Proposed Water Column Aquaculture Leases in St. Johns County

ATTACHMENT 5B
PAGE 1

Division of Aquaculture
Aquaculture Parcels Resource Assessment
St. Johns County
9/04/2025

Introduction

Three applicants have proposed areas to be utilized for water column shellfish aquaculture in Tolomato and Guana Rivers, St. Johns County. Division staff, along with DEP Aquatic Preserve staff assessed the proposed sites on September 4, 2025.

Site Location

The sites are in the North St. Johns Conditionally Approved #9202 Shellfish Harvesting Area (Figure 1).

Resource Assessment

The nominated areas are in the Tolomato and Guana Rivers in St. Johns County and located in the Guana River Marsh Aquatic Preserve (Figure 2). The resource assessments were conducted during a falling tide. Visibility was less than 1 foot at the sites. The substrate consisted of mud throughout the sites. The assessments were conducted by boat utilizing poling and snorkeling. Four poling transects were conducted around the perimeter, along with two center transects for each site. Depths during the assessments ranged from 2 to 22 feet.

Wandel Site:

Oysters and marsh vegetation were found on the Western shoreline adjacent to the lease site (Figure 3). The Western shoreline is approximately 64 feet to the parcel and the Western line was moved to be 50 feet from any oyster habitat. The original proposed parcel (5 acres) was adjusted to avoid impeding navigation through this section of the Guana River (Figure 4). The amended parcel is approximately 250 feet to the Eastern shoreline to allow for navigation (Figures 5-7). A 50-foot buffer around the perimeter of the amended area was also assessed, which consisted of the same substrate and no other critical habitats were present (Figure 8). The final amended parcel is 2 acres (Figure 9).

Wandel 2-Acre Amended Site - GPS Coordinates and Depths:

NW Corner:	29.993619/ -81.322459	7 ft
NE Corner:	29.993667/ -81.322147	11 ft
SW Corner:	29.991242/ -81.321721	5 ft
SE Corner:	29.991286/ -81.321420	10 ft

Dilibero Site:
Oysters were found on the Western shoreline and in the proposed area (Figure 10). The Western line was moved to be at least 50 feet from any live oysters. The original proposed parcel (2 acres) was adjusted to 1 acre to avoid the oyster habitat (Figure 11). The amended parcel is approximately 82 feet to the shoreline (Figures 12-14). A 50-foot buffer around the perimeter of the amended area was also assessed, which consisted of the same substrate and no other critical habitats were present (Figure 15). The final amended parcel is 1 acre (Figure 16).

Dilibero 1-Acre Amended Site - GPS Coordinates and Depths:

NW Corner:	29.987486/ -81.323786	6 ft
NE Corner:	29.987380/ -81.323680	5 ft
SW Corner:	29.986013/ -81.325796	3 ft
SE Corner:	29.985906/ -81.325666	3 ft

New World Oyster, LLC Site:
No resources were found within the proposed New World Oyster, LLC site (Figure 17). The proposed parcel is 4 acres (Figure 18). The proposed site is approximately 170 feet to shore and 180 feet to the navigation channel (Figures 19-21). A 50-foot buffer around the perimeter of the proposed area was also assessed, which consisted of the same substrate and no other critical habitats were present (Figure 22).

New World Oyster, LLC 4-Acre Site - GPS Coordinates and Depths:

NW Corner:	29.98227/ -81.32909	20 ft
NE Corner:	29.98226/ -81.32751	4 ft
SW Corner:	29.98131/ -81.32910	20 ft
SE Corner:	29.98130/ -81.32752	9 ft

Recommendations:
After review of the pertinent information, Division staff recommend the amended sites (Figure 30).
Comments:
The Division seeks to preclude impacts to seagrass beds and other sensitive habitats. Division staff could make an accurate assessment of the proposed lease sites and the adjacent areas. The proposed parcels are not in a major navigation channel. Some boating/kayaking activity is expected for recreational fishing. The site is in the Guana Tolomato Matanzas National Estuary Research Reserve and the Guana River Marsh Aquatic Preserve.

Figure 1. Location of proposed aquaculture sites in Shellfish Harvesting Area 9202 North St. Johns.

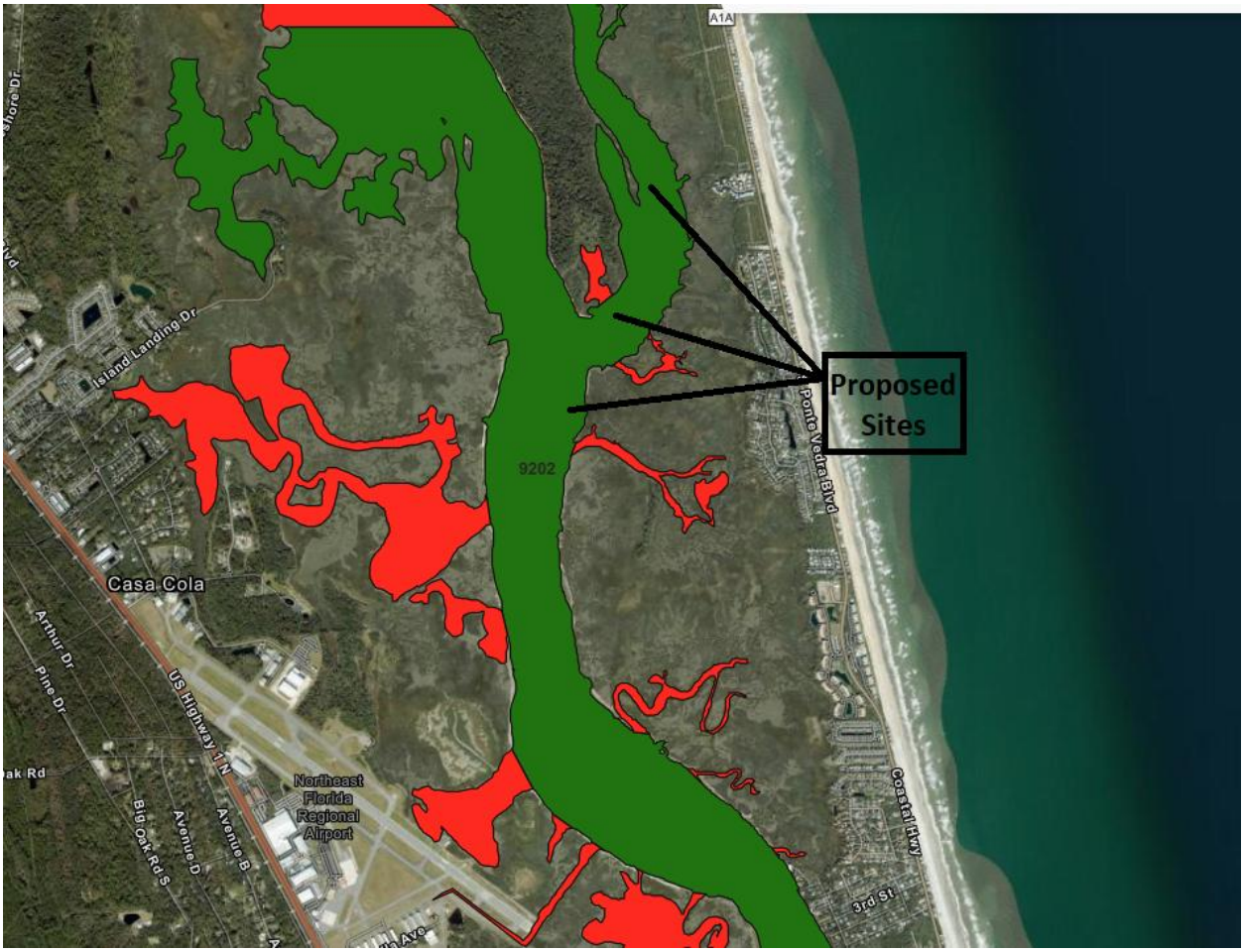


Figure 2. Nominated areas located in Guana River Marsh Aquatic Preserve.

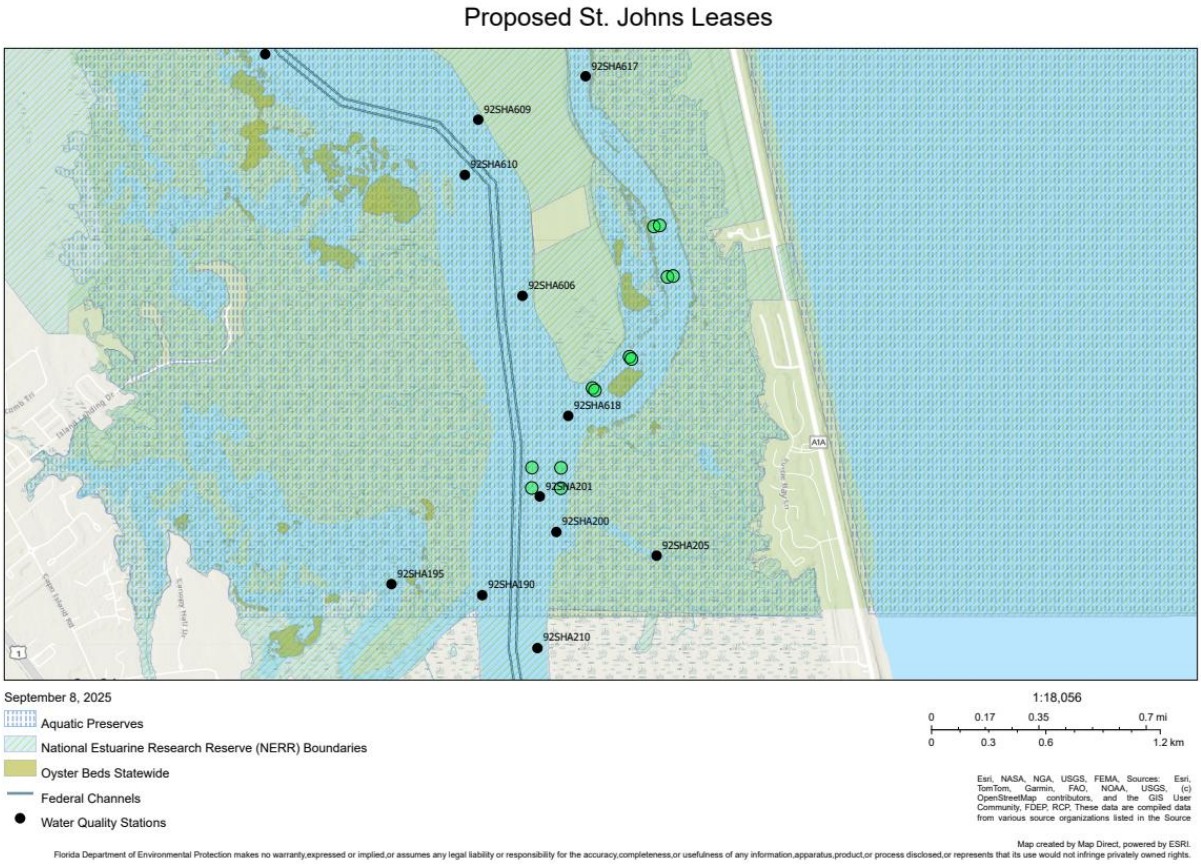


Figure 3. Assessment Sketch Wandel

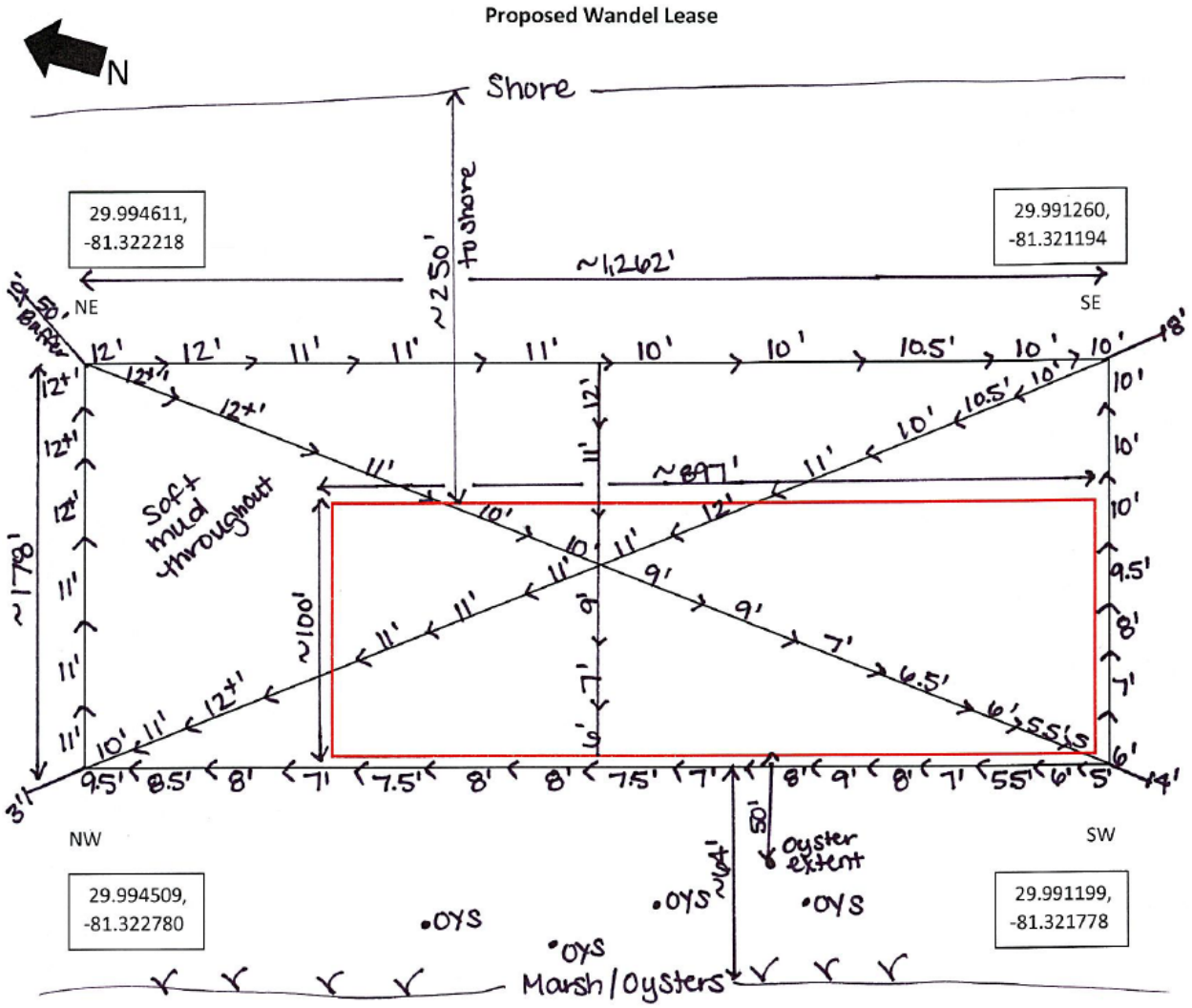


Figure 4. Amended 2-acre parcel to allow for better navigation.

Figure 5. Shoreline looking North

Figure 6. Shoreline looking West

Figure 7. Guana River, looking South

Figure 8. Critical habitat map of amended area.

