



Shellfish Lease Program

2020

Department of Environmental Quality



NC Shellfish Leases

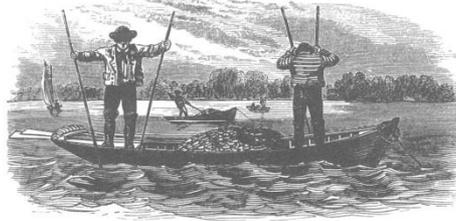
- Brief History of Shellfish in NC
- Overview of the Lease Program
- Siting Criteria
- Biological Investigations
- Permitting conditions
- Gear Types
- Challenges



Department of Environmental Quality



NC Shellfish Leases

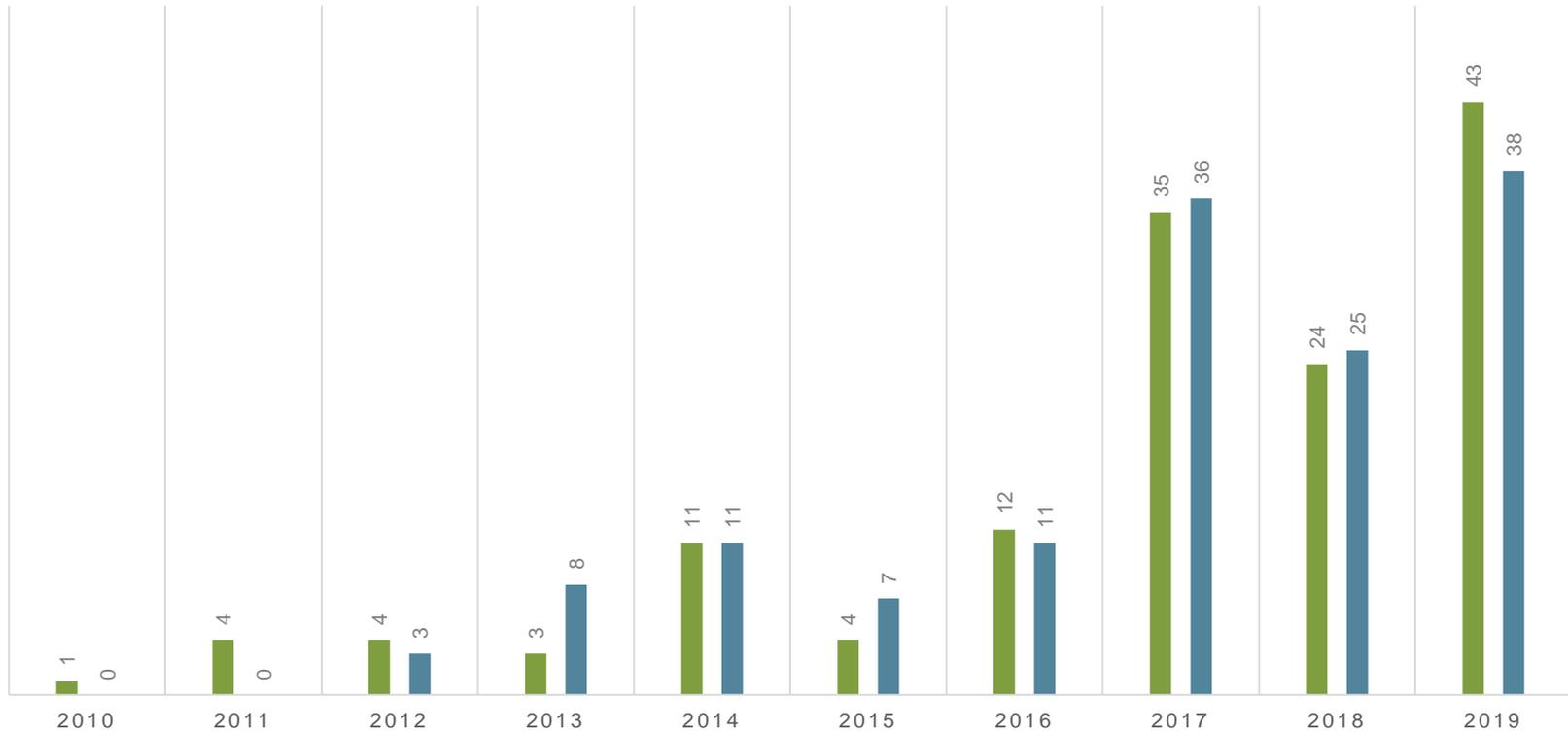


- The State of North Carolina has provided for the private use of public trust waters for the production of shellfish by the cultivation of unproductive bottom by allowing this bottom to be leased to residents of North Carolina since 1858.
- In 1989 legislation was enacted to allow the use of the water column above existing shellfish leases. The first water column lease was issued in 1991.

