Commonwealth of Massachusetts

Division of Marine Fisheries

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Commissioner
Mary-Lee King
Deputy Commissioner

6/6/2018

PUBLIC HEARING NOTICE:

Public Comment and Hearing Regarding Proposed Special Permit for Commercial Kelp Longline Culture in Nantucket Sound off Harwich, MA

Public Comment period June 6, 2018 - July 6, 2018

Public Hearing June 27th, 2018 6pm at the Chatham Community Center 702 Main Street Chatham, MA 02633

The Division of Marine Fisheries (DMF) has scheduled a public hearing and comment period to accept comments on a special permit application to commercially culture Sugar Kelp (Saccharin latissimi) in the waters of Nantucket Sound off Harwich, MA. The proposed project consists of the seasonal deployment from October 1 to May 15 of a total of 3 anchor held 150-200 ft. horizontal longlines at two locations covering approximately .25 acres. Submerged horizontal lines would be deployed a minimum of 7 feet below the surface with intermittent buoys for line suspension and navigational aids to mark the project boundaries. Horizontal lines are proposed to be placed at the sites not before October 1 and removed by May 15 annually.

DMF will review comments to evaluate stakeholder concerns about the proposed project and to determine if modifications to location, gear marking, and gear design, or other features of the project, may be warranted. Written public comments will be accepted until 5:00 PM on July 6th and a public hearing will be held on June 27th at 6PM at the **Chatham Community Center 702 Main Street Chatham, MA 02633.** Please address all comments to Director David Pierce. Comments can be sent by e-mail to marine.fish@state.ma.us or by mail to 251 Causeway Street, Suite 400, Boston, MA 02114.

A full copy of the permit application can be found on DMF's website or can be obtained by contacting Jared Silva by phone (617-626-1534) or through e-mail (jared.silva@state.ma.us).

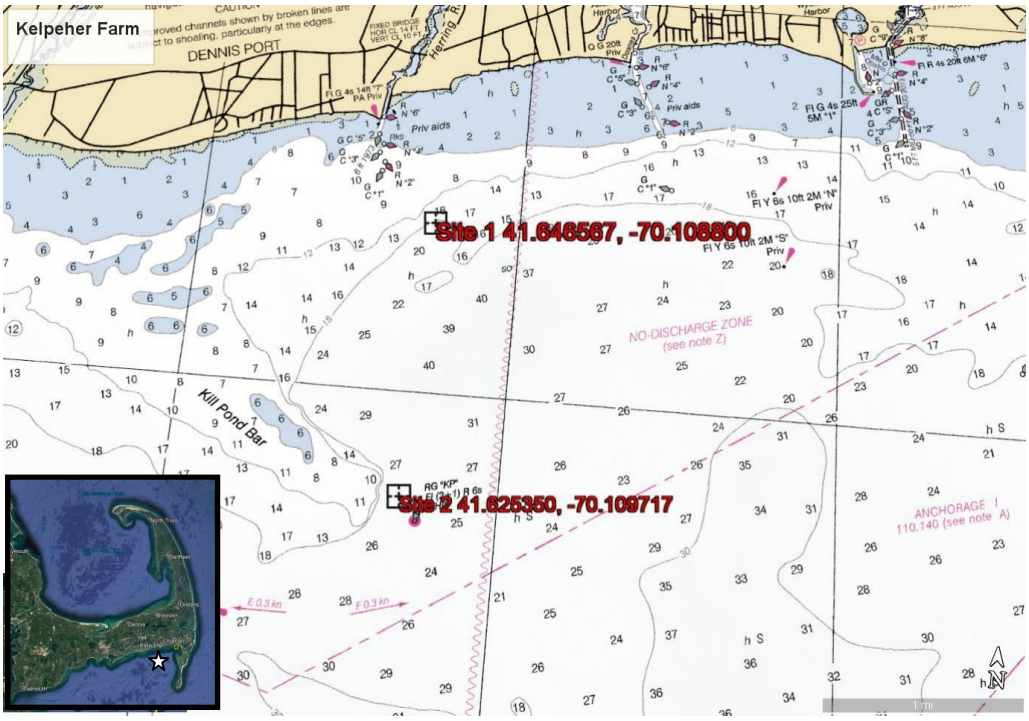
DMF Commercial Aquaculture Application
Mark Kelleher
22 Gordon Ritchie Road
West Harwich, MA 02671

Mark Kelleher DBA Kelpeher Farms- has submitted an application for a Class 4 Type 2 DMF aquaculture permit from The Massachusetts Division of Marine Fisheries pursuant to G.L. 130.