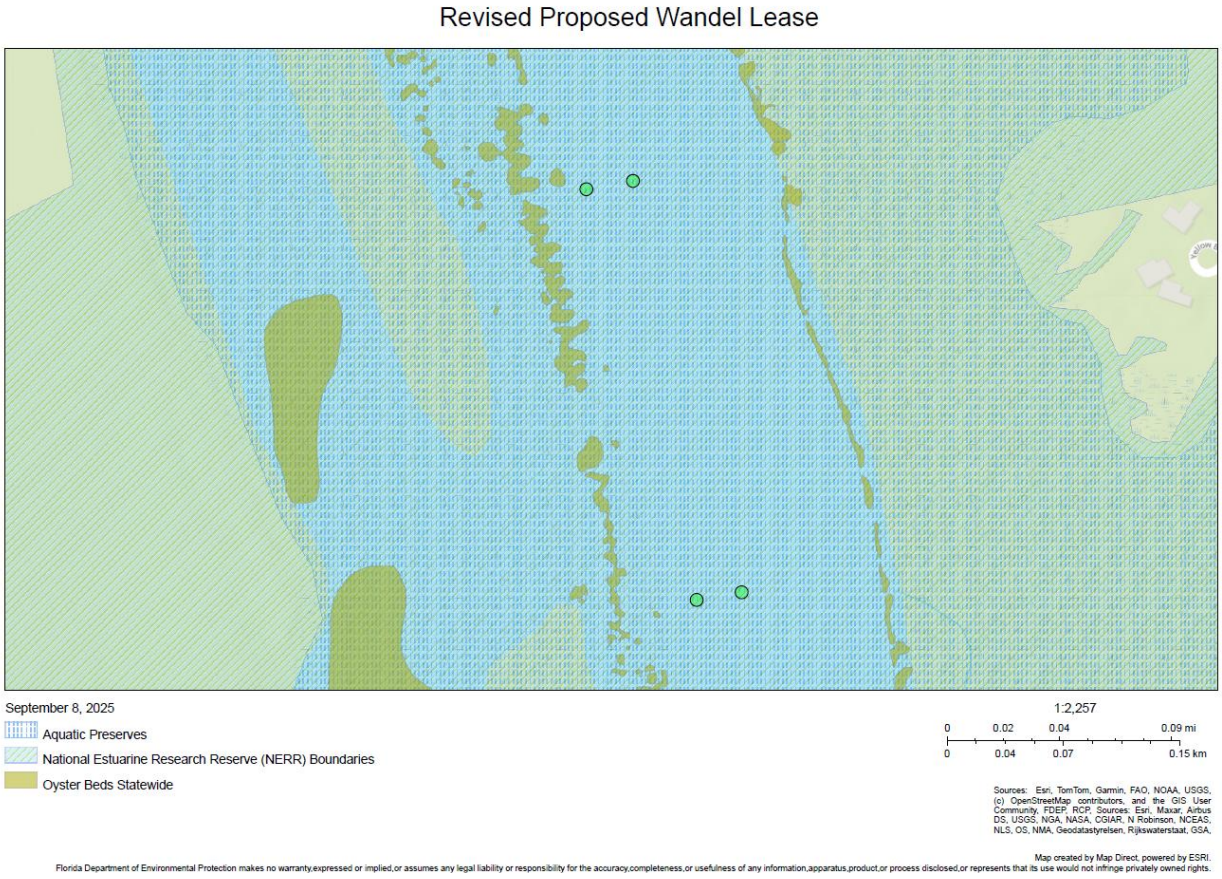


Figure 9. Amended Wandel 2-acre parcel

Figure 10. Assessment Sketch Dilibero

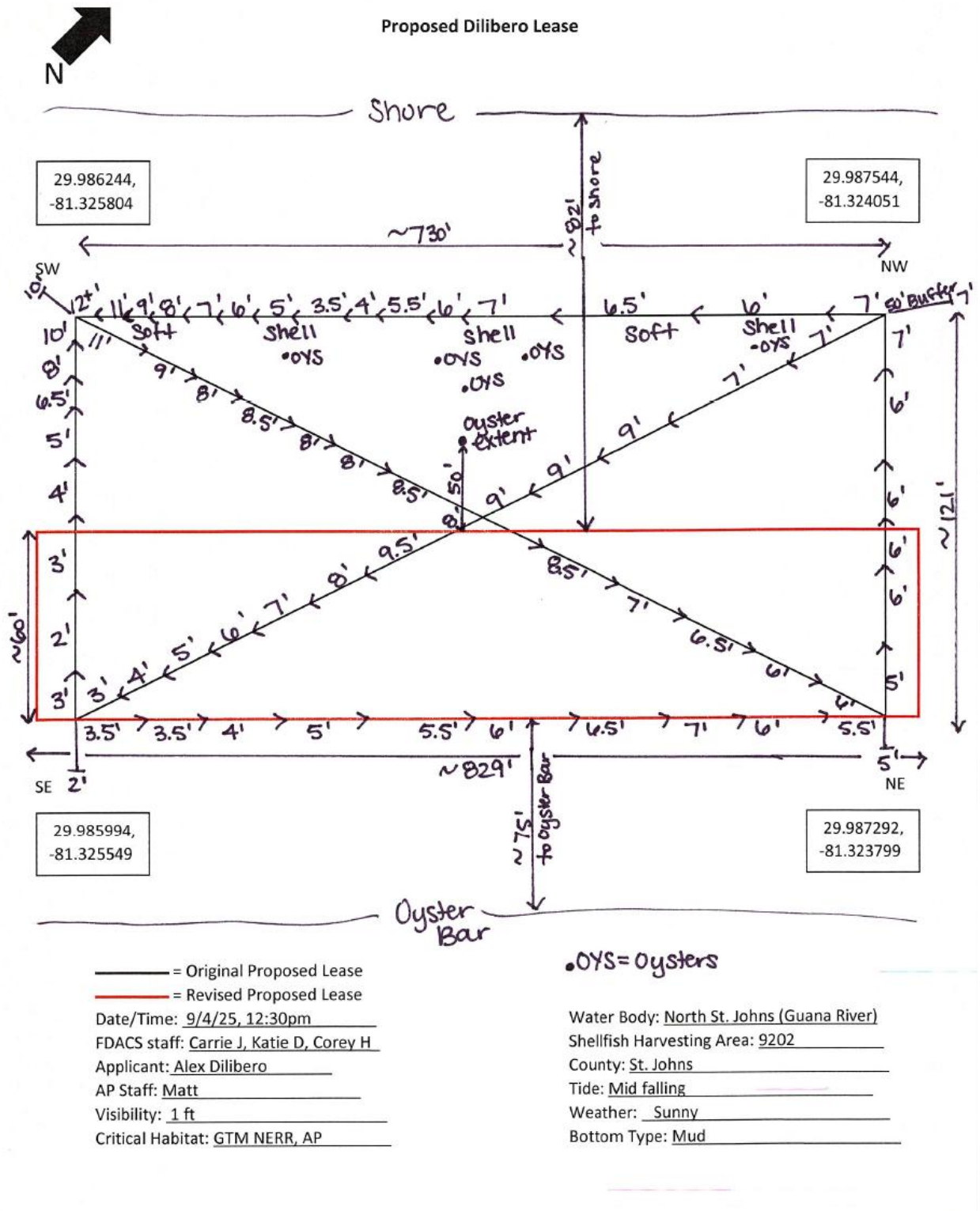


Figure 11. Dilibero Site 1-acre amended area to avoid oysters.

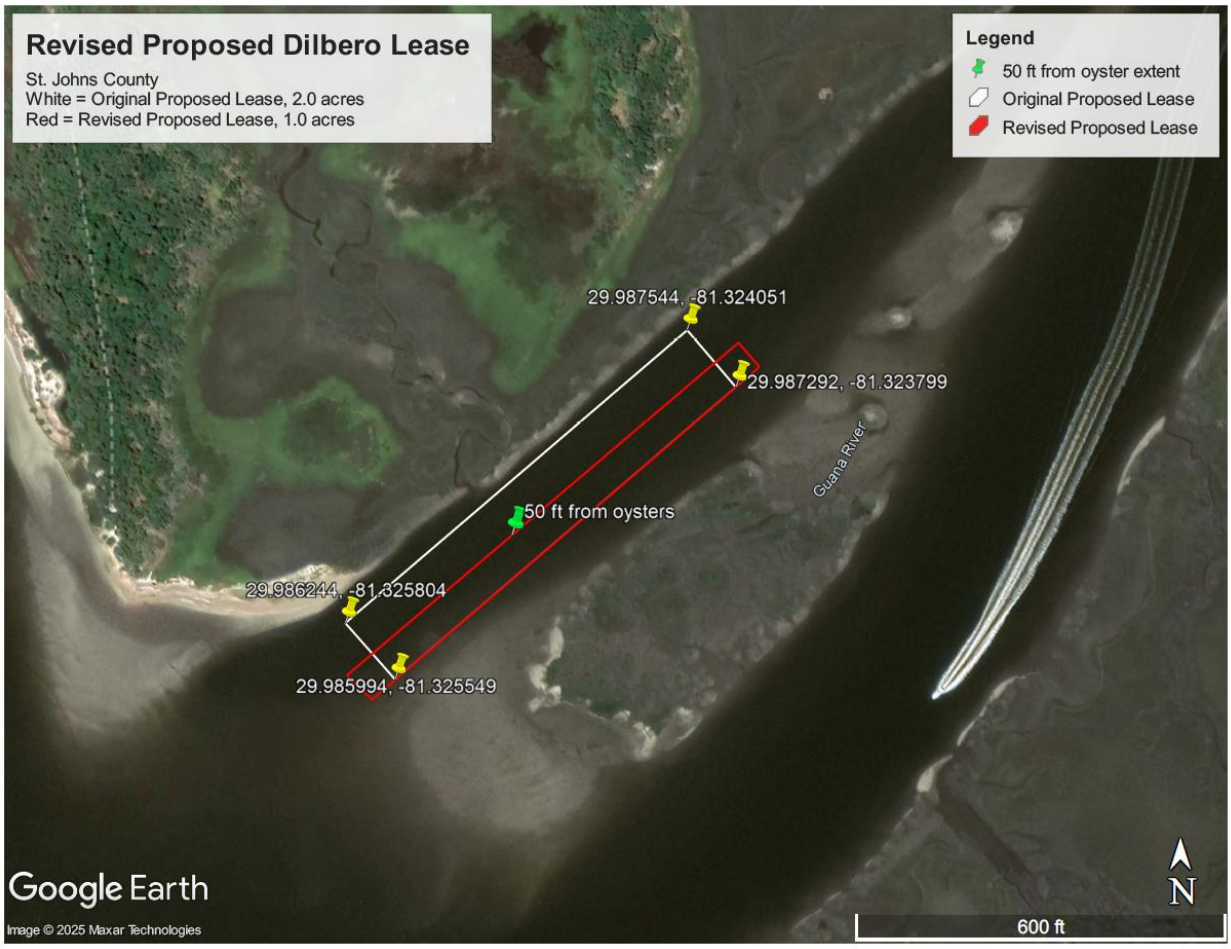


Figure 12. Shoreline and Guana River looking North.

Figure 13. Oyster bar looking East.

Figure 14. Mouth of Guana River, looking South to Tolomato River.

Figure 15. Critical Habitat Amended Dilibero Site.

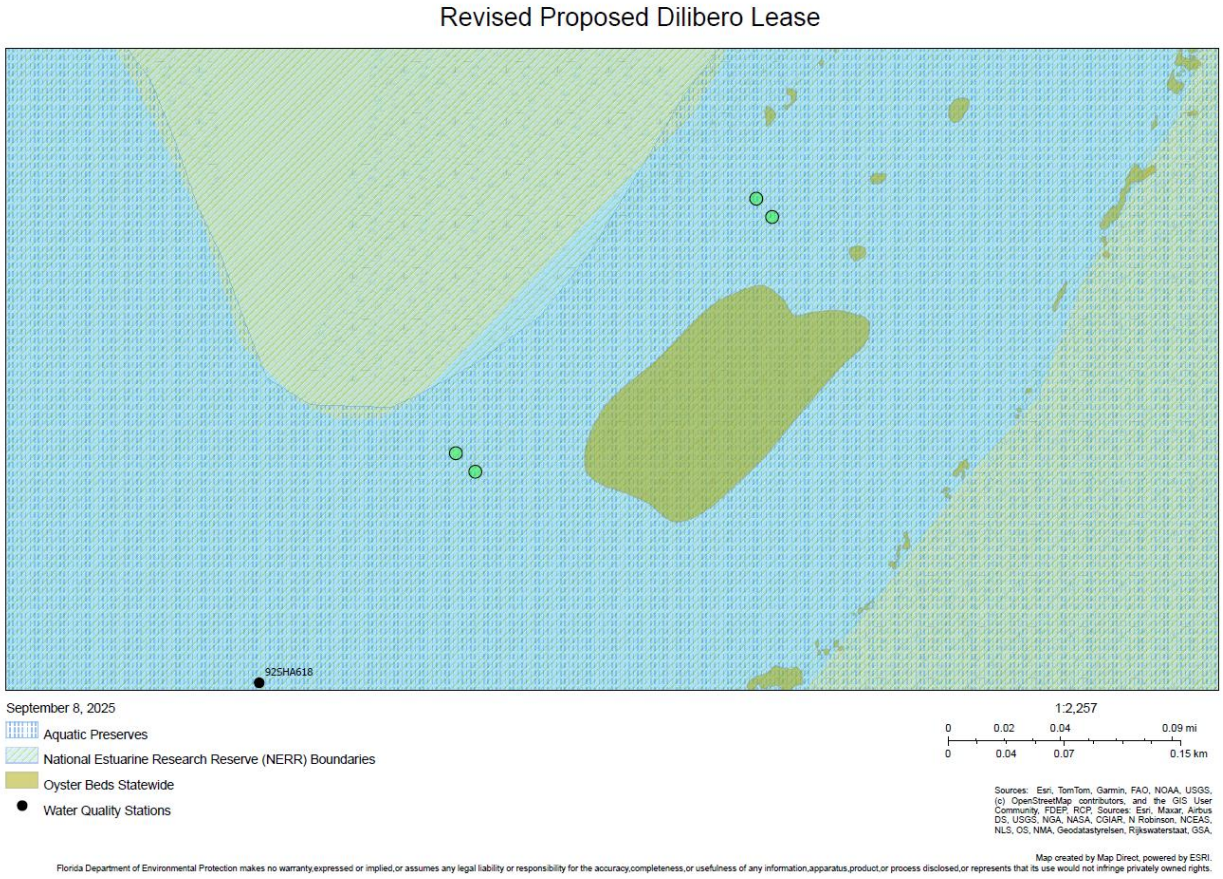
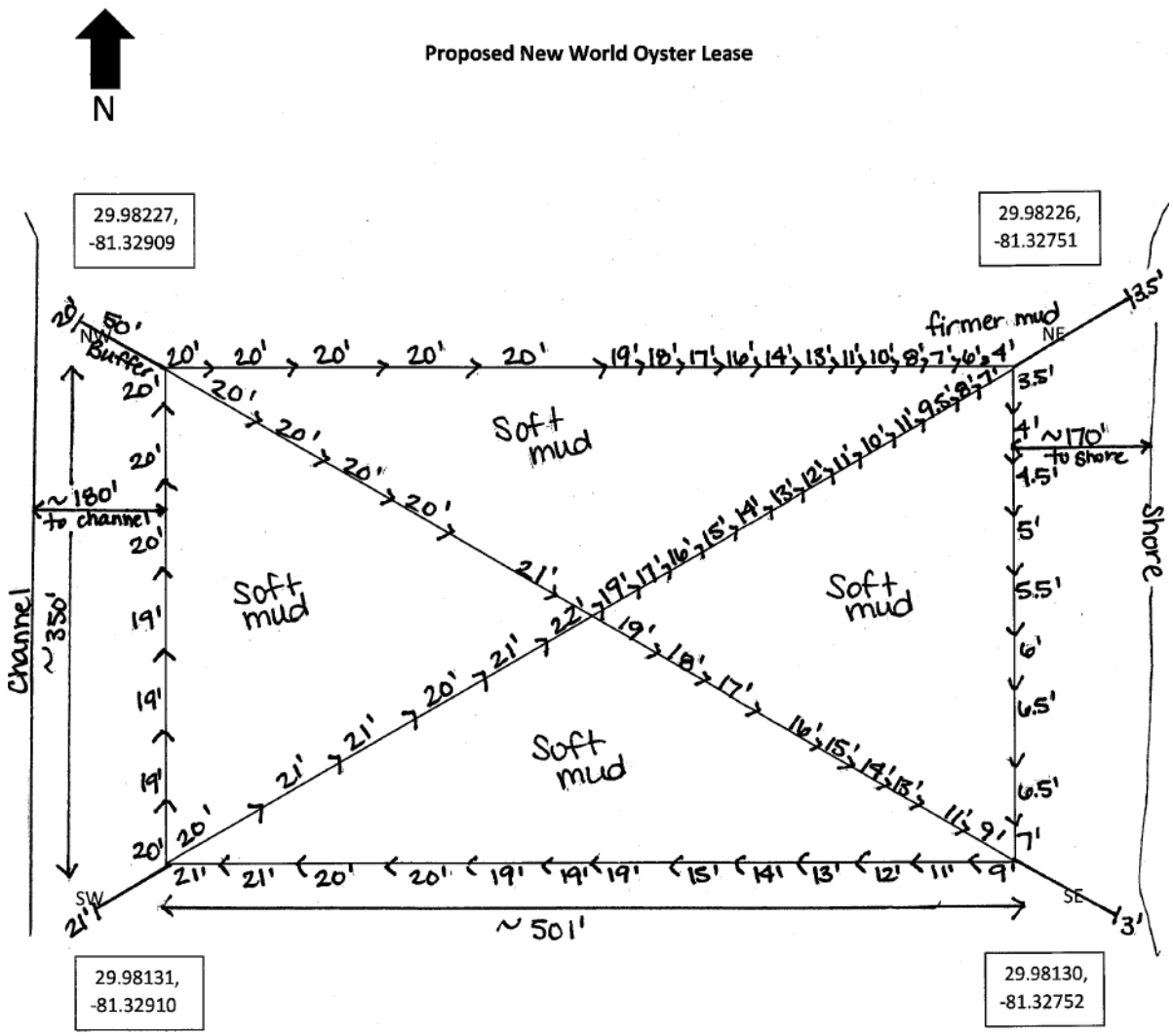


Figure 16. Amended Dilibero 1-acre site.

