



APPLICATION FOR CHANGE IN AUTHORIZATION FOR



SPECIES and/or GEAR

Lease Acronym	HARP DH
Leaseholder	Quahog Bay Conservancy
Contact Person	David Hunter
Address	286 Bethel Point Road
City	Harpswell
State, Zip	Maine, 04079
Telephone	(207) 522-1105
Email	dave@sserv.org

What type of amendment are you requesting (check one)?

Gear amendment only

Instructions: Review and complete sections 1, 3, 4, and 5 of this application

Species amendment only

Instructions: Review and complete sections 1, 2, 4, and 5 of the application

Gear and species amendment

Instructions: Review and complete each section of the application

1. Bird Deterrents

Application is only to add macroalgae species.

2. SPECIES CHANGES

SPECIES INFORMATION: Indicate the species you wish to add or remove from your lease and list the source of stock for each species you wish to add.

Indicate "Add" or "Remove" from Lease	Species (common and Latin name)	Source of Stock (Name, address, & phone number)
Add 1. <i>Saccharina latissima</i>	(sugar kelp)	Ocean's Balance 10 West Point Lane Building #10, Suite 105 Biddeford, ME 04005 207-370-4874
Add 2. <i>Saccharina latissimi</i> forma angustissima	(skinny kelp)	Ocean's Balance 10 West Point Lane Building #10, Suite 105 Biddeford, ME 04005 207-370-4874
Add 3. <i>Alaria Esculenta</i>	(winged kelp)	Ocean's Balance 10 West Point Lane Building #10, Suite 105 Biddeford, ME 04005 207-370-4874

CULTURE PLAN: Please describe how you intend to cultivate each of the species you proposed to add to the lease using the table below. Please attach a separate table for each species you propose.

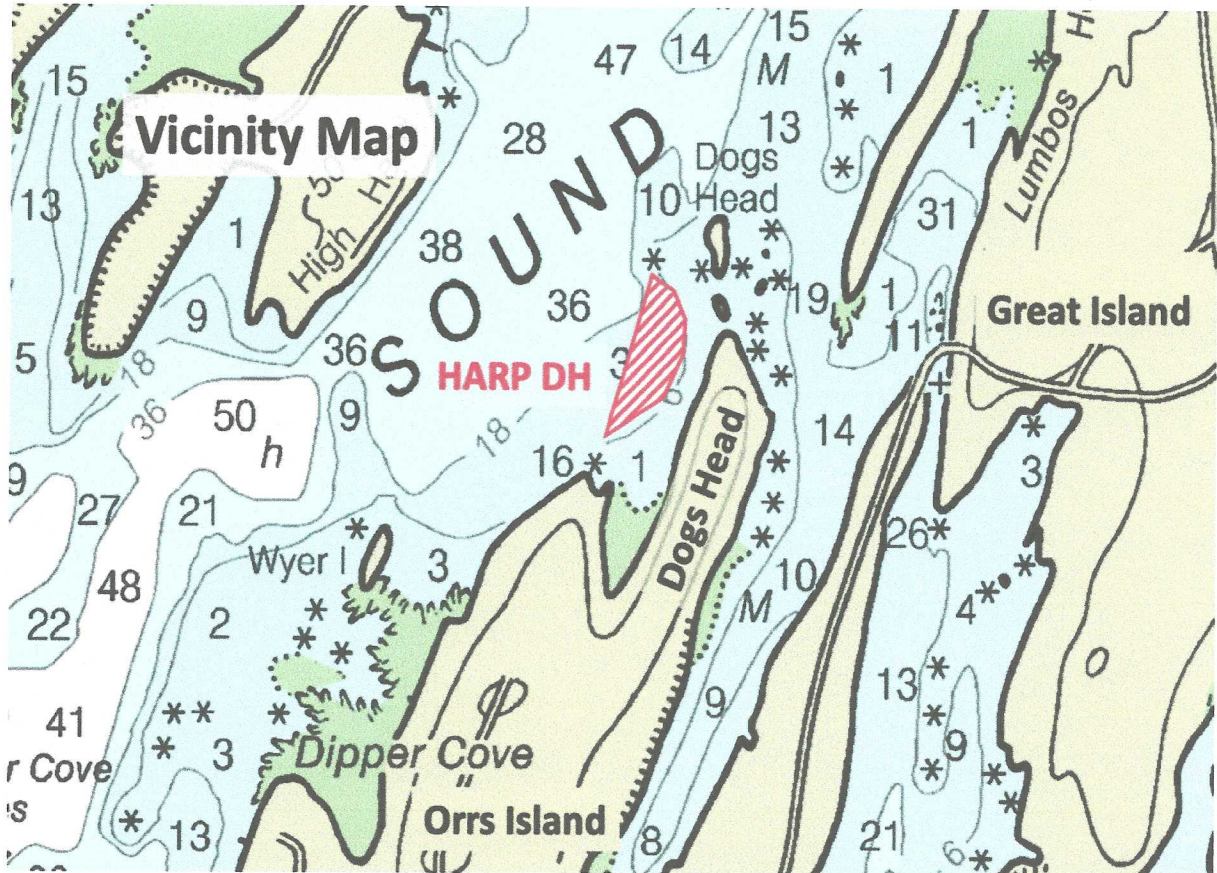
Information Requested	Proposed Species:
Seed Size – sporophytes on seed string	All species listed
Number of Organisms to be Cultured – Minimum of 100 sporophytes per foot of seed string, 20,000 feet of seed string = 1M organisms.	All species listed
Stocking Density – 100 sporophytes per foot of growline.	All species listed
Method of Culture and Dates – Suspended line culture planted after November 1.	All species listed
Method of Harvest – Line hauling and cutting of kelp blades between April 15 and May 31.	All species listed
Predator Control Methods – Adequate flotation and sufficient growline tension will prevent kelp from touching the seabed.	All species listed
Overwintering Plans/Dates – Planting after Nov. 1, harvest before May 31	All species listed

