the site can be utilized. If needed, Army Corps. will restrict certain uses at the site, such as a prohibition against floating cages, which has happened in the past.

Importantly, DMF has promulgated certain regulations that apply to my on-site operations. In particular, DMF has implemented the Massachusetts Vibrio Control Plan, which requires certain action to be taken in preventing or reducing the risk of Vibrio. Pursuant to the Plan, codified in 322 Code of Massachusetts Regulations 16.00, et. al, I am required to ice down my oysters within 2 hours from the moment of harvest. Under 322 Code of Massachusetts Regulation 16.02, captioned, "Definitions," the "time of harvest" occurs when "the first piece of shellfish in a lot is exposed during a single low tide cycle or when the first piece of shellfish in a lot is taken from the water or sediment, whichever occurs first." Put simply, when the oyster is picked up either from the cage or the sediment that it rests upon, a harvest has occurred and the oyster must be iced down within two hours from that time. Because there may be an occasion when I may be on the site for another hour or two after said harvest, it will be important to invest in a container that can hold ice on the boat. I intend to purchase a vat, which I will flush with saltwater and ice at the time of harvest in order to comply with this regulation.

Pursuant to 322 CMR 16.05, I will also properly tag my oysters. The proper tagging of oysters requires the following:

1. Harvester name;
2. Shellfish permit identification number;
3. The date and time of harvest;
4. Type of shellfish harvested;
5. Quantity;
6. Origin of where shellfish was harvested from;
7. Aquaculture grant site number.

Otherwise, my operations will be governed by the Town of Scituate by-laws, which I am familiar with and prepared to discuss in further detail, if needed.

Michael J Cotter  
42 Scituate Ave. Scituate, MA 02066



**PROFESSIONAL SUMMARY:**

Scituate business owner with deep roots in local community. Substantial experience managing employees and expanding businesses that command manual labor. Career in client interaction and reconciling conflicts with competing interests, including abutters.

**SKILLS:**

- Sales
- Labor
- Accounting
- Scheduling
- Equipment purchase
- Customer Service
- Mechanically Inclined
- Contract Negotiation
- Budgeting
- Project Management

**WORK HISTORY:**

**2013-Present: Cotter Landscape**

*Owner/Operator*

Sales, customer service, payroll, accounting, human resources, taxes, laborer, recruiting, hiring, scheduling (factoring in weather), logistics, overseeing projects, overseeing crews, foreman, insurance, finance, budget, estimates, equipment purchases, equipment repair/maintenance (daily, weekly, seasonally), phone/email/text, sourcing materials, subcontracting.

**2003-2012 South Shore Bank**

*Loan Officer*

Responsible for generating new business opportunities for the bank as well as maintaining existing ones. Communicating with the bank employees, customers and third-party service providers to ensure that all parties are meeting their respective obligations to make the loans close in a timely fashion. Responsible for developing/maintaining relationships with realtors, attorneys, local builders/developers so that they would be willing to refer business to us. Number 1 in sales volume several different years.

**2012-2013 Amory Dwyer Fisheries**

*Deckhand/laborer*

Over a 6 month period we completely overhauled a 96 foot long by 24 foot wide commercial fishing boat. Originally built in 1979 we had to update just about everything. From wheel house technology to a new galley, to replacing one of the 2 main generators, outfitted the fish hold with a RSW (Refrigerated salt water system), new state rooms, new bathroom, updated electrical, new plumbing, repair the hull, remove a large steel A-frame

from the deck, hydraulic systems overhaul, winch repair, reconstruct the working deck to accommodate its new mission. Just about all of this was done by the 5-6 man crew of the boat with a small amount of assistance from specialized subcontractors. Since most of this work was done at the town pier we had to work with the tides schedule so that the boat would be properly positioned to achieve the task at hand. Once construction was complete we started trip fishing. We would head out (usually 200 miles east of Nantucket) until we had filled our quota and then head back to town. One of my responsibilities was keeping count of how many baskets of fish went into the fish hold on each tow. Thereby allowing us to know approximately how much fish we had caught on the previous tow and the trip as a whole.

## **EDUCATION:**

**Scituate Public Schools, 1985-1998**

**Merrimack College, 1998-2002**

Political Science Major, Business Minor  
4 Year Varsity Football (Captain)