Figure 17. Assessment Sketch New World Oyster, LLC.



Date/Time: 9/4/25, 11:40am
FDACS staff: Carrie J, Katie D, Corey H
Applicant: Katie Carter
AP Staff: Matt
Visibility: 1 ft
Critical Habitat: GTM NERR, AP

Water Body: North St. Johns (Tolomato River)
Shellfish Harvesting Area: 9202
County: St. Johns
Tide: High, falling
Weather: Sunny
Bottom Type: Soft mud

Figure 18. New World Oyster, LLC 4-acre site.

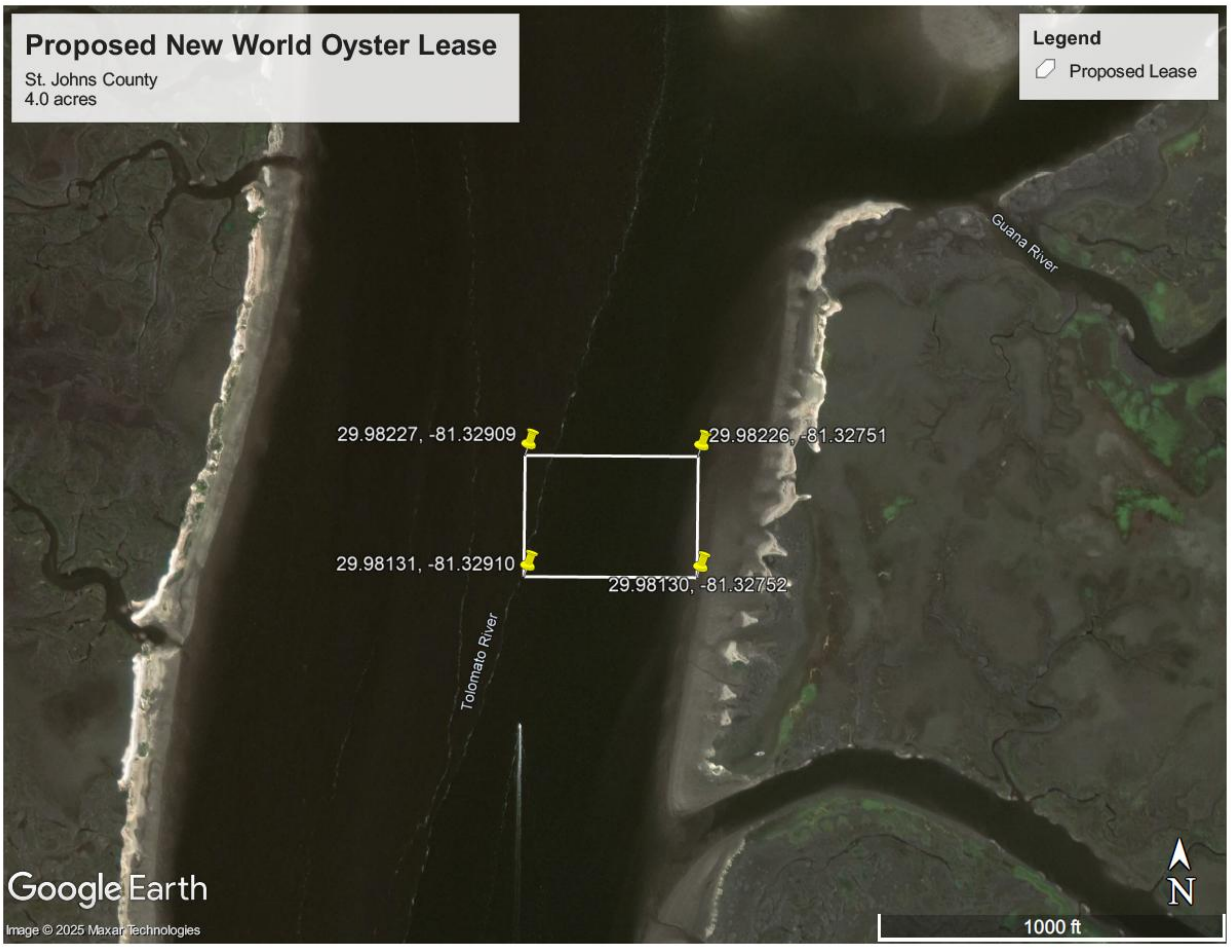
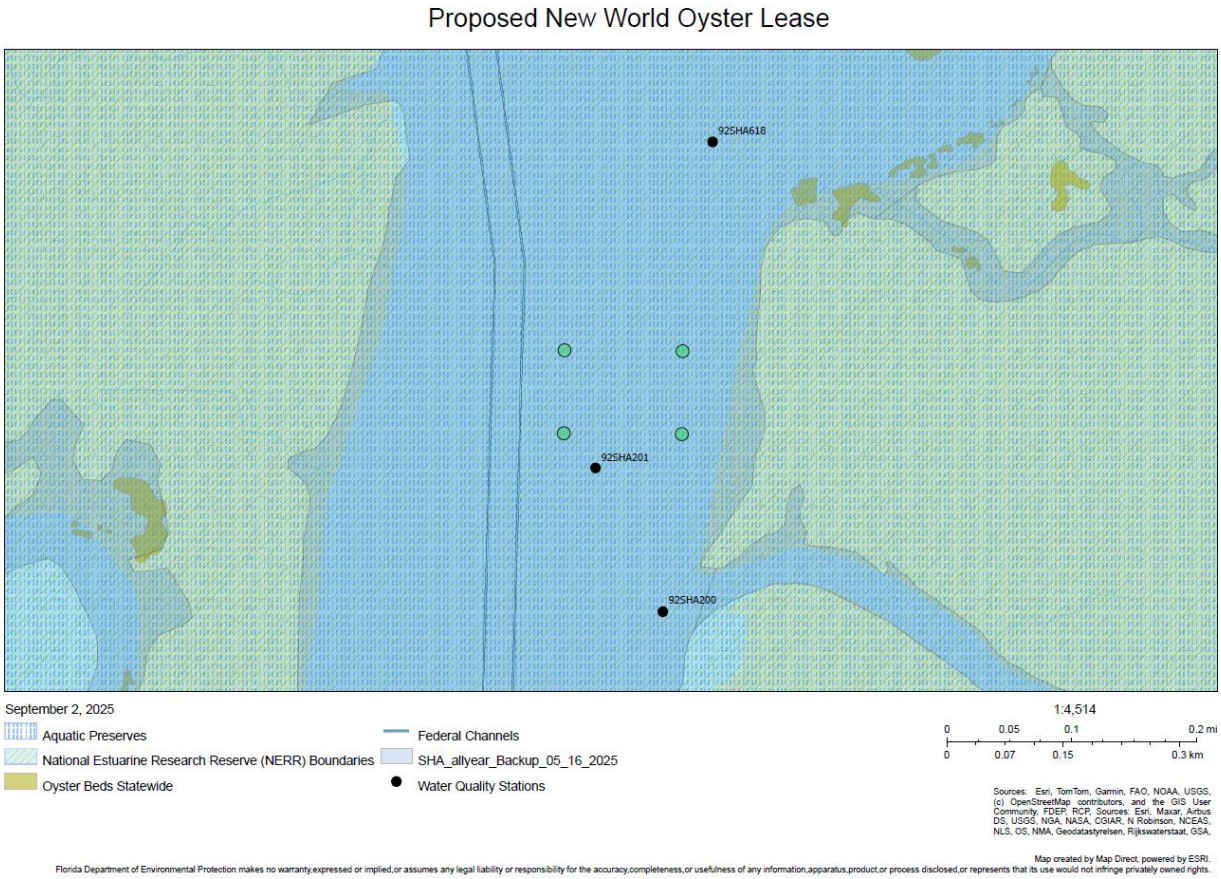


Figure 19. Tolomato and Guana Rivers, looking North.

Figure 20. Shoreline looking East.

Figure 21. Tolomato River and navigation channel, looking West.

Figure 22. Critical Habitat New World Oyster, LLC site.



55-AQ-2398 Alexander Dilibero Lease Application Responses:

Proposed Aquaculture Activities:
I'm an Air diving superintendent with 16 years in marine construction and six years in a leadership role. I'm well equipped at creating a plan and executing and troubleshooting to stick to said plan. I've taken the shellfish harvester course twice now and I'm in direct communication and plan two work close with other farmers such as commanders and treasure coast. I've been avid presence in marine conservation and thats a huge component of my basis for my farm.

Reason for Site Selection:
Site location is a deeper water site, ideal for water column lease. It's located outside of the main channel for vessel navigations. Salinity is lower compared to other areas in Saint John's county.

Recreational and Commercial Uses:
Aquaculture will be the intended use for the lease. The site will remain open and available for public recreational use for fishing, crabbing etc…

Potential Impacts on Ecology:
The intention would be zero impact from an ecological standpoint. In fact, the opposite. By introducing a large number of filter feeders we will be removing nitrogen and sediment from local waters. A plan to establish old oyster shell for reef restoration will be set along with other means of benefiting the local marine environment. The site is at least 870' from any nesting sites and at least 50' from any oyster beds according to historical layers.

Statement on Public Interest:
The lease should be in the public's interest as stated above. Filter feeds are a zero impact crop that are proven to benefit local water ways. The lease site will always contribute to the local community by providing high quality sustainable seafood that does not need to be shipped in from the west coast adding to the price at which they purchase it.

Aquaculture Related Structures:
Water column lease will consist of longline spreader bar construction. I have full construction plans and drawings of my intended use.

Aquaculture Activities:
I have a complete business plan written and available via PDF. In short, I plan to use floating cages for oyster for the half shell market. Clam bags along the bottom of the lease site and oyster racks for larger oyster grow out. Eventually, I would like to introduce seaweed such as Ulca Lactuca and native mussels for food production.

Effective Cultivation- Lease Development Plan:
Year 1

- Clams -
  - Fall (September-October): Seed 50,000 juvenile clams per acre (100,000 total).
- Oysters -
  - Fall (October-November): Seed 37,500 oyster spat per acre (75,000 total).

Year 2 : Increase seeding to meet minimum requirements and prepare for first significant harvests.

- Clams:
  - Spring (April-May): Seed 75,000 juvenile clams per acre (150,000 total).
  - Fall (September-October): Seed 75,000 juvenile clams per acre (150,000 total).
- Oysters:
  - Spring (May-June): Seed 50,000 oyster spat per acre (100,000 total).
  - Fall (October-November): Seed 50,000 oyster spat per acre (100,000 total).
- Harvests: Begin harvesting clams seeded in Spring 2025 (approx. 18-24 months to market size).

Year 3 :

- Clams:
  - Spring (April-May): Seed 100,000 juvenile clams per acre (200,000 total).
  - Fall (September-October): Seed 100,000 juvenile clams per acre (200,000 total).
- Oysters:
  - Spring (May-June): Seed 75,000 oyster spat per acre (150,000 total).
  - Fall (October-November): Seed 75,000 oyster spat per acre (150,000 total).

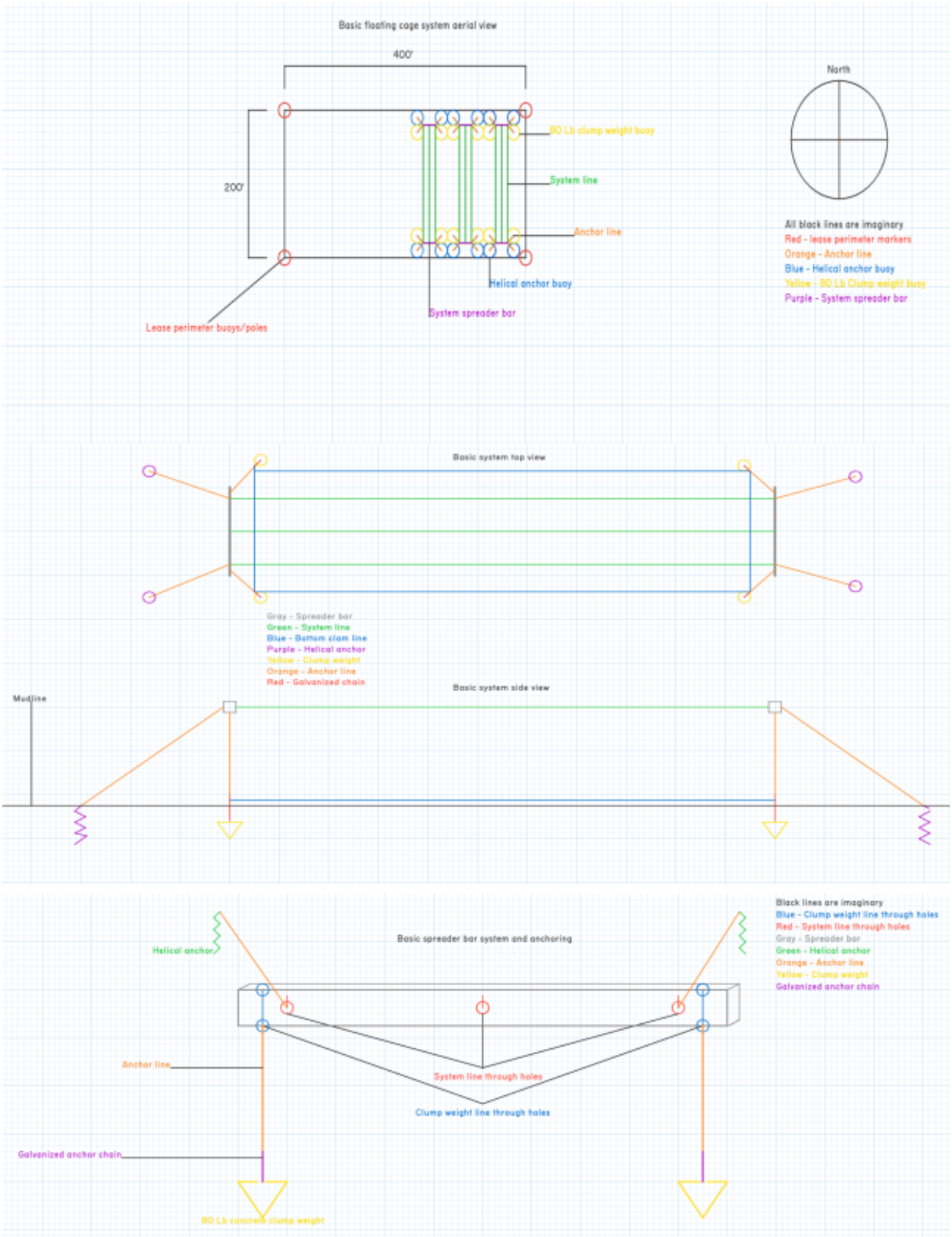
Year 4 - Year 10 : Maintain and optimize production.

- Clams:
  - Spring (April-May): Seed 100,000 juvenile clams per acre (200,000 total).
  - Fall (September-October): Seed 100,000 juvenile clams per acre (200,000 total).
- Oysters:
  - Spring (May-June): Seed 75,000 oyster spat per acre (150,000 total).
  - Fall (October-November): Seed 75,000 oyster spat per acre (150,000 total).

Source of Seed Stock:
Seed will be sourced from nurseries until enough profit is built to justify building an Upwelling system on site.

Describe Distribution after Harvest:
Seafood markets

Dilibero Gear Plan and Attachments:


Basic floating cage system aerial view
400'
200'
80 Lb clump weight buoy
System line
Anchor line
Helical anchor buoy
System spreader bar
Lease perimeter buoys/poles
North
All black lines are imaginary
Red - lease perimeter markers
Orange - Anchor line
Blue - Helical anchor buoy
Yellow - 80 Lb Clump weight buoy
Purple - System spreader bar
Basic system top view
Gray - Spreader bar
Green - System line
Blue - Bottom clam line
Purple - Helical anchor
Yellow - Clump weight
Orange - Anchor line
Red - Galvanized chain
Basic system side view
Mudline
Basic spreader bar system and anchoring
Helical anchor
Anchor line
System line through holes
Clump weight line through holes
Galvanized anchor chain
80 Lb concrete clump weight
Black lines are imaginary
Blue - Clump weight line through holes
Red - System line through holes
Gray - Spreader bar
Green - Helical anchor
Orange - Anchor line
Yellow - Clump weight
Galvanized anchor chain

Construction Plan for Waterman Jacks LLC. - Regenerative Ocean Farm

Project Overview:

Waterman Jacks LLC. is confidently leading an innovative project to establish a groundbreaking regenerative ocean farm within the approved two-acre lease area. This plan outlines a systematic approach, employing the expertise of commercial divers to execute underwater installations. The aim is to create a sustainable and functional farming system comprising 11 floating systems and an integrated clam line.