DMF project review will be conducted consistent with the requirements under 322 CMR 15 for Class 4 Type 2 aquaculture permits. Applications for Class 3 and 4 open-water aquaculture permits are subject to a state-wide public comment period, and are reviewed by the Division and cooperating agencies to determine if adverse impacts are likely to occur at the proposed site as a result of the operation of the permit. Topics for evaluation include, but are not limited to the following: (a) Water quality and hydrology; (b) Exposure/suitability of proposed structures; (c) Shellfish habitat and growing area classification; (d) Benthic habitat conditions; (e) Submerged aquatic vegetation; (f) Endangered species / marine mammals; (g) Competing uses of the area; (h) Wild fisheries; (i) Navigation; (j) Access to site. DMF is coordinating with cooperating agencies and the general public. Complete project review will be concluded prior to the Director's final determination on the issuance of a permit.

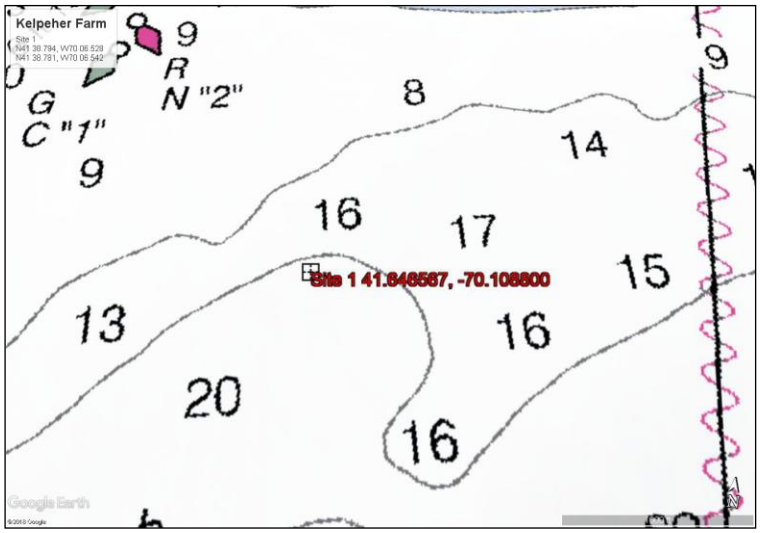
Purpose: To commercially culture endemic Sugar Kelp (Saccharin latissima) at 2 sites located in the waters of Nantucket Sound off in Harwich, MA.

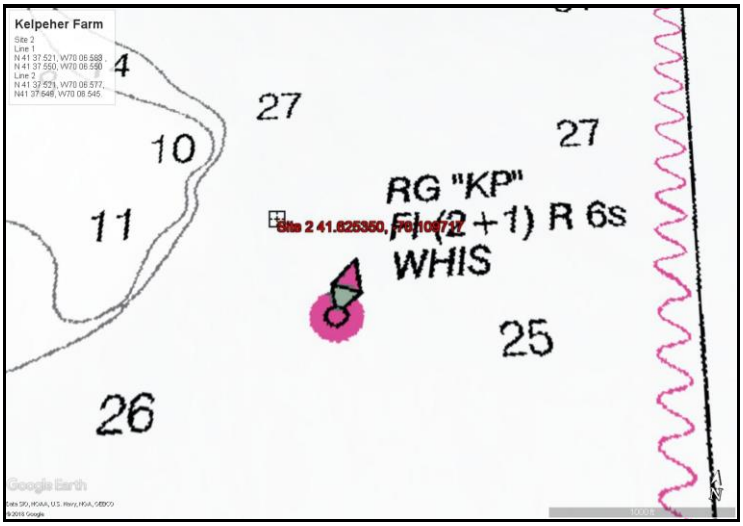
Location: The proposed sites are located in the waters of Nantucket Sound. Work will be conducted on two sites. Site 1 is approximately .8 acres in size, site 2 is approximately .15 acres in size.



