

STANDARD LEASE APPLICATION: NON-DISCHARGE

1. APPLICANT CONTACT INFORMATION

Applicant	Keith Butterfield		
Contact Person	Keith Butterfield		
Address	17 Haskell Ave.		
City	Raymond		
State, Zip	Maine		
County	Cumberland		
Telephone	857.753.1302		
Email	Keith@butterfieldshellfish.com		
Type of Application	<input checked="" type="checkbox"/> Draft Application [submitted before scoping session session] <input type="checkbox"/> Final Application [submitted after scoping session]		
Dates	Pre-Application Meeting: 4/2/2020	Draft Application Submitted: 5/26/2020	Scoping Session:

Note: If applicant is a corporation or a partnership, the "Corporate Applicant Information Document" available at: <http://www.maine.gov/dmr/aquaculture/forms/standard.html> must also be completed.

2. PROPOSED LEASE SITE INFORMATION

Location of Proposed Lease Site	
Town	Yarmouth
Waterbody	Casco Bay
General Description (e.g. south of B Island)	Southeast of Little Moshier Island
Lease Information	
Total acreage requested (100-acre maximum)	2.72 acres
Lease term requested (20-year maximum)	20
Type of culture (check all that apply)	<input checked="" type="checkbox"/> Bottom (no gear) <input checked="" type="checkbox"/> Suspended (gear in the water and/or on the bottom)
Is any portion of the proposed lease site above mean low water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Note: If you selected yes, you need to complete the steps outlined in the section titled: "19. Landowner/Municipal Permission Requirements".

3. WATER QUALITY

Directions: Water Quality Information can be found here: <http://www.maine.gov/dmr/shellfish-sanitation-management/closures/pollution.html>

Pollution Area (e.g. "19-A"):	14
Pollution Area Section (e.g. "B.2". or "none"):	None
Water Quality Classification (e.g. approved, restricted, etc.):	Approved

Note: If you are proposing to grow molluscan shellfish in waters classified as anything other than open/approved, you will need to contact the Bureau of Public Health to discuss your plans at the following email: DMRPUBLICHealthDiv@maine.gov

4. SPECIES INFORMATION

A. Please complete the table below and add additional rows as needed.

Name of species to be cultivated (include both common and scientific names):	Name and address of the source of seed stock, juveniles, and/or smolts	Maximum number (or biomass) of organisms you anticipate on the site at any given time
1. Eastern Oyster, <i>Crassostrea Virginica</i>	Mook Seafarm, 321 State Route 129, Walpole, ME Muscongus Bay Aquaculture, Bremen, ME	2 million
2. Arctic Surf Clam, <i>Macrormeris polynyma</i> Atlantic Surf Clam, <i>Spisula solidissima</i>	Downeast Institute, 39 Wildflower Ln, Beal, ME	100,000 500,000
3. Sea Cucumber, <i>Cucumaria frondosa</i> Waved Whelk, <i>Buccinum undatum</i> Dog Whelk, <i>Nucella lapillus</i>	Tim Sheehan, Gulf of Maine, 736 Leighton Point Rd Pembroke, ME	20,000 20,000
4. Sea Urchin, <i>Strongylocentrotus droebachiensis</i> Quahog, <i>Mercenaria mercenaria</i>	U of Maine CCAR, 33 Salmon Farm Rd., Franklin, ME Muscongus Bay Aquaculture, Bremen, ME	200,000 500,000
5. Sugar Kelp, <i>Saccarina latisima</i>	I'm unsure where to buy this. I'll work with Maine SeaGrant to find a suitable source	10,000lbs
6. Sea Scallops, <i>Placopecten magellanicus</i>	Wild caught spat from Casco Bay	50,000

B. Do you intend to possess, transport, or sell whole or roe-on scallops? ☒ Yes ☐ No

If you answered "yes" please contact the Bureau of Public Health to discuss you plans at the following email: DMRPUBLICHealthDiv@maine.gov

Note: If you are proposing to grow molluscan shellfish, this application also serves as your written operational plan as required in the National Shellfish Sanitation Program (NSSP) Model Ordinance Chapter 2 and must be maintained in your files. If you wish to submit an operational plan separate from this application, please contact: DMRPUBLICHealthDiv@maine.gov

5. VICINITY MAP

Note: Please label as: 'Vicinity Map'.

Directions: Using a NOAA Chart or USGS topographic map, show the area within a minimum of one-half mile of the proposed lease site.

The map needs to display the following:

- The waters, shore lands, and lines of mean high and mean low water within the general area of the lease
- An arrow indicating true north
- A scale bar
- The approximate lease boundaries

6. BOUNDARY DRAWING

Note: Please label as: 'Boundary Drawing'.

Directions: Depict the boundaries of the proposed lease site. Provide a drawing with all corners, directions, and distances labeled. Provide coordinates for each corner as follows:

- Coordinate Description
Provide geographic coordinates for each corner of the lease site in latitude and longitude as accurately as possible (e.g., to the nearest second or fraction of a second). Identify the datum from the map, chart, or GPS unit used to develop these coordinates. The datum will be shown on the map or chart you are using. The Coordinate Description may be provided separately from the Boundary Drawing.

7. SITE DEVELOPMENT

Directions: If your operations require the use of cages, nets, ropes, trays, or any object (structure) other than the organism to be grown directly on the bottom or buoys to mark the corners of the lease site, you must submit gear drawings and maximum structure schematics (information below). This section is intended to provide accurate plans depicting the physical structures to be placed in the proposed area. All dimensions need to be labeled with the appropriate units (i.e. 10ft, 10in). If you are proposing a bottom lease (no gear), please skip to question "F. Marking".

Note: You may embed the schematics within the document or attach them to the end of your application. If you attach the schematics, please label them according to the instructions provided below.

A. Gear Information

Directions: Include a drawing of an individual piece of gear for each of the gear type(s) you plan to use. Include units referenced (i.e. 10in, 10ft, etc.).

1. **Gear Drawing:** Please include the following for each gear type that will hold organisms to be cultured (e.g. Polar circles, marine algae longlines, oyster cages) and label as "Gear Drawing". This view must show the following:
 - Length, width, and height of each gear type.
2. **Gear Table:** List and describe each individual gear type that you will use in the table below. (e.g. Polar circles, marine algae longline, oyster cages, moorings, mooring lines, buoys, etc.).

