2021 Shellfish Lease Application Information Appendices

Appendix I: Shellfish Lease Application Process

1. Select a shellfish lease site.
    a. Use the *DMF Shellfish Lease Tool* (http://portal.ncdenr.org/web/mf/shellfish-lease-franchise-programs) and/or the *UNCW Shellfish Benthic Siting Tool* (https://uncw.edu/benthic/sitingtool/). These tools show you other leases, as well as pertinent regulations for each area.
    b. Visit the location. Make sure it is suitable for growing and meets the minimum requirements set by DMF.
    c. Talk to your neighbors. This includes riparian landowners, or other local growers. This can help you learn valuable information about your proposed location, as well as build relationships with the folks you will be interacting with in the future.
    d. Talk to DMF Leasing Staff - they can help you with this part of the process and answer any questions you may have.
2. Complete the application. **All pages must be completely filled out, and initialed, indicating that you have read and understand all the information included in the application.** Submit to DMF with your nonrefundable or transferable application fee.
3. Once your application is received, the fee is processed. The application is checked to ensure it is complete and an initial verification using GIS is completed to endure the lease does not occur in historical SAV or infringe upon other property interests.
4. If the application is incomplete, illegible, or the proposed lease is not in a permissible area, the application is denied.
5. Temporary lease signs are mailed to the applicant with a letter requesting the proposed site be marked on each corner. These signs will remain throughout the lease application process.
6. Lease applicant emails pictures of the installed temporary signs to Lease Program Staff. **Staff will not proceed with a site investigation until this occurs.**
7. Lease Program staff investigate your proposed site. This investigation includes determining criteria for marsh setback, channel locations, percentage of water body the proposed site occupies, shellfish presence/density and SAV presence/density.
8. Site investigation data is compiled into a report by a biologist.
9. The proposed site map including the investigation report is sent out for review to internal staff and DEQ agencies.
10. Internal comments are reported to the DMF director. At this point the director can recommend:
    a. The application be taken to public hearing as submitted,
    b. The site or application be conditioned or modified prior to going to public hearing,
    c. The application be denied.
11. If the application is approved for public hearing, the applicant will be notified by DMF staff to provide evidence that they attempted to notify by certified mail the adjacent riparian property owners within 250 feet from where the proposed shellfish lease is located. The notice shall instruct riparian property owners to provide any comments on the proposed shellfish lease in writing to DMF within 30 calendar days of the date the notice was sent and indicate that no response shall be interpreted as no comment. Once DMF is provided evidence that the applicant attempted to notify the adjacent riparian property owners (see number 10), then the 30-day public comment period can commence. By law, DMF must run two public notices in a local newspaper. DMF also issues a press release and notifies DMF proclamation lists of the proposed site. At the end of the public comment period, a public hearing is scheduled in the county where the proposed lease is located. All comments received must either be in writing or submitted verbally or in writing at the public hearing.

12. Public hearing comments are summarized in a report to the director for consideration. The director then does one of the following:
    a. Approves the shellfish lease as submitted or as modified in #8,
    b. Approves the lease with conditions,
    c. Denies the lease.
13. Once the lease is approved, the Lease Program will draw up a contract for the lease site. DMF staff will verify corner markers and applicant installs permanent markers and signage as required. The contract will be mailed to the lease applicant with instructions. The first year's rent is due in advance.
14. The lease applicant reads the lease contract and signs and dates with a notarized signature, indicating agreement with the lease contract terms. The applicant mails the signed contract back to DMF with the appropriate lease rent.
15. Applicant installs permanent signs on their lease and submits photos to DMF
16. The lease rent is processed and the DMF director signs the contract which a copy is mailed back to the leaseholder.

Appendix II: Shellfish Lease Siting Requirements and Restrictions

It is the responsibility of the applicant to site the lease. Shellfish leases are a special use of public trust submerged land and waters that allow individuals to grow shellfish for commercial production only. To protect access to public trust resources, the DMF Director is given broad authority to ensure that leases are granted in areas that will be compatible with the lawful utilization of marine and estuarine resources**.**

The DMF Shellfish Lease Tool (http://portal.ncdenr.org/web/mf/shellfish-lease-franchise-programs) and/or the UNCW Shellfish Benthic Siting Tool (https://uncw.edu/benthic/sitingtool/) should be used to assist with lease siting.

