

TOWN OF FALMOUTH
BOARD OF SELECTMEN

AGENDA

MONDAY, SEPTEMBER 9, 2019 – 6:30 P.M.

SELECTMEN'S MEETING ROOM

TOWN HALL

59 TOWN HALL SQUARE, FALMOUTH, MA 02540

6:30 p.m. OPEN SESSION

6:30 p.m. EXECUTIVE SESSION

1. M.G.L. c.30A s.21(a)(3) – Discuss response to appeal to U.S. Supreme Court *Smythe v. Conservation Commission*

7:00 p.m. OPEN SESSION

1. Call to Order
2. Pledge of Allegiance
3. Proclamations:
 - a. Eagle Scout – Stephen Swenson – Troop 38
 - b. National Recovery Month – September 2019
- c. Recognition
- d. Announcements
- e. Public Comment

7:15 p.m. SUMMARY OF ACTIONS

1. Licenses
 - a. Approve Application for a Change of Manager of a Farmer Brewery License and Common Victualler License – Bad Martha's Brewery located at 876 East Falmouth Highway, East Falmouth
 - b. Approve Application for a Change of Manager of a Common Victualler License and an Automatic Amusement Device License – The Tea Room located at 196 Crystal Springs Ave., N. Falmouth
 - c. Approve Application for Special One-Day Wine & Malt Liquor License – Samaritans of Cape Cod & the Islands – Bocce Festival – Falmouth Academy, 7 Highfield Dr. – Saturday, 9/14/19
2. Administrative Orders
 - a. Vote to accept donation from New England Endurance Events in the amount of \$1,400 to the Beach Department Donation Account
 - b. Approve Letter to MassHousing Regarding 40 Shore Street Affordable Housing Site Approval and Project Eligibility
 - c. Approve filing of grant application to MassDEP under Electric Vehicle Incentive Program
 - d. Vote to accept Local Community Grant Funding from Walmart in the amount of \$3,500.00 to the Police Department Donation Account for Bicycle Safety Helmets for Falmouth Youth Bike Safety
 - e. Vote to approve proposed changes in the 2019-2020 Shellfish Regulations
 - f. Affirm staff appointment to County Coastal Resources Subcommittee
3. Special Events

New – Recommended:

 - a. Woods Hole Centennial Celebration – Woods Hole Community Association – Water Street from drawbridge to Candle House, Woods Hole – Sunday, 9/22/19
 - b. Wedding Ceremony – Old Silver Beach – Motta – Saturday, 9/28/19

7:30 p.m. PUBLIC HEARINGS

1. Application for Shellfish Aquaculture Permit – Daniel Ward, Ward Aquafarms, LLC – Site identified as Site B in the Falmouth Statement of Qualifications issued 7/5/2019 within a perimeter of approximately 0.5 acre in Eel Pond Approximately 200' west of Washburn Island
2. Application for Shellfish Aquaculture Permit – Mary M. Murphy, Falmouth Shellfish Cooperative – Site identified as Site A in the Falmouth Statement of Qualifications issued 7/5/2019 within a perimeter of approximately 0.5 acre located in Eel Pond approximately 150' west of Washburn Island

3. Application for Shellfish Aquaculture Permit – Matthew Weeks – Site identified as Site C in the Falmouth Statement of Qualifications issued 7/25/2019 within a perimeter of approximately 0.5 acre located in Eel Pond approximately 150’ west of Washburn Island

7:45 p.m. BUSINESS

1. Report – Council on Aging
2. FY2021 Operating Budget Policy, Financial Update and Capital Plan Presentation – Jennifer Mullen, Director of Finance
3. Status update from the Department of Public Works on the Palmer Avenue crosswalk at Goodwill Park
4. Approve Shellfish Aquaculture License – Great Harbor – Peter Chase and Francis Doohan
5. Presentation of Seacoast Shores Association Beach Plan and Request to file with Conservation Commission
6. Request for Sign Variance – Off Premise Promotional Flags on Main Street – Cape Cod Marathon – Falmouth Track Club
7. Vote to Form a Subcommittee of Two Selectmen to Review the Request to Name the Emergency Operations Center “The Paul D. Brodeur Emergency Operations Center”
8. Vote to Affirm Appointment of Annie Dean as the Historical Commission Representative to the Community Preservation Committee
9. Minutes of Meetings:
 - a. Public Session – August 5, 2019; August 19, 2019
 - b. Executive Session – August 5, 2019
Vote to Release/Not to Release Minutes of Executive Sessions
10. Individual Selectmen’s Reports
11. Town Manager’s Report
12. Review and/or Discuss Correspondence Received

Megan English Braga, Chairman
Board of Selectmen



PROCLAMATION

WHEREAS: Stephen Swenson of Boy Scout Troop 38 has successfully completed qualifications for the rank of Eagle Scout, a rigorous and demanding process that teaches patience, perseverance and teamwork, and requires strong goal setting; and

WHEREAS: Stephen Swenson met these challenges with aplomb and shall be recognized as an outstanding representative of his family, his troop and his community; and

WHEREAS: The Boy Scouts of America, long acknowledged for building fine citizens, calls for Special Court of Honor to award its highest symbol of achievement to those who complete this rank; and

WHEREAS: Stephen Swenson is now an Eagle Scout with all its rank and privilege;

NOW, THEREFORE, We, Megan English Braga, Douglas C. Brown, Douglas H. Jones, Susan L. Moran, and Samuel H. Patterson as Selectmen of the Town of Falmouth, do hereby declare and PROCLAIM

SATURDAY, SEPTEMBER 14, 2019 AS STEPHEN SWENSON DAY

IN WITNESS WHEREOF, we have hereunto set our hand and caused the Great Seal of the Town of Falmouth to be affixed.

Megan English Braga, Chairman

Susan L. Moran

Douglas C. Brown

Samuel H. Patterson

BOARD OF SELECTMEN

Douglas H. Jones

Diane Davidson

From: Ed Bruce <ed@bruce1.net>
Sent: Wednesday, August 21, 2019 10:31 AM
To: ddavidson@falmouthmass.us
Cc: Sam Patterson; Stephen Swenson; Ralph Swenson; Karen Swenson
Subject: New Troop 38 Eagle Scout - Stephen Swenson

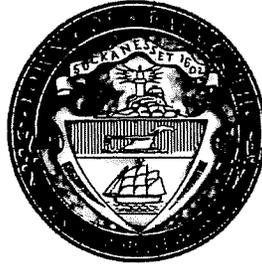
Diane,

Stephen Swenson earned the Eagle Scout rank in May and has scheduled his Eagle Court of Honor for Saturday, September 14, 2:30 PM at The Navigator.

Would it be possible to get him on the Board's agenda to be recognized at their meeting on Monday, September 9th?

Thanks,
Ed

Ed Bruce
Scoutmaster
Troop 38 - North Falmouth
508-521-3545 (cell, text)



PROCLAMATION

WHEREAS, behavioral health is an essential part of one's overall health and wellness; and

WHEREAS, we know addiction is a chronic but treatable disease, that treatment is effective, and recovery is possible; and

WHEREAS, we must encourage relatives and friends of people with substance use disorders to implement preventive measures, recognize the signs of a problem, and guide those in need to appropriate treatment and recovery support services; and

WHEREAS, community support and reducing stigma significantly contributes to an individual's ability to achieve and maintain recovery and contribute in positive ways both locally and around the nation; and

WHEREAS, the Town of Falmouth Commission on Substance Use wishes to honor individuals in recovery, as well as allies of recovery;

NOW, THEREFORE, we, Megan English Braga, Douglas C. Brown, Douglas H. Jones, Susan L. Moran and Samuel H. Patterson as Selectmen of the Town of Falmouth, by the authority vested in us, do hereby officially proclaim the month of September 2019 as **NATIONAL RECOVERY MONTH** in Falmouth and call upon the people of Falmouth to observe this month with appropriate programs, events, and activities that support this year's Recovery Month theme, "Together We Are Stronger".

IN WITNESS THEREOF, we have hereunto set our hand and caused the great seal of the Town of Falmouth to be affixed on this 9th day of September, 2019.

Megan English Braga, Chairman

Susan L. Moran

Douglas C. Brown

Samuel H. Patterson

Douglas H. Jones

BOARD OF SELECTMEN



Town of Falmouth

HUMAN SERVICES DEPARTMENT

FOR IMMEDIATE RELEASE

Contact: Suzie Hauptmann, Director
Suzie.hauptmann@falmouthma.gov
508-548-0533 x16

Falmouth Commission on Substance Use Highlights National Recovery Month

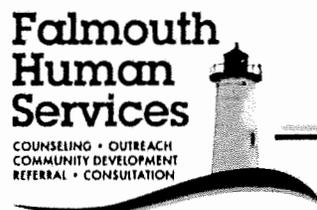
Falmouth, MA – August 27, 2019 – Strong communities make for strong recovery. Community members – including families, neighbors, employers, educators, charitable organizations, and faith-based institutions – are the backbone of communities that foster recovery among its residents. Mental and substance use disorders have affected Falmouth residents from all walks of life and research shows community support and reducing stigma significantly contributes to an individual's ability to achieve and maintain recovery. The Falmouth Commission on Substance Use, highlighting the observance of Recovery Month, underscores the importance of relying on one another, recognizing what brings us together rather than what drives us apart, and promotes the overall goals of health and well-being for all Falmouth residents.

National Recovery Month (Recovery Month), sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA), is a national observance held every September to educate Americans that substance use treatment and mental health services can enable those with mental and substance use disorders to live healthy and rewarding lives. This observance celebrates the millions of Americans who are in recovery from mental and substance use disorders, reminding us that treatment is effective and that people can and do recover. It also serves to help reduce the stigma and misconceptions that cloud public understanding of mental and substance use disorders, potentially discouraging others from seeking help. Now in its 30th year, Recovery Month celebrates the gains made by those in recovery, just as we celebrate improvements made by those who are managing other health conditions such as hypertension, diabetes, asthma, and heart disease.

The 2019 Recovery Month theme, "Join the Voices for Recovery: Together We Are Stronger," emphasizes the need to share resources and build networks across the country to support recovery. It reminds us that mental and substance use disorders affect us all, and that we are all part of the solution. The observance will highlight inspiring stories to help thousands of people from all walks of life find the path to hope, health, and personal growth. Learn more about this year's theme at www.recoverymonth.gov.

Many events are taking place within Falmouth and around Cape Cod that will provide substance use information, education, arts and entertainment, fitness and camaraderie. For a complete list visit the Falmouth Commission on Substance Use website at www.falmouthhumanservices.org. Visit Barnstable County's www.mychoicematters.net for local information and resources or call the MA Substance Abuse Information and Education Helpline at 1-800-327-5050 to find substance use treatment and recovery services.

###





The Commonwealth of Massachusetts
Alcoholic Beverages Control Commission

For Reconsideration

LICENSING AUTHORITY CERTIFICATION

Falmouth

City /Town

04326-BP-0390

ABCC License Number

TRANSACTION TYPE (Please check all relevant transactions):

The license applicant petitions the Licensing Authorities to approve the following transactions:

- New License
- Change of Location
- Change of Class (i.e. Annual / Seasonal)
- Change Corporate Structure (i.e. Corp / LLC)
- Transfer of License
- Alteration of Licensed Premises
- Change of License Type (i.e. club / restaurant)
- Pledge of Collateral (i.e. License/Stock)
- Change of Manager
- Change Corporate Name
- Change of Category (i.e. All Alcohol/Wine, Malt)
- Management/Operating Agreement
- Change of Officers/
Directors/LLC Managers
- Change of Ownership Interest
(LLC Members/ LLP Partners,
Trustees)
- Issuance/Transfer of Stock/New Stockholder
- Change of Hours
- Other
- Change of DBA

APPLICANT INFORMATION

Name of Licensee DBA

Street Address Zip Code

Manager

Granted under Special Legislation? Yes No

If Yes, Chapter

of the Acts of (year)

\$19 Farmer Series Pouring Perm Annual Malt

Type (i.e. restaurant, package store) Class (Annual or Seasonal) Category (i.e. Wines and Malts / All Alcohol)

DESCRIPTION OF PREMISES Complete description of the licensed premises

Capacity 94 seasonal seats, 64 year round seats, 2 entrances, 2 exits, first floor 2832 sq. ft. and loft 368 sq. ft., 4 rooms on fist floor

LOCAL LICENSING AUTHORITY INFORMATION

Application filed with the LLA: Date Time

Advertised Yes No Date Published Publication

Abutters Notified: Yes No Date of Notice

Date APPROVED by LLA Decision of the LLA

Additional remarks or conditions (E.g. Days and hours)

For Transfers ONLY:

Seller License Number: Seller Name:

The Local Licensing Authorities By:

Alcoholic Beverages Control Commission
Ralph Sacramone
Executive Director

Change of Manager

- ✓• Manager Application
- ✓• CORI Authorization
- ✓• Vote of the Entity
- ✓• Proof of Citizenship (Manager must be U.S. citizen)
- ✓• Payment Receipt

Number:
56-FBCV

Fee
\$60.00

The Commonwealth of Massachusetts
Town of Falmouth

This is to certify that
Bad Martha's Farmer's Brewery, LLC
Joshua Flanders, Manager
876 East Falmouth Highway
East Falmouth, MA 02536
is hereby granted this
Common Victualler's License

in said Falmouth and that place only and expires on the date shown below unless sooner suspended or revoked for violation of the laws of the Commonwealth respecting the licensing of common victuallers. This license is issued in conformity with the authority granted to the licensing authorities by General Laws, Chapter 140, and amendments thereto.

DAYS AND HOURS OF OPERATION: Monday through Sunday, Noon to 9:00 pm

Valid from: September 9, 2019

Valid until: December 31, 2019

By order of The Falmouth Board of Selectmen

September 9, 2019

This License Must be Posted in a Conspicuous Place upon the Premises

Phyllis Downey

From: Mallory Langler
Sent: Monday, August 19, 2019 9:44 AM
To: Phyllis Downey
Cc: Scott McGann
Subject: RE: Bad Martha's Brewery - Change of Manager

Hi Phyllis,

Bad Martha's has their final preoperational inspection with us tomorrow, but I don't anticipate any issues with them receiving their permit, it's a pretty basic operation.

Thanks,
Mallory

From: Phyllis Downey
Sent: Monday, August 19, 2019 9:42 AM
To: Scott McGann <scott.mcgann@falmouthma.gov>; Mallory Langler <mallory.langler@falmouthma.gov>; Peter McConarty <peter.mcconarty@falmouthma.gov>; Rod Palmer <rod.palmer@falmouthma.gov>; Timothy Smith <timothy.smith@falmouthfirema.gov>; Patty O'Connell <patricia.oconnell@falmouthma.gov>
Subject: Bad Martha's Brewery - Change of Manager

Good morning,

Bad Martha's Brewery at 876B East Falmouth Highway, Falmouth has applied for a Change of Manager. The new manager, Joshua J. Flanders, will apply for a background check with the Falmouth Police Department and has completed a CORI application per ABCC requirements. May we please request recommendations by Wednesday, September 4th ?

The Board of Selectmen will discuss this application at their meeting on Monday, September 9, 2019.

Thank you, Phyllis

Phyllis Downey
Administrative Assistant
Office of the Town Manager & Board of Selectmen
508-495-7325

Phyllis Downey

From: Douglas DeCosta
Sent: Monday, September 2, 2019 8:27 AM
To: Phyllis Downey; Diane Davidson
Subject: Background Check- Joshua Flanders of Bad Martha Farmers Brewery

Background Check- Joshua Flanders of Bad Martha Farmers Brewery Manager of Alcoholic Beverage License

September 2, 2019

A background check has been completed by the Falmouth Police Department of the municipal license applicant listed below:

Joshua Flanders of Bad Martha Farmers Brewery

The department did not locate information that may disqualify this municipal license applicant.

Lieutenant Douglas DeCosta
Falmouth Police Department
750 Main Street
Falmouth, MA 02540
Office: 774-255-4527
Fax: 508-457-2566
douglas.decosta@falmouthpolicema.gov
www.falmouthpolice.us



-----NOTICE-----

This email is intended for professional and business purposes of the Falmouth Police Department. The contents of this email message and any attachments are confidential and are intended solely for the addressee. If you are not the intended recipient please notify the sender and delete this message.

Number:
CV-063

Fee
\$60.00

The Commonwealth of Massachusetts
Town of Falmouth

This is to certify that
The Tea Room - The Tea Room, LLC
Holly Pacella, Manager
196 Crystal Springs Avenue
North Falmouth MA 02556
is hereby granted this
Common Victualler License

in said Falmouth and that place only and expires on the date shown below unless sooner suspended or revoked for violation of the laws of the Commonwealth respecting the licensing of common victuallers. This license is issued in conformity with the authority granted to the licensing authorities by General Laws, Chapter 140, and amendments thereto.

Valid from: August 19, 2019

Valid until: November 30, 2019

By order of The Falmouth Board of Selectmen

August 19, 2019

This License Must be Posted in a Conspicuous Place upon the Premises

Number:
007-AAID

Fee
\$100.00

The Commonwealth of Massachusetts
Town of Falmouth

This is to certify that

The Tea Room - The Tea Room, LLC
Holly Pacella, Manager
196 Crystal Springs Avenue
North Falmouth MA 02556
is hereby granted this

Automatic Amusement Device License

\$100 per machine, 2019 8 machines: Video, Claw, Air
Hockey

This license is granted in conformity with the Provisions of Chapter 140 of the General Laws as amended by Chapter 361, of the Acts of 1949 and expires on the below date unless sooner suspended or revoked.

Valid from: August 19, 2019

Valid until: November 30, 2019

By order of The Falmouth Board of Selectmen

August 19, 2019

This License Must be Posted in a Conspicuous Place upon the Premises

2019

License Alcoholic Beverages

19-54-WM

Fee:

25

The Licensing Board of
The Town of Falmouth
Massachusetts
Hereby Grants a

Special License For The Sale of Wine & Malt Beverages

License to Expose, Keep for Sale, and to Sell

Wines and Malt Beverages

To Be Drunk On the Premises

To Samaritans on Cape Cod and Islands, Inc.

Falmouth Academy
7 Highfield Drive, Falmouth

On the following described premises:

Falmouth Academy, 7 Highfield Drive, Falmouth

THE ABOVE NAMED PROFIT OR NON PROFIT ORGANIZATION IS HEREBY GRANTED A SPECIAL LICENSE FOR THE SALE OF WINE AND MALT BEVERAGES ONLY, TO BE DRUNK ON THE PREMISES.

This license is valid from the 14th day of September 2019 until the 14th day of September 2019, unless earlier suspended, cancelled or revoked.

The hours during which Alcoholic Beverages may be sold are from:

12:00 noon to 4:00 p.m. Upper Cape Bocce Tournament Fundraiser

IN TESTIMONY WHEREOF, the undersigned have hereunto affixed their official signatures this 9th day of September 2019

_____	_____
_____	_____
_____	Licensing Board

THIS LICENSE SHALL BE DISPLAYED ON THE PREMISES IN A CONSPICUOUS POSITION WHERE IT CAN EASILY BE READ

Diane Davidson

From: Brian Reid
Sent: Friday, August 30, 2019 2:54 PM
To: Diane Davidson; Sean Doyle
Cc: Phyllis Downey
Subject: RE: One-Day Liquor License Application - Samaritans - Bocce Festival

Hello Diane & Phyllis,
This Department has no objection to the below listed application.
Thank you,

Captain Brian L. Reid
Operations Division
Falmouth Police Department
750 Main Street
Falmouth, MA 02540
Office 774-255-4527 Ext. 4502
Fax 508-457-2566
brian.reid@falmouthpolicema.gov

CONFIDENTIALITY NOTICE: This communication and any accompanying document(s) are confidential and privileged. They are intended for the sole use of the addressee. If you receive this transmission in error, you are advised that any disclosure, copying, distribution, or the taking of any action in reliance upon the communication is strictly prohibited. If you are not the intended recipient and have received this communication in error, please contact the sender immediately and delete the original message. Thank you.

From: Diane Davidson
Sent: Friday, August 30, 2019 9:30 AM
To: Brian Reid <brian.reid@falmouthpolicema.gov>; Sean Doyle <sdoyle@falmouthpolice.us>
Cc: Phyllis Downey <phyllis.downey@falmouthma.gov>
Subject: One-Day Liquor License Application - Samaritans - Bocce Festival

Hi Capt. Reid, Lt. Doyle,

Attached please find an application for a special one-day wine and malt liquor license from the Samaritans on Cape Cod & the Islands for its annual Bocce Festival to be held at Falmouth Academy on Saturday, September 14, 2019 from 12:00 noon to 4:00 p.m.

Please review the application and provide your recommendations to the Board of Selectmen by Thursday, September 5, 2019. (Please copy Phyllis on the reply, as I will be on vacation through 9/13.)

Thank you,

Diane

Diane S. Davidson
Office Manager/Licensing
Office of the Town Manager and Selectmen
Town of Falmouth
59 Town Hall Square

Falmouth, MA 02540

diane.davidson@falmouthma.gov

(508) 495-7321

The Annual Bocce Festival is an event to support the work of the Samaritans...

haneymom@aol.com

Thu 8/29/2019 1:30 PM

To: Executive Director <ExecutiveDirector@capesamaritans.com>

The Annual Bocce Festival is an event to support the work of the Samaritans on Cape Cod and the Islands. It is held on the grounds of Falmouth Academy, this year on Saturday September 14, from 11:30 until 4:00pm. The purpose of the event is to raise awareness of our organization and to encourage conversations in the community about the importance of the many services provided by the Samaritans. The Bocce Festival draws over 100 participants each year. It is a family event that many people return for annually with players ranging from toddlers to elderly folks. It is also a way to help raise funds needed to continue our Crisis Line, various group meetings for suicide survivors and family members, and all of the other programs that we operate. We believe that offering a family friendly, fun outdoor activity is a great way to share time with the community and raise awareness at the same time.

The event includes a raffle for items created or donated by community members, and a beverage station offering complimentary water and soda water, as well as beer and wine for purchase. Persons serving beer or wine are TIPS certified. Liability Insurance has been secured for this event.

The event is held on one of the soccer fields. Restrooms are available inside Falmouth Academy. Handicapped parking is available as well as general parking in lots on the Falmouth Academy grounds.

TOWN OF FALMOUTH
SCHEDULE OF DEPARTMENTAL PAYMENTS TO THE TREASURER

Dept: BEACH

Date: 8/15/19

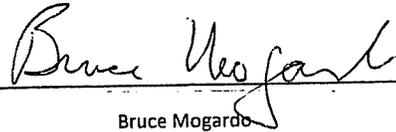
FROM	SOURCE	AMOUNT	TOTAL
STICKERS	01-632-4230		
GATE (BEACHES)	01-632-4231		
SWIM LESSONS	01-632-4238		
CONCESSION	01-632-4360		
DONATIONS	28-632-5655-4830	\$1,400.00	\$1,400.00

New England
Endurance Events

TOTAL \$1,400.00

To the Accounting Officer:

The above is a detailed list of monies collected by me, amounting in the aggregate to one thousand four hundred and 00/100 dollars, for the period ending 8/15/19 which I have paid to the Treasurer, whose receipt I hold thereof.



Bruce Mogard

Beach Superintendent

To the Department Officer making the payment:
Received from the Beach Department, the sum of
dollars, for collections as per schedule of the date

, filed in my office.

Treasurer

DRAFT

September 5, 2019

Michael Busby
MassHousing
One Beacon Street
Boston MA 02108

RE: MHID# 1045: 40 Shore Street, Falmouth, MA Buzzards Bay Development LLC
Site Approval Application

Dear Mr. Busby:

The Town has reviewed an application for Site Approval and Project Eligibility for 40 Shore Street, Falmouth, MA (the "Site"), by Buzzards Bay Development LLC, submitted by Michael Galasso. The proposal consists of eight single-family houses, including one existing house built in 1819. Two owner-occupied units are proposed to be affordable, at 80% of the AMI. The proposed density is 6.55 units per acre.

The project was discussed at the Development Staff meeting on August 21, 2019. Among the issues identified by staff included that this is a preferred location for the density proposed, however, the units created should reflect the identified local need for more one or two bedroom units. The developer appears to be proposing three and four bedroom units for a total of 28 bedrooms on the Site based on the septic design though the initial submission indicates that all units are three bedroom. Those 28 bedrooms would better serve the community as a mix of one, two and three bedroom units.

The location of the development meets many of the preferences from the Housing Production Plan (HPP), and is located in a Community Activity Center, as identified by the Cape Cod Commission in their 2018 Regional Policy Plan. Developing on an existing house lot rather than undisturbed land is consistent with the broad planning principle of infill development at a location that is six lots down from Main Street. The neighborhood is within the Falmouth Village Historical District, replete with stately homes and mature trees. Given the age and architectural significance of the existing Silvanus Robinson house, it should be accorded due respect during renovations. In order to minimize the impact of future operational costs of the dwelling maintenance going forward, it should remain as a market rate unit, and not be one of the two required affordable units. Condo fees for affordable units should be steeply discounted in the condo docs (e.g. 50% of market rate fee), or capped at absolute amount (e.g. \$100) with an annual inflation adjustment tied to CPI.

The proposed eight dwellings range in size from 1,300 square feet to 2,132 square feet. The two proposed affordable units include the existing 1,300 square foot historical structure, situated on Shore Street, and a slightly larger, 1,452 square foot dwelling. The market rate units range in size from 1,640 square feet to 2,132 square feet. The market units as proposed have garages and a master

bedroom on the first floor; the affordable units do not have either of these features. We believe the development as proposed violates the tenet that market rate and affordable units should be largely indistinguishable from the exterior. To bring the design into compliance, we suggest: 1) making the existing historic structure, which is smaller and has no garage, a market unit; 2) including a first floor master bedroom and garage in the affordable units; 3) reducing the size of the largest unit.

The Town of Falmouth offers the following comments, in the context of our recently adopted Falmouth Housing Production Plan (HPP). The HPP notes priority should be placed on units with fewer than three bedrooms, which are needed to provide more opportunities for seniors, one person households and first time homebuyers. Units that are barrier-free and handicapped accessible were also identified as a need. The Town does recognize the continued need for three-bedroom units, and is aware of the State's guidance, that at least 10% of affordable units have three, or more, bedrooms. However, we have observed that the vast majority of new units produced under subdivision control and 40B comprehensive permits are in fact detached, three-bedroom units.

The new structures should be situated in a way that maximizes their orientation for solar panels, to the extent possible. Merely checking the box in Section 8 of the application as "energy star or equivalent", is a poor substitute for building dwellings with a lower (or better) HERS Rating. A HERS Rating that meets "stretch code" requirements will provide annual cost savings for both market rate and affordable units, and will be substantially better for the community, and the planet, over the life of the homes. Further the developer should consider employing low impact development techniques. For example, it may be feasible to avoid underground drainage structures by designing to allow water to shed from the driveway onto the property without shedding water onto the roadway. Pervious surfaces for private driveway connection from the houses to the common driveway is another option to consider if it does not result in excessive maintenance costs.

Where the Town of Falmouth has undertaken the substantial commitment of time and money associated with identifying its needs, and developing its HPP, we would hope that MassHousing would assist the Town in shaping 40B developments to reflect the needs identified in the HPP. We believe that it is incumbent on those subsidizing agencies to require, as part of the mandated subsidy, that the unit mix address the needs of the community, and not just the preferences and profit of the developer. MassHousing, DHCD and the Commonwealth have, in our opinion, a responsibility through the PEL process, to include the unit mix that reflects our identified needs in the official housing and planning programs created and sanctioned by the Commonwealth.

We look forward to working with MassHousing and Mr. Bogosian and Mr. Gallasso of Buzzard's Bay Development LLC to meet the identified housing needs for the Town of Falmouth within the context of our local planning efforts.

Sincerely,

Julian M. Suso
Town Manager

Julian Suso

From: Ray Jack
Sent: Thursday, August 22, 2019 9:29 AM
To: Julian Suso; Peter Johnson Staub
Cc: Jennifer Mullen
Subject: RE: CVEC Electric Vehicle and Charging Station Program

Ok – here you go...

I have already started the grant application and should have all required info to complete it by early next week. I would ask that you include “Approve Grant Application for Electric Vehicles” on this week’s BOS agenda if possible so that I can file the application next week.

Here’s the program info:

The grant is provided through MassDEP under their Electric Vehicle Incentive Program (MassEVIP). It is a “rolling” grant program which has no application timelines. We should know within 30 days of application whether we will be awarded the grant.

- **Charging Station:** We are eligible for grant funds for a dual-port (one station that charges 2 vehicles) charging station **only** if we purchase 2 vehicles (which we are).
 - Grant amount is \$2,500 for the dual station. We pay all other costs of acquisition/installation/maintenance.
 - I should have the actual cost of one of these today or tomorrow.
- **Vehicles:** We are eligible for grant funds for the BEV’s (Battery Electric Vehicle).
 - Grant amount is up to \$7,500 per vehicle. Note: under this program, we could receive \$7,500 / vehicle for up to 25 vehicles (as long as the grant program is in force). Thus, we could continue with this program in future years.
 - Current cost of the basic Chevy Bolt is \$34,500.
 - We must operate the vehicles for at least 3 years.
 - We must “market” the vehicles via various venues, i.e., graphics on the vehicle, web site, news publications, community events, etc.
 - Easy enough to do and I do recommend some form of vehicle graphic.

We can acquire both the vehicles and charging station under State Contract.

- The State will pay the grant directly to the vendor for both the vehicles and charging station, thus, this is not a typical “reimbursement” program (which is good).
- We must acquire the vehicles/station within 180 days of being approved for the grant (which is fine).

So, our total grant eligibility amount will be \$17,500. This is actually a very good incentive program with few strings attached.

I will forward the cost of the charging station as soon as I know.

Thanks
Ray

From: Julian Suso
Sent: Thursday, August 22, 2019 8:19 AM
To: Ray Jack <ray.jack@falmouthma.gov>; Peter Johnson Staub <peter.johnson-staub@falmouthma.gov>

Julian Suso

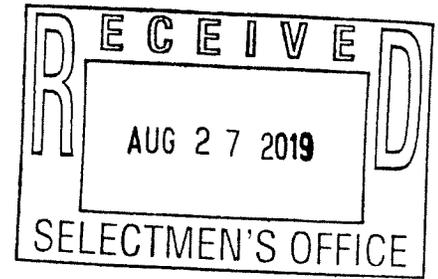
From: Ray Jack
Sent: Thursday, August 22, 2019 3:53 PM
To: Jennifer Mullen
Cc: Julian Suso; Peter Johnson Staub
Subject: EV

Hi Jen
Cost of the charging station under State Contract will be between \$4K-\$7K and I expect that installation/electrical connection will be in the \$1K-\$3K range. This will be for a single charging station that will recharge (2) vehicles.

With the potential grant credit of \$2.5K, the acquisition cost is then \$1.5K-\$5.5K. Installation costs are in addition to this cost.

Any questions, let me know.
Thanks
Ray

Raymond A. Jack
Director, Public Works
Town of Falmouth
508-457-2543



Falmouth Police Department
Chief Edward A. Dunne

August 26, 2019

Ms. Meghan English-Braga, Chairman
Board of Selectmen
Falmouth Town Hall
59 Town Hall Square
Falmouth, MA 02540

Subject: Acceptance of Local Community Grant Funding \$3,500.00 from Wal-Mart

Dear Board of Selectmen:

We have been designated to receive Local Community Grant Funding in the amount of \$3,500.00.
The money has been earmarked to purchase bicycle safety helmets for the children in our community.

We are requesting the Board of Selectmen to formally accept this grant.

Thank you in advance for your attention to this matter.

Sincerely,

Edward A. Dunne
Chief of Police



Community Grant Program

Welcome, Jamie Donahue!

[EDIT PROFILE](#)

| [LOGOUT](#)

The organization you are currently associated with is Falmouth Police Department .

If you work with multiple organizations, [click here to add a new organization to your account.](#)

Each of the application sections below must be completed for your proposal to be considered.

1. Contact Information - Contact information pertaining to the organization.
2. Program Information - Specific details of the proposed program.
3. Agreement - Review and agreement of the terms for requesting funds.

In an effort to streamline the application and review process we have made program updates, which includes shortening the application. We recommend that you [familiarize yourself with the online application](#) before you begin. To create a new application, enter the zip code for your program area in the "Community Grant Facility Search" box below and click Search. Once the results have loaded, click the "Start" link to the right of the facility number you want to request funding from. You may also save your applications now and return to work on them later. To continue work on an unsubmitted application, click the "Continue" link next to the application's Project Title. To view an application previously submitted to Walmart, click the "View" link next to the appropriate Project Title.

Each page will have a timeline to help you monitor your progress. The line and text will indicate your current position within the application process. If you have technical questions regarding this application, use the link located at the bottom of every page to contact our support team.

To make changes to your organization address, telephone, etc. please use the link below.

[Update Your Organization Information](#)

Community Grant Facility Search

Search for the facility to which you will apply by Zip Code:

Zip Code:

Submitted Community Grant Applications

*For applications with status of 'Application review completed', use the corresponding payment status in the last column and the below list to determine final status of application:

- **Contingent** - Pending Walmart Giving review
- **Scheduled** - Approved, payment scheduled
- **Process** - Approved, payment sent to print. Check will be mailed within 3-5 business days.
- **Paid** - Approved, check mailed.

Action	Project Title	Application Date	Proposal Type	Application Amount	Status	Check Date / Check # / Payment Status
Display activity for year: 2019 <u>2018</u>						
View	WMT 3561 Application	08/08/2019	Community Grants	\$3,500.00	Review completed* (potential grant of \$3,500.00)	N/A - N/A - Process

Need Support?



© 2019 Walmart, Inc.

Diane Davidson

From: Christina Lovely
Sent: Thursday, August 29, 2019 12:56 PM
To: Diane Davidson
Cc: Charles Martinsen; Gregg Fraser
Subject: Meeting date for Board of Selectmen meeting
Attachments: 2019-2020 Shellfish Regulation Document_DRAFT.pdf; 2019-2020 Changes Memo.pdf

Hi Diane,

Attached are the proposed changes in the shellfish regulations as well as a memo summarizing the changes. If you could kindly let me know the date and time of the next possible meeting this can be discussed, it would be much appreciated. This is a very quick item that should take no more than 5 minutes.

Thank you very much!

Christina M. Lovely
Fisheries Propagation Technician
Marine & Environmental Services
Town of Falmouth
clovely@falmouthmass.us
774-392-4097

Shellfish Division
2019-2020 Annual Shellfish
Resource Management Regulations

August 29, 2019

**TOWN OF FALMOUTH
OYSTER REGULATIONS
2019-2020 SEASON**

Family/Recreational: Between **October 1, 2010 and March 31, 2020**, both dates inclusive, not more than (10) quarts of oysters per week may be taken from areas open to the taking of shellfish. Seed oysters (less than 3" in length) must be culled from the shells of adult oysters at the harvest site. After shucking, oyster shells must be returned to the harvest site or to the shell collection site located at the Falmouth DPW (416 Gifford Street), on the right leading up the hill. *Recreational harvesters are not required to have completed Vibrio training to harvest from areas between October 1, 2019 and October 19, 2019.*

Commercial: Between **October 22, 2019 and March 31, 2020**, both dates inclusive, commercial harvest of oysters shall be limited to no more than (2) level town-approved containers per day. Commercial fishing is allowed on **Tuesdays, Thursdays and Saturdays only**. Culling of seed oysters from the shells of adult oysters must take place at the harvest site.