Site Preparation:

1. Surveying and Marking Lease Locations:

- Initiate a comprehensive survey to evaluate the project area's water depth, current dynamics, and seabed characteristics.

- Mark the corners of lease area with required marking techniques using appropriately sized PVC poles for shallower waters or helical anchors complemented by surface buoys for deeper locations. This marking strategy enhances visibility and strengthens compliance with maritime safety regulations.

Floating Farming System Construction:

1. System Fabrication:

- Fabricate 11 floating systems, each featuring:

- Two sturdy aluminum spreader bars, 16 feet in length, designed for durability against marine conditions. These bars will be capped and foam-filled to achieve optimal buoyancy and structural strength.

- Incorporate precision-welded through-holes within the spreader bars to facilitate the attachment of clump weights and system lines, ensuring a cohesive and well-integrated structure.

2. Anchoring System Installation:

- Position four 60-inch helical anchors per system. The anchor lines will be shackled to an eye on the outside system lines running through the spreader bar, effectively improving the stability of the entire system.

- Deploy anchor lines made of 3/4" three-strand Dacron with an impressive breaking strength of 8,400 lbs. Each line will be anchored at an optimal 45-degree angle, pulled tautly, and secured with an eye splice and shackle to guarantee reliability and mitigate strength loss associated with knots.

Conclusion:

Waterman Jacks LLC is dedicated to advancing sustainable aquaculture through our innovative regenerative ocean farm. Our farm employs simple yet advanced techniques that focus on promoting the ecological health of marine ecosystems. We utilize high-quality construction materials designed for durability and stability with sophisticated anchoring systems to ensure resilience in changing ocean conditions. By carefully integrating these elements, we aim to minimize our environmental footprint while fostering biodiversity and enhancing the overall health of our oceans and the communities that rely on them.

3. Clump Weight Installation:

- Install four 80-lb. concrete clump weights directly under each corner of the spreader bars, utilizing the welded-through holes to mitigate abrasion on the anchor lines. These weights will be engineered with an inverted pyramid shape and buried approximately 2 feet below the mud line for added stability of the entire system and to act as a redundant anchoring system.

- Incorporate a casted eye bolt into each weight, connecting a 5-foot length of 5/8" galvanized anchor chain via shackles from eye bolt to eye splice in the anchor line, allowing for straightforward replacement.

4. System Line Installation:

We will utilize a 1/2" three-strand Dacron line for the horizontal system lines. This line is rated to support up to 4,818 lbs. and boasts excellent UV and abrasion resistance. These lines connect floating cages on the surface and form a clam line network that links clump weights on the bottom.

- The clam line will also be a reliable framework for storm preparedness, sinking, and linking floating cages in extreme weather.

5. Marking and Retrieval:

- Attach brightly colored buoys to each helical anchor and clump weight for easy identification and retrieval. These buoys will feature reflective elements and lights when required to ensure visibility in low-light conditions, enhancing navigation safety.

Clam Line Deployment:

- Create a clam line running along the seabed, connecting each clump weight with the 1/2" Dacron line. This will anchor clam bags and provide an emergency response mechanism during adverse weather, ensuring the floating cages stay secure.

Floating Cage Arrangement:

- Design each floating cage to be attached to the system lines in a triadic configuration, arranged three wide. This careful layout will facilitate quick access for maintenance and allow for easy flipping of cages to manage biofouling effectively. Between each floating system we will require a 20' vessel lane for access to both sides of each system with the company vessel.

Safety and Environmental Considerations:

- Commit to all local environmental regulations throughout the construction process, ensuring that practices minimize ecological impacts and support sustainability.

- Following installation, perform thorough inspections to evaluate the structural integrity of the systems and monitor environmental conditions, promoting long-term operational viability.

55-AQ-2400 New World Oyster (Katelyn Carter) Lease Application Responses:

Proposed Aquaculture Activities:
My educational background on aquaculture activities has been self-directed through online courses and certifications. I received my certificate from the UF/IFAS "Online Oyster Culture Course."
I have prior training and job experience from working (fulltime) for six months on an oyster farm utilizing floating oyster gear on the east coast of Florida. Farm duties included transplanting livestock, husbandry, grading, culling, harvesting, and farm equipment installation and maintenance. During this time we experienced storms from 2 Hurricanes where we helped carry out the storm plans and recovery efforts.
I have also continue to gain industry knowledge by attending oyster farming seminars whenever possible. I have also been allowed the opportunity to visit and shadow other oyster farms to research gear and operations.

Reason for Site Selection:
The proposed site was chosen for reasons including: decades of water quality data showing ideal conditions for oyster farming in this location; the location does not impede on federal channel clearances, other restricted setbacks, recreational fishing, or recreational boating; and the location avoids natural oyster beds, existing seabird habitats, and other protected species of both animal and plant in the Tolomato River.

Recreational and Commercial Uses:
The proposed lease area is used for recreational boating, inshore fishing, and occasional kayaking. Commercial fishing and crabbing is not concentrated within the lease footprint. No public boat ramps or swimming areas are directly affected.

Potential Impacts on Ecology:
The proposed use of this lease as a floating oyster farm would reduce demand from Florida's declining population of wild oysters and provide an alternative to shellfish harvesting activities that do not disturb Florida's natural oyster beds. The oysters transplanted on the farm will filter 50 gallons/oyster/day of water, and the floating gear provide additional structure and food sources for the estuarine fish population to thrive. By using low-impact operational techniques and equipment with minimal environmental impact, our goal is to provide a net benefit to the habitat and ecology of the lease.

Statement on Public Interest:
This lease is in the public interest because it will contribute to water quality improvement (oysters filter 50 gallons of water per day, per oyster), promote ecosystem diversity by introducing new food sources and improving fishing conditions, will not impede on recreational fishing or boating, and help reduce strain on wild oyster beds by providing an alternative to market demand for oysters.

Aquaculture Related Structures:
N/A

Aquaculture Activities:
The aquaculture activities that will be conducted on this lease include: transplanting regulation compliant livestock obtained from certified hatcheries into floating oyster gear; performing livestock husbandry from grow-out to harvest, including the sorting, grading, removal of bio-fouling, harvesting, and packaging/tagging of product for delivery to a certified processor; and installation, maintenance, and repair of floating oyster gear (once removed from water), as well as the weekly desiccation of gear to reduce overall biofouling of equipment and product.

Effective Cultivation- Lease Development Plan:
Year 1: 300,000 oysters planted / ~240,000 harvested
Year 2: 500,000 oysters planted / ~ 400,000 harvested
Year 3: 700,000 oysters planted / ~560,000 harvested
Year 4: 900,000 oysters planted / ~720,000 harvested
Year 5: 1,100,000 oysters planted / ~880,000 harvested
Year 6: 1,200,000 oysters planted / ~960,000 harvested
Year 7: 1,200,000 oysters planted / ~960,000 harvested
Year 8: 1,200,000 oysters planted / ~960,000 harvested
Year 9: 1,200,000 oysters planted / ~960,000 harvested
Year 10: 1,200,000 oysters planted / ~960,000 harvested

Source of Seed Stock:
Compliant with all FDACS and State of Florida guidelines, all Eastern Oyster seed stock will be supplied by licensed hatcheries or seed retailers. All stock planted on lease will either be from the east coast of Florida, triploid stock from Florida's Gulf Coast waters, or imported from outside of the state with proper documentation and approval from FDACS, Division of Aquaculture.

Describe Distribution after Harvest:
All harvested shellfish will be sold to a certified shellfish processor. Absolutely no shellfish will be sold directly from harvest to retailers or restaurants.

New World Oyster Gear Plan and Attachments:

New World Oyster LLC. - Katie Carter
St. Johns County, FL
Tolomato River - SHA: 9202
Date: 08/25/2025

Proposed Location:

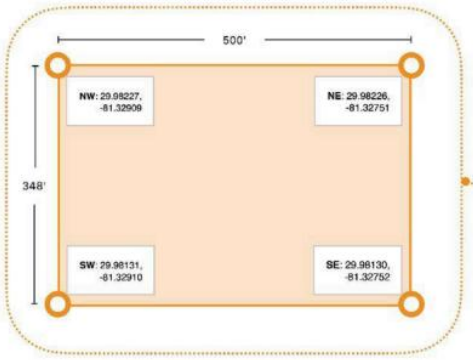
Shellfish Harvesting Area: SHA: 9202 - Conditionally Approved
County: St. Johns County, FL
Water body: Tolomato River
Area: 4.0 acres
Dimensions: 500' x 348'

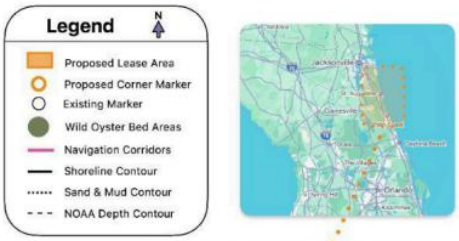
Site Characteristics:

Access: Public Boat Ramp, approximately 5 miles south of the proposed site
Mean High Water: 18 feet
Mean Low Water: 10 feet
Average Tidal Range: 4.76 feet
Bottom Substrate: sandy

Corner Coordinates:

NW: 29.98227, -81.32909
NE: 29.98226, -81.32751
SW: 29.98131, -81.32910
SE: 29.98130, -81.32752





New World Oyster LLC. - Katie Carter - Date: 08/25/2025

Farm Overview

- **4 Acre Farm (500' x 348')**
- **22 total String Lines**
  - Year 1-2: Install 11 string lines at the start
    - 30' lane between each line
  - Year 3-5: Install Tandem lines
    - Add 11 more lines spaced 5' from the previously installed 11 lines
    - 22 lines total once complete
    - Final lanes will be 25' clear between each set of tandem lines
  - Each line is 360' long
    - Buoy at each end
    - From the buoy, each end needs 20' clear for operating equipment attachment
    - 327.5' of baskets per line
      - (3 baskets per meter)
      - 300 baskets per line = 6,600 total baskets at 22 lines
  - Haul Lines - 22 total - not visible at surface
    - sit slack, below the string lines and baskets
    - Does not interfere with working lanes
- **6,600 Baskets Attached to String Lines**
  - 300 baskets per line = 6,600 total baskets total
  - Each basket holds about 150 market sized oysters
    - 45k oysters per line x 22 lines = 990,000 market sized oysters
  - FlipFarm brand equipment
    - The basket design makes for a low profile so it is more visually appealing.
    - The desiccating process is more effective which helps to reduce biofouling


Low profile floating baskets (shown dessicating)

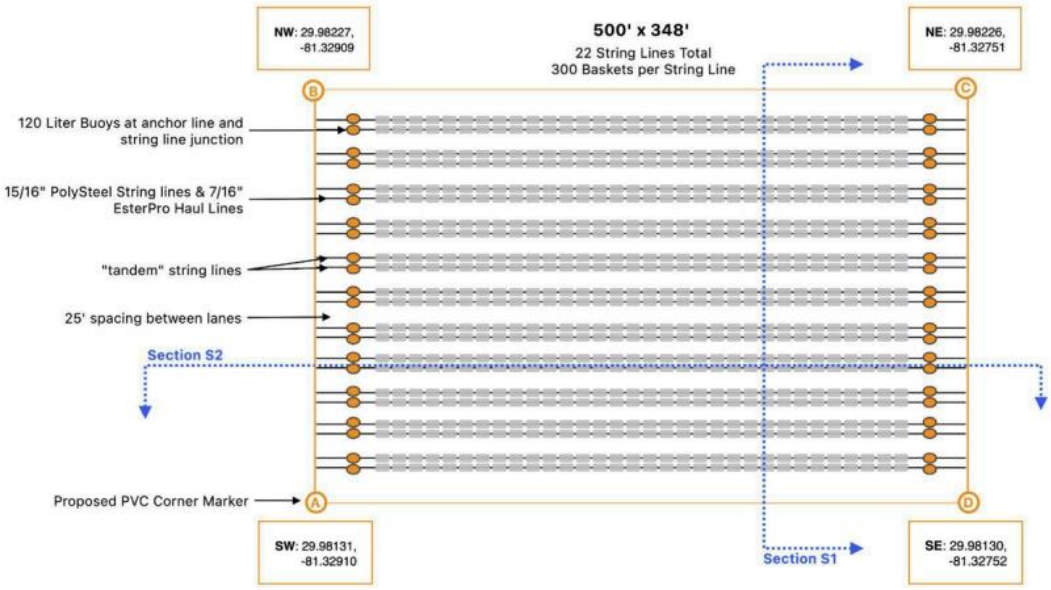

Ex: FlipFarm in Tybee Island


Ex: FlipFarm in Albany


FlipFarm "tandem" lanes

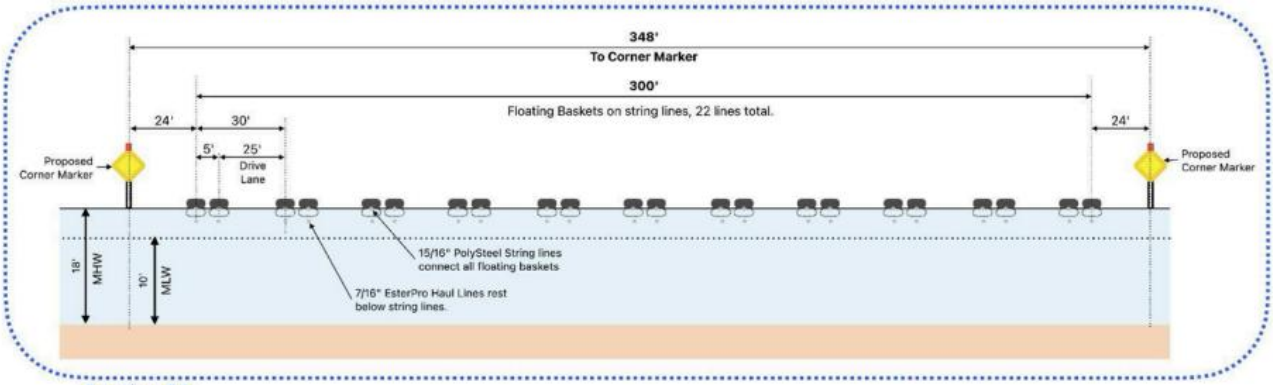
New World Oyster LLC. - Katie Carter
St. Johns County, FL
Tolomato River - SHA: 9202
Date: 08/25/2025

Plan View

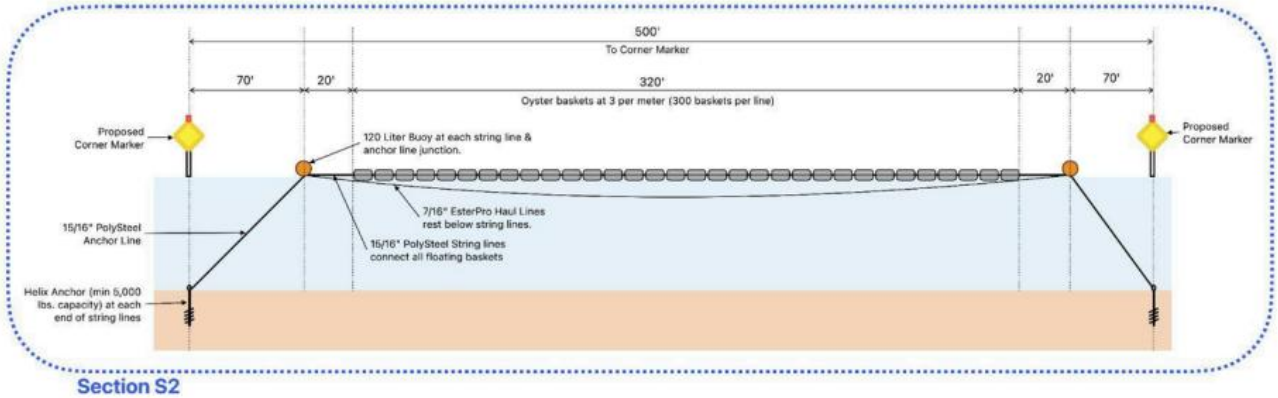


North (drawing is not to scale)