3. GEAR CHANGES

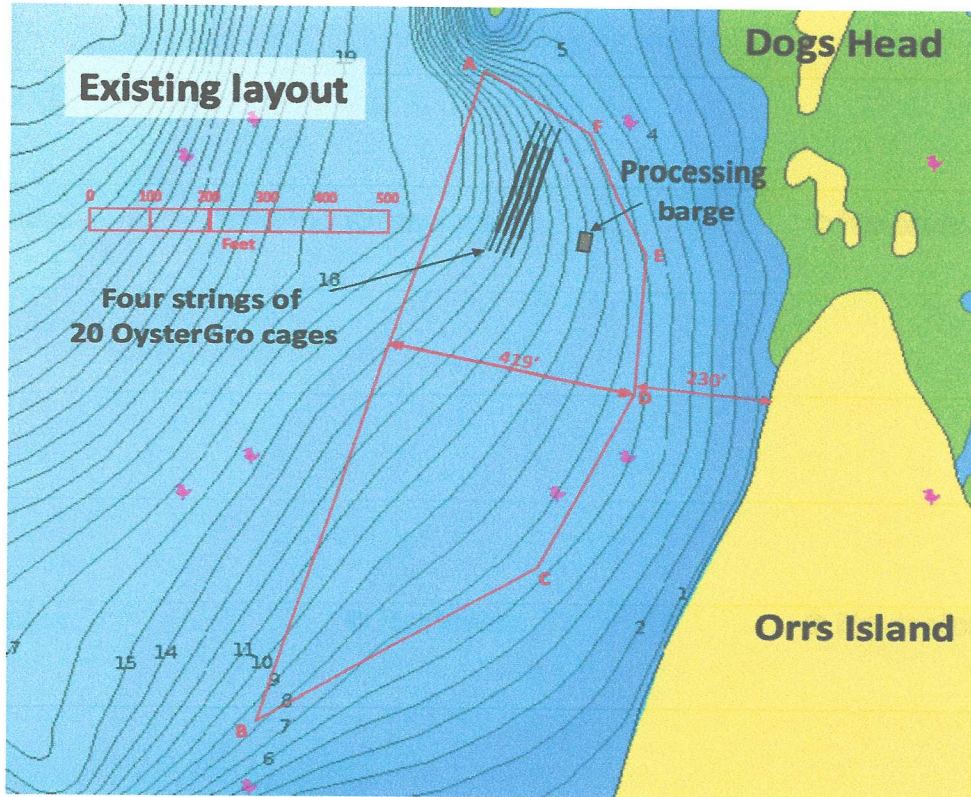
GEAR INFORMATION: Describe each gear type you wish to add to or remove from your current gear plan.