Specific Gear Type (e.g. soft mesh bag)	Dimensions (e.g. 16"x20"x2")	Time of year gear will be deployed (e.g. Spring, Winter, etc.)	Maximum amount of this gear type that will be deployed on the site (i.e. 200 cages, 100 lantern nets, etc.)	Species that will be grown using this gear type
OysterGro Cage	36"x40"x24"	Year around	200	Oysters, Arctic and Atlantic surf clams and Quahog clams, whelk
Seafloor Cages	36"x45"x32"	Year around	50	Oysters, whelk, scallops, sea cucumbers
Nursery boxes	36"x36"x4"	Spring & Summer	20	Oysters
LowPro cages	24"x36"x12	Year around	20	Oysters, Arctic and Atlantic Surf Clams, whelk
Hexcyl Baskets	29"x10 5/8"x5 7/16"	Year around	3000	Oysters, Arctic and Atlantic Surf Clams, whelk, urchin

Luminaria Sancharina: Small amounts will be grown on line at the perimeter of the lease for the purpose of developing a healthy diversified supply of algae on the farm.

Some Arctic and Atlantic Surf Clams and Quahogs and sea cucumbers will be bottom planted as I continue to experiment with best growing methods.

B. Maximum Structure and Mooring System Schematic

Directions: Include drawings of your maximum gear layout. Include units referenced (i.e. 10in, 10ft, etc.).

1. **Overhead View.** Please include the following and label as "Overhead View":
 - Maximum layout of gear, including moorings.
 - Length and width of project.
 - Approximate spacing between gear.
 - Lease boundaries and the location of proposed corner markers and any additional gear markers that would be present.
2. **Cross-Section View.** Please include the following and label as "Cross-Section View":
 - The sea bottom.
 - Profile of gear in cross-section as it will be deployed.
 - Label gear with dimensions and materials.
 - Show mooring gear with mooring type, scope, hardware, and line type and size.
 - Depth of gear in relation to the water's surface at mean low water and mean high water (if applicable).

Note: Please include an additional Cross Section View, depicting the elements listed below, if there will be seasonal changes to gear layout (i.e. over wintering).

C. On-Site Support Structures

1. Describe structures such as barges, sheds, etc., to be located on-site. Provide a schematic and indicate the dimensions, including height above sea level, materials, etc.

A raft 30'x12' is approved and being used on the site now. This proposed standard lease has been operated for three years as an Experimental Lease.

2. Describe the storage and use of oil, gasoline or other hazardous materials on this facility. If petroleum products are to be stored on site, provide a spill prevention plan.

No oil, gasoline or other hazardous material has been or will be stored on this lease.

D. Gear Color

Provide the color of the gear and structures proposed to be used at the lease site.

All grow-out gear is black. Corner buoys are 24" White Poly and the string line buoys will be ~~black~~ 9" x 14" lobster buoys that read "SEA FARM". We chose to use lobster buoys after surveying people and finding most people find them more pleasant to look at.

E. Equipment Layout

Provide schematic or photographic renderings of the generalized layout of the equipment as depicted from two vantage points on the water. Provide the locations of the two vantage points.

F. Marking

Will you be able to mark your site in accordance with DMR regulations, Chapter 2.80?

☒ Yes ☐ No

If you answered no, explain why and suggest alternate markings.

Note: If a lease is granted, you will also be required to mark the site in accordance with appropriate US Coast Guard Regulations. If you have questions about US Coast Guard Regulations contact: 1st Coast Guard District, Aids to Navigation Office ((617)-223-3293).

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8. PRODUCTION ACTIVITIES

Directions: If you are cultivating more than one species, you will need to provide information for each species. Please attach additional pages if needed.

A. Please explain your proposed seeding activities. What months will seeding occur and how often will you be onsite to seed during this time.

Some oyster seed may be placed into nursery boxes in July and August. All clams, urchin, whelk, and sea cucumbers will arrive at a sufficient size for grow-out cages or bottom planting.

B. Please explain your proposed tending/maintenance activities.

Daily visits for checking lines and gear and animals.

Filling the gear with oysters, all clam species and whelk will be a daily activity in June and July. I will be learning how to bottom plant quahogs, surf clams, urchin, and sea cucumbers.

Suspended gear will be flipped for biofouling control once per week and flipped back after 24 hours. The hexcyl baskets will be flipped mechanically in approximately 1-2 hours. OysterGro cages will be flipped manually in approximately 4-6 hours.

Harvesting will occur once per week for 4 to 6 hours.

C. How frequently will you visit/tend the site for routine tending/maintenance (i.e. flipping cages, etc.)?

The proposed lease will be visited five days per week from May until December for checking lines and gear and animals. Beginning in January and until April, the site will be visited once per week for harvesting and checking on lines and gear.

Biofouling control will be performed once per week from May via flipping and then flipping back 24 hours later.

Harvesting will occur once per week for 4 to 6 hours.

D. Describe the harvesting techniques you will use. If you plan on using a drag, please provide the dimensions.

Oysters will be harvested from the gear by hand once per week. Eventually we plan to have a harvest boat (about 28') with a flat deck in order to make the work safer and easier.

We intend to experiment with growing Arctic Surf Clams, Atlantic Surf Clams and Quahogs in cages and baskets. If successful then we will harvest by hand once per week. If not successful then we may choose to bottom plant or we may find a species better suited to grow in our gear.

We will be experimenting with bottom planting Arctic Surf Clams, Atlantic Surf Clams, Quahogs, Sea Cucumbers and Green Urchin. Harvesting will be performed by hand. We will not drag the seafloor.

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E. How often will you be at the site during harvesting periods?

Harvesting will most likely occur once per week but may occur as often as three times per week. It may take as much as 4-6 hours per day to complete a harvest.

F. Will gear be on the site year-round? ☒ Yes ☐ No

G. If gear will not be on the site year-round, please describe any overwintering or "off season" plans for the site. For example, will you remove gear from the site and/or deploy gear in different areas within the proposed site? Please include where gear or product will be located if removed from the site.

Suspended gear may be sunken to the seafloor in December and brought back to the surface in May. We have been experimenting with over-wintering techniques for the past three years on this site and we are choosing to leave more gear on the surface as we gain confidence in survivability. The plan to no longer sink gear if we don't have to.

9. NOISE AND LIGHT

Directions: If a question does not pertain to your proposed operations, please write "not applicable" or "N/A."

A. What type of boats will be used on the site? When and how often will these vessels be on the site?

A 24' Carolina Skiff and a 19' Carolina Skiff are the primary work boats that will be visiting the farm for daily work activities. These are the only two boats that the farm currently operates.

We hope to eventually have a locally built flat deck 28' harvest boat for improving the safety and ease of harvesting. If we are able to buy this boat then it will be used once per week and it will take approximately 1 1/2 hours to harvest.



B. What type of powered equipment (e.g. generator, power washer, grading equipment, barges, etc.) will be used on the site? When and how often will the equipment be used?

A solar powered and quiet grader (tumbler/sorter) will be used for approximately 3-4 days per year and it will occur in June or July or August.