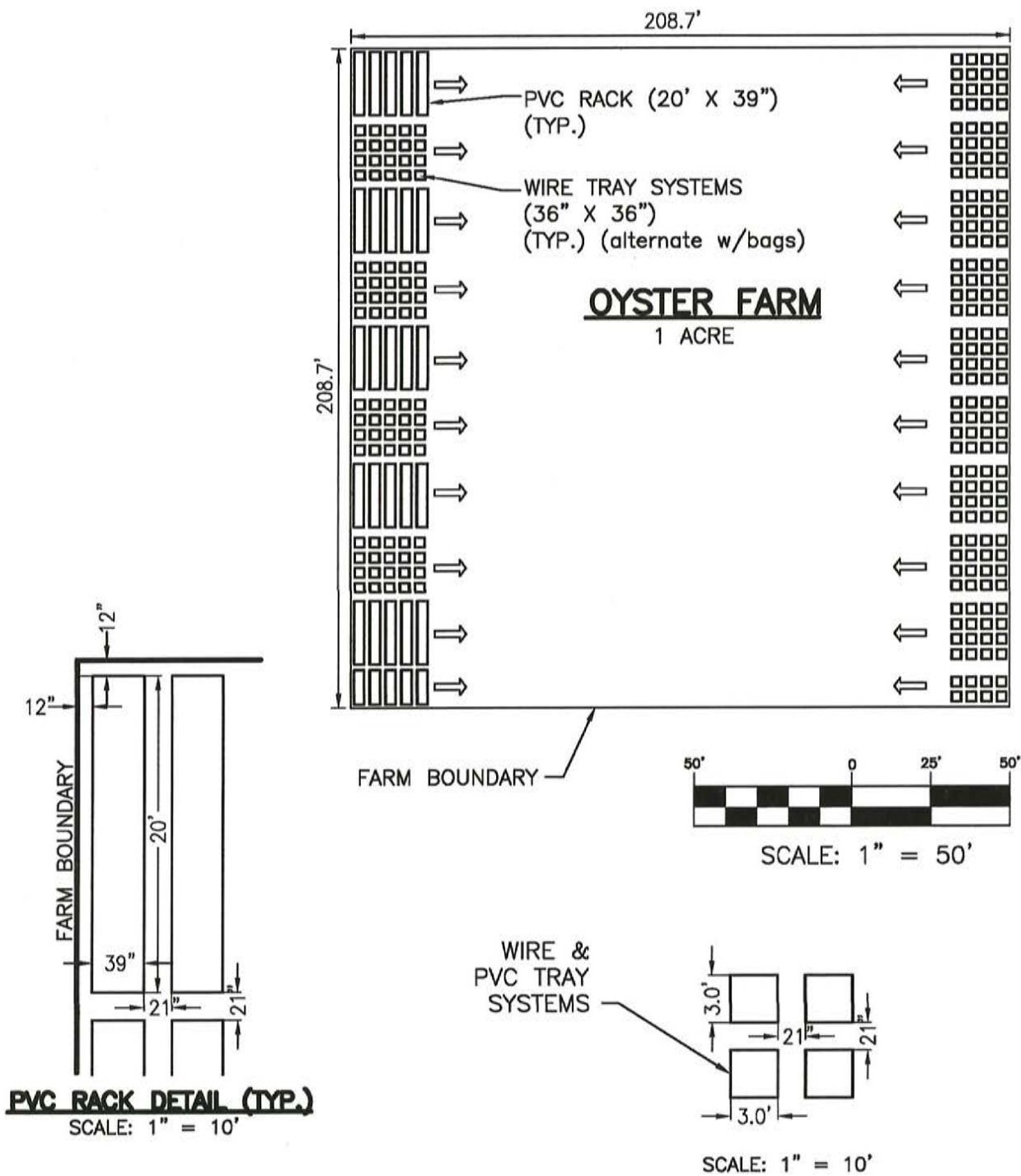
## **RELEVANT COURSES**

The Biology of Sustainable Marine Aquaculture (UMASS Boston 2019)  
Business and Policy of Marine Aquaculture Program (UMASS Boston 2019)  
Applies Shellfish Farming (Roger Williams University, 2020)  
Carnegie Sales Training Program (2005)

## **ASSOCIATIONS**

Scituate Beach Association Vice-President (2020)  
Scituate Beach Association President (2021)  
Massachusetts Aquaculture Association, Member  
North and South River Watershed Association, Member

# **BUSINESS PLAN**



OYSTER FARM SCHEMATIC LAYOUT - COTTER

# **MARKET ANALYSIS**

## **I. INTRODUCTION**

The applicant's company will be Minot Light Oyster Farm, Inc. ("Minot Light"), a for profit corporation that cultivates *Crassostrea Virginica* (Eastern Oysters). The company comprises of Michael Cotter as sole owner, with approximately 3-5 part time employees who have ample boat and agriculture experience. Oysters will be purchased from one of many state certified hatcheries, including but not limited to Mook Sea Farm located in Bristol, Maine, Aquacultural Research Corporation ("A.R.C.") located in Dennis, Massachusetts, and Fisher's Island located in Fisher's Island, New York. A detailed market analysis is submitted below.

## **II. BARRIERS TO ENTRY**

I have identified barriers to entry comprising of financial risk with the start up costs of the business, as well as certain regulatory provisions that affect the handling of oysters. To begin, my start up costs will include the cost of a skiff (used) seed, gear, walk in cooler (rented), and an ice machine. I estimate these costs, in total, to be in the \$30,000 – \$35,000 range. I will not require contributions from third parties to cover these costs and have budgeted accordingly. I would also point out that I have some of the gear that will be needed for farming operations, including flatbed trailers, pick up trucks, power washers, and generators. I also have valuable experience and education in farming oysters and their biology, which will give me an advantage in farming as compared to other applicants who have not yet worked on a farm.

Vibrio regulations constitute another barrier to entry to the extent that they require farmers to have ice available and must monitor their time for icing. As indicated, I will make use of vats and ice machines in order to comply with the Massachusetts Vibrio Control Plan. Notably, 322 Code of Massachusetts Regulation 6.20 enables growers to sell 2.5 – 3 inch (below market size) oysters to wholesalers. I plan to sell these sized oysters early in my business plan in an effort to avoid winterizing the oysters for another year where they are subject to mortality, and can generate short term income for re-investment into the farm.

## **III. TREND OF LANDINGS, MARKET VALUE, AND SITE APPROVALS IN MASSACHUSETTS**

The market for oysters has been on the rise for over ten (10) years, demonstrating a resilient, sustainable industry. Each year, the Department of Marine Fisheries issues an annual report, revealing an increasing trend in oysters year after year. The market for oysters has gone from a \$3 million to \$30 million dollar industry in approximately the last decade. Nine years ago, oysters were the seventh highest landed shellfish in the Commonwealth. Today, they are number three.