Site Boundaries:

Site 1: NORTH LATITUDE N41 38.794 N41 38.781	 WEST LONGITUDE -70 06.528 -70 06.542
Site 2: NORTH LATITUDE N 41 37.521 N 41 37.550 N 41 37.521 N41 37.549	 WEST LONGITUDE -70 06.583 -70 06.550 -70 06.577 -70 06.545





Proposed Activity:

The work involves the annual deployment from October to May of a total of 3 anchor held 150-200 ft. horizontal longlines at 2 sites. Individual kelp lines will consist of two moored vertical lines with a 150- 200 ft. horizontal line suspended between the moorings. Horizontal lines would be deployed a minimum of 7 feet below the surface with intermittent buoys for line suspension and navigational aids to mark the project boundaries. Seeded kelp lines will be attached to the horizontal line. Horizontal lines are proposed to be placed at the sites in October 1 and removed by May 15 annually.

Mark Kelleher
DBA Kelpeher Farms
22 Gordon Ritchie Rd.
West Harwich, MA. 02671

May 1, 2018

Mr. Chris Schillaci
Aquaculture and Vibrio Specialist
Massachusetts Division of Marine Fisheries
1213 Purchase St. 3rd floor
New Bedford, Ma.

Dear Mr. Schillaci,

Attached is the information related to my request to determine the feasibility of growing sugar kelp for commercial production at two locations off Harwich, MA from October 2018 until May 2019 and for future years.. The optimum time for growing sugar kelp is Mid- October to early May which should cause a minimal interference with other marine uses and recreational boaters.

The proposed sites are located to the south of the mouth of Herring River and west of the KP buoy--approximately .5 miles apart. Location #1 (near the mouth of Herring River) is 1-250 ft array and is at N41 38.794, W 0 06.528 and N41 38.781, W70 06.542. Location #2: (2-250 ft. arrays) is: N41 37.521, W70 06.583 and N41 37.521, W70 06.577

To my knowledge this is outside transit channels from any of the town harbors including Allens, Wychmere and Saquatucket Harbors. Based on the most recent data obtained from NOAA charts #13237 and #13246, these are areas of 24-39 ft depth with sandy substrate and may be suitable for growing sugar kelp. I have made a public presentation to the Harwich Conservation Commission and met with the harbormaster. They are both supportive of my efforts at establishing kelp farming in Harwich. (see attached)

Array #1 consists of one 250′ horizontal longlines and array #2 consists of two- 250 ft lines with each seven to eight feet below the water surface, attached on either end to vertical mooring lines and anchors. The horizontal longline will be suspended at depth by four floatation buoys. Deployment would be in the .October-November time frame and harvest would be in late April to early June. All horizontal lines will be removed by June 15th.

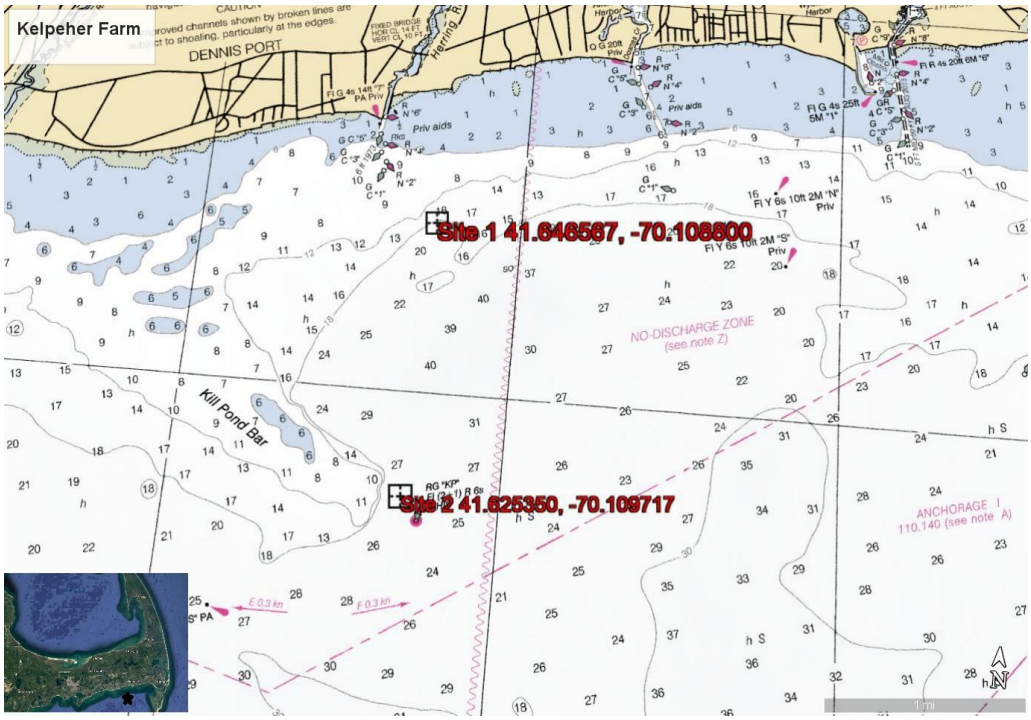
Please feel free to contact me should you have any questions. Thank you for your consideration.