New World Oyster LLC. - Katie Carter - Date: 08/25/2025



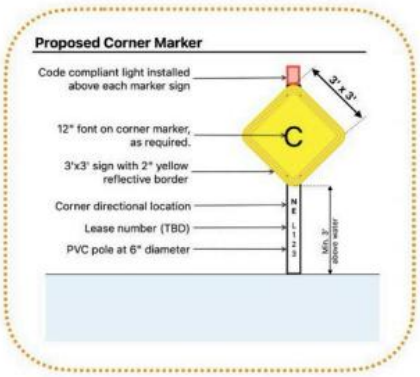
Section S1

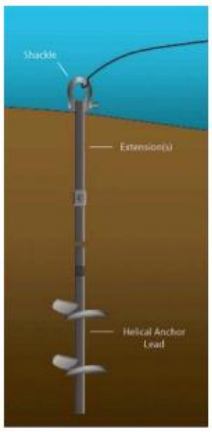


Section S2

Proposed Corner Markers (refer to drawing)

- 6" diameter PVC pole
- Minimum 3' above water to bottom of sign
- Light at top
- 3'x3' yellow sign
  - 2" yellow reflective border
  - Labels on each marker
  - 12" font corner designation
  - Corner directional location
  - Lease number





Proposed Gear - PART IV (of application)

- String Lines
  - Anchors
    - Helix Anchor at each end of string lines
      - 36" Square shank multi helix anchor w/ 8" & 10" Helices
      - 5-1/2-foot-long shaft.
    - made from recycled steel
    - hot-dipped galvanized finish
    - Minimally invasive
    - 70' anchor line length (w/ depth range of 10'-18')
  - Rope
    - String line: 15/16" PolySteel String lines connect all floating baskets
    - Haul Line: 7/16" EsterPro Haul Lines rest below string lines
  - Buoy
    - 120 Liter Buoy at each string line & anchor line junction.
    - 2 per line @ 22 lines = 44 total
    - Color TBD

- Oyster Baskets
  - 300 Baskets per line
    - Each basket takes up 13.1" on the string line (3 baskets per meter)
      - 29" long, 10 5/8" wide, and 5-7/16" high
    - Each basket holds about 150 market sized oysters
      - 45k oysters per line
        - 45k oysters x 11 lines = 495,000 full sized oysters
        - 45k oysters x 22 lines = 990,000 full sized oysters
  - FlipFarm brand equipment
    - Hexcyl Baskets have a perpendicular axle attachment of PVC tubing that the string line passes through. This axle protects the rope from chaffing and fouling and also acts as a swivel for the basket to be flipped over or stood upright for opening and dumping into a basket without heavy lifting.
    - Please visit the manufacturer website for more details at https://www.flipfarm.co.nz/

HEXCYL PRO SERIES BASKETS

An extremely high-quality HDPE oyster basket produced by Hexcyl Systems Ltd in Adelaide, Australia.

- They come in boxes of 15 complete with doors.
- The mesh sizes available are 3,5,10,15mm
- The baskets include an axle mounting plate which adds significant strength at the point that the FlipFarm axle is attached. It has locating holes for the bolt on axle backers (see below) which lock the backer and axle into the basket, preventing movement and therefore wear.
- Baskets are 25 litres. More information regarding assembly can be found at https://www.hexcylsystems.com.au/

A full set of components to make up one FlipFarm basket consists of the following:

Name	Qty
Hexcyl basket	1
Axle	1
Axle backers	2
Axle rivets	4
Blow moulded float (various size options)	1
Float bolts	2

Proposed Location:

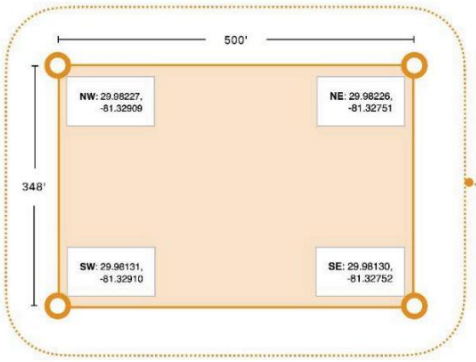
Shellfish Harvesting Area: SHA: 9202 - Conditionally Approved
County: St. Johns County, FL
Water body: Tolomato River
Area: 4.0 acres
Dimensions: 500' x 348'

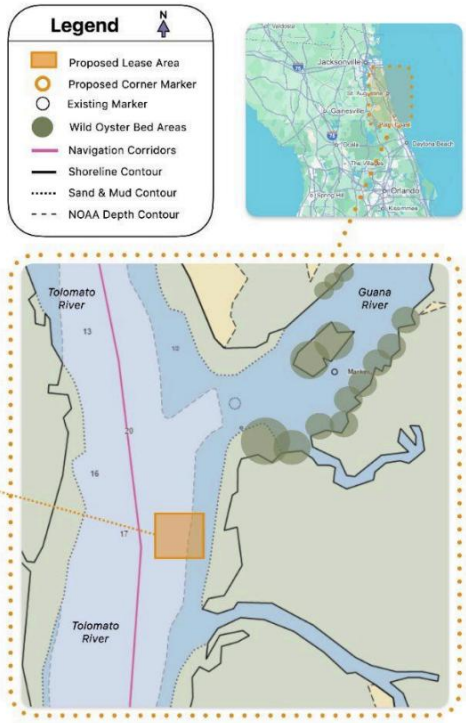
Site Characteristics:

Access: Public Boat Ramp, approximately 5 miles south of the proposed site
Mean High Water: 18 feet
Mean Low Water: 10 feet
Average Tidal Range: 4.76 feet
Bottom Substrate: sandy

Corner Coordinates:

NW: 29.98227, -81.32909
NE: 29.98226, -81.32751
SW: 29.98131, -81.32910
SE: 29.98130, -81.32752





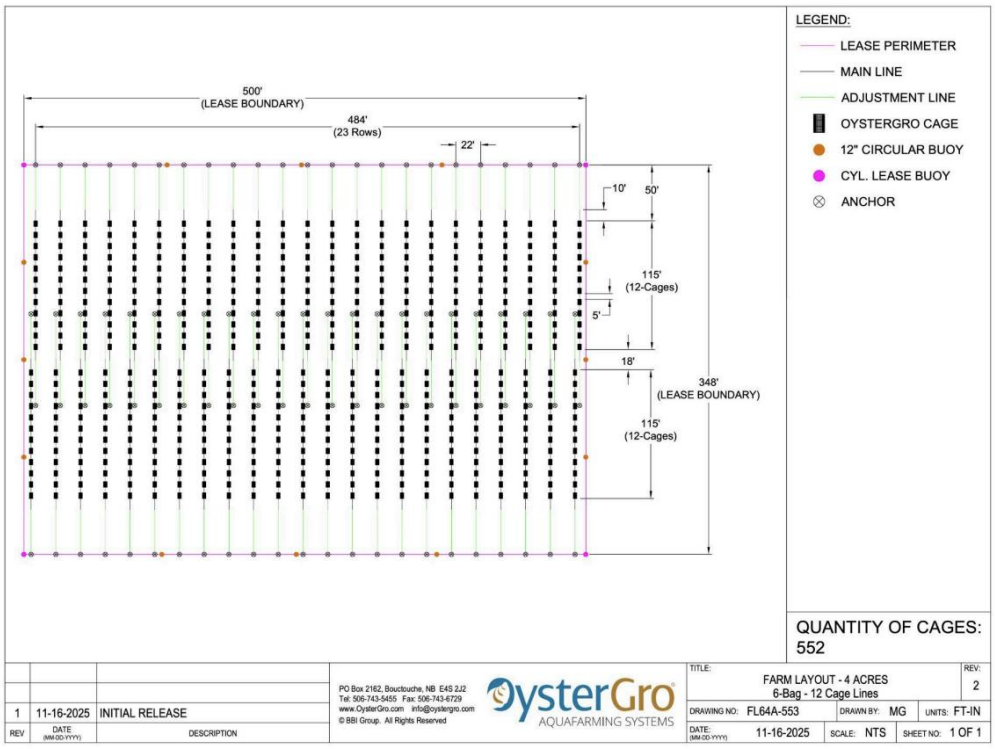
New World Oyster LLC. - Katie Carter - Date: 11/18/2025

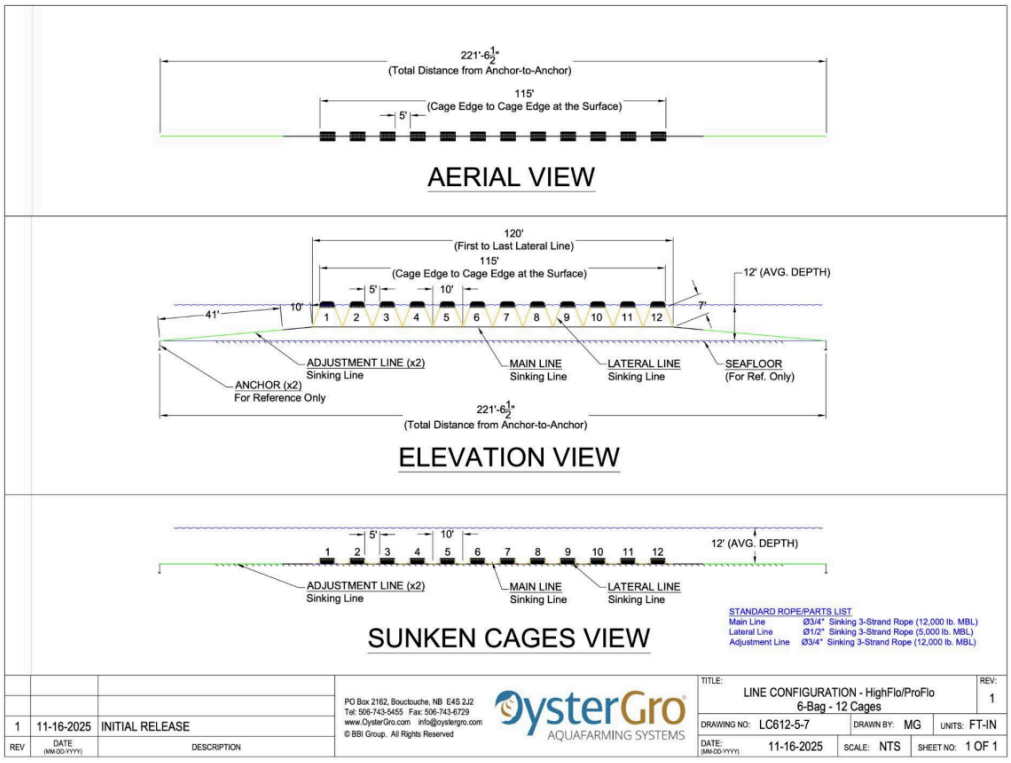
New World Oyster LLC. - Katie Carter
St. Johns County, FL
Tolomato River - SHA: 9202
Date: 11/18/2025

Farm Overview

- **4 Acre Farm (500' x 348')**
- **23 Rows with 2 sections**
  - Year 1-2: Install half the lines to start (23 lines)
    - 22' lane between each line
    - 18' between sections
  - Year 3-5: Install the second half of lines
    - 23 lanes with 2 sections, 46 lines total once complete
    - All working lanes will have 22' clear
  - Each cage line is 115' long
    - 12 cages per line
      - 6 bags per cage
      - 552 total cages (3,312 bags total) at 46 lines
  - Each bag holds about 150 market sized oysters (x6 = 900 per cage)
    - 11k oysters per line x 46 lines = 500,000 market sized oysters per grow out period
  - Oyster Gro is the brand of equipment being proposed
    - The basket design makes for a low profile so it is visually appealing.
    - For more information on the OysterGro system, refer to oystergro.com

New World Oyster LLC. - Katie Carter - Date: 11/18/2025


500'
(LEASE BOUNDARY)
484'
(23 Rows)
22'
10'
50'
115'
(12-Cages)
5'
18'
348'
(LEASE BOUNDARY)
115'
(12-Cages)
LEGEND:
LEASE PERIMETER
MAIN LINE
ADJUSTMENT LINE
OYSTERGRO CAGE
12" CIRCULAR BUOY
CYL. LEASE BUOY
ANCHOR
QUANTITY OF CAGES:
552
REV
DATE (MM-DD-YYYY)
DESCRIPTION
1
11-16-2025
INITIAL RELEASE
PO Box 2162, Bouctouche, NB E4S 2J2
Tel: 506-743-5455 Fax: 506-743-6729
www.OysterGro.com info@oystergro.com
© BBI Group. All Rights Reserved
OysterGro
AQUAFARMING SYSTEMS
TITLE:
FARM LAYOUT - 4 ACRES
6-Bag - 12 Cage Lines
REV: 2
DRAWING NO: FL64A-553
DRAWN BY: MG
UNITS: FT-IN
DATE: (MM-DD-YYYY) 11-16-2025
SCALE: NTS
SHEET NO: 1 OF 1