Areas where leases cannot be sited:

☐ In areas unsuited to the species of shellfish or grow-out method you have selected.
☐ In areas closed by Shellfish Sanitation because of pollution.
☐ Within 10 feet a natural shellfish bed.
- By MFC rule, a natural shellfish bed is defined as 10 bushels of shellfish (oysters, clams, mussels) per acre.
- The US Army Corps of Engineers Nationwide (ACoE) Permit #48 sets strict limits for the placement of aquaculture sites near naturally occurring oyster reefs, oyster aggregations and shell bottom.

☐ On areas containing significant Submerged Aquatic Vegetation (SAV, i.e. sea grasses).
- The US Army Corps of Engineers Nationwide Permit #48 sets strict limits for the placement of aquaculture sites where the presence of SAV is greater than 15% coverage of the applied for site.

☐ Where the lease site extends more than one-third the distance across any water body (creek, bay, river, etc.); *except* where the aquaculture method only uses cultch-on-bottom, or clam-on-bottom methods. (ACoE NW Permit #48 condition)
☐ In areas incompatible with traditional uses such as, but not limited to: commercial or recreational fishing, swimming areas, navigational channels (marked and unmarked), areas designated as shellfish management areas and enhancement sites including cultch planted sites.
☐ In areas where leases are otherwise prohibited by law.
☐ Over recognized Submerged Land Claims without a completed signed and notarized permission form. For a map listing any recognized claims in your county link here: http://portal.ncdenr.org/web/mf/submerged-lands-maps

Shellfish leases must:

☐ Be as compact as possible and be compatible with the Shellfish Lease Management Plan

- ☐ Not impinge upon the rights of riparian property owners.
  - Within **100 feet** of a developed shoreline, you will need written and notarized consent of the riparian property owner.
  - The applicant shall provide evidence that they attempted to notify by certified mail the adjacent riparian property owners within 250 feet from where the proposed shellfish lease is located. The notice shall instruct riparian property owners to provide any comments on the proposed shellfish lease in writing to DMF within 30 calendar days of the date the notice was sent and indicate that no response shall be interpreted as no comment.
- ☐ Not be sited within **20 feet of a vegetated marsh** to allow public access to the marsh or **5 feet where the aquaculture method only uses cultch-on-bottom**, or clam-on-bottom methods.
- ☐ Not exclude or attempt to exclude the public from allowable public trust use of navigable waters on shellfish leases and franchises including, but not limited to, fishing, hunting, swimming, wading and navigation.
  - Lease sites using bottom or floating cages must place them in parallel rows with at least 10 feet between each row to allow for navigation by the public. Rows may be configured in any direction.
- ☐ Be continuously marked with proper legible signage on all corner markers. All corner markers shall be marked with either reflective tape or reflectors.
- ☐ Not conduct development activities listed below without permitting by DCM.

*<u>*NOTE</u>: DMF has no authority to permit the following structures on a lease. If you intend to use these structures, they will require a CAMA permit. For more information, contact DCM at (252) 808-2808.*

- Lease markers **greater than 4 inches X 4 inches or > 4 inches in diameter**
- Floating Upwelling Systems (FLUPSYs) not on lease site, tank downwellers, upwellers, raceways, etc.
- Docks, piers, bulkheads, or other development activities
- Permanently anchored barges or platforms
- Dredging or fill activities or utilities

<u>Appendix III: Lease Management Plan Information and Technical Assistance</u>

The Shellfish Lease Management Plan details what type of aquaculture operation you plan. This is an important step when planning your shellfish lease activities. When your shellfish lease is approved by the DMF director, the Shellfish Lease Management Plan will become a part of the legal lease contract by reference. Changes to grow-out methods, species, and navigational clearance will require submission of a modified management plan and approval by DMF.

Please use the following resources to help you develop your Lease Management Plan:

North Carolina Sea Grant: can provide valuable assistance in helping you determine capital investment, lease size, grow-out methods, seed sources, and many other important items that will help your aquaculture venture succeed (https://ncseagrant.ncsu.edu/aquaculture/).