Specific Gear Type	Add or Remove	Dimensions of Gear Added or Removed	Dates That Gear Will Be in The Water
Two Catenary kelp farming modules	Add	75' x 438'	Nov. 1 to May 31

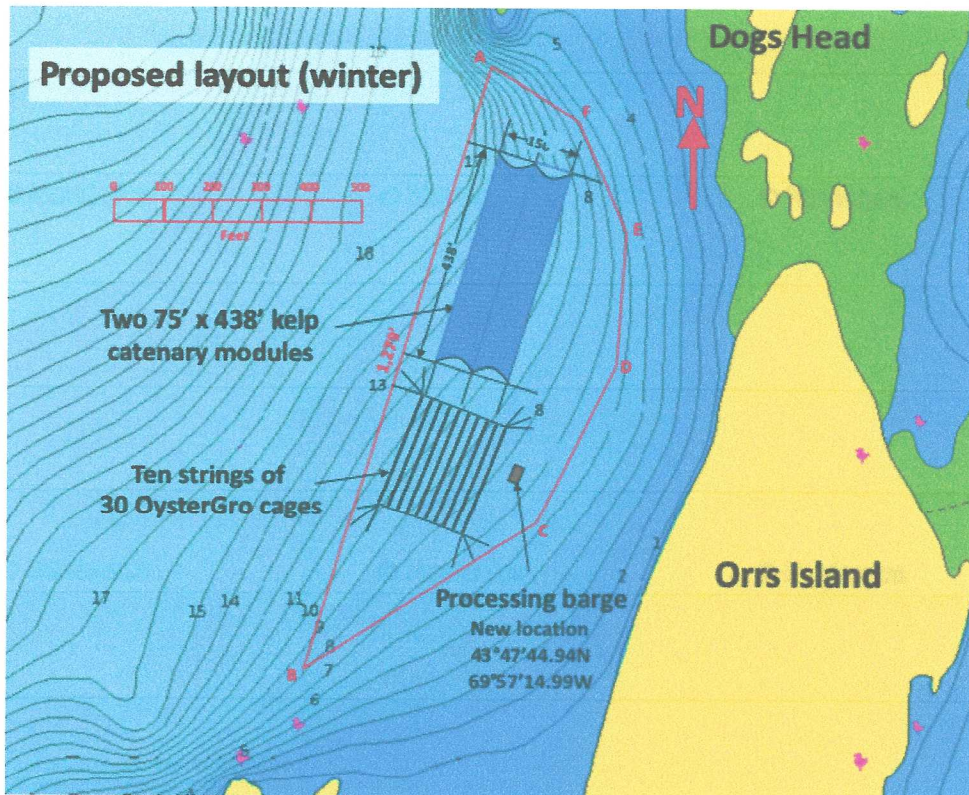
Vicinity Map:



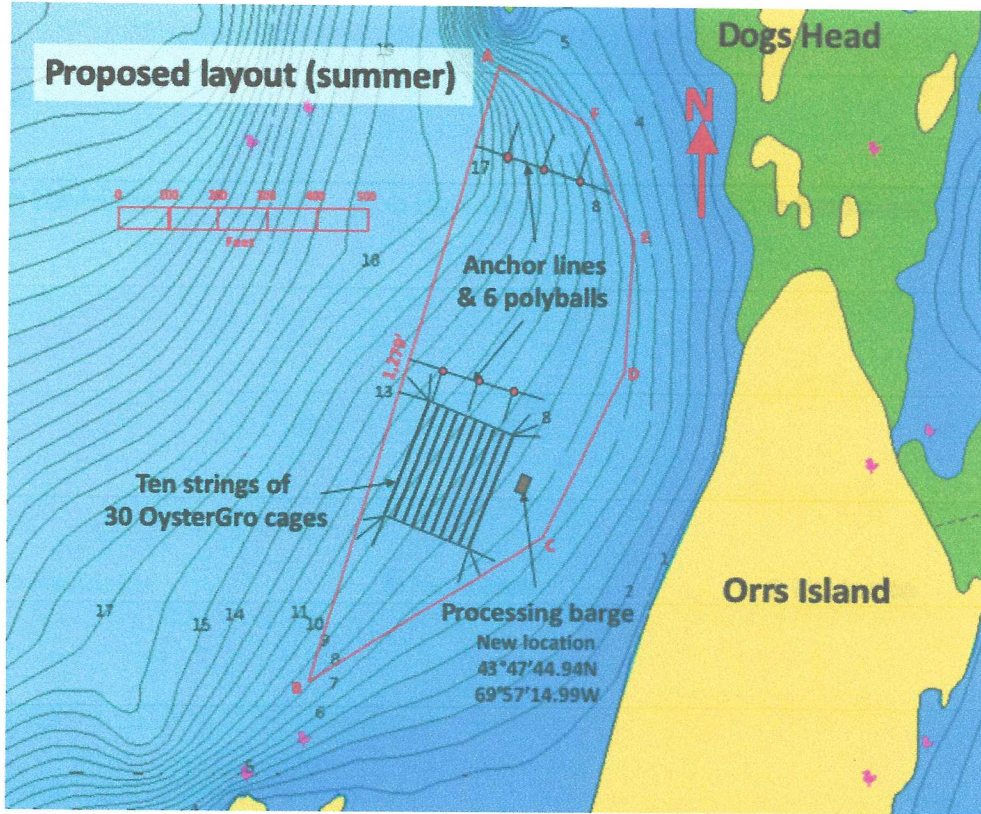
Existing layout:



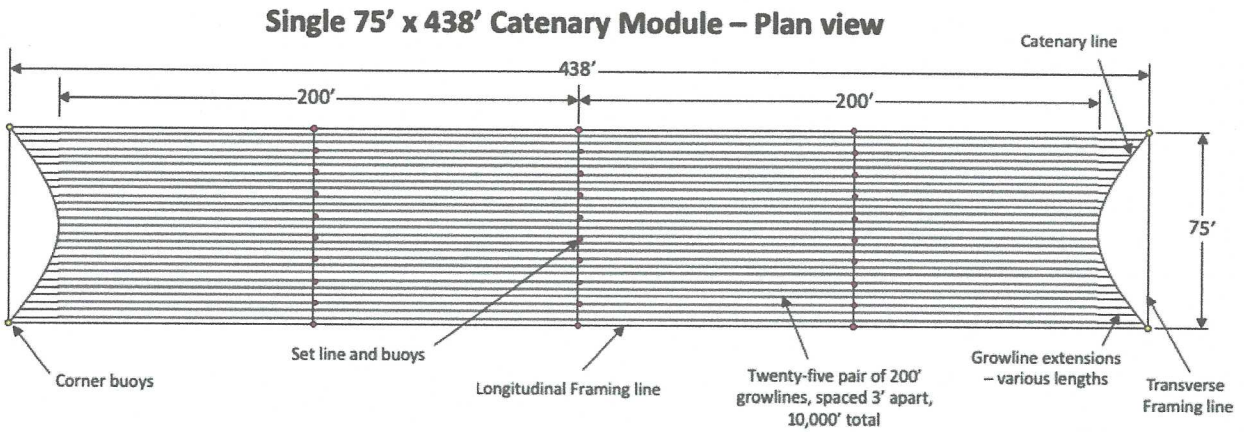
Proposed layout plan (winter):



Proposed layout plan (summer):



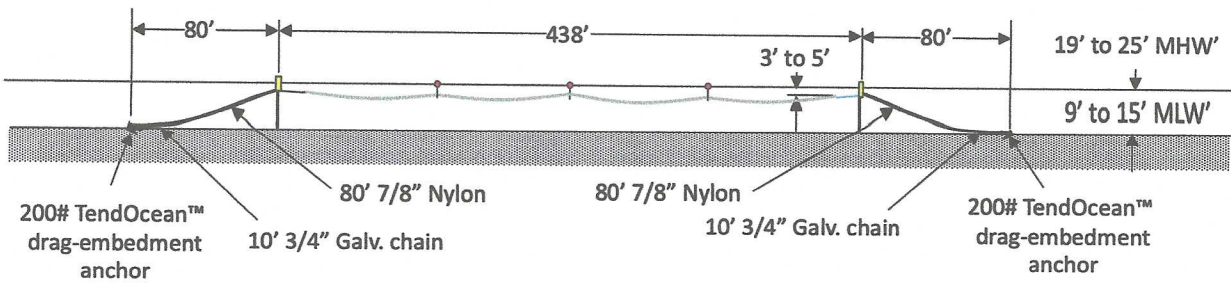
Proposed module layout:



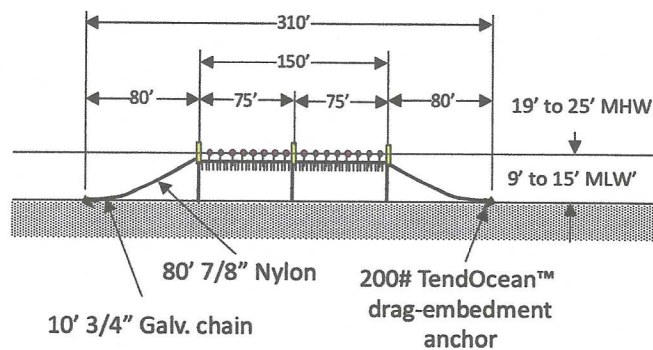
All growlines, structural lines, and surface buoys will be removed at the end of the growing season. The five anchors, anchor chain, and nylon anchor lines will be left in on the bottom with three pickup lines and pickup buoy left to mark the location and aid in fall retrieval.