**TOWN OF FALMOUTH
2019-2020 FAMILY PERMIT SCALLOP REGULATIONS**

Pursuant to MGL Chapter 130, Section 52, the following regulations for the taking of scallops by Falmouth Permit Holders effective **OCTOBER 1, 2019 through MARCH 31, 2020** are hereby adopted:

1. Scallop season will open for all FAMILY shellfish permit holders on **October 1, 2019** throughout the town including areas "Closed to Shellfishing" for quahogs, clams, oysters and mussels.
2. Skin diving using mask, snorkel and fins may be used in any area.
3. Scuba diving with air tanks is allowed in Megansett Harbor, with the exception of the "Family Shellfishing Area, Buzzards Bay, Great Harbor Woods Hole and Vineyard Sound from shore only.
4. Skin and Scuba divers shall display a diver's flag.
5. Scallop boats shall not position themselves between the shoreline and any diver's flag. While towing scallop dredges, all boats shall remain outside a 100-foot radius of any dive flag.
6. Dredging is prohibited in West Falmouth harbor and all family shellfish areas.
7. Beginning on **November 1, 2019 until November 30, 2019**, dredging will be permitted in marked navigational channels except on the Atlantic Oyster grant in Seapit River and West Falmouth Harbor. Great Harbor and Little Harbor Woods hole will open for dredging on November 1, 2018.
8. FAMILY CATCH LIMIT: (1) bushel per week of bay scallops.
9. Dredges are limited to 3-foot width and two dredges per boat. Dredges must have two-inch or larger rings in the construction of the bag. Boats shall be limited to two permit holders per boat.
10. All bay scallops taken from Falmouth waters shall be landed in Falmouth. Scallops may not be shucked prior to landing.
11. The use of dredges shall be prohibited in any Family Shellfish Area.

**TOWN OF FALMOUTH
2019-2020 COMMERCIAL SCALLOP REGULATIONS**

Pursuant to MGL Chapter 130, Section 52, the following regulations for the taking of scallops by Falmouth Permit Holders effective **OCTOBER 1, 2019 through MARCH 31, 2020** are hereby adopted:

1. No Commercial Scallop Fishing on Sundays.
2. Skin diving using mask, snorkel and fins may be used in any area.
3. Scuba diving with air tanks is allowed in Buzzard Bay, Megansett Harbor, Vineyard Sound and Great Harbor Woods Hole from shore only.
4. Skin and Scuba divers shall display diver's flag and commercial divers shall display their permit numbers in 3" numbers on their dive flag.
5. Scallop boats shall not position themselves between the shore and diver's flags. While towing scallop dredges, all boats shall remain outside a 100-foot radius of any dive flag.
6. Commercial season opens on **October 1, 2019** in Buzzards Bay, Vineyard Sound and Great Harbor Woods Hole. All other areas to include Waquoit Bay and West Falmouth Harbor shall open on Monday, **October 7, 2019** to commercial scalloping. Commercial permit holders may take (1) bushel per week in coastal ponds from **October 1, 2019 until October 7, 2019**.
NOTE: Family shellfish areas are not open too commercial shellfishing of any species.
7. Beginning on **November 1, 2019 until November 30, 2019** dredging will be permitted in marked navigational channels, except in the Seapit River on the Atlantic Oyster Shellfish grant and in West Falmouth Harbor. Dredging of scallops in Great Harbor and Little Harbor Woods Hole shall be permitted from **November 1, 2019 to March 31, 2020**.
8. COMMERCIAL CATCH LIMIT: **October 1 through October 31st**, on (1) bushel per week. Beginning on **November 1st**, five (5) bushels per open days in coastal ponds. Beginning **October 1st**, the limit is ten (10) bushels per open day in the waters of Vineyard Sound, Megansett harbor and Buzzards Bay.
9. Dredges are limited to 3-foot width and two dredges per boat except in the waters of Vineyard Sound, Megansett Harbor and Buzzards Bay where 1 dredge not exceeding 5 feet in width is permitted in place of the 2 three foot dredges. Dredges must have two inch or larger rings in the construction of the bag. Boats shall be limited to two permit holders per boat.
10. All bay scallops take in Falmouth waters shall be landed in Falmouth. Scallops may not be shucked prior to landing.
11. Scallop shells may not be discarded in the water at any town landing.

**TOWN OF FALMOUTH
2019-2020 SHELLFISH REGULATIONS**

Pursuant to MGL Chapter 130, Section 52 the following changes to the Shellfish Regulations are hereby adopted:

Closing of Area for Shellfish Resource Management

WAQUOIT BAY SC-15

The Falmouth Waters of Waquoit Bay shall be closed to the taking of softshell calms and quahogs from **November 13, 2019** until **May 1, 2020**.

SOUTHERN BOURNES POND SC-13

The waters of Southern Bourne's Pond (Family Area) shall be closed to the taking of softshell clams and quahogs from **November 10, 2019** until **May 1, 2020**.

**TOWN OF FALMOUTH
SHELLFISH REGULATIONS REFERENCE NOTES:**

GREAT POND SC-11

In 2018, the waters of Great Pond to include all connected inlets and wetland were opened **December 5**, except for:

the Family Shellfish area between Priscilla St and Bourne St. which opened on Saturday, **November 3**, and remained open on Saturdays and Sundays until **May 26, 2019**. This regulation did not apply to the taking of scallops in Great Pond.

For 2019, the waters of Great Pond to include all connected inlets and wetland will be opened **November 1**, on the earliest state opening date.

GREEN POND SC-12

In 2018, the waters of Green Pond, to include all connected inlets and wetlands, were opened **December 15**.

For 2019, the waters of Great Pond to include all connected inlets and wetland will be opened **November 1**, on the earliest state opening date.

No action is required by the Board of Selectmen.

**TOWN OF FALMOUTH
2019-2020 SHELLFISH REGULATIONS**

Per order of the Falmouth Board of Selectmen

Date: TBA

Megan English Braga, Chairwoman

Douglas C. Brown, Vice Chairman

Douglas H. Jones

Susan L. Moran

Samuel H. Patterson

memo

Department of Marine & Environmental Services

To: Megan English Braga, Chairwoman Falmouth Board of Selectmen
CC: Julian Suso, Town Manager
Peter Johnson-Staub, Assistant Town Manager
From: Chuck Martinsen, Deputy Director of Marine & Environmental Services
Date: 8/29/2019
Re: 2019-2020 Shellfish Regulations

Dear Madam Chairwoman and members of the Board of Selectmen,

Please find attached the recommended 2019-2020 Shellfish Regulations. Annually the Board of Selectmen adopts regulations concerning the opening and closing of shellfish areas, as well as regulation modifications. Language in the proposed regulations is nearly identical to the 2018-2019 shellfish regulations, except for the areas of Great Pond and Green Pond not having further restrictions than the state imposes. The proposed openings for Great Pond and Green Pond are for the earliest date possible according to state regulations. We have heard from the public an asking for the de-emphasis of oyster propagation and an emphasis on quahog propagation, and the proposed regulations for the 2019-2020 season reflect these comments.

Starting in May 2019, I began discussions with the Shellfish Advisory Committee about the 2019-2020 proposed shellfish regulations, and it was the department's intention to delay final decision-making on the until after feedback could be obtained from the Shellfish Advisory Committee. A subcommittee of commercial shellfishermen met with the department on Monday, August 26th, 2019 to discuss this. All proposed regulations attached follow the consensus of the commercial shellfishermen who attended the meeting.

Commercial Shellfishermen Advisory Subcommittee Sign-In

Monday, August 26, 2019
Harbormaster's Office, 180 Scranton Ave, Falmouth, MA
4:00 PM

Dick HARDING

Tim SOUZA

Robert B. SARGENT

Nicholas Cenzalli

Pauline BARKS

Matt WELLS

Commercial Shellfishermen Advisory Subcommittee Recommendation Page

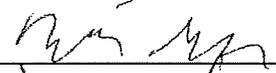
Monday, August 26, 2019
Harbormaster's Office, 180 Scranton Ave, Falmouth, MA
4:00 PM

Subsequent to the meeting held on Monday, August 26th, 2019 the following shellfishermen recommend openings for the following dates and locations:

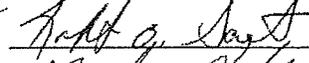
COMMERCIAL OYSTER OPENING

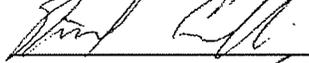
Date: 10/22/19

Signatures

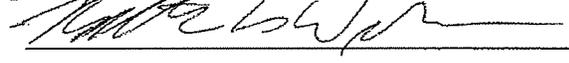












Julian Suso

From: Kristy Senatori <ksenatori@capecodcommission.org>
Sent: Thursday, September 5, 2019 11:22 AM
To: mark.ells@town.barnstable.ma.us; TGuerino@townofbourne.com; Julian Suso; plombardi@brewster-ma.gov; jgoldsmith@chatham-ma.gov; esullivan@town.dennis.ma.us; jbeebe@eastham-ma.gov; cclark@town.harwich.ma.us; rccollins@mashpeema.gov; jkelly@town.orleans.ma.us; dgardner@provincetown-ma.gov; gdunham@townofsandwich.net; townadm@truro-ma.gov; dan.hoort@wellfleet-ma.gov; dknapi@yarmouth.ma.us
Cc: Heather McElroy
Subject: RE: Appointments to County Coastal Resources Subcommittee
Attachments: List of Proposed CRC Members.doc; BCCMC appointment list Signed.pdf

Good morning,

If you have not yet responded with your appointment to the County Coastal Resources Subcommittee, please let us know at your earliest convenience. See message below for more detail.

Please feel free to contact me or Heather McElroy, the Commission's Natural Resources Manager (hmcclroy@capecodcommission.org) if you have any questions.

Thank you,
Kristy



Kristy Senatori
Executive Director
Cape Cod Commission
3225 Main Street | PO Box 226
Barnstable, MA 02630

CAPE COD Tel 508-362-3828 | Direct 508-744-1216
COMMISSION

From: Kristy Senatori
Sent: Friday, August 2, 2019 12:35 PM
To: mark.ells@town.barnstable.ma.us; TGuerino@townofbourne.com; julian.suso@falmouthma.gov; plombardi@brewster-ma.gov; jgoldsmith@chatham-ma.gov; esullivan@town.dennis.ma.us; jbeebe@eastham-ma.gov; cclark@town.harwich.ma.us; rccollins@mashpeema.gov; jkelly@town.orleans.ma.us; dgardner@provincetown-ma.gov; gdunham@townofsandwich.net; townadm@truro-ma.gov; dan.hoort@wellfleet-ma.gov; dknapi@yarmouth.ma.us
Cc: Heather McElroy <hmcclroy@capecodcommission.org>
Subject: Appointments to County Coastal Resources Subcommittee

Good afternoon,

A new county subcommittee charged with representing town interests and concerns on coastal resource issues is being established. You may be aware that the Coastal Resources Committee has served a similar role for over two decades; but with the adoption of a new county ordinance the CRC will be re-organized into a subcommittee of the Barnstable County Coastal Management Committee (BCCMC, see membership, attached). The BCCMC is staffed by the Cape Cod Commission and Barnstable County Cooperative Extension.

The BCCMC recently indicated their intention to establish a Coastal Resources Subcommittee with a similar membership (i.e. one representative from each town, plus three at-large members), and asked the Commission to forward the attached list of recommended members to Town Managers and Administrators with the request for you to review and recommend the appointment by the Barnstable County Commissioners of the individual indicated or another at your discretion, as well as a possible alternate.

The purpose of the Coastal Resources Subcommittee is to meet 3-4 times per year to discuss coastal resources issues, share common concerns and solutions, and to carry issues, requests, and recommendations forward to the BCCMC. The goal is to improve communication and collaboration between towns and county government, and to address local and regional needs in a coordinated and efficient fashion.

Please feel free to contact me or Heather McElroy, the Commission's Natural Resources Manager (hmcelroy@capecodcommission.org) if you have any questions.

We look forward to hearing from you.

Best regards,
Kristy Senatori



CAPE COD
COMMISSION

Kristy Senatori
Executive Director
Cape Cod Commission
3225 Main Street | PO Box 226
Barnstable, MA 02630
Tel 508-362-3828 | Direct 508-744-1216

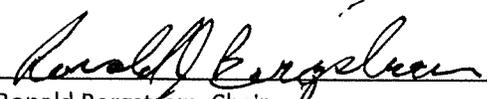
List of Proposed Members of the Barnstable County Coastal Resources Subcommittee

Agency / Organization	Name	Position
Voting Members (15)		
Barnstable	Dale Saad, Ph.D.	Senior Project Manager Water, Sewer and Green Energy Barnstable Department of Public Works
Bourne		
Brewster	Chris Miller	Director, Department of Natural Resources
Chatham	Robert Duncanson, Ph.D.	Director, Department of Natural Resources
Dennis	Karen Johnson	Director, Department of Natural Resources
Eastham	Shana Brogan	Conservation Agent
Falmouth	Jennifer McKay	Conservation Administrator
Harwich	Heinz Proft	Director, Department of Natural Resources
Mashpee	Rick York	Director, Department of Natural Resources
Orleans		
Provincetown	Tim Famulare	Conservation Agent
Sandwich	David Deconto	Director, Department of Natural Resources
Truro	Emily Beebe	Conservation and Health Agent
Wellfleet	Hillary Greenberg-Lemos	Conservation and Health Agent
Yarmouth	Karl Von Hone	Director, Department of Natural Resources
Ad hoc (non-voting)		
MassBays Regional Coordinator for Cape Cod region	Jo Ann Muramoto, Ph.D.	MassBays Regional Coordinator for Cape Cod, and APCC Director of Science Programs
At large	Stephen P. McKenna	Regional Coordinator, CZM Cape & Islands Region
At large	Abigail Archer	Marine Resources Specialist, CCCE/WHOI SeaGrant
At large	Donald Liptack	ret. NRCS Cape Cod Conservation District contractor
At large	Charles T. McCaffrey	Chair, Falmouth Coastal Resiliency Committee and Chair, Falmouth Coastal Ponds Committee

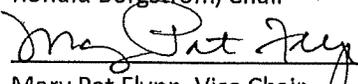
Appointees to Barnstable County Coastal Management Committee

Representing	Appointee	Term to Expire
Cape Cod Commission	Kristy Senatori	indefinite/replaced
Cooperative Extension	Mike Maguire	indefinite/replaced
Barnstable County Commissioners (ex officio)	Steve Tebo	January 5, 2021
Assembly of Delegates (ex officio)	James Killion	January 5, 2021
APCC (MassBays NEP service Provider)	Andrew Gottlieb	January 5, 2021
Cape Cod Conservation District	Rick DeVergilio	January 5, 2020
Cape Cod Chamber of Commerce	Christopher Adams	January 5, 2020
Massachusetts Coastal Zone Management	Steve McKenna	January 5, 2020
Town of Brewster Natural Resources	Chris Miller	January 5, 2022
Town of Falmouth Public Works	Ray Jack	January 5, 2022
Center for Coastal Studies	Mark Borrelli	January 5, 2022
National Park Service (ad hoc)	Mark Adams	January 5, 2020

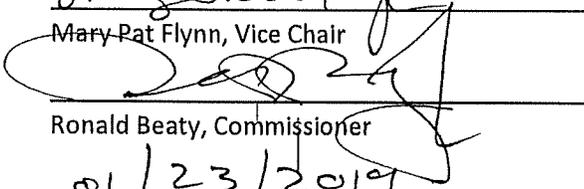
BARNSTABLE COUNTY COMMISSIONERS:



Ronald Bergstrom, Chair



Mary Pat Flynn, Vice Chair



Ronald Beaty, Commissioner

01/23/2019
Date



**TOWN OF FALMOUTH
SPECIAL EVENT PERMIT**

EVENT NAME Woods Hole Centennial Celebration

NAME Woods Hole Community Association, Catherine Bumpus & Anne Halpin

MAILING ADDRESS P.O. Box 327, Woods Hole, MA 02543

EVENT DAY & DATE Sunday, September 22, 2019

RAIN DATE None.

EVENT LOCATION Water Street (from the drawbridge to the Candle House)

TYPE OF EVENT Community Pot-Luck Dinner

SET-UP ARRIVAL TIME 2:00 p.m. – 7:00 p.m. EVENT HOURS 3:00 p.m. – 6:00 p.m.

NUMBER OF ATTENDEES 100 NUMBER OF VEHICLES 0

ADDITIONAL DETAILS Request closure of Water Street from the drawbridge to the Candle House. Tables to be set up on the south side of the road only, using the eastbound travel lane and parking spaces. The north side of the road (westbound travel lane and loading zone) would be used for emergency vehicle access if necessary. Pot luck meal. Will provide own composting and trash containers. No alcohol. Acoustic music. Bathroom access in the Community Hall and additional Porta Johns.

CONDITIONS:

1. In advance of the event, contact Police Detail Sergeant, Fire Department and Department of Public Works to coordinate safety plans and details and provide a plan showing access for emergency vehicles.
2. Obtain letters of support from the local Woods Hole businesses.
3. Provide a copy of the certificate of liability insurance in the amount of \$1,000,000 naming the Town of Falmouth as additional insured.

PERMIT FEE -- FILING FEE --

DEPOSIT -- (Deposit refundable at conclusion of event provided that no litter or damage has occurred)

BOARD OF SELECTMEN:

Phyllis Downey

From: [REDACTED]
Sent: Monday, September 2, 2019 1:27 PM
To: Falmouth Selectmen
Subject: Woods Hole Centennial Celebration

Selectmen,

I am the owner of the Captain Kidd Restaurant in Woods Hole. I have been asked by Ted Fitzelle of the WHCA to show my support for the street closing on Sunday the 22nd from 3-6pm.

I support this action and celebration.

Thank you,
Jamie Crowley

Phyllis Downey

From: Paula <[REDACTED]>
Sent: Monday, September 2, 2019 5:22 PM
To: Falmouth Selectmen
Subject: Liberty house

Hi, I am OK with the Water St closure on the afternoon of September 22, 2019. Thank you, Paula Popenoe, owner Liberty House.

Phyllis Downey

From: CParrish <[REDACTED]>
Sent: Tuesday, September 3, 2019 3:46 PM
To: Falmouth Selectmen
Subject: woods hole market

Dear Board

The Woods Hole Market agrees to allow permission for the street to be closed on Sept 22, 2019 for The Centennial Celebration. from 3:00-6:00 pm

Phyllis Downey

From: Howlingbird Studio <howlingbird@gmail.com>
Sent: Friday, August 30, 2019 3:58 PM
To: Falmouth Selectmen
Subject: 100th celebration

Follow Up Flag: Follow up
Due By: Tuesday, September 3, 2019 3:30 PM
Flag Status: Flagged

Hello Howlingbird studio here. We are OK with the street closure on September 22, 2019. We are looking forward to celebrating Woods Hole.

Thank you
Howlingbird Studio staff



**TOWN OF FALMOUTH
WEDDING CEREMONY AND PARKING PERMIT**

NAME Jullya Motta

MAILING ADDRESS 199 Essex St., #1, Marlborough, MA 01752

CEREMONY DAY & DATE Saturday, September 28, 2019

LOCATION Old Silver Beach (Resident side)

SET-UP ARRIVAL TIME 3:00 p.m. **CEREMONY HOURS** 4:00 p.m. – 6:00 p.m.

NUMBER OF GUESTS 60 **NUMBER OF VEHICLES** 35

TIME NEEDED FOR PARKING VEHICLES 3:00 p.m. – 6:00 p.m.

ENTERTAINMENT Overflow parking on public side. Photography.

CONDITIONS:

1. Consumption of alcoholic beverages prohibited on Town beaches and parking areas.
2. Public parking is on a first come first serve basis.
3. Bathhouse will be closed this time of year.

PERMIT FEE \$300.00 **FILING FEE** \$10.00

DEPOSIT \$300.00 *(Deposit refundable at conclusion of event provided that no litter or damage has occurred)*

BOARD OF SELECTMEN:

_____	_____
_____	_____
_____	_____

Diane Davidson

From: Bruce Mogardo
Sent: Friday, August 30, 2019 9:07 AM
To: Phyllis Downey; Brian Reid; Falmouth Selectmen
Cc: Melinda Rebelo; Diane Davidson
Subject: RE: Beach Wedding application J. Motta 9-28-19

I have spoken with Jullya today and she has agreed to start the wedding at 4 o'clock on the resident side of Old Silver Beach. She will use the public side for an over flow should there be insufficient parking. The Beach Department recommends this event.

Bruce Mogardo, Beach Supt.

From: Phyllis Downey
Sent: Thursday, August 29, 2019 10:21 AM
To: Bruce Mogardo <bruce.mogardo@falmouthma.gov>; Brian Reid <brian.reid@falmouthpolicema.gov>; Falmouth Selectmen <selectmen@falmouthma.gov>
Cc: Melinda Rebelo <melinda.rebelo@falmouthpolicema.gov>; Diane Davidson <diane.davidson@falmouthma.gov>
Subject: Beach Wedding application J. Motta 9-28-19

Good morning,

Attached please find an application by Jullya Motta for a Beach Wedding on Old Silver Beach, September 28, 2019. Jullya has been asked to contact Bruce Mogardo and has been advised that the time of the wedding should be moved back to 4:00 – 6:00 pm.

Please provide your recommendations for the Board of Selectmen on this request.

A hearing with the Board of Selectmen is being planned for Monday, September 9, 2019 at 7:15 p.m.

Thank you.

Phyllis Downey
Administrative Assistant
Office of the Town Manager & Board of Selectmen
508-495-7325



TOWN OF FALMOUTH

Office of the Town Manager & Selectmen

59 Town Hall Square, Falmouth, Massachusetts 02540

Telephone (508) 495-7320

Fax (508) 457-2573

PUBLIC HEARING NOTICE

The Falmouth Board of Selectmen will hold a public hearing under Section 240-77 (Wetland Regulations of the Zoning Bylaw) on a request for a Shellfish Aquaculture Permit by Daniel Ward, Ward Aquafarms, LLC, 51 North Falmouth Highway, North Falmouth, MA 02556. Request for this permit was received on July 26, 2019 in the Office of the Board of Selectmen. Said hearing will be held on Monday, September 9, 2019 at 7:30 p.m. in the Selectmen's Meeting Room, Town Hall, located at 59 Town Hall Square, Falmouth, MA.

Application is for a permit to grow Eastern Oysters in a suspended aquaculture site identified as Site B in the Falmouth Statement of Qualifications issued 7/5/2019 within a perimeter of approximately 0.5 acre located in Eel Pond approximately 200' west of Washburn Island. The mooring to be rented from the Town of Falmouth is to be located within this 0.5 acre site in an estimated water depth of 8' at mean low tide.

A copy of the Aquaculture License Application is on file at the Office of the Board of Selectmen.

LICENSING BOARD

Megan English Braga, Chairman
Douglas C. Brown
Douglas H. Jones
Susan L. Moran
Samuel H. Patterson

Publication Date: Friday, August 23 – Falmouth Enterprise
Account #: 2056



TOWN OF FALMOUTH

Office of the Town Manager & Selectmen

59 Town Hall Square, Falmouth, Massachusetts 02540

Telephone (508) 495-7320

Fax (508) 457-2573

August 20, 2019

Mr. Dan Ward
Ward Aquafarms, LLC
51 North Falmouth Highway
North Falmouth, MA 02556

Re: Eel Pond Aquaculture Application

Dear Mr. Ward:

At the recommendation of my review committee, you have been selected to apply for an aquaculture license for Eel Pond Site B. As you are aware, this license requires you to uphold certain responsibilities in furtherance of the Town's water quality and nitrogen removal objectives to maintain and renew this license. These responsibilities are detailed in the Statement for Qualifications issued by the Town on July 5, 2019. The final award of the license is subject to a vote of the Board of Selectmen. To that end, we have scheduled a hearing for 7:30pm on September 9th.

Kindly confirm your availability to attend this hearing if you have not already done so and submit to this office payment of the \$25 filing fee and the \$35 advertising. We will include your application in the Selectmen packet for the meeting.

Respectfully,

Julian M. Suso
Town Manager

s:\mes\aquaculture\eel pond licenses 2019\ward selection 8-20-2019.docx

Ward Aquafarms, LLC

Statement of Qualifications Town of Falmouth Aquaculture Services

**Submitted To:
Town of Falmouth
Town Manager's Office**

July 2019

Prepared by:

**Daniel Ward, PhD
Ward Aquafarms, LLC
51 North Falmouth Highway
North Falmouth, MA 02556**



July 26, 2019

Town of Falmouth
Town Manager's Office
59 Town Hall Square
Falmouth, MA 02540

To Whom It May Concern,

Ward Aquafarms, LLC is pleased to submit the following Statement of Qualifications, for selection as the Aquaculture Contractor (AC), to grow oysters in Eel Pond as part of the Town of Falmouth's Non-Traditional approach to removing nitrogen in the impaired estuaries. The proposed farm deployment will be primarily organized and managed by Daniel Ward, PhD. The business, Ward Aquafarms, LLC, is a sole-proprietor, limited liability corporation, established and licensed in the state of Massachusetts. The contact information for Daniel Ward, PhD, the principal of the firm, is included in the signature at the end of this letter.

The company has collaborated with the Town of Bourne, MA for the past three seasons to maintain and improve shellfish propagation activities within Town waters. This collaboration has led to increased shellfish production, reduced labor costs for the Town, and efficient use of Town resources. Ward Aquafarms has also started collaborating with the Town of Orleans, MA to farm 2 million oysters in Lonnie's Pond in 2019, with the primary goal of evaluating if shellfish aquaculture is an economically viable form of nitrogen mitigation in Cape Cod coastal waters. The company also partnered with the Town of Dennis in 2019 to grow over 300,000 year one and year two oysters in a deployment to determine the nitrogen removal capacity of shellfish in Swan Pond. The company has also collaborated with the Town of Falmouth, MA for the past three seasons for grow bay scallops for public propagation, and improve shellfish resources within the Town. Additionally, commercial oyster, bay scallop, quahog, and sugar kelp production has occurred consistently since the inception of the farm in 2011.

Dr. Ward is familiar with all applicable federal, state and local codes and regulations necessary to complete the proposed farm installation. The proposed aquaculture installation is an exciting step forward toward ecologically beneficial public-private partnerships, and Ward Aquafarms would is honored to be considered to partner in the deployment.

Sincerely,

Daniel Ward, Ph.D.
Ward Aquafarms, LLC
51 North Falmouth Highway
North Falmouth, MA 02556
Ph: 774-255-3030
Email: dan@wardaquafarms.com



2.1 Applicant's Project Experience

A. Residency: Daniel Ward, the principal of Ward Aquafarms, LLC, has been legally domiciled in Falmouth, MA without interruption since February 2nd, 2010, and therefore meets the prior 12 months residency requirement.

B. Required Submissions:

1. Cover Letter: Attached above.

2. Experience: Ward Aquafarms, LLC is an aquaculture company which was started by Daniel Ward, PhD in 2011 as a commercially-focused shellfish farm, with a robust research and innovation program with the ultimate goal of improving aquaculture production in the United States. The company consists of three core areas: 1) high quality commercial oyster, bay scallop, hard clam, and sugar kelp production, including weekly sales and year-round employees; 2) aquaculture consulting with for-profit and non-profit institutions and research partners throughout the US; and, 3) funded innovative research to improve economic viability of the US aquaculture industry (Fig. 1). Ward Aquafarms, LLC, farms on three leases in North Falmouth, MA; producing oysters, sold as Fiddler's Cove Oysters, bay scallops, quahogs and sugar kelp. The growout sites are located in outer Megansett Harbor (Fig. 2), and the nursery area located in the adjacent Fiddlers Cove.



Figure 1: Image of Cape Cod, with Megansett Harbor (North Falmouth, MA), inset. 10 acres permitted to Ward Aquafarms, LLC for shellfish farming shown as white boxes.

The farm was initiated as a 2.60 acre farm, and was originally permitted to grow both Eastern oysters (*Crassostrea virginica*) and quahogs (*Mercenaria mercenaria*). The operation expanded to a nursery area in adjacent Fiddler's Cove in 2013, expanded the growout area to 10 acres in 2014, and was approved to start growing bay scallops (*Argopecten irradians*) in the same year. The farm currently comprises over 1,200

cages containing over 1 million oysters from 6 months to 2 years old. Each year the farm plants a minimum of 1 million oysters and 1 million bay scallops commercially, in addition to over 1 million shellfish planted through propagation efforts in collaboration with Cape Cod municipalities. Ward Aquafarms owns three nursery systems, and real-time environmental sensor packages are installed on both the upwellers and downweller. Ward Aquafarms possesses all of the necessary equipment to run both a commercial oyster farm, and a high-quality field-based research operation. A 15' x 30' float is moored at the growout site. The site has a sorter, a 500W solar system, dual 390 Ah battery backup, thermal image camera installed, and 4G-connected WiFi enabled hot spot. This includes equipment such as: air compressor, air-powered clips guns, air-powered cutting tools, drills, saws, grinders, generators, solar power, battery backups, two winches, three 390 Ah deep-cycle batteries, tumblers, boats, marine-rated engines, SCUBA equipment, underwater cameras, waterproof tablets (iPads), hooks, totes, bushel



baskets, etc. For field-based research activities, all of the above equipment is available for use, in addition to: extensive glassware (beakers, flasks, graduated cylinders, etc.) extensive plastic volumetric research tools, digital calipers, digital scales, benchtop autoclave, laptops, software (arcGIS, SAS, Prism, Excel, Word, PowerPoint, Photoshop, Sketchup, etc.), recirculating pumps, tanks, heaters, and chillers.

In research and consulting, the core areas of competency involve aquaculture of many temperature species local to New England. This includes experience in non-profit municipal propagation, commercial production of numerous shellfish, finfish and seaweed species, research of many species of shellfish, finfish and seaweed species throughout the New England range, including in tanks, larval, juvenile, and adult stages, hatchery production, offshore aquaculture, submerged and floating. The project team also has experience in grant writing, publishing, marine engineering, aquaculture IoT, app development, water quality sensor development, harmful algae bloom detection and mitigation, education, outreach, including collaboration with farmers and regulators.

The current business has been producing sustainable revenue since 2012, and has consistently grown every year since the inception in all three revenue sources. All farm commercial seafood production operations are sustainable run solely on seafood sales, which have increased 25-100% annually for the last 4 years. As of April 2015, the business was a 1 person entity being solely run and operated by Daniel Ward. In 2015 there were 1.5 employees (1 full time, 0.5 seasonal), 2016: 6 employees (2.5 full time, 3.5 seasonal), and in 2017 the company had 11 employees (6 full time, 5 seasonal). The current commercial staff and research assistants have the technical and biological knowledge to execute the proposed project plan.

3. Representative Projects:

Town of Bourne:

In February of 2017, Dr. Ward was approached by Tim Mullens, the Shellfish Contrable and Director of Natural Resources for the Town of Bourne, MA. Mr. Mullens was interested in the innovative approaches utilized at Ward Aquafarms, and inquired about improving the methods, approach and output of the Bourne Propagation Program. Dr. Ward, in collaboration with Mr. Paquette and Mr. Tobi, designed and implemented a comprehensive inventory of the existing Bourne Propagation Program,



improvements to be implemented in 2017, and research activities to be implemented to document program shellfish yield. The collaboration has continued into 2018, and resulted in a sustainable long-term public:private partnership.

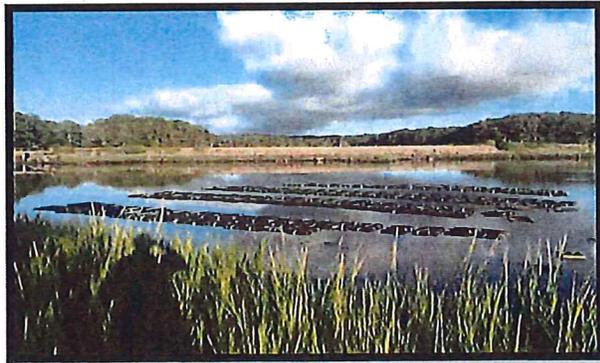
Figure 2: Each star is one of the 12 locations managed throughout the Town of Bourne in 2017 and again in 2018 by Ward Aquafarms, for public propagation activities in collaboration with the Town Department of Natural Resources.



Ward Aquafarms contributes labor when needed, and expertise in culturing new species and improving the culture of existing species. This allows the Town of Bourne to reduce staffing costs, as Ward Aquafarms can dynamically supply labor when only when needed, which improves employee utilization at the farm, and improves educational and outreach activities for both organizations.

In 2017, Dr. Ward was able to increase the species cultured from simply eastern oysters and quahogs, to include soft shell clams (*Mya arenaria*) and bay scallops, which was welcomed both by the Town Board of Selectmen and local stakeholders. Ward Aquafarms was the principal firm operating two Town-owned upwellers, four subsequent nursery areas, four additional growout areas for aquaculture propagation (Fig. 2). Dr. Ward also collaborated on quahog relays, closing areas to harvest, shellfish sampling for disease testing, water sampling for fecal coliform, drafting propagation permit applications in collaboration with the Town Department of Natural Resources and the MA Division of Marine Fisheries, and planting all shellfish produced throughout the year. Dr. Ward was instrumental in increasing the propagation program over 100% from 2017-2018, planting in excess of 1 million animals per year, over four separate species with distinct environmental preferences.

In May of 2017 800 bushels of contaminated quahogs were relayed from the Tauton River to Phinney's Harbor, and the area was subsequently closed. Dr. Ward coordinated the planting of 82,000 overwintered ~2" oysters from Falmouth into a closed area in the Cohasset Narrows on June 23rd. Both of the Town upwellers were prepared to receive seed shellfish by switching out all mesh to 0.75mm, and painting all silos and troughs with Netminder, ecologically safe antifouling coating. Received 2 shipments (167,000 from the County purchase, and 335,000 from Town of Bourne purchase) of quahog seed which were put into one of the upwellers at Monument Beach. Received 1 shipment of oysters in

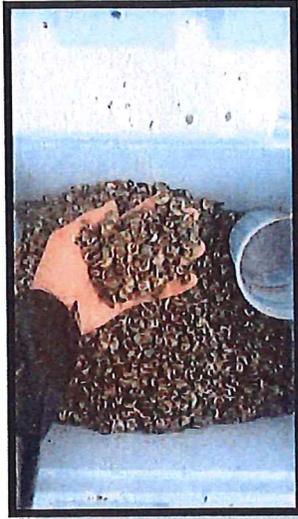


June, which were immediately put into the second upweller at Monument Beach. Received 1 shipment of soft shell clams in June, which were immediately put into two of the silos in the quahog upweller at Monument Beach. Both upwellers have been checked daily, all shellfish stirred daily, and graded and cleaned every 10-14 days (Fig. 3)

Figure 3: Three rows of bags with year two oysters in the Pocasset River, Bourne, MA in 2018.

Town of Orleans:

The Town of Orleans, MA initiated a three year shellfish aquaculture Demonstration Project in Lonnie's Pond in 2016, with the purpose to assess the effectiveness of using aquaculture to remove nitrogen from the water as a component of the Town's strategy to meet water quality requirements. Monitoring during the Lonnie's Pond Demonstration Project has found significant removal of nitrogen due to shellfish growth along with some water quality improvements. Orleans then chose to include aquaculture as a means to reduce the amount of nitrogen entering watersheds where sewerage is not currently planned. The Town then sought an aquaculture firm that could provide substantial expertise on raising oysters on Cape Cod, while also demonstrating expertise working within the guidelines of a scientific monitoring



program to accurately obtain nitrogen reduction results that will satisfy DEP requirements. Ward Aquafarms was chosen as the aquaculture contractor, and in the spring of 2019, 2 million, 1mm seed ready for deployment into upwellers at the permitted Ward Aquafarms site in North Falmouth as of May 1, 2019. The oysters were grown until 9 mm average shell height, before being pathology tested, and then transported to Orleans for stocking into 2,000, 6 mm floating bags at a density of 1,000 animals per bag (Fig. 4). The setup in Orleans is nearly identical to the proposed setup in Falmouth, and therefore, Ward Aquafarms has significant experience with the high-density, flip-bag oyster farming for nitrogen remediation concept.

Figure 4: Oyster seed transported from the upweller in North Falmouth, MA, after receiving a clean pathology report, to the site at Lonnie's Pond in Orleans, MA in July 2019.

Town of Dennis:

The Town of Dennis has also partnered with scientific researchers through their local Water Quality Committee, to evaluate the efficacy of utilizing oyster aquaculture to remove nitrogen from impaired estuaries. Ward Aquafarms was solicited to provide a bid for work, similar to both Lonnie's Pond in Orleans, and the proposed farms in the Eel River in Falmouth, with the same high-density planting, and flip-bag farming technique. Ward Aquafarms was selected as the aquaculture contractor, and following acceptance of the bid, Dr. Ward has facilitated re-floating and relocating the overwintered seed (approximately 140 mesh bags of (3/16") size and 140 mesh bags (3/8")) into the approved grow area (Fig. 5).



Figure 5: 300 floating bags using the "flip-bag" technique in Swan Pond, Dennis, MA. The orderly line setup and maintenance was critical to ensure abutters and local stakeholders were supportive of the project.

These floating bags (20"x 40") have been re-anchored into the soft bottom using six 3" galvanized poles which are screwed into the bottom with an attached helix anchor. The overwintered seed was graded, shells removed, and the quantity of shellfish within each size grade (>2", <2" & >1", <1") quantified, and the shellfish redeployed in the mesh bags from 2018. Once the number of shellfish within each size grade was enumerated, the required number of new bags for continued growout were purchased and constructed by Ward Aquafarms' employees. The required number of new mesh bags for 2019 has varied between 500-1000 depending on overwintered seed survival, seed shell height, and quantity per size grade given standard oyster stocking densities for the flip-bag technique of growout.

4. Capacity and Project Experience: This will be outlined in the following section; Project Understanding and Responsiveness of Approach.



5. Project Organization Chart: Daniel Ward, PhD will be the principal lead project manager. Dr. Ward has commercial, research, municipal and educational aquaculture experience and has overseen many projects similar to the proposed Falmouth Eel River project.

Harrison Tobi, is Ward Aquafarms lead research associate, and has worked on the farm's commercial operations since 2015. Mr. Tobi is currently enrolled part-time at the University of Massachusetts as a master's student studying bay scallop aquaculture optimization and parasite avoidance techniques. He is performing his research at Ward Aquafarms currently, and he will be graduated in fall 2019 when the Falmouth Eel River project will start. He has extensive experience in commercial aquaculture, research activities, collaboration with municipalities and working with stakeholders to ensure success of all projects he has worked on.

Matthew Paquette has been continuously employed at Ward Aquafarms since 2016, and has been farm manager since 2017. He has worked on all aspects of the Bourne Propagation Program, and has been instrumental in designing and implementing new techniques at the farm to improve output. Mr. Paquette will be involved in all aspects of the Falmouth Eel River project and will be instrumental to the project's success.

6. Familiarity with Regulations: In the state of Massachusetts, prior to initiating commercial aquaculture activities, each farm must gain approval from the following local, state and federal agencies: Town Conservation Commission, Town Board of Selectmen, US Coast Guard: Private Aids to Navigation, Commonwealth of Massachusetts Board of Underwater Archaeological Resources, Massachusetts Department of Marine Fisheries: Shellfish Propagation Permit, Massachusetts Department of Environmental Protection, US Army Corp of Engineers and 5 different Federally Recognized Indian Tribes. Ward Aquafarms, LLC has received approval from all of the above agencies to grow shellfish on their leases for commercial sale three times for the three separate leases in Falmouth. Given the extensive collaborations between Ward Aquafarms, LLC and the Towns of Bourne, Orleans, Dennis and Falmouth, MA, and all the permitting required for those projects, the principals are confident any and all regulations will be followed and all permits will be in place prior to starting any project activities.

7. Required Forms: Within the enclosed application, please also find a completed Certificate of State Tax Compliance, Certificate of Non-Collusion and Acknowledgement of Principal Form.

8. Insurance: Ward Aquafarms, LLC carries the required insurance, of which a Certificate of Insurance is included in the application.

9. Knowledge of Regulations: Please see number six above.

10. Regulatory Approvals: Please see number six above.

11. Site Preference: In order of preference: 1. Site A., 2. Site B., 3. Site C.

12. Age: Confirmation that Daniel Ward, Ph.D., the principal of Ward Aquafarms, LLC, is at least 18 years of age.



2.2 Project Understanding and Responsiveness of Approach

As the Review Committee is well aware, Falmouth, like many Cape Cod towns, faces a significant environmental crisis due to excess nitrogen pollution, and shellfish aquaculture may be able to reduce or eliminate the issues associated with eutrophication. However, while shellfish are excellent filter-feeders, given that each market-size (3") oyster removed from the estuary only contains at the most 0.3g of nitrogen, any shellfish production must be significant to have any measurable impact. The shellfish will be farmed utilizing floating gear as outlined in the Request for Statements of Qualifications. Shellfish such as oysters or scallops are grown either in gear such as bags or cages, or they are grown "on bottom"; meaning that they are simply thrown on the bottom and allowed to grow to market size. Ideally, any aquaculture farm would have a sandy or muddy bottom where the shellfish could be thrown onto the bottom for grow out. This is a method employed by many of the largest farms both in Massachusetts (Island Creek Oysters, Duxbury, MA; Riptide Oysters, Westport, MA; Washburn Oysters, East Falmouth, MA, etc.) and throughout the United States (Cherrystone Oysters, Cheriton, VA; Taylor Shellfish, Seattle, WA). In the Falmouth estuaries, any areas which have sandy or muddy bottom already have significant shellfish resources present, which means the area is actively fished by recreational and commercial fishermen, and that private aquaculture would not be permitted. The entire bottom of the proposed lease area is comprised of thick anoxic silty mud with the consistency of mayonnaise. The bottom of the proposed area is not currently conducive to shellfish growth or survival, and therefore the water column above the poor quality bottom would be ideal to avoid conflicts with commercial and recreational shellfishermen.

2019:

The plan for the Eel River will be different in 2019 from 2020 and all subsequent years, as the majority of the 2019 growing season has passed. Therefore, in 2019, the proposed farm deployment will only be 25% (623 bags) as opposed to the 100% deployment (2,490 bags), in 2020 and all subsequent years. In 2019, the field gear (corner markers, anchors, end lines, etc. and 623 bags for growing, are proposed to be rented from the Town of Falmouth at the rental fee rates as outlined in the Request for SOQ. If the field gear and bags are not available for rent in 2019, Ward Aquafarms will outfit the farm with gear at their own expense. In 2020, and in all subsequent years, the ideal situation would be to lease all of the required field gear, upweller space, rental bags, overwintering area, work float, and gear storage from the Town of Falmouth to allow for 100% deployment of gear at the site. However, if at any time any or all of the desired gear and equipment is not available for lease, Ward Aquafarms has the capacity to utilize the farm area at 100% deployment with existing gear owned by the company, or through purchase and construction of additional equipment to allow for full deployment from March 1 through December 31 annually.

In 2019, once the required permits and approvals have been secured from all local, state and federal authorities, the telescoping augers, corner markers, end lines and all required field gear will be deployed. Triploid oyster seed has been growing in upwellers owned by Ward Aquafarms in North Falmouth, and 50,000 have been set aside for deployment in the Eel River. By the time the permits and approvals have been secured, the seed will most likely be approximately 1" in shell height, and therefore will be deployed at 500 oysters per bag, in 100 bags of appropriate mesh size (9-13 mm). The remaining 523 bags will be filled with year two oysters, from the growout area in Megansett, North Falmouth, at a stocking density of 125-150 oysters per bag, with an average shell height of 2". All of the year one, and



year two seed, from both Megansett and Fiddlers Cove in North Falmouth, has been submitted for pathology testing, has come back negative for any disease, and each year class has been added to the Massachusetts Division of Marine Fisheries approved seed supplier list. The bags will be checked twice-weekly, flipped every seven days, and densities of shellfish modified as necessary. The farm will be worked from either a 14' fiberglass skiff with a 9.8 hp 4-stroke engine, or kayaks as needed to tend to the bags. Oysters will be harvested when they have reached market size, and transported to the public boat landing for transfer to a wholesale facility for sale. All oysters which have not reached market size by December 31, 2019, will be overwintered in the Town of Falmouth's overwintering facility, provided there is space available. If there is not space available, the seed will be transported to Ward Aquafarms' indoor facility in Wareham, MA for overwintering.

2020 and all subsequent years:

As stated previously, ideally, all field gear and bags will be leased from the Town of Falmouth. However, if any or all of the desired gear is not available, Ward Aquafarms has the capacity to utilize the farm area at 100% deployment with existing gear owned by the company, or through purchase and construction of additional equipment to allow for full deployment from March 1 through December 31 annually. Overwintered oysters will be deployed into 2,490 bags on or closely after March 1, 2020, at a stocking density of 150 oysters per bag. The bags will be checked twice-weekly, flipped every seven days, and densities of shellfish modified as necessary. Oysters will be harvested when they have reached market size, and transported to the public boat landing for transfer to a wholesale facility for sale. When the bags have been emptied of market oysters, they will be immediately refilled with either a) more overwintered year two oysters at a stocking density of 150 oysters per bag, or b) seed oysters from the upweller at an initial stocking density of 1,000 oysters per bag. As the oysters are harvested throughout the season, the bags containing market-size oysters will be replaced with bags with smaller mesh, such that the smaller seed oysters can be deployed for growout in the Eel River farm area.

Oysters will be produced at the Ward Aquafarms hatchery in the winter of 2020, with 1 million, 1mm seed ready for deployment into upwellers set aside for Ward Aquafarms' use by May 10, 2020. All employees at Ward Aquafarms have significant experience with upweller function and maintenance, including the specific style and type of land-based upwellers which will be rented through this project. If there is not sufficient upweller space available to rent, as with all of the other requested rental equipment, Ward Aquafarms has the excess capacity to raise the shellfish in nursery systems elsewhere. The oysters will be grown until 9 mm average shell height, before being pathology tested, and then transported to the Eel River for stocking into 1,000, 6 mm floating bags at a density of 1,000 animals per bag. The bags will be checked twice-weekly, flipped every seven days, and densities of shellfish modified as necessary. The farm will be worked from either a 14' fiberglass skiff with a 9.8 hp 4-stroke engine, or kayaks as needed to tend to the bags. In 2020, it would be ideal to do a custom spawn of Eel River oysters to produce a custom broodstock set, specifically customized for the unique conditions of the estuary, and as the project proceeds, the project participants will stay in contact with the Falmouth Shellfish Constable to determine best practices for future seed growth and survival success.

As the project continues through 2020, the market oysters will be harvested, landed, transported to a wholesale facility for processing and sale. All landed oysters will be entered into the state SAFIS system, and monthly reports will be submitted to the Town of Falmouth through DMES. All seed will be split and maintained as necessary, and then overwintered in the facility available to rent from the Town



of Falmouth. If there is ever an issue with overwintering space, there is excess capacity for in-water overwintering in the Megansett growout area, as well as land-based overwintering capacity in the Wareham facility.

The vast majority of shellfish raised in Massachusetts are grown for over 1 year, and therefore must be “overwintered”. In areas which are bottom planted, the shellfish are left on the bottom over the winter, and in areas that are intertidal, the shellfish are brought to a cooler off-site from the farm and “pitted” for several months over the winter until the water warms. In deep water areas when shellfish cannot be bottom planted and must be raised in gear (such as at Ward Aquafarms’ commercial growout site in Falmouth), the shellfish in the gear is sunk to the bottom to overwinter. This requires a depth of at least 3 feet at Mean Lower Low Water (MLLW; the lowest tide point).

All oysters produced at the Eel River site will be brought to Falmouth inner harbor to be pitted and overwintered on land from late December through March. Prior to pitting, oysters will be disease tested to ensure clean pathology in the following spring. In the spring, 50% of the animals produced in Eel River will be sold as “overwintered large seed”, primarily to growers in the Cape Cod region. The other 50% will be split and 25% stocked into growout cages in North Falmouth, following typical farm management strategies, and the remaining 25% put back into growout bags in the Eel River site for final growout in year two. The Eel River site has been identified throughout this proposal as the most appropriate pond for shellfish aquaculture due to low a low level of navigational conflicts, and low prevalence of eel grass and shellfish in the proposed area. The shellfish at this farm will be grown in gear the whole time since the bottom is not conducive to shellfish growth and survival, and since the site is subtidal, the gear will be required to be removed over the winter months to avoid ice damage.

Neighbors

Oyster farming requires gear (bags, cages, floats, boats, etc.) in the water at most if not all times of the year. While many people find the sight of oyster farming innocuous, some homeowners do not want commercial operations in close proximity of their residence. Therefore, the farm is specifically situated to be adjacent to as few homes as possible to avoid potential stakeholder conflicts. The site will only be accessed through the boat ramp identified in the Request for SOQ’s, and only in the times of least traffic. The farm sites will only be accessed Monday-Friday, only from the hours of 7am-5pm, and all efforts will be made to avoid accessing the boat ramp during times of peak tourist activity (July 4th week, Labor Day week, Memorial Day week, etc.).

Throughout the summer there are small skiffs moored at the edge of the boat ramp which are commonly used by shellfishermen and other stakeholders. As this access point is already utilized by shellfishermen in Falmouth, and the access point is directly north of the proposed aquaculture site, it is an ideal location from which to access the pond while simultaneously having the least possible impact on stakeholders in the area.

Ecosystem services

The Falmouth municipal shellfish aquaculture projects in the south-facing estuaries have been very successful in demonstrating that shellfish will grow quite well in the Falmouth estuaries, the public will accept shellfish aquaculture, and shellfish can be a significant part of any wastewater management plan.



Over several years of utilizing Falmouth estuaries for oyster intermediate culture (oyster growth from ¼” – 2”), the Town Department of Marine and Environmental Services has shown that by covering an acre in over 2,000 bags, they can grow millions of oysters to 2” over a 6-month period, which removes a significant amount of nitrogen. Additional nitrogen removal through sedimentation and off-gassing is extremely hard to quantify, through anecdotal evidence suggests that microbial removal of nitrogen may be up to 10 times the amount of nitrogen which is removed through harvesting alone. As the ecosystem is repaired, and the amount of nitrogen in the system is reduced, the estuary will begin to function properly again, bringing back normal estuary services which will further drive down ambient nitrogen levels through greater overall ecosystem health. Ward Aquafarms commits to providing any and all assistance, sample oysters, water quality measurements, and any and all data required to determine weight in and weight out of the farm, nitrogen content of the animals produced, and any other measures necessary to determine the efficacy of the project and yield from the farm.



2.3 Experience of Key Project Staff

Daniel Ward, PhD will be the principal lead project manager. Dr. Ward has commercial, research, municipal and educational aquaculture experience and has overseen many projects similar to the proposed Eel River project.

In the last 10 years, Dr. Ward has also either written or co-written, and subsequently organized and managed as a PI many federally funded grants, including funding from, but not limited to: NOAA S-K, NOAA NH SeaGrant, NOAA RI SeaGrant, NOAA Woods Hole SeaGrant, NOAA Research Set Aside Program, USDA NRAC, USDA NE SARE and USDA AFRI NIFA. In addition, Ward Aquafarms, LLC has partnered with the Town of Falmouth, MA for the previous two seasons to grow bay scallops in Town upwellers, and 200,000 bay scallops have been donated to the Town of Falmouth for bay scallop restoration activities.

Harrison Tobi, is Ward Aquafarms lead research associate, and has worked on the farm's commercial operations since 2015. Mr. Tobi is currently enrolled part-time at the University of Massachusetts as a master's student studying bay scallop aquaculture optimization and parasite avoidance techniques. He is performing his research at Ward Aquafarms currently, and he will be graduated in fall 2019 when the Eel River project will start. He has extensive experience in commercial aquaculture, research activities, collaboration with municipalities and working with stakeholders to ensure success of all projects he has worked on.

Matthew Paquette has been continuously employed at Ward Aquafarms since 2016, and has been farm manager since 2017. He has worked on all aspects of the Bourne Propagation Program, and has been instrumental in designing and implementing new techniques at the farm to improve output. Mr. Paquette will be involved in all aspects of the Eel River project and will be instrumental to the project's success.

Ward Aquafarms also has a robust biological research program which tracks many different factors impacting farm performance, and correlates product yield and growth rates with the different factors to help both the existing farm, as well as other farmers succeed throughout New England. Over the past five years, the research has included tracking growth rates of scallops and oysters from nursery stage (1 mm) through final market product (75 mm) year-round, under different stocking densities, depths, gear configurations and farm areas. A two-year USDA-funded project assessing the impacts of the harmful algae *Cochlodinium polykrikoides*, has documented the impacts on commercially important shellfish species, and identified mitigation strategies. An ongoing NOAA Saltonstall-Kennedy project will continue to investigate bay scallop farming success in diverse environments throughout Cape Cod in many different gear types, with high environmental variability.

Mr. Tobi and Mr. Paquette, as well as the rest of Ward Aquafarms' 14 employees have all participated in the projects outlined below, and in the municipal projects outlined in section 2.1 above. As research and farm managers, respectively, Mr. Tobi and Mr. Paquette have demonstrated independence, superior critical thinking skills, excellent interpersonal skills, and overall excellent work ethic. It is critical when working adjacent to the public, and in the public waterways, that all employees are able to interact with the public to address concerns and minimize disruptions to stakeholders in the area.



Research and method optimization

Ward Aquafarms has led numerous research projects both on the commercial farm, on collaborating farms, and throughout the New England region. The abstracts below are a subset of relevant recent projects.

Evaluation of bay scallop nursery optimization and effective growout strategies

December 1, 2016 – November 31, 2018

Given site-specific differences in wave action, food availability, salinity, temperature, etc., it is of the greatest importance to evaluate culture gear and techniques on as many varied aquaculture environments as possible. For this project we have partnered with 3 other commercial farms (as well as Ward Aquafarms) in order to document bay scallop growth and survival in environments which approximate many of the different growing areas throughout the United States. All of the farms primarily produce the eastern oyster, though some of the farms produce hard clams (*Mercenaria mercenaria*) as well. East Harbor Oyster Co. (Truro, MA) is a deep-water (15-30') oceanic site in Cape Cod bay, Massachusetts. This site is full salinity ocean water, is exposed to wave action to the north and northeast, and has little nutrient loading and therefore may have lower food availability as compared to other sites. Wash-Ashore Oyster Ranch LLC (Wellfleet, MA) is primarily an intertidal site, with the northern edge remaining submerged at all times, which sporadically receives wild bay scallop sets. The water is almost full oceanic salinity, though the area receives adequate freshwater inputs and therefore, high food availability. The farm is exposed to the west and north; though wave action is reduced as compared to the deep-water sites. Sippewissett Oyster Farm (Woods Hole, MA) is also a deep-water site (15-30'), with little freshwater input, and therefore little nutrient loading. The farm is exposed to the west and south, and has high wave action throughout the winter. The water at Sippewissett Oyster Farm approaches full oceanic salinity, and as the farm is situated in Buzzards Bay, the water gets warmer in the summer months as compared to the two previously mentioned farms in Cape Cod bay. Ward Aquafarms (North Falmouth, MA), is an intermediate salinity site with ample freshwater input, and therefore seasonally high food resources. The water gets very warm (25C+) in the warmer months at the shallow end of the farm (8' MLW) and the area becomes thermally stratified in the summer, remaining cooler in the deeper areas of the farm (25' MLW). The site at Ward Aquafarms is exposed to the south and west, and will often see significant wave action in the summer, and lower wave action throughout the winter months. By testing culture methods at the four partner farms, the salinity, wave action, water temperature, food availability and dissolved oxygen

Impacts of harmful algal blooms on shellfish aquaculture and sustainable mitigation strategies

December 1, 2014 – November 31, 2016

Expansion of US aquaculture will result in promotion of a healthy, nutritious, sustainable food source for a growing global population. Shellfish aquaculture in particular, has seen strong growth in recent years due to standardized culture techniques, reliable seed sources, and strong stakeholder support due to the environmentally benign nature of shellfish farming. Bivalve aquaculturists throughout southern New England however, have been confronted with a devastating harmful algae problem due to the dinoflagellate *Cochlodinium polykrikoides*. This harmful algal bloom (HAB) species was not detected anywhere in the region prior to 2005, though the now annual blooms have caused widespread and remarkable biological and economic losses throughout the shellfish aquaculture industry. Even though



farmers have noted losses which restrict economic viability and growth in the industry, the rapid emergence of the HAB species in the region has meant no comprehensive monitoring program, and very little research on the effects on commercially important cultured species. The proposed project will expand upon agricultural knowledge of impacts of *Cochlodinium polykrikoides* on species cultured in New England, while investigating potential mitigation strategies. It is imperative that sustainable mitigation strategies are both investigated and implemented as the ecosystem continues to change in order to continue to provide healthy, nutritious seafood to consumers throughout the US.

Sugar kelp and triploid oyster production to promote sustainable integrated multi-trophic aquaculture

May 1, 2013 – April 30, 2014

In this project we will add sugar kelp (*Laminaria saccharina*) culture to our existing oyster farm to 1) take advantage of the known culture technique, 2) utilize an established market with great demand for this product, and 3) collaborate with other farmers in northern New England culturing the macroalgae who are very willing to assist in establishing new farms. We will also investigate the advantages of growing triploid oysters (*Crassostrea virginica*) concurrent with the sugar kelp to increase yield and improve growth year-round, while bringing a consistent product to market. By incorporating sugar kelp and triploid oysters to the existing farm we will increase economic viability, while diversifying risk and increasing nitrogen removal from the ecosystem. At the conclusion of this project, the results will be disseminated through conference presentations and workshops to other farmers in the region, so that others can build upon what is learned to increase revenue and expand aquaculture production throughout New England.



2.5 References:

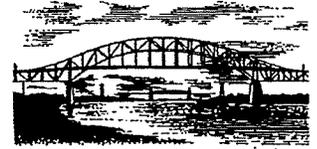
Nathan Sears
Shellfish Constable
Natural Resources Manager
Department of Natural Resources
40 Giddiah Hill Road
Orleans, MA 02653
Ph: (508) 240-3790
Email: nsears@town.orleans.ma.us

Chris Southwood
Shellfish Constable
Director, Department of Natural Resources
Town of Bourne
24 Perry Ave., Room 102
Buzzards Bay, MA 02532
Ph: (508) 759-0600 ext: 1312
Email: csouthwood@townofbourne.com

Amber Salvage
Shellfish Constable
Assistant Natural Resources Officer
Town of Dennis Natural Resources
685 Route 134
South Dennis MA 02660
Ph: (508) 760-6123
Email: asalvage@town.dennis.ma.us



TOWN OF BOURNE
Department of Natural Resources
24 Perry Avenue - Room 102
Buzzards Bay, MA 02532-3496
www.townofbourne.com



Shellfish Constable, Marinas, Herring Agent, Harbor Master, Fish & Game Enforcement, Conservation Enforcement & More

CHRISTOPHER SOUTHWOOD
DIRECTOR

OFFICE: (508) 759-0621
POLICE: (508) 759-4451
MARINAS: (508) 759-3105
FAX: (508) 759-8026

Attention: Town Manager – Falmouth, MA
July 19, 2019

I am writing this letter of support for Mr. Dan Ward of Ward Aquafarms, LLC. The Town of Bourne Natural Resources Department has been working with Mr. Ward as an aquaculture consultant since 2017 in efforts to help assist and enhance the shellfish propagation program for the town. Mr. Ward's experience and expertise has been a valuable asset in revamping and streamlining the aquaculture programs that the town of Bourne is involved with.

Mr. Ward has provided a wide variety of assistance regarding all aspects of the town's shellfish program which include the following;

- Assisting with the town's shellfish propagation data collection system regarding the survival rates and shell height growth has greatly improved the department's ability to measure the success of the program.
- Sharing experience and techniques pertaining to the upweller process, such as when it is appropriate to change mesh size to maximize growth as well as agitating the shellfish daily to prevent uneven growth within each silo.
- Developing a gearing method using floating bags that provided a system that could be maintained by limited town personnel that specifically fit the town's needs.
- Providing exceptional cooperation in meeting projects demands as well as supplying dynamic labor and unique solutions to support the town's shellfish propagation program.
- Providing extensive knowledge on how to set up experiments in developing methods for planting and growing new species within the propagation program (softshell clams & bay scallops) and to ensure the project succeeds when applied on a larger scale.

July 22, 2019

Mr. Ward continues to provide a high standard of work ethics with total professionalism while always maintaining a friendly and positive attitude. Mr. Ward exemplifies a true aquaculturist.

Sincerely,

Chris Southwood
Town of Bourne Natural Resources Director

Nathan Sears
Town of Orleans
Natural Resources
nsears@town.orleans.ma.us
508 240 3755

July 19, 2019

Re: Letter of Reference

To whom it may concern:

As the Natural Resources Manager for the Town of Orleans, MA, it has been my pleasure to work with Dan Ward on our present shellfish aquaculture project focusing on nitrogen mitigation. Specifically, his aquaculture expertise and scientific background has been of great benefit throughout this project. His ability to problem-solve and think creatively has proven invaluable. He is punctual and communicates effectively.

I urge you to give Dan's application the utmost consideration.

Please feel free to contact me should you have any specific questions regarding his work with our department. I wish you the best of luck in your review of the candidates.

Sincerely,

A handwritten signature in black ink, appearing to be 'Nathan Sears', with a long horizontal line extending to the right.

Nathan Sears
Town of Orleans
Natural Resources Manager

July 22, 2019

Town of Falmouth
Town Manager
59 Town Hall Square Falmouth MA 02540
(508) 495-7320

To whom it may concern,

I am writing to recommend Dan Ward of Ward Aquafarms for the Aquaculture Contractor position with the Town of Falmouth. The Town of Dennis Natural Resource Department hired Dan on as our Contractor for our Swan Pond Pilot Project. We awarded him the bid because we were incredibly impressed by his resume of past projects and the thoroughness of the plan he submitted for our Project.

In the time I have worked with Dan, his work has been above board the whole time. He jumped into our project quickly and enthusiastically, and all his work has been done ahead of schedule. He is very responsive to all inquiries and updates us continuously throughout the project. He is excellent to work with and his staff is equally as impressive with their work ethic.

I am confident that Dan Ward would be an outstanding choice as Aquaculture Contractor for the Town of Falmouth.



Amber Salvage
Shellfish Constable
Assistant Natural Resources Officer
Town of Dennis Natural Resources
asalvage@town.dennis.ma.us
685 Route 134 South Dennis MA 02660
(508) 760-6123

BIOGRAPHICAL SKETCH

Daniel P. Ward, PhD

51 North Falmouth Highway, North Falmouth, MA 02556
Cell Phone: 603-505-0865 Email: dan@wardaquafarms.com

Education

University of Rhode Island, Ph.D., Environmental Science and Biology
2014
University of New Hampshire, M.S., Zoology
2010
University of Rhode Island, B.S., Coastal and Marine Management
2005

Relevant employment

Ward Aquafarms, LLC; North Falmouth, MA
April 2011 - Present *Owner/operator commercial oyster farm, Ward Aquafarms, LLC*

University of Connecticut; Groton, CT
November 2014 – December 2016 *Post-doctoral fellow, Department of Marine Sciences*

Coonamessett Farm Foundation; East Falmouth, MA
June 2011 – December 2014 *Marine biological researcher*

University of Rhode Island; Kingston, RI
September 2010 – May 2014 *Graduate Fellow, Department of Fisheries, Animal and Veterinary Sciences*

Cape Cod Community College; Barnstable, MA
January 2012 – January 2013 *Adjunct Faculty; Human Anatomy and Physiology II*

Marine Biological Laboratory; Woods Hole, MA
February 2010 – May 2011 *Lead research assistant, scientific aquaculture program*

Recent Publications

Ward D., Bengtson D., Lee C., Gomez-Chiarri M. 2016 Incorporation of soybean products in summer flounder (*Paralichthys dentatus*) feeds: Effects on growth and survival to bacterial challenge. *Aquaculture*. 452 (395-401).

Ward D., Fore M., Howell W.H., and Watson W. 2012. The influence of stocking density on the swimming behavior of adult Atlantic cod, *Gadus morhua*, in a near shore net-pen. *Journal of the World Aquaculture Society*. 43 (5): 621-634.

Ward D., Morison F., Morrissey E., Jenks K., and Watson W. 2011. Evidence that potential fish predators elicit the production of carapace vibrations by the American lobster. *Journal of Experimental Biology*. 214 (16): 2641-2648.

Walker, A., Ward D., Duclos K., and Peters M. 2010. Surface disinfection and removal of adhesiveness from rainbow smelt eggs. *North American Journal of Aquaculture* 72:158-163.

Selected Presentations

Ward D. Offshore Aquaculture Issues and Opportunities. Open Discussion Forum, Offshore Aquaculture & Fisheries. November 30, 2017. MIT Sea Grant. Cambridge, MA. Oral.

Ward D. Utilization of Chlorophyll Remote Sensing Data to Inform Aquaculture Management. Water Quality Workshop for End Users. September 27, 2017. NASA Goddard Space Flight Center. Greenbelt, MD. Oral.

Ward D., Shumway S. Investigating the "rust tide" (*Cochlodinium polykrikoides*) harmful algal bloom on a commercial shellfish farm and potential mitigation strategies to reduce future impacts. University of Connecticut. 21st International Pectinid Workshop. April 24, 2017. Portland, ME. Oral

Ward D., Tobi H. Bay scallop (*Argopecten irradians*) nursery and growout strategies. Ward Aquafarms, LLC. 21st International Pectinid Workshop. April 24, 2017. Portland, ME. Oral

Ward D., Getchis T., Shumway S., Walsh A., Bullard S. Farmer to Farmer: What Works and Doesn't When it Comes to Biofouling Control. Ward Aquafarms, LLC. Northeast Aquaculture Conference and Expo. January 11-13, 2017. Providence, RI. Oral

Ward D., Shumway S. Overview of 2016 Northeast Region Phytoplankton Blooms. Ward Aquafarms, LLC. Northeast Aquaculture Conference and Expo. January 11-13, 2017. Providence, RI. Oral

Tobi H., Ward D. Bay scallop (*Argopecten irradians*) nursery and growout strategies. Ward Aquafarms, LLC. Northeast Aquaculture Conference and Expo. January 11-13, 2017. Providence, RI. Oral

Ward D. Opportunities for the Internet of Things (IoT) and aquaculture. Ward Aquafarms, LLC. Impact Labs. February 9, 2016. New Bedford, MA. Oral.

Ward D. Aquaculture in Falmouth, MA. Ward Aquafarms, LLC. Falmouth Economic Development and Investment Council. February 3, 2015. Falmouth, MA. Oral.

Ward D. Sugar kelp (*Laminaria saccharina*) aquaculture in southeastern Massachusetts. Ward Aquafarms, LLC. Northeast Aquaculture Conference and Expo. January 14, 2015. Portland, ME. Poster.

Recent Funding

USDA, Northeast Regional Aquaculture Center; September 2017

"Inventory of barriers in the northeast that limit the aquaculture industry"

The Nature Conservancy; May 2017

"Supply of bay scallop broodstock for resource enhancement in Squeteague Harbor; Bourne, MA"

Town of Bourne, MA; Funded May 2017

"Town shellfish aquaculture propagation enhancements"

Netminder, LLC, Private Research Contract; Funded May 2017

"Evaluating Netminder on growout gear for oyster and scallop aquaculture"

USDA, Small Business Innovation Research; Funded April 2017

"Optimized shellfish aquaculture production barge"

NOAA, Saltonstall-Kennedy Two-Year Research Contract; Funded June 2016

"Evaluation of bay scallop nursery optimization and effective growout strategies"

Cape Cod Economic Development Council, Private Research Contract; Funded March 2016

"Optimizing sustainable bay scallop growout strategies"

USDA NE SARE Farmer Grant; Funded March 2016

"Expanding sustainable shellfish aquaculture: Optimizing growth and survival in a bay scallop (*Argopecten irradians*) nursery system"

Netminder, LLC, Private Research Contract; Funded May 2016

"Evaluating Netminder on growout gear for oyster and scallop aquaculture"

"Novel anti-predator coatings for shellfish aquaculture"

MA Department of Agricultural Resources MEGA Grant program; Funded September 2013

"Oyster production enhancements"

USDA SARE Farmer Grant; Funded February 2013

"Sugar kelp and triploid oyster production to promote sustainable integrated multi-trophic aquaculture"

Associations and Panels

World Aquaculture Society, National Shellfish Association, Massachusetts Aquaculture Association, East Coast Shellfish Growers Association, URI Graduate Assistants Union, Falmouth Shellfish Cooperative, Massachusetts Community College Council, Cape Cod Cooperative Extension Research Farm Network

New Jersey Sea Grant Program Review Panel (Highlands, NJ): 2017

Massachusetts Institute of Technology Sea Grant Program Review Panel (Cambridge, MA): 2017

USDA Northeast Regional Aquaculture Center (Baltimore, MD): Co-Chair Industry Advisory Committee. 2017-2022.

USDA SBIR Aquaculture Review Panel (Washington, DC): 2015

Harrison Tobi

27 Elm Archway | Falmouth, Massachusetts 02540

htobivt@gmail.com | 802-310-3761

Education

Bachelor of Science in Fisheries Biology 2014

University of Vermont Rubenstein School of Environment and Natural Resources

Advisor: J. Ellen Marsden

Minors in biology and wildlife biology

Master of Biology 2017-Present

University of Massachusetts Dartmouth

Advisor: Jennifer Koop

Employment

Research Technician and Farm Manager 2015-present

Ward Aquafarms, North Falmouth MA

- Write grant proposals for aquaculture research
- Conduct length and density measurements of bay scallops, oysters, and clams
- Document effects of non-toxic Netminder paint on bio-fouling growth in aquaculture cages
- Document effects of dinoflagellate blooms on shellfish survival and growth
- Haul and deploy shellfish cages and bags
- Operate small aquatic vessels

Research Technician 2015-2016

Marine Biological Laboratory, Woods Hole MA

- Design and conduct experiments observing interactions of microalgae on macroalgae and shellfish species
- Perform microalgae cell counts
- Autoclave beakers and flasks
- Inoculate and maintain microalgae cultures
- Maintain shellfish and macroalgae tanks
- Perform data entry and analysis using Microsoft Excel

Scallop Fisheries Observer 2016

East West Technical Services, Waterford CT

- Identify fish, shellfish, crustacean, and marine mammal species
- Measure and record weight and length of bycatch and sea scallops
- Perform vessel safety inspections

Laboratory and Research Assistant 2013-2014

University of Vermont Ecological Designs Department, Burlington VT

- Sample and calibrate YSI probe
- Sample and process turbidity, color, E. coli, total coliforms, CBOD, and settleable solids
- Oversee care of aquatic plants and large scale eco-machine system maintenance

Harrison Tobi

27 Elm Archway | Falmouth, Massachusetts 02540
htobivt@gmail.com | 802-310-3761

Laboratory and Research Assistant 2011-2013

University of Vermont Fisheries Biology Department, Burlington VT

- Conduct assessments of catch per unit effort, relative abundance, absolute abundance, species richness, and species diversity
- Design experiments involving slimy sculpin
- Perform data entry and presentation design using Microsoft Excel and PowerPoint

Laboratory and Research Assistant 2011-2012

University of Vermont Plant Biology Department, Burlington VT

- Conduct field surveys of plant communities
- Monitor wetland invasive species plots
- Weigh plant samples

Grants and Awards

New England Sustainable Agriculture Research and Education 2017

Parasite mitigation strategies in bay scallop aquaculture

The Saltonstall-Kennedy Grant Program 2016

Evaluation of bay scallop nursery optimization and effective growout strategies.

New England Sustainable Agriculture Research and Education 2016

Expanding sustainable shellfish aquaculture: Optimizing growth and survival in a bay scallop nursery system

Cape Cod Economic Development Council Grant 2016

Optimizing sustainable bay scallop growout strategies

Best Paper in Ichthyology Journal *Copeia* 2014

Sculpin Predation on Lake Trout Eggs in Interstices: Skull Compression as a Novel Foraging Mechanism

Publications

Marsden, J.E. and Tobi, H. 2014. Sculpin Predation on Lake Trout Eggs in Interstices: Skull Compression as a Novel Foraging Mechanism. *Copeia*. 4:654-658.

Presentations

Tobi, H. *Interstitial capabilities and suction feeding behavior of slimy sculpin (Cottus cognatus)*, NEABS, 2013. Saratoga, NY.

Tobi, H. *Optimizing growth and survival in a bay scallop (Argopecten irradians) nursery system*, NACE, 2016. Providence, RI.

Matthew D. Paquette
12 Cornish Field Rd.
Plymouth, MA 02360
Email: northeastrepresent@gmail.com
Cell: 508-254-3589

Education

WESTFIELD STATE UNIVERSITY / 2006 / BACHELOR OF SCIENCE IN BUSINESS

Concentration: Marketing and Entrepreneurship
Graduated Summa Cum Laude with a 3.84 GPS as an NCAA student athlete (Baseball)
-PHI KAPPA PHI Honor Society member
-SIGMA BETA DELTA Honor Society member
-Business Club Member

PLYMOUTH SOUTH HIGH SCHOOL / 2002

-Class Officer: Treasurer
-Student Council Member
-Three Sport Student Athlete
-Two Sport Captain

Experience

WARD AQUAFARMS / 2016-PRESENT / OPERATIONS MANAGER

-Responsible for management of labor, product quality, safety and productivity.
-Ensure production goals are met by maximizing efficiency with processes and personnel.
-Prepare for and respond appropriately to uncontrollable factors that can impact production.

ENVERTO INVESTMENT GROUP / 2013-2016 / SENIOR ACCOUNT MANAGER

- \$100mm credit facility with Guggenheim Securities
-Responsible for team of 2 account managers and 5 junior account managers
-Developed and managed a \$5mm sales pipeline with a client portfolio of 300+
-High Value client experience with revenues exceeding \$50mm and seven figure asset acquisition.

CUTTING EDGE TECHNOLOGIES / 2006-2013 / MEDICAL SALES COORDINATOR

-Coordinated entire workflow from raw material purchasing to Shipment
-Managed largest client relationship with increased volume of 1.8mm units
-Ensured all departments operated in accordance with ISO13485 standards

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION:

State of Massachusetts

County of Barnstable SS:

On this 26th day of July, 2019, before me personally came and appeared Daniel P Ward to me known, who, being by me duly sworn, did depose and say to me that he resides at North Falmouth that he is of Ward Aqua Farms, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the impressions affixed to said instrument is an impression of such seal; that it was so affixed by the order of the directors of said corporation, and that he signed his name thereto by like order.

[Handwritten Signature]
Contractor's Signature



(Seal)

WYATT BURT
Notary Public
Commonwealth of Massachusetts
My Commission Expires Oct. 31, 2025

[Handwritten Signature]
Notary Public Signature

My Commission expires on:

October 31, 2025

ACKNOWLEDGEMENT OF PRINCIPAL, IF A PARTNERSHIP:

State of _____

County of _____ SS:

On this _____ day of _____, 20____, before me personally came and appeared to me known, and known to me to be one of the members of the firm of described in and which executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Contractor's Signature

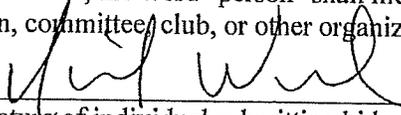
(Seal)

My Commission expires on:

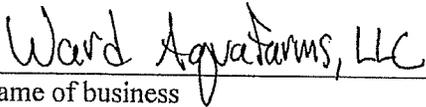
REQUIRED FORMS

Certificate of Non-Collusion

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.



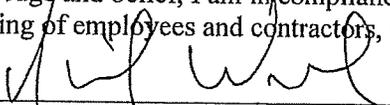
Signature of individual submitting bid or proposal



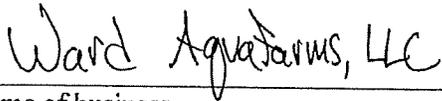
Name of business

Tax Compliance Certification

Pursuant to M.G.L. c. 62C, §49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.



Signature of person submitting bid or proposal



Name of business



TOWN OF FALMOUTH

Office of the Town Manager & Selectmen

59 Town Hall Square, Falmouth, Massachusetts 02540

Telephone (508) 495-7320

Fax (508) 457-2573

PUBLIC HEARING NOTICE

The Falmouth Board of Selectmen will hold a public hearing under Section 240-77 (Wetland Regulations of the Zoning Bylaw) on a request for a Shellfish Aquaculture Permit by Mary M. Murphy, Falmouth Shellfish Cooperative, 33 Turner Road, East Falmouth 02536. Request for this permit was received on July 26, 2019 in the Office of the Board of Selectmen. Said hearing will be held on Monday, September 9, 2019 at 7:30 p.m. in the Selectmen's Meeting Room, Town Hall, located at 59 Town Hall Square, Falmouth, MA.

Application is for a permit to grow Eastern Oysters in a suspended aquaculture site identified as Site A in the Falmouth Statement of Qualifications issued 7/5/2019 within a perimeter of approximately 0.5 acre located in Eel Pond approximately 150 west of Washburn Island. The mooring to be rented from the Town of Falmouth is to be located within this 0.5 acre site in an estimated water depth of 6' at mean low tide.

A copy of the Aquaculture License Application is on file at the Office of the Board of Selectmen.

LICENSING BOARD

Megan English Braga, Chairman
Douglas C. Brown
Douglas H. Jones
Susan L. Moran
Samuel H. Patterson

Publication Date: Friday, August 23 – Falmouth Enterprise
Account #: 2056



TOWN OF FALMOUTH

Office of the Town Manager & Selectmen

59 Town Hall Square, Falmouth, Massachusetts 02540

Telephone (508) 495-7320

Fax (508) 457-2573

August 20, 2019

Ms. Mary Murphy
Falmouth Shellfish Cooperative
33 Turner Road
East Falmouth, MA 02536

Re: Eel Pond Aquaculture Application

Dear Ms. Murphy:

At the recommendation of my review committee, the Falmouth Shellfish Cooperative has been selected to apply for an aquaculture license for Eel Pond Site A. As you are aware, this license requires you to uphold certain responsibilities in furtherance of the Town's water quality and nitrogen removal objectives to maintain and renew this license. These responsibilities are detailed in the Statement for Qualifications issued by the Town on July 5, 2019. The final award of the license is subject to a vote of the Board of Selectmen. To that end, we have scheduled a hearing for 7:30pm on September 9th.

Kindly confirm your availability to attend this hearing if you have not already done so and submit to this office payment of the \$25 filing fee and the \$35 advertising. We will include your application in the Selectmen packet for the meeting.

Respectfully,

Julian M. Suso
Town Manager

CC: Eric Matzen, Mary Murphy

s:\mes\aquaculture\eel pond licenses 2019\fsc selection 8-20-2019.docx

July 24, 2019

To Whom it May Concern,

The Falmouth Shellfish Cooperative is submitting the attached application for a permit to grow oysters in one of the ½ acre sites in Eel River being offered by the town of Falmouth, MA. Founded in 2010, the Falmouth Shellfish Cooperative (DBA) is an entity comprised of 3 commercial shellfish farms. The member farms of the Falmouth Shellfish Cooperative include Woods Hole Oyster Company LLC (Eric Matzen), Rolling Stone Marine (Mary Murphy), and Quissett Point Oyster Company (Peter Chase). Contact information for each farm is listed below. Please note that Mary Murphy of Rolling Stone Marine should be considered the main contact for this proposal. falmouth.shellfish@gmail.com

Collectively, the members of the Falmouth Shellfish Cooperative have more than 30 years of experience growing oysters in the Town of Falmouth. Woods Hole Oyster Company has been maintaining a 3 acre site in Buzzards Bay since 2010 (license # A10-01) as well as a suspended oyster float in Great Harbor, Woods Hole since 2014 (license # A14-01). Rolling Stone Marine has been operating a suspended oyster float in Great Harbor since 2014 (license# A14-02). Quissett Point Oyster Company has been in operation since 2004 and maintains a 2 acre grant in Buzzards Bay. Each company has maintained a good relationship with abutters and has remained in good standing with all local and State permitting and reporting requirements.

The Falmouth Shellfish Cooperative shares access to a wholesale facility located in East Falmouth, MA. The members also share access to 4 insured full sized pickup trucks, 4 insured boats, 2 oyster sorter/tumblers, a wide variety of shellfish growing equipment, and terrestrial areas for gear storage. By sharing resources and forming a strong working relationship over the past 8 years, the member farms have been able to establish long term relationships with a number of Falmouth restaurants, shellfish distributors, and the general public.

Given our experience and availability of resources, we feel that the Falmouth Shellfish Cooperative would be well suited to meet the scope of services outlined in the SOQ. Thank you for making this groundbreaking opportunity available to Falmouth shellfish growers and for considering our enclosed application.

Falmouth Shellfish Cooperative Members

Eric Matzen
Woods Hole Oyster Company LLC
24 Sippewissett Road
Falmouth MA, 02540

Falmouth resident since 2004

Mary Murphy
Rolling Stone Marine
33 Turner Road
East Falmouth, MA 02536

Falmouth resident since 1996

Peter Chase
Quissett Point Oyster Company
35 Westmoreland Dr
Falmouth MA, 02540

Falmouth resident since 2000

**STATEMENT OF QUALIFICATIONS
FALMOUTH, MA AQUACULTURE SERVICES**

The Falmouth Shellfish Cooperative is providing this Statement of Qualifications in an effort to be selected by the Town of Falmouth, MA to grow oysters in a half-acre site in the Eel River. Oysters would be grown and removed on an annual basis to remove nitrogen from the estuary as outlined in the SOQ released to the public on July 5, 2019.

1. MINIMUM QUALIFICATIONS

A. Residency:

Eric Matzen, Mary Murphy, and Peter Chase have been legally domiciled residents of Falmouth for more than 12 consecutive months preceding this application.

B. Required Submissions:

1) Cover Letter:

A cover letter providing the requested information has been included with this application.

2) Experience:

All members of the Falmouth Shellfish Cooperative have significant experience working in the aquaculture industry and other marine related fields. Summaries of specific experience, relevant work history and other information qualifying the applicants for this project can be found in the "Project Experience" section of this application.

3) Representative Projects:

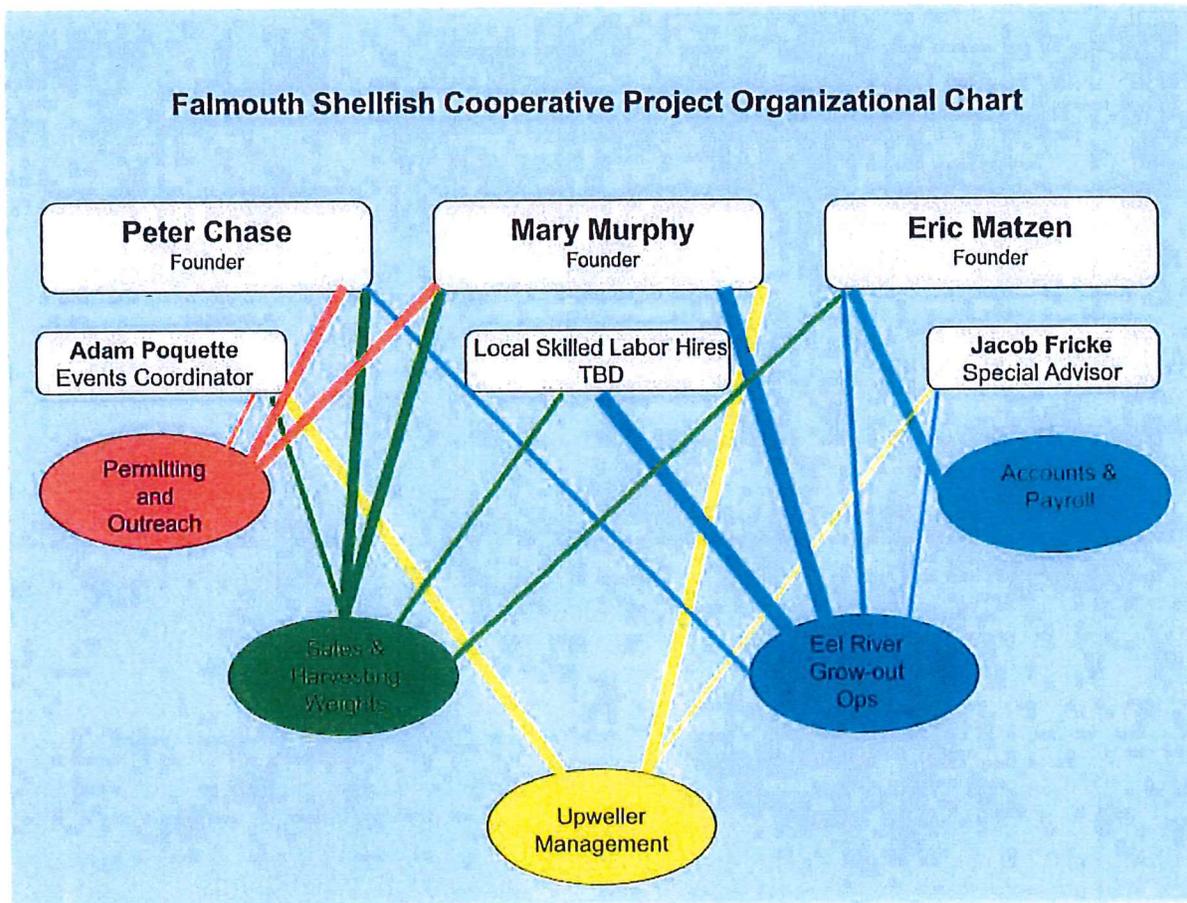
Summary information on similar projects that the applicants have successfully completed can be found in the "project experience" section of this document.

4) Capacity and Project Experience:

The applicants have the capacity and experience to complete the scope of services requested. Full details on the proposed arrangements for performing the work can be found in the "project Understanding and Responsiveness of Approach" section of this document.

5) Project Organization Chart:

Mary Murphy will be responsible for organizing and conducting the majority of field work for this project along with field staff hired by the Falmouth Shellfish Cooperative. Eric Matzen and Peter Chase will assist with field work as necessary and will also manage the marketing, distribution, and accounting side of the business. Jake Fricke, former field manager for Washburn Island Oysters, will serve as an informal advisor. Resumes for Mary Murphy, Eric Matzen, and Peter Chase are included in this application.



6) Familiarity with Regulations:

All members of the Falmouth Shellfish Cooperative have experience running their own farms and are familiar with all applicable Federal, State, and local regulations necessary to undertake the completion of this project.

7) Required Forms:

Completed Certificate of State Tax Compliance, Certificate of Non-Collusion, and Acknowledgement of Principal Forms are included in this application.

8) Insurance:

The applicants currently hold commercial insurance for their aquaculture businesses and have confirmed that they will be able to obtain the required insurance for this project.

9) Knowledge of Regulations:

The applicants are familiar with all applicable Federal, State, and local codes and regulations relevant to project completion.

10) Regulatory Approvals:

The applicants will be able to obtain the required regulatory approvals for this project.

11) Site Preference:

First choice: Site A; Second choice: Site B; Third choice: Site C.

Site A is preferred because we believe that this site will have the most water flow due to prevailing currents and it is also the closest site to access points.

12) Age:

All applicants are at least 18 years of age.

2. COMPARATIVE EVALUATION

PROJECT EXPERIENCE

All members of the Falmouth Shellfish Cooperative (also referred to as “The Cooperative” in this document) have extensive experience in shellfish aquaculture and with the use and maintenance of aquaculture gear. As individuals we have acquired all of the knowledge, skills, and abilities required to bring delicious, safe, and legal shellfish to market and we have proudly maintained a long term customer base. Over the course of many years we have gained experience in aquaculture business planning, permitting lease sites, obtaining propagation permits, working with hatcheries, building and maintaining gear, developing innovative growing methods, following evolving regulations, reporting farm activities to State and local regulators, developing new markets, and permitting raw bar events.

We are committed to working with our local community in a variety of ways, whether it is providing fresh local shellfish or supporting efforts to keep our waterways clean. We have developed a network of residents that will contact the Cooperative when any fishing or aquaculture gear lands on the Falmouth shore from Woods Hole to West Falmouth Harbor. We frequently recover and dispose of gear that has floated to our shores from other towns. For 9 years now we have participated in a popular fundraising event for the Woods Hole Historical Museum in an effort to raise awareness of water quality issues and to highlight the importance of having shellfish in our waters. We have also collaborated with several local research institutions on aquaculture related research over the years. We hope to maintain and expand these connections that we have with the local community by obtaining additional growing space and continuing to build our business.

Woods Hole Oyster Company has been operating a 3 acre site in Buzzards Bay since 2010 and a suspended oyster float in Great Harbor, Woods Hole since 2014. The business plan of Woods Hole Oyster Company relies on commercial aquaculture, but we have participated in aquaculture development and shellfish enhancement/restoration projects. This combination of shellfish propagation knowledge, and rigorous scientific data collection standards has proved useful contributing to:

Bay Scallop Restoration Project - The Nature Conservancy 2017

Broodstock Management Study, Squeteague Harbor, Bourne, MA

In 2016 Woods Hole Oyster Company was awarded a contract to execute a project designed to recruit bay scallop settlement in Squeteague Harbor in Bourne, MA by holding mature broodstock scallops in floating cages for the duration of the spawning season. The contract involved building and rigging TNC designed floating cages, working closely with abbutters and town officials to access the harbor and to determine appropriate deployment locations,

deployment of broodstock bay scallops, maintaining the gear, and data collection on the status of the broodstock.

At completion of the study we were responsible for bottom planting the bay scallops, removing all associated gear from the harbor, storing the gear for the winter, and completing a comprehensive written report.

This project was similar to the Falmouth MES Nitrogen Removal project because it required experience deploying and maintaining floating gear similar to MES bag lines in an area of limited access.

Sugar Kelp Grow-out Trial - Woods Hole Oceanographic Institution 2016

In the winter of 2016 Woods Hole Oyster Company was assigned approximately 30m of 5/16" line containing settled and tested *Saccharina latissima* spores. The goal was to rig the line in a way to incorporate the kelp line into the oyster float operation, and to evaluate the growth of kelp over that season. Sugar kelp does not seem to grow well in Woods Hole or Falmouth's coast of Buzzards Bay.

Razor Clam Grow-out Study - Cape Cod Cooperative Extension 2012

Woods Hole Oyster Company was contracted to develop an experimental grow-out method for razor clams reared and disease tested by ARC hatchery in 2012. We received 20,000 4mm-7mm *Ensis directus* seed and built custom pens with small mesh lids to prevent predation or escape. The pens were deployed in Buzzards Bay in July and maintained until early October when the young razors were bottom planted in the sandy substrate. Report submitted to CCCE.

Mussel Line Grow-out Trial - Marine Biological Laboratory 2012

In December of 2012 Woods Hole Oyster Company was assigned approximately 10m of sock line seeded with disease tested *Mytilus edulis*. The goal was to rig the line in a way to incorporate the kelp line into the oyster cage operation and to evaluate the growth of mussels over that season. The mussels grow-out was a success and we ate the mussels in June 2013.

Triploid/Diploid Oyster Seed Study - Marine Biological Laboratory/SEMARC 2010-11

Woods Hole Oyster Company contributed matching funds to participate in a study comparing the growth and aesthetics of triploid vs diploid oysters from two Maine hatcheries. The seed was deployed in appropriate size mesh ADPI bags and grown-out on our Buzzards Bay lease. At regular intervals the four seed treatments were brought into MBL labs for sampling/measurements then returned to the lease.

Rolling Stone Marine has been involved with oyster propagation since 2013. Since then we have tried many different types of equipment and methods for growing oysters. In the spring of 2013 RSM worked under the Woods Hole Oyster Company on their 3 acre grant in Buzzards Bay. Growing on this site proved to be a bit difficult. Buzzards Bay is a highly dynamic environment, producing wave action that restricts the use of surface gear. Instead heavy bottom cages with ADPI growout bags set in a trawl configuration are used and need to be hauled using a hydraulic winch system. Also with these cages on the bottom they are highly susceptible to predation especially starfish and oyster drills. Even with these challenges RSM maintained positive relations with abutters, losing no gear to their shoreline and often talking with them about the growing process and other facets of oyster aquaculture.

In the fall of 2013, RSM worked with the DNR and conservation commission to put together a proposal for a suspended aquaculture site in Great Harbor Woods Hole. The site was granted by town selectmen in March 2014. (#A14-02) In the spring of 2015 RSM designed and built a float specifically designed for suspended oyster cages. These are stacked cages of different size wire mesh to accommodate the different phases of oyster growout. A mast and boom is used to haul the cages through hatches in the deck for sorting, harvesting, maintenance, swapping and repairs of the gear.

The Great Harbor site is easy to access during all types of weather due to its close proximity to shore and protected location. Plus with the gear being suspended, there is higher water flow resulting in more food and much less predation. However with these advantages there are also some challenges. High fouling exists resulting in more gear cleaning and swapping out gear often. Oysters are brine dipped and air dried to keep up with barnacle sets, boring sponge, hinge rot etc. Throughout the years RSM has problem solved and met these challenges. And although being a small farm has consistently produced a high quality product.

Being that the farm is within a mooring field, RSM has consistently strived to maintain good positive relationships with all abutters. All work is done during daylight hours and very limited work is done during the summer weekends when the harbor is the busiest. All work with any loud equipment (ie. power washer, generator, power tools etc.) is done when neighbors are not around. If neighbors are present they are always consulted to make sure any noise isn't a problem.

RSM worked with Ward Aquafarms on the following projects. Both projects involved the deployment, maintenance and removal of various types of bottom and surface gear. Monthly measuring and weighing of seed, as well as monitoring predators.

- **2016 Cape Cod Economic Development Council-** "Optimizing sustainable bay scallop growout strategies"

- **2017-2018 NOAA, Saltonstall-Kennedy Research Contract-** “Evaluation of bay scallop nursery optimization and effective growout strategies”

RSM has consistently adhered to both town and state regulations and reported all landings to the SAFIS system. Years working in both the commercial fishing and aquaculture industry correlates well with the proposed project in Eel River. Both involve the deployment, maintenance, repair, and removal of various types of fishing/aquaculture gear. Constant monitoring of resources, logging data, and timely reporting.

Quissett Point Oyster Company (QPOC) has been in operation since 2004 and currently maintains a 2 acre grant in Buzzards Bay. In 2004, this site was the first to be permitted in the Town of Falmouth in many decades and the process for obtaining an aquaculture permit in Falmouth waters was not well understood, even within Town Hall. In many ways Quissett Point Oyster Company served as the “guinea pig” for establishing an aquaculture grant in the Town of Falmouth. A great deal of research on State and local regulations was performed during the application process. As a result, QPOC has a thorough understanding of all shellfish aquaculture regulations.

In 2004, the benefits of shellfish aquaculture were not as well understood by the general public as they are now and this proposal faced significant opposition from abutters. To ease their concerns, Quissett Point Oyster Company (along with a local aquaculture expert) held a public presentation to the community of abutters highlighting the benefits of oyster aquaculture and engaging them in a discussion about water quality, nitrogen removal, and the importance of maintaining a “working waterfront” in Falmouth. This outreach helped sway the opinions of several abutters. After nearly 15 years in operation, no complaints have been made by any residents in the area and good relationships have been formed with several of the waterfront homeowners.

Buzzards Bay is a difficult area to grow oysters because it is a high energy environment, particularly in the winter months. Access to the site is often difficult due to sea conditions and surface gear cannot be used because of the wave action. Additionally, there are a number of oyster predators on the ocean bottom (starfish, oyster drills) so mortality can be quite high. An anchored longline system was designed and deployed by QPOC in 2006. This longline system has worked tremendously well in the sense that no gear has been lost since it was originally installed. Research on how to reduce mortality from predation is ongoing but the mortality rate remains quite high.

Despite the challenges faced in Buzzards Bay, QPOC has persevered and managed to develop a small but steady oyster business in Falmouth. In 2010, QPOC co-founded the Falmouth Shellfish

Cooperative with a couple of new farms in Falmouth in order to boost inventory and achieve cost savings by purchasing supplies in bulk and sharing a wholesale facility. The Falmouth Shellfish Cooperative (now comprised of the applicants on this proposal) has successfully built a loyal following in Falmouth. All of us have worked hard to grow our business in difficult growing conditions for many years and the opportunity to grow oysters in an area like Eel River is something we would not take for granted.

Over the years QPOC has been involved in a number of projects with MBL and WHOI. In 2010/2011 QPOC worked with MBL on a study comparing triploid and diploid oyster growth from different hatcheries in Maine. This required regular measuring of seed and reporting results to the PI of the project (Scott Lindell). The seed was deployed in mesh ADPI bags placed inside 6 bay aquamesh cages on the established longline system in Buzzards Bay.

QPOC has been involved with numerous sugar kelp projects with MBL and WHOI, beginning in 2014. Buoys were deployed within the boundaries of the lease site in Buzzards Bay and lines of seeded kelp string were stretched between the buoys at varying depths below the surface. Over the course of 3 years we modified the depth of the string and the timing of seed string deployment to try to maximize kelp growth.

QPOC has routinely provided specimens to the MBL Marine Resources Center as well as various Universities including URI and Roger Williams for research purposes. Specimens include starfish, oyster toadfish, oyster drills, and live oysters.

The above project experience directly relates to the proposed work in the Eel River because it involved working on the water with a variety of aquaculture equipment as well as monitoring growth and mortality and reporting results to a principal investigator.

PROJECT UNDERSTANDING AND RESPONSIVENESS OF APPROACH

The Falmouth Shellfish Cooperative would use the following approach to complete the advertised scope of services:

Note: We believe close coordination with Falmouth MES and the other AC's is critical for efficient operations and to achieve maximum nitrogen removal. We are open to adjusting this plan in collaboration with MES suggestions or goals.

As always, we will follow the current BMP literature from SEMAC and NRAC.

For 2020, 550,000 diploid oyster seed (~3mm) would be purchased from a Massachusetts approved hatchery. We have already contacted 3 hatcheries, all of which we have worked with previously, and we have been assured that they could provide this size and quantity of seed within the required timeframe for 2020. (see appendix for email documentation) The Cooperative would rent upweller space from the Town of Falmouth beginning May 10th to grow the seed until it reaches a size of approximately ½". Current literature BMP for upweller operations will be followed along with any MES guidance. The upweller would be maintained daily from May 10th - August 25th (or date all seed is removed) by Cooperative members and hired skilled staff of the Cooperative.

We estimate beginning the process of moving batches of seed into MES rented 6mm bags in June. By stocking the bags at 700 oysters/bag, ~785 bags will be deployed when the upweller is emptied. As the seed is moved out of the upweller into the Eel River, it will be weighed in a standard fish tote using a certified scale, tared to weight of a tote. The Cooperative already has the required trucks, trailers, and boats necessary for moving the seed from the upweller to Eel River. We estimate 10 trips may be necessary to deploy the initial 2020 seed bags by transporting seed in totes from the upweller to the landing or dock where bags will be pre staged and filled.

Note: We understand the trade-off between oyster weight gain in Eel River and the success/labor involved in raising bagged sub-6mm seed. We feel there is a sweet spot around R-6mm where the oysters are hardy and well formed coming out of the upweller while still beginning the Eel River nitrogen accumulation before the fast weight gain and shell thickening. This labor efficiency comes from not needing to move oysters out of a small mesh 4mm bag or stunting growth by leaving them in 4mm bags too long.

Floating bags would be rented from the Town of Falmouth MES for use in Eel River during year one, 2020. We are hoping to use 6mm bags stocked at a density of 700 per bag, which equates to a total of approximately 785 floating 6mm bags. Once the bags are placed in Eel River, Cooperative members and hired staff will inspect the array daily and flip the bags, at a minimum, on a weekly basis. We believe it could be advantageous to move the year one seed into 1,375 fresh 13mm bags at a density of 400 per bag at some point in August. If oyster size difference within bags is significant, we may run the seed through one of our tumbler/sorter units before rebagging the seed.

Prior to the end of December 2020, the bags would be moved out of Eel River. 300,000 of the top performing seed (if tumbler/sorter is used in August) will be weighed and moved into the dry overwinter storage rented from Falmouth MES to be returned to Eel River in March 2021. Approximately 250,000 of the oysters will be weighed, tested (\$800 max per test), and then moved to our oyster floats in Great Harbor, Woods Hole that are owned and maintained by

members of the Falmouth Shellfish Cooperative. Any oysters that exceed the capacity of the floats can be put in bottom cages in our 5 acres of leased ocean bottom in Buzzards Bay. These oysters will never be returned to the Eel River as they will be harvested directly from the floats in 2020. The floats are operated year-round, so this enables us to harvest January-March and it also allows us to sell 2 different branded products (Sippewissett Oysters from Great Harbor and a different, unnamed brand from Eel River).

Since not all of the seed from year 1 will be going back into the Eel River during year 2, we would not need to save space for those bags in the Eel River site. This would enable us to maximize seed production, and therefore nitrogen removal, during the first year. Using an average estimated biomass increase of 7.4kg per bag (as provided by the Falmouth Marine and Environmental Services department), we would produce a minimum of 5,800kg of net oyster weight increase during year 1. Approximately 3,200kg of that increase would be from the oysters that will be returned to the Eel River site in year 2. The remaining 2,600kg would be produced by the oysters that would be transplanted to our alternate sites after year 1.

We have the ability to use our Buzzards Bay sites for overflow if we ever find that we have more oysters than can fit within the ½ acre in Eel River or if the Town does not have as much overwintering storage space as anticipated. This ensures that we will maximize the available space in Eel River, allowing for as much nitrogen removal as possible.

During year 2, all oysters that were placed in the Town overwintering facility will be moved back into the pond by Cooperative members and staff in March of 2021. Bags will continue to be flipped on a weekly basis. Our mechanical sorting machine will run batches of 2nd year oysters and harvesting will begin in spring of 2021. A 8' x 20' work float would be rented from the Town on an annual basis beginning in the spring of 2021 to facilitate the processing of oysters on the lease site. All oysters will be weighed prior to being sold as part of our recordkeeping agreements with MES. Additionally, all oyster sales will be recorded in the SAFIS system and all fees due to the Town for rental equipment will be paid at whatever schedule is requested by the Town authorities.

In addition to maintaining and harvesting year 2 oysters during 2020, we would again purchase 550,000 oysters from a Massachusetts approved hatchery and rent upweller space from the Town of Falmouth. The cycle from that point would continue following the same protocol from year 1.

*If The Falmouth Shellfish Cooperative is selected for an AC position in the Eel River in August of 2019, and the selection/permitting process with Board of Selectmen and Conservation Commission is completed by September 2019, we have the option to test, weigh, and move approximately 75,000 juvenile oysters currently owned by the Cooperative into Eel River. The Falmouth MES may be able to provide guidance on whether the nitrogen removal from ~three

the experience using published BMP brine dipping techniques to mitigate boring sponge on our current leases and we are planning scaled-up methods to accomplish *Cliona* mitigation as needed. For efficiency, this could be accomplished, if needed, during the August bag expansion and post *Cliona* spawn.

The Cooperative understands that this large expansion of oyster harvest cannot be absorbed by local customers but we believe oysters should be eaten locally if possible, and we intend to continue expanding our established local markets for oyster sales. We have worked with five Falmouth restaurants regularly since 2010 and frequently turn down requests from other restaurants as well, so there is clearly room for expansion. Additionally, we have an oyster CSA (community supported agriculture) program during the summer months which has been popular and is likely to expand. We also sell retail through the Coonamessett Farm Store, participate in the Falmouth Farmers Market, and have an established and thriving raw bar business. Additional information can be found on our website, sippewissettoysters.com.

We have worked with wholesale companies including Island Creek (large wholesaler in Duxbury) in the past and have close connections there. There are five other large wholesalers who have contacted us inquiring about oysters, so we do not anticipate problems with moving the product.

Members of the Falmouth Shellfish Cooperative already have insurance policies for their farms and equipment, including liability insurance exceeding the coverage required from this project through Farm Family Insurance in Osterville covered under Special Farm Package "10" already paid in full through 2019. We have received quotes from our carrier for obtaining the additional insurance necessary for this project.

We also can commit to providing the necessary 25 oysters for nitrogen analysis on an annual basis, as required by the Town. As mentioned previously, all Cooperative members have experience with conducting aquaculture/marine research and have maintained accurate SAFIS logs with the Massachusetts Division of Marine Fisheries in the past. We can commit to documenting weights of oysters both before and after entering the pond and submitting our records to the Town.

Storm Management Plan

- Falmouth Shellfish Cooperative will coordinate with The Department of Marine and Environmental Services to develop storm planning procedures.
- Actions implemented based on storm conditions include:
 - Shore up the floating gear in the water (extra ties, anchorage, and overall security)
 - Remove flotation and submerge gear
 - Haul out and relocate gear

•Falmouth Shellfish Cooperative and Town of Falmouth properties have been identified for short-term storage of gear in the event of a storm and if it is deemed practical to remove gear.

EXPERIENCE OF KEY PROJECT STAFF

Peter Chase, Owner and Operator, Quissett Point Oyster Company

████████████████████

Falmouth MA, 02540

- 15 years experience operating a 2 acre commercial oyster farm in Falmouth, MA
- 19 years of experience conducting marine science field work on both research and commercial vessels
- Specific aquaculture project experience is outlined in “project experience” section
- Additional qualifications detailed in attached resume

Mary Murphy, Owner/Operator, Rolling Stone Marine

████████████████████

East Falmouth, MA 02536

- Over 20 years in the marine industry
- 15 years experience commercial fishing
- 9 years United States Coast Guard Reserves
- 6 years experience Aquaculture (specifics provided in project experience)

Eric Matzen, Owner/Operator, Woods Hole Oyster Company LLC

████████████████████

Falmouth MA, 02540

- 9 years experience operating a 3 acre commercial oyster farm in Falmouth, MA
- 16 years of experience conducting marine science field work on both research and commercial vessels
- Specific aquaculture project experience is outlined in “project experience” section
- Additional qualifications detailed in attached resume

Eric Andrew Matzen

508-274-9738

woodsholeoysterco@gmail.com

Education:

University of Rhode Island	Fish Capture Systems AFS 421/521	April 2013
Cape Cod Cooperative Extension	Fundamentals of Shellfish Farming Course	November 2011
Roger Williams University	Applied Shellfish Farming Course	April 2010
Massachusetts Maritime Academy	80hr Master 100 Tons	June 2008
Ohio Wesleyan University	Zoology Major	May 2001
University of California, San Diego	Marine Biology Semester	August 2000

Experience:

Bay Scallop Restoration Project - The Nature Conservancy 2017

- Broodstock Management Study, Squeteague Harbor, Bourne, MA
- Built, deployed, and maintained anchored lines of 40 floating bay scallop cages
- Fostered relationships with abutters, shellfish constable, and TNC
- Collected biological data weekly on bay scallop growth, reproductive stage, predator species, and habitat use by other species
- Submitted monthly reports and final report
- Responsible for gear removal and winter storage

Sugar Kelp Grow-out Trial - Woods Hole Oceanographic Institution 2016, Great Harbor, Woods Hole, MA

- Rigged approximately 30m of 5/16" line containing settled and tested *Saccharina latissima* spores
- Maintained kelp from December – March

Permitting and Approval of 1/2 Acre Lease License # A14-01 in SC2 2014

- Worked with shellfish constable and abutters to develop a plan for Board of Selectman NOI
- Presented before Board of Selectmen and Conservation Commission for RDA
- Submitted plan to Army Corps and all other required officials

Razor Clam Grow-out Study - Cape Cod Cooperative Extension 2012, Buzzards Bay, Falmouth, MA

- Developed experimental grow out methods and gear for *Ensis directus* seed
- Built deployed and maintained pens and bottom planting July – October

Mussel Line Grow-out Trial - Marine Biological Laboratory 2012, Buzzards Bay, Falmouth, MA

- Rigged 10m of sock line seeded with disease tested *Mytilus edulis*.
- Maintained mussels as they grew from January until harvest in June 2012

**Triploid/Diploid Oyster Seed Strain Study - Marine Biological Laboratory/SEMAC 2010-11,
Buzzards Bay, Falmouth, MA**

- Deployed, maintained, and grew-out 4 treatments of oyster seed in 16 bags.
- Made the samples available for sampling and measurements at regular intervals.

Permitting and Approval of 3 Acre Lease License # A10-01 in BB55 2010

- Worked with shellfish constable and abutters to develop a plan for Board of Selectman NOI
- Presented before Conservation Commission and received approvals
- Submitted plan to Army Corps and all other required officials

Certifications:

- American Red Cross First Aid/CPR Certified- 2019
- FAA UAS Pilot License 2017
- USCG100Ton/Masters license with assistance towing and sailing endorsements-2008
- NOAA Small Boat Certification
 1. Fast Rescue Boat Training- 2009, 2011, 2013, 2015
 2. Small Boat Program- NOAA Component Course- 2009
- Liquid Robotics- Autonomous Wave Glider/ Wave Glider Management System Operator Training Course- 2015
- Teledyne Benthos- Autonomous Slocum Glider Pilot Course- 2014
- Teledyne Benthos- ROV Mini-Rover Operator Course- 2011
- Survival Systems USA- Aircraft Ditching Course Certificate- 2014
- Open Water Scuba Diver SDI- 2010
- AMSEA Certified Safety/ Survival Instructor- 2006, 2008, 2010
- McMillan Offshore Survival Training Certification- 2004-2008
- Marine Surveyor Wooden Boat Inspection Training- 2006
- US Department of Commerce Forklift Certification - 2015
- Wildfire Fighter Qualification Type 2- 2001

Mary M. Murphy

33 Turner Road
East Falmouth, MA 02536

(508)397-0843
murchin10@aol.com

Education

Cape Cod Cooperative Extension Fundamentals of Shellfish Farming	October 2011
United States Coast Guard Academy Leadership and Management/Managerial Skills	August 2016
Cape Cod Community College Environmental Instrumentation, EMT- Basic	May 2006
University of Maine- Orono, Maine College of Natural Resources- Marine Resources and Aquaculture	December 1997

Work History

United States Coast Guard Reserves Boatswain's Mate First Class/E-6 <ul style="list-style-type: none">● Coxswain/Engineer - 25'TPSB, 32'TPSB, 29'RBS-2● Instructor/Responder/Safety Officer- Water Survival Training● Instructor Tactical Training● Good Conduct Medal (3)● Letter of Commendation (2)● Coast Guard Achievement Medal● Global War on Terrorism● Joint Task Force Guantanamo Bay- Operation Enduring Freedom	July 2010-Present
Rolling Stone Marine Woods Hole, Ma <ul style="list-style-type: none">● Owner/operator of the F/V Rolling Stone (2004-2016)● Owner/operator of the F/V Harvest Moon (2016-Present)● Participate in several coastal commercial fisheries● Operate and maintain half acre shellfish propagation site in growing area SC-2● Worked with University of New Hampshire Large Pelagics Research Group for mostly, but not limited to, the rescue of endangered sea turtles● Provided specimen to the Marine Biological Laboratory for research programs● Participated as an observer in the scallop industry for the Coonamessett Farm Research Division● Participated in several scallop propagation research grants with Ward Aquafarms	September 2004-Present

Burr Brothers Boats

February 1998-Present

Sailboat Rigger

- General rigging and unrigging of sailboats up to 70'
- Operating and towing boats for both service purposes and customer convenience
- Operating and maintaining a 35-ton mobile all-terrain crane for the stepping and unstepping of masts, launching and hauling boats, launching and hauling floating docks.
- Maintain positive relationships with customers and provide quality customer service
- Dive services for underwater maintenance and repairs, and also mooring inspection and service

University of Maine- Sea Grant

September 1996-May 1997

Scientific Diver

- Certified diver- American Association of Underwater Sciences
- Underwater sampling and observations
- Follow up work in the lab to include equipment maintenance and data entry

Training and Certifications

- Petty Officer 1st Class United States Coast Guard
- USCG Coxswain, Tactical Coxswain, Engineer
- Current Red Cross First Responder First Aid/CPR
- Master Water Survival Trainor
- Water Survival Safety Officer
- Massachusetts Department of Public Safety Class 1 Hoisting Operator
- Able Bodied Seaman Unlimited- Merchant Mariner Document (2013)
- American Academy of Underwater Sciences- Scientific Diver
- Navy Divers- SLAM* Rescue Diver
 - *Scuba Lifesaving and Accident Management

Peter D. Chase
P.O. Box 235
Woods Hole, MA 02543
Tel. C) 508/221-1897 H) 508/457-7118
chasepete@hotmail.com

Education (Aquaculture related)

- 2010 *UMASS Dartmouth School of Marine Science and Technology (SMAST)*
MS in Living Marine Resources Science and Management.
- 2004 *Roger Williams University*
Practical Shellfish Farming. Instructed by Dr. Dale Leavitt.
- 1995-1999 *Humboldt State University, Arcata CA*
B.S. in Fisheries Biology (1999)

Aquaculture Related Work Experience

- 2004-Present *Quissett Point Oyster Co, Falmouth Shellfish Cooperative; Woods Hole MA*
- Founder, owner, and chief operator of Quissett Point Oyster Co., a 2 acre commercial aquaculture farm in Falmouth, MA.
 - Species grown include Eastern Oysters (brand known as *Sippewissett Oysters*) and sugar kelp (experimental).
 - Co-founder of the Falmouth Shellfish Cooperative, located within the town of Falmouth, MA.
 - Research efforts of the Cooperative include collaboration with MBL and WHOI on developing methods for Sugar Kelp and Bay Scallop production.

Aquaculture/Marine Science Field Experience

- More than 700 days of at-sea experience working aboard research vessels and additional experience aboard commercial vessels.
- Experienced in the use of various types of field sampling equipment including bottom and mid-water trawls, dredges, longlines, and underwater video systems.
- 15 years of experience running a commercial shellfish farm.
- Extensive small boat experience with vessels up to 28'.
- Experienced in the use of most types of equipment used in the shellfish aquaculture industry.

Diving Credentials

- PADI Master SCUBA Diver Trainer. Licensed to certify divers in open water, advanced, rescue, divemaster, night, deep, search and recovery, wreck, navigation and nitrox diving. Licensed to instruct first aid and CPR.

Selected Aquaculture/Marine Science Related Academic Courses

Ichthyology
Biostatistics
Vertebrate Physiology
Biology of Fishes
Physical and Organic Chemistry
Biological Oceanography

Physical Oceanography
Marine Invertebrate Biology
Zoology
Mariculture
Practical Shellfish Farming
Resource Economics

Falmouth Shellfish Cooperative Assets

1. Terrestrial gear holding space for drying and storing gear.
2. Walk-in-cooler and HAACP certified workspace
3. 27' C-hawk shallow draft cabin workboat. 10' beam, dive platform, 225hp 4 stroke quiet clean emission Suzuki outboard. Trailerable
4. 25' ROS workboat with 800lb capacity boom lift and davit. 115hp 4 stroke quiet Yamaha outboard.
5. 16' Skiff shallow draft work skiff. 25hp quiet 4 stroke clean emission Suzuki outboard tiller. Trailerable.
6. 28' Terry Jason Lobster Boat with 225 John Deere 10' beam
7. 21' Carolina Skiff Tiller Yamaha 75hp quiet 4-stroke motor. Trailerable.
8. Small watercraft fleet of four kayaks, two canoes, and four stand-up paddleboards
9. Surface air supply (hookah rig) built on quiet Honda power pack capable of supporting 2 divers for 6 hours on 1.5 liters of gasoline
10. SCUBA gear and certifications
11. Digital video and still cameras. GoPro 4black, 12mp DSLR.
12. All necessary totes, baskets, measuring gear and sampling gear.



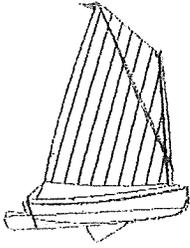
Confirmation of Seed Availability (email from Mook Sea Farm)

Andy Stevenson <andystevenson@mookseafarm.com> Tue, Jul 23, 2019 at 8:25 AM To: Eric Matzen Falmouth.Shellfish@gmail.com

Hey Eric, Andy here at MSF. As long as you get your order with a deposit in early, by the end of the year. You would be positioned so we can certainly fill that order for that date with that size seed. The cost for seed graded on 3 mm would be \$18/1000, plus any license fees for genetics.

Best,

Andy Stevenson Hatchery Manager Mook Sea Farm [Quoted text hidden]



Woods Hole Historical Collection & Museum

P. O. Box 185
Woods Hole, MA 02543
Telephone (508) 548-7270

24 July 2019

To Whom It May Concern:

Woods Hole Historical Museum has held its annual Oyster Talk and Tasting for eight years, featuring oysters from Sippewissett Oysters and a presentation by the cooperative's Peter Chase, Eric Matzen and Mary Murphy. They talk to our audience of approximately 80 members and guests about their methods of growing oysters, environmental conditions that impact their industry and their experience as pioneers in oyster aquaculture on the Upper Cape.

After a question-and-answer period, they proceed to the tasting tables where they shuck the oysters and continue their conversation about growing oysters.

This is undoubtedly one of the museum's most popular events, and it is due to the professionalism, expertise and reliability of Pete, Mary and Eric – not to mention their tasty bivalves!

Because we know we can rely on Sippewissett Oyster Cooperative's knowledge and adherence to aquaculture guidelines, we can relax, knowing that the oysters will be kept and served in proper conditions.

We are also impressed with their ability to communicate and engage our audience on the topic of oyster aquaculture.

For these reasons, I highly recommend Sippewissett Oysters Cooperative for Aquaculture Contractor for the Town of Falmouth.

Sincerely,

Deborah Griffin Scanlon
Executive Director
508-548-7270
whhmdirector@gmail.com

Steve Kirk
3 Locust St
Mattapoisett, MA 02739

Falmouth Selectboard
Town Hall
Falmouth, MA 02540

July 22, 2019

Dear Selectboard members,

This letter represents my strong support of the Falmouth Shellfish Cooperative's application to the Town of Falmouth as contractor for the aquaculture pilot program in Eel River. My name is Steve Kirk and I am the coastal program manager for The Nature Conservancy (TNC), working in that capacity on statewide shellfish management, and a former oyster farmer in Falmouth. I have known the applicants for over 10 years and have worked with them on shellfish farm business and operations, shellfish propagation and collaborative research and have had only positive experiences. Their combined skill sets, experience on and off the farm, work ethic, commitment, and character should make them stand out as an exceptional partner in the developing aquaculture pilot program. An example of this is highlighted below.

As program manager for TNC on shellfish restoration activities in Buzzards Bay I was fortunate to hire Woods Hole Oyster Company as a contractor to implement a bay scallop restoration project in Squeteague Harbor, Bourne. This was a new project aimed at increasing bay scallop populations via spawner sanctuary deployment. The project entailed rigging and deploying floating gear with adult scallops, rigorous monitoring, maintaining, and repairing gear, and removing, cleaning, and storing equipment. They were easy to work with as a contractor, independent, creative and produced high-quality deliverables like reports on time, and within budget.

As a former oyster farmer in Buzzards Bay I understand the challenges associated with working in that high energy environment as do the farmers in the Falmouth Shellfish Cooperative. Their on-water experience is likely second to none. Managing a farm is hard enough and many lessons have been learned through their technical ingenuity and hard work.

This group of entrepreneurs, farmers, scientists, fishermen are committed to shellfish farming and the community. The track record of community outreach along with community relationships and partnerships is a testament to the group's understanding of and sensitivity to the complicated perception of aquaculture in the town and region. While the town is being proactive and creative in this space, the choice of partner is an important one. I strongly support the Falmouth Shellfish Cooperative's application because from my experience they will execute as the boots in the water team and be exceptional partners in all aspects of this program. I would be delighted to discuss this further with you.

Respectfully,



Steve Kirk

Scott Lindell
15 Lantern Lane
Falmouth, MA 02540

Town of Falmouth Selectboard
Town Hall
Falmouth MA, 02540

July 22, 2019

Dear Selectboard members,

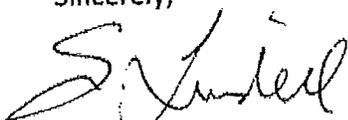
I am writing to support Pete Chase and Eric Matzen for their application for an aquaculture license in the Eel River. I have known these gentlemen in their personal professional (oyster farmers) and scientific (NOAA) capacities for almost 15 years, and I have the highest regard for their integrity and hard work.

As the first oyster farms in Falmouth's Buzzards Bay waters, they developed innovative approaches to challenges. The first challenge was to build social relationships to obtain the farming licenses at the outset. There was much fear, misunderstanding and distrust from some residents in Woods Hole in the beginning. Pete spent countless hours preparing for and attending meetings to listen to and rebut possible concerns, and recruited scientific experts like myself and others to help explain. In the end, Pete and Eric have built healthy relationships with neighbors of their farms and the rest of the community.

Pete and Eric have taken innovative technical approaches to farming oysters in the relatively high energy environment of Buzzards Bay. It also requires a lot of human energy to properly tend oyster seed in such an environment. Having access to Eel Pond for oyster growing will be a win-win for them and the Town.

I have worked with Pete on cooperative research investigating the feasibility of kelp farming on his oyster grant in Buzzards Bay. I have worked with Eric on cooperative research to reduce the risk of interactions between protected species and aquaculture gear. My working experience with them leads me to conclude that the Town of Falmouth couldn't have better partners to develop mutually beneficial aquaculture in the Eel River.

Sincerely,

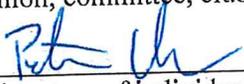


Scott Lindell

REQUIRED FORMS

Certificate of Non-Collusion

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.



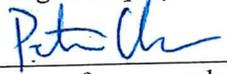
Signature of individual submitting bid or proposal

Quissett Point Oyster Co.

Name of business

Tax Compliance Certification

Pursuant to M.G.L. c. 62C, §49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.



Signature of person submitting bid or proposal

Quissett Point Oyster Co.

Name of business

REQUIRED FORMS

Certificate of Non-Collusion

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

Eric Amateo
Signature of individual submitting bid or proposal

Woods Hole Oyster Co. LLC
Name of business

Tax Compliance Certification

Pursuant to M.G.L. c. 62C, §49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

Eric Amateo
Signature of person submitting bid or proposal

Woods Hole Oyster Co LLC
Name of business

REQUIRED FORMS

Certificate of Non-Collusion

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

May Myler
Signature of individual submitting bid or proposal

Rolling Stone Marine
Name of business

Tax Compliance Certification

Pursuant to M.G.L. c. 62C, §49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

May Myler
Signature of person submitting bid or proposal

Rolling Stone Marine
Name of business

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION:

State of Mass

County of Barnstable SS:

On this 24th day of July, 2019, before me personally came and appeared Eric Matzen to me known, who, being by me duly sworn, did depose and say to me that he resides at _____, that he is of _____, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the impressions affixed to said instrument is an impression of such seal; that it was so affixed by the order of the directors of said corporation, and that he signed his name thereto by like order.

Eric Matzen
Contractor's Signature

(Seal)

Kathleen Chastin
Notary Public Signature

My Commission expires on: 01/28/2022

ACKNOWLEDGEMENT OF PRINCIPAL, IF A PARTNERSHIP:

State of Massachusetts
County of Barnstable SS:

On this 24th day of July, 2019, before me personally came and appeared to me known, and known to me to be one of the members of the firm of described in and which executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Petella
Contractor's Signature

(Seal)

Marylynn

My Commission expires on:

Eric Matzen



TOWN OF FALMOUTH

Office of the Town Manager & Selectmen

59 Town Hall Square, Falmouth, Massachusetts 02540

Telephone (508) 495-7320

Fax (508) 457-2573

PUBLIC HEARING NOTICE

The Falmouth Board of Selectmen will hold a public hearing under Section 240-77 (Wetland Regulations of the Zoning Bylaw) on a request for a Shellfish Aquaculture Permit by Matthew Weeks, 282 Trotting Park Rd, Teaticket, MA 02536. Request for this permit was received on July 15, 2019 in the Office of the Board of Selectmen. Said hearing will be held on Monday, September 9, 2019 at 7:30 p.m. in the Selectmen's Meeting Room, Town Hall, located at 59 Town Hall Square, Falmouth, MA.

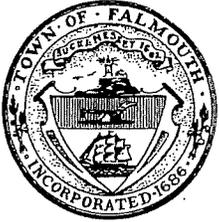
Application is for a permit to grow Eastern Oysters in a suspended aquaculture site identified as Site C in the Falmouth Statement of Qualifications issued 7/5/2019 within a perimeter of approximately 0.5 acre located in Eel Pond approximately 150 west of Washburn Island. The mooring to be rented from the Town of Falmouth is to be located within this 0.5 acre site in an estimated water depth of 5' at mean low tide.

A copy of the Aquaculture License Application is on file at the Office of the Board of Selectmen.

LICENSING BOARD

Megan English Braga, Chairman
Douglas C. Brown
Douglas H. Jones
Susan L. Moran
Samuel H. Patterson

Publication Date: Friday, August 23 – Falmouth Enterprise
Account #: 2056



TOWN OF FALMOUTH

Office of the Town Manager & Selectmen

59 Town Hall Square, Falmouth, Massachusetts 02540
Telephone (508) 495-7320
Fax (508) 457-2573

August 20, 2019

Mr. Mathew Weeks
282 Trotting Park Rd
Teaticket, MA 02536

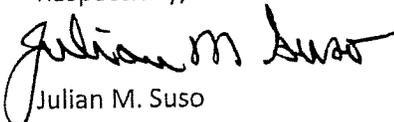
Re: Eel Pond Aquaculture Application

Dear Mr. Weeks:

At the recommendation of my review committee, you have been selected to apply for an aquaculture license for Eel Pond Site C. As you are aware, this license requires you to uphold certain responsibilities in furtherance of the Town's water quality and nitrogen removal objectives to maintain and renew this license. These responsibilities are detailed in the Statement for Qualifications issued by the Town on July 5, 2019. The final award of the license is subject to a vote of the Board of Selectmen. To that end, we have scheduled a hearing for 7:30pm on September 9th.

Kindly confirm your availability to attend this hearing if you have not already done so and submit to this office payment of the \$25 filing fee and the \$35 advertising. We will include your application in the Selectmen packet for the meeting.

Respectfully,


Julian M. Suso
Town Manager

s:\mes\aquaculture\eel pond licenses 2019\weeks selection 8-20-2019.docx

Matthew V. Weeks

[REDACTED]
Teaticket, MA 02536

(508) 837-3838
mattvweeks@gmail.com

July 15, 2019

Town of Falmouth
59 Town Hall Square
Falmouth, MA 02540

Dear members of the SOQ review committee,

As a committed shellfish grower in Falmouth for the past decade, I was thrilled to learn that Town of Falmouth has decided to increase aquaculture opportunities in our estuaries. I am positive I can provide the capacity, experience, and commitment the Town is seeking in an Aquaculture Contractor as described in the Statement of Qualifications (SOQ). I have years of experience growing millions of oysters to market size in the same gear described in the SOQ. What's more, I currently operate a shellfish farm a few hundred yards from the new proposed aquaculture sites. As a full time commercial shellfisherman here in Falmouth, I am very familiar with the local waters and regional shellfish industry.

I was born and raised in a small coastal town in Texas. This is where I learned to love with being on the water. Growing up on the Gulf Coast our family had a house on DemiJohn Island in Bastrop Bayou. At age 10, I had my first 10' John boat with a 25 hp tiller motor which I used to explore the local waters with by myself all year long for hours at a time. From exploring the waters around Galveston Bay I first learned about oystering, fishing, crabbing, shrimping and working on the water. As a teenager I became a constant fixture at Surfside Beach, where my friends and I surfed all year long. The inborn need for being in the water was well applied as competitive swimmer in high school eventually landed me a spot on LSU's swim team.

I continued to fulfill my need to be on the water during college by seeking out a variety of water related summer internships and studying environmental science. After finishing graduate school I sought to travel while also applying my degrees. I was accepted into the Peace Corps where I was assigned to live and assist the nonprofit Mare Nostrum in a small Romania coastal town of Mangalia on the Black Sea.

After returning from overseas I sought more work on the water and was employed by the National Marine Fisheries Service (NMFS) as a commercial fisheries observer. After several promotions within NMFS I decided to apply my scientific experience and connections to the industry as a consultant to the sea scallop fishing industry to help solve conservation issues facing the fishery. While working with industry I completed several valuable projects relating to reducing bycatch in the fishery while also helping commercial fishers.

During this time working with sea scallops, I became interested in the then developing local shellfish aquaculture industry. In 2009 I partnered with two other local fisheries scientists to start the Woods Hole Oyster Company. At that time aquaculture was relatively new in Falmouth and residents were wary of the new industry. The only place we were allowed to have a shellfish farm at that time was in the deep off-shore waters of Buzzards Bay. This proved to be some of the most challenging shellfish farming conditions around. But we learned from the challenges of heavy predation, poor food, storm exposure, high overhead costs, dangerous work conditions, and difficult access. We managed to grow and sell oysters through a dealer facility operated by the Falmouth Shellfish Cooperative, which we were founding members of.

During this time I wanted to gain more experience with growing oysters efficiently on a large scale. To do that I took a job working at Cotuit Oyster Company, where I worked on a crew growing millions of oysters. With those experiences and the public warming to the aquaculture industry, I decided to try growing oysters in a different location with slightly better conditions. I founded the Nantucket Sound Shellfish Company in 2010 at the mouth of Eel River in East Falmouth while continuing to work for Cotuit Oyster Company and the Woods Hole Oyster Company.

While applying for the new farm I did outreach to local residents and lobbied law makers to help shellfish farmers, especially small time start-ups like mine. I had good success the first year growing 50K oysters to market size on the new farm. The second year I was hired by the Town of Falmouth as a Fisheries Technician and had to divest myself of the farm to avoid conflicts of interest and leave my job at Cotuit Oyster. While working for the Town I helped to grow millions of shellfish utilizing the same gear and methods described in the SOQ. After working for the Town for two years, helping to successfully help manage a huge and rapid expansion the shellfish propagation program, I decided to return to pursuing my interests in the commercial shellfish industry and restart my farm in Nantucket Sound.

Since then I have added to my obsession with shellfish and being on the water, as a full time commercial wild harvester. Over the past four years I have begun to intimately know the local estuaries on a year round basis by harvesting a variety of shellfish throughout Falmouth waters. I log over 1,200 hours per year harvesting shellfish in all the approved waters in Falmouth year round in all weather conditions. By doing this I am still able to obtain the majority of my income while working on the water and pursuing to expand my shellfish aquaculture farm.

I love digging quahogs and plan to continue to do it until I can't lift a rake up anymore. It has gotten to where I need to shellfish not just for financial reasons but for physical and mental well being as well. However, I realize it might not be sustainable physically on a full time basis as I get older. So I have also been exploring ways to diversify my work on the water while continuing to shellfish. To do that I have been working, during slow quahogging times, with a local mooring contractor as well as a local commercial conch fisherman. In addition, I have started to figure out ways to grow shellfish efficiently in exposed waters and am looking to grow that business. I also like to stay involved with shellfish research and do so through contract work with the Southeast MA Aquaculture Center (SEMACE) as well as academic institutions. Any time local educational or training opportunities arise relating the shellfish, I make sure to attend and expand my knowledge.

My business partner and wife, Sara Weeks, graduated from Barnstable High School in 1991. She grew up on Lake Wequaquet and life guarded at Barnstable beaches. Sara is a 4th generation Cape Codder and is continuing the tradition with our daughter being the 5th generation. Sara left the Cape briefly to obtain a B.S. degree in Marine Biology from UNH and a M.S. in Biology from the UMass. She then returned to the Cape as a marine biologist and earned a full time Federal position at the Northeast Fisheries Science Center in Woods Hole, where she has worked for 18 years.

Having lived in Falmouth for the past 17 years, I have developed a deep passion for shellfish and improving our water quality. I have been lucky enough to continue work that gives me the same simple pleasures of being on the water that I learned in my youth. I hope to continue to apply my unique experiences, skills, drive, and commitment as an Aquaculture Contractor for the Town of Falmouth.

Thank you for your consideration,

Matthew Weeks



Matthew V. Weeks

Teaticket, MA 02536

(508) 837-3838
mattvweeks@gmail.com

Education

Indiana University - School of Public & Environmental Affairs - Bloomington, IN
Master of Science in Environmental Science (MSES)
Master of Public Affairs (MPA)

1999 - 2001

Louisiana State University - College of Agriculture - Baton Rouge, LA
Bachelor of Science (B.S.) in Environmental Management Systems
Minors in Chemistry, Microbiology, and Philosophy

1994-1999

Relevant Trainings

Shellfish Constable Training - MA Division of Marine Fisheries - 80 hours - 2013
MA Seafood Hazard Analysis Critical Control Point (HACCP) Safety Training - 2009
Applied Shellfish Farming - Roger Williams University - 40 hours - 2011
Preparation of Shellfish for Disease Diagnostics - Northeast Aquaculture Conference & Expo - 2 hours - 2010
Fundamentals of Shellfish Farming - Southeastern Massachusetts Aquaculture Center (SEMAC) - 16 hours - 2009
Town of Falmouth - Vibrio training for oyster harvesters - 2017
Population Dynamics of Commercially Harvested Fisheries - University of Rhode Island - 2005
Fisheries Observer Training - Northeast Fisheries Science Center - 3 weeks - 2003

Relevant Active Licenses

MA Division of Marine Fisheries - Shellfish & Seaworms License
MA Division of Marine Fisheries - Shellfish Aquaculture License
MA Division of Marine Fisheries - Scientific Collection License
Town of Falmouth - Commercial Shellfish License
Town of Falmouth - Aquaculture License

Employment

Self-employed Commercial Shellfisherman

2015 - present

Falmouth, Massachusetts

Full time/year round shellfisherman targeting quahogs, scallops, conch, and oysters in all open areas of Falmouth.

- Utilize a variety of shellfish harvesting gear including bullrakes, long poles, tongs, stilts, conch pots, diving, and dredges
- Average 1,200 hours per year on or in the water harvesting shellfish in Falmouth year round in all weather
- Sell shellfish daily to a variety of seafood dealers in the Cape Cod area
- Fish from a variety of boats including a 20' Seaway, 18' Lund, 10' aluminum skiff, and kayaks
- Provide high quality and reliable supply of shellfish product to multiple seafood dealers throughout the Cape Cod region
- Report all landings monthly via the electronic SAFIS system
- Developed a value added brand of 'Chappy Island Divers' in collaboration with Island Creek Oyster Co. for oysters and scallops harvested by diving during the fall/winter of 2015

- Occasionally work for a local conch pot fisherman to set and retrieve gear in Nantucket Sound
- Assist Cape Cod Anchorage in maintaining, deploying/retrieving, and inspecting mooring gear in Falmouth waters

Nantucket Sound Shellfish Company

2010 -2012, 2015 - present

Falmouth, MA

Self-employed Shellfish Grower

Part time shellfish grower of butter clams and oysters on 0.5 acres in Nantucket Sound at the mouth of Eel River

- Obtained all the necessary permits, approvals, and licenses required for shellfish aquaculture operation in MA (2010)
- Developing new gear, techniques, and crops specific to Falmouth's local subtidal exposed waters
- Developing a brand of 'Nantucket Sound Oysters' and 'Nantucket Sound Butter Clams'
- Currently one of the first and only aquaculture operations to be growing butter clams on a commercial scale
- The first farm designed and operated to be primarily a butter clam farm
- Currently growing 70,000 butter clams in conjunction with 20,000 oysters
- Working with SEMAC to develop the butter clam market in New England
- Report landings monthly via the electronic SAFIS system
- In the process of obtaining permits to expand the farm area to 8 acres in Nantucket Sound off of Washburn's Island
- Member of the Falmouth Agricultural Commission
- Made presentations regarding the aquaculture license application to local boards and committees
- Represented the local aquaculture industry at annual 'Ag Day' lobbying event at the Massachusetts State Capitol meeting with state legislators regarding challenges to new start-ups in aquaculture (2010)
- Submit annual shellfish grant reports to the Board of Selectmen, Conservation Commission, and Division of Marine Fisheries
- Represented the regional aquaculture industry at the annual Shellfish Growers Association 'Walk the Hill' week in Washington D.C. meeting with legislators and regulators regarding issues facing start-ups in the industry (2011)
- Made educational presentations regarding local shellfish aquaculture to the Woods Hole Historical Museum's 'Conservation' series, a chef's event at Highfield Hall, Woods Hole Library Annual Oyster Tasting Fundraiser, Center For Coastal Studies workshop on subtidal aquaculture, SEMAC aquaculture trainings, and several local boards and committees
- Attended aquaculture industry events, trainings, seminars, conferences, and workshops
- Collaborated with another local shellfish farmer in proposing to the Town the concept of growing oysters in Little Pond with the goal of improving ecosystem function in Falmouth's estuaries
- Donated seed, floating bags, and labor for the initial Little Pond Aquaculture Feasibility Study and worked with residents in the area to accept aquaculture in their backyard

Self-employed Contractor

2006 - 2012, 2015 - present

Falmouth, MA

Provide services to the sea scallop industry, aquaculture industry, academia, and nonprofits in regards to research, field, regulatory, and technical support.

- Developed and utilized a hydraulic surf clam dredge used for scientific sampling around Long Island, NY for a contract with Cornell University for a surf clam project funded by Mid-Atlantic Fishery Management Council
- Collected surf clams specimens from waters throughout the Cape Cod used for genetic analysis project by the (SEMAC) and Cornell University

- Obtained a scientific sampling permit from the Division of Marine Fisheries to collect surf clams in southeastern Massachusetts waters
- Assisted SEMAC with collection of razor clams for a fishery mortality and shelf life study
- Assisted SEMAC with quahog plantings for a study involving a new strain of disease resistant quahogs
- Provided SCUBA diving and ROV services to Marine Imaging Technologies for a project searching for MIA WWII airmen around the island of Yap in the Federated States of Micronesia in 2010
- Led a crew for Marine Imaging Technologies to film box jellyfish in Cuba as part of Diana Nyad's 'Xtreme Dream Expedition Team' to help in her attempt to swim from Cuba to Florida in 2011
- Helped to establish the local nonprofit Coonamessett Farm Foundation (CFF) to research and support local and sustainable food and energy production in 2008
- Assisted the Cape Cod Commercial Hook Association with field work during a study involving the survival of bycaught dogfish on long line vessels out of Chatham MA
- Co-investigator with CFF for the development of a sea turtle excluder dredge for the sea scallop industry
- Collected and analyzed loggerhead sea turtle behavior data using ROVs from a 90' vessel 60-80 miles offshore of New Jersey
- Performed extensive literature reviews on loggerhead turtle life history, behavior, and ecology
- Conducted sea turtle excluder dredge efficacy study using dredge mounted video systems and sea turtle carcasses
- Collaborated with NOAA scientists, New England Fishery Management Council (NEFMC), CFF, and commercial fishers regarding sea turtle bycatch research and fishery management issues
- Attended Scallop Fishery Management Plan Development and NFMC meetings as a representative of the commercial scallop industry
- Provided support for a variety of video work, GIS, observer data requests, data analysis and computer needs of scallop industry participants
- Participated as a shellfish scientist aboard multiple Virginia Institute of Marine Science's (VIMS) scallop resource surveys
- Helped to design an aerial survey for loggerhead sea turtles in the Mid-Atlantic Bight
- Assisted researchers with lab work regarding a project studying the presence of (PSP) in scallop roe with the goal of advancing the 'roe on scallop' market
- Traveled to Newfoundland to test experimental scallop dredge frames designs in the flume tank at Fisheries & Marine Institute at Memorial University
- Co-lead a cooperative research study to examine the possibility of using a new fishery quota paradigm utilizing actual volumes of scallop meats landed by fishers instead of estimated meat weights
- Analyzed experimental data and wrote reports for grant funding sources, regulators, and the fishing industry
- Completed over 250 days at sea aboard offshore scallop fishing vessels during fishing operations in order to examine bycatch and possible solutions via gear modifications and fishery management strategies
- Sailed on sea scallop fishing boats ranging from 40-90' during fishing trips lasting 7 -20 days at sea from ports in VA, NJ, and MA
- Helped develop a scallop fishery bycatch survey and avoidance program
- Assisted with the development of electronic fishery logbooks to be used for regulatory reporting and scientific data collection
- Worked with the NMFS Survey Branch and gear researchers to develop and test an updated standardized scallop sampling dredge to be used in scallop resource surveys
- Successfully worked with commercial fishers and scientists to develop new methods of finding, capturing, and satellite tagging loggerhead sea turtles while at sea 60-80 miles offshore from a 90' commercial fishing vessel

Self-employed Rental Property Manager

2009 - present

Falmouth, MA

Owner/manager of 2 residential rental properties in Falmouth MA.

Town of Falmouth

December 2012 - April 2015

Falmouth, MA

Fisheries Technician

Responsible for managing the Town of Falmouth's shellfish propagation program.

- Successfully oversaw the annual propagation of 4.5 million quahogs and 200,000 oysters to field plant size
- Help the Town with greatly and quickly expand the Shellfish Propagation Program including building new equipment and developing new growing techniques not previously used by the Town
- Successfully built and utilized thousands of floating bags for both oyster and quahog seed
- Deployed, maintained, and retrieved large rafts of floating bags in two locations of West Falmouth Harbor, Little Pond, Falmouth Harbor, and Green Pond as well as trial bags in a variety of locations throughout town
- Submitted shellfish samples in collaboration with DMF to laboratories for disease testing
- Helped assemble and build 5 shellfish upwellers including silos, plumbing, and pumps
- Worked 8 shellfish upwellers including cleaning, sieving, and splitting on a daily basis from May - October each year
- Recruited and coordinated part time volunteer help with the maintenance of 3 upwellers
- Provided outreach to local commercial shellfishers, commercial shellfish growers, and recreational shellfishers
- Built grading equipment used for quahogs and oysters
- Grew remote set oysters in trays in Megansett Harbor
- Built, deployed, and maintained 75 quahog sand trays in Falmouth Harbor
- Grew quahogs under bottom nets and in 'Florida Bags' in West Falmouth Harbor and Bourne's Pond
- Developed strategies and techniques for field planting quahogs and oysters
- Bottom planted oysters in West Falmouth Harbor and Green Pond
- Consulted and helped support the Little Pond Oyster Pilot Project
- Assisted with enforcement of shellfish regulations and shellfish patrols
- Conducted shellfish surveys in all of Falmouth's estuaries
- Developed education and outreach materials
- Conducted professional presentations and educational opportunities
- Collaborated with researchers to survey and study the large oyster reefs in Salt Pond
- Applied for and received funding to start an intensive green crab trapping program in Green Pond
- Worked with local commercial fishers to cheaply build and fish green crab traps
- Conducted extensive historical research regarding the history of the shellfish resource in Falmouth as well as a history of shellfish research and fisheries management in Falmouth
- Utilized Town vehicles, equipment, boats, and facilities in a competent and responsible manner

Cotuit Oyster Company

October 2011 - December 2012

Cotuit, MA

Shellfish Grower

Part of a crew of 5 growers working on a 162 year old 33.83 acre shellfish farm in Cotuit Bay.

- Grew, harvested, culled, graded, and bagged 4 million high quality oysters every year that are sold throughout the country
- Employed a variety of growing methods including upwellers, thousands floating bags, bottom trays, bottom bags, dredging, and bottom planting.

- Helped to rig and maintain gear, boats, and facilities used for growing, harvesting, and processing oysters

Woods Hole Oyster Company

2009 - 2011

Falmouth, MA

Partner in establishing a 3 acre oyster farm in Buzzards Bay off of Gunning Point.

- Worked with two other partners to obtain all the necessary permits, licenses, and contracts needed to establish a new oyster farm
- Member of SEMAC's Research Farm Network collaborating on a research project relating to sub-tidal oyster aquaculture
- Collaborated with MBL scientists on a SEMAC Mini-grant study testing different strains of oysters
- Founding member of the Falmouth Shellfish Cooperative
- Worked with other Falmouth oyster farms to develop the brand name Sippewissett Oysters
- Helped to establish a shellfish dealer facility at Coonamessett Farm
- Developed a website for educating local residents about shellfish aquaculture
- Conducted raw bar and shucking services at a variety of venues
- Sold oyster direct retail as well as through Coonamessett Farm's Community Supported Agriculture program
- Sold and delivered oysters directly to local restaurants

National Marine Fisheries Service - Cooperative Research Program

August 2006 - June 2007

Woods Hole, MA

Lead Technician for the Study Fleet Project

Provided field and technical support to the development of a New England groundfish study fleet

- Assisted researchers in the development of software used to collect data by commercial fisher at-sea
- Responsible for creating sampling protocols to be applied by fisher during commercial fishing operations
- Assisted in the development of databases used to store fisheries data
- Worked with fishery managers and scientists to understand data needs and develop protocols
- Assisted with creating a remote data upload system used by fishers to submit fisheries data
- Provided training and technical support to fishers regarding catch quantification, VMS, GPS, and PC use
- Traveled to ports throughout New England to install computer systems on commercial fishing vessels
- Tested software and provided training while at sea during regular commercial fishing operations
- Performed data quality audits and rectified data issues with fishers

National Marine Fisheries Service - Northeast Fisheries Observer Program

Sept. 2004 - August 2006

Woods Hole, MA

Assistant Program Lead for the Northeast Region

Collaborated with National Fisheries Service staff to plan, coordinate, and execute observer coverage in commercial fisheries throughout New England

- Led the development of an electronic data reporting system to be used by fisheries observers
- Responded to data requests by querying Oracle databases, auditing and compiling data, and distributing reports according to the Freedom of Information Act
- Provided information concerning substandard data collection issues
- Addressed concerns from the commercial fishing industry relating to Observer Program policies, sampling coverage, and data issues
- Provided monthly summaries of observer coverage and data issues
- Briefed staff on changes in fishing regulations and sampling protocols to meet new regulatory requirements
- Acted as Observer Program liaison to the New England Fisheries Management Council

National Marine Fisheries Service - Northeast Fisheries Observer Program

Nov. 2003 - Sept. 2004

Woods Hole, MA

Lead Fisheries Observer Trainer

Coordinated and conducted 3 week long observer training courses for 15-30 fisheries observer candidates

- Instructed observers in general program procedures, sampling protocols, fish identification, commercial fishing gear, history of New England Fisheries, and current fisheries issues.
- Worked with commercial fishers to train observers onboard commercial fishing vessels
- Worked as a scientist aboard NOAA's research vessels collecting fishery and oceanographic data

National Marine Fisheries Service - Northeast Fisheries Observer Program

July - November 2003

New England Region

Fisheries Observer

Collected fisheries dependent data aboard commercial fishing vessels during 1 -7 day trips out of Gloucester, Portland, Seabrook, Rye, and Portsmouth.

- Worked closely with commercial fishers at-sea for extended periods of time
- Coordinated vessel trips with fishers
- Conducted biological sampling of bycaught marine mammals

Peace Corps

February 2002 - January 2003

Mangalia, Romania

Environmental Volunteer

Volunteer consultant for nongovernmental organizations (NGO's) working on environmental issues relating to the Black Sea

- Assisted the NGO Mare Nostrum with the successful application for a European Union Life Grant for the development of a Black Sea marine mammal stranding program
- Collaborated with Romanian and Bulgarian NGO's to prepare a grant from the Regional Environmental Center for projects relating to education and prevention of eutrophication of inshore areas of the Black Sea
- Attended the International Black Sea Nonprofit Network Conference at Varna, Bulgaria
- Organized and led a group of volunteers during a mass stranding of cetaceans along the entire Romanian coast
- Assisted with the biological sampling of marine mammals bycaught in commercial fishing gear
- Helped NGO's develop public outreach materials and environmental awareness events throughout Romania
- Co-wrote articles concerning current Romanian environmental issues that were published in Romanian national news media
- Taught English and American literature to Romanian students at local schools
- Co-developed and received a Small Program Assistance grant from the Peace Corps for the development of a Romanian youth summer camp focused on environmental education

National Forest Service

May - August 2001

Tongass Ranger District, Sitka, Alaska

Biological Technician

Served as an Americorps volunteer with a field crew working on fish habitat improvement and inventory/monitoring projects

- Helped conduct stream and habitat assessments used for environmental impact statements
- Assisted with salmon fy tagging and transplant projects

- Collected biological data from salmon trapped in fish weirs in remote backcountry locations
- Helped to organize a fishing derby for local children
- Worked with a crew of 3 in remote backcountry locations accessible only by float plane and helicopter to inventory streams and conduct surveys for fish passage
- Received training in aviation safety, rifle use, ATV operation, 40-hour aquatic inventory/monitoring protocol course, bear behavior, marine navigation/safety, and wilderness first aid

Vermont Youth Conservation Corps

May - August 2000

Lake Bomoseen State Park, Vermont

Assistant Manager

Responsible for all aspects of managing a state park and supervising a crew of 12 youth

- Oversaw the education and personal development of crew members
- Taught VYCC's educational WoRD (Writing, Reading, Discussion) program to crew members on a daily basis
- Responsible for the morale and cohesiveness of the crew
- Performed bi-weekly work evaluations of crew members
- Responsible for enforcing park regulations, taking campground reservations, and running concession sales
- Responsible for maintenance of grounds, buildings, and equipment

Newfound Harbor Marine Institute/Sea Camp

May - August 1999

Big Pine Key, Florida

Marine Science Instructor

Developed and taught marine science courses to 12-17 year old students through hands-on field experiences

- Instructed courses covering basic marine ecology, scientific research techniques, and fisheries through hands-on lessons using SCUBA
- Developed lesson plans for a new course in advanced fishing techniques
- Responsible for leading 15-20 students during daily field trips taking place 5 miles off-shore
- Completed 6 week long instructor training program covering field teaching techniques, educational theory, group dynamics, 35-hour boat captain training, operation of 26' catamaran vessels, NAUI Assistant SCUBA Instructor certification, and navigation of local waters

University of Nevada Center for Environmental Science & Engineering

May - August 1998

Reno, Nevada

Research Assistant

Participated in a study on pesticide contamination from California's Central Valley in the snow, aquatic biota, and surface water in the Northern Sierra Nevada Mountains

- Worked with ecologists to determine sampling sites and protocols
- Collected samples from remote field locations in the Sierra Nevada Mountains
- Analysed samples in the lab using gas chromatography

United States Geological Survey

May - August 1997

Great Smoky Mountains National Park, Tennessee

Research Assistant

Worked as an AmeriCorps volunteer with a research team that collected data on invertebrates for the National Park's Inventory and Monitoring Program

- Conducting field sampling of aquatic invertebrates and water quality in remote areas
- Identified specimens, organized data, and conducted analysis in the lab
- Provided field assistance to other fisheries, bird, and botany crews in the field

Louisiana State University

January 1996 - May 1998

Baton Rouge, Louisiana

Computer Lab Instructor

Led computer lab class to students enrolled in Introduction to Microcomputer Applications

- Presented daily two hour lectures concerning database design, spreadsheets, internet, and desktop publishing to a class of 18-20 students
- Administered and assigned grades to tests, quizzes, and homework
- Monitored out of class computer labs, tutored students for exams, and assisted students with projects

Honors & Activities

- Member of Louisiana State University's NCAA Swimming and Diving Team 1994 - 1996
- National Champion in the 200 breaststroke and All American athlete for Indiana University's US Masters Swim Team 1999-2001
- Worked as a lifeguard at Sol Duc Hot Springs in Olympic National Park, WA May - August 1996
- Worked full time as a ranch/farm hand at the 20,000 acre Flying Shithouse Ranch in Augusta MT, March 2003 - July 2003
- Elected to the chairman of the student Committee for Campus Environmental Concerns at LSU 1996-1998
- Volunteered with AmeriCorps as a reading tutor in Bloomington, IN for elementary students with learning disabilities
- Worked as a landscaper in Bloomington IN 1999-2001
- Volunteered at the Sea Center of Texas fish hatchery during winter breaks 1996-1999
- Coached summer swim teams, swim lessons, and lifeguarded at public pools in Clute, TX 1991-1994
- Volunteered SCUBA diver for Rhode Island's Save the Bay eelgrass restoration project in Narragansett Bay summer/fall 2004
- Volunteer for the Cape Cod Stranding Network 2004-2006

Publications:

1. Smolowitz R, Weeks M. 2006. Turtle-scallop dredge interaction study: 2005 field season. [Final report; 44] NOAA Contract No. EA133F-05-SE4860
2. Smolowitz R, Weeks M, Morin M. 2008. Assessing the Efficacy of the Coonamessett Farm (Cfarm) Turtle Excluder Sea Scallop Dredge in Reducing Injury to Loggerhead Sea Turtle Carcasses. [Project Report, 30] NOAA Contract No. EN133F07SE3189.
3. Smolowitz R, Weeks M. 2010. Scallop Dredge Comparison Study. [Final report; 16 p.] NOAA Contract No. NFFM7320-8-26515.
4. Smolowitz RJ, H Haas, HO Milliken, M Weeks, E Matzen. 2010. Using Sea Turtle Carcasses to Assess the Conservation Potential of a Turtle Excluder Dredge. North American Journal of Fisheries Management 30: 993-1000.
5. Ronald Smolowitz, Henry O. Milliken & Matthew Weeks. 2012. Design, Evolution, and Assessment of a Sea Turtle Deflector Dredge for the U.S. Northwest Atlantic Sea Scallop Fishery: Impacts on Fish Bycatch. North American Journal of Fisheries Management, 32:1, 65-76

Representative Projects:

2019

- Surf Clam Genetics Project
With funding from the Mid-Atlantic Fisheries Management Council I will am working as a contractor to Cornell University to survey and sample both surf clam subspecies (*Spisula solidissima*, *Spisula solidissima similis*) around Long Island, NY using a small hydraulic dredge. Cornell will be using the specimens collected in a research study of surf clam genetic markers to quantify patterns of gene flow within subspecies and identify hybrids between them.
- Currently Assisting SEMAC with shellfish research projects relating to razor clam mortality and quahog resistance to QPX

2017

- Collected surf clams sample for a variety of different locations around Cape Cod and Plymouth in collaboration with SEMAC and Cornell for a study of local surf clam population genetics. Results were published in DMF Memo: Preliminary Southern Surf Clam Investigations
- Assisted SEMAC with testing of a new hydraulic harvester rake for use in surf clam and quahog propagation in shallow waters

2014

- Little Pond Oyster Aquaculture Pilot Project
- Green Crab Trapping Project in Green Pond

2013

- Little Pond Oyster Aquaculture Pilot Project
- Upweller construction project, gear construction
- Salt Pond Oyster Reef Survey and Water Quality Study

2012

- Little Pond Oyster Aquaculture Feasibility Study

2011

- Development of the original concept/proposal for the Little Pond Aquaculture Pilot (see attachment #2)
- Optimizing the Georges Bank Scallop Fishery by Maximizing Meat Yield and Minimizing Bycatch
- Testing of a Low Profile Excluder Dredge for Flatfish Bycatch Reduction
- Understanding Impacts of the Sea Scallop Fishery on Loggerhead Sea Turtles through Satellite Tagging

2010

- Collaborated with the MBL on a grant from the SEMAC for a project entitled: Disease resistant oyster strains to promote sustainable aquaculture in Buzzards Bay.
- Real-Time Electronic Bycatch Reporting Pilot Project
- Testing of Modifications to the Cfarm Turtle Deflector Dredge for Bycatch Reduction
- Sea Turtle – Scallop Fishery Interaction Study: Loggerhead Sea Turtle, *Carretta carreta*, Ecology on the Sea Scallop Grounds
- Testing of a Low Profile Excluder Dredge for Winter Flounder Bycatch Reduction

2009

- Sea Turtle Oceanography Study
- Testing of a Sea Scallop Dredge Dual Mesh Size Twine Top for Bycatch Reduction

2008

- Developing an Improved Dredge for Standardized Surveys of the Sea Scallop Resource
- Field Testing of a New Dredge for the Sea Scallop Fishery

2005

- Observing Behavior of Loggerhead Sea Turtles, *Caretta caretta*, on Foraging Grounds off the Mid-Atlantic United States Using a Remotely Operated Vehicle (ROV)
- Sea Scallop Dredge Design for Bycatch Reduction

- Design of a Turtle Excluder Dredge for the Sea Scallop Fishery

Professional & Civic Associations

East Coast Shellfish Growers Association (2009 - 2012, 2019)
 Massachusetts Aquaculture Association (2009 - 2012, 2019)
 Falmouth Agricultural Commission (2010-2012)
 National Shellfisheries Association (2009-2011)
 Falmouth Shellfish Cooperative(2009 - 2012)
 Massachusetts Shellfish Officer Association (2012-2013)
 Teaticket Civic Association (2011-2014,2019)

Relevant Industry Events

- Boston Seafood Expo (2010)
- International Fisheries Observer Conference (2004-2009)
- Northeast Aquaculture Conference and Expo (2010, 2019)
- Maine Fisherman's Forum (2005-2012, 2015-2019)
- Milford Aquaculture Seminar (2009 -2011)
- Annual 'Walk the Hill' lobbying event hosted by the ESCGA in Washington D.C. (2011)
- International Oyster Symposium (2015)
- Annual 'Ag Day' lobbying event at the MA State Capitol building in Boston (2010)
- Massachusetts Aquaculture Association Annual Meetings (2009-2012)
- National Shellfisheries Association Annual Meeting (2011)
- Falmouth Shellfish Advisory Committee Meetings (2018-2019)
- New England Fishery Management Council Meetings (2004 - 2011)
- Essential Fish Habitat Committee Meetings (2006 - 2011)
- Sea Scallop Plan Development Team Meetings (2006-2011)
- Workshops held by SEMAC on surf clam propagation and marketing (2019)
- Workshop held by the Center for Coastal Studies regarding sub-tidal shellfish aquaculture (2010)
- Massachusetts Shellfish Officer Association Annual Meetings (2012-2013)
- Fishery Survival Fund meetings (2006-2011)
- Attended a workshop hosted by the Coonamessett Farm Foundation at Falmouth Public Library that brought together state/local regulators, scientists, state legislators, MA Secretary of Environmental Affairs, town officials, shellfish growers, local nonprofits, and concerned citizens to discuss how to overcome regulatory hurdles and apply shellfish aquaculture to improve water quality (2010)

Capacity and Project Experience

Having worked on a local 33.83 oyster farm in Cotuit, I fully understand what it takes to successfully grow, harvest, and sell large quantities of oysters. I directly applied my experience at Cotuit Oyster to growing large amounts of oysters and quahogs while working for the Town of Falmouth. For 2 years I oversaw the growing of significant numbers of both quahogs and oysters for the Town's shellfish propagation program. I know what it takes to handle thousands of bags, tend to millions of shellfish, and have detailed knowledge of running the Town's shellfish upwellers. Over the past 15 years working in the shellfish industry I have developed strong relationships with a variety of local seafood dealers, hatcheries, gear suppliers, researchers, regulators, commercial fishers, and other shellfish growers. During my experiences in shellfish farming I have witnessed and overcome many challenges and know the risks, costs, time involved.

Knowing this, I would gladly take advantage of the unique offer from the Town to rent all the necessary floating bags, floating workspace, upwellers, overwintering space, and gear storage space the Town has to offer. This is a generous offer and will likely be a key to making the operation a success and able to reach full scale on a shorter timeline.

If Town deems it necessary to expand the program, I am gladly willing to change these arrangements to help future growers get started. For example, if the program proves to be a success and more sites/new growers were to be allowed opportunities and need to utilize these rental opportunities. I would be willing to pass on the rental opportunities and build gear at my shop. Store gear/seed would also be possible on our agriculturally zone 6 acre property in the middle of town. In addition I would be flexible enough to help build additional upwellers or obtain permits for private ones if public space is unavailable in the future. I would like to do what it takes to make the program a success and allow for new opportunities for future growers.

I currently own several commercial shellfish boats that will be immediately available once the projects starts. After the start of year 1 of the contract, I would likely purchase a new 20' extra-wide Carolina Skiff with a 50 hp tiller motor to use specifically on the farm. This is the same boat we used at Cotuit Oyster and is ideal for handling large amounts of oysters and gear. I also currently have a Ford F-150 this is used to launch our shellfish boats. Our property on Trotting Park Rd. is well suited for supporting a large oyster operation. We have a heated/insulated shop where I currently do gear work/maintenance and 6 acres of private centrally located land that is in agricultural zoning with plenty of boat/gear/equipment storage space.

Project Organization Chart

Matt Weeks	Sara Weeks
------------	------------

We would be the sole owner/operator of the entire operation. The farm would be entirely self funded with no outside investors.

I will be responsible for all the day to day labor and operations. I am able to commit 100% of his time to operating oyster farm. During the time that I was not tending to the oyster farm I will be harvesting quahogs in either Waquoit Bay, West Falmouth, or Great Pond. Having the flexibility of two income opportunities in the shellfish industry and on nearby water estuaries will be very valuable.

However the oyster operation will be the priority at all times. I have the proven physical samina, experience, and drive to efficiently conduct a large amount of work alone over long days all year long. Logistics and operation plans will be well thought out ahead of time to be able to stay on top of necessary tasks and avoid pitfalls. As always, I will strive to maintain a professional presence while working on the water by keeping gear/boats/facilities tidy and in good order and keeping a professional relationship with the public and town staff.

Sara will use her vast experience working with fisheries data to keep track of all the data and reporting that will be required by the contact. She will also be responsible for product marketing, sales, budgets, permitting, fees, payments, and other tasks as required.

We will continue to informally consult with other growers, scientists, regulators, extension agents, and other experts in the industry as we always have over the past 10 years.

Once the operation reaches full scale we will look into hiring additional help with the labor. Our preference will be to hire a local commercial shellfisherman. We know the majority of fishermen in town and would prefer to utilize their extensive on the water work experience. This would be also while giving them the opportunity to gain valuable experience in aquaculture operations to use in future. Their ability to work long physical hours would be critical during peak labor periods such as the end of the growing season when large amounts of gear is to be removed from the water. It would be ideal to tap into that labor source on Sundays when commercial wild harvesting is not allowed. If a commercial harvester is not available we will look to our contacts at Falmouth High School for good candidates.

Although we are a small operation, our work ethic, proven dedication, established relationships in the industry, and a variety of relevant experiences will help us succeed. Now that aquaculture is becoming widely accepted, markets developed, and production levels stable there is now a signs of a trend of consolidation happening in the industry. This is similar to the consolidation that occurred in agriculture and commercial fishing. Larger companies are able to expand and push out or take over smaller operations while making new entry operations unlikely to succeed. If Falmouth were to expand the aquaculture program in the future, it would hopefully include a diversity of small owner/operation operations like ours. Our operation would be a good example to set for those future opportunities.

Familiarity with Regulations

After having gone through permitting of 3 separate aquaculture grants, helping other farms with permitting, and completing multiple aquaculture trainings/courses, I have a keen awareness of the regulations necessary to undertake the completion of the project. I understand and have done all the reporting, tagging, logging, permitting, and licensing required to grow, harvest, and sell shellfish commercially on a large scale.

Having the opportunity to complete DMF's 80 hour Shellfish Constable Training in 2012 while working for the Town of Falmouth has given a relatively unique insight into regulations regarding shellfish. As the Fisheries Technician and now as a commercial harvester I have wide perspective on the reality of the enforcement of regulations.

Having studied the regulations from different angles over the past 10 years, I now have most of the local regulations memorized as well as many of the state regulations.

Required Forms

All required forms are signed and included as Attachment #4

Insurance

We have obtained a quote for the required coverage required by the Town. We have worked with this local insurer in the past for aquaculture operations and they cover many other shellfish farms on Cape Cod. We will obtain the insurance coverage for a AC as required by the Town. The quote is included as Attachment # 2

In addition we will be obtaining Non-insured Crop Disaster Assistance Program or NAP for our local Farm Service Agency. Eventually we will be enrolling in the Whole Farm Revenue Program through the USDA. We also currently carry AAA and commercial boat coverage through Sea Tow.

Knowledge of Regulations

Having been employed in an enforcement role with the Town and also a commercial wild harvester, private shellfish grower and shellfish dealer has given me a unique perspective regarding regulations. I have read all of the relevant shellfish state/local regulations several times from different angles and am familiar with the reasoning behind them and how they are enforced. With this perspective I understand the constraints and pressures facing enforcement agents and regulators. I also understand the role of state and federal agencies as well as the National Shellfish Sanitation Program (NSSP).

Whenever possible I attend hearings and presentations given by DMF to keep up on regulation changes. In order to be aware of potential regulations coming down the road I read industry newsletters, receive the ECSGA's Listserv discussions, keep in touch with industry leaders, attend conferences and association meetings. Attending lobbying events in Washington D.C. as well as the MA State Capital has also given me some insight as to how the regulations are developed and can be changed.

Regulatory Approvals

I currently have all the necessary licenses to operate a shellfish farm. The state aquaculture license will of course have to be modified if I were to become one of the ACs, but that should not be a problem. If obtaining additional

approvals for the site is necessary, I can draw on my past experience doing it multiple times over the past 10 years.

MA Division of Marine Fisheries - Shellfish & Seaworms License
MA Division of Marine Fisheries - Shellfish Aquaculture License
MA Division of Marine Fisheries - Scientific Collection License
Town of Falmouth - Commercial Shellfish License
Town of Falmouth - Aquaculture License

Site Preference

Our ranked site preference are:

1st choice: Site C

This is because it is the site closest to our existing shellfish grant just a few hundred yards on the other side of Washburn Island. Access to Site C would be easiest when it comes time to tending both grants or possibly transferring market size oysters to our other grant.

2nd choice: Site A

This site would be closest access to the Seapit River launch that we often use when going shellfishing in Waquoit Bay. It would be the closest to access when doing deployments, daily tending, and end of the year haul out.

3rd choice: Site B

Also a fine location we would have no issue with.

Age

[REDACTED] in Freeport, Texas.

Residence

Falmouth, MA continuously for the past 17 years.

For the past 11 years at:

[REDACTED]
East Falmouth, MA 02536

Currently own 3 residential properties in Falmouth and 1 shellfish aquaculture farm and have lived on a 6 acre hobby farm in Teaticket for the past 11 years

2.1 Applicant's Project Experience (Five pages):

Provide explicit summaries of relevant projects completed by the applicant (the individual licensee excluding staff) and experience related to the license agreement requirements outlined above:

A) Experience in shellfish aquaculture, with preference given to local or regional experience.

1) Little Pond Oyster Aquaculture Viability Test (January 2011 - November 2012)

In January of 2012 another local shellfish grower and I developed a 4 page concept proposal for the Town of Falmouth to grow oysters in Little Pond. At the time the WQMC was just starting to consider whether or not to apply aquaculture as a way to improve water quality. The WQMC created a working group to explore the concept. When we were first asked by the WQMC where to best try aquaculture in town, our first suggestion was the same locations that the current SOQ contract sites are located.

However, many in the Town were still reluctant or completely against using aquaculture for such a purpose and private aquaculture within all embayments and harbors was unofficially off the table and never going to happen (although it was allowed by town bylaws and never made official policy). We could tell that the general public and town leadership was still not completely receptive of private aquaculture so it was ultimately not going to be acceptable in the estuaries at that time and would cause a huge unproductive fight to try.

The proposal we developed instead was for the Town to conduct a pilot project in Little Pond to test the concept and provide the resulting oysters for the public to harvest. Many in the local private industry were not supportive of the concept and preferred to push for private aquaculture. The concept proposal we put together was developed with the then recently published DMF 'Shellfish Planting Guidelines' specifically in mind.

The upweller to floating bag to bottom planting concept we utilized was based off what the both of us had learned to use first hand while working at the very large and successful operation at Cotuit Oyster Company. In fact we basically wrote the proposal while working and talking about it over the culling table at Cotuit. The gear construction and utilization was also taken directly from our experiences working at Cotuit Oyster.

Our proposal was presented to and accepted by the WQMCommittee as well as regulators from DMF and town officials from DNR. Soon after the concept was accepted I donated 1,000 ½" oysters from my farm and 12 floating bags to test growth in a variety of areas in Little Pond during the summer of 2011 on a voluntary basis. The test was a success and led to the larger Little Pond Pilot Project in 2012.

2) Little Pond Oyster Aquaculture Pilot Project, Town of Falmouth (December 2012 - April 2015)

After being hired as the Fisheries Technician for the Town, I immediately set to work with assisting the development and implementation of the full scale Little Pond Oyster Aquaculture Pilot Project. The project grew 2.5 million oysters per year while also building all of the bags and upwellers necessary for the project and assisting with the necessary permitting. We were able to overcome several challenges while also developing methods of overwintering, handling, record keeping, data collection, plantings, and incorporating volunteers. Although I was never officially responsible or assigned to work directly on the project, I did provide much support and consultation to those working on it when needed.

3) Shellfish Propagation Program, Town of Falmouth, (December 2012 - April 2015)

At the same time that the Little Pond project started, I was responsible for helping to lead the large expansion of the rest of the Town's shellfish propagation program. During that growing season we built 75 quahog trays, thousands of floating oyster bags, 5 upwellers, while also overseeing the propagation of 4.5 million quahogs and 200,000 oysters.

Oysters for the propagation program (outside of the Little Pond Project) were grown in Megansett Harbor and West Falmouth Harbor. Quahogs were grown in West Falmouth Harbor, Falmouth Harbor, Bourne's Pond, and Green Pond. Scallops were planted in West Falmouth Harbor. Quahog seed was planted in Waquoit, West Falmouth Harbor, and Great Pond.

I deployed and maintained several rafts of floating bags at three different locations in West Falmouth Harbor as well as a large raft floating bags in Green Pond off of Vineyard Street. While working for the Town I also experimented with a variety of grow out methods for quahogs including bottom bags, trays, bottom netting, Florida Bags, floating bags as well as strategies for successful seeding. During this time I was also working on developing a pilot project assessing Green Crab populations in Green Pond.

During the same time in 2012 I initiated a project in collaboration with SEMAC and WHOI to conduct a population survey of the large natural oyster reefs in Salt Pond. The study also looked at the genetics and disease resistance of this isolated wild stock as well as conducting water sampling to see if the wild oysters improve water quality over time. We compared the results to the MEP reports based on data collected when no oysters were observed in the pond.

While with the Town I provided outreach events such as at the Falmouth Farmers Market and presentations to local groups/committees. To do this I develop educational materials and information regarding Falmouth shellfish regulations. I also reached out to local commercial fishers and on several occasions joined them while harvesting.

In 2015 I helped the Town receive funding for an intensive Green Crab trapping program in Green Pond. Another local commercial fisherman and I built the traps, but I left the Town position before implementing the project.

When the growing season was over all the seed/gear put away I kept busy by updating Town facilities, ordering seed/equipment, attending trainings, building traps, tending to overwintered stock, conducting shellfish surveys in every estuary, repairing/building aquaculture equipment, meeting with local fishers on the water, writing reports/proposals, preparing for the next growing season, and conducting historical research on Falmouth shellfish management.

4) Woods Hole Oyster Company (2009 - 2012)

In 2009 I established a 3 acre oyster farm in Buzzards Bay off of Gunning Point in collaboration with 2 other business partners. We grew 50,000 oysters per year with mixed success. Oysters were grown in cages on the bottom in 20' of water. Oyster cages at that time were still fairly new and only available in 1" mesh, which fouled quickly and was expensive.

Since we did not have access to an upwellers, we purchased large overwintered seed from Fishers Island which was basically the only reliable source for large seed at that time and available in the early spring. Starfish predation in Buzzards Bay was incredible. The site was only accessible during limited weather windows which made staying on top of the predation impossible. Also during that time we had to deal with hurricane Irene. As the hurricane approached We pulled all of our gear out of the water and stored the seed in a reefer at our dealer location. The day after the storm pass I headed out get the seed back in the water at the site in potentially dangerous conditions.

With all the hard work, time, and money spent we were able to grow and sell oysters. We sold oysters through the Falmouth Shellfish Cooperative as Sippewissett Oysters to local restaurants, shucking/catering events, and direct retail. However the high overhead, difficult access, very poor growing conditions, rough

exposure, and extremely high predation lead me to search for another spot for a farm in Nantucket Sound with slightly better conditions.

5) Falmouth Shellfish Cooperative (2009-2012)

Was a founding member, along with 4 other local shellfish farms, establishing the Falmouth Shellfish Cooperative in 2009. We collaborated on seed/gear purchases, exchange of information, and marketing/selling of product. In order to obtain the best price we established a licensed shellfish dealer facility at Coonamessett Farm which allowed us to sell direct retail as well as to restaurants and conduct shellfish raw bar events. We marketed our oyster under one brand name that we co-developed, Sippewissett Oysters. In addition we did educational events regarding aquaculture and gave tours of our operations. I left the cooperative when accepting a position with the Town of Falmouth because of potential conflict of interest.

6) Nantucket Sound Shellfish Company (2011 -2012, 2015 - present)

While working and learning from our oyster farm in Buzzards, I decided to try a new spot on the other side of town in Nantucket Sound. The first year I bought large seed from Fishers Island and Muscongus. The majority of the seed reached market size by late fall with little mortality. Bags were clipped to old scallop dredge sweep chain and placed on the bottom. Since the site was only in 6' of water, I would tend the gear by jumping overboard with a hookah or snorkel. I avoided the impacts of hurricane Sandy by hauling out all the gear and oysters before the storm. The seed was stored at my house and returned to the water soon after the storm passed. I also overwintered all the seed at my house. I have never lost any gear while operating the farm.

I had to divest myself from the farm when accepting a position with the Town of Falmouth because of potential conflict of interest. All the seed I had grown and gear built was sold off and the farm was transferred to another grower. The next grower did not utilize the farm at all and after resigning from the Town job I was able to have the farm transferred back.

Since then I have been mostly focused on wild harvesting shellfish while experimenting with methods and crops to farm shellfish in exposed waters. The recent increase in the local shark population gave me the motivation to figure out a new way to set and haul the gear from the boat (especially since the rocks on my site are a popular seal haulout spot). I have developed a low profile bottom belt/trawl type system that is set and hauled from the boat that has worked well for the past 2 years.

I have also been working to figure out how to grow a new and more appropriate crop of undersized surf clams, using the new system with positive results. I have done this work during my free time and completely self funded. The new system I am working on could also be used to hold oysters in conjunction with surf clams.

I am currently successfully growing 70,000 butter clams in conjunction with 20,000 oysters on our small grant in Nantucket Sound. All of the gear is built in my shop at home. The new system requires more space to work efficiently, so I have applied for an additional 7.5 acres near the existing site. This will be the first farm to be designed with commercial levels of butter clam production in mind. I am also working with SEMAC projects to help a butter clam industry and market develop in New England.

7) Cotuit Oyster Company (October 2010 - December 2012)

While working my oyster farms in Nantucket Sound and Buzzard Bay I took a job at Cotuit Oyster Company. I wanted to learn how successful large scale farms operate and new ways to grow oysters. While there I worked on a crew growing the high quality world renowned and historic Cotuit Oyster.

The basic method of growing oysters was to start them floating upwellers, transferred to thousands of floating bags, tumble/grade and split the bags during the growing season, and bottom seed the majority on the grant

with the runts held over the winter in bags on the bottom. We would rake the oysters back up, cull and grade them, then place them back into the water in stacked trays. The tray would then be hauled out when product was needed, counted, bagged and delivered to buyers. When raking we would sometimes harvest and cull 50 bushels in one tide. We worked long hours year round in all types of weather.

I left Cotuit Oyster Company upon accepting a position with the Town of Falmouth but have kept in touch with its owner/operator since.

8) Southeastern Massachusetts Aquaculture Center (SEMAC) Contract Work

I have worked on a variety of projects with SEMAC over the past 10 years. These projects include research work on a variety of shellfish species including quahogs, razor clams, surf clams, oysters as well as water quality, marketing, disease resistance, and growing/harvesting techniques.

B) Experience with use and maintenance of aquaculture gear.

I built, used, and maintained thousands of floating bags for both the Town of Falmouth and while working at Cotuit Oyster Company. While at Cotuit I worked floating upwellers at Cotuit and extensively used the Town of Falmouth's land based upwellers for both oysters and quahogs. As a private grower I built, used, and maintained bottom gear. At all positions I built, used, and maintained a variety of additional necessary aquaculture gear such as tumblers, sieves, sorters, haulers, docks, boats and bagging/counting equipment.

C) Experience working with residential abutters.

I have had nothing but positive experiences working with residential abutters while applying for and operating two shellfish grants, working at Cotuit Oyster, as well as working for the Town.

Before we submitted our applications to start the Woods Hole Oyster Co., we made a strong effort to reach out to abutters in the area. We sought out and met with the largest and closest land owner to our grant and discussed our proposal to him. The proactive approach worked well and he became very supportive of the application. We developed a website with factual materials regarding aquaculture and gave lengthy presentations to boards and committees regarding the benefits of aquaculture. The application was well received by the public without controversy. We also interacted with the public often at the Woods Hole commercial dock. Our operation there never received any complaints nor had any issues with the public and was always well received.

I took the same transparent and proactive approach when I started to develop my application for the Nantucket Sound Shellfish Co. farm. Before I completed my application I first met with my only abutter, the folks at WBNERR. I presented my proposal to with there scientists/staff and it was well received. The beach near this farm is open to the public and has never had any issues. I have never lost any gear nor negatively impacted the public.

While working at Cotuit Oyster we often had the general public observing our operations. We always worked in a professional and respectable manner. Despite the close proximity of a large number of high profile neighborhoods (Oyster Harbors) and using floating gear, we never had any issues that I am aware of.

When we proposed to grow oysters in Little Pond, the very first thing we did was contact the Teaticket Civic Association and seek folks who would be immediately receptive of the concept. We met with the president of the association and were able to use the area in front of his house as a trial location. He introduced us to the neighbors and it became a positive project from the beginning. We made sure to involve the neighborhood and keep the association up to date on how the project was going.

While working for the Town, I operated large rafts of floating bags in several estuaries. I was careful in selecting the appropriate spots so as to not disturb public uses/viewsheds yet also allowing for good growth and access. I never received one complaint nor had any issue during the two growing seasons deploying many large rafts of floating bags in West Falmouth, Green Pond, and Falmouth Harbor. I had dozens of trays with remote set oysters set in intertidal areas of Megansett Harbor that never had any issues with the public as well as subtidal quahog trays in Falmouth Harbor. I also worked well with the public while operating the Town upwellers in West Falmouth, Green Pond, and Falmouth Harbor.

The only challenges I have faced from abutters has been on occasion while commercial shellfishing. Homeowners are often not used to seeing people work on the water in front of their properties or are not aware of the relevant laws regarding shellfishing. This is a difficult situation because unlike my experiences with aquaculture, I can't be proactive. How I approach this depends on how the homeowner is behaving. If they are immediately being unreasonable I just bite my lip and move on to another spot. If they are willing to talk I explain in a calm and receptive way what I am doing, how I do it, and the laws that allow me to do it. I answer any questions they have and almost every time they become receptive of me being there.

I would be very respectful of being in close proximity to Washburn Island, its natural resources and many uses by the public. I can relate to other visitors, as my family has a tradition of camping on Washburn Island every year. I commercial shellfish around the Island all summer long and hunt there in the fall. My oyster grant is also near the Island. I chose that spot for a farm in part because of the beauty of the area.

D) Regulatory understanding required for running an aquaculture operation.

After having gone through permitting of 3 separate aquaculture grants, helping other farms with permitting, and completing multiple aquaculture trainings/courses, I have a keen awareness of the regulations necessary to undertake the completion of the project. I understand and have done all the reporting, tagging, logging, permitting, and licensing required to grow, harvest, and sell shellfish commercially.

Having the opportunity to complete DMF's 80 hour Shellfish Constable Training in 2012 while working for the Town of Falmouth has given a relatively unique insight into regulations regarding shellfish. As the Fisheries Technician and now as a commercial harvester I have wide perspective on the reality of the enforcement of regulations.

After studying the regulations from different angles over the past 10 years, I now have most of the local regulations memorized as well as many of the state regulations.

I have read all of the relevant state/local regulations several times from different perspectives and am familiar with the reasoning behind them and how they are enforced. I attend hearings and presentations given by DMF to keep up on regulation changes. I try to be aware of potential regulations coming down the road by reading industry newsletters and attending conferences. I also understand the role of federal regulators as well as the National Shellfish Sanitation Program (NSSP).

Having help establish/operate a local wholesale dealer facility, been employed in an enforcement role, and also selling shellfish to a variety of dealers as a commercial harvester has given me a unique perspective regarding regulations.

Attending lobbying events in Washington D.C. as well as the MA State Capital has given me some insight as to how the regulations evolve and change over time.

2.2 Project Understanding and Responsiveness of Approach (Four pages):

A) Planned oyster deployment including timeline, shellfish care between installation and harvesting, maintenance, and any additional equipment that will be deployed. Innovative shellfish propagation strategies to maximize nitrogen removal will be considered here.

The goal will be to grow, harvest, and sell at least 280,000 market size oysters per year from the site by the end of 2021. All oysters will be started as small seed in the Town's upwellers and grown on the AC's site in Eel River. A larger amount in future years might be feasible depending on the success from year 1. The timeline of deployment to the site will follow the same concept outlined in the SOQ document.

I am also willing to start in September of 2019 with 150,000 6mm in seed in floating bags if it is feasible for the town. This order of 150,000 seed would come from a DMF approved shellfish seed hatchery list. The exact source would depend on availability at the time.

If this is not possible, I will plan on ordering 300,000 1.5-3mm seed in the late fall of 2019. All seed will be grown in the upwellers leased from the Town. All seed grown in the Town upwellers will go directly to the floating bags on the assigned site. Only oyster seed will be grown in the upwellers and only seed destin to be put in the floating bags on the assigned site will grown in the Town upwellers. All seed grown on the site will come directly from Town upwellers unless there is a crop failure and large replacement seed has to be purchased from another approved source (or unless we decide to start some operations in 2019).

The exact size of the seed will be determined at that time based on the mesh sizes currently available for the Town's upwellers, availability, and seed pricing at the time. I will also like to consider the Town's most recent experience with seed size and hatchery source in the upwellers to be leased. All seed will come directly from DMF approved hatcheries and be certified clear of pathogens.

This fall I would order in the range of: 50,000 diploid oysters from ARC, 100,000 triploid oysters from Muscongus, 50,000 diploid oysters from Fishers Island, 50,000 diploid oysters from Mook Seafarms, and 50,000 diploid from Island Creek Oysters. Spreading out the seed sources both reduces risk, develop accounts with multiple hatcheries, and allows us to find out what seed works best for this particular site. Having an existing order in with several hatcheries also gives some flexibility to adjust orders if there were to be a crop failure at another hatchery. These exact numbers are flexible and can be changed once getting input from the Town on what has worked best for the past few years. In future years these exact numbers/sources may change based on experience, prices, new hatcheries coming online, and availability.

I would be willing to coordinate seed deliveries with the other AC's and the Town if it makes logistics simpler for everyone. I would request the hatcheries deliver all of the seed as soon as it is available in May/June or at whatever date the Town sets for the upwellers to be available. I will also be available to help prep the upwellers and get them ready in the spring. As much as is practical, stocks from each hatchery will be kept separate in the upwellers, floating bags, and during overwintering in order to monitor performance and quality for future decisions.

Once the seed arrives and placed in the upwellers they will be tended to daily until the upwellers are empty and shut down. At a minimum, upwellers will be spot checked everyday by me first thing every morning (usually just after sunrise) and again in the evening to make sure pumps are running and there are no issues. At that time of spot checking the oysters will be hand stirred in the silos to redistribute them, screens cleared, quick splits if necessary, check fouling, spot check their growth/health, and determine for what needs to happen the next day.

Approximately every other day (depending on growth) the upwellers will be drained and scrubbed to keep fouling in check and to give the seed a rinse in freshwater. Once the oysters start to reach 4mm they will be sieved, cleaned, and split at least once a week, possibly maybe more during peak growth. Grading and splitting of oysters will occur at the same time that the upwellers are being drained and cleaned. I can coordinate these operations with Town staff and other growers schedules to avoid overcrowding at the upwellers. My preference would be to have the cleaning and grading done before 9:00 am or after 5:00 so as to avoid the heat, interfering with other operations, and still be able to do other tasks on the water during the day.

Upwellers will not be left open unattended, all equipment will be stored properly at all times, and all facilities left clean/orderly upon leaving the upweller. No chemicals or soaps will be used to clean the upwellers. I can also coordinate with other growers and the Town to notify them I see something wrong with the other upwellers, such as a pump failure. Seed will be available for inspection by Town staff or DMF at any time. I can supply all necessary upweller gear such as sieves, brushes, squeegees, hoses, nozzles, trays, ect. All of this gear will be stored at my house and brought with me to the upweller.

As soon as seed is retained on a 6mm mesh it will be transferred to 4mm floating bags at the assigned site. It will be appropriately tagged before leaving the upweller location. Bagging of oysters will be done primarily on the water at the site or possibly at our home property, depending on the logistics of that particular day. Seed will remain tagged until placed on the aquaculture site and if seed processing is done at our home, it will be stated on our DMF aquaculture license. Bagging will not occur at the upweller site so as to avoid crowding and possible complications.

Upwellers will be run until almost all of seed has reached 6mm. Once most of the seed has been removed, the upweller will be shut down, drained and given a final detailed clean. I can also help to remove pumps and silos. The seed should be of size and upwellers shut down by mid July if all goes well. If there are a small quantity of runts remaining they will be placed into spat bags within floating bags and deployed on the aquaculture site. All oyster seed will be weighed and logged as they are being transferred from the upweller to floating bags. Oysters out of the upweller will be put into 4mm bags at a density of approximately 1,200 per bag.

As soon as floating bags are placed in the water they too will be tended to on a daily basis. At a minimum gear will be spot checked daily to make sure bags are in order and to make plans for what needs to happen the next day. Minimal spot checking might also be opportunistically coordinated with other AC's, mooring contractors, commercial fishers, and possibly local residents. Bags will be flipped at least once a week to control fouling and redistribute the oysters. During peak growth bag flipping will occur more frequently. Bag flipping will be done from a kayak deployed from our work boat.

Bags will be brought to the site and deployed initially from the work boat docked at the leased work float. Once in the water the bags will be towed over to leased field gear using the kayak or possibly deployed directly from the work boat if space allows. No bags will be left on the work dock or not attached to the field gear. The work dock will be kept clean, tidy, and free of any unsecured items. If DMF requests, we can integrate an appropriate bird deterrent device to the work dock or field gear. All floating gear will be strictly kept in a neat order manner.

Splitting, grading, tumbling, bagging oysters will be done utilizing the leased work float and the work boat. An oyster tumbler will either be located on the work boat or on land at our home. A temporary culling table will be set up on the boat or culling will be done at our home site. Doing this will help keep from fouling/oyster shell from the tumbling/culling operations mostly contained and not entering the water. If seed oysters are to be processed off site at our home, they will be tagged appropriately and stated on our DMF license. When seed

oysters are onsite and not being handled they will be in floating bags attached to the field gear. As seed grows and is split they will be placed into bags at lower densities and large mesh sizes for optimum growth.

Once oysters begin to reach market size they will be given the final cull/count, weighed, logged, bagged, tagged, and placed back into floating bags on the site until ready to be sold. Re-submergence of market size oysters will follow all current DMF regulations. Final harvest will follow all DMF vibrio, tagging, and harvesting regulations.

I would like to discuss the possibility of integrating our existing nearby aquaculture grant into the AC site operations as well as our current proposed expanded aquaculture site. If possible I would like to be able to transfer market size or near market size oysters to our nearby grant. This may allow for several benefits to both the Town and the farm operations.

By being able to transfer market size oysters to the nearby grant I will be able to free up a large amount of space at the Eel River site and thus be able to produce a larger quantity of oysters out of the site to the benefit of the Town's water quality objectives. My initial discussions with DMF regarding this concept does not seem to indicate any regulatory issues. In fact, it is not all that uncommon of a practice on other farms. This is because the grants are in close proximity and there are not impacting other oyster populations in Nantucket.

If the Town were to approve this concept, all oysters would be weighed and logged before leaving the AC site and not returned to the site once being transferred to the other grant. Only oysters grown on the AC site will be on the other grant sites. No other oyster seed would be grown on the grant sites nor other market size oyster transferred there. This will make lease payment calculations to the Town easier to quantify. In this way all oysters being sold off the grant sites will be subject to the Town's existing lease tax arrangement per 1,000 oysters harvested.

My preference is to sell the majority of the market size oysters during winter/early spring months. This is when supply is lower, prices are higher, there are spikes in demand during holidays, other tasks during the growing season are over, quahogging is slower, and vibrio is not a concern.

I would like to do everything possible to avoid having to sell a large quantity during the fall months when there is a glut on the market, growing operations are still occurring, vibrio is still a concern, and there are other shellfish harvest opportunities opening up. This of course is dependent on our buyers needs and providing them with a reliable supply. Luckily the existing grant we have in Nantucket Sound does not ice over easily and is accessible from several boat launches during the winter. It is also protected from the prevailing northerly winds during the winter making access easier and reducing the risk of potential loss.

This concept of transferring market size oyster to our nearby grant would also benefit the farm operations because it would reduce the risk of vibrio, reduce potential bird issues, possibly reduce boring sponge, allow for winter access to market size oysters, potentially increase production numbers, and reduce the risk of theft.

Boring sponge is an issue for many farms on the south side of Cape Cod that grow subtidally in gear off bottom. If boring sponge become prevalent it can ruin entire crops, making them worthless on the market. Boring sponge can be controlled by bottom planting, reduced densities, faster seed to market timelines, and regularly air drying seed. If boring sponge becomes a problem in the floating bags it would be good for the operation to have the option of moving them out to the other grant and placed on bottom in bags. This is probably not as effective of a control as bottom planting, but it could help if done correctly. Another option might be to bring the oysters back to our home site for regular air drying, fresh water rinse, or brine dipping. This would be a very labor/time/space intensive operation not would not be practically done at the AC site in

Eel River. All processing of market size oysters on the way to market will occur on one of our permitted aquaculture lease sites.

At the end of the growing season all seed oyster will be transferred to the Town's leased overwintering facilities. Market size oysters will be transferred to our other aquaculture site for sale during the winter months after being weighed and logged before leaving the AC site. Overwinter storage will be done after water temps drop below 50 F and the seed has become dormant, All Town owned gear will be stored at the Town's leased storage facilities as well. Any gear in need of repair will be separated at this time and repaired my me on site at the Town storage facility. I will be available for helping to remove Town owned field gear and docks as well.

Once the seed has been put into the overwintering facility, it will be spot checked weekly if feasible to the Town. We have some back-up options for using another permitted overwintering facility if any emergency issues arise with the Town facility. The timeline for removing the seed from the overwintering facility can be coordinated with the Town and the other ACs.

B) Certification of access to approved upweller space and experience in growing seed in an upweller or ability to obtain the required amount of shellfish seed.

I will be fully relying on utilizing the Town own upwellers for growing seed. If there were a crop failure or delay in the season for some reason, I would buy larger seed from a DMF approved source in order to maintain expected production levels and timelines.

I have in depth experience successfully using the Town's upwellers to grow large amounts of oyster seed. Over two growing seasons; while working for the Town, I helped assemble many of the Town's upwellers /equipment and oversaw their operation/maintenance for 6 months a year. I also have experience using several floating upweller systems while working at Cotuit Oyster company for 2 years.

C) Documentation of liability insurance and presentation of any necessary regulatory documents.

We have attached a quote for the insurance required by the Town and am willing/able to initiate the policy anytime (Attachment #3).

In addition we will be obtaining Non-insured Crop Disaster Assistance Program or NAP for our local Farm Service Agency. Eventually we will be enrolling in the Whole Farm Revenue Program through the USDA. We also currently carry AAA and commercial boat coverage through Sea Tow.

I currently have all the necessary licenses to operate a shellfish farm. The state aquaculture license will of course have to be modified if I were to become one of the ACs, but that should not be a problem. If obtaining additional approvals for the site is necessary, I can draw on my past experience doing it multiple times over the past 10 years.

D) Commitment to submit written records to Falmouth MES of landing weights and SAFIS data for all commercially reported oyster landings

We will gladly collect and submit oyster weight data and landing numbers to the Town per the Town's requirements or allow the Town or its representative to conduct the weighing if required. The Town will have full access to all of our reported SAFIS data, including data from our other shellfish grants. All aquacultured oysters sold and reported in SAFIS will come solely from the AC contract. This will make determining the fee payments to the Town much more clear.

E) Commitment to provide 25 representative shellfish from each size class being grown, to be submitted to Falmouth Marine and Environmental Services for nitrogen analysis.

Yes we will be happy to provide 25 shellfish from each size class or more if necessary. We would also be open to collaborating on research projects, assisting other growers, and attending any meetings, outreach/educational events, hearings, ect.

2.3 Experience of Key Project Staff:

State the name, office location, and qualifications of the key project staff, if applicable, to be assigned to this project.

The key staff will include:

Matthew V. Weeks and Sara E. Weeks

Office location:

██████████
East Falmouth, MA 02536

My business partner and wife, Sara Weeks, graduated from Barnstable High School in 1991. She grew up on Lake Wequaquet and life guarded at local beaches. Sara is a 4th generation Cape Codder and is continuing the tradition with our daughter being the 5th generation. Sara left the Cape briefly to obtain a B.S. degree in Marine Biology from UNH and a M.S. in Biology from the UMass.

She then returned to the Cape as a marine biologist and earned a full time Federal position at the Northeast Fisheries Science Center in Woods Hole, where she has worked for the last 18 years. A large aspect of her work involves data collection, quality, and reporting. Permitting, regulatory compliance, working on fisheries policy also makes up a large portion of her work. She works closely with scientists, resource managers, the commercial fishing industry, and at-sea fishery monitors.

Sara's resumes is provided in Attachment #1

2.4 Oral Presentation/Interview:

Those individuals meeting the minimum qualifications and scoring well on items 2.1 through 2.3 of the comparative evaluation criteria will be asked to make an oral presentation to the selection committee and other town officials. In addition to presenting the qualifications of the individual, the presentation should include information of relevant past similar projects. If applicable, additional key personnel should participate in the presentation.

Yes, Sara and I would be happy to have the opportunity to make a presentation to the selection committee and town officials.

2.5 References:

Provide letters of support from a maximum of three (3) references with material relevant to similar projects. Include names of the appropriate project contacts, email addresses, and current telephone numbers.

The following letters of support are provided in Attachment #5

Joshua Reitsma - Cape Cod Cooperative Extension, SEMAC, Woods Hole Sea Grant
Will Ostrum - owner/operator of Cape Cod Anchorage
Chris Gargiulo - owner/operator of Cotuit Oyster Company

#1

Curriculum Vitae

Sara E. Weeks

Teaticket, MA 02536

Tel: (508) 642-6005 cell

Personal email: [REDACTED]

EDUCATION

- M.S. in Biology from the University of Massachusetts, Boston, MA (Dec. 2001)
- B.S. in Marine Biology from the University of New Hampshire, Durham, NH (May, 1995)

EMPLOYMENT EXPERIENCE

Fishery Biologist (ZP-0482-3) – Northeast Area Lead

NOAA's Northeast Fisheries Science Center (NEFSC), Fisheries Sampling Branch (FSB),

Woods Hole, MA 02536

August 2007-Present

As the Northeast Area Lead I am currently responsible for researching Northeast area fisheries operations, regulations and fishery management plans including those related to Northeast Multispecies (Groundfish and small mesh multispecies), Atlantic Herring, Atlantic Mackerel, Squid, Butterfish, Atlantic Sea Scallop, Northeast Skate Complex, Atlantic Red Crab, American Lobster and Atlantic Hagfish. I research federal mandates that allow for observer coverage such as the Magnuson-Stevens Fishery Conservation and Management Act, Marine Mammal Protection Act and the Endangered Species Act, to better communicate program objectives to fishermen and data end-users and in support of observers. I monitor seaday accomplishments weekly/monthly and provide information to end-users, contractors, and Branch Chief. I develop annual seaday schedules for the Observer Provider to use to target seaday coverage. I research the scientific methodologies for allocating seadays, the Standardized Bycatch Reporting methodology (SBRM) and provide direct input to observers, providers and FSB staff. I am the point of contact for outside entities that have provided funding for observer seadays to better serve them (state of ME, Atlantic States Marine Fisheries Commission, state of NY DEC). I communicate directly about their seaday allocation, vessel selection, funding, and I report back data and troubleshoot issues. I work to communicate with Northeast Area observers to monitor data quality, provide direct feedback to observers and to provide information on observer performance to COTR and contract staff. I work to support observers in the field by traveling to ports/docks to speak to fishermen, by communicating enforcement findings, by providing information to observers on relevant enforcement cases and NEFOP/FSB outreach information. I work directly with NOAA's office of law Enforcement on observer related cases across the Northeast and Mid-Atlantic region. I attend New England Fishery Management Council (NEFMC) meetings, have attended various Groundfish, Herring, Scallop committee meetings throughout the years and am an active member of the Atlantic Herring Plan Development team (NEFMC). I receive all Atlantic Herring/Mackerel notifications from the fleet (since 2012) weekly. I am the liaison with the District 1 USCG on any related observer questions, emergencies, safety situations. I work directly with the Greater Atlantic Regional Fisheries office in Gloucester, MA on a weekly basis on projects such as electronic monitoring in the Atlantic Herring/Mackerel fishery, Atlantic herring data for quota monitoring, compliance information, regulatory questions and outreach. I research and report on observer program data (using oracle and sql developer) to outside researchers, fishermen, Northeast and Mid-Atlantic council staff and program staff. I prepare and provide data and scientific review of data in report form to the Branch Chief for decision making. I am the point of contact for four contracted staff and oversee their performance and work duties, while managing their time and attendance. I participate in a NOAA wide sea turtle serious injury working group as the observer program representative. I develop and teach several training modules for the observer program

trainings. I coordinate the incident reporting process for the observer program. I follow up on incident reports, provide background information to OLE and inform observers. I have served as FSB acting Branch Chief throughout my career, when the Branch Chief was unavailable.

Fishery Biologist (federal status) – Data Quality Lead
NOAA's Northeast Fisheries Science Center (NEFSC), Fisheries Sampling Branch,
Woods Hole, MA **January 2005 – August 2007**

As a biologist working for the Northeast Fisheries Observer Program, I ensured that the data collected by at-sea observers aboard commercial fishing vessels, were of high quality. I reviewed and analyzed data to determine if protocols were being adhered to, that data collection was correctly prioritized and that data issues were identified and rectified in a timely manner. I developed and designed performance plans for individual observers based on their sampling issues in an effort to improve data collection. I was a member of the Data Management Team, a group of individuals that manage the database, which contains 17 years of fisheries dependent data. I worked directly with Data Management Systems to develop tests to improve the accuracy of the database. I researched the fishing industry and fishing regulations to update data collection protocols as necessary, and to inform data editors to ensure standardization of editing. I reviewed and edited data during the auditing process before approving final data loads to the Oracle database. I wrote and ran SQL scripts to retrieve data at the request of end-users, and delivered in report form. I performed the job of an observer at-sea in order to test protocols or develop new training modules. During 3 week observer training sessions, I trained observers to identify and accurately document incidental takes of protected species according to federal mandates. I also trained observers in the identification of mammal and sea turtle species, necropsy sampling protocols and field sampling techniques. I supervised 10 contractors and was a federal COTR (Contracting Officer's Technical Representative). Field work – 10 day offshore George's Bank trip on commercial fishing vessel out of New Bedford, MA (July, 2005); observer training trip aboard commercial trawler (June, 2005); right whale oceanographic survey aboard NOAA ship Albatross IV (May, 2005); day trip aboard commercial scallop vessel (April, 2005).

Fishery Biologist (federal status) – Training Coordinator
NOAA's Northeast Fisheries Science Center (NEFSC), Fisheries Sampling Branch,
Woods Hole, MA **May 2002 – January 2005**

As the Northeast Fisheries Observer Program training coordinator, I was responsible for coordinating and managing the training of observers. I oversaw a staff of three and successfully trained and certified over 100 fisheries observers. I developed training modules to ensure that the goals of the program were being accomplished. I organized agenda's, invited speakers, coordinated vessel trips, developed materials and training manuals for use at each training session. Training consisted of teaching students data collection protocols specifically developed for observing on gillnet, trawl and scallop vessels, basic field sampling techniques, identification of fish and protected species, and hands-on vessel training trips. I was also responsible for incidental take data quality, which consisted of editing and debriefing observers on incidental take data collection protocols. I developed monthly and annual reports detailing incidental takes of marine mammals, sea turtles and seabirds for dissemination to the branch and other groups within the Northeast Fisheries Science Center. I was responsible for processing photographs and for the coordination of protected species samples. Field work – observer training trips aboard commercial gillnet, trawl, scallop boats (April, June, July, Sept., Oct. 2004); observed black sea bass pot trip (March, 2004); sample manager for humpback whale survey in Dominican Republic whale sanctuary aboard NOAA ship Gordon Gunther (Jan. 2004); right whale survey aboard NOAA ship Delaware II (August, 2003); Chesapeake Bay observed poundnet/sea turtle gear interactions (April, 2003); data manager large whale survey aboard the NOAA ship Delaware II (August, 2002).

Information Technologist**NOAA's Northeast Fisheries Science Center (NEFSC), Fisheries Sampling Branch,
Woods Hole, MA****Nov. 2001 – May 2002**

As an information technologist, I was responsible for checking in Northeast Fisheries Observer Program trip data, for organizing trip folders and reviewing trips for completeness. My primary responsibilities included compiling and reporting incidental takes of marine mammals, sea turtles and seabirds. I was responsible for plotting incidental take data in Arcview (GIS) for presentation to branch staff on a monthly basis. I worked with branch staff to conduct observer trainings where I organized and presented fish workshops to train observers in identification of fish species, presented talks on marine mammal identification, assisted with sea turtle identification and tagging workshops and mammal necropsy sessions. I also assisted in coordinating training activities. Field work – Chesapeake Bay observed poundnet/sea turtle gear interactions (April, 2002).

Research Assistant**NOAA's Northeast Fisheries Science Center (NEFSC), Protected Species Branch,
Woods Hole, MA****May, 1998 – Oct. 2001**

As a research assistant, I had the opportunity to assist with the organization of several North Atlantic right whale workshops. Workshop organization consisted of choosing and reserving conference centers, coordinating meals, contacting participants, researching and reserving flight and hotel accommodations, organization and dissemination of materials and general clerical tasks. I also worked to create and maintain Foxpro databases of information later included in several scientific publications, and created Arcview (GIS) software files and images for use in publications and in field research. I attended several meetings and conferences as a NEFSC representative. I developed and conducted graduate thesis research, which included creating testable hypotheses, conducting field work to collect tissue samples, laboratory preparation and analysis, and statistical analyses of data using SPSS statistical software. I earned the Master of Science degree while on a CMER (Cooperative Marine Education and Research) grant through NOAA and UMASS Boston. Field work – participation on four large whale surveys acting as an observer, data manager and biologist aboard the NOAA ship Delaware II (August, 1998; April and July, 1999 and August, 2000).

Research Assistant**Marine Biological Laboratory (MBL), Woods Hole, MA****Sept. 1997 – May 1998**

As a research assistant for the MBL, I worked on a 45 ft. fishing vessel out of Gloucester, MA. The goals of the project included tracking the movement of small migratory fish and investigating the size and location of fish populations during specific seasons, as well as developing collaborations between scientists and local fishermen. I also monitored the physical, chemical and biological characteristics of the ecosystem under study (Plum Island Sound, MA) using oceanographic equipment. In the laboratory in Woods Hole, I processed and prepared fish samples for stable isotopic analysis. The position also included literature searches and compilation of scientific studies related to the fisheries research questions of interest.

Marine Science Instructor**OceanQuest, Inc., Woods Hole, MA****Feb. 1997 – Dec. 1997**

As a marine science instructor, I taught introductory oceanography to students, teachers and tourists of all ages and levels aboard a 65 ft. research vessel. I also assisted in developing oceanography curriculum for school systems and traveled to schools to teach hands-on oceanography. I assisted with general boat maintenance and daily activities including writing reports and grants, and maintaining records. I worked to develop an internship program for biology students in the Woods Hole area to provide interested students with the opportunity to teach and to learn more about general oceanography or marine science.

OTHER EMPLOYMENT:

Education Coordinator and Assistant Marine Mammal Trainer:

ZooQuarium, West Yarmouth, MA

Sept. 1996 – Feb. 1997

Developed educational science programs and exhibits; conducted marine mammal presentations and assisted with animal husbandry and care.

Aquatic Supervisor

Arlington Boys and Girls Club, Arlington, MA

Oct. 1995 – Sept. 1996

Taught swimming lessons to children (infant to high school levels); taught swimming and aquatic exercise to adults; assisted with coaching Club swim team; worked as a lifeguard and maintained the pool. Certified in First Aid, CPR, First Responder, Lifeguard Training and WSI (Water Safety Instructor).

Administrative Assistant

Standard Register, Boston, MA

Sept. 1995 – Oct. 1995

Clerical duties included answering the phone, filing, faxing, photocopying and general office work.

VOLUNTEER EXPERIENCE - New England Aquarium, Boston, MA May 1995 – Sept. 1996

Marine Mammal Rescue and Rehabilitation volunteer - Worked with stranded seal pups, adult seals and endangered sea turtles; fed, weighed, and generally cared for animals. Observed animal behavior and assisted with medical treatments; maintained animal records.

Marine Mammal Internship - Assisted with sea lion training sessions; observed and cared for seals and sea lions. Performed animal husbandry duties and coordinated music and lights for marine mammal presentations.

Presentations to school groups: Wellesley, MA first and second grade students – presented marine mammal biology talk (Jan. 2003); Norfolk Agricultural High School – presented a talk on careers in marine science (April, 2002).

Professional Affiliations: Society for Marine Mammalogy, Co-founder and Vice President of the Northeast Student Chapter 1998-2001; Society for Conservation Biology member; member of the Massachusetts chapter of the Society for Conservation Biology (2000-2001). Right Whale Consortium member (2000-2002). Member of the Observer Professionalism subcommittee of the International Fisheries Observer and Monitoring Conference (2007-2011). Atlantic Herring Plan Development team member (2012-Present). NOAA Combined Federal Campaign coordinator (2014-2016).

Professional Presentations: Presented a talk at the annual North Atlantic Right Whale Consortium meeting (Boston, MA) entitled Stable Isotopic Analysis of Baleen from “Staccato”, a Known Individual: Preliminary results (Oct. 2000); Presented a poster at the American Cetacean Society meeting (Monterey Bay, CA, Nov. 2000) and at the University of Massachusetts Graduate Student Assembly (March, 2001) also on the Stable Isotopic Analysis of Baleen. Co-presented a poster at the International Observer Conference in New Orleans, LA entitled: 2002 Alternative Platform: Investigating Interactions between Chesapeake Bay Pound Nets and Sea Turtles (Nov. 2002). Presented a talk at the 4th International Fisheries Observer Conference in Sydney, Australia entitled: Training Northeast Fisheries Observer Program Observers: Where we’ve been and where we’re going (Nov. 2004). Presented a talk at the 5th International Fisheries Observer Conference in Victoria, CA entitled: In-Season Fisheries Management: a study of Northeast Fisheries Observers and the 2006 Atlantic Sea Scallop Fishing Season (May, 2007). Presented a talk at the 6th International Fisheries Observer Conference in Portland, ME entitled: Northeast Fisheries Observer Program: facing challenges in a changing program (July, 2009); prepared two poster presentations for the 6th International Fisheries Observer Conference entitled: Data quality Improvements for Northeast Fisheries Observer Program and Investigating factors affecting success of Northeast Fisheries Observers (July, 2009). Attended Society for

Marine Mammalogy biennial meeting in Quebec, CA and presented a poster entitled: Differentiating serious and non-serious injuries of marine mammals in US Northwest Atlantic commercial fisheries – data collection of Northeast Fisheries Observers (October, 2009). Attended Northeast Regional Office Sea Turtle serious injury workshop, Boston, MA (November, 2009) and presented observer data on sea turtle incidental takes. Attended NAMMCO-ICES workshop on Bycatch Monitoring in Copenhagen, Denmark (June 2010) and presented two talks during the workshop entitled: Data Management Issues, Data Collection, Collation, Control and Direct Observations of Bycatch Using Observers. Organized industry outreach meetings on Long Island, NY September 2014 and April 2016 to communicate seaday coverage with the fleet. Upcoming abstract submitted to International Lobster biology and management conference to be held in June 2017, entitled: Northeast Fisheries Observer Program: Observer Coverage, data collection and biological sampling of the American Lobster Fishery, an overview 2012-2016.

Training: 1 week Oracle University Oracle database training Boston, MA (Oct. 2002); Observed OTC (Observer Training Center) Alaska Groundfish training, Anchorage AK (Dec. 2002); Observed Southeast Fisheries Science Center Observer Training, Miami, FL (May, 2003); COTR (Contracting Officer's Technical Representative) training, Washington, DC (June, 2003); AMSEA marine safety train the trainers training Woods Hole, MA (July, 2003); Microsoft Office Training, Hyannis MA (November, 2003). VMS Smartracs software training (June, 2007). Participated in Dreamweaver CS4 training in Woods Hole, MA (March, 2009). Participated in MREP training (Marine Resource and Education Program) Falmouth, MA (November 2011). Skillpath leadership training December 2016. NOAA Unconscious bias training, January 2017. Leadership and team building training, January 2017. CPR/FA certified February 2017.

Awards: Employee of the Year, town of Barnstable, MA summer 1995. Dean's List (Honors) University of New Hampshire (1993-1995); CMER, Cooperative Marine Education and Research grants through the University of Massachusetts and NOAA (National Oceanic and Atmospheric Administration) for education and research 1999-2001. Second place for poster presentation at the American Cetacean Society meeting in

November, 2000; UMASS Graduate Student Assembly grant to attend a Society for Marine Mammalogy conference in Vancouver, B.C. 2001. NOAA bronze metal award for work toward Groundfish monitoring, 2005. NOAA cash award for performance November 2016.

Proficient in software: Windows 2000 (Professional); Microsoft Office – Word, Excel, PowerPoint; Adobe – Acrobat (and Distiller), Pagemaker, Photoshop; Nikon Scan, Netscape Communicator – Composer, Navigator, Messenger; Arcview GIS (ESRI) v.3&8, Macromedia Dreamweaver, Paint Shop Pro; Word Perfect Office 2000 – Quattro Pro, Draw, Corel Presentations; SPSS (Statistical Package for the Social Sciences), Oracle databases, SQL language, TORA (Toolbox for Oracle). SQL developer. Microsoft office 2013.

SCIENTIFIC PUBLICATIONS/REPORTS: (FORMER NAMES SARA E. QUINN; SARA E. WETMORE)

Clapham, P.J., Good, C., **Quinn, S.E.**, Reeves, R.R., Scarff, J.E., and Brownell, R.L. Jr. 2004. Distribution of North Pacific right whales (*Eubalaena japonica*) as shown by 19th and 20th century whaling catch and sighting records. *The Journal of Cetacean Research and Management* 6(1):1-6.

Clapham, P.J., **Wetmore, S.E.**, Smith, T.D. and Mead, J.G. 1999. Length at birth and at independence in humpback whales. *The Journal of Cetacean Research and Management* 1(2):141-146.

Reeves, R.R., Clapham, P.J., and **Wetmore, S.E.** 2002. Humpback Whale (*Megaptera novaeangliae*) occurrence near the Cape Verde Islands, based on American 19th century whaling records. *The Journal of Cetacean Research and Management* 4(3):235-253.

Reeves, R.R., Swartz, S., **Wetmore, S.E.** and Clapham, P.J. 2001. Historical occurrence and distribution of humpback whales in the eastern and southern Caribbean Sea, based on data from American whaling logbooks. *The Journal of Cetacean Research and Management* 3(2):117-129.

Wright, A., Hughes, J., **Wetmore, S.**, and Boynton, E. 1999. Establishing the food web links between estuaries and nearshore fisheries of New England. Report to NOAA Grant # NA 76 FD 0106.

Thesis: **Wetmore, S.E.** 2001. Stable Isotopic Investigations into the Foraging Ecology of North Atlantic Right Whales. Submitted to the Office of Graduate Studies and Research, University of Massachusetts Boston, in partial fulfillment of the requirements for the degree of Master of Science.

2011

#2

A Pilot Study to Explore the Application of Expansive Public Shellfish Culture as a Management Strategy to Improve Ecosystem Function in Falmouth Estuaries

Dan Fougere, Matt Weeks

We proposed to conduct a simple yet expansive application of public shellfish culture in Little Pond with the goal of: 1) significantly improving ecosystem function and rate of recovery 2) strengthening cultural ties to the estuaries through increased recreational harvest as well as additional volunteer/educational opportunities 3) substantially bolstering the local economy through expanded commercial harvest of a high value shellfish. The entire operation of this innovative project would be done under municipal control solely for the benefit of the ecosystem and general public. By proceeding with the pilot study as a purely municipal project, many of the regulatory and social challenges will be reduced.

Approximately 4 million oyster seed will be purchased and cultured in Little Pond over a two year period and eventually transferred to another salt pond for harvest by the public. This target number is well within the carrying capacity for this size estuarine system. From a shellfish culture perspective, Little Pond would essentially function as a nursery where oysters would be reared to a larger size and ultimately transferred and bottom seeded into one or more the neighboring salt ponds. There are many recent and local precedents of similar public shellfish culturing practices being successfully applied around Cape Cod, including: Mashpee River, Santuit River, Prince Cove, Tisbury Great Pond, and others.

None of the cultured shellfish from this project will be directly sold by the culturists. Instead they would be transferred and seeded in various local salt ponds to later be harvested by both recreational and commercial wild harvesters. Disease, mortality, growth rate, and health would be monitored and quantified continuously throughout the project until the oysters are harvested by the public. Existing town infrastructure could be utilized for most of the required operations (ie gear construction space, gear storage, transportation, boat, docks, upwellers, ect).

The management of this project would be provided by two part time shellfish culturists under contract and supervision of the DNR. A Falmouth High School student could be selected to assist with the culturing operations. Water quality monitoring and analysis could be provided through a collaborative effort between local nonprofits (for example F.A.C.E.S) and local academic institutions. Monthly oversight and direction will be given by the Waste Water Committee. Annual reports will be presented to the BOS at the end of each growing season. Local groups, schools, and neighbors will be welcome to actively contribute during all aspects of the project. Multiple educational opportunities will be provided as well as a continuous outreach to the local media and research institutions.

Substantial positive impacts to the local economy resulting from this project could be realized. A total of 2 million oysters worth almost \$1 million dollars at the dock could be achieved, assuming a 50% survival rate and an average price of \$0.50 per oyster. In addition, this added production would have a large 'multiplier effect' as the shellfish are sold, distributed, and served throughout the local economy.

Year 1: Diploid seed oysters will be purchased from DMF approved hatcheries in the late April of 2012. The seed would be 1.2 - 1.6 mm in size and cost approximately \$5 per thousand. Seed would be purchased in batches of 500,000 over the course of 4-6 weeks, possibly from different hatcheries. Each batch will be reared temporarily in established town upwellers for 2 - 3 weeks until of a size appropriate for field growout. At that time they will be tested for diseases and transferred to Little Pond and contained into floating bags dispersed at various locations around the pond for 10-12 weeks. The locations of the floating bags will be based on experienced gained during the growing season and can be move accordingly. Oyster bags can be tended on foot or via a small boat. Once the oysters reach as size of 1.5-2" they will be transferred from the floating bags to the bottom. By the fall 2012 all oysters will be seeded directly on the bottom. All oysters contained in Little Pond will be smaller than market size. This, along with a neighborhood watch, will help address concerns of potential poaching.

Year 2: The same upweller to bottom planting process will be repeated for the 2013 seed. The 2012 oysters will remain on the bottom for the entire second growing season. During the fall of 2013, the oysters will be tested for diseases and relayed to another salt pond open to harvesting. This relay can be done by contracting local shellfishers, as has been done in the past. The new seed from 2013 will be transferred from floating bags to replace the relayed oysters on the bottom.

Year 3: The area(s) that the oysters are ultimately seeded will be closed to harvesting for one growing season to allow for additional growth, continued ecosystem services, spawning, and depuration. During this time, growth, mortality, and health will continued to be monitored as well as additional water quality measurements of the seeded areas. After the end of the third growing season, the seeded areas would be open to harvest by both recreational and commercial shellfishers according to existing town regulations. At this time several potential mechanisms for making the program self-funded and permanently sustainable could be explored.

Project End: The pilot project can realistically be expected to begin in the spring of 2012 and terminate, after three growing season during the winter of 2015 after the last of the 2013 seed is harvested. The degree of success or failure would be determined based on the criteria set by the Waste Water Committee. If the pilot is determined to be successful, it can be continued as a self-funded publicly run operation (possibly expanded to additional water bodies) or potential privatization can be explored. If the pilot is not successful the contracts end and the remaining gear utilized in future town shellfish projects or sold.

Economic Sustainability

This would be a high volume/high value put and take fishery harvested by the general public and wild harvesters. The catch per unit effort for commercial harvesters would be very high and the price at the dock higher per piece than any other publicly harvested shellfish.

This leads to several possible ways that the project could be self-sustainable:

- 1) An endorsement on both recreational and commercial shellfish licenses that the harvesters pay extra (perhaps separate endorsements for different harvesting areas). A 'Sustain Falmouth Oyster Stamp'.
- 2) The harvesters would be making very good money in a short amount of time and getting a good price so there might also be some type of program similar to the highly successful Research Set Aside program done with the offshore scallop fishery.
- 3) Only allow oysters harvested in Falmouth to be landed and sold in Falmouth. This is done with scallops.
- 4) Selling of surplus seed to local shellfish farmers.
- 5) Tax on oysters that are harvested out of this program. This could be something like a \$5 tax per bushel or 5 cent tax per oyster harvested and sold. If all oysters are sold to Falmouth dealers, this would be easy to track.
- 6) Fund raising events and selling of oyster related items. Easy to do with oysters...

Many other possibilities.....

10 Potential Challenges & Solutions:

1) C: Turnaround time for disease testing relative to the schedule for transferring seed or relays

S: Testing will have to be performed well ahead of time and contingency plans for delays developed beforehand

2) C: Finding the right bottom conditions for free-planting oysters and potential competing eelgrass resources

S: Based on what we've seen it does seem like most of Little Pond's bottom is nasty deep mayonnaise mud. There is however a distinct mud/packed sand line around the perimeter of the pond. The change from packed sand to mud is very dramatic.

The packed sand bottom extends from the shoreline out about 60'-80' on average and to a depth of ~4'. It seems to extend further and more continuous on the east side than the west). So the perimeter of the pond would be the only area that could be bottom planted but it is also the easiest area to eventually harvest by rake for the relay. In that sandy perimeter area there are some spots with natural set soft shell clams and quahogs (which is a good sign).

The salinity is ~25 ppt throughout most of the pond, so we were hoping that some of the common predators and disease would be somewhat hampered compared to other areas. High summer water temperatures, ice in the winter, and low water flow, and dissolved oxygen could be problems.

There is spotty eelgrass in the southeast corner but it doesn't seem to be large patches and is thin where it does exist. In fact the eelgrass that sheds off in the winter piles up knee deep in the southern corners since there is no way for it to get out of the pond, which certainly doesn't help the problem. Some of this dead eelgrass could be 'harvested' when the oysters are relayed.

Oysters will not necessarily need to be planted in areas where the eelgrass exists, although it is some of the best bottom in the pond. Harvesting could be done by picking the oysters by hand in area of eelgrass or done in the late fall after the eelgrass has died back. Floating bags will not be place in the small area where there is eelgrass.

3) C: Demonstrating the effectiveness of the program in terms of oyster survival and growth as well as improvement of water quality (i.e. who is going to do it and how will that be coordinated)

S: Baseline data has been done and published in the MEP report as well as the long time series of data collected by F.A.C.E.S.. Data collection could be collected and analyzed by a local reputable organization like MBL, WHOI, USGS, among several others. It is up to the waste water committee to determine what the goals are and what would be considered a success. An experimental design will have to be developed.

4) C: Securing long-term funding to continue if it should prove to be a viable operation

S: There are a variety of possible ways to make the program self-sustainable in the long term. The seed money set aside by the town for a demonstration project should be adequate for the first 2-3 years, after which the program can begin to be self-funded. If the proposed methods prove to be too expensive, other cheaper growing methods could be employed, such as remote setting. See above section for more ideas on economic sustainability.

5) C: Security. How to deal with the liability of having a shellfish resource in a prohibited area

S: No market size oysters will be in Little Pond. Oysters will be transferred before they reach a sellable/edible size. Bottom planting oysters makes poaching more difficult. In addition, a neighborhood watch could be enacted with waterfront homeowners reporting any suspicious activities. In addition, several home owners have expressed support of allowing DNR to install monitoring cameras on their property. Given the small size of the pond it could be easily monitored with a few cameras. There are few public access points and the pond is densely populated enough for an effective neighborhood watch.

6) C: Development of an attractive nuisance

S: An attractive nuisance is already present in the pond, in the form of market size quahogs and soft shell clams. Historically there has not been a problem with the poaching of this naturally existing shellfish stock in the pond. DNR has used little pond twice in the last eight years as a seeding pond for quahogs: once for Great Pond, once for Green Pond. (This was DMF approved). If the development of new wild stock of oysters in Little Pond is a concern, triploid oyster seed could be utilized instead of diploid. Although oysters will likely be relayed before spawning occurs.

7) C: There could be issues with flooding the market when an area is open to harvesting

S: There are a variety of management techniques that can be applied to prevent this. It could be resolved by: a) rotational/seasonal openings b) only allowing 1 or 2 days a week for harvest in an area c) lower daily/weekly quotas for specific areas d) limited access licenses; among other ways...

8) C: Staffing

S: Two part time contract growers and a group of volunteers should be all that is necessary to run the program on a day to day basis during the growing season. Local nonprofits, neighborhood groups, and schools could provide a substantial number of hours. Internships and Americorps volunteers are other possibilities. DNR has had great success with volunteers helping to run the town upwellers in the past. Two part time growers would be necessary to manage most aspects of the program. Two growers would necessary both to have the right number of hands available, dividing up task, and so that one can always be present in case the other is absent. The growers would be responsible for managing the volunteers. The growers would be under the supervision of DNR.

9) C: Upland landowner concerns about visibility of floating gear and potential user-conflicts

S: The most likely conflict would be with the floating bags. Bags would only be deployed during the summer months. The rows of bags could be dispersed throughout the pond, including the middle of the pond, to minimize visibility an. Even better would be to develop a rotational schedule for the bags to be moved so that particular homeowners will not be permanently impacted. For example; bags could start the season in the northern part of the pond and move southward a 100 yards so every two

weeks until reaching the southern end. Then the oysters will be either transferred out of the bags to the bottom. The few bags that are left will be transferred to the north section (where there are fewer houses) and begin the migration southward again until the fall.

10) C: Access

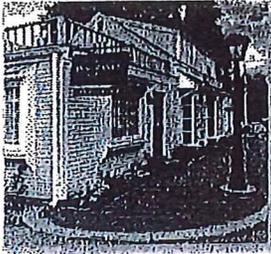
S: Access can be made via the town land on the north end, the established access point on the eastern shore, cooperative homeowners on the western side, and from the beach parking lot on the south end. Impacts would be no more than already occurs by people accessing other ponds for recreation or shellfishing. Most of the work can be done on foot or in a small non-motorized boat (which the growers already own). A work raft or dock located in some section of the pond would be of great help, but not absolutely necessary.

Why Little Pond?

- 1) It has fewer stake holders than the other ponds do (no moorings, no docks, no swimming, no shellfishing, and no boating other than a few kayaks).
 - 2) It is also one of the most significantly impaired salt ponds, so we were hoping the town would get more bang for the buck there and that the neighbors might be more open to trying something dramatic to alleviate the problem even slightly. It is also small enough and shallow enough to be tended entirely by foot or kayak.
 - 3) The small size, limited existing shellfish resource, and almost closed system might allow more potential for an experimental design and measurable impact. The detailed and extensive MEP report has been done on the pond which could provide a baseline data and the FACES group has been collecting weekly water quality samples there for years.
 - 4) DMF has allowed the town to do quahog relays out of Little Pond to other salt ponds. DNR did this a few years ago by hiring some local commercial diggers to harvest and transfer the quahogs from Little Pond to Green Pond. We haven't seen the data DMF bases the prohibited status on, but it might be worth asking for and looking at in detail. I think Rick York does a similar growout/relay in the Mashpee River which is prohibited and conditionally approved. If DMF can allow a relay out of the Tauton River to Cotuit, then this might be doable.
 - 5) The Teaticket Civic Association has shown some interest and possible support of aquaculture. We have a few people already that said they would allow us to access the pond and maybe even allow us to install surveillance cameras.
 - 6) The town owns a good amount of undeveloped land at the north end of the pond.
 - 7) Limited and thin eelgrass resource. Where it does exist, harvesting could be done by hand picking oysters in late fall after the eelgrass has died back for the winter.
 - 8) We were also thinking about migrating the floating bags around the pond. Entire strings could be easily towed by hand or with a small boat. By rotating the location of the bags might alleviate viewscape concerns (since they will only be there short term) and adapt to changing water quality/growing conditions.

Perhaps starting in the northern part (while the water quality is decent there in the spring) and migrating them to south to healthier water for the late summer. Once they reach the south end they either start migrating back north or are planted. It might also allow different neighbors to get involved (flipping bags/security) throughout the summer.
- However, continuously moving the bags however not be easily incorporated in a valid experimental design.
- 9) It is small enough and densely populated enough to be easily monitored for potential poaching. There is also very limited public access points. The plan is that there won't be any market size oysters in the pond and that bottom planting reduces the ability to poach quickly in any significant amount.
 - 10) If a plan like this works in Little Pond, then similar projects could likely work in other estuaries.

#3



Mark Sylvania Life Insurance Agency
Mark Sylvania Long Term Insurance Agency
Mark Sylvania Insurance Agency LLC
404 Main Street
Centerville MA 02632
Phone: 508-957-2125
Fax: 508-957-2781
MarkSylviaInsurance.com

Proposal for Aquaculture/Oyster Farming Insurance coverages

Commercial General Liability-\$1,000,000/\$2,000,000 in coverage
Annual premium-**\$882**-(see attached sample quote)...(policy excludes full contractual liability for explosion, collapse and underground damage)

Workers Comp coverage for Sole Proprietor-**\$1,652**

Commercial Auto coverage for CSL-\$1,000,000-**\$1,145**

Professional Liability-Not offered for Oyster Farming

See attached quotes

Recent Example Quote

XS BROKERS

Renewal Insurance Quotation

Reference #: 1164172A-Lindsey Spencer

Date: May 30, 2019
XS Client: Mark Sylvia Agency
404 Main Street
Centerville, MA 02632

Renewal Of:

Insured:

Location Address:

Insurer: Scottsdale Insurance Company AM Best rating: A+
Non-Admitted

Policy Period: 7/1/2019 TO 7/1/2020

Coverage: Commercial General Liability **Term:** 12 Months

12:01 A.M. STANDARD TIME AT THE LOCATION ADDRESS OF THE NAMED INSURED. THIS INSURANCE QUOTATION WILL BE TERMINATED AND SUPERSEDED UPON DELIVERY OF THE BINDER OR FORMAL POLICY(IES) ISSUED TO REPLACE IT.

Limits Of Liability:
\$2,000,000 General Aggregate
\$2,000,000 Products/Completed Operations Aggregate
\$1,000,000 Personal & Advertising Injury Limit
\$1,000,000 Each Occurrence Limit
\$100,000 Damage To Rented Premises
\$5,000 Medical Expense(any one person)

Policy Form: Occurrence

Exposures: ~~\$25,000~~ Gross Sales
Included Blanket Additional Insured-Vendors
1 Additional Insured-Other than Vendors

Deductible: NIL Per claim including LAE

Premium \$800.00

Taxes \$32.00

Policy Fee \$50.00

Total **\$882.00**

TRIA: If the Insured desires Terrorism Coverage, add an additional premium of \$40.00 plus applicable state tax of \$1.60.

Endorsements / Exclusions:

Premium is 100% Minimum & Deposit.

IL 00 17 11-98 COMMON POLICY CONDITIONS

IL 00 21 9-08 NUCLEAR ENERGY LIABILITY EXCLUSION ENDORSEMENT

NOTX0178CW 3-16 CLAIM REPORTING

NOTX0423CW 2-15 POLICYHOLDER DISCLOSURE NOTICE OF TERRORISM INSURANCE COVERAGE

OPS-D-1 1-17 COMMON POLICY DECLARATIONS

UTS-119g 6-14 MINIMUM EARNED CANCELLATION PREMIUM

UTS-9g 5-96 SERVICE OF SUIT CLAUSE

UTS-COVPG 1-16 COVER PAGE

UTS-SP-2 12-95 SCHEDULE OF FORMS AND ENDORSEMENTS

UTS-SP-3 8-96 SCHEDULE OF LOCATIONS

Commercial Liability

CG 00 01 4-13 COMMERCIAL GENERAL LIABILITY COVERAGE FORM

CG 04 36 4-13 LIMITED PRODUCT WITHDRAWAL EXPENSE ENDORSEMENT-\$5,000 limit

CG 20 15 4-13 ADDITIONAL INSURED-VENDORS

CG 21 06 5-14 EXCLUSION - ACCESS OR DISCLOSURE OF CONFIDENTIAL OR PERSONAL INFORMATION AND DATA-RELATED LIABILITY - WITH LIMITED BODILY INJURY EXCEPTION

CG 21 47 12-07 EMPLOYMENT-RELATED PRACTICES EXCLUSION

CG 21 67 12-04 FUNGI OR BACTERIA EXCLUSION

CG 21 73 1-15 EXCLUSION OF CERTIFIED ACTS OF TERRORISM

CG 24 26 4-13 AMENDMENT OF INSURED CONTRACT DEFINITION

CLS-SD-1L 8-01 COMMERCIAL GENERAL LIABILITY COVERAGE PART SUPPLEMENTAL DECLARATIONS

CLS-SP-1L 10-93 COMMERCIAL GENERAL LIABILITY COVERAGE PART EXTENSION OF SUPPLEMENTAL DECLARATIONS

GLS-152s 8-16 AMENDMENT TO OTHER INSURANCE CONDITIONS

GLS-289s 11-07 KNOWN INJURY OR DAMAGE EXCLUSION - PERSONAL AND ADVERTISING INJURY

GLS-30s 1-15 CONTRACTORS SPECIAL CONDITIONS

GLS-341s 8-12 HYDRAULIC FRACTURING EXCLUSION

GLS-455s 11-17 MARIJUANA/CANNABIS PRODUCTS EXCLUSION

GLS-457s 10-14 AIRCRAFT EXCLUSION

GLS-47s 10-07 MINIMUM AND ADVANCE PREMIUM ENDORSEMENT

GLS-52s 9-05 SPECIFIED PRODUCTS LIABILITY

GLS-74s 9-05 AMENDMENT OF CONDITIONS

UTS-266g 5-98 ASBESTOS EXCLUSION

UTS-267g 5-98 LEAD CONTAMINATION EXCLUSION

UTS-365s 2-09 AMENDMENT OF NONPAYMENT CANCELLATION CONDITION

UTS-428g 11-12 PREMIUM AUDIT ENDORSEMENT

UTS-74g 8-95 PUNITIVE OR EXEMPLARY DAMAGE EXCLUSION

Subject To:

In order to BIND coverage, we need: - A faxed or emailed copy is acceptable.

- Subject to the signed Applications (ACORD 125/126 to show any change in sales)
- Subject to the signed Affidavit.
- Terrorism Disclosure form signed dated by the Insured with the appropriate "accept/reject box" selection made.

*Any change in exposure may result in a premium change.

Terms / Conditions:

25 % MINIMUM EARNED PREMIUM AT INCEPTION.

Additional Interest:

Additional Insured
Town of Dennis

ALL OTHER TERMS AND CONDITIONS APPLY PER FORM

This proposal expires 30 days from the issue date listed below or the policy expiration date, whichever comes first, and should be reconfirmed after that time. This proposal is based on the underwriting and rating information in the application provided by you. The coverage and terms being offered may not be the same or as broad as requested in your application. Please review carefully and advise us immediately if you have any questions. Thank you for the opportunity to help you service your clients needs. We look forward to receiving your order.

UNDERWRITING CONTACT:

ACCOUNT EXECUTIVE:

CLAIMS CONTACT:

WCRIBMA

THE WORKERS' COMPENSATION RATING AND INSPECTION BUREAU OF MASSACHUSETTS

msylvia | Logoff

Home	Create Application	My Applications	Assigned Risk Premium Calculator	Administration	Supplemental Applications/Forms	Certificates of Insurance	FAQs
------	--------------------	-----------------	---	----------------	---------------------------------	---------------------------	------

This premium calculator is provided for your convenience. It is not integrated with the application entry process.

Effective:

DIA Assessment: Private

Class Lookup Mod Lookup

Following errors occurred while processing your request
 • For admiralty coverage to be available, there must be a non-admiralty class code with exposure.

Loc #	Shift #	Class Code	Classification Phraseology	USLH	# of Employees	Actual Payroll for Past 12 Months	Estimated Payroll for Next 12 Months	Rate	Premium = Estimated Payroll /100 * Rate	
1	1	7024	VESSELS NOC: PROG II STATE ACT BENEFITS		1	0	51,000	2.35	1,199	Delete
2										Delete
3										Delete
4										Delete
5										Delete
6										Delete
7										Delete
8										Delete

Select Admiralty Employers Liability Limits:

Standard \$10,000 \$50,000 \$100,000

Total Estimated Premium Installment Basis Deposit Factor Additional Payments:

Under \$5,000	Annually	100%	None
At least \$5,000	Semi-annually	75%	One
At least \$10,000	Quarterly	50%	Three
At least \$25,000	Monthly	25%	Nine

Factor

Manual Premium	1,199
Waiver of Our Rights - <input checked="" type="checkbox"/> No	
Employers Liability - <input type="text" value="9812 - 1000/1000/1000"/>	
Admiralty Employers Liability Limits Charge	100
Deductible - <input checked="" type="checkbox"/> None	
Experience / Merit Rating	
MA Construction Credit - <input checked="" type="checkbox"/> 0%	
Standard Premium	1,299
ARAP	
Loss Constant	
Expense Constant	336
Terrorism Premium	.03 15
Premium Subject to Total Policy Minimum Premium	1,652
Total Policy Minimum Premium	100
Total Estimated Premium	1,652
DIA Assessment	.0351 0
Total Est. Premium plus DIA Assessment	1,652
Deposit Premium - <input type="text" value="Annual"/>	1,652



**Farm Family Casualty
Insurance Company**
An American National Company

344 ROUTE 9W | GLENMONT, NY 12077-2910

**MASSACHUSETTS BUSINESS AUTO
COVERAGE FORM DECLARATIONS**

Quote

Transaction: New Business

Transaction Effective Date: 07-16-2019

ITEM ONE

Named Insured and Address	Agent Name and Address
MATTHEW V. WEEKS 282 TROTting PARK RD EAST FALMOUTH, MA 02536-5656	MARK SYLVIA INSURANCE AGENCY LLC 404 MAIN ST CENTERVILLE, MA 02632-2916 508-428-0440

Policy Number:	Form of Business: Individual/Sole Proprietor
Policy Period: Policy covers FROM 07-16-2019 TO 07-16-2020	At 12:01 A.M. Standard Time at your mailing address

Forms and Endorsements Attached To This Policy: See Forms and Endorsement Schedule

IN RETURN FOR THE PAYMENT OF THE PREMIUM, AND SUBJECT TO ALL THE TERMS OF THIS POLICY, WE AGREE WITH YOU TO PROVIDE THE INSURANCE AS STATED IN THIS POLICY.

ITEM TWO - Schedule Of Coverages And Covered Autos

This policy provides only those coverages where a charge is shown in the premium column below. Each of these coverages will apply only to those "autos" shown as covered "autos". "Autos" are shown as covered "autos" for a particular coverage by the entry of one or more of the symbols from the Covered Autos Section of the Business Auto Coverage Form next to the name of the coverage.

Coverages	Covered Autos	Limit	Premium
Compulsory Bodily Injury	7	\$ 20,000 each person \$ 40,000 each accident	\$ Included
Personal Injury Protection	7	\$ 8,000 each person	\$ 8
LIABILITY INSURANCE			
Optional Bodily Injury	7	\$ each person \$ each accident	\$
Property Damage (Compulsory Limit \$5,000)	7	\$ 1,000,000 each accident	\$ Included
Combined Single Limit Liability	7	\$ 1,000,000 each accident	\$ 649
Medical Payments		\$** each person	\$
Uninsured Motorists (Compulsory Limits \$20,000/40,000)	7	\$** each person \$** each accident	\$ 2
Underinsured Motorists	7	\$** each person \$** each accident	\$
PHYSICAL DAMAGE INSURANCE			
Actual Cash Value Or Cost Of Repair, Whichever Is Less, Minus the Deductible For Each Covered Auto			
Comprehensive	7	\$** Deductible	\$ 111
Specified Causes Of Loss		\$** Deductible	\$
Collision	7	\$** Deductible	\$ 375
Limited Collision		\$** Deductible	\$
Towing And Labor		\$** per disablement	\$
			Premium For Endorsements \$
			Estimated Total Premium *\$ 1,145

*This Policy May Be Subject To Final Audit.

** See ITEM THREE - Schedule of Covered Autos You Own

Quote

ITEM THREE - Schedule Of Covered Autos You Own

Cov. Auto #	DESCRIPTION Year, Model, Trade Name, Body Type, Serial Number, Vehicle Identification Number (VIN)	PURCHASED		TERRITORY
		Original Cost New	Actual Cost New (N) Or Used (U)	Town and State Where Covered Auto Will Be Principally Garaged
1	2009FORD F150 1FTRX14W19KA68381	\$27,840		FALMOUTH, MA

Cov. Auto #	CLASSIFICATION								
	Radius of Operation	Business Use S=Service R=Retail C=Commercial	Size, GVW, GCW or Vehicle Seating Capacity	Age Group	Primary Rating Factor		Secondary Rating Factor	Anti-Theft Discount	Code
					Liability	Physical Damage			
1	50	S	10000	9	1.00	1.00	0.00		01199

Coverages – Premiums, Limits and Deductibles	
<small>(Absence of a deductible or limit entry in any column below means that the limit or deductible entry in the corresponding Item Two column applies instead.)</small>	
VEHICLE	1
COMPULSORY BODILY INJURY	\$129.00
Limit per Person/Occurrence	20,000/40,000
PERSONAL INJURY PROTECTION	\$8.00
Limit per Person	8,000
OPTIONAL BODILY INJURY	
Limit per Person/Occurrence	
PROPERTY DAMAGE	
Limit per Occurrence	
COMBINED SINGLE LIMIT LIABILITY	\$520.00
Limit per Occurrence	1,000,000
MEDICAL PAYMENTS	
Limit per Person	
UNINSURED MOTORISTS	\$2.00
Limit per Person/Occurrence	20,000/40,000
UNDERINSURED MOTORISTS	\$0.00
Limit per Person/Occurrence	20,000/40,000
COMPREHENSIVE	\$111.00
Deductible per Occurrence	500
SPECIFIED CAUSES OF LOSS	
Deductible per Occurrence	
COLLISION	\$375.00
Deductible per Occurrence	500
LIMITED COLLISION	
Deductible per Occurrence	
TOWING AND LABOR	
Limit per Disablement	
TOTAL	\$1,145.00

ITEM FOUR - Schedule Of Hired Or Borrowed Covered Auto Coverage And Premiums

Liability Coverage – Rating Basis, Cost Of Hire						
State	Estimated Cost Of Hire For Each State	Rate Per Each \$100 Cost Of Hire	Factor (If Liability Coverage Is Primary)	Premium		
				Bodily Injury	Property Damage	Combined Single Limit

Quote

			\$			
Total Premium						\$

Cost of hire means the total amount you incur for the hire of "autos" you don't own (not including "autos" you borrow or rent from your partners or "employees" or their family members). Cost of hire does not include charges for services performed by motor carriers of property or passengers.

Physical Damage Coverage			
Coverages	Limit Of Insurance		
Comprehensive	Actual Cash Value Or Cost Of Repair, Whichever Is Less, Minus Deductible For Each Covered Auto		
	\$	\$	\$
	Estimated Annual Cost Of Hire	Rate Per Each \$100 Annual Cost Of Hire	Premium
\$			
Specified Causes of Loss	Actual Cash Value Or Cost Of Repair, Whichever Is Less, Minus Deductible For Each Covered Auto		
	\$	\$	\$
	Estimated Annual Cost Of Hire	Rate Per Each \$100 Annual Cost Of Hire	Premium
\$			
Collision	Actual Cash Value Or Cost Of Repair, Whichever Is Less, Minus Deductible For Each Covered Auto		
	\$	\$	\$
	Estimated Annual Cost Of Hire	Rate Per Each \$100 Annual Cost Of Hire	Premium
\$			

ITEM FIVE - Schedule For Non-Ownership Liability

Named Insured's Business	Rating Basis	Number	Premium		
			Bodily Injury	Property Damage	Combined Single Limit
Other Than Social Service Agencies	Number Of Employees				
	Number Of Partners				
Social Service Agencies	Number Of Employees				
	Number Of Volunteers				
Total Premiums					

f. Pollution

(1) "Bodily injury" or "property damage" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of "pollutants":

(a) At or from any premises, site or location which is or was at any time owned or occupied by, or rented or loaned to, any insured. However, this subparagraph does not apply to:

(i) "Bodily injury" if sustained within a building and caused by smoke, fumes, vapor or soot produced by or originating from equipment that is used to heat, cool or dehumidify the building, or equipment that is used to heat water for personal use, by the building's occupants or their guests;

(ii) "Bodily injury" or "property damage" for which you may be held liable, if you are a contractor and the owner or lessee of such premises, site or location has been added to your policy as an additional insured with respect to your ongoing operations performed for that additional insured at that premises, site or location and such premises, site or location is not and never was owned or occupied by, or rented or loaned to, any insured, other than that additional insured; or

(iii) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire";

(b) At or from any premises, site or location which is or was at any time used by or for any insured or others for the handling, storage, disposal, processing or treatment of waste;

(c) Which are or were at any time transported, handled, stored, treated, disposed of, or processed as waste by or for:

(i) Any insured; or

(ii) Any person or organization for whom you may be legally responsible; or

(d) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the "pollutants" are brought on or to the premises, site or location in connection with such operations by such insured, contractor or subcontractor. However, this subparagraph does not apply to:

(i) "Bodily injury" or "property damage" arising out of the escape of fuels, lubricants or other operating fluids which are needed to perform the normal electrical, hydraulic or mechanical functions necessary for the operation of "mobile equipment" or its parts, if such fuels, lubricants or other operating fluids escape from a vehicle part designed to hold, store or receive them. This exception does not apply if the "bodily injury" or "property damage" arises out of the intentional discharge, dispersal or release of the fuels, lubricants or other operating fluids, or if such fuels, lubricants or other operating fluids are brought on or to the premises, site or location with the intent that they be discharged, dispersed or released as part of the operations being performed by such insured, contractor or subcontractor;

(ii) "Bodily injury" or "property damage" sustained within a building and caused by the release of gases, fumes or vapors from materials brought into that building in connection with operations being performed by you or on your behalf by a contractor or subcontractor; or

(iii) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire".

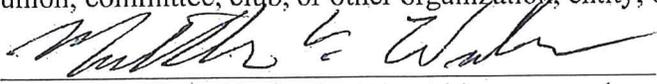
(e) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the operations are to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants".

#4

REQUIRED FORMS

Certificate of Non-Collusion

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.



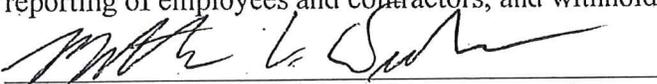
Signature of individual submitting bid or proposal

Nantucket Sound Shellfish

Name of business

Tax Compliance Certification

Pursuant to M.G.L. c. 62C, §49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.



Signature of person submitting bid or proposal

Nantucket Sound Shellfish

Name of business



THE COMMONWEALTH OF MASSACHUSETTS
Town of Falmouth

Business Certificate (DBA)

July 15 2019

In conformity with the provisions of Chapter one hundred and ten, Section five of the General Laws, as amended, the undersigned hereby declare(s) that a business under the title of;

Nantucket Sound shellfish

is conducted at the following address:

282 Trotting Park Rd., Tattletot, MA 02536

by the following named persons:

FULL NAME

RESIDENCE

Matthew Vincent Weeks

282 Trotting Park Rd., Tattletot, MA 02536

TYPE OF BUSINESS

TELEPHONE

shellfish aquaculture

508-837-3838

[Signature]

Signature

Signature

Signature

THE COMMONWEALTH OF MASSACHUSETTS
Town of Falmouth

Barnstable ss.

July 15 2019

Personally appeared before me the above named Matthew Vincent Weeks

and made oath that the foregoing statement is true.

A certificate issued in accordance with this section shall be in force and effect for four years from the date of issue and shall be renewed each four years thereafter so long as such business shall be conducted and shall lapse and be void unless so renewed.

Expiration Date

July 15, 2023

[Signature]

Town Clerk



#5

Cape Cod Cooperative Extension
& Woods Hole Sea grant
PO Box 367
Barnstable, MA 02630 USA

7/19/2019

Town of Falmouth
59 Town Hall Square
Falmouth, MA 02540

RE: Aquaculture Contractor Applicants

To those reviewing Aquaculture Contractors for Eel River project:

I would like to express my support for Matt Weeks as a potential aquaculture contractor to grow oysters in the Eel River of the Town of Falmouth. We have contracted Matt several times during my work with extension and there is a reason we keep contracting him, he's punctual, hard working (even in inclement conditions), and melds easily with the rest of the project team. As an example, a recent project we took on involved sampling surf clams around the region during December to identify a potential subspecies in MA waters. After several failed attempts Matt was able to figure out the clams were behaving a bit different than we had expected and adjust our sampling technique to get the clams we needed. I can honestly say this project likely would have failed without Matt's effort and innovation and has led to bigger projects.

I have no problem recommending Matt to you folks. In fact my only reservation is he may be so tied up growing oysters he'll be less available to contract with us!

Thank you for your consideration, and let me know if you have any further questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joshua Reitsma'.

Joshua Reitsma
jreitsma@whoi.edu
508-375-6950
Cape Cod Cooperative Extension
Southeastern Massachusetts Aquaculture Center
Woods Hole Sea Grant

Town of Falmouth – Manager's office
59 Town Square
Falmouth, Ma. 02540

Will Ostrom
dba Cape Cod Anchorage
P.O. Box 3429
Waquoit, Ma. 02536
508-962-6105

July 15, 2019

Dear Sir

Reference for aquaculture contractor Matthew Weeks

Matt Weeks has occasionally assisted me on Waquoit Bay and the surrounding rivers and bays servicing private boat moorings. In discussions with Weeks relating to shell fishing in and around Waquoit Bay he has demonstrated to me that he has a vast experience with the cultivation of oysters, surf clams and quahogs shellfish. Weeks as a very good candidate for the Town aquaculture service program as hes has very obvious dedication to the promotion of maintaining /improving the water quality of the bays and rivers.

Sincerely
Will Ostrom

To whom it may concern,

Matthew Weeks worked for Cotuit Oyster Co., Inc. from 10/11/2011 to 12/21/2012.

During this time, Matt helped plant, harvest, cull and use a mechanical grader to manage the oyster crop on our 33 acre farm. Matt also helped the crew build and deploy new floating oyster bags for our nursery in Cotuit Bay.

Matt has attended many industry events and we have kept in touch since he started his own oyster farm in Vineyard Sound.

I feel Matt is more than capable of managing additional aquaculture space in Falmouth and support him in his new endeavor.

Please do not hesitate to call if you have any questions.

Sincerely,

Chris Gargiulo

Owner

Cotuit Oyster Company, Inc.

www.cotuitoystercompany.com

508-428-6747