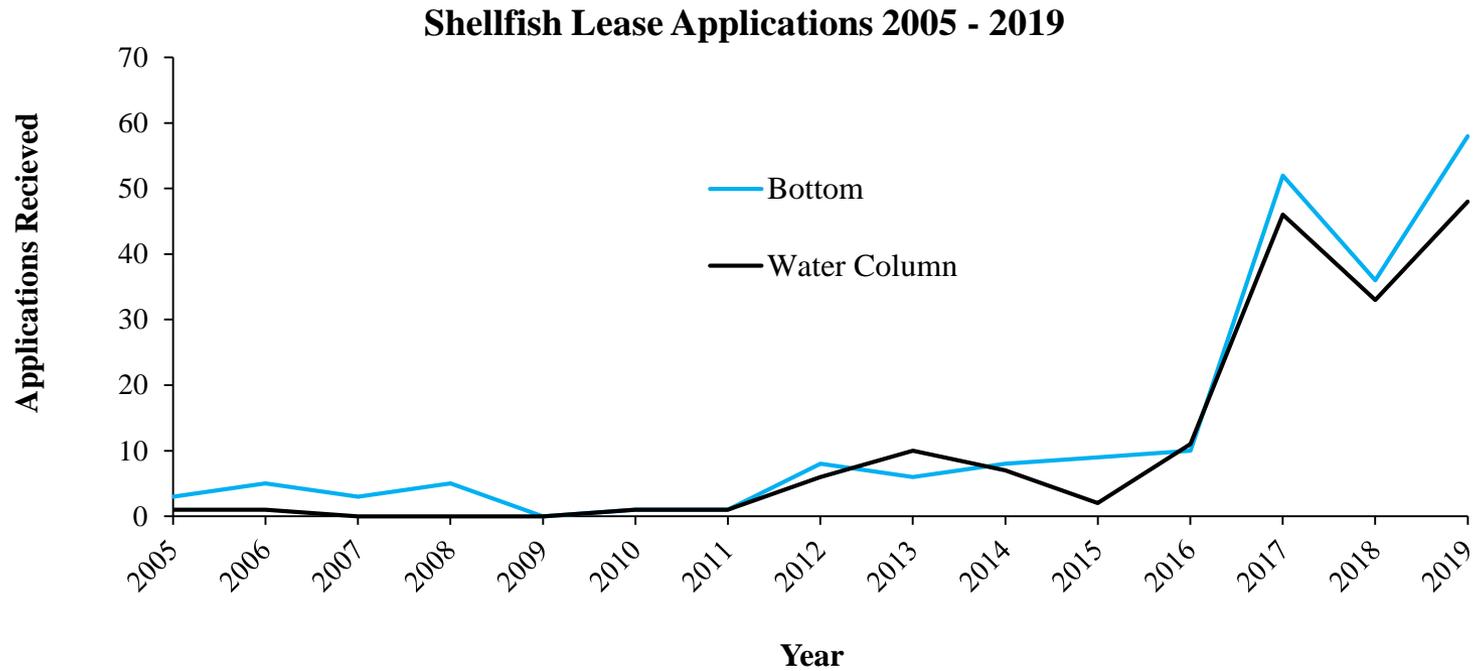
NC Shellfish Leases

APPLICATIONS RECEIVED

■ Bottom ■ Water Column



NC Shellfish Leases



Shellfish Lease Standards

- **Authority:** N.C. §113 – 202
- **General Standards:**
 - NC Resident
 - Area must not contain a natural shellfish bed (10 bushels/acre)
 - Suitable for culture and harvest of shellfish in commercial quantities
 - Compatible with other uses – navigation, fishing, recreation
 - 100 foot developed shoreline setback
 - Shellfish Management Program
 - Closed for shellfish harvest due to pollution
 - Individual lease area 1/2 – 10 acres
 - Cannot have interest in more than 50 acres.



Types of Leases

- Shellfish Bottom Lease:

- On or within 18 inches of leased bottom (2015 S.L.)



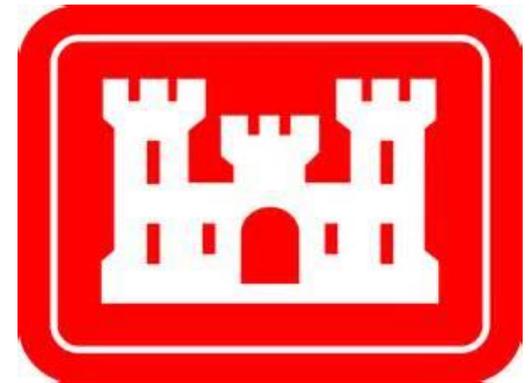
- Water Column Amendment:

- Devices or equipment not resting on the bottom or extending more than 18 inches above the bottom
- Bottom lease is also required



Nationwide #48 Regional Conditions

- Prior Notice of Construction (PCN) with USACE
- 1/3 of waterbody for other than cultch or clam on bottom methods
- Submerged aquatic vegetation (SAV):
 - 15% or less of samples contain submerged aquatic vegetation (SAV)
 - SAV density is very sparse (15% or less)
 - Sample during growing season (April – October)
 - NOAA consistent methodology
- 250 ft. minimum from any USCG navigational aid
- Not in USACE Setbacks
- Consistency/applicable permits by DCM/CAMA
- 20 foot buffer from marsh for water column/cage use
- No siting in marked or unmarked navigation channels