Cross-section views – winter season:

Longitudinal side view of a pair of 75' x 438' Catenary Modules – winter season

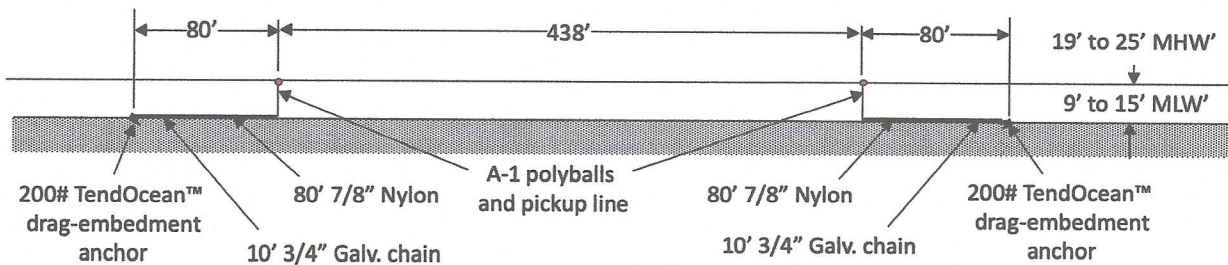


Transverse view of two 75' x 438' Catenary Modules – winter season

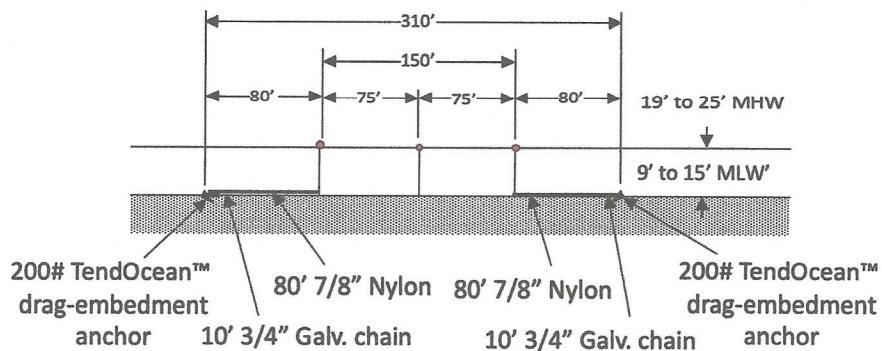


Cross-section views – summer season:

Longitudinal side view of a pair of 75' x 438' Catenary Modules – summer season



Transverse view of two 75' x 438' Catenary Modules – summer season

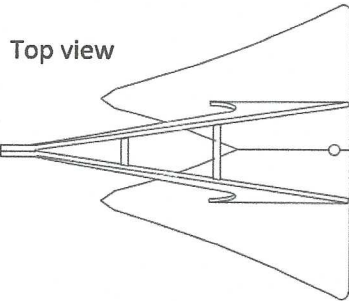


Because the lease is fairly shallow we prefer to have the kelp array positioned to the North and to the West, the deeper portion of the lease. The four lines of oyster cages will be shifted to the South end of the lease along with the oyster processing float.

Individual gear drawings:

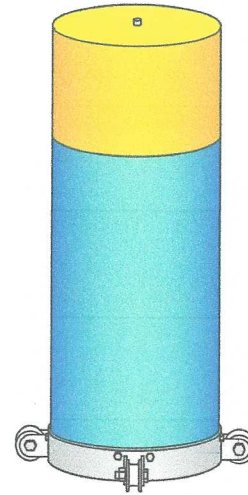
1. Anchor – ten to be added

TendOcean™ 200# drag embedment anchor; welded, Galvanized steel



2. Variable-displacement corner buoy – six to be added

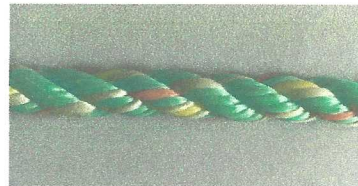
23” diameter x 65” tall buoy allows the adjustment of buoyancy and crop depth to suit growth. Materials: PE and Galvanized steel



3. Set line buoys – Polyform A-1 & A-2
Total of 30 to be added.



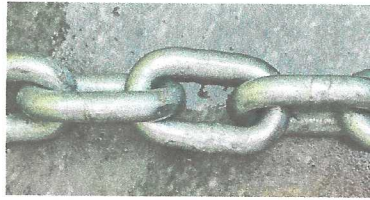
4. Growlines and growline extensions, and set lines: 3/8” & 1/2” Hydropro.
11,000’ to be added.