A pressure washer will be used two times during the year for 1-2 days per use. The only riparian that may be disturbed by noise is Mr. Scott Labrecque. If Scott doesn't like the sound of the pressure washer then we will either find a time to use it when he is not on the island or we will not use it at all.

C. Specify how you intend to reduce noise levels from the boats and other powered equipment.

The farm mission is to have a net positive impact on the marine ecosystem and on our community. We generate almost no noise on the farm.

The grader will operate for only a week during the entire year and it will be powered by solar power making it nearly silent. The boat engines are almost never running when we are on the farm. The only noise will come from a pressure washer that will be used for only a few days per year and I will work closely with my neighbor regarding it's use.

D. Provide the number, type (whether fixtures are shielded), wattage and location of lights, other than those used for navigation or marking, that will be used at the proposed lease site.

No lights will be used.

E. Indicate under what circumstances you might work at your site beyond daylight hours.

There will be no work conducted on the farm beyond daylight hours.

10. CURRENT OPERATIONS

Directions: If a question does not pertain to your proposed operations, please write "not applicable" or "N/A."

A. Describe your existing aquaculture operations.

I have been operating an oyster farm on this site (CASMLx) for three years without a single complaint. Additionally, I have operated four LPAs within 1,000 feet of this proposed lease for six years. I have two LPAs in the general area that will remain active for now and may be dropped if this Standard Lease is awarded. BUTT-114 (Active), BUTT-314 (Active). I use floating OysterGro cages and LowPro cages and Seafloor cages as my grow-out gear and I use the nursery boxes that were described in the gear section of this application for my seed. The amount of time spent working on the farm is expected to remain the same as we improve efficiency and increase production.

B. What are your plans for any existing leases and/or Limited Purpose Aquaculture (LPA) licenses if the lease is granted? Will any existing leases and/or LPA licenses be relinquished if the lease is granted? If so, please indicate which ones.

We were awarded an Experimental Lease CASELMx 3.19 acres in May 2020. If we are awarded this Standard Lease then we may choose to not renew LPA BUTT-114 and BUTT-314. We intend to grow our farm with an additional 50 acres when we find water space that does not interfere with other uses. This has been a challenge and we are working with the HarborMaster to find a suitable location. We are also currently looking for an off-shore location for an LPA to research off-shore growing. Off-shore is unproven for oyster aquaculture and will take time to research. If we can prove off-shore growing as an effective and economical method then it could help to lessen congestion in the bay. We recognize that ocean aquaculture must strike a balance with riparian owners and other uses on the water.

11. ENVIRONMENTAL CHARACTERIZATION

Directions: Using your knowledge of the area, describe the environment of the proposed lease site. Be sure to include units of measurement in your answers (i.e. feet, cm/s).

A. What are the approximate depths at mean low water?

MLW is 3'.

B. What are the approximate depths at mean high water?

MHW is 12'

C. Provide the approximate current speed and direction during the ebb and flow.

The current runs at about 0.5 knots north/south.

D. The following questions (D.1 through D.6) may be answered in writing or by submitting a video. If you plan to submit a video, please contact the Department prior to video collection.

1. What are the bottom characteristics (mud, sand, gravel, rock, ledge or some mix, etc.)?

Muddy bottom.

2. Describe the bottom topography (flat, steep rough, etc.).

Flat.

3. Describe marine organisms by species or common names. Based on your personal observations or other sources of information, are these species abundant, common, or rare?

Over the six years that I have been farming on this site I have observed a significant increase in sea life. What was mostly a barren muddy bottom when I arrived is now teeming with Snow Crabs, Mussels, Scup, Rock Gunnel, Striped Bass, Sandworms, Grass Shrimp, various copepods and amphipods, and unfortunately Green Crabs too.

Additionally I have witnessed an explosion of Seagrass growth around my farm over the past six years. The water seems to be clearer but I don't have data measurements. In 2020 my farm will be instituting a new protocol for regular measurements of turbidity, dissolved oxygen levels, pH and salinity.

4. Are there shellfish beds or fish migration routes in the surrounding area? If so, please describe.

I'm unaware of any shellfish beds or fish migration routes nearby.

5. Describe the presence and extent of submerged aquatic vegetation, i.e. eelgrass, within the proposed lease area. Please include the date of this observation along with the method of observation. If submerged aquatic vegetation is observed, please also describe the abundance below and sketch the limits of the beds in the vicinity map.

As mentioned above, I have observed an explosion of seagrass around my farm over the six years that my oysters have been filtering the waters. The seagrass is east and southeast of Tract 1 and it has been inching closer and closer to my lease boundaries (see attached drawing labeled "Seagrass").

The growth of healthy seagrasses around my farm is perfectly in line with our mission to deliver a net positive to the marine ecosystem. We know that the system is complex and symbiotic which is why we intend to diversify the species that we grow on our farm. We intend to grow kelp around the edges of the farm that is not intended for commercialization but instead to deliver diversity and because it's a valuable species for CO2 sequestration.

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6. Describe the general shoreline and upland characteristics (rocky shoreline, forested, residential, etc.)

The Little Moshier Island shoreline is rocky.

E. Is your proposed lease located within a Maine Department of Inland Fisheries and Wildlife designated Essential Habitat?

☐ Yes ☒ No

Note: The location of Essential Habitats in the State of Maine, along with information on how projects within these areas are reviewed, can be found here: <https://www.maine.gov/ifw/fish-wildlife/wildlife/endangered-threatened-species/essential-wildlife-habitat/index.html>

If a project is located within an Essential Habitat, applicants are strongly encouraged to contact the MDIFW Environmental Review Coordinator (John.Perry@maine.gov, phone: 207-287-5254) prior to application submission.

12. EXISTING USES

A. Describe the existing uses of the proposed area in questions A.1 through A.5 below. Please include the a) type; b) time of year the activity occurs; c) frequency; and d) proximity to the lease site.

1. Commercial Fishing

None.

2. Recreational Fishing

Some striped bass fishing occurs at the southeastern point of Little Moshier Island from July through September. The proposed lease boundaries are not within the area where people fish.

3. Boating Activities (please also include the distance to any navigable channel(s) from your proposed site at low water).

Some times recreational boaters will anchor in the area between Little Moshier and Moshier Islands during July and August. Some times they swim and sometimes they just sun bath. There is a lot of open water in this area. The proposed lease boundaries are much closer to the shore and not within the area that boaters anchor. The lease has not presented an obstacle for any recreational boaters or recreational fishing.

The channel is more than 1,000' south of the lease boundaries.

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4. Riparian Ingress/Egress

The lease does not obstruct riparian ingress/egress.

5. Other uses (kayaking, swimming, etc.):

Occasionally people will kayak in between Moshier and Little Moshier Islands but the lease does not obstruct passage. We have observed that kayakers are friendly, inquisitive and supportive of our farm.