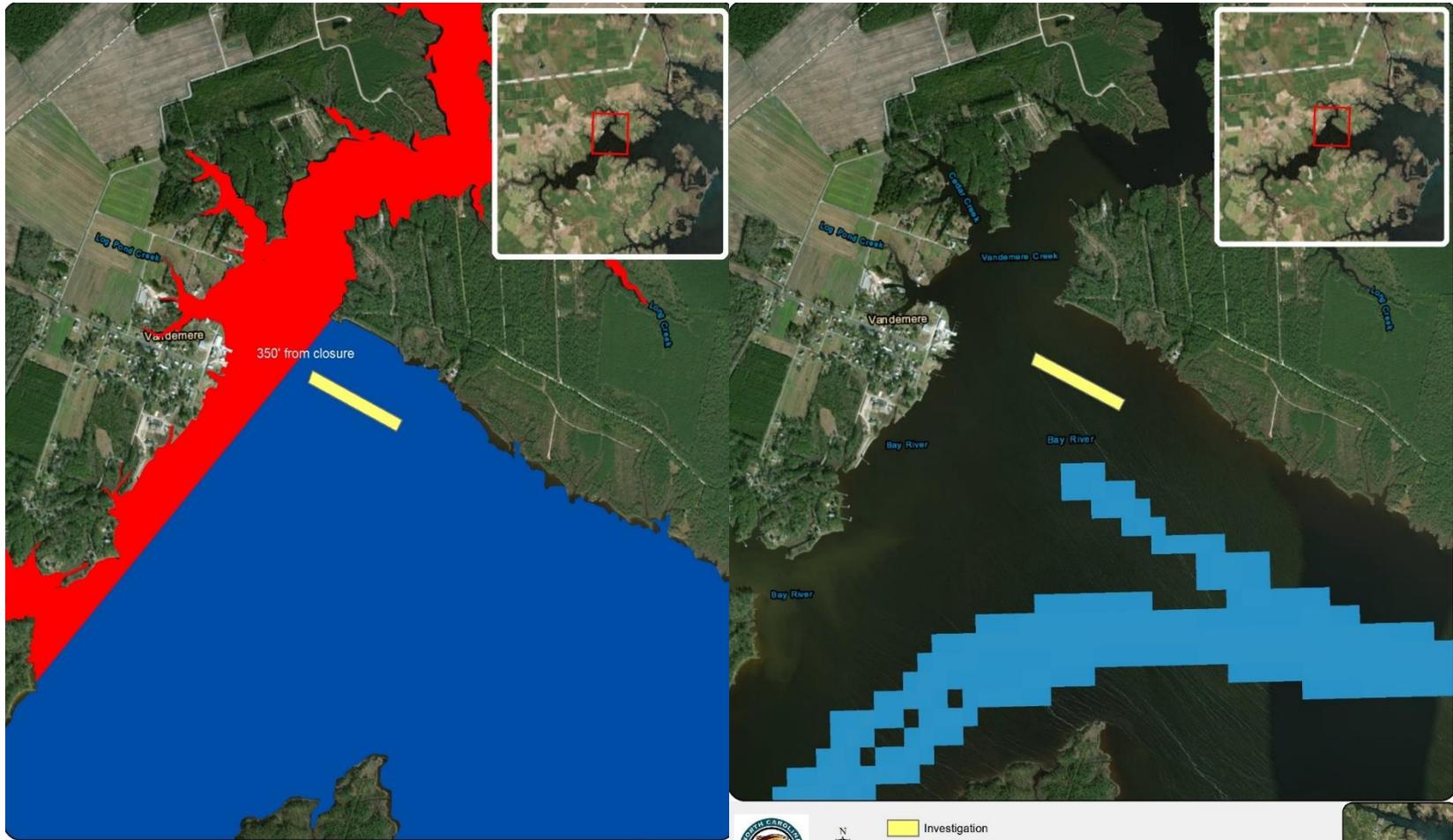
Shellfish Lease Application Process

(4-6 months)

- Site Selection – Applicant picks site. There are no pre-designated areas.
- Complete and submit Application Package
 - Application fee – \$200 for bottom lease, \$100 for water column
- Site marked properly with Proposed Lease signs provided by DMF
 - Applicant contacts DMF to indicate (add time)
- Formal site investigation (1-4 weeks) *April – October Only*
- Internal review: Fisheries Management, Shellfish Sanitation, Marine Patrol, DCM, DWR, NW 48 - PCN with Corps
- Recommendation to Fisheries Director on site suitability (1-2 weeks)
- Public Comment and Public Hearing (4-6 weeks)
 - 2 legal notices in local paper, 30 day public comment period
- Director approves, approves w/conditions, denies proposed lease based on compliance with standards, internal review, and public comment. (1-2 weeks)
 - Any change in corner markers verified by DMF (add time)
- Lease contract sent to applicant; sign, notarize and mail back (1 week+/-)
- Director signs lease and mailed to applicant (1 week)
- Site Verification