5. Anchor lines, framing lines, and catenary Lines: 7/8” 8-strand plaited nylon.
3,000’ to be added.



6. Anchor chain: 3/4" Galvanized
90' to be added

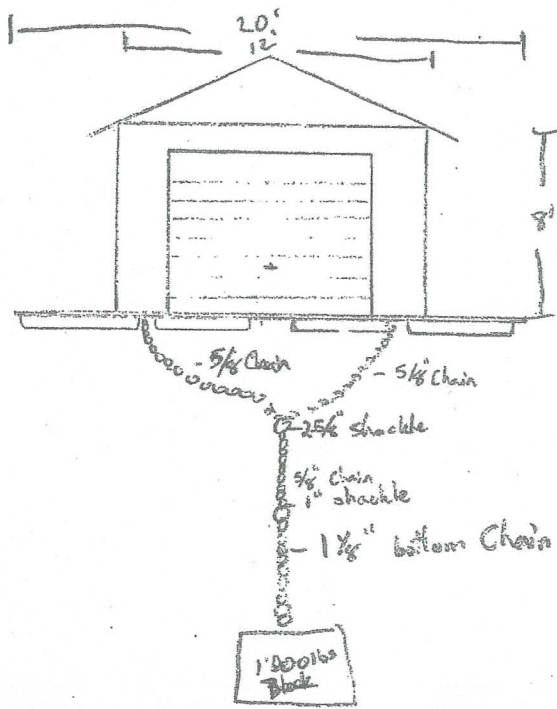


7. 1" Galvanized screw pin shackle
20 to be added

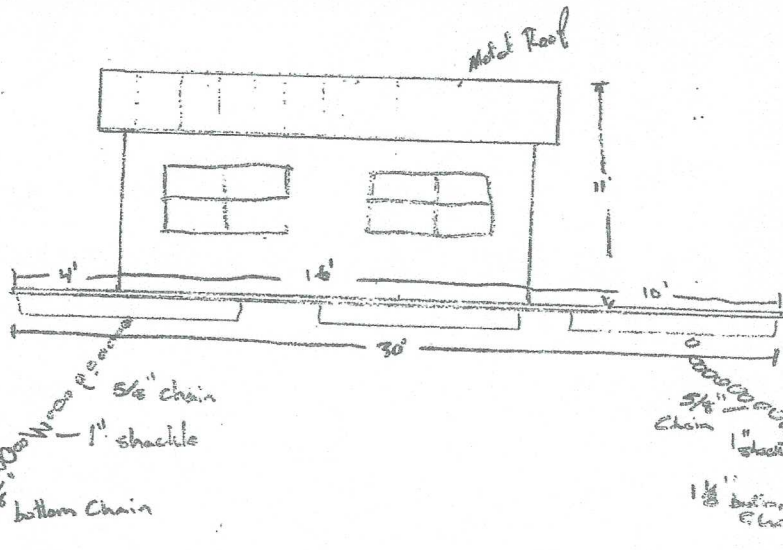


Gear Table:

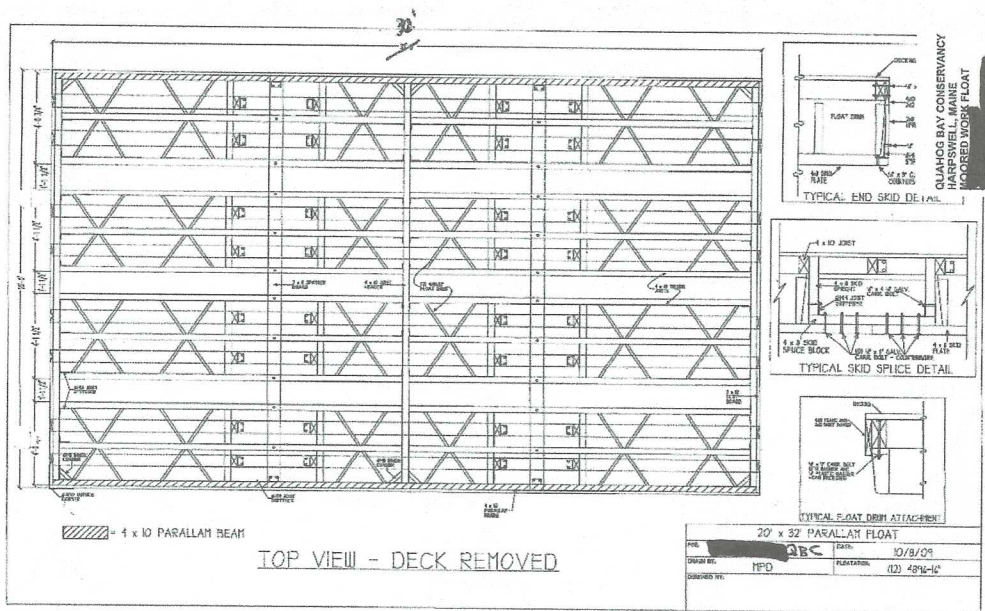
Specific Gear Type	Dimensions	Time of year gear will be deployed	Maximum amount of this gear to be deployed on site	Species grown using this gear type
Catenary module Including:	75' x 438'	Nov. 1 to May 31	Two	All listed
1. Corner buoys	23" dia x 65" tall	Nov. 1 to May 31	Six	All listed
2. Longitudinal framing line	438', 3/4" nylon	Nov. 1 to May 31	Three	All listed
3. Transverse framing line	75', 3/4" nylon	Nov. 1 to May 31	Four	All listed
4. Catenary line	86', 7/8" nylon	Nov. 1 to May 31	Four	All listed
5. Growline extensions	3/8" Hydropro, various lengths	Nov. 1 to May 31	2 x 50 = 100	All listed
6. Growlines	200', 3/8" Hydropro	Nov. 1 to May 31	2 x 50 = 100	All listed
7. Set line	75', 1/2" Hydropro	Nov. 1 to May 31	One	All listed
8. Set line end buoys	A-2 Polyform, red	Nov. 1 to May 31	Three	All listed
9. Set line buoys	A-1 Polyform, red	Nov. 1 to May 31	8 x 2 = 16	All listed
Anchor lines	90', 7/8" nylon	Year round	Ten	All listed
Shackles	1" screw pin Galv.	Year round	Twenty	All listed
Anchor chain	10' 3/4" Galvanized chain	Year round	Ten	All listed
Drag-embedment anchors	200# Galv. TendOcean™	Rear round	Ten	All listed



QBC work float



QBC work float



Complete responses to the following questions (attach a separate sheet if needed):

1. How does adding this gear change your existing operations?

1. Oyster operations will still commence from March through November, the oyster gear will be moved to the southeastern side of the lease to make room for growing marine algae.

2. A new 20'x30' work float will replace the current float. The new float with a building added for security of processing and equipment 12'Wx16'Lx9'H

3. The work float will be moored with 2 1,000lbs mooring blocks using 5/8" chain.

4. A Craftsman portable generator will be used to power equipment, i.e., oyster sorter only when days sorting is needed, approximately 14 days a season total. Gas for the generator will not be stored on site and will be transported daily from a 5-gallon safety can with anti-spill nozzle. Refueling of the generator is done on the work float with oil absorbing pads on hand in case of any spill.

2. Describe any changes in the number of trips to the lease site per day. If none, please write "none."

During summer months no change to number of trips to the lease site. Months of November thru May 31st, less than 3 trips per week.

3. Describe any changes in noise and level of on-site activity. If there are no

changes, please write "none."

None

4. Will gear remain on site during the winter? Yes No

If you selected "yes" use the space below to describe your overwintering plans. Please include the dates for overwintering.

Oyster gear will continue to overwinter on site. Overwintering plans as described in gear layout. Weekly inspections of algae grow lines with harvest in spring.