B. Are there private docks, moorings, or other access points within 1,000 feet of the proposed lease? If yes, please include approximate distance from the proposed lease.

No.

C. Are there public beaches, parks, docking facilities or federally, state, or municipally conserved lands within 1,000 feet of the proposed lease site? If yes, please describe and include approximate distances from proposed lease.

No.

13. EXCLUSIVE USE

If your lease is granted, what activities would you request be excluded from occurring within the boundaries of the lease site? In your answer please address applicable commercial and recreational fishing, boating activities, and other activities you listed in the 'Existing Uses' section of this application.

Fishing and kayaking and any non-motorized boating is welcome within the lease boundaries, but I request that motorized boats go around the boundaries so that lines are not cut by propellers. The lease takes up only a small space in the cove and it is close to the shoreline so it's easy to navigate between the islands without going inside the lease boundaries.

14. RIPARIAN LANDOWNERS AND SITE ACCESS

A. If your lease is within 1,000ft of shorefront land (which extends to mean low water or 1,650 ft. from shore, whichever is less), the following supporting documents are required:

1. A labeled copy of a tax map(s) depicting the location of the proposed lease site and including the following elements:
 - Label the map "Tax Map: Town of (name of town)."
 - Legible scale
 - Tax lot numbers clearly displayed
 - The boundaries of the proposed lease
2. Please use the Riparian Landowner List (included on the next page) to list the name and address of every shorefront landowner within 1,000ft of the proposed lease site. Have the tax collector or clerk of the municipality certify the list.
3. If any portion of the site is intertidal, you need to complete the steps outlined in the section titled: "19. Landowner/Municipal Permission Requirements".

B. Will your access to the lease area be across riparian land?

☐ Yes ☒ No

Note: If you selected yes, you will need to complete the landowner permission requirements included in "19. Landowner/Municipal Permission Requirements" of this application.

C. How will you access the proposed site?

Access by boat only.

D. How will your proposed activities affect riparian ingress and egress?

No effect.



MAINE DEPARTMENT OF MARINE RESOURCES

Agreement for Lease/Permit of the State of Maine, Department of Marine Resources, 125 State Street, Portland, ME 04101-1000

- RIPARIAN OWNERS LIST -

For LEASE applications

THIS LIST MUST BE

CERTIFIED

On this list, please show the current owners' names and mailing addresses for all shorefront parcels within 1,000 ft. of the proposed license site. Ask the Town Clerk to complete the certification form below. If the parcels are within more than one municipality, provide a separate, certified, riparian list for each municipality.

TOWN OF: Yarmouth, ME

MAP #	LOT #	Landowner name(s) and address(es)				
Moshier Island Riparian						
	187 Holdings LLC	6 Liberty Square #2082	Boston	MA	02109	64-5-00A
Harriman	Charles P	98 Field Road	Falmouth	ME	04105	64-15
Morse	Jonathan	6 Liberty Square #2802	Boston	MA	02109	64-5
Ahrens	Philip & Josephine	97 Cousins Island	Yarmouth	ME	04096	64-4
Nolan	John & Jennifer	381 Falmouth Road	Falmouth	ME	04105	64-3
Labrecque	Scott & Claire	18 Brookside Dr	Falmouth	ME	04105	64-2

CERTIFICATION

I, Jennifer Doten, Town Clerk of Yarmouth, Maine, certify

that the names and addresses of the property owners listed above are those listed by this municipality and are current as of this date.

SIGNED: [Signature] DATE: 7/1/11 SEAL:

15. TECHNICAL CAPABILITY

Provide information regarding professional expertise. Attaching resume or documentation of practical experience necessary to accomplish the proposed project would satisfy this requirement.

I have been farming this site for six years on LPAs and Experimental Leases. This application is to make an Experimental Lease into a Standard Lease.

16. FINANCIAL CAPABILITY

A. Financial Capability

Please provide documentation to show you have the financial resources to implement the proposal. For example, you may submit a letter from a financial institution or funding agency indicating that you have an account in good standing, or their willingness to commit funds.

Note: Any financial information you submit with your application is part of the public record. Please exercise discretion when submitting financial information.

Please see attached.

B. Cost Estimates

Please provide cost estimates of the proposed aquaculture activities.

The cost of gear and boat (capital) is approximately \$200,000. Annual operating costs will be approximately \$80,000 at this specific proposed lease.

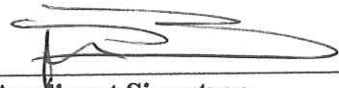
17. ESCROW ACCOUNT OR PERFORMANCE BOND

Check the category that describes your operation:

Check Here	Lease Category	Amount of Required Escrow or Performance Bond
<input type="checkbox"/>	No gear/structure, no discharge	None
<input type="checkbox"/>	No gear/structure, discharge	\$500.00
<input type="checkbox"/>	≤ 400 square feet of gear/structure, no discharge	\$1,500.00
<input checked="" type="checkbox"/>	>400 square feet of gear/structure, no discharge	\$5,000.00*
<input type="checkbox"/>	Gear/Structure, discharge	\$25,000.00

*DMR may increase the bond/escrow requirements for leases with more than 2,000 square feet of structure.

I, (printed name of applicant) Keith Butterfield have read DMR Aquaculture Regulations Chapter 2.64(10) (D) and if this proposed lease is granted by DMR, I will either open an escrow account or obtain a performance bond, in the amount determined by the lease category.



Applicant Signature

Note: Add title if signing on behalf of a corporate applicant.

5/26/2020

Date

ADDITIONAL APPLICANTS: Each applicant must sign this section indicating that they will open an escrow account or obtain a performance bond. Use the space below for additional persons listed on the application. You may attach additional pages, if necessary.

I, (printed name of applicant) _____ have read DMR Aquaculture Regulations Chapter 2.64(10) (D) and if this proposed lease is granted by DMR, I will either open an escrow account or obtain a performance bond, in the amount determined by the lease category.

Applicant Signature

Note: Add title if signing on behalf of a corporate applicant.


Date

18. APPLICANT SIGNATURE PAGE

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 standard lease process.

Printed name: Keith Butterfield

Title (if corporate applicant): _____

Signature:  Date: 5/26/2020

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: _____

19. LANDOWNER/MUNCIPAL PERMISSION REQUIREMENTS (if applicable)

Directions: If any portion of the site is intertidal, you need to complete the steps outlined below.

Step I: Obtain written permission from all intertidal landowners.

Pursuant to DMR Regulations Chapter 2.10(3)(G) the Department requires *written permission of every owner of intertidal land in, on, or over which the activity will occur*. It is your responsibility to obtain written permission and include it with your application materials. Please note that the Department does not provide forms for landowner permission.

Step II: Determine if the municipality where your site is located has a shellfish conservation program.