Biological Investigation



- Investigation
- Approved
- CSHA - Prohibited

Acreage = 6.63



- Investigation
- 2013 Vessel Density**
- Value**
- High
 - Low

0 350 700
Yards

Acreage = 6.63



Coordinate System: NAD 1983 StatePlane North Carolina FIPS 3200 Feet



Biological Investigation

- Gear
 - GPS
 - ARC Collector
 - ArcGIS



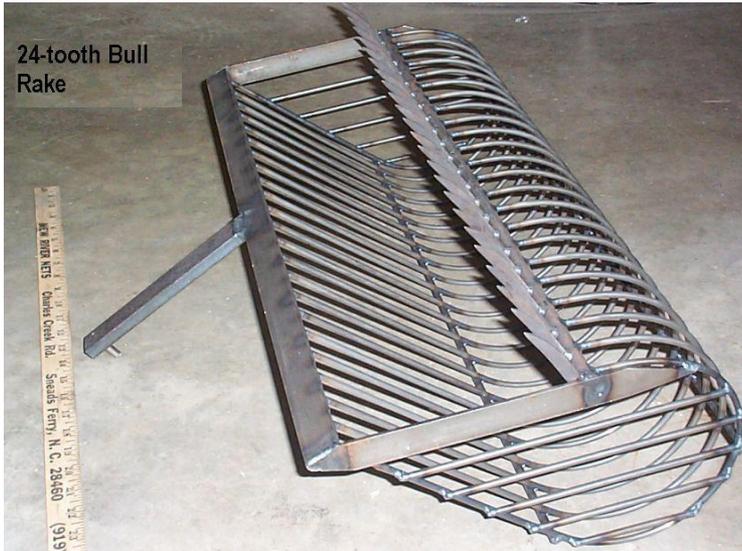
Biological Investigation

- Gear
 - Patent Tongs
 - Dredge (mostly for sampling)

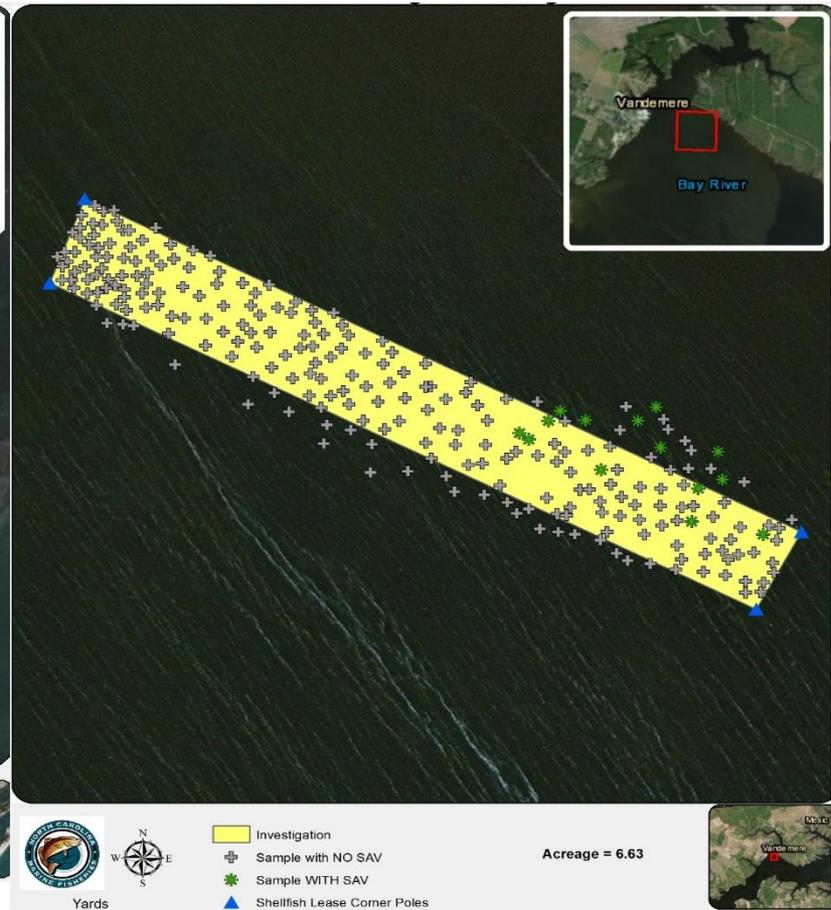


Biological Investigation

- Gear
 - Rakes
 - Meter Squared
 - Kayak



Biological Investigation



Shellfish Lease Application Process

(Cont'd)