221'-6½"
(Total Distance from Anchor-to-Anchor)
115'
(Cage Edge to Cage Edge at the Surface)
5'
AERIAL VIEW
120'
(First to Last Lateral Line)
115'
(Cage Edge to Cage Edge at the Surface)
12' (AVG. DEPTH)
5'
10'
41'
10'
1 2 3 4 5 6 7 8 9 10 11 12
7'
ADJUSTMENT LINE (x2)
Sinking Line
MAIN LINE
Sinking Line
LATERAL LINE
Sinking Line
SEAFLOOR
(For Ref. Only)
ANCHOR (x2)
For Reference Only
221'-6½"
(Total Distance from Anchor-to-Anchor)
ELEVATION VIEW
5'
10'
12' (AVG. DEPTH)
1 2 3 4 5 6 7 8 9 10 11 12
ADJUSTMENT LINE (x2)
Sinking Line
MAIN LINE
Sinking Line
LATERAL LINE
Sinking Line
SUNKEN CAGES VIEW
STANDARD ROPE/PARTS LIST
Main Line Ø3/4" Sinking 3-Strand Rope (12,000 lb. MBL)
Lateral Line Ø1/2" Sinking 3-Strand Rope (5,000 lb. MBL)
Adjustment Line Ø3/4" Sinking 3-Strand Rope (12,000 lb. MBL)
REV
DATE (MM-DD-YYYY)
DESCRIPTION
1 11-16-2025 INITIAL RELEASE
PO Box 2162, Bouctouche, NB E4S 2J2
Tel: 506-743-5455 Fax: 506-743-6729
www.OysterGro.com info@oystergro.com
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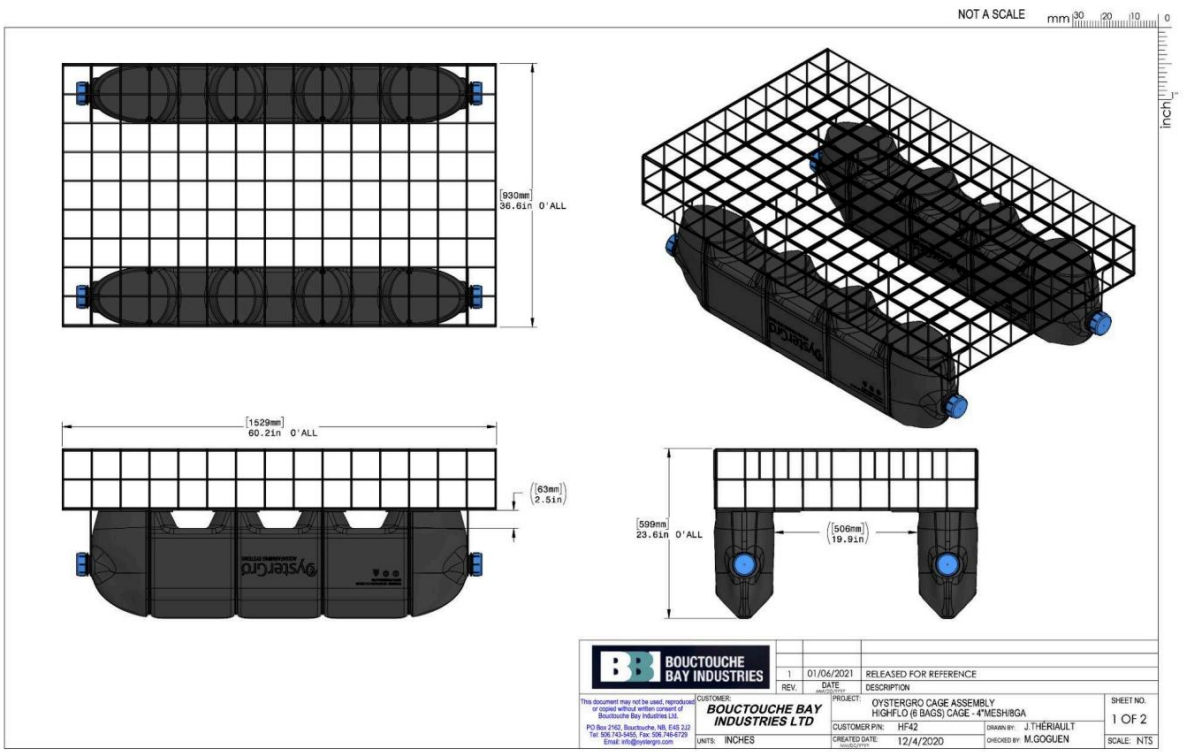
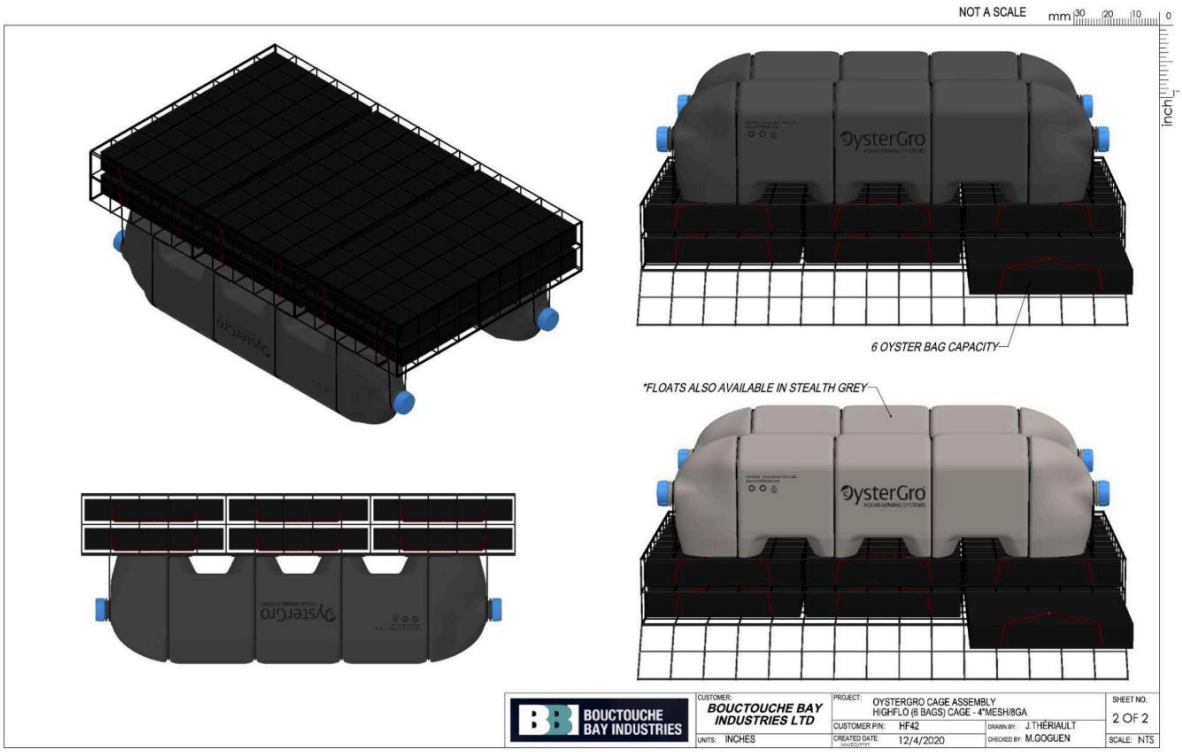
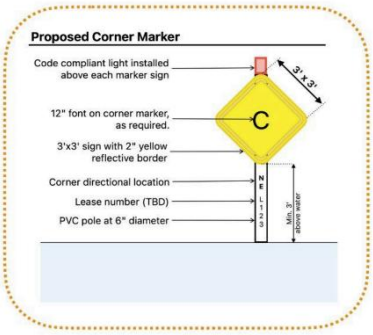
OysterGro AQUAFARMING SYSTEMS
TITLE:
LINE CONFIGURATION - HighFlo/ProFlo
6-Bag - 12 Cages
REV: 1
DRAWING NO: LC612-5-7
DRAWN BY: MG
UNITS: FT-IN
DATE: (MM-DD-YYYY) 11-16-2025
SCALE: NTS
SHEET NO: 1 OF 1


NOT A SCALE
930mm
36.6in O'ALL
1529mm
60.2in O'ALL
63mm
2.5in
599mm
23.6in O'ALL
506mm
19.9in
BOUCTOUCHE BAY INDUSTRIES
1
01/06/2021
RELEASED FOR REFFERENCE
REV.
DATE
DESCRIPTION
CUSTOMER:
BOUCTOUCHE BAY INDUSTRIES LTD
PROJECT:
OYSTERGRO CAGE ASSEMBLY
HIGHFLO (6 BAGS) CAGE - 4"MESH/BGA
SHEET NO.
1 OF 2
CUSTOMER P/N:
HF42
DRAWN BY:
J.THERIAULT
UNITS:
INCHES
CREATED DATE:
12/4/2020
CHECKED BY:
M.GOGUEN
SCALE:
NTS


NOT A SCALE
mm 30 20 10 0
inch 1
OysterGro
6 OYSTER BAG CAPACITY
*FLOATS ALSO AVAILABLE IN STEALTH GREY
OysterGro
BOUCTOUCHE BAY INDUSTRIES
CUSTOMER: BOUCTOUCHE BAY INDUSTRIES LTD
PROJECT: OYSTERGRO CAGE ASSEMBLY
HIGHFLO (6 BAGS) CAGE - 4*MESH/BGA
SHEET NO. 2 OF 2
CUSTOMER P/N: HF42
DRAWN BY: J.THÉRIAULT
UNITS: INCHES
CREATED DATE: 12/4/2020
CHECKED BY: M.GOGUEN
SCALE: NTS

Proposed Corner Markers (refer to drawing)

- 6" diameter PVC pole
- Minimum 3' above water to bottom of sign
- Light at top
- 3'x3' yellow sign
  - 2" yellow reflective border
  - Labels on each marker
  - 12" font corner designation
  - Corner directional location
  - Lease number



Proposed Gear - PART IV (of application)

- Lines
  - Anchors
    - Platipus Anchors at each end of cage lines
      - Recommended capacity per OysterGro
    - made from recycled steel
    - hot-dipped galvanized finish
    - Minimally invasive
  - Rope
    - OysterGro recommended
  - Buoy
    - 3 12" Circular Buoys at the perimeter, 12 total
    - Color TBD

New World Oyster LLC. - Katie Carter - Date: 11/18/2025

Marine Debris Plan

1. Marine Debris Management

a. All working vessels will carry containers for collecting small to medium-sized debris found on the lease during routine farm operations.
b. All non-natural materials (cages, bags, lines, markers, etc.) placed in state waters will be securely anchored to the bottom and tagged with farm identification and contact information.
c. All culture materials, including cages and bags, will be clean and free of pollutants before deployment.
d. Cages and bags will be removed from the water prior to any mechanical cleaning, maintenance, or repair. Mechanical or hydraulic devices will not be used below the water surface; only hand tools will be used for cleaning.
e. During harvest, cages and bags will be rinsed over the grow-out area so that all sediments remain within the lease footprint.
f. Any culture materials that are damaged, retired from use, or naturally fouled during operations will be collected and disposed of properly.
g. If any structures or culture materials become dislodged, they will be promptly retrieved from shorelines, seagrass beds, or submerged bottom with minimal impact to surrounding resources. Retrieved items will either be returned to the lease or properly disposed of.
h. At expiration or termination of the lease, all works, equipment, and structures will be removed from sovereign submerged lands within 60 days.

2. Construction Debris Mitigation

During installation and any future construction activities:

a. All equipment, anchoring materials, and structural components will be secured to prevent accidental loss during installation.
b. Construction materials will be staged and transported using methods that prevent accidental release into state waters.
c. Any damaged or excess construction materials will be removed from the lease area and disposed of properly.
d. Routine inspections will be performed after construction phases to ensure no materials, fragments, or hardware remain in the water.

3. Ongoing monitoring procedures include:

a. Routine visual inspections during regular working days to verify all gear remains secured and properly anchored.
b. Immediate retrieval and removal of any dislodged materials discovered on-site or along adjacent shorelines.
c. Documentation of all inspections and corrective actions taken.

Storm Preparation and Debris Recovery Plan

To minimize gear loss and reduce the risk of storm-related debris, the farm will implement the following best practices:

1. Appropriate anchoring and anti-chafing protections on all gear.
2. Gear loads will not exceed manufacturer recommended stocking density, to prevent stress on the lines.
3. All gear will remain tagged for farm identification and contact information.
4. Routine shoreline cleanup will be conducted, and all worn or end-of-life materials will be removed and disposed of properly.
5. A storm "float or sink" plan will be implemented based on projected wind direction, storm surge, and which side of the storm is expected to impact the site. Surge and wind thresholds will be finalized after installation to ensure accurate planning.
6. No later than 48 hours before projected impact, gear will be secured by:
    a. Inspecting all equipment for wear and potential failure points.
    b. Reinforcing knots, attachment points, and mooring lines.
    c. Ensuring all floats and caps are secure and functional.
    d. Adjusting line slack for wave action and tidal surge.
    e. If cages are sunk, floats will be placed at the bottom with caps installed to prevent sand intrusion.
7. Land-based operations will be secured at the same time.

Post-Storm Debris Recovery

1. A gear and debris recovery plan will be executed following passage of the storm.
2. Personnel will return to the lease as soon as safely possible to locate, retrieve, and secure any dislodged gear.
3. Any debris originating from the farm will be removed from shorelines or submerged areas, with a focus on minimal resource disturbance.
4. All recovered items will either be returned to the lease site in working condition or disposed of properly.

WILTON SIMPSON
COMMISSIONER

Florida Department of Agriculture and Consumer Services
Division of Aquaculture

APPLICATION FOR A STATE-OWNED SOVEREIGNTY SUBMERGED LAND AQUACULTURE LEASE

Section 253.69, Florida Statutes – Rule 18-21.021, F.A.C.

Lease Title: A lease can be issued to persons or to a company or LLC. Please use the full legal name for a lease to be issue in a personal name. If entering a company or LLC name, please provide incorporation or registration documentation as proof that the business entity is registered and that you are authorized to conduct business on behalf of the entity.

Application No._____(Official Use Only)

Please Type or Print Legibly

PART I - Applicant Information

Name: David Wandel

Company Name: _____

Lease Title: David Max Wandel

Aquaculture Certificate of Registration Number: _____

Address: 10129 Lake View Rd West

City: Jacksonville State: Fl Zip: 32225

Telephone Number: 814 933 6766 Fax Number: _____

E-Mail Address: dlwandel@gmail.com

I certify that I am 18 years old or older (please initial): DW

Describe your capability to conduct your proposed aquaculture activities (including training, experience and education that you have obtained or will obtain).

Virtual Oyster Aquaculture through Sea Grant Florida (UF extension), internship at ACUFF Shellfish Fishery at Virginia Institute of Marine Science and Internship at Cappahosic Oyster Company (Gloucester, VA)

PART II- Parcel/Site Information

☐ Bottom Lease (use of up to 6 inches off the bottom)

☒ Water Column Lease (use of the full water column) Please contact the division to determine if the parcel can be issued for full water column usage.

A. Existing/Approved Parcels

County _____

Aquaculture Use Zone_____

Parcel #_____ Alternate Parcel #_____

You may enter an alternate parcel in case your first choice is already taken.

Remit payment of application fee of $200.00 by check or money order to:
Florida Department of Agriculture & Consumer Services
P. O. Box 6700
Tallahassee, FL 32314-6700

Org. Code: 42150300000
EO A2
Object Code: 001237 $200.00

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Page 1 of 8

B. New Site (for newly proposed areas, complete section B)

County St. Johns County

Water body Guana River

Size of Proposed Lease Area 2.0 acres

Shallowest water depth at mean low water 1.2 feet

Deepest water depth at mean low water 6.2 feet

Average tidal range in area 4.2 feet

Shellfish Harvesting Area (SHA) 9202

Do you own the riparian upland property?

☐ Yes ☒ No

For newly proposed site, mail completed application to:
Division of Aquaculture
Attention: Portia Sapp
600 South Calhoun Street, Suite 217
Tallahassee, Florida 32399-1300
or transmit via email to
Aquaculture_Web@FDACS.gov

NO APPLICATION FEE IS DUE AT THIS TIME.

For the SHA code, please visit our website at:
https://www.FDACS.gov/Agriculture-Industry/Aquaculture/Shellfish-Harvesting-Area-Classification/Shellfish-Harvesting-Area-Maps
Proposed shellfish leases must be sited in Approved or Conditionally Approved waters.

If "yes" please attach a copy of the warranty deed and complete the following:
Linear feet of waterfront property: _____

Local zoning and specific use: _____

If "no" please describe the location of access to the proposed lease site.
Using Boat ramps, Usina Boat ramp

Approx. distance to nearest shoreline _____ feet
For areas within 500 feet of a riparian landowner, a list of the names and addresses of each owner of property lying within 500 feet of the proposed area, as shown on the latest county tax assessment roll is required to be included in this application package.

Corner coordinates for proposed area in Decimal Degrees (DD.dddddd):

NE 29.993667, -81.322147

SE 29.991286, -81.321420

NW 29.993619, -81.322459

SW 29.991199, -81.321778

A vicinity map of the proposed area is required to be included in this application package. The vicinity map may be hand drawn or computer generated.
See Attachment 1 for guidance and at a minimum include the following items in the diagram:

- ☐ Legend with applicant name, county, water body and date.
- ☐ Label the dimensions of the proposed area.
- ☐ Include corner GPS coordinates in Decimal Degrees.
- ☐ Illustrate any natural resources adjacent to the proposed site.
- ☐ Illustrate any boat navigation channels or paths in the immediate vicinity of the area.

Describe the substrate/bottom composition at the proposed site (i.e., sand, silt, mud, etc.).

Soft mud

Briefly describe your reasons for selecting the proposed site (i.e., substrate type, location, water quality, etc.). The proposed area selected should have minimum environmental, social and use impacts (e.g., seagrasses, natural shellfish resources, navigation, recreation and commercial uses, etc.).

The Guana river has ideal salinity for oyster cultivation and a significant amount of phyto plankton that grow in Guana Lake. The wild oysters grow fast and big. The proposed site is in a wide part of the Guana River and away from the navigation channel and recreational fishing spots. The water depth and mud bottom are ideal for floating cage aquaculture.

List any recreational and commercial uses of the proposed area (e.g., fishing, tourism, etc.)

- fishing
- bird watching
- tourism - kayak rentals
- crabbing

Describe the potential impacts of the proposed use on the ecology of the area (including fish habitat, threatened and endangered species and other natural resources).

Building the oyster farm would add additional habitat for the forage (shrimp, crabs + juvenile fish) of recreational fish species. The added structure in the water would also provide space for vegetation to grow.

Provide a statement explaining why the lease is in the public interest or is not contrary to the public interest.

The lease is in public interest because our oyster farm will provide habitat for forage + juvenile fish, improve water clarity through the feeding of our oysters and provide educational opportunities to visitors to GTM reserve as well as a locally produced seafood for the restaurants of St Augustine.

For dock applications, describe any aquaculture-related structures proposed (a detailed and dimensioned site plan is required pursuant to subsection 18-21.021(1) (d) (3), Florida Administrative Code).

none.

PART III-Lease Development Plan (complete this section for all applications)

Proposed aquaculture activities are (check only one):

☒ Commercial ☐ Management Agreement

Product(s) to be cultivated:
(Please check all that apply)
☐ Hard Clam (*Mercenaria spp.*)
☐ Sunray Venus Clam (*Macrocallista nimbosa*)
☒ Eastern Oyster (*Crassostrea virginica*)
☐ Live Rock
☐ Other _____

Describe the aquaculture activities to be conducted including planting and harvesting activities.

Oyster seed will be planted in floating bags + cages in Q1 and Q3. The mature oysters will be harvested weekly to meet demands. We also plan on offering tours of the farm.

Effective cultivation is required to be performed on all aquaculture leases. Minimum effective cultivation is the planting of 100,000 seed clams or 70,000 seed oysters per acre per year. Provide below a detailed business development plan including the amount of product to be planted and harvested each year throughout the term of the lease (Year 1-Year 10).