The fastest growth rate for oysters has been between 2013 – 2015, when landings of oysters increased by approximately 2 million each year. Within this time, market value of oysters nearly doubled, with approximately \$10.9 million in 2013 and \$22.7 million in 2015. As of 2018, the industry market value increased to approximately \$27 million. As you can see from DMF annual reports, the market value of oysters has increased as a result of the increased landings for over the past 10 years.

There has also been an increase in site approvals. A small sampling of this evidence is as follows: Starting in 2012, 15 additional aquaculture sites were approved, totaling 26.6 additional acres for shellfish propagation. By 2015, the Town of Plymouth alone approved between 15-20 licenses, allowing for approximately 30 acres to be cultivated on White's Flat and Ichabod Flat in Plymouth Harbor. In 2017, DMF issued certifications for 15 new sites, comprising of 38 new acres for aquaculture. In 2018, DMF issued 14 new shellfish aquaculture licenses sites, totaling 15 more acres. This growing trend of site approvals within municipalities demonstrates the growing demand for oysters and the recognition of waterfront communities.

# GEAR AND APPROACH

## I. GEAR

### A. GROW OUT TRAYS

I have some experience working on farms located in the intertidal zone and interviewed other farmers in such areas to determine the most effective grow-out system. The predominate and most effective farming technique, which I will implement, is an off-bottom grow-out system comprising of single or multiple level square wire mesh grow out trays, with grow out bags of varying sizes contained therein.

This grow-out method best addresses two key conditions that influence the success of a farm: growth rate and predators. The growth of oysters is a function of the rate at which they feed upon phytoplankton in the water table. Because of this, it is vital to have as much water flow to the oyster as possible so that it grows faster and gets to market sooner. Yet at the same time, seed and juvenile oysters must be protected from predators, e.g.: green crabs. They must also be protected from storm surges that can shift sand substrate, potentially suffocating the oyster. It is therefore necessary to use a structure that will allow for adequate water flow, but at the same time protect the oyster from threats to its survival.

The cages that I will use will comprise of 14 gauge square wire mesh with a divider. The size of the squares will be either  $\frac{1}{2}$ ,  $\frac{3}{4}$ , or 1 inch. The dimensions of the tray are 3 feet by 4 feet and measure 4 inches high. In my experience,  $\frac{3}{4}$  inch squares are most commonly used, so I anticipate starting with this sized square wire tray. A depiction of the sample tray that I intend to is depicted below:

### SINGLE LEVEL TRAY



I will also be purchasing multi-level trays, or “condos,” with the same dimensions as a single level tray, but will have a greater height not to exceed 18 inches above the substrate in accordance with the Army Corps of Engineers regulations.

### MULTI-LEVEL TRAY OR “CONDO”



The manner in which the trays or condos (collectively, “Cages”) will be arranged on site will be in rows, each cage having approximately 3 feet between one another in order to allow proper water flow. The below depiction is for illustrative purposes and is not to scale as it concerns the spacing between the cages.

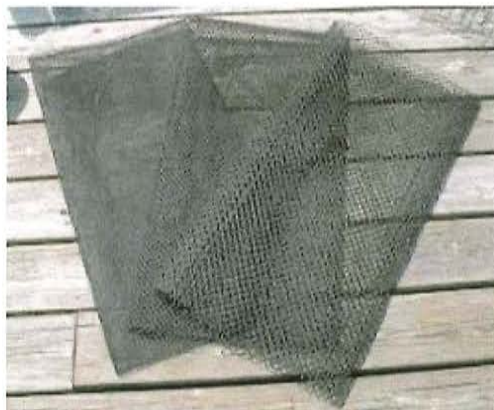
### **SITE LAYOUT**



### **B. GROW OUT BAGS**

I will be purchasing 9 – 13 mm seed to begin the cultivation of my oysters. They will be placed in plastic mesh bags of a size recommended by the hatchery. As the oysters grow larger, I will place the oysters in bags of larger holes to allow for more water flow. When oysters reach a size when they cannot fall through the squares of the single tray, I will place the oysters directly in the tray until ready for harvest and/or winterization. An illustration of some grow out bags is depicted below:

### **GROW OUT BAGS**



## **C. QUANTITY OF GEAR**

My Cages and grow-out bags will be a function of how much seed I purchase. Because the success of oyster growth in the proposed area has yet to be proven, my investment will be taken with a relatively conservative to moderate approach. In Year 1, I will start with a moderate investment of seed totaling approximately 250,000. My research has indicated that the cost of the seed that I prefer, ranging between 8-16 mm, and genetically modified to be disease resistant, costs between \$8,000 - \$10,050. In utilizing single trays only, I have projected that the necessary purchase of gear for this amount of seed will result in approximately 250 grow out bags (1,000 seed per bag) and 125 trays.

In purchasing this equipment, I set forth a more detailed outline under the Funding Section.

## **II. APPROACH**

My efforts will be year around. Because I am purchasing relatively larger seed, my initial crop will not be available for planting until late June/early July. When received, I will place them in the grow out systems described herein (6 – 9 mm grow out bags and placed in cages) and check on them periodically in order to evaluate growth and ensure separation among the seed for proper growth.

In November, when purchase orders must be placed for the next year, I will order Year 2 crop of seed, totaling approximately 250,000 seed, ranging between 8mm and 16mm. Typically, a 20% down payment will be needed, which I will make at that time.