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Bottom Lease – cultch on bottom



Changes in shellfish aquaculture

- Traditional use was for *Extensive Culture Methods*:
- Mostly clams, some oysters
- Low yield/acre, low cost
- Moderate labor
- Volume market/bushel
- Clam seed or natural oyster set



- Almost all new applications are for *Intensive Culture Methods*:
- Mostly oysters, few clams
- High yield/acre, higher cost
- Intensive labor
- Half Shell market/count
- Purchase seed for grow out
 - Diploid
 - Triploid



Legislative Changes

- *Extensive Culture Methods:*
 - Traditional cultch on bottom
- *Intensive Culture Methods:*
 - Involves the use of any gear type bottom or floating
- Production- applies to new leases and renewals
 - Bottom and Franchises
 - Average 20 bushels/ acre average over 3 year period beginning year 5
 - OR
 - Extensive Methods show proof of purchase for 15,000 seed per acre per year
 - Intensive Methods show proof of purchase for 23,000 seed per acre per year
 - Water Column
 - Average 50 bushels/ acre average over 3 year period beginning year 5
 - OR
 - Show proof of purchase for 23,000 seed per acre per year



Legislative Changes

- Aquaculture Enterprise areas
 - DMF managed- present to MFC in November
- Recently terminated leases can be released with 18 months of termination
- Pamlico Pilot study
 - Up 3 – 50 acre leases for water columns terminate July 1, 2031.
 - Exception to the 50 acres max rule
- Admin remedy for lease appeals
 - MFC to establish board
- Allow transplanting of seed from permitted facilities in prohibited waters
 - Tere will take more



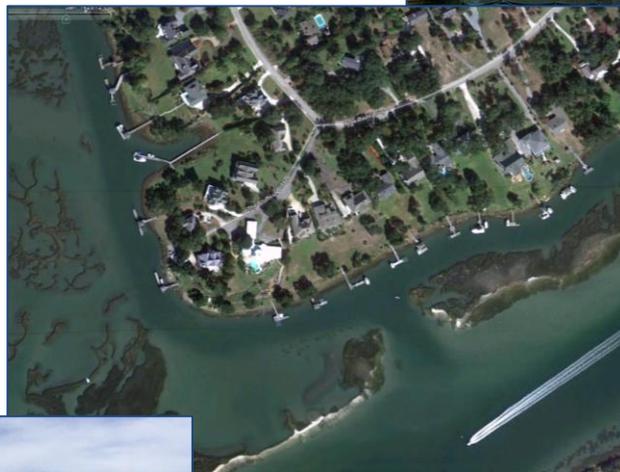
Legislative Changes

- Crop Insurance Study – Dept of Ag
- Shellfish Loan study- NCCF
- Gear removal from terminated or relinquished leases
 - Not just signs
- User Conflict Study
- Moratorium for Bogue Sound and New Hanover County –
 - July 1. 2021



Challenges

- Navigation - boating
- Fishing – commercial/recreational
- Recreation - swimming, kayaking, etc.
- Hunting - duck blinds
- Waterfront development
 - Public Perceptions



Public Perceptions

- Photos on trashy leases
- December 2018 to remove embedded aquaculture debris from public trust bottom. They removed 21 dump truck loads from the site, with a total weight of 590,000 pounds of sandbags, pilings and screens.