Carteret Community College: offers an Aquaculture Technology certificate, as well as a degree. These classes provide technical knowledge about aquaculture, operating a business, and finance management (https://carteret.edu/programs/aquaculture-technology/).

NOAA: The data is available via NOAA's Marine Cadastre national mapper and viewer (https://marinecadastre.gov/nationalviewer/). The specific data are for Vessel Traffic density. Generalized summaries are available in the Marine Cadastre viewer (https://marinecadastre.gov/ais/). *Note this does not apply to personal watercraft.

The North Carolina Shellfish Growers Association: industry group that shellfish growers can join and network with other growers (http://www.ncshellfish.org/).

The East Coast Shellfish Growers Association: regional association that includes great information on shellfish aquaculture including Best Management Practices. They produce a newsletter with updates on legislation, scientific studies, and other pertinent information concerning shellfish growers (http://ecsga.org/).

Appendix IV: Shellfish Lease Production Requirements (as of 2019)

Shellfish leases in NC must meet production standards by rule. Failure to meet production standards is the number one reason for leases being terminated. Proper sizing of the lease and a sound management plan are key to meeting your production standards.

The following are the **minimum** Shellfish Lease Production Standards in statute:

Bottom and Franchise *Extensive* methods (no gear): Plant 15,000 seed/acre/year or harvest an average 20 bushels/acre (leaseholder must provide annual receipts of proof of purchase of seed)

Bottom *Intensive* methods (gear use): Plant 23,000 seed/acre/year or harvest an average 20 bushels/acre (leaseholder must provide annual receipts of proof of purchase of seed)

Water Column *Intensive* methods (gear use): Plant 23,000 seed/acre/year or harvest an average 50 bushels/acre (leaseholder must provide annual receipts of proof of purchase of seed)

Note: The Shellfish Lease Program uses the following conversion numbers that are in rule to determine bushels in planting and marketing. *These numbers apply to **all** sizes, seed to market size*:

Clams and Scallops:	1 bu. = 400 count
Oysters:	1 bu. = 300 count

Appendix V: Shellfish Sanitation/ Public Health Information

The following information is to provide awareness of the public health risks with shellfish as well as causes and impacts from temporary and permanent shellfish closures. An illness from your product or growing area closures can have a significant impact on your shellfish aquaculture business. We encourage applicants review and consider the permanent and temporary closure status where you site your lease and implement safe handling practices.

Because shellfish are filter feeders, they provide valuable water quality benefits by filtering up to 40 gallons of water per day. However, they can also concentrate potential pathogens (bacteria and viruses) that cause illness in consumers, particularly when shellfish are consumed raw or undercooked. The DMF Shellfish Sanitation and Recreational Water Quality Section continuously sample waters to ensure the shellfish harvest areas of the coast are properly classified. Classification maps showing permanent closure areas can be viewed at: http://portal.ncdenr.org/web/mf/shellfish- closure-maps

In addition to the permanent closures, heavy rainfall and the resultant runoff, or other events such as septic or sewage failures, chemical spills, etc. may cause temporary shellfish water closures. These events result in heavy pollutant loads washing into growing areas and may close growing areas for days to weeks depending upon the event. No shellfish harvest is allowed during this time. An interactive map of current temporary shellfish closures can be viewed at:
https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=5759aa19d7484a3b82a8e440fba643aa

Not all pathogenic bacteria are associated with polluted waters. The National Shellfish Sanitation Program (NSSP) Model Ordinance and the US Food and Drug Administration require safe harvest and handling practices to reduce illness caused by post-harvest growth of **Vibrio** bacteria. Two species of concern are *Vibrio vulnificus* and *Vibrio parahaemolyticus*.