In December, I anticipate ocean waters to have reached approximately 40 degrees Fahrenheit, causing the seed to go into hibernation, at which point, I will extract them and place in a rented cooler in my staging area for the winter months. I will also remove all gear and place in my staging area, where I will power wash cages, if needed.

From December to early March, I will monitor the humidity and temperature of my walk-in cooler on a daily basis. As explained herein, I will regulate both conditions in order to ensure humidity is between 95% - 100%, and temperature remains between 32 – 40 degree Fahrenheit, by way of using an incandescent light bulb, ice, and ice water for humidity.

In early March (now Year 2), I will resubmerge my seed. As the seed grow into juvenile oysters, I will begin separation of the oysters and place them into large mm bags for increased water flow. As they continue to grow, I will select larger mm bags (up to 18 mm) for further separation, and consider emptying directly into the ¾ inch square cage for final grow out. Some oysters may be ready for market by August/September/October, at which time, I will approach wholesalers for potential sale.

In June, I will check in with my hatchery to determine when the next shipment of seed will arrive. I will plan accordingly for this, securing an additional 250 grow out bags of 6 mm – 9 mm

in size for the new seed. If the hatchery recommends a different size for grow-out, I will purchase those sized bags instead.

When the new seed arrives, they will be earmarked for new cages in a different area of my site for grow-out.

Throughout late spring through the fall, I will be monitoring the growth of my oysters from Year 1 and ensure that those bags and cages are clean to optimize growth. I will continue to separate oysters to increase water flow (and consequently growth). I will also cull oysters, if needed. Lastly, I will begin to make sales with wholesalers concerning market sized and petite sized oysters.

As I approach the winter months in Year 2, I will repeat my extraction of all oysters from the site and place into a walk in cooler, just as I did the year before. Beginning in March, I will repeat my efforts as I did from the year prior.

# **RISK AND ANALYSIS**

## **A. RISK OF UPSTART COSTS**

The Town of Scituate has imposed upstart costs of a minimum of \$10,000 in seed and gear. As explained in my Gear and Approach Section, I have made an initial investment slightly larger than this amount. I believe this initial investment in seed and gear is financially responsible, as the sites have yet to prove productive, and the advice from other farmers of the south shore been to “start small.” It is also responsible that I gradually increase the cost of seed and gear in subsequent years. This is done intentionally to avoid overinvesting, which can be fatal. Many farmers have warned that bad winters or other circumstances can eliminate an entire crop, setting farmers back two, even three years until they can get the next oyster to market. As a business owner, I appreciate the patience and hard work that is needed to establish a stable business and expand it when appropriate. In this regard, the aquaculture industry has many similarities to the industry I currently work in.

Putting aside my seed and gear expenses, other incidental expenses of my farming operation will not be incurred because I already possess relevant equipment. As indicated, I have necessary flatbed trailers to transport hundreds of grow out bags, trays, and condos to the boat ramp, which I will then shuttle to the site. I also have staging areas for all the equipment when and if they are pulled from the site, eliminating any logistical challenges in storing equipment on land. Further, I have power equipment that will enable me to clean cages and bags, a common practice in aquaculture to optimize growth. For these reasons, I consider my initial start up costs to be conservative.

One other risk in starting up an aquaculture farm is not having prior, practical experience. The lack of experience can result in increased mortality and overall increased costs. Fortunately, I have taken various courses and have worked with numerous farmers to gain hands-on experience. I have learned the biology of oysters, the business of aquaculture, and various farming techniques (cages, rack and bag, floating gear, aquatrays, and broadcasting). I have also identified available, reliable, and approved hatcheries for the purchase of seed, and I am familiar with wholesalers in the local area, as well as their relevant needs.

## **B. ENVIRONMENTAL RISKS**

One of the most significant challenges in farming on intertidal lands of the Commonwealth is keeping oysters safe during cold winter months. Most intertidal areas leave oysters overexposed

to cold weather and potential icing, causing them to die. In light of this, oysters will be removed from the water and transported to a walk-in cooler on land. I have ample space in my staging area to either purchase or rent a walk-in cooler to serve this purpose. Oysters will be removed when ocean temperature comes close to 40 degrees, as oysters begin to go dormant at this temperature. They will remain in their grow out bags for transport and storage. If any oysters are growing loose inside the cages, they will be shoveled into a crate and then transported.

I will have to control humidity and temperature as best I can inside the cooler. Oysters can survive on land when humidity exceeds 95% and temperature ranges between 32 – 40 degrees Fahrenheit. Within the cooler, I will fill coolers, drums, and/or buckets with ice to keep temperatures down on warm days. On cold days, I will turn on an incandescent light bulb that I will hang in the cooler so I can gradually bring the temperature close to or above freezing. Thermometers will also be left inside the cooler so that I may read temperatures, in addition to monitoring the “week ahead” in weather for the local area. Lastly, humidity will be controlled with buckets filled with saltwater, as the freezing temperature of saltwater is much lower than fresh water and will leave humidity in the room. I may also consider the use of a wet burlap bag, as it will remain damp in the cooler, keeping humidity present.

### **C. REGULATORY RISKS**

Through my research and courses, oysters are subject to mortality from bacteria, such as Dermo, *Vibrio Parahaemolyticus*, and MSX. The most prevalent disease that has the attention of the Department of Marine Fisheries is *Vibrio*, a bacteria that stems from the increased temperature of ocean waters. In recent years, *Vibrio* has been confirmed among consumers, which has resulted in the Massachusetts *Vibrio* Control Plan. Under the plan, farmers are required to ice oysters within 2 hours of harvest between the months of May – October, and to document the same in a *Vibrio* logbook.<sup>1</sup> This will require me to have ice available at the time of harvest.

If approved for an aquaculture license, I will purchase a commercial ice machine that I will set up at my shop. I will load the back of my pickup truck with vats containing ice from the ice machine, and I will have an additional vat in my boat that contains a slurry of saltwater (pumped in fresh from the ocean) and ice. Harvested oysters will be bagged in harvest bagged and tagged, with distinct sections indicating the time of harvest and the time of icing. I will shuttle the oysters from my boat to the boat ramp, place the oysters in the vat on my truck, and drive to the wholesaler if needed. Most likely, however, I will be coordinating with wholesalers to meet with them on scheduled pick-ups during their weekly routes in the parking lot.

### **D. MARKET RISKS**

Oysters are a function of the demand in the market and can therefore be subject to some degree of a market downturn. What we have seen in past years is a gradual incline of oyster sales, and this is consistent with a strengthening economy year after year. We have most recently seen the recent pandemic of the Coronavirus, and it has created a drop in demand for oysters. Indeed, multiple growers have advised they are not currently able to sell oysters. There are some

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<sup>1</sup> Farmers may also place oysters in a “slurry,” which is a combination of ice and water.



wholesalers who have attempted to sell oysters at wholesale prices, demonstrating their inability to sell oysters at premium prices, which demonstrates a reduced demand in the market.

Even so, events like the Coronavirus are only expected to have a short term effect on the industry, similar to many other industries. In the long term, the sale of oysters should continue to rise as they have in the past 10 years. Further studies should be forthcoming from the Department of Marine Fisheries in this regard.

# FUNDING

Based on the foregoing costs set forth herein, and the various equipment I already have, I will be funding this business endeavor without contribution from a third party.

As indicated below, I plan on making an initial purchase of 250,000 oysters, 125 trays, and 250 bags (containing 1,000 seed per bag). The approximate cost of 250 grow out bags (at \$6 per bag) will be \$1,500. Further, the cost of 125 trays (at \$32 per tray) are approximately \$4,000. Thus, in total, my seed and gear for Year 1 will cost \$13,500 - \$15,500, excluding applicable taxes.

In Year 2, I will make the same investment in seed as I did in Year 1, absent a showing of substantial mortality that suggests the proposed site is unproductive. Gear, however, will have an increased cost, as the first year's oysters will have grown to the point that they require separation into larger mesh sized bags and additional trays. To this extent, and in consulting with seasoned farmers, I anticipate additional costs ranging between \$2,500 - \$3,000.

Target seed purchases for Years 3 and 4 are 300,000 and 400,000, respectively, assuming that the past years' crop has been productive and oysters are now ready for market. The cost of condos, trays, and seed for these years will easily exceed the \$10,000 minimum expense requirement, per Scituate by-laws, and accurate assessment of costs will be determined when all existing seed, juvenile oysters, market sized oysters, and gear have been accounted for at the start of each season.

## SUMMARY OF EXPENSES

YEAR	AMOUNT OF SEED	COST OF SEED	COST OF GEAR	TOTAL
1	250,000	\$8,000 - \$10,050	\$5,500	\$13,500 - \$15,050
2	250,000	\$8,000 - \$10,050	\$7,500 - \$8,000	\$15,500 - \$18,050
3*	300,000	\$9,600 - \$12,060	\$7,500 - \$8,000	\$17,100 - \$20,060
4*	400,000	\$12,800 - \$16,080	\$7,500 - \$8,000	\$20,300 - \$24,080
5* <sup>2</sup>	500,000	\$16,000 - \$20,100	\$7,500 - \$8,000	\$23,500 - \$28,100

### SUMMARY OF ANTICIPATED ANNUAL RETURNS

CROP YEAR	OYSTERS PURCHASED	MORTALITY <sup>3</sup>	MARKET RATE <sup>4</sup>	PROJECTED GROSS REVENUE (MARKET SIZE) <sup>5</sup>
YEAR 1	250,000	n/a	n/a	0
YEAR 2	250,000	25%	.55	\$103,125
YEAR 3	300,000	25%	.55	\$103,125
YEAR 4	400,000	25%	.55	\$123,750
YEAR 5	500,000	25%	.55	\$165,000

<sup>2</sup> These are minimum figures, as the exact number of cages and bags cannot be determined until the growth of the oysters is determined.

<sup>3</sup> The mortality rate varies among growers. Mortality has ranged between 20% and 30%. In preparing this model, I have taken the mean, which is 25%.

<sup>4</sup> The market rate for an oyster varies among wholesalers, and depending on the quality of the oyster, may sell for an amount up to 60 cents per oyster. I have provided a more conservative figure.

<sup>5</sup> Projections are assessed on the assumption that all of the surviving oysters from the year prior have grown to market size. The projection does not contemplate varying growth rates of oysters, which can result in some oysters reaching only petit sized oysters, which sell for 40 cents per oyster, and ultimately reduce the gross income. More accurate assessments should be better understood once the sites have been implemented and optimized growing methods have been established.

# DANEHEY & OSTERBERG, P.C.

**ATTORNEYS AT LAW**  
5 OLD COUNTRY WAY  
SCITUATE, MASSACHUSETTS 02066

**JOHN F. DANEHEY +**  
**ANNA E. OSTERBERG**

**JOHN J. ROGERS, JR.**  
*(Of Counsel)*

+ ALSO ADMITTED IN VT

TELEPHONE:  
(781) 545-1116

FACSIMILE:  
(781) 545-1118

April 8, 2020

Town of Scituate  
600 Chief Justice Cushing Highway  
Scituate, Massachusetts 02066

**RE: Commercial Shellfish Grant Application for Briggs Harbor /  
Bassings Beach Pilot Program**

To Whom It May Concern:

I am writing to lend my support and recommendation that you approve Michael "Mike" Cotter for a Commercial Shellfish License for the Briggs Harbor / Bassing Beach Pilot Program. I have known Mike for approximately nine years when I had the pleasure of meeting Mike and his wife, Meghan when they moved into Sandhills. Since then, he has been a pillar in our neighborhood assisting and helping neighbors and becoming actively involved in the local issues.

Mike is a Scituate resident born and raised. His parents (a retired Scituate teacher and U.S. Federal Agent) and sister continue to reside in Town, as well as his extended family. He currently runs a landscaping a business in Town for the past 7 years who employees Scituate residents. As a horticulturalist, Mike has extensive experience in cultivation and proper maintenance of nature, as well as being extremely reliable and hardworking.

However, Mike has always had a passion for the sea. Mike has a maintained a commercial fishing license endorsed for shellfishing and is a member of the Mass Aquaculture Association ("MAA"). He has had years of commercial fishing experience catching loads of fish in excess of 40,000 pounds, which provide Mike with invaluable experience with the necessary knowledge and understanding of tides. He has taken multiple college courses on Aquaculture Production, the Business of Aquaculture, and most importantly, the Subject Applied Shellfish Farming from the renown Roger Williams University Professor, Dale Leavitt. All of these courses first and foremost emphasize being a good steward of the land and shellfish, as well as teaching the proper site selection and biology needed to be sensitive and innovative for a successful aquaculture farm. Mike intends to simultaneously continue to operate his landscaping business and undertake oyster farming. Mike is in the perfect position to utilize his workforce in both capacities.

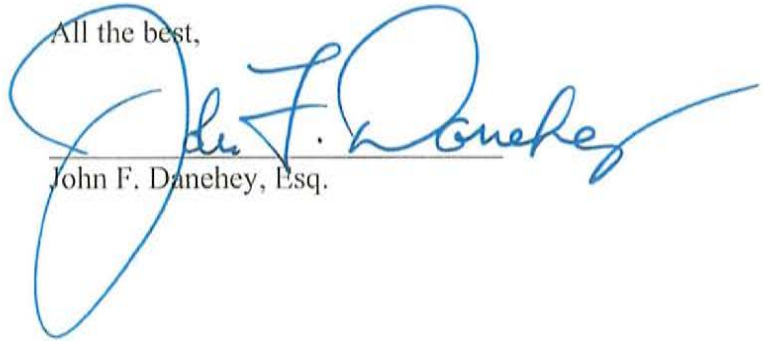
*Email Address*

[jdanehey@doesq.com](mailto:jdanehey@doesq.com)

There is much more positive things I can say about Mike; however, the most important characteristic that I know about Mike is that he is a conscientious person, which is what you need when considering licensing a person for this great opportunity.

There is no one better that I can think of who would be a better recipient than Mike.

All the best,

A handwritten signature in blue ink, appearing to read "John F. Danehey". The signature is stylized with large loops and a long horizontal stroke at the end.

John F. Danehey, Esq.

JFD/jd

Email Address

jdanehey@doesq.com

427 River Street  
Norwell, Massachusetts 02061  
March 22, 2020

Shellfish Advisory Committee  
Town Hall  
Scituate, Massachusetts 02066

Re: Letter of Support for the Application of Mike Cotter, Owner of Minot Light Oyster Farm, to Obtain a Scituate Commercial Aquaculture License to Farm Oysters in Scituate Coastal Waters

Dear Shellfish Advisory Committee,

It is with great pleasure that I write this letter of support for the application of Mike Cotter, owner of Minor Light Oyster Farm, to obtain a Scituate Commercial Aquaculture License to farm oysters in Scituate Coastal Waters. I have known Mike Cotter for seven years, used his Cotter Landscape services, used his personal services, and gotten to know him well as he/I have tended my son's animals (goats and hens). Mike is an extremely reliable, hardworking, and skilled practitioner. He knows how to manage a business and hire qualified, reliable, and competent employees. Mike is a long time Scituate resident, with deep Scituate family ties, with commercial fishing experience and a commercial fishing license endorsed for shellfishing. The success of an inaugural shellfishing operation in Scituate needs competent and hardworking fishermen. Mike Cotter is just such a person with the attributes, attitude, experience, and skills necessary for a successful shellfish commercial fishery in Scituate.

I first got to know Mike in his role as owner of Cotter Landscape in 2013. My son had known Mike from their days in high school and told me he was starting a lawn service and landscape business. I hired Mike to provide the usual services of spring and fall cleanups, mulch spreading, and lawn mowing. Having had other services in the past whose work and reliability were not always consistent and at an acceptable level, I was very pleased with the work that Mike and his crew did. What impressed me most was the efficiency and hard work of Mike and his crew. They arrived and got to work. No crew members standing around waiting for direction. The work was done to our specifications and done well. I retired from 43 years of teaching at Curry College in Milton three years ago and began cutting my own lawn. At this time, we used Mike for spring and fall cleanups and the laying of mulch. We also last fall hired him and his crew to remove an extensive ground cover bed and redo the landscaping of our front lawn. As usual his work and that of his crew was hard and well done. Mike always listened carefully for our instructions, helped us modify some of our plans into more realizable schemes, and delivered the work. He and his crew were focused and

motivated and we were always pleased with the quality and completeness of the work done.

One particular experience with Mike stands out for me. We have an old double stone wall on our property that was overgrown with bittersweet vines and thorny wild rosa begosa. I'd asked Mike to help me cut and clear these vines and haul the debris away, restoring the hardscape aesthetic for our backyard. We've planned this for a day during a school break for me in January while I was still working at the college. The day came and the temperature was -10 degrees, with some wind. Undaunted Mike arrived ready for work. We talked about whether we could successfully put in a day's work with the cold that cut through us and made our gloved hands stiff and painful. Mike said he was up for the work and I agreed to follow his lead. It was a long and hard day of work but inspired by his attitude and work effort. We worked side by side and generated some body heat, periodically warming our hands. The work was done leaving me with a real sense of how hard Mike works, how strong he is physically, how consistent and sustained his work effort was, and how he was undaunted by challenging weather. It was a great day.

Part of the value for me of this cold workday was learning more about Mike's personal history and his innovative and creative approaches to implementation and business challenges. Mike and I talked about his background, high school "glory days" on the football field, his major in Political Science and Minor in Business at Merrimack College. As a college professor I was used to conversations with younger people, encouraging them to be reflective about their work and push them for creative approaches to problem solving. The conversation with Mike was impressive as it revealed his self-reflection, his ability to stand back from a problem and assess his skills and develop a smart and effect plan of action to accomplish his goals. We talked of his work remodeling a commercial fishing boat and his experiences on long fishing trips at sea. I had some brief stints years ago as a "stern man" on a lobster boat and could appreciate how challenging the sea and the weather and the cold wet environment of a fishing boat could be. We talked of some of the challenges in establishing and growing his Landscaping business, especially finding and keeping reliable and hardworking employees. We talked about some of the challenges of dealing with homeowners who would change their minds about the work they wanted done, as it was being done, and the challenges of dealing with boundary issues between neighbors. I was left impressed with a thoughtful hard-working businessman who was not afraid of hard work or challenges with a "can do" approach to any problem that one might confront running a business.

One final point. While I am retired from my old day job, I continue to volunteer and work hard for the North and South River Watershed Association as a 20-year board member and current Board of Directors President. I also lived with my wife in Scituate for six years and value and appreciate the beauty and value of the town as a coastal resource of great importance. The environment means a great deal to me, both the

land and watershed of rivers and aquafer. While working with Mike we talked about the value and risks of lawn care products and how to deal with yard waste disposal and storage. Mike was knowledgeable and sensitive about these issues. I am also a dedicated fly fisherman and concerned with the health of our rivers and marshes. Mike was keenly aware of these issues about the maintenance and health of our rivers for fish migration and reproduction as well as the importance of clean water for shellfish, notably the clams in our estuaries and oysters on our coast. In talking with him about these issues and his plans for his Minot Light Oyster Farm I felt he saw his role as an environmental steward of our natural resources as well as an oyster farmer. His goal is to produce healthy oysters but in ways that are sustainable and protective of our coastal waters.

On a personal note, Mike and I have tended, though not at the same time, my son and daughter-in-law's goats and chickens. The work involves feeding and watering and occasionally "mucking out" the goat stalls. Mindless but necessary daily dawn and dusk responsibilities. What sticks out to me about Mike is his knowledge of the personalities and quirks of each of the goats, revealing the obvious gentle and caring stewardship that such knowledge suggests.

Mike Cotter, to my mind, is the ideal applicant for this great initiative to farm oysters in Scituate waters. He is hardworking, thoughtful, and experienced in business and sensitive to and aware of the environmental challenges to preserve our coastal waterways and ocean front. He has experience with commercial fishing and has the appropriate fishing licenses endorsed for shellfishing. He is a member of the Massachusetts Aquaculture Association. He is also, by disposition, a thoughtful and gentle problem solver. As hard and determined as is his work, he is easy and open to conversation, disagreement, and shared compromise. His is not rigid or dogmatic. He wants to find solutions that work for all sides with fairness and reasoned solutions. You couldn't find a better candidate for commercial oyster farming than Mike Cotter and Minot Light Oyster Farm.

If you have any questions or need further response from me, please feel free to call me on my cell phone 781-588-4649.

Sincerely yours,

A handwritten signature in cursive script that reads "Peter C. Hainer". The signature is written in dark ink and is positioned above the printed name.

Peter C. Hainer





UNIVERSITY of  
MASSACHUSETTS  
BOSTON  
100 Morrissey Blvd  
Boston, MA 02125-3393

School for the Environment  
Tel: 617.287.7440  
Fax: 617.287.7474

March 23, 2020

Town of Scituate

To Whom It May Concern:

I am thrilled to recommend Mike Cotter to you. I have known Mike since the summer of 2019. He is a student in the Sustainable Marine Aquaculture Program that I run at the University of Massachusetts, Boston.

I have taken a delight in Mike's ability to learn, as well as his interest in creating a collaborative relationship with the school and our students. It is clear that he has participated in many educational opportunities available to people in the industry. He engages with the content provided and is thorough in his effort and comprehension of the content.

Mike has taken two of our classes The Biology of Sustainable Marine Aquaculture and Business and Policy of Marine Aquaculture. The biology class provides and over of biology of primarily non-vertebrate animals and plants that humans harvest or culture. The business class examines the basics of working in and managing a successful aquaculture operation. This is an increasingly competitive space that suffers from a tradition of malpractice and misunderstanding as well as a regulatory culture that lags far behind an innovative rate. This course is designed to introduce students to these challenges and equip them with the tools needed to engage within the industry on a sophisticated, successful level.