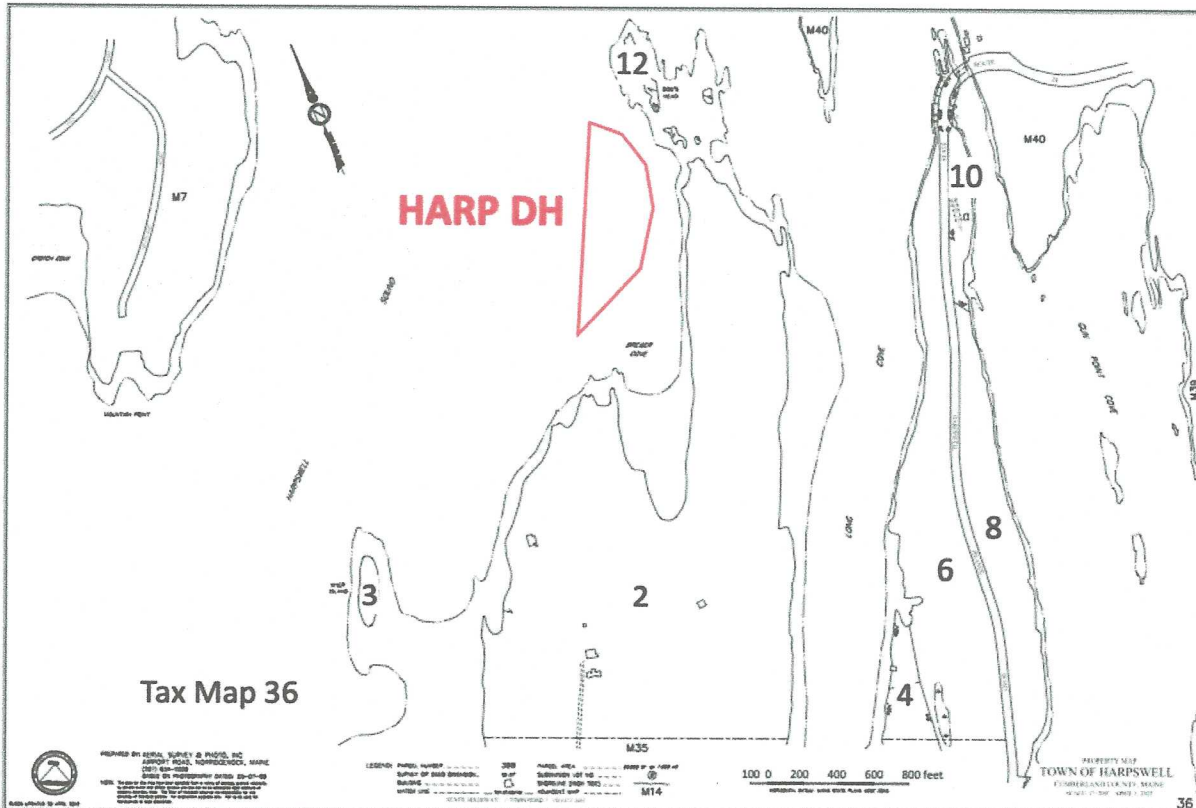
4. Tax Maps and Riparian List

Is your existing lease within 1,000ft of shorefront land (which extends to mean low water or 1,650 ft. from shore, whichever is less)?

Yes No

If yes, the following supporting documents are required:

A. Tax Map



B. Riparian List

Please use the Riparian Landowner List (included on the next page) to list the name and address of every shorefront landowner within 1,000 feet of your existing lease. Have the tax collector or clerk of the municipality certify the riparian list.

RIPARIAN LANDOWNER LIST

****THIS LIST MUST BE CERTIFIED****

On this list, please show the current landowners' names and mailing addresses as listed in the municipal tax records for all riparian shorefront parcels within 1,000 feet of the existing lease site along with the map and lot number for each parcel. **It is the applicant's responsibility to assemble the information for the Town Clerk to certify.** The Town Clerk only certifies that the information is correct according to the Town's records. Once you have completed the form, ask the Town Clerk to complete the certification section below. If the parcels are within more than one municipality, provide a separate, certified riparian list for each municipality.

TOWN OF: Harpwell, ME

MAP #	LOT #	Landowner name(s) and address(es)
<u>36</u>	<u>2</u>	BOWDOIN COLLEGE C/O COASTAL STUDY CENTER 6700 COLLEGE STATION BRUNSWICK, ME 04011
<u>36</u>	<u>12</u>	SWANSON BENJAMIN 29 COTTAGE PLACE WESTBROOK, ME 04092

CERTIFICATION

I, Tracy H Gaudet, Town Clerk for the Town of Harpwell certify that the names and addresses of the property owners listed above, as well as the map and lot numbers, are those listed in the records of this municipality and are current as of this date.

SIGNED: Tracy H Gaudet DATE: 3/1/2023

5. Applicant Signature

I hereby state that the information included in this application is true and correct. I have also read and understand the requirements of the Department's rules governing aquaculture and the application instructions pertaining to the lease amendment process.

Printed name: David Hunter

Title (if corporate applicant): COO

Signature:  Date: 8/18/2023

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

Note:

- All applicants must sign and date this page. Please use the space below, if additional signatures are required.
- Corporate applicants, please be sure to include the title(s) (i.e. President, Treasurer, etc.) of the individual(s) signing on the company's behalf.

Additional Applicant:

Printed name: _____

Title (if corporate applicant): _____

Signature: _____ Date: _____

6. Application Submission