



**David E. Pierce, Ph.D.**  
*Director*

# *Commonwealth of Massachusetts*

## **Division of Marine Fisheries**

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**9/10/2019**

### **PUBLIC COMMENT PERIOD NOTICE**

#### **Public Comment Sought Regarding a Request for an Amendment to a Special Permit for Commercial Kelp Longline Culture in Nantucket Sound off Harwich, MA**

**Public Comment period September 10, 2019 – October 2, 2019**

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The Division of Marine Fisheries (DMF) has scheduled a comment period to accept comments on a request for an amendment to a special permit authorizing the commercial culture Sugar Kelp (*Saccharina latissima*) in the waters of Nantucket Sound offshore from the Herring River in West Harwich, MA. Currently the permit authorizes the seasonal deployment from October 1 to May 15 of a total of 2 anchor held 250 ft. horizontal longlines covering approximately 0.5 acres. Submerged horizontal lines are required to 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 placed at the sites not before October 1 and removed by May 15 annually.

The permit holder is requesting to relocate the line approximately 1500 feet to the northwest of the currently permitted location. No other aspects of the project are proposed to change.

DMF will review comments to evaluate stakeholder concerns about the proposed amendment to determine if modifications may be warranted. Written public comments will be accepted until 5:00 PM on October, 2. Please address all comments to Director David Pierce. Comments can be sent by e-mail to [marine.fish@state.ma.us](mailto:marine.fish@state.ma.us) or by mail to 251 Causeway Street, Suite 400, Boston, MA 02114.

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

July 8, 2019

TO: Chris Schillaci, Division of Marine Fisheries  
New Bedford, Ma

Christine Jayzek, Army Corps of Engineers.

Harwich Conservation Commission  
John Rendon, Harwich Harbormaster

FROM: Mark Kelleher  
Kelpheher Farms  
22 Gordon Ritchie Rd.  
West Harwich, Ma. 02671  
508.353.1161

Kelpheher Farms is proposing to maintain the existing <1 acre sized kelp permit but move the location closer to shore and the outflow from the Herring River. For the 2019-2020 season I plan to install up to two (2) 250 ft long lines with sugar kelp. See attached map for the location.

**Background Information: (Existing permit 2018-2019)**

- Permitted by the Division of Marine Fisheries, Army Corps of Engineers, Ma. DEP
- Reviewed by Harbormaster, Waterways Commission, Conservation Commission, Indian and tribal, historical artifacts commissions.
- Harwich has 5600 acres within 3 mile limit
- Weir and conch fisheries also use area
- Town aquaculture regs would reduce permitting process

**Location:**

The proposed location is approximately .6 miles off the entrance to the Herring River in West Harwich, Ma. The site is approximately .5 acres in size. The dimensions are 250 ft by 60 ft and the perimeter is approx. 600 feet.

**Location coordinates:**

41.650134, 70.105975

41.650134, 70.105031

41.649974, 70.106030

41.649942, 70.105031

**Kelpheer Farms Permit Application**

HORIZONTAL DATUM  
horizontal reference datum of this chart is International Datum of 1983 (IADN 83), which becomes exposed. Mariners should use extreme caution when operating vessels in depths of anchored, or docked without a permit disabled to prevent the overboard discharge (treated or untreated) or install a holding tank.

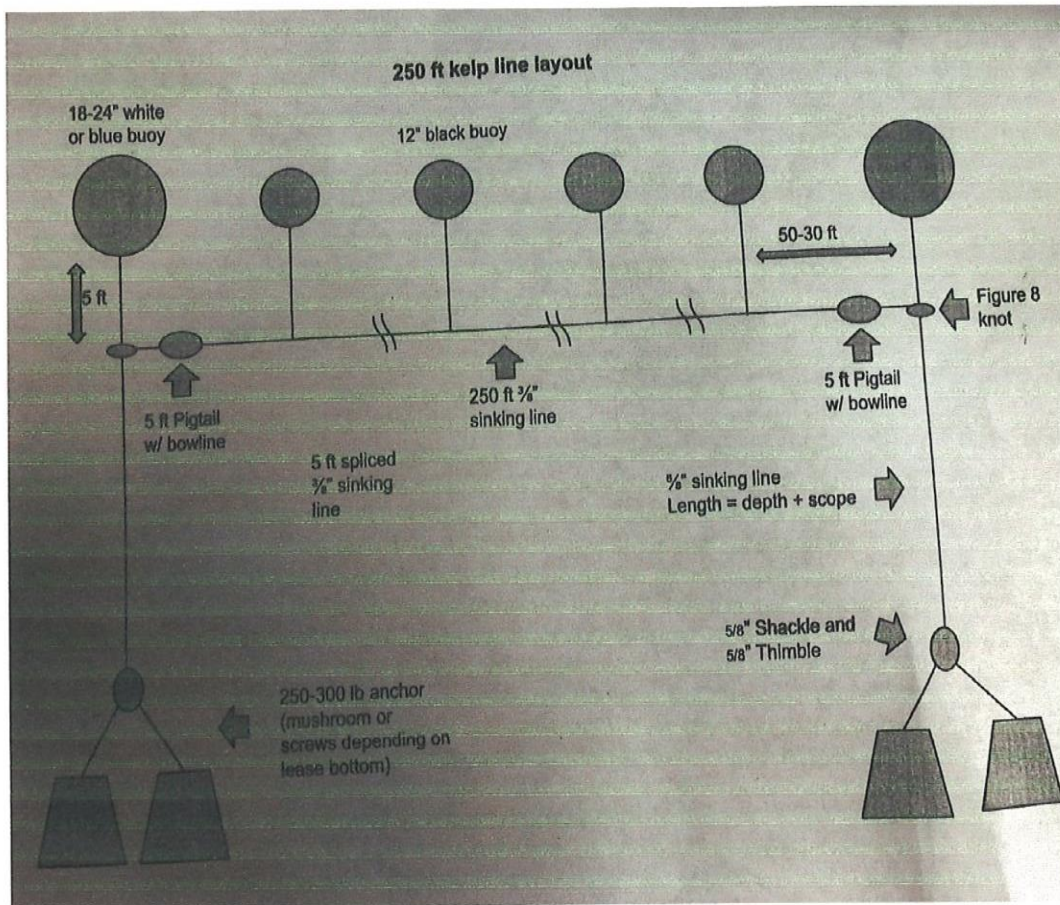
S Dennis  
W Dennis  
TANKS  
Shen Pond R.  
Harwich R.  
Dennis Port  
FG 4s 14h 7 PA Priv  
R N-2  
C-1  
Priv aids  
Kill Pond Bar  
Shoaling  
Herring R.  
Harwich Port  
Q G 20h Priv  
FG 4s 28h 11 PA  
(use chart 13226)  
Obs'n PA  
G T  
FG 6s 10h 2M N Priv  
FG 6s 10h 2M N Priv  
FG 6s 10h 2M N Priv  
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FLY 6s S PA Priv  
CHATHAM