Mike's performance in the classroom is great. He is careful and thorough in his work. He reaches out to industry partners and leaders to tour their facilities and their farms. Currently, as part of his class work this semester, he must develop a business plan. This will include multiple aspects of owning a farm from accounting to site selection, understanding risk and insurance and marketing to name a few.

He has a strong desire to use part of his lease for research and collaboration across the industry and especially in working with UMass and our students. In our program, we look forward to exploring how we can collaborate with internships and research. Both Mike and I would like to see what creative approaches we can work on to meet business and industry challenges.

I look forward to the potential collaboration. I recommend Mike to you unequivocally.

Sincerely,

Jennifer Bender, PhD.  
Program Director  
Online Sustainable Marine Aquaculture Program UMass Boston



Commonwealth of Massachusetts  
Department of Fish and Game

**COMMERCIAL PERMIT  
SHELLFISH & SEAWORMS**

Permit ID: 179692      EXPIRES: 12-31-2020

COTTER, MICHAEL J  
42 SCITUATE AVE  
SCITUATE, MA 02066

DOB: 04-27-1979  
ISSUE: 03-05-2020

Signature: \_\_\_\_\_

The two sections above are your Division of Marine Fisheries permit. Do not tear the top two pieces apart. You may separate the top two sections from the rest of the form, and fold it in half. If you choose to laminate your permit, be sure to fold the two halves together so that all your permit information faces out. Your permit is not valid until you sign the Signature line above. You must carry your permit while engaged in the activity that this permit authorizes.

Charles D. Baker, Governor  
Commonwealth of Massachusetts

Kathleen A. Theoharides, Secretary  
Executive Office of Environmental Affairs

Ronald S. Amidon, Commissioner  
Department of Fish and Game

**SHELLFISH & SEAWORMS**  
COTTER, MICHAEL J

ENDRSMNTS: PTL.SHELLFISH

Acting  
DIRECTOR: Daniel J. McKiernan  
Daniel J. McKiernan

**CUSTOMER RECEIPT**

*This is your receipt. Retain receipt and store in a safe place.*

COTTER, MICHAEL J  
42 SCITUATE AVE      FTN: 000256659  
SCITUATE, MA 02066      ISSUED: 03-05-2020  
PAY TYPE: CHECK

**DMF - CAUSEWAY STREET, BOSTON**

SHELLFISH, RESIDENT      \$ 40.00  
SHELLFISH, RESIDENT      \$ 0.00  
PAPER REPORTING, RESIDENT      \$ 0.00  
FEES PAID THIS PAGE      \$ 40.00

Note: The fees listed above apply to this page only. If you purchased additional items, they will appear on supplemental pages with fees listed on those pages.

Division of Marine Fisheries (617) 626-1520



**Quota Monitored Species:**

Quota information is available by phone 24 hours a day. Call (978) 282-0308, and listen carefully for the menu options. In addition, DMF will fax notices to all authorized dealers while providing fishermen access to the information over the Internet at:

(www.mass.gov/marinefisheries),

or by e-mail directly from DMF. To receive e-mails, see instructions on the reverse of this license.

COTTER, MICHAEL J  
42 SCITUATE AVE  
SCITUATE, MA 02066

**FOR MORE INFORMATION**  
about our Division, regulations, permitting or to sign  
up for email notifications, please visit our website  
[www.mass.gov/marinefisheries](http://www.mass.gov/marinefisheries)

--- Fold Here ---

**REPORT ALL VIOLATIONS!**  
Massachusetts Environmental Police  
1-800-632-8075





Commonwealth Of Massachusetts  
Division of Marine Fisheries  
**SHELLFISH IDENTIFICATION CARD**

COTTER, MICHAEL J

ID 179862



2020

Town of Scituate, MA

036

## Resident Shellfish Permit

Permittees are authorized to recreationally take Shellfish, Eels and Sea Worms from open areas in the coastal waters of the Town of Scituate for CONSUMPTION OF FOOD OR OWN USE AS BAIT; subject to the provisions of MGL Ch. 130 as amended, and subject to any rules and regulations which may be imposed by the Board of Selectmen under the provisions of MGL Ch. 130 THIS PERMIT IS LIMITED TO THE TAKING OF **NOT MORE THAN 8 QUARTS/1 PECK OF COMBINED SHELLFISH PER FAMILY PER WEEK. Permit must be visibly displayed while in the act of harvesting, catch may not be sold.**

Issue Date: 2/12 20 20 By: 

PERMIT EXPIRES DECEMBER 31, 2020 UNLESS REVOKED SOONER

For information on allowable days, harvest limits or bed closures visit our website  
[www.scituatema.gov](http://www.scituatema.gov) or call (781) 545.8724

**MASSACHUSETTS** DRIVER'S LICENSE

4a ISS 05-03-2015 9a END NONE 14 NUMBER [REDACTED]

10b EXP 04-27-2020 10c BIRTH 04-27-1979



11 CLASS 1 12 REST NONE 15 SEX M 16 HGT 6-03

17 **COTTER**  
18 MICHAEL J  
19 42 SCITUATE AVE  
20 SCITUATE, MA 02066-3522

21 *Michael J. Cotter*

22 DD 05-04-2015 Rev 07-15-2009

23 *Bill & Nancy*





Commonwealth of Massachusetts  
Division of Professional Licensure

Hoisting Engineer

HE-168009

Expires: 04/27/2021

MICHAEL J COTTER  
42 SCITUATE AVENUE  
SCITUATE MA 02066



Commissioner