Vibrio bacteria occur naturally in our warm coastal waters and multiply rapidly once shellfish are removed from the water and exposed to warm ambient air temperatures. To decrease the risk of Vibrio illnesses, which are rare in NC, Shellfish Sanitation and the DMF have developed Time to Temperature limits for harvesting oysters and clams. Lease holders harvesting oysters outside of the regular oyster season from shellfish leases must document time of harvest and follow restrictions set forth in DMF annual proclamations. Shellfish dealers must also document time to temperature for receiving, storage and shipping. Current (Shellfish Sanitation) proclamations specifying time to temperature controls can be viewed on the DMF website: http://portal.ncdenr.org/web/mf/proclamations-current#shellfish-san

In some instances, a portion or the entire lease may be closed when the surrounding growing area is later reclassified and permanently closed by reason of pollution. Staff from DMF Shellfish Sanitation and Resource Enhancement work closely to notify lease holders that are impacted by these reclassification closures so they can relay material off before the closure takes place. At this point, the lease may either be relinquished by the leaseholder or it will either be terminated for lack of production over time, or automatically expire at the end of the contract period and may not be renewed. No shellfish harvest is allowed once the permanent closure goes into effect.

Contact the Shellfish Sanitation & Recreational Water Quality Section for up-to-date information at (252) 726-6827.
Subscribe to DMF and/or Polluted Area proclamations at: http://portal.ncdenr.org/web/mf/email-subscribe

Appendix VI: Aquaculture Permits

Certain types of activities associated with shellfish aquaculture require additional permits. These permits provide leaseholders with tools to access public resources, produce and market shellfish while ensuring protection of public health, native species and habitats. Filling out your Lease Application completely will help DMF staff identify what permits you will need so we can bundle those with the application. Permits are available at no cost and it is unlawful to conduct these activities without the proper permit. For more detailed information, contact the Lease Program Staff at Shellfish.Lease.Permits@ncdenr.gov

Aquaculture Operation Permit (AOP)

An AOP is required for any lease/operation that meets the definition of aquaculture in MFC rules. If you are providing any technology not found in nature (feeding, predator protection, salinity or temperature control, etc.) you will need an AOP. All intensive culture methods will require an AOP. An AOP also gives you the ability to harvest product under the size limit for natural wild harvest stock if your product is properly identified with your AOP number. This is an annual permit expiring on December 31st.

Aquaculture Collection Permit (ACP)

This permit is rarely issued and is for collection of small numbers of organisms from state waters for aquaculture purposes, typically brood stock or breeding. You must have an AOP prior to applying for an ACP.

Aquaculture Seed Transplant Permit (ASTP)

This permit allows the transfer of seed from a permitted nursery or hatchery using waters that are classified as Restricted or Conditionally Approved Closed by Shellfish Sanitation. To be eligible for this permit, oysters must be 25 mm or less and clams must be 12.5 mm or less.

Introduction and Transfer Permit (Intro)

This permit allows introduction and transfer of organisms such as seed clams or oysters into North Carolina from another state. Only native shellfish species may be transferred for placement into state waters. The transfer of organisms is carefully monitored to ensure no unwanted shellfish diseases or pests are introduced into North Carolina waters. A pathological report on the lot to be shipped is required by DMF to issuance of a permit.

Mechanical Harvest Permit (Mechanical)

This permit allows lease holders to use select mechanical gears on their lease, even outside the regular seasons for mechanical harvest. If your lease is in a Primary Nursery Area (PNA) you are not allowed to use bottom disturbing gear, but you may use a winch and davit system or similar to lift and place cages or bags.

Polluted Area Relay Permit (Relay)

This permit allows leaseholders to harvest oysters or clams of any size in designated polluted areas and relay them to their lease. The lease is then closed for a period of time to allow the shellfish to “depurate” or cleanse themselves. The relay period takes place after the close of the regular oyster season.

Seed Oyster Management Area Permit (SOMA)

This permit allows leaseholders to go into designated oyster management areas open for relay to seed their leases. This activity takes place outside of the regular oyster season.

Appendix VII: Riparian Owner consent Form

I/We, the undersigned, hereby give my/our consent to (Name):

_____,

who resides at (Physical Address):

_____, to lease:

☐ Shellfish bottom

☐ Shellfish bottom and the water column within 100 feet of my/our shoreline.

_____

Signature Name (Please Print)

_____

Signature Name (Please Print)

_____

Street Address or PO Box City State/Zip Phone

SWORN to and subscribed before me

This the_____day of_____, 20__

_____

NOTARY PUBLIC

My Commission Expires: _____

(Seal)