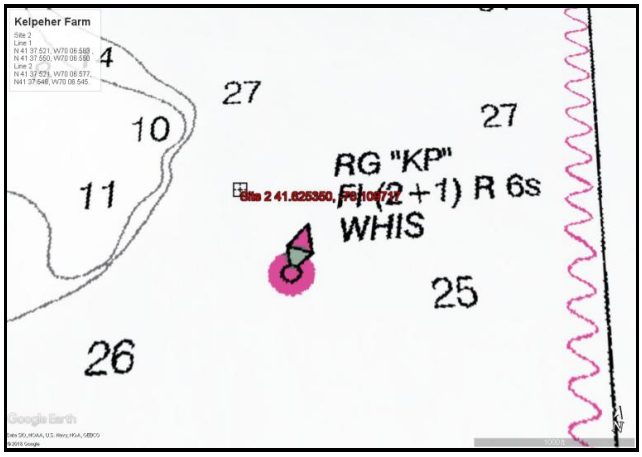
Sincerely,

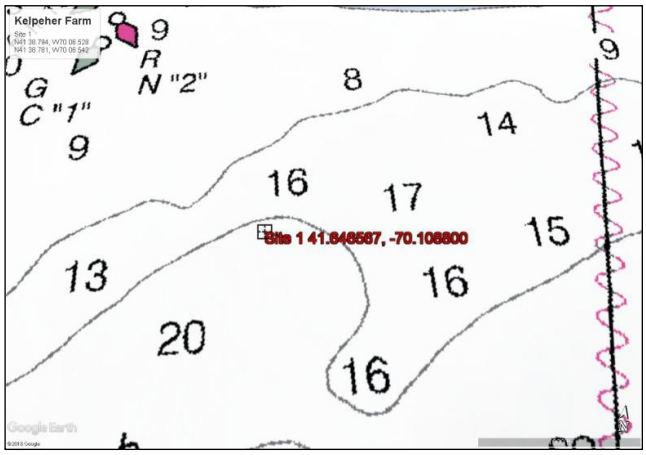
Mark Kelleher
dba Kelpeher Farms

DMF Commercial Aquaculture Application
Mark Kelleher
22 Gordon Ritchie Road
West Harwich, MA 02671

1. Site Plan: I am proposing two locations primarily to see if different yields occur based on proximity to the Herring River or out in the open sound close to the KP buoy. Also, to insure that the pilot project yields data in case of damage to one of the arrays. The proposed locations are detailed on the maps below.







2. Geophysical site characteristics:

a. Bottom Characteristics- The bottom in the proposed site areas is sand.

b. Approximate Depths- The depth at location #1 is approximately 23 feet at low tide and 28 feet at high tide. Location #2 The approximate depth at low tide is 26 feet and 30 feet at high tide.

c. Topography- Gently sloping topography. The site follows the contour line of 24 ft at location #1. At location #2 the bottom slopes gently west from 26 ft. to an 8 foot depth at Kill Pond Bar.

d. Flora and Fauna-The bottom is primarily sand. The presence of seaweed cultivation in this area will provide additional structure and shade for a diverse array of species including juvenile fish, small invertebrates, diving birds, etc. Seaweeds provide excellent shelter and juvenile habitat.

e. Approximate Current Speed and Direction- The current in the proposed lease site area runs east as the tide recedes and west as high tide approaches. The current runs at flood at approximately 0.2 knots to .3 knots depending on the state of the tide. (Harwich Harbormaster Emergency Rescue Current Planner)

f. The General Shoreline and Upland Characteristics- The proposed sites are adjacent to typical Cape Cod shorefront; single family homes with occupancy primarily in the summer months. I will be employed by ARC (Aquacultural Research Corporation) working at the upwelling building on Herring River starting this June which is the nearest abutter to the arrays. I have spoken to a weir fisherman (Ernie Eldridge) who stated that the arrays would be west of his traps and would not be an interference to him. The seasonality of the operation should limit impacts to conch fishermen and commercial and recreational fishing.