Year 1 140k seed, 120 cages, 360 bags

Year 2 180k seed, 150 cages (+30), 450 bags (+10)

Year 3 220k seed, 180 cages (+30), 540 bags (+90)

Year 4 250k seed, 200 cages (+20), 600 bags (+60)

Year 5 280k seed, 220 cages (+20) 660 bags (+60)

Year 6 310k seed, 240 cages (+20), 720 bags (+60)

Year 7 325k seed, 250 cages (+10), 750 bags (+30)

Year 8 325k seed

Year 9 325k seed

Year 10 325k seed

Describe the supply source of seed stock or rock products.

Seed will be sourced from UGA shellfish breeding program and private industry in the Carolinas.

Describe the distribution of the product after harvest.

We will work with a shellfish processor and whole sale distributor to sell our product. In addition, we will sell to ~~shellfish processor~~ processor, host events, and farmers market.

PART IV- Proposed Gear (complete this section for all applications)

Describe the maximum dimension (length x width x height) and characteristics of the gear to be used (material type, wire gauge, brand, etc.).

- 60.6 inch length, 36 inch width, 12.2 inch height - Oyster Gro 3 bag cages
- 8 ga mesh
- Coated Wire

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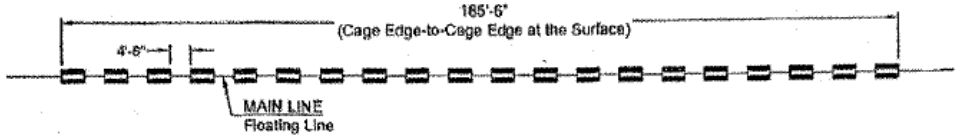
Page 4 of 8

Wandel
St. Johns County
Guana River
9/18/25

mean high: 10 ft
mean low: 1.2 - 6.2 ft

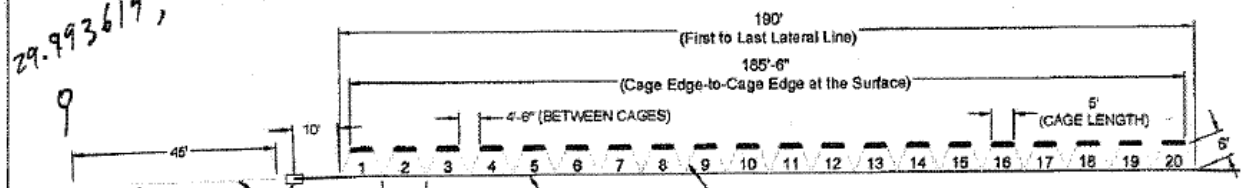


AERIAL VIEW

six total rows running North - south, identical to this row (first one)

North end
29.993619, -81.322452

South end
29.991242, -81.321721



anchored with a claw anchor

anchored with a claw anchor

MAIN LINE LOOP DETAILS

STANDARD ROPE/PARTS LIST

Main Line	= Ø 5/8" 3-Strand Sinking Line (10,900 lb. MBL)
Lateral Line	= Ø 1/2" 3-Strand Sinking Line (5,000 lb. MBL)
Adjustment Line	= Ø 5/8" 3-Strand Sinking Line (10,900 lb. MBL)

ELEVATION VIEW

REV	DATE (MM-DD-YYYY)	DESCRIPTION
1	09-08-2025	INITIAL RELEASE

PO Box 2162, Boudreuche, NB E4S 2J2
Tel: 506-743-5455 Fax: 506-743-6729
www.OysterGro.com info@oystergro.com

OysterGro AQUAFARMING SYSTEMS

TITLE: LINE CONFIGURATION 3-Bag - 20 Cages			REV: 1
DRAWING NO: LC320-4.5-6	DRAWN BY: MG	UNITS: FT-IN	
DATE: (MM-DD-YYYY) 09-08-2025	SCALE: NTS	SHEET NO: 1 OF 1	

LEGEND:
LEASE PERIMETER
MAIN LINE
ADJUSTMENT LINE
OYSTERGRO CAGE
10" HELICAL ANCHOR
QUANTITY OF CAGES:
480
697'
(Lease Boundary)
185'-6"
(20 Cage Line)
115'
30'
15'
5'-5"
15'
34'
15'
90'
(6 Lines)
107'
(Lease Boundary)
REV
DATE
DESCRIPTION
1
09-08-2025
INITIAL RELEASE
PO Box 2162, Bouctouche, NB E4S 3J2
Tel: 506-743-9455 Fax: 506-743-6729
www.OysterGro.com info@oystergro.com
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OysterGro
AQUAFARMING SYSTEMS
TITLE:
FARM LAYOUT - 2 ACRES
3-BAG - 20 CAGE LINES
REV:
1
DRAWING NO:
FL32A-480
DRAWN BY:
MG
UNITS:
FT-IN
DATE:
09-08-2025
SCALE:
NTS
SHEET NO:
1 OF 1


Revised Proposed Wandel Lease
St. Johns County
2.0 acres
Legend
Revised Proposed Lease
29.993667, -81.322147
29.993619, -81.322459
navigation channel
marsh oysters
897 ft
897 ft
proposed lease
29.991286, -81.321420
29.991242, -81.321721
100 ft
Guana River
Google Earth
Image © 2025 Maxar Technologies
N
1000 ft

A cross section diagram of the proposed area is required to be included in this application package. See Attachment 2 for guidance and at a minimum include the following items in the diagram:

- ☐ Legend with applicant name, county, water body and date.
- ☐ Label the dimensions of the proposed area with GPS coordinates in Decimal Degrees.
- ☐ Water depth at Mean High Water and Mean Low Water.
- ☐ Location and number of proposed gear and support poles.

Images or sketches of proposed structures for aquaculture production are required to be included in this application package. This includes all cages, bags, anchors etc. See Attachment 3 for guidance.

The leaseholder is responsible and liable for equipment and gear placed on the lease. All off bottom gear must be permanently and individually marked with the name of the leaseholder. Additionally **all** gear must be properly disposed of following use or displacement off the lease. Please provide a description of marking methods for off bottom gear and a gear recovery plan to meet these requirements.

Gear will have plastic identification tags zip tied to each cage. Oyster gro cages can have floats filled with water to sink them during hurricanes. Following major storms we will search both N and S of the Lease in the Guana + Tolomato River for any missing gear.

Additional Information

☒ I understand prior to signing the lease agreement, it is my responsibility to read and comply with all terms and conditions of the lease agreement.

☒ I understand that upon final approval of a new lease area, I will be responsible to provide two prints of a survey of the parcel pursuant to section 18-21.021(1)(i)&(j), Florida Administrative Code.

☒ I understand that I will be responsible to install and maintain lease markers pursuant to an approved U.S. Coast Guard Private Aids to Navigation permit.

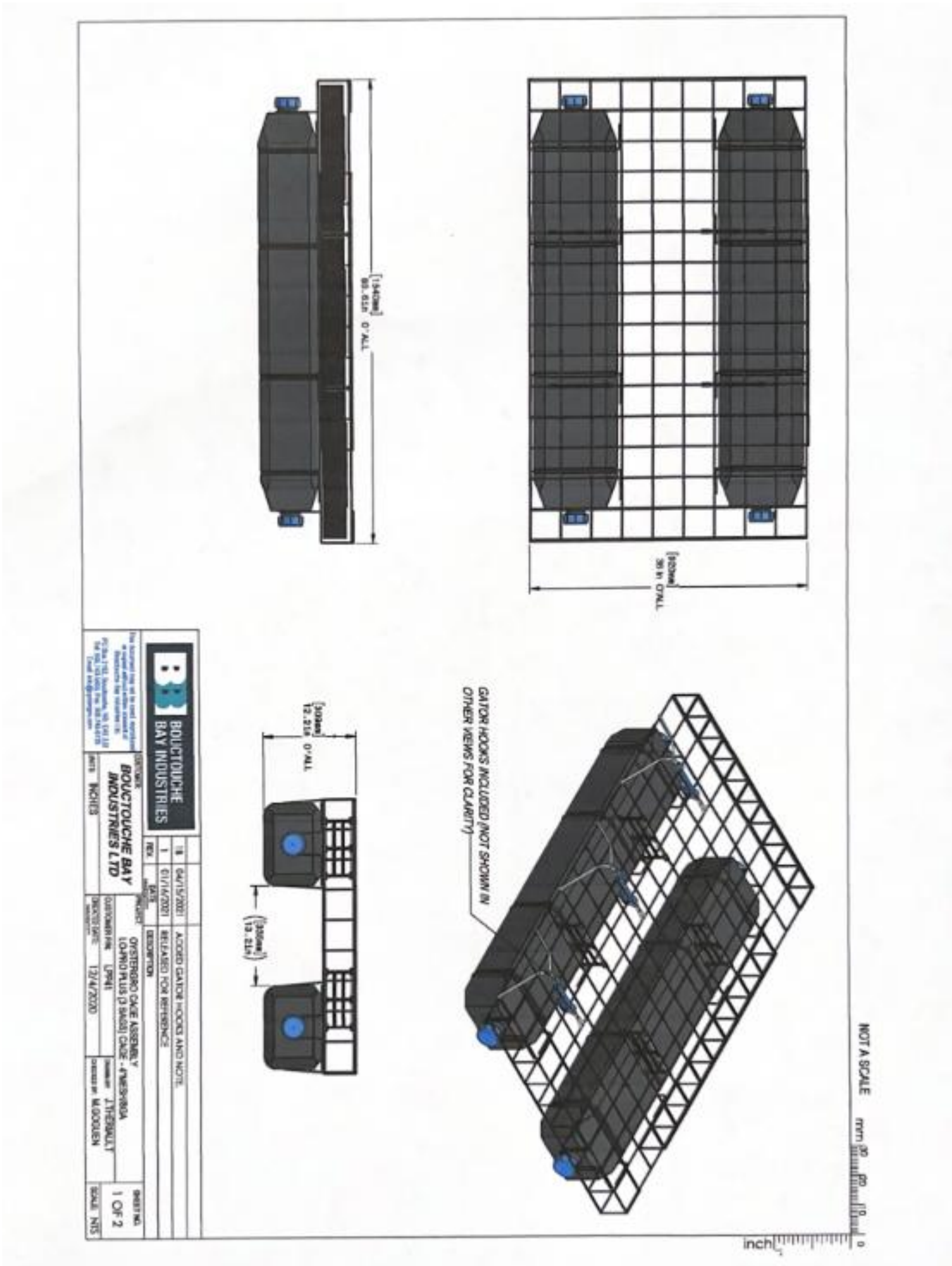
☐ For existing parcels, an application fee of $200.00 is required to be submitted with the lease application.

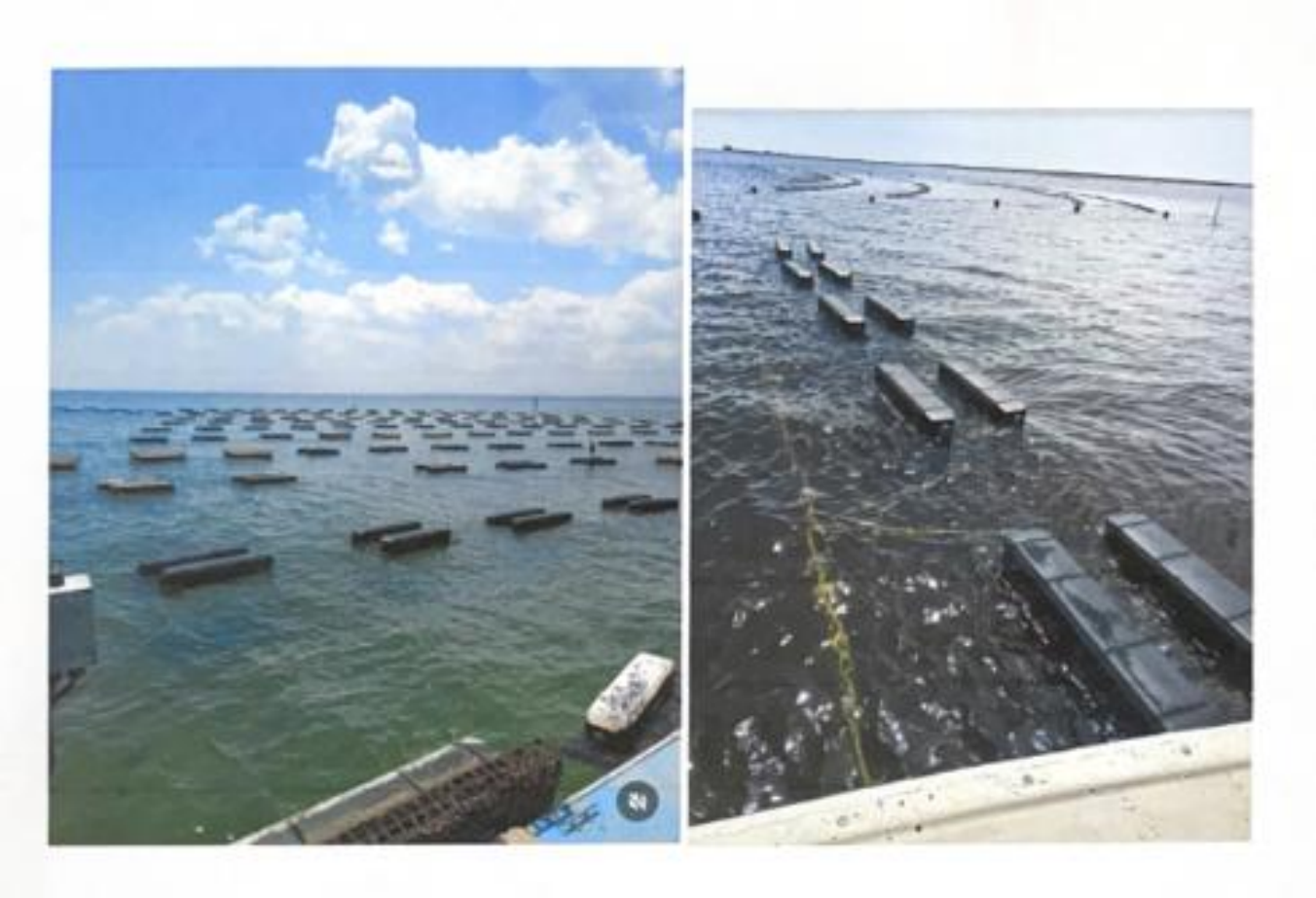
☒ For new site nominations, do not include the application fee at this time. However, upon review and approval of an application for a newly proposed area, the division will contact you for the required $200 application fee.

For questions regarding this form or the application process, please call the Division of Aquaculture at (850) 617-7600.

Applicant's Signature: _____

Date: 9/18/25


BOUCTOUCHE BAY INDUSTRIES
BOUCTOUCHE BAY INDUSTRIES LTD
GATOR HOOKS INCLUDED (NOT SHOWN IN OTHER VIEWS FOR CLARITY)
NOT A SCALE
1 OF 2



WILTON SIMPSON
COMMISSIONER

Florida Department of Agriculture and Consumer Services
Division of Aquaculture

SOVEREIGNTY SUBMERGED LAND AQUACULTURE LEASE
Water Column Lease

Section 253.71, Florida Statutes

This Instrument Prepared by:
Division of Aquaculture
600 South Calhoun Street, Suite 217
Tallahassee, Florida 32399

BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA

No.

THIS LEASE is hereby issued by the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida, hereinafter referred to as the "Lessor."

WITNESSETH: That for and in consideration of payment of the lease fees hereinafter provided, and the faithful and timely performance of and compliance with all terms and conditions stated herein, the Lessor does hereby lease to , hereinafter designated as the "Lessee," the sovereignty submerged lands described as follows:

A parcel ( ) of sovereignty, submerged land lying in the Aquaculture Use Zone, near , in County, Florida, containing acres, more or less, of sovereignty, submerged lands described and shown on Attachment A.

TO HAVE THE USE OF the hereinabove described premises for a period of ten years from , the effective date of this lease. The terms and conditions upon and for which this lease is granted are as follows:

1. The Lessee is hereby authorized to undertake aquaculture activities on the lands described above.

2. Lessee shall pay to Lessor an annual fee of $, representing a base annual rental fee of $33.46 per acre or fraction thereof and an annual surcharge of $10.00 per acre or fraction thereof, pursuant to rule 18-21.022, Florida Administrative Code (F.A.C.). The annual fee and surcharge collected will be deposited in the General Inspection Trust Fund, pursuant to sections 597.010(5)(b) and (7), F.S. The first year's base rent and surcharge shall be paid to Lessor within 30 days of the effective date of this lease. Thereafter base rent and surcharge shall be paid annually to Lessor on or before January 1 of each succeeding year of the lease term. Lessee understands that from time to time the lease fee may be increased by the Lessor, and the Lessee agrees to pay the increased lease fee, as adopted by the Board of Trustees.