Pursuant to 12 MRSA §6072(3) *In any municipality with a shellfish conservation program under section 6671, the Commissioner may not lease areas in the intertidal zone within the municipality without the consent of the municipal officers.*

If the municipality where the proposed lease site is located has a shellfish conservation program, it is your responsibility to obtain consent for the proposed lease site from the municipal officers (i.e. the selectmen or councilors of the town, or the mayor and aldermen or councilors of a city.) Consent means a majority vote of the municipal officers as recorded in a public meeting.

It is your responsibility to contact the municipality and determine if they have a shellfish conservation program. Best practices would include discussing your plans with shellfish committee members, but only the consent of municipal officers is required.

Does the municipality, where the proposed site is located, have a shellfish conservation program? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

If you answered yes, please attach documentation from a public meeting demonstrating that a majority of municipal officers have consented to your proposal.

TRUE COPY

TRUE COPY
 Transfer of Title Act
 8/20/16

Boundary Drawing

750' X 100'

2.72 Acres

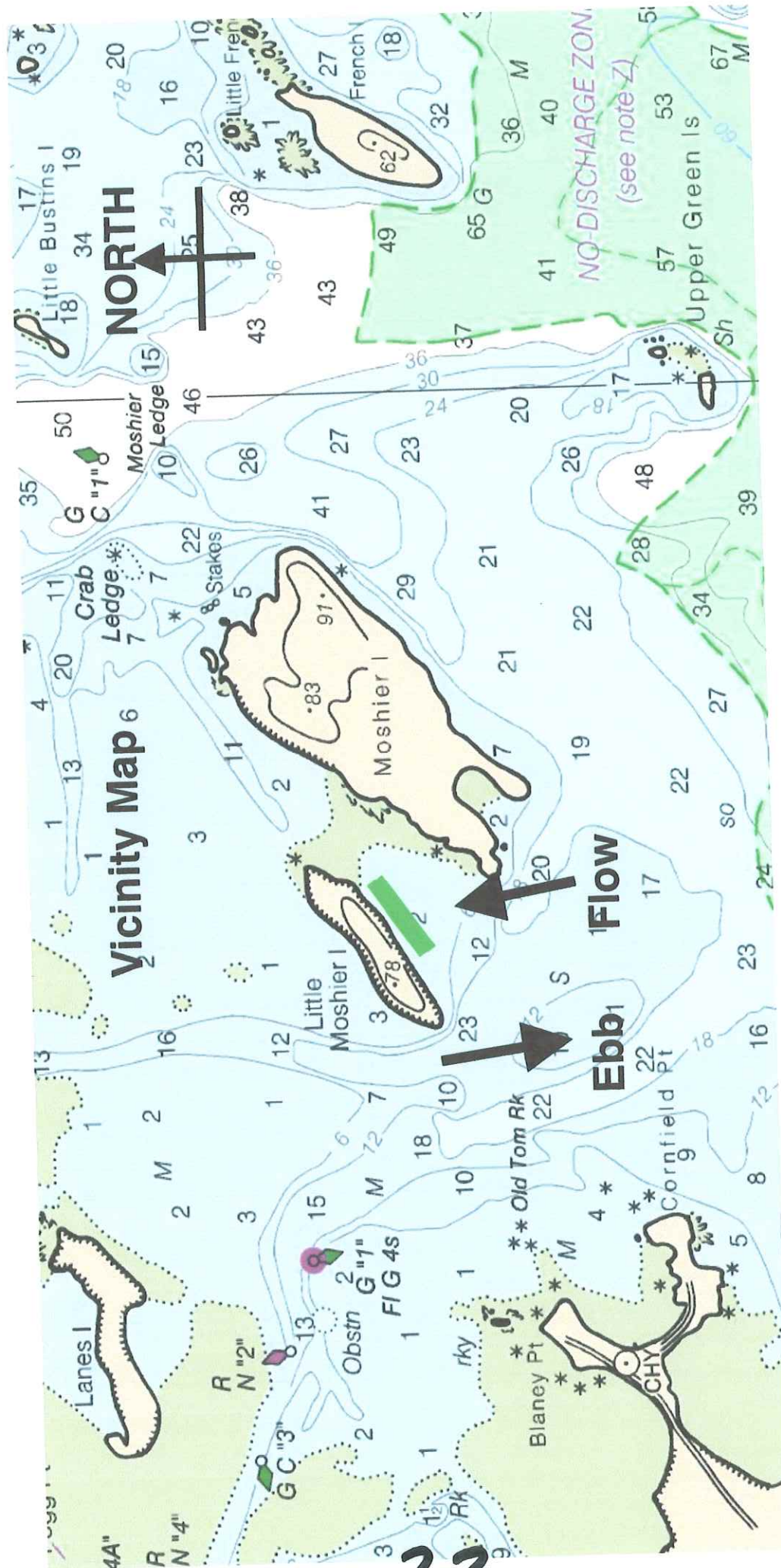
Little Mosher Island

43°46'57.36"N 70° 6'23.52"W

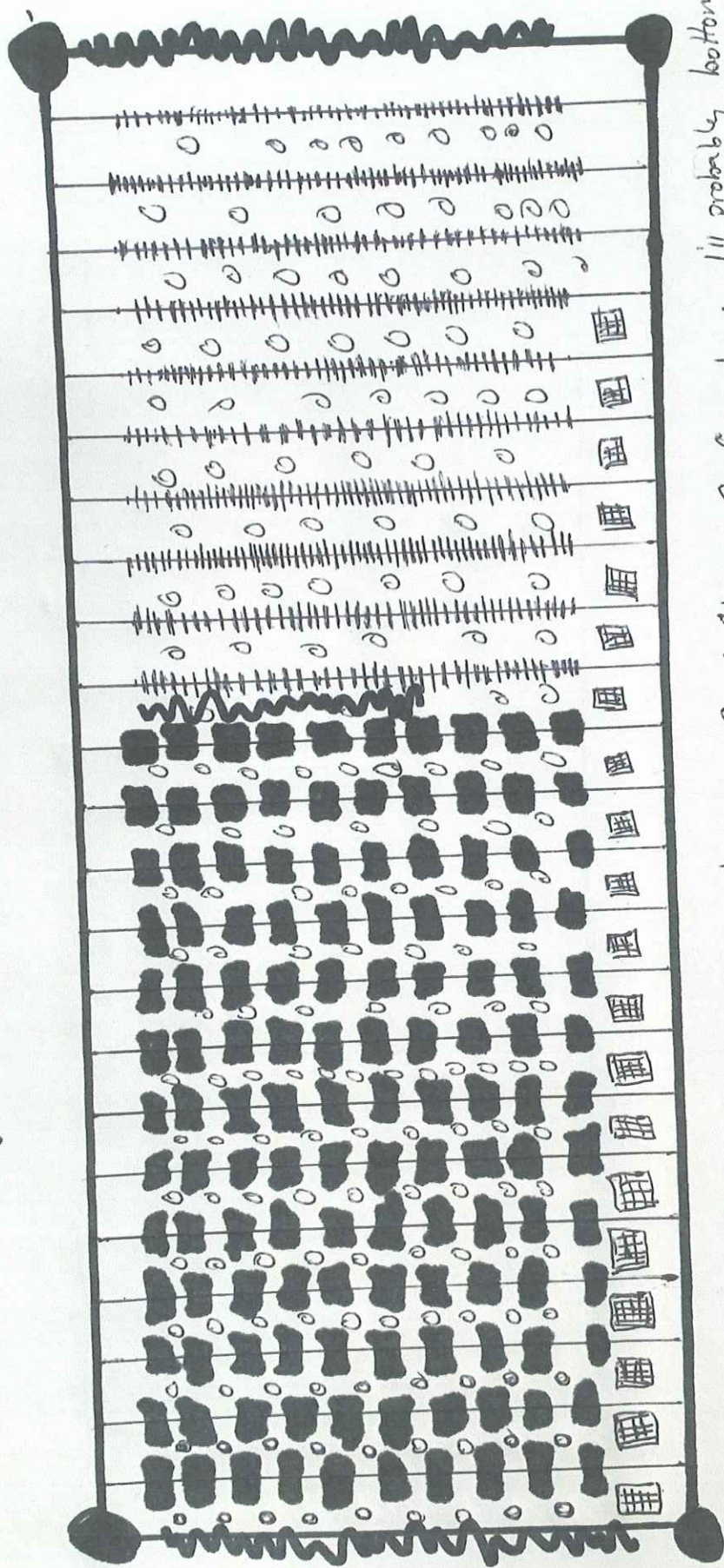
43°46'55.55"N 70° 6'22.61"W

SW 43°46'53.44"N 70° 6'32.38"W

SE 43°46'52.40"N 70° 6'31.36"W



Top View 750' x 100'



Bottom planting: Quahogs, Atlantic & Arctic Surf Clams, Sea Cucumber. I'll probably bottom Plant only a small volume as I experiment with methods.

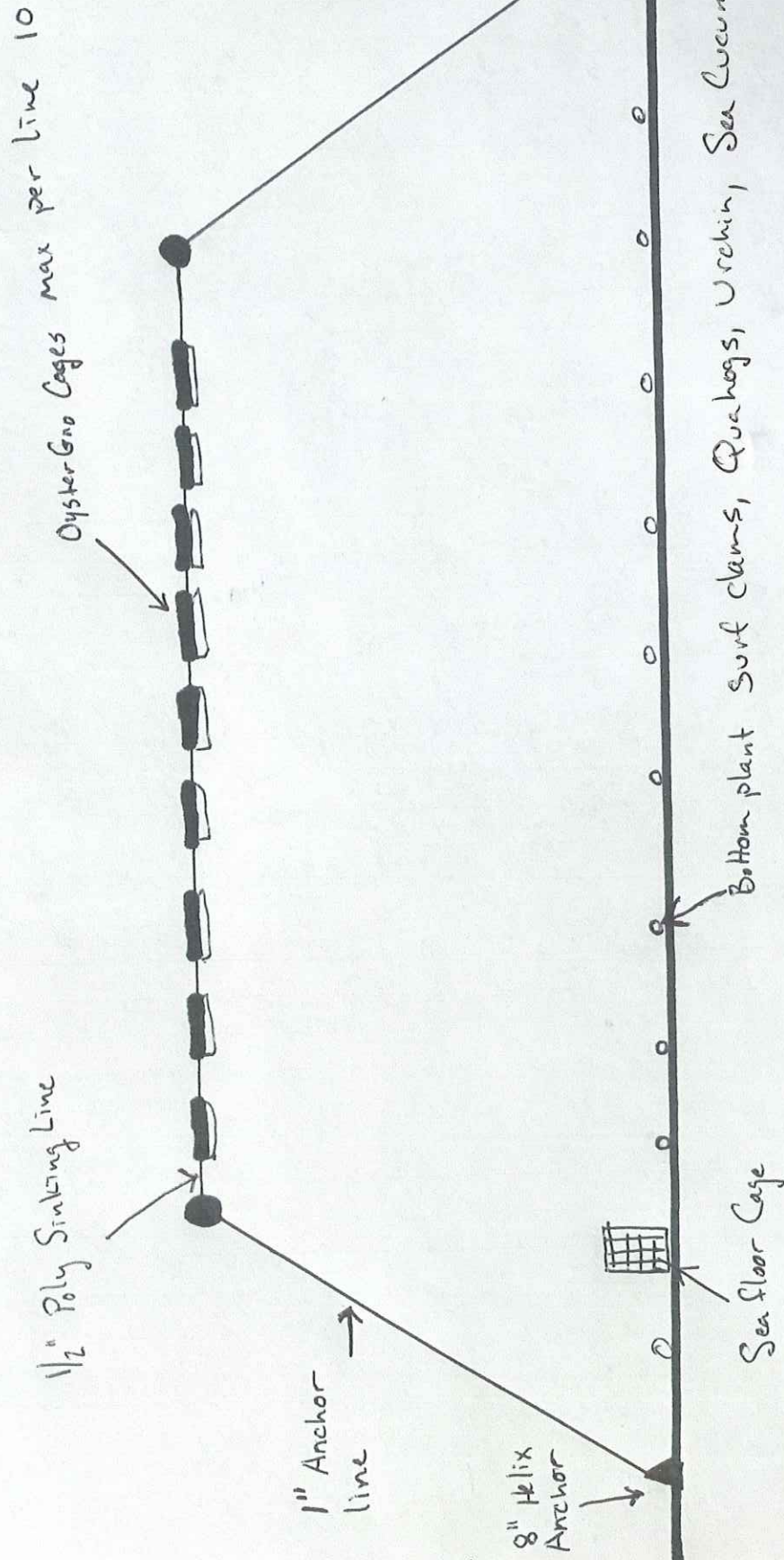
Oyster Gro Cages: Holding oysters, all clams and whelk for banded control.