3. Benthic habitat conditions

a. Bottom is primarily sandy bottom with large amounts of codium surface seaweed during summer months.

b. Presence and Extent of Submerged Aquatic Vegetation- Based on the 2010 and 2013 DEP seagrass layers there is no eelgrass within proximity to the proposed sites. In the 2001 DEP Seagrass layer, the nearest mapped eelgrass habitat is located ~600ft from Site 1. The placement of site 1 at the 20’ contour should also ensure there is no overlap as all mapped SAV is located in shallower waters.

4. Proposed species, quantities and density

Species: Sugar kelp (Saccharina latissima)
Quantities: Location #1: 1-250 ft line Location #2 2-250 ft lines. The two 250 lines are to gain field experience for future farm expansion.
Density: Spool lengths will be 200 ft.

5. Proposed physical structures:
The proposed pilot program design is made up of three components:

a. Moorings and ground tackle: A mooring system is deployed at each end of a long line. Mooring system consists of concrete blocks with a chain holdfast set in the concrete. There will be two anchors of 160 lbs. weight for a total of 300 lbs at each terminal point. The anchors will be composed of concrete in a dor-mor cylindrical shape. This anchoring system was chosen in order to make project costs economical as well as suited for a sandy bottom.

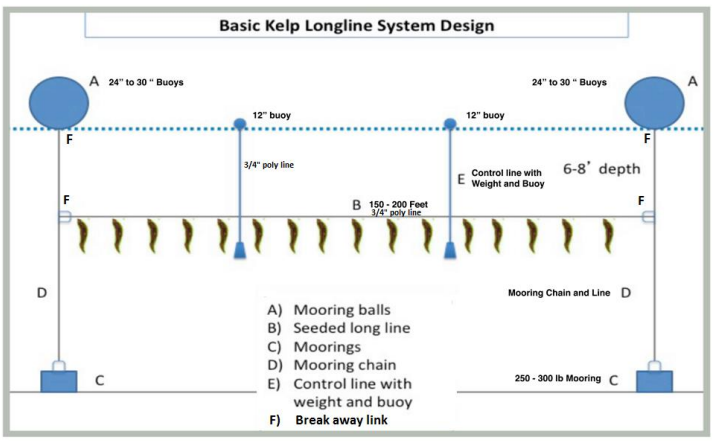
b. Long Lines: [½ inch sinking line, 16 inch white flotation buoy at each end of line, 12 inch black flotation buoys at 40-50 ft. intervals).

c. Depth Maintenance system :The proposed pilot array will consist of two parallel longlines suspended seven to eight feet below the surface and attached at each end to vertical mooring lines, concrete anchors, and mooring buoys. The longlines will be suspended at depth by four 12" flotation buoys spaced approximately 50 feet apart.

d. Materials:
2-160 lb or 1 250-330lb concrete dor-mor cylindrical anchors at the end of each line
16 inch white mooring buoy at terminal points of each line
12 inch black flotation buoys per 40-50 ft of line
12 inch standard can navigation buoy with hazard warning, radar reflectors for each corner
600-1,100 lb break away link
Weights for control line

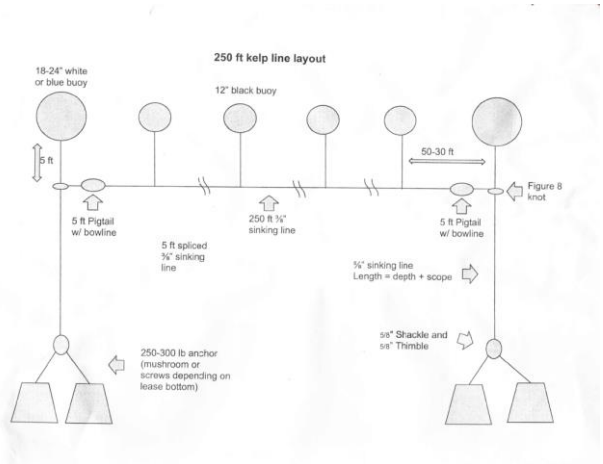
Kelp Line Schematics:

Option 1

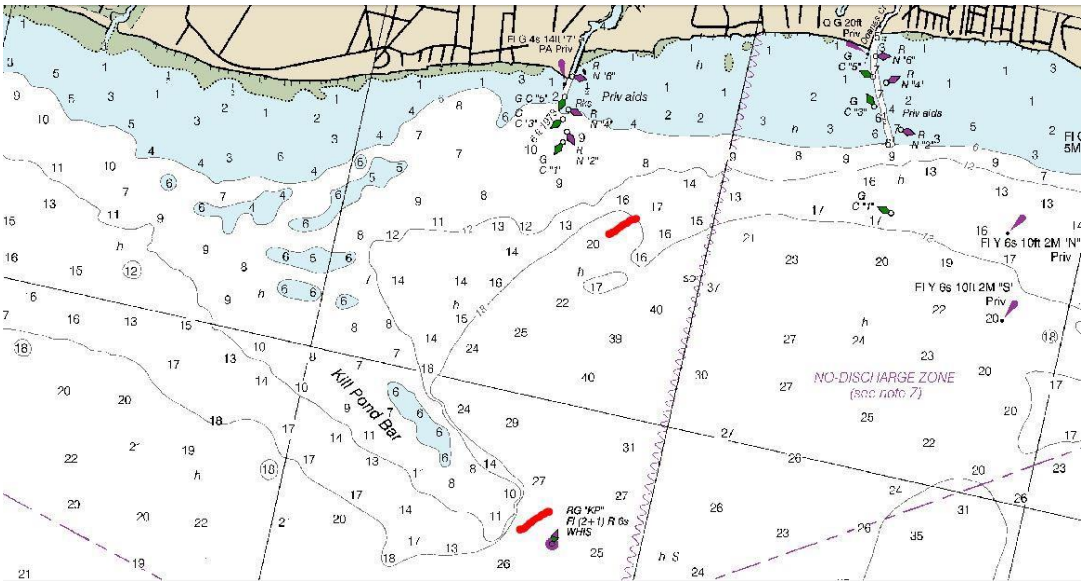


Kelp grow-out line set-up

Option 2



Kelp Line Orientation on Sites



6. Operational plan (Deployment dates, species, harvest dates and methods)

a. Seed kelp source will be from a DMF approved dealer.

b. Deployment date will be October 1 to November 15. Anchors, mooring buoys and navigation markers will be deployed in early October. Horizontal longlines will be deployed 3-5 days before seeding- at first available weather window. Kelp out planting will occur upon availability from the hatchery- between mid-October and mid-November.

c. The sites will be monitored weekly within the first 30 days of gear deployment. Site visits will be made bi-weekly following 30 days of successful deployment of gear. Site visits may be postponed by inclement weather.

Harvest Date: May 15 to June 15 with all horizontal lines removed by June 15.

Harvest Method: The kelp will be harvested by lifting the long line to the surface and cutting the kelp at the intersection of the hold fast and the stipe, stripping the kelp from the line. Equipment for harvesting will be a 20 ft boat owned by Kelpeher, or in the case of large harvests, a barge owned by AGL Mooring Co.

7. Habitat Degradation Issues and Consideration of Alternatives

Since the sea bottom is primarily sand, no degradation to bottom is anticipated.

A. To prevent issues related to interactions between marine protected species and deployed gear the following measures will be taken:

   a. Buoys used as corner markers will be attached to anchored vertical lines with a 600 lb. breakaway link or rope of appropriate breaking strength. Surface buoys used for buoyancy will be attached with a maximum 1100 lb. breakaway link or rope of appropriate breaking strength.

b. Subsurface horizontal lines will be attached to vertical lines with a maximum 1100 lb. breakaway link or rope of appropriate breaking strength.
c. All ropes > 20ft in length will be marked with a white, yellow and black marker (each color will be 6" in length for a total mark of 12") consistent with the methods of marking aquaculture gear prescribed in the Atlantic Large Whale Take Reduction Plan. Lines must be marked in the middle.

B. To prevent impacts to submerged aquatic vegetation the following measures will be taken:

    a. Anchors or any gear will not be placed within 75'of eelgrass.

C. To prevent issues related to interactions between commercial and recreation fishing activities the following measures will be taken:

    a. If the Harwich Shellfish Department or Division of Marine Fisheries identifies that commercially significant numbers of shellfish have settled on the sites or portions thereof, I will make accommodations to allow access for harvest.

D. To prevent issues with navigation the following measures will be taken

    a. Horizontal lines will not be deployed prior to October 15 and will be removed prior to May 15.
    b. Horizontal lines will be suspended a minimum of 7' below the surface.
    c. The four corners of each site shall be delineated with buoyed lines. Each buoy shall be marked in figures at least four inches in height in a conspicuous place with the permit number.

8. Disposal plans:

a. All of the sugar kelp will be sold to an approved buyer. Any material not sold will be disposed of in an approved land based disposal facility.