3. Failure of the lessee to pay rent within 30 days of January 1 shall constitute ground for cancellation of the lease and forfeiture to the state of all works, improvements, and animal and plant life in and upon the leased land and water column.

4. The Lessee shall maintain complete and accurate production documents and shall provide same to Lessor upon request.

5. Failure of the Lessee to perform effective cultivation, or otherwise comply with the terms of this lease, shall constitute cause for termination of the lease and forfeiture to the State of all the works, improvements, and animal and plant life in and upon the leased land and water column. Effective cultivation shall consist of the reasonable and bona fide attempt to grow-out shellfish in a density suitable for commercial harvesting, in accordance with the Lessee's business plan submitted to the Department of Agriculture and Consumer Services (hereafter "Department") as part of the lease application and shall be extended throughout the entire ten-year term of this lease.

6. This lease may be terminated upon the Lessee's written request.

7. The Lessee, in accepting this lease, does hereby agree that no claim to title or interest to said lands hereinbefore described shall be made by reason of the occupancy or use thereof and that all title or interest to said land hereinbefore described is vested in the Lessor.

8. The Board of Trustees will not approve lease transfers or assignments during the first five years of the initial lease term. However, after five years from the effective date of the initial lease, Lessee, upon written consent from the Lessor, may sublease, assign or otherwise transfer the lease granted to the Lessee.

9. The Lessee shall neither permit the sovereign lands described in this lease nor any part thereof to be used or occupied for any purpose or business other than herein specified; nor shall the Lessee knowingly permit or suffer nuisances or illegal operations of any kind on the sovereign lands described in this lease.

10. The Lessee agrees to maintain the sovereign lands described in this lease in good condition in the interest of public health, safety and welfare. The Lessee agrees that the sovereign lands described in this lease are subject to inspection by the Lessor or its designated agent at any reasonable time.

11. The Lessee hereby covenants and agrees to investigate all claims of every nature at its expense, and to indemnify, defend, hold, and save harmless the Board of Trustees of the Internal Improvement Trust Fund, the State of Florida, and the Department from all claims, actions, lawsuits and demands arising out of this lease or any activity conducted hereunder. The Lessee further agrees to be solely responsible for any injury or property damage resulting from any property conditions or activity on the leased area.

12. The Lessee agrees that upon expiration or termination of this lease all permission granted to undertake the activities, as described in paragraph 1 of this lease, shall cease and terminate, and Lessee shall immediately vacate and surrender possession of the premises to Lessor subject to the provisions of paragraph 23.

13. If requested by Lessee, this lease may be renewable for additional ten-year terms upon such terms and conditions as are acceptable to the parties hereto. The request must be in writing and delivered by the Lessee to the Lessor no later than 90 days before the expiration date of the then existing lease agreement. Upon receipt of the request for an additional term, the Department will either take final action on behalf of the Board of Trustees where the circumstances meet the delegation provided to the Department by the Board or the Department will submit the Lessee's request for an additional term to the Board of Trustees for final action.

14. Neither failure or successive failures on the part of the Lessor to enforce any provision, nor any waiver or successive waivers on its part of any provision herein, shall operate as a discharge thereof or render the same inoperative or impair the right of the Lessor to enforce the same upon any renewal thereof or in the event of subsequent breach or breaches.

15. The Lessee, by acceptance of this lease, binds itself to abide by the provisions and conditions herein set forth, and said provisions and conditions shall be deemed covenants of the Lessee. In the event the Lessee fails or refuses to comply with the provisions and conditions herein set forth, or in the event the Lessee violates any of the provisions and conditions herein, except for the provisions of paragraph 25, this lease may be terminated by the Lessor after notice in writing by certified mail to the Lessee. Upon receipt of such notice, the Lessee shall undertake to correct such noncompliance or violation for which the Lessor has given notice to correct within 30 days of receipt of notice. In the event Lessee fails or refuses to timely correct the violation, the Lessor, at its option, shall be entitled to terminate this lease and, if terminated, all rights of Lessee hereunder shall cease. All costs, including reasonable attorney fees, incurred by the Lessor to enforce any provisions of this lease shall be paid by the Lessee.

The Lessee, by acceptance of this lease, agrees to accept service by certified mail of any notice required by this lease or Chapter 253, F.S., in addition to Chapter 18-14, Florida Administrative Code (F.A.C.) at the following address:

_____
STREET OR P. O. BOX NO.

_____
CITY STATE ZIP

The Lessee agrees to notify the Lessor by certified mail of any change in this address at least ten (10) days before the change is effective. If Lessee's mail is returned for any reason (unclaimed, unable to deliver, no longer at address, etc.), and Lessor is unable to locate Lessee, Lessor has the option of canceling the lease.

16. The Lessee agrees to assume all responsibility for liabilities that accrue to the subject property or to the improvements thereof, including any and all special assessments or taxes of every kind and description which are now or may be hereafter lawfully assessed and levied against the subject property and associated improvements during the effective period of this lease.

17. Unless the mooring of a security vessel is specifically approved in writing by Lessor, no security vessel shall be moored on or adjacent to the lease area. Lessee further agrees that no vessel required to be registered or titled under Florida law shall be allowed to moor or dock within or adjacent to, or otherwise use the area described within this lease unless such vessel is registered or titled in accordance with Chapters 327 and 328, F.S. Lessee agrees that no vessel of any description shall be moored on or adjacent to the leased premises for a period exceeding twenty-four hours, irrespective of whether the vessel is periodically moved, unless authorized by the terms of this lease.

18. NOTICE: The undertaking of any unauthorized activities, including the erection or placement of any permanent or temporary structures, shall constitute a violation of Chapter 253, F.S., and subject the Lessee to administrative fines under Chapter 18-14, F.A.C., and the terms of this lease. Any such violation may result in the imposition of administrative fines, judgment for damages, and/or the termination of this lease.

19. As a condition to obtaining this lease, the Lessee hereby agrees not to discriminate against any individual because of that individual's race, color, religion, sex, national origin, age, handicap, or marital status with respect to any activity occurring within the area subject to this lease or upon lands adjacent to and used as an adjunct of the area described within this lease.

20. Lessor and Lessee agree that Lessor has venue privilege as to any litigation arising from matters relating to this lease. Therefore, any such litigation between Lessor and Lessee shall be initiated and maintained only in Leon County, Florida.

21. This lease is the entire and only lease between the parties. Its provisions are not severable. Any amendment or modification to this lease must be in writing and must be accepted, acknowledged and executed by the Lessee and Lessor.

22. This lease shall be deemed to have been executed and entered into in the State of Florida. Any dispute arising hereunder shall be governed by the laws of the State of Florida. This lease shall be binding on and shall inure to the benefit of the heirs, executors, administrators and assigns of the parties hereto, but nothing contained in this paragraph shall be construed as a consent by Lessor to any assignment of this Lease or any interest therein by Lessee.

23. Lessee shall remove all works, equipment, structures and improvements from the sovereign lands described in this lease within 60 days following the date of expiration or termination of this lease. Lessee shall also provide to the Department an attestation statement from a third party, acceptable by the Lessor, verifying that all works, equipment, structures and improvements have been removed. Failure to remove all equipment and improvements within 60 days and provide the attestation statement may result in cancellation of all other aquaculture submerged land leases held by Lessee and Lessee will be prohibited from executing, acquiring, subletting, or the authorized use of any state owned aquaculture submerged land lease for ten years from date of cancellation of the lease in which the works, equipment, structures and improvements were not removed.

24. The Lessee shall be bound by present and future enactments in Florida law as expressed in Chapter 253, F.S., or elsewhere in Florida Statutes, and by present and future provisions of the Florida Administrative Code promulgated thereunder, and by any present and future enactments adopted by the Board of Trustees pertaining to this lease agreement.

25. Conviction of a violation of Chapter 597, F.S., and/or rule 5L-1, F.A.C., or other rules promulgated by the Department, or the Florida Fish and Wildlife Conservation Commission, may be cause for this lease to be terminated without further notice to Lessee and shall result in the forfeiture to Lessor of the works, improvements, and shellfish in and upon the leased premises.

26. SPECIAL LEASE CONDITIONS

a) Pursuant to Chapter 253.71 (7), F.S., lease agreements may contain special lease conditions that provide for flexibility in surveying and posting lease boundaries, incorporate conditions necessary to issue permits pursuant to Part IV of Chapter 373, F.S. and Chapter 403, F.S., and provide for special activities related to aquaculture and resource management.

(1) Pursuant to Chapter 597, F.S. authorized activities include, but are not limited to, planting shellfish cultivated from eggs, transplanting live stocks, placement of cultch material, harvesting shellfish, the installation and removal of nets, bags, or other devices, and the placement of markers that designate the corners and perimeters of the culture area.

(2) All culture materials, cover nets, bags or other designated markers placed on or in the water shall be clean and free of pollutants; including petroleum products such as creosote, oils and greases, or other pollutants. Compounds used as preservatives must be used in accordance with product label.

(3) Culture materials (cultch) placed on the grow-out area must be a suitable substance for attachment of oyster larvae: such as natural molluscan shells; fossilized shell; fossilized coral and other aquatic organisms; lithic materials, such as crushed and graded limestone, granite, and gravel which contain calcium carbonate and/or fossilized organisms; or recycled materials which contain lithic fractions and calcium carbonate, including crushed and graded concrete. Exceptions to this list of generally accepted cultch materials must be specifically approved and identified within the aquaculture lease agreement.

(4) Bags and/or trays used in the culture operation shall be removed from the water during all mechanical cleaning, maintenance and repair operations. Mechanical or hydraulic devices shall not be used below the water for the cleaning of the submerged structures. The Lessee may use hand tools for cleaning shellfish, bags, and other structures under water.

b) The Lessee agrees that mechanical harvesting is prohibited on the lease site, unless expressly approved in this lease agreement.

c) No aquaculture activities will be allowed over bottoms that contain biological resources consisting of submerged seagrass communities, naturally occurring oyster and clam beds, corals, attached sponges or attached macro marine algae beds.

d) The Lessee shall, prior to commencement of the aquaculture activities on the approved lease site, and no later than 120 days from the date of such approval, provide to the Lessor a Department of Environmental Protection, Division of State Lands approved survey and legal description of the parcel to be included in the lease. If an acceptable survey is not received from the Lessee within 120 days it may be cause for immediate termination of the lease.

e) The Lessee shall, within 90 days from the date of execution of this lease, properly post the lease boundaries to delineate the corners and perimeters of the lease. Lessee must install and maintain a buoy or post at each of the remaining lease corners of the lease area. Markers shall be installed in a consistent manner (i.e., utilizing all buoys, or all posts on site). Lessee shall apply for a Private Aids to Navigation permit from the US Coast Guard and comply with all provisions of the permit to warn mariners passing in the vicinity of the lease of the potential hazards to navigation.

(1) Buoys must be white with international orange bands of reflective tape with black block characters at least one-inch in height and include each corner designation (i.e., NE, NW, SE, and SW) and parcel number or FDACS Lease No. -AQ- . Each buoy must be maintained upright at a minimum height of 14-inches above the mean high water mark.

(2) Posts must contain a field at least 2-1/2" wide and 10" long. The background shall be white with international orange bands of reflective tape above and below the field. Parcel number or FDACS Lease No. -AQ- and each corner designation (i.e., NE, NW, SE, and SW) shall be displayed in black block characters of at least one-inch in height. The bottom of the identifying field on the post shall extend a minimum of 18-inches above the mean high water mark. Posts may be made from carsonite, fiberglass, and/or PVC.

(3) For theft prevention, Lessee may install a sign with a white background and include: (a) the language "HARVESTING PROHIBITED EXCEPT BY LESSEE" in one-inch black letters; (b) the "circle symbol" using international orange reflective tape; and (c) a two-inch border using international orange reflective tape. The bottom of the sign shall extend a minimum of three-feet above the mean high water mark.

f) This lease authorizes use of the entire water column, from surface to bottom for the purpose of culturing shellfish in off-bottom or floating structures. The Lessee's identification information shall be attached to all culturing structures. In the event that culturing structures become dislodged from the lease site, it is the Lessee's responsibility to retrieve the structures from the shoreline, seagrass beds, or submerged bottom anywhere within the aquatic preserve with minimal damage to the resources affected. The structures shall be removed and properly disposed of or returned to the lease site.

g) The Lessee, and any sublessee and/or authorized user, must possess and maintain a valid Aquaculture Certificate of Registration from the Department of Agriculture and Consumer Services pursuant to Chapter 597.004, F.S. As certified, the Lessee, sublessee and authorized user shall implement the best management practices adopted in Chapter 5L-3, F.A.C.

h) The Lessee shall employ "best management practices" to protect endemic shellfish populations from the potential introduction and transfer of diseases. The best management practices shall be employed during all production and transport phases to provide responsible resource management, and reduce or eliminate the risk of disease introduction or transfer. Best management practices will include but not be limited to the following provisions.

(1) The source of brood stock for seed stocks to be cultured shall be from native stocks. Lessee shall provide documentation to the Department stating that seed stocks are from native brood stocks. The Lessee shall obtain such documentation from the hatchery or nursery from which seed stocks are obtained. Hatchery-reared seed stocks may not be obtained from facilities that cannot document the use of native (regional) stocks in their brood stock and genetic programs.

(2) The Lessee shall provide documentation that seed stocks are free of diseases that may threaten endemic populations. Such documentation should be obtained from the hatchery or nursery from which the seed stocks were obtained. Seed stocks, obtained from hatcheries or nurseries located outside of the specific region referenced in section 26, h. (1), of this lease must be certified by a recognized shellfish pathologist as free of diseases that may threaten endemic populations.

(3) The documentation required in section 26, h. (2), of this lease, as well as the source and destination, must accompany each shipment of seed stocks and market size shellfish, and a record of all documents and transactions shall be maintained by the Lessee and submitted to the Department in the annual Affidavit for Audit (FDACS form 15104) no later than 45 days from the date of the request for the information. Shellfish seed stocks, for the purpose of this section, shall be defined as shellfish that are less than ten percent of market-size or require a minimum of six months to reach market-size.

i) Shellfish aquaculture products from certified aquaculture operations may be possessed, transported and sold when such shellfish are segregated in distinct containers, with each container being appropriately labeled as to source and certificate of registration number.

(1) The Lessee shall obtain authorization from the Department to transplant market-size shellfish stocks

from leases that are temporarily closed to direct-to-market sale. The Lessee shall document that the receiving lease is closed for direct-to-market sale of shellfish for at least 30 days when market-size shellfish are obtained from another lease that is closed for direct-to-market sale at the time of the transaction. Shellfish aquaculture products which are harvested from a lease that is temporarily closed to direct-to-market sale shall be documented as to date of harvest and transport. The authorization to transplant may include requirements for bacteriological analyses.

(2) Transplanting or relaying wild shellfish stocks to a lease is prohibited.

j) Shellfish aquaculture products which are harvested from the lease for direct-to-market sales for human consumption shall comply with all applicable provisions of Chapter 597, F.S., Chapter 5L-1, F.A.C., and any other applicable provisions of law and administrative code.

k) The Lessee shall perform the aquaculture activities in such a manner that will not have an adverse impact on significant resource habitats such as seagrass beds or on endangered species such as manatees and sea turtles.

l) If the activity and/or gear proposed by the lessee are not covered under the Department's Programmatic General Permit (SAJ-99) for Live Rock and Marine Bivalve Aquaculture, the Lessee will need to apply for an individual permit from the Army Corps of Engineers and comply with all provisions of the permit. Specifications regarding placement, type and function of appliances and devices used in culture practices and predator exclusion should be expressly approved by the Division of Aquaculture.

m) If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The Lessee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850/245-6333). Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, F.S.

(Remainder of page intentionally left blank)

"LESSEE":

By_____
Original Signature of Lessee or Executing Authority

_____
Typed/Printed Name of Lessee or Executing Authority

As: _____
(If Lessee is a corporation, please enter capacity in which Executing Authority is authorized to sign, i.e, President, Vice President, etc.)

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20 , by _____, who is personally known to me, or who has produced a _____ as identification.

_____
Notary Public (SEAL)

BOARD OF TRUSTEES OF THE INTERNAL
IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA
(SEAL)

By: _____
Joey B. Hicks, Director, Division of Administration
(or his designee)
Department of Agriculture and Consumer Services, Designee
For the Board of Trustees of the Internal Improvement Trust Fund

"LESSOR"

STATE OF FLORIDA
COUNTY OF LEON

The foregoing instrument was acknowledged before me this _____ day of _____, 20 ,
by Joey B. Hicks, Director, (or his designee), Division of Administration, who is personally known to me.

_____
Notary Public (SEAL)