Hexyl Baskets: Holding oysters, clams, urchin, whelk

Sea floor Cages: Oysters, clams, urchin, whelk

Kelp line: The lease may include some kelp lines for microalgae benefits

Cross View 1 of 2



2062

CROSS VIEW

Hexcyl Baskets
max per line 300

1/2" Poly Haul Line

24mm Poly String Line

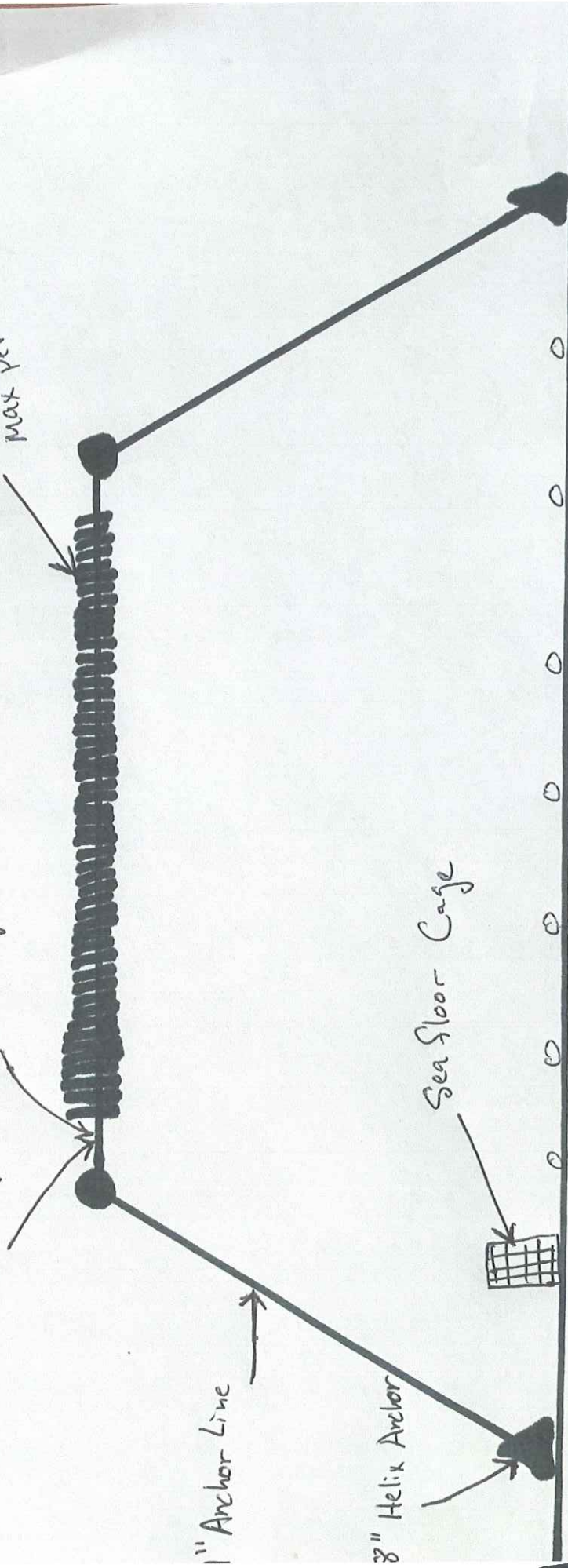
1" Anchor Line

8" Helix Anchor

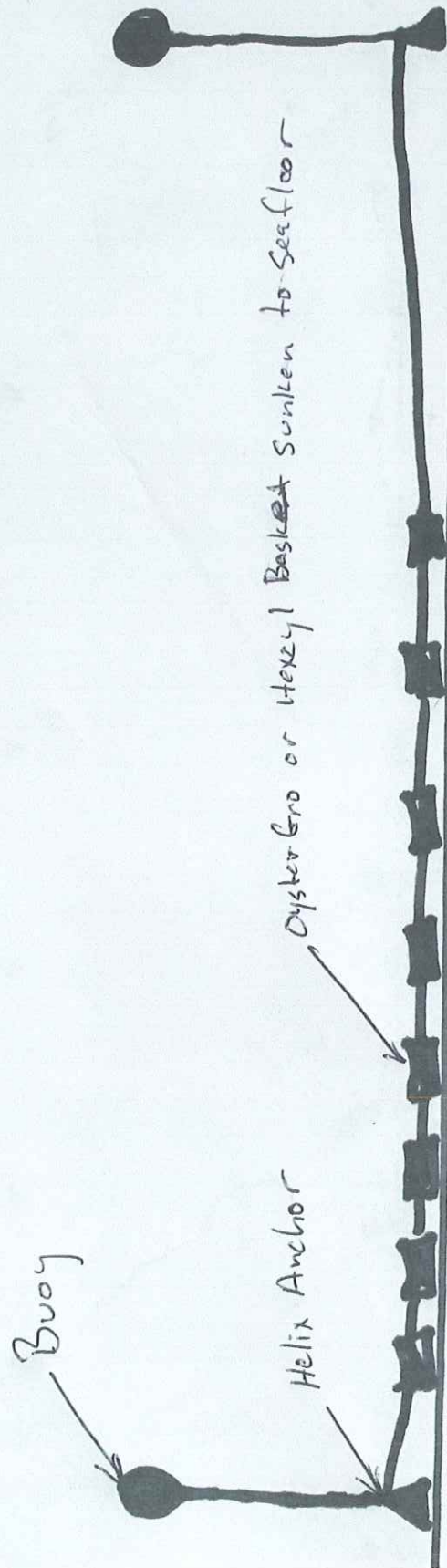
Sea Floor Cage

Possible Bottom Planting Clams, Pothogs, Urchin, Sea Cucumbers

25



Dred. Wintering



Gear may or may not be sunken to the sea floor
for over-wintering. This is a sketch of sunken gear.

Photo From Southeast Vantage Point

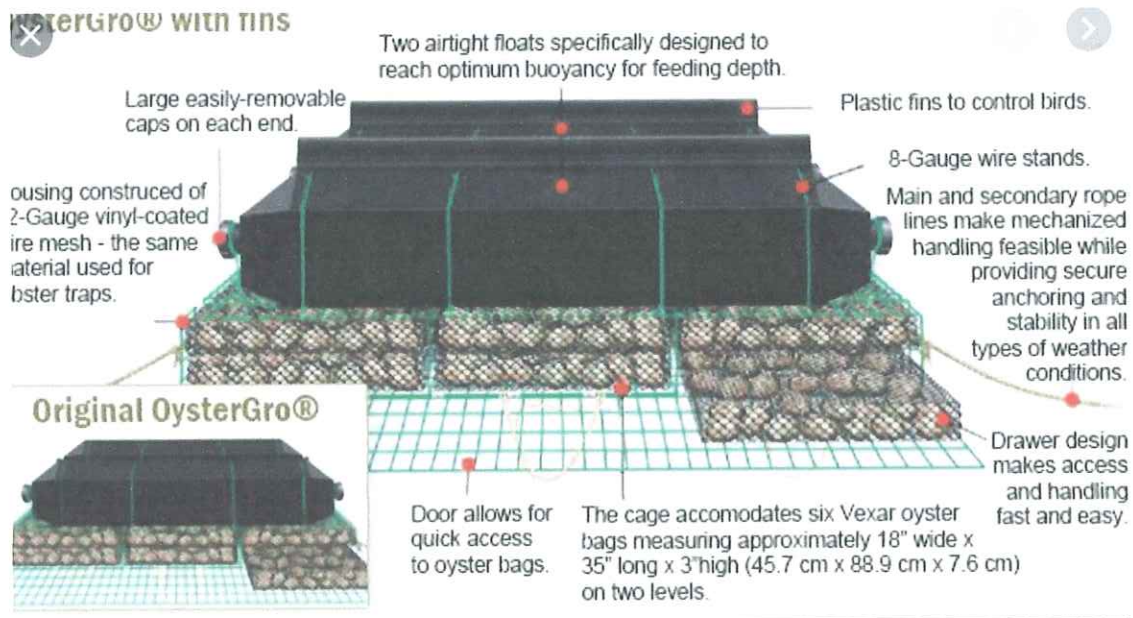


**Photo from Western Vantage Point
(view from Little Moshier Is.)**

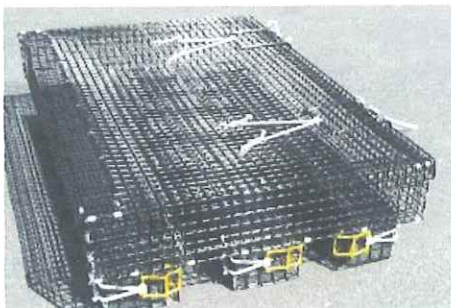


GEAR DRAWINGS

OYSTERGRO CAGE



LOWPRO CAGE



HEXCYL BASKET

ADJUSTABLE LONG LINE SHELLFISH FARMING TECHNOLOGY

INTRODUCING the HEXCYL PRO series SHELLFISH BASKETS

by
HEXCYL

FEATURES and BENEFITS

- Designed for Oysters & other shellfish
- Outstanding durability
 - 10 year minimum serviceable life*
 - Unique ultra tough plastics used
 - Impact resistant in sub zero climates
- Suits high & low energy tidal areas
- Larger Baskets (25 litres, 6.6 Gallons)
 - Greater stock density
 - Up to 40% improved productivity
 - Reduced operating cost
- More even stock distribution
- Improved stock quality
- Suits a wide range of shellfish growth sizes
- 5 Basket sizes - 3, 5, 10, 15 and 20mm mesh sizes
- Access door at both ends of basket
- Quick simple assembly
- Each basket handles up to 10kg (22lb) of stock
- Multiple attachment options and positions
- Suspension Clips fold flat for transport and storage
- Line and accessories also available
- Tested and proven on our own farms



5 Year Guarantee



HEXCYL BASKET SPECIFICATIONS

HEXCYL SHELLFISH BASKETS

FIVE SIZES Click on images	Hexcyl Pro 0304	Hexcyl Pro 0507	Hexcyl Pro 1014	Hexcyl Pro 1521	Hexcyl Pro 2028	Hexcyl HD 1521
						
Mesh Size	3mm (1/8")	5mm (3/16")	10mm (7/16")	15mm (5/8")	20mm (3/4")	15mm (5/8")
Shellfish Size	5mm (3/16") minimum	10mm (7/16") minimum	20mm (3/4") minimum	40mm (1-1/2") minimum	70mm (2 3/4") minimum	40mm (1-1/2") minimum
Volume	25 litres (6.6 gallons)					31 litres (8.3 gall)
Dimensions	732mm (29") long 270mm (10 5/8") wide 140mm (5-7/16") high					800mm (31-1/2") 280mm (11") 180mm (7")

MATERIAL SPECIFICATIONS

Our baskets and clips will outperform other plastic baskets because we use a specially developed Ultra High Impact Resistant materials known for sub zero temperature performance. All materials have the highest possible Ultra Violet resistance. We have had product in the field for over 10 years.

HEXCYL Basket/Lid 	Ultra high Impact grade Material Food Grade - When used in accordance with FDA application guidelines, this product meets the requirements of FDA 21 CFR 177.1520 (c) 3.1a and AS2070-1999 section 4.1.1(a). Flamability - DIN 4102 B2: normal combustibility similar to wooden pallets.
HEXCYL Clips 	Ultra high impact grade, UV Stable material

PACKING and TRANSPORT

Adelaide Shipping Port is 13 km (13 minutes) from our manufacturing and container loading site at Wingfield, South Australia, 5014

Flow N Grow Float Specifications:

- 243 Pounds of floatation each, 486 pounds per cage.
- Each Float measure 62.5 x 13.75 x 9.5" and weighs 13.5 pounds.
- High quality UV stable plastic
- Manufactured in the US

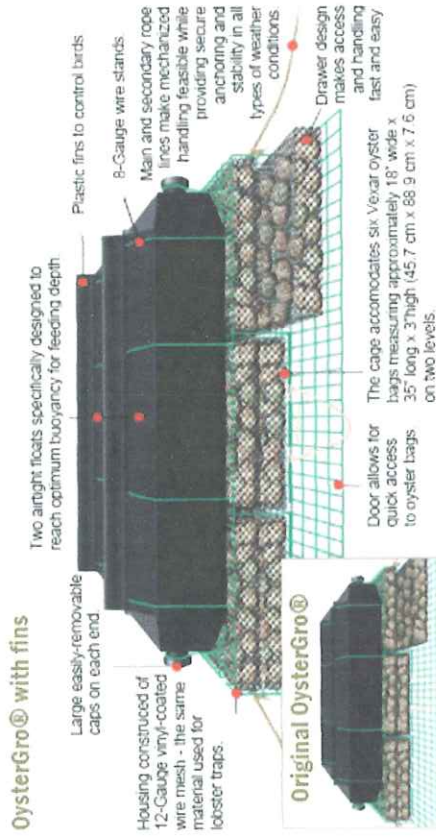
6 Bay Cage Specification:

- Cage measures 9" tall x 67.5" long x 40.5" wide.
- Constructed from 8G 4.5" square marine grade wire mesh.
- Full width double 8G bridal points.
- Full back panel.
- Solid rubber cord door closures.
- 3 bays across, 2 bays tall.
- Heavy duty marine grade wire float straps.
- Optional bird deterrent post with string.
- Optional gunwale mounted flipping tool.
- Manufactured in the US.

CALL 508-997-4787 OR EMAIL

Add to Wishlist

Categories: Aquaculture, Flow N Grow



Screen Nursery Box

48" x 36" x 4"



SEAFLOOR CAGE
36" x 35" x 45"



HEXCYL BASKETS IN THE WATER





Flipping mechanism is a metal track attached to the side of the boat that turns over the Hexacyl baskets as the boat drives forward. It is not motorized and it is quiet.