Photo Courtesy of North Carolina Coastal Federation



Public Perceptions



Public Perceptions



Frequently Asked Questions

- **Q: How do I find a good area to start a lease/How do I find out what areas are being leased?**
- **A:**
 - Benthic Mapping Tool managed by UNCW <http://uncw.edu/benthic/sitingtool/> which provides visual representation of data related to salinity, bottom depth, and shellfish growing area classifications.
 - ****New Web Application/Web page****
 - Before applying for a lease:
 - Visit the area to verify that the site will work for you
 - Talking to local leaseholders, adjacent land/home owners, and other members of the public – Mitigates a lot of potential conflicts



Frequently Asked Questions

- **Q: Are there certain areas a lease cannot occur?**

- **A: Yes.**
 - not be sited an existing shellfish resource,
 - Historical presence of submerged aquatic vegetation
 - waters that have been closed to shellfish harvest due to bacterial contamination,
 - Within 100 ft. of a developed shoreline,
 - Recognized submerged lands claim,
 - Navigational channel.
 - <http://portal.ncdenr.org/web/mf/habitat/enhancement/shellfish-leases>



Frequently Asked Questions

- **Q: Why does the process take so long/What is the status of my lease?**
- **A:** There are many factors that affect the length of the application process; they include but are not limited to: the number of applications, missing information or improper information in the application, size and location or the proposed area, potential adjustments that need to be made to the lease, time of year, weather, and staff resources. The process is lengthy and there are five general phases of the application:
 - Once we review your application, we send out temporary signs for you to mark the proposed site.
 - After the area is marked we complete a biological investigation and verify the size.
 - This report is sent for internal review within sections of DMF (Fisheries Management, Marine Patrol, Shellfish Sanitation), Division of Coastal Management, Division of Water Resources, US Army Corps of Engineers, and other pertinent state agencies.
 - If the site meets the criteria in G.S. 113-202 (a), a formal request is made to schedule a public hearing, and once approved, the hearing is scheduled at a venue in the county of the proposed site.
 - After the public hearing is held, that information is presented to the director for a decision. The division works with the applicant to mitigate any issues identified in each step of the process



Frequently Asked Questions

- **Q: How do I find out about the public hearings?**

- **A:** Public hearings are advertised in the local paper of the county of the proposed lease two times. The ads are run at least 21 days (normally 30 days) prior to the hearing and 7-11 days from the first ad. The DMF Website has a listing of all scheduled public hearings available for the public view (<http://portal.ncdenr.org/web/mf/dmf-public-meetings-schedules>). Information on all public hearings can also be emailed by subscribing to DMF News Releases here: <http://portal.ncdenr.org/web/mf/email-subscribe>. The Shellfish Lease Program's webpage is also a valuable source of information regarding all steps of the lease application process: <http://portal.ncdenr.org/web/mf/habitat/enhancement/shellfish-leases>



Frequently Asked Questions

- **Q: Can I get a lease for personal consumption?**
- **A:** No. Shellfish leasing is for the commercial production. Shellfish harvested from a lease must be sold to a licensed dealer and commercial production standards must be met.

- **Q: How do I get started in the oyster business and where can I go to get assistance?**
- **A:** A good starting point is through NC Sea Grant. Chuck Weirich was the marine aquaculture specialist.
 - Sea Grant can provide technical assistance and information to those interested or already involved with shellfish aquaculture. Phone 252-222-6314



Frequently Asked Questions

- **Q: How do I find out who owns a specific lease or franchise?**
- **A:** Marked with signs containing the lease number and leaseholders name.
 - ****New Web Application/Web page****
- **Q: What is the difference between a lease and a franchise?**
- **A:**
 - A lease is a piece of public trust bottom which leaseholders are charged a yearly rent fee and have renewable contractual obligations.
 - A franchise is a commercial shellfish aquaculture operation located on a recognized submerged land claim.
 - Deeded rights to the bottom.
- **Q: Do I need additional permits to operate on my lease?**
- **A:** All aquaculture related permit information can be found here:
<http://portal.ncdenr.org/web/mf/habitat/enhancement/shellfish-leases>

