PUBLIC NOTICE

US Army Corps of Engineers ®
New England District
696 Virginia Road
Concord, MA 01742-2751

Comment Period Begins: October 27, 2020
Comment Period Ends: November 26, 2020
File Number: NAE-2007-02555
n Reply Refer To: Cori M. Rose
Phone: (978) 318-8306
E-mail: cori.m.rose@usace.army.mil

The District Engineer has received a permit application to conduct work in waters of the United States from **THIMBLE ISLAND OCEAN FARM, LLC, 315 FRONT STREET, CONNECTICUT 06513.** This work is proposed in waters of Long Island Sound in an area identified as the Thimble Islands on NOAA Chart 12373 offshore of the Village of Stony Creek and will physically abut the existing aquaculture farm . The proposed gear area is located approximately 1,350 feet southwest of Rogers Island, 400 feet east of flashing red light "8" and 1,550 feet northwest of red nun "6. The project is proposed to be undertaken at a State of Connecticut Department of Agriculture 19.3-acre shellfish lease identified as L-540 at the following NAD83 Coordinates:

Northeast Corner	41.255956 ° N	-72.767164 ° W
Southeast Corner	41.254181 ° N	-72.766117 ° W
Southwest Corner	41.253725 ° N	-72.767964 ° W
Northwest Corner	41.255425 ° N	-72.768942 ° W

The proposed project gear area is depicted on the attached plans entitled "Thimble Island Ocean Farm, LLC, L-540, Long Island Sound, Branford, CT" dated "7/8/2020".

The work will involve the installation of lines, buoys, anchors and aids to navigation for the commercial cultivation of a winter crop of native sugar kelp/seaweed (*Saccarina lattissima*) and the year-round cultivation of blue mussel (*Mytilis edulis*). The regulated activities will replace seven (7) previously authorized 240-foot long (anchor to anchor) seaweed lines that when installed accommodated 1,050 linear feet of seaweed growing line (originally authorized in 2012). The new project will include two different kinds of line configurations. At full-build capacity the project will possess 16, 530-foot long longlines. Kelp and mussels will be grown on separate longlines and the timing of their deployment is not dependent on each other. During the 2020/2021 growing season, the project will install eight (8) 5-line kelp arrays and 8 single mussel lines. The number of kelp 5-line arrays versus single mussel lines will be adjusted annually based on market demand but the maximum number of longlines, as described below, will never exceed the maximum allowed which is 16-line units. Gear installation will occur within an estimated 8.4-acre (535-foot-long by 680-foot-wide configuration) area encompassed within the coordinates above and will result in the expansion of the existing seaweed aquaculture farm by approximately 7-acres.

Seaweed Longlines to be installed seasonally between October 1 and June 15 of the calendar year – A single seaweed longline for rearing of sugar kelp will consist of a 530-foot long (anchor to anchor) bridled "5-line array" which will have 400-linear feet of seaweed growing line. Each 5-line array will be 10-feet in width and made with 5/16-inch neutrally buoyant hydropro nylon line which will be evenly spaced at 2.5-feet apart. Before initial

deployment the lines will be pretensioned to minimize line stretch when placed in the water. Upon installation the lines will be stretched across three aluminium pipe spreader bars (approximately 200-feet between bars) to maintain unit tension and the entire array will be suspended in position approximately 4-feet below the water's surface. Its position in the water column will be maintained by three surface flotation buoys. Water depth at the project site is on average 15-feet at mean low water and 20-feet at mean high water. Each array will be affixed at the installation location by a pair of 200-pound TendOcean© plow anchors rated to provide approximately 30,000 pounds of holding power. A single kelp array will have a total of seven buoys and be spaced approximately 30-feet away from the next nearest line. The in-water tension of each longline array will be maintained through the balance between the spreader bars, surface flotation and the anchor system.

The seaweed system will be accessed and regularly maintained with an existing 24-foot work boat. After the last harvest of the season (sometime between mid-May and June 15) the horizontal arrays, lines and tensioning buoys will be removed and brought to a land-based facility for inspection and/or repair, as needed, leaving only the anchor and the anchor buoy in the water. Aids to navigation and anchor mooring line/buoys will remain in the water throughout the year to designate the gear location.

Mussel Longlines deployed in spring, summer and fall and maintained year-round – Each mussel longline will consist of a 530-foot long line (anchor to anchor) with up to 100, 5-foot long mussel drop socks deployed every 4-feet along a 1/2-inch diameter hydropro growing line that is 400-feet in length. The mussel growing line will be suspended in the water column by up to 21, 12-inch flotation buoys spaced approximately every 20-feet. Each mussel sock will be suspended such that it will have a minimum of 6-feet of clearance between the sock and the bottom at mean low water. The shellfish will remain on the lines until they reach a marketable harvest size. Upon harvest, the horizontal growing lines and flotation buoys will be removed to an upland facility for inspection and/or repair, as needed, leaving only the anchor and the anchor buoy in the water. Aids to navigation and anchor mooring line/buoys will remain in the water throughout the year to designate the gear location.

Aids to Navigation and Monitoring - The 8.4-acre gear area will be marked with a minimum of nine (9) "aid to navigation" buoys that read "DANGER SURFACE GEAR AREA" spaced at a maximum interval of 300 feet, per State of Connecticut Department of Energy and Environmental Protection (CT DEEP) navigation agency requirement. The applicant will be required to obtain a marker permit from the CT DEEP Boating Division, Navigation & Boating Infrastructure Unit prior to installation of any gear. The applicant will also implement the Monitoring/Maintenance and Ice Contingency Plan included herein.

As proposed in the 2020/2021 growing season the project will possess 16 longlines, 256 buoys, 32 anchors, 24 aluminium spreader bars, 800 mussel socks and 9 aids to navigation.

The purpose of the proposed structures is to grow seaweed (kelp) and blue mussel as a harvestable seafood crop for human consumption and commercial distribution.

No compensatory mitigation is proposed as the project will not result in permanent modification to resource areas or aquatic habitat. The structures will be installed on an annual basis and monitored to ensure gear is maintained in configuration and properly tensioned. The entire area will be properly demarcated to ensure mariners are aware of the potential presence of gear in the water column.

AUTHORITY
Permits are required pursuant to:

__X_ Section 10 of the Rivers and Harbors Act of 1899
____ Section 404 of the Clean Water Act
____ Section 103 of the Marine Protection, Research and Sanctuaries Act.

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

ESSENTIAL FISH HABITAT
The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). Essential Fish Habitat describes waters and substrate necessary for fish for spawning, breeding, feeding or growth to maturity.

This project will impact Essential Fish Habitat (EFH) designated through the New England & Mid-Atlantic Fishery Management Councils. This habitat consists of subtidal bottom of sand-silt/clay. Up to 192 square feet of temporary obstruction or modification of subtidal habitat may adversely affect species that use these waters and substrate. However, the District Engineer has made a preliminary determination that the site-specific adverse effect will not be substantial. Further consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

NATIONAL HISTORIC PRESERVATION ACT
Based on his initial review, the District Engineer has determined that little likelihood exists for the proposed work to impinge upon properties with cultural or Native American significance, or listed in, or eligible for listing in, the National Register of Historic Places. Therefore, no further consideration of the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, is necessary. This determination is based upon one or more of the following:

a. The permit area has been extensively modified by previous work.
b. The permit area has been recently created.
c. The proposed activity is of limited nature and scope.
d. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area or general vicinity.

e. Coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer(s)

ENDANGERED SPECIES CONSULTATION
The Corps has reviewed the application for the potential impact on Federally-listed threatened or endangered species and their designated critical habitat pursuant to Section 7 of the Endangered Species Act as amended. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect a listed species or their critical habitat. We are coordinating with the NMFS and/or U.S. Fish and Wildlife Service on listed species under their jurisdiction and the ESA consultation will be concluded prior to the final decision.

COASTAL ZONE MANAGEMENT
The States of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved **Coastal Zone Management Programs**. Where applicable, the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

The following authorizations have been applied for, or have been, or will be obtained:
(X) Permit, License or Assent from State.
( ) Permit from Local Wetland Agency or Conservation Commission.
( ) Water Quality Certification in accordance with Section 401 of the Clean Water Act.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. Comments should be submitted in writing by the above date. If you have any questions, please contact Ms. Cori M. Rose at (978) 318-8306, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly to reach an understanding.

THIS NOTICE IS <u>NOT</u> AN AUTHORIZATION TO DO ANY WORK.

KOTELLY.KEVIN.R.12496 97431
Digitally signed by KOTELLY.KEVIN.R.12496 97431
Date: 2020.10.20 20:04:24 -04'00'

Kevin R. Kotelly, P.E.
Chief, Permits and Enforcement Branch
Regulatory Division

If you would prefer not to continue receiving Public Notices by email, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here ( ) and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: _____
ADDRESS: _____
PHONE: _____

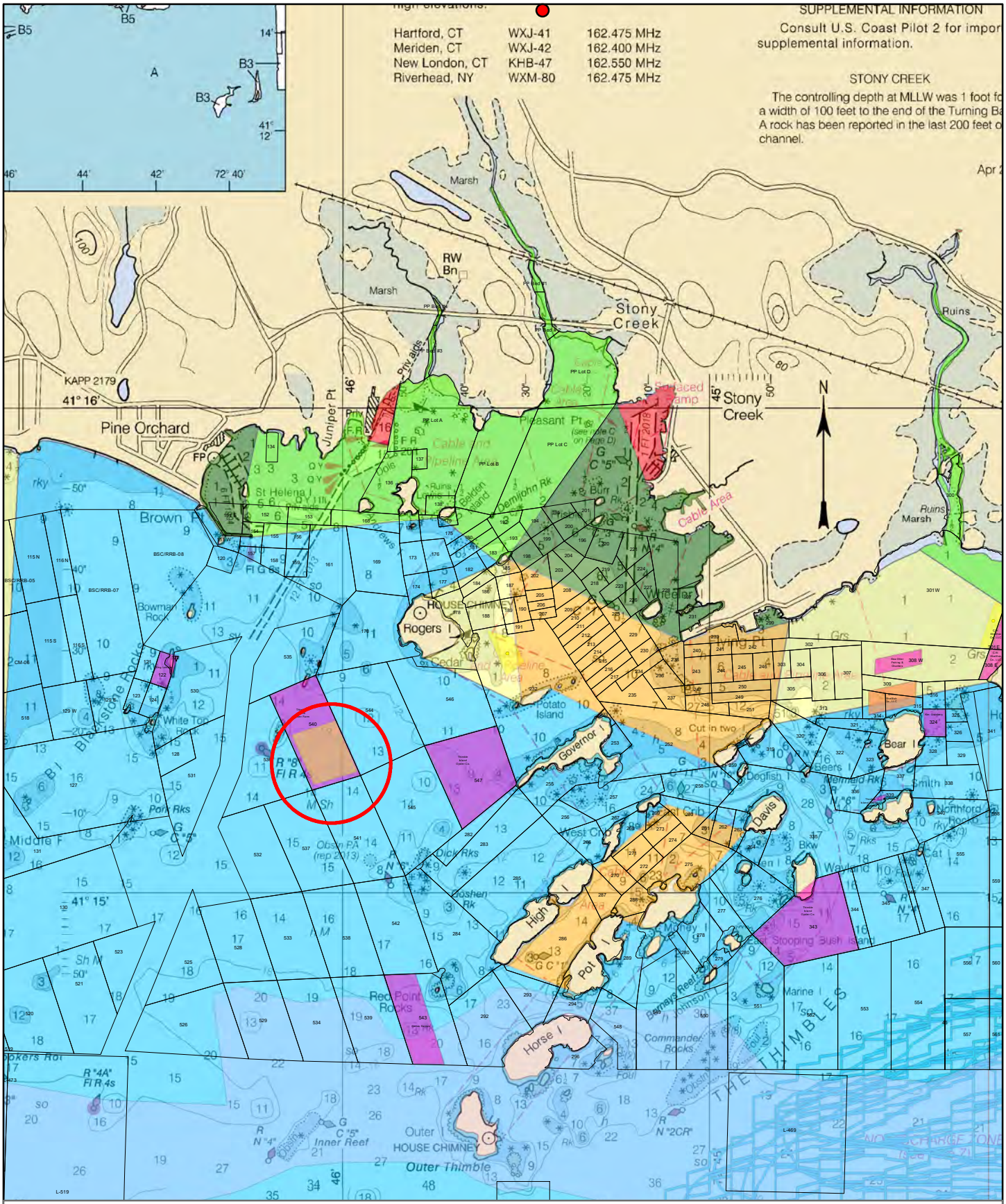
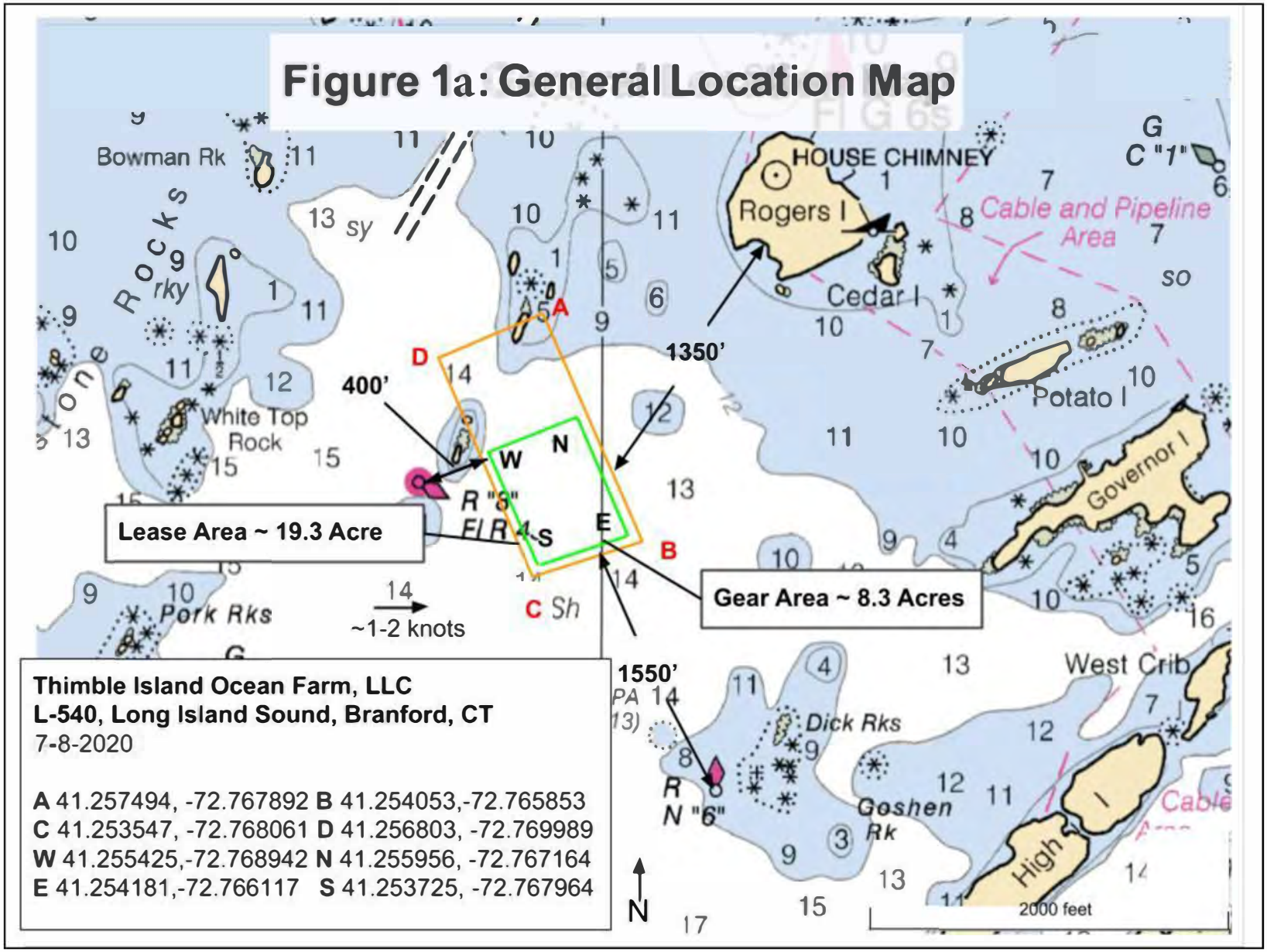

SUPPLEMENTAL INFORMATION
Consult U.S. Coast Pilot 2 for impor
supplemental information.
Hartford, CT WXJ-41 162.475 MHz
Meriden, CT WXJ-42 162.400 MHz
New London, CT KHB-47 162.550 MHz
Riverhead, NY WXM-80 162.475 MHz
STONY CREEK
The controlling depth at MLLW was 1 foot fc
a width of 100 feet to the end of the Turning Ba
A rock has been reported in the last 200 feet o
channel.
Apr 2
Marsh
RW
Bn
Stony
Creek
Ruins
KAPP 2179
41° 16'
Pine Orchard
Juniper Pt
Pleasant Pt
Stony
Creek
N
Brown Pt
Rogers I
Potato
Island
Governor I
Cut in two
Bear I
Davis
Dick Rks
Joshen
Rk
Red Point
Rocks
Horse I
Outer
HOUSE CHIMNEY
Outer Thimble
THE THIMBLES
Stooping Bush Island
Marine I
Commander
Rocks
41° 15'
Inner Reef
Cable Area
Thimble Island Oyster Farm
Bren Smith
Lot 540
9.1 acres
kelp longlines, mussel socks
Branford, CT
Fig. 1
Date: 5/20/2020
Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,000,000.0000
False Northing: 500,000.0000
Central Meridian: -72.7500
Standard Parallel 1: 41.2000
Standard Parallel 2: 41.8667
Latitude Of Origin: 40.8333
Units: Foot US
N
0 387.5 775 1,550 2,325 3,100
Feet
Legend
Shellfish_Bed_Commercial
Aqua Gear Area
AquaSites
RecreationalFishingActivity
Approved
Conditionally Approved Seasonal
Conditionally Approved
Restricted
Conditionally Restricted
Prohibited
DEEPTrawlSurveyTowPaths1995to2012

Figure 1a: General Location Map



Thimble Island Ocean Farm, LLC
L-540, Long Island Sound, Branford, CT
7-8-2020

A 41.257494, -72.767892 **B** 41.254053,-72.765853
C 41.253547, -72.768061 **D** 41.256803, -72.769989
W 41.255425,-72.768942 **N** 41.255956, -72.767164
E 41.254181,-72.766117 **S** 41.253725, -72.767964

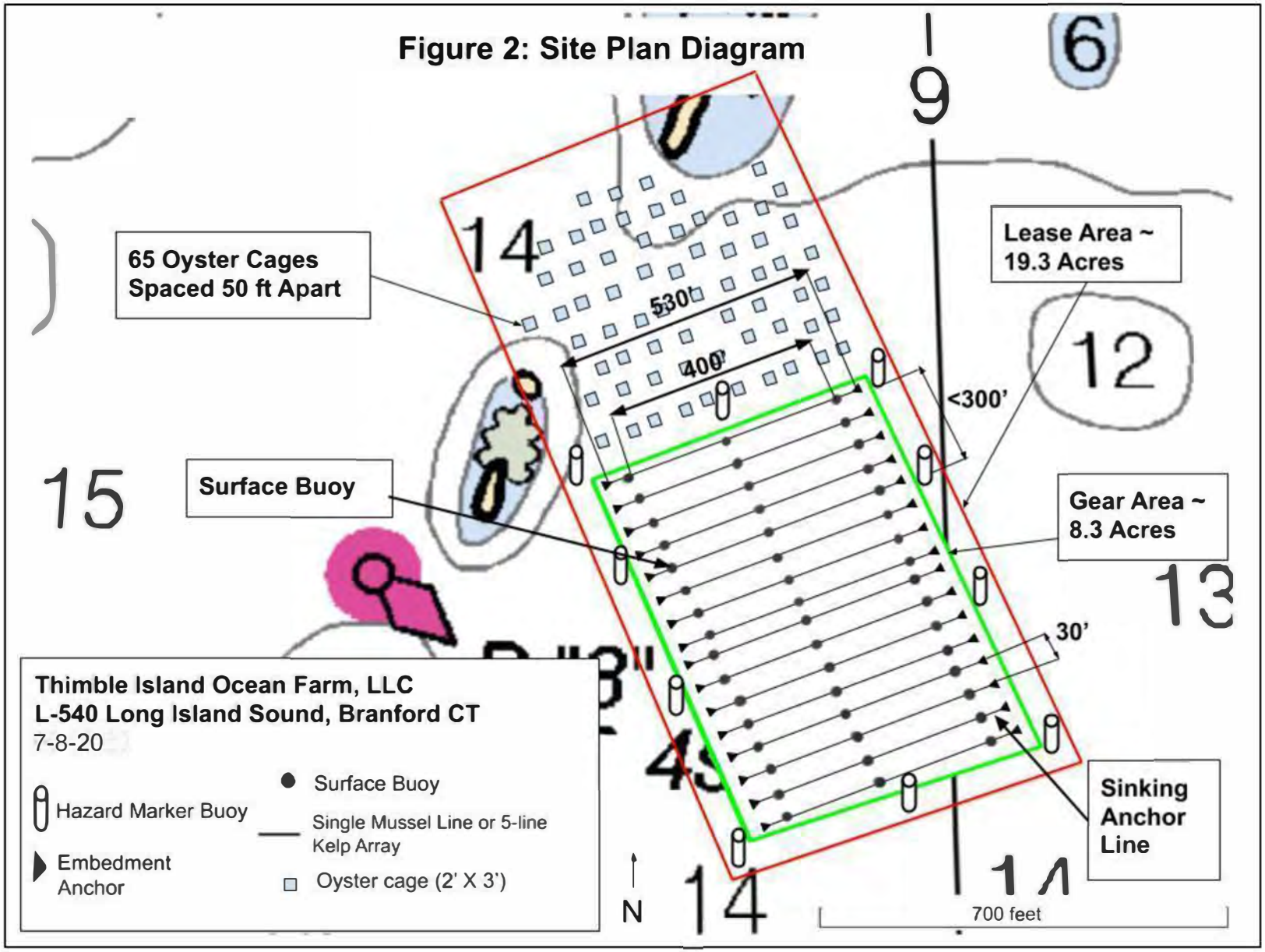
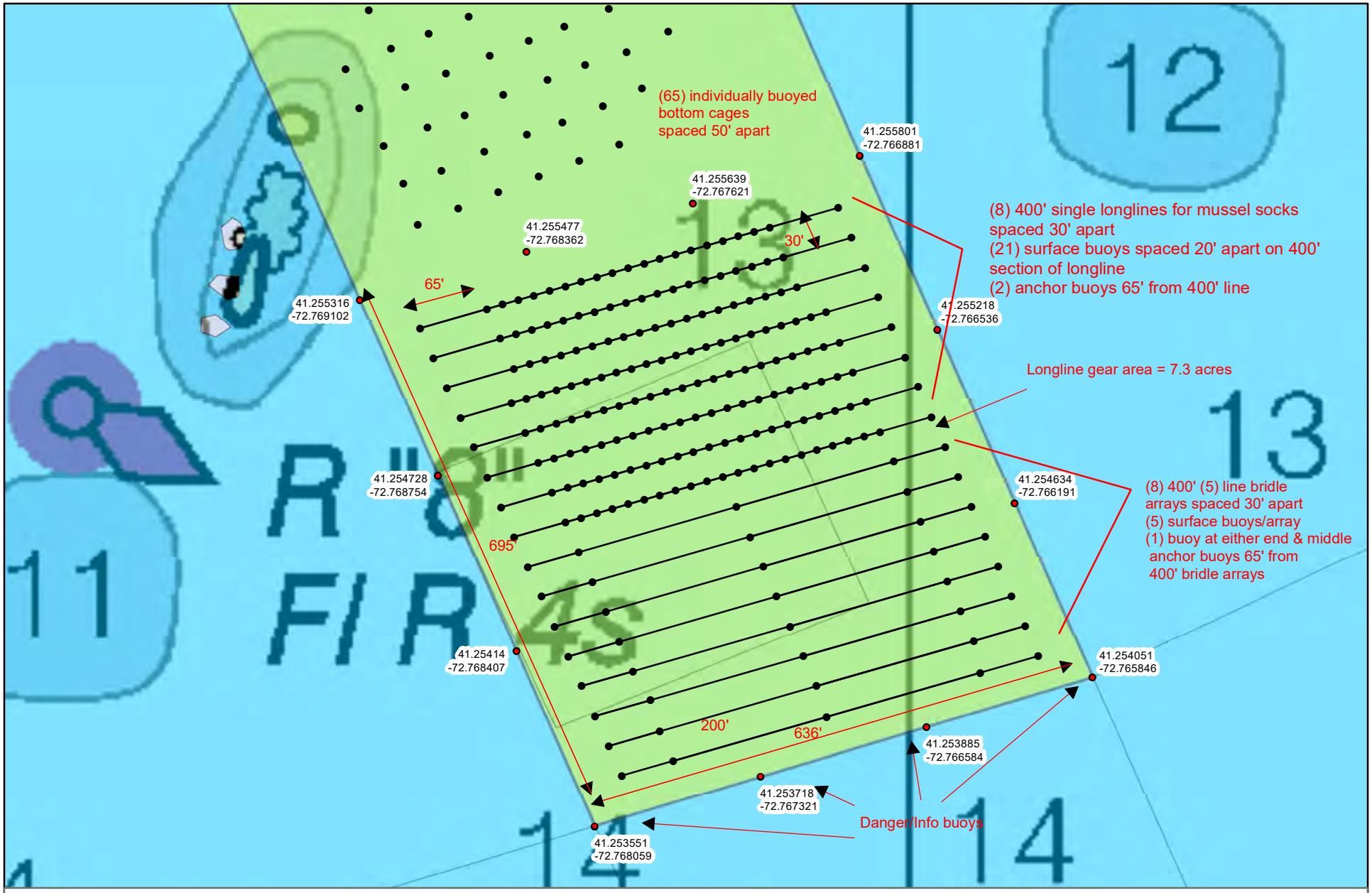


Figure 2: Site Plan Diagram
65 Oyster Cages
Spaced 50 ft Apart
Surface Buoy
Lease Area ~
19.3 Acres
Gear Area ~
8.3 Acres
Sinking
Anchor
Line
530'
400'
<300'
30'
14
15
12
13
9
6
Thimble Island Ocean Farm, LLC
L-540 Long Island Sound, Branford CT
7-8-20
Hazard Marker Buoy
Embedment
Anchor
Surface Buoy
Single Mussel Line or 5-line
Kelp Array
Oyster cage (2' X 3')
N
700 feet



Thimble Island Oyster Farm
Bren Smith
Lot 540
Branford, CT
19.3 acres
(16) longlines for kelp, mussel socks
Fig. 2a

Date: 8/3/2020

Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,000,000.0000
False Northing: 500,000.0000
Central Meridian: -72.7500
Standard Parallel 1: 41.2000
Standard Parallel 2: 41.8667
Latitude Of Origin: 40.8333
Units: Foot US

N

0 37.5 75 150 225 300 Feet

Legend

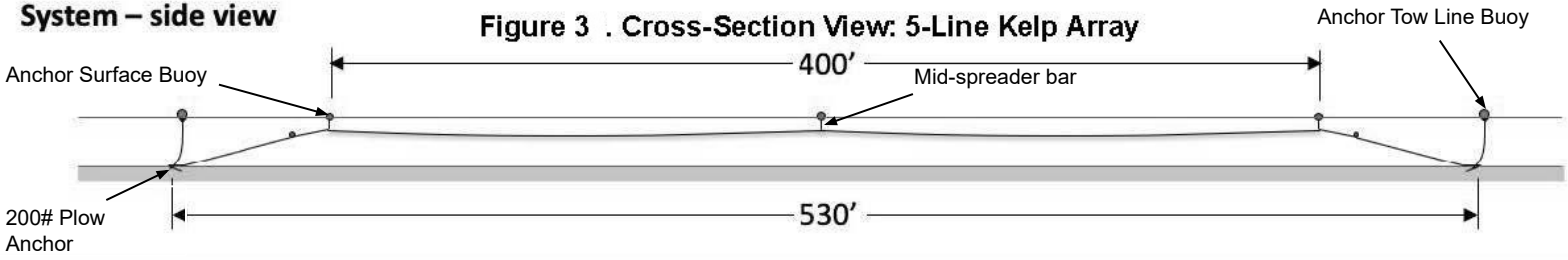
- AquaGearArea
- GearCornersApp
- kelp_config
- line_config

Shellfish_Class_Poly

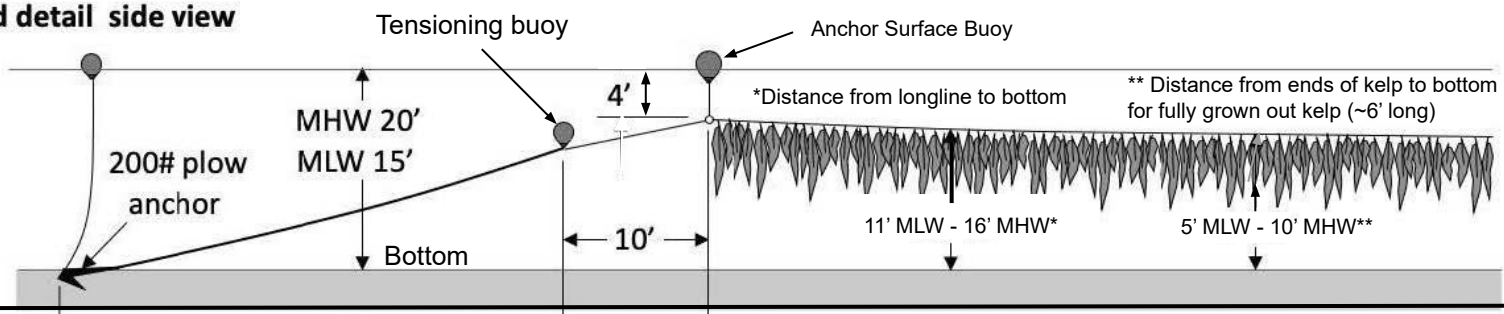
- Approved

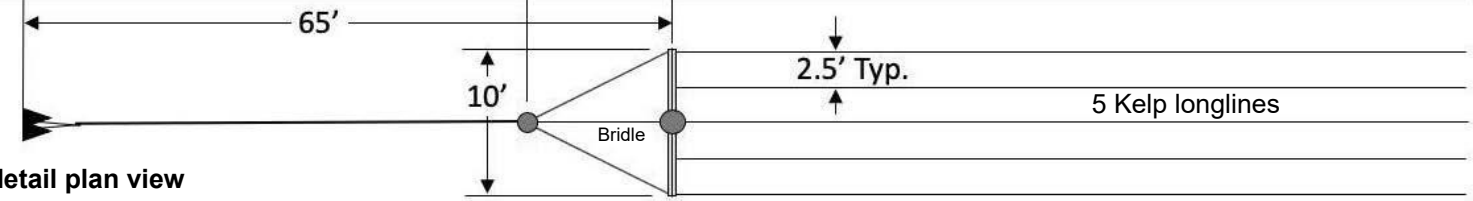
System – side view

Figure 3 . Cross-Section View: 5-Line Kelp Array



End detail side view



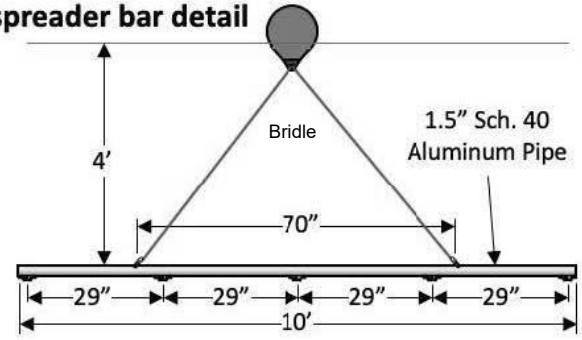


End detail plan view

Material list

Item	Description	Length	Item	Description
Anchor line	7/8" Nylon braid	55'	Mooring buoy	Polyform A-4
Spreader bridles	1/2" Nylon	10'	Mid buoy	Polyform A-3
Buoy bridles	3/8" Hydropro	5'	Tensioner buoy	Polyform A-3
Growlines	5/16" Hydropro	400'	Anchors	TendOcean 200# (30k lbs holding power)

Mid-spreader bar detail



TendOcean™

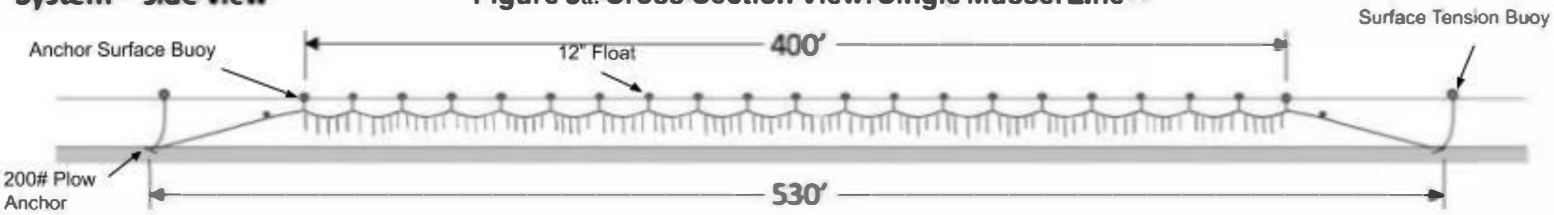
GreenWave

L-540 5-line Kelp Array

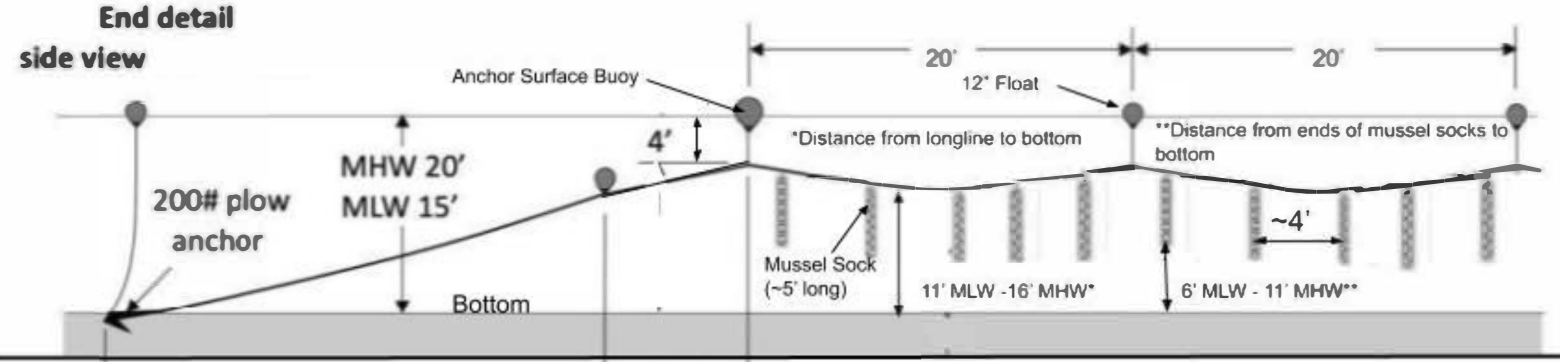
Date:	7/8/20
For:	GreenWave, Branford, CT
Drawn by:	C.A. Goudey
Checked by:	

System – side view

Figure 3a. Cross Section View: Single Mussel Line



End detail side view



End Detail Plan view

Material list

Item	Description	Length	Item	Description
Anchor line	7/8" Nylon braid	55'	Mooring buoy	Polyform A-4
Anchor line ext.	7/8" Nylon braid	10'	Tensioner buoy	Polyform A-3
Anchor buoy pennant	1/2" Hydropro	5'	Mussel buoy	Polyform A-3
Main line	1/2" Hydropro	400'	Mussel buoy line	3/8" Hydropro
Anchors	TendOcean	200# (30k lbs holding power)		

TendOcean™

GreenWave

L-540 Single Mussel Line

Date: 7/8/20

For: GreenWave , Branford, CT

Drawn by: C.A. Goudey

Checked by:

Attachment B

Photo #1: Underwater image of a 5-Line array. The 5 kelp longlines are attached to the 10' spreader bar in the background of the photo.

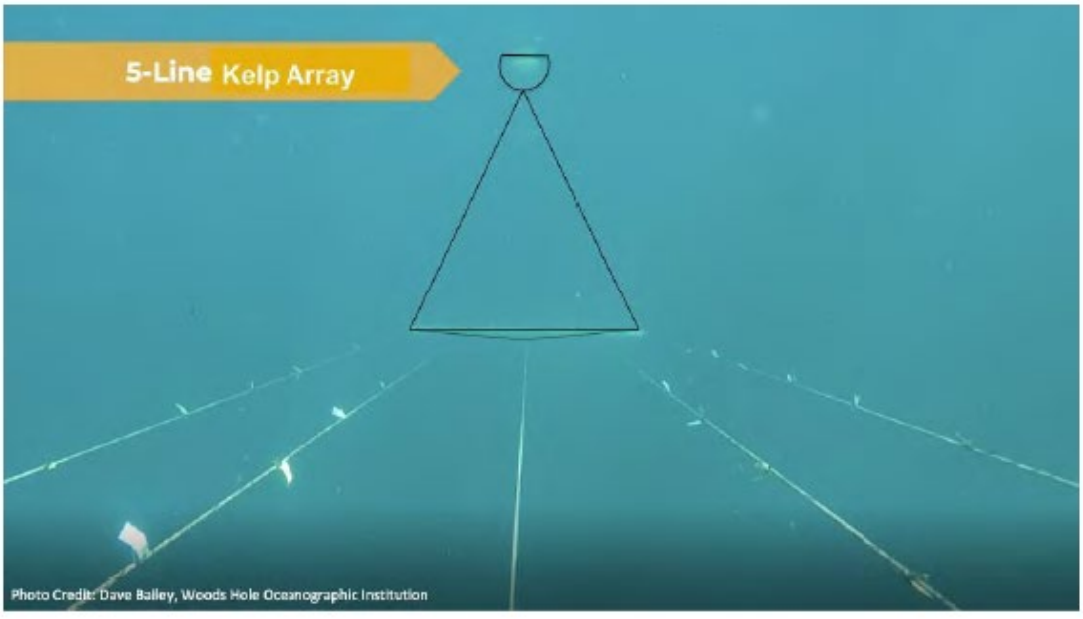


Photo #2: Underwater image of the 5-Line with surface buoy and bridle system highlighted in black.

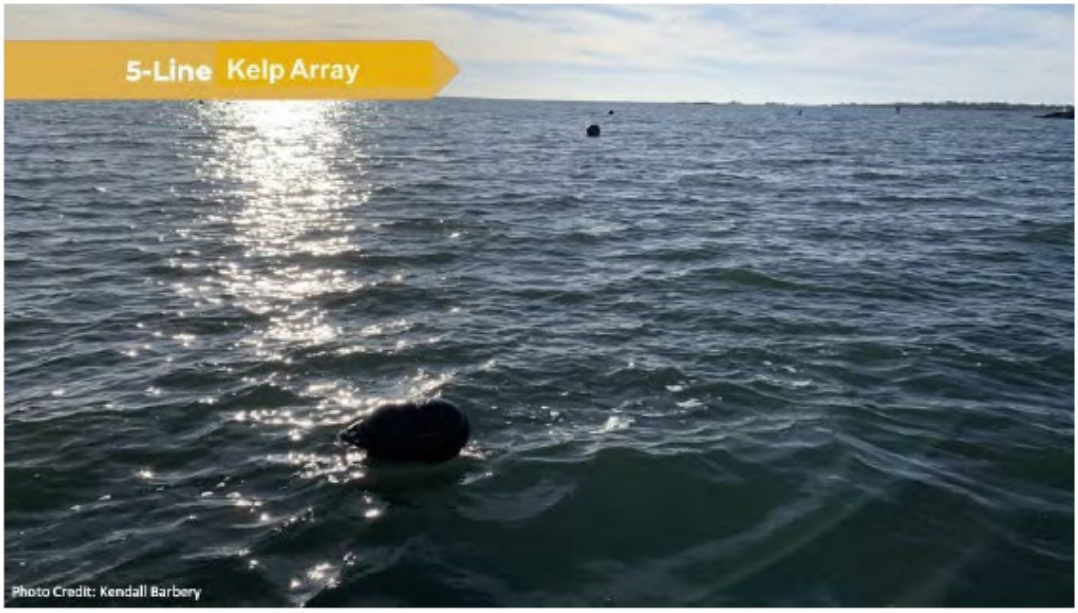


Photo #3: An image of the 5-Line array at the surface of the water. Fewer buoys on the array minimize the visual impact at the surface.

Photo #4: Mussel socks hung on a longline being pulled above the surface to inspect.

Photo #5: A 200-pound embedment anchor suspended and waiting to be deployed

Monitoring/Maintenance and Ice Contingency Plan
Thimble Island Ocean Farm – L-540 Branford, Connecticut
October 2, 2018

Introduction

The Monitoring/Maintenance and Ice Contingency Plan (the Plan) for the Thimble Island Ocean Farm (TIOF) will assure that any gear related issues are identified and remedial measures to correct the issues are implemented in a timely manner during the kelp growing season. TIOF has a full time Farm Manager whose responsibility is to implement the Plan.

United States Coast Guard Local Notice to Mariners Information Form

The attached USCG Local Notice to Mariners Information Form will be filled out and submitted to the USCG at least two weeks prior to installation of the gear.

Gear Monitoring and Maintenance

All kelp long lines and hazard buoys will be inspected at least once a week during the kelp growing season. The weekly inspections will include checking:

- kelp line connections to the mooring buoys
- kelp line float connections
- kelp seed line connections
- hazard marker buoys connections
- hazard marker buoy locations

The results of the weekly monitoring and maintenance inspections will be recorded in a log that includes the name of the person conducting the inspection, date of inspection, any gear issues identified and corrective measures taken. An example of the monitoring and maintenance log is attached. If any gear is missing and not immediately located an Aquaculture Gear Recovery Form will be submitted to the United States Army Corps of Engineers (USACE). A copy of this form is attached.

Ice Contingency Plan

An Ice Contingency Plan will be implemented during times of ice to ensure that the farm does not shift in a severe ice event. The Ice Contingency Plan includes the use of spar buoys (winter moorings) in place of traditional round buoys. Spar buoys have proven effective for decades in mooring fields during winter. Based on our experience on TIOF, it is important to have an alternative buoy system ready to deploy as a risk mitigation strategy.

Yearly Monitoring and Maintenance Report

At the end of the kelp growing season a Monitoring and Maintenance Report will be submitted to the USACE. The Monitoring and Maintenance Report will include the weekly logs compiled on a monthly basis and if needed the Aquaculture Gear Recovery Forms.

Attachments

USCG Local Notice to Mariners Information Form

Monitoring and Maintenance Log

Aquaculture Gear Recovery Form

Homeland Security

U.S. COAST GUARD

First Coast Guard District

LNM Information Form

DATE: _____

NAME: _____

PHONE NUMBER: _____

EMAIL ADDRESS: _____

COMPANY NAME: _____

TYPE OF WORK: _____

_____

LOCATION WHERE WORK WILL BE DONE: _____

_____

LAT/LONG: (degrees, minutes, seconds & thousandths) _____

_____

BEGINNING/ENDING DATES: _____

HOURS OF OPERATION: _____

EQUIPMENT ON SCENE: _____

_____

RADIO FREQUENCY VESSELS CAN BE CONTACTED ON (IF USED): _____

_____

PASSING ARRANGEMENTS/Time to move vessels to not impede navigation: _____

Pease fax form two weeks before the work is to begin to: Mary Swanson @ 617-223-8094 or email: lnm@uscg.mil . The LNM (Local Notice to Mariners) can be found on the following website: http://www.navcen.uscg.gov

September 2018					
Date					
Name					
Kelp Line					
Connections	☐	☐	☐	☐	☐
Location	☐	☐	☐	☐	☐
Floats					
Connections	☐	☐	☐	☐	☐
Location	☐	☐	☐	☐	☐
Seed Line					
Connections	☐	☐	☐	☐	☐
Marker buoys					
Connections	☐	☐	☐	☐	☐
Location	☐	☐	☐	☐	☐
Identified Issue and Corrective Measure Taken					
Identified Issue and Corrective Measure Taken					
Identified Issue and Corrective Measure Taken					
Identified Issue and Corrective Measure Taken					
Comments					