09/09/2019 3:58:23 PM  
NOAA Raster Nautical Chart  
Blue: Band 3  
172.224

The work involves the annual deployment from October to May of up to 2 long lines of 250 feet length. Individual kelp lines will consist of two moored vertical lines at either end. Horizontal lines will be moored 7 ft below the surface with buoys spaced at 50 ft intervals to provide for buoyancy. Navigational buoys with radar reflectors will be used at the corners of the project's boundaries.



### Structures:



### Geophysical site characteristics:

- Based on the Ma-Shellfast viewer, the nearest areas of eelgrass are 3300 ft or .25 miles from the closest boundary to the proposed area. The bottom at the proposed location is sand.
- Approximate depths in the proposed area are 15 ft at mean low tide.
- Topography: Flat bottom, constant depth in the proposed area.
- Flora and fauna: While the bottom is sand, the presence of seaweed cultivation will provide additional structure and shade for a diverse array of species including juvenile fish, small invertebrates, diving birds etc. Seaweed provides excellent shelter and juvenile habitat.
- Approximate current speed and direction: The current in the proposed lease area runs southeast as the tide recedes and northwest 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. General Shoreline and Upland Characteristics: Site is adjacent to typical Cape Cods; single family homes primarily with seasonal occupancy. Also, the Belmont condominium complex. The closest abutter is the Aquacultural Research Corporation upwelling facility that I work at. There is a weir installation that the owner, Ernie Eldridge has stated there is no interference from this installation. There are also conch fisherman in the area that run their lines east to west and move 3 minutes each day. That is the reason my arrays are narrow and rectangular to avoid conflict with this fishery.

#### **Benthic Habitat Conditions:**

- a. The seabed in the area is sand. There are large amounts of codium surface seaweed during the summer months.
- b. Based on the MA-Shellfast Viewer tool, the proposed area is 3300 ft from the nearest eelgrass area.

#### **System Construction:**

There are many ways to design a kelp farm. In some countries the farm consists of vertical ropes suspended from a buoy/long line system. In others, it consists of submerged parallel long lines. The designs reflect the farm environment, the technology available for seeding and harvesting, and the need to fit into the existing use and regulatory environment. This design consists of parallel long lines suspended below the surface and moored at each end and in the middle of their run. The long lines are suspended seven feet below the surface utilizing a series of buoys tied into weights to maintain this depth. A long, narrow farm design reduces the amount of material required, simplifies construction, and speeds seeding and harvest time. Narrower farms will have higher yield for a given amount of long line, most likely due to improved nutrient availability for the kelp in the center of the farm. An important consideration in farm design is the separation distance between the parallel long lines. While closely spaced long lines will allow for more long line for a given farm size, the issues of crossed long lines due to wave action and current and nutrient deficiency due to proximity should be considered in spacing decisions.

#### **Operational plan (Deployment dates, species, harvest dates and methods)**

Deployment date will be October 1 to November 15. Anchors, mooring buoys and navigation markers will be deployed in early October to mid November.. 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.

It is anticipated that for year 2019-2020 that deployment would consist of up to two (2) 250 ft. longlines. Anchoring system will be 2-180 /360 lb.concrete anchors at each end. .

The site will be monitored weekly within the first 30 days of installation and bi-weekly subsequently, weather permitting from October thru May.

Harvest Date: April 15 to May 15 with all horizontal lines removed by May 15th or when harvest is complete if prior to May 15th.

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 either 20 ft boat owned by Kelpheer or, in the case of large harvests, a barge owned by local contractors.

#### **Anchors**

The end point anchors to be used will be the following:

- 2-180 lb/360 lb total lbs. total dor-mor type concrete anchors.

Geo Map from Mass ShellFast