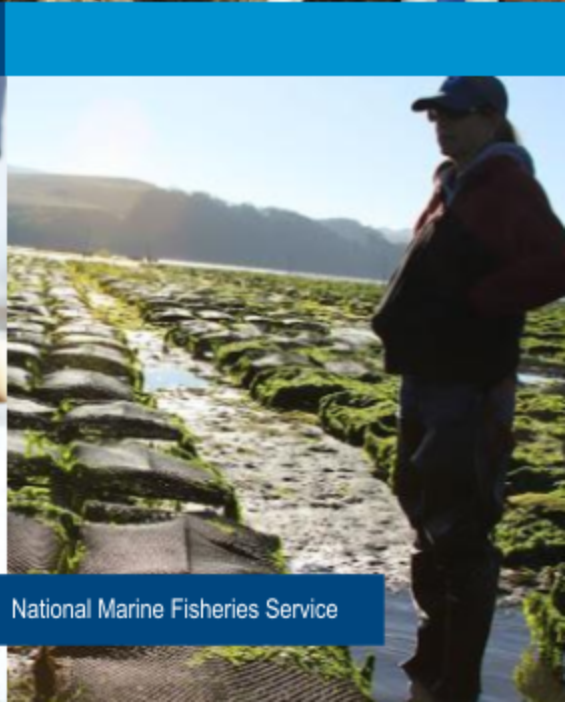




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State by State Summary of Shellfish Aquaculture Leasing/Permitting Requirements (2021)



State by State Summary of Shellfish Aquaculture Leasing/Permitting Requirements (2021)

Prepared by Benjamin Hurley with funding from the [Ernest F. Hollings Undergraduate Scholarship Program](#).

This information is current as of August 2021.

Aquaculture is an emerging industry in the United States with varying permitting structures across the states. In 2018, a report assessed shellfish aquaculture permitting systems and documented permitting and leasing requirements for shellfish operations in the waters of 22 states¹. The permitting inventory that resulted from this project was a valuable reference for those seeking to enter the industry and a useful tool for sharing knowledge and practices across state programs. However, aquaculture permitting is subject to frequent changes, and much of this document quickly became outdated. Furthermore, Hawaii and the U.S. territories were not included in the initial report, and no comparable compendium existed for finfish or seaweed permitting despite rising interest in these sectors. Through collaboration and communication with state aquaculture representatives, the spreadsheet associated with O'Connell (2018) was updated and formatted to be compatible with screen readers.

If you would like to request this information in spreadsheet format or notice information that is inaccurate or outdated, please email nmfs.aquaculture.info@noaa.gov.

Guidance for Use

This report provides an overview of permitting and leasing programs for aquaculture in U.S. state waters. However, it is strongly recommended that you speak with a local aquaculture representative prior to beginning your planning process. Aquaculture permitting is both complex and subject to frequent change. As such, this report is not comprehensive, and your farm may require permits or be subject to requirements not listed here. Information may also be outdated or incomplete. While this document may serve as a convenient reference, it is not a substitute for a personal discussion of your project with a state aquaculture representative. In addition to state representatives, NOAA Regional Aquaculture Coordinator Contact Info can be found [here](#). Information on the National Sea Grant College Program and links to all program locations can be found [here](#).

¹ Evaluation of U.S. Shellfish Aquaculture Permitting Systems: Recommendations to Improve Permitting Efficiencies and Industry Development. A Report to NOAA Fisheries. Final Report Submission – June 2018. Prepared by Tom O'Connell, Earth Resource Technology, Inc.

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Alabama

Special Notes

- Natural oyster reefs may be leased by ADCNR Commissioner. ADCNR requires applicant to provide copy of all necessary federal permits before issuing Notice to Proceed.
- Alabama Administrative Code r. 220-4-.17 provides for the granting of riparian and non-riparian easements for shellfish aquaculture. Shellfish aquaculture represents the off bottom cultivation and harvesting of shellfish for commercial or research-oriented purposes. ADCNR requires applicants to provide all necessary local, state, and Federal permits before issuing a Notice to Proceed. Much information listed applies to riparian easements; for information on non-riparian easements, contact AL State Lands.

Tribal

None

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

None

Local municipality website for shellfish aquaculture leasing/permitting:

None

Local municipality application for shellfish aquaculture leasing/permitting:

None

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

- Department of Conservation and Natural Resources, Marine Resources Division handles leasing and regulation
- Alabama Department of Public Health also must approve sites

State agency contact(s) for shellfish aquaculture leasing/permitting:

- Scott Bannon, scott.bannon@dcnr.alabama.gov, 251-861-2882

- State Lands - Patti McCurdy, patti.mccurdy@dcnr.alabama.gov, 334-242-3484

State agency website(s) for aquaculture leasing/permitting:

[Alabama Oyster Aquaculture](#)

State shellfish aquaculture leasing/permitting law(s):

- [Section 9-2-151, 9-12-82](#)
- [Selected laws and regulations](#)

State shellfish aquaculture leasing/permitting regulation(s):

- [Chapter 220-3](#), Marine Resources Division
- [Chapter 220-4](#), State Lands Division
- [Selected laws and regulations](#)

State application for shellfish leasing/permitting:

- [IPA](#)
- [Shellfish easement application](#)

U.S. Army Corps of Engineers

Corps District(s):

Mobile

Corps contact(s) for shellfish aquaculture permitting:

- Inshore (shellfish), Jessica Comeaux, jessica.c.aux@usace.army.mil, 251-690-3262
- Offshore, Dylan Hendrix, dylan.c.hendrix@usace.army.mil, 251-694-3772

Corps website for shellfish aquaculture permitting:

[Mobile Regulatory Division](#)

Corps permit for shellfish aquaculture:

NWP 48 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

[IPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, [JPA](#)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVN.F.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes for activities specified in NWP 48, but still must include copy of state/local easement in addition to the JPA.

Are there interagency meetings (state/federal)?

No flow chart describing the application/permit process; however, [permit application guide](#) clearly guides interested parties through the application process.

Interagency Meeting Frequency:

Interagency meeting(s) scheduled as needed.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

Step-by-step [Permit Application Guide](#)

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- [Aquaculture siting tool](#) and riparian parcel identifier, SAV maps, NOAA navigational charts, bottom substrate classifications
- [Shellfish Aquaculture Siting Tool](#)

Is a pre-application meeting required, encouraged, not specified?

Yes, Marine Resources Division Interview

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Shellfish lease/permit application fee?

Corps fees

On-bottom fee

No information.

Off-bottom fee

No information.

Is applicant fee returned if denied?

No information.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No

Summary of advertisement requirement of lease application by agency and/or applicant?

State-owned riparian and non-riparian areas are bid advertised and at least weekly for four weeks.

Who pays for advertisement?

Lessee pays prorated portion of the costs of advertising.

Business/Operations Plan

Is a management or operations plan required with application?

Yes; referenced [in application guide](#).

Is a business plan required with application?

No, but helpful agricultural and fisheries small [business planning website tool](#).

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

State/Federal review would be 6-8 months from time application is submitted.

Lease Term and Conditions

Maximum term limit for lease?

Five years with opportunity for renewal.

Are renewals available?

Yes, another 5 years.

Any renewal fee?

Per acre charge (minimum \$2.50 with annual increase based on Consumer Price Index).

Is there an active use requirement? Any criteria to assess?

Currently, the easement does not require active use.

On-bottom active use criteria

Once riparian rights are granted to plant and gather oysters on bottom they remain active until the ownership of the adjacent water front property changes. Riparian owner can choose to engage in oyster aquaculture or not. New owner must go through the process again.

Off-bottom active use criteria

Same as above for on bottom criteria; however, off bottom use often includes the use of infrastructure that involves permitting and possibly fees by other agencies. If a lease holder doesn't engage in aquaculture but maintains the equipment on the bottom, those fees may still be required.

Is there a production report requirement?

Yes. Landings must be differentiated wild caught and aquacultured seafoods and between private lease and public water bottoms landings.

Frequency for providing production report?

Monthly to ADCNR/MRD via AL Trip Ticket program.

Can a shellfish aquaculture lease be transferred?

Riparian owners may lease to another party. The terms may be the same as a previous lease but the lease itself is considered a new lease. ADCNR/MRD must have a copy of the new lease on file. Contact AL State Lands Division for info on Non-Riparian leases.

Is there a bid process for leases?

Not for leases between a riparian land owner and another party. Contact AL State Lands Division for info on State-owned riparian and non-riparian leases.

Any acreage limits?

For riparian owners, they may be granted the right to plant and gather oysters out to 600 yds from Mean Low Water the width of their property unless the boundaries and direction of neighbor's property lines conflict or there are other issues such as navigational hazards. Contact AL State Lands Division for info on Non-Riparian leases.

Limits per site

No for riparian. Contact AL State Lands Division for info on Non-Riparian leases.

Limits per person

No for riparian. Contact AL State Lands Division for info on Non-Riparian leases.

Limits on number of lease sites a person can hold

No for riparian. Contact AL State Lands Division for info on Non-Riparian leases.

Rental and Use Fees

Annual rental fee?

Where ADCNR determines a competitive market exists, the easement may be competitively bid. Minimum fee of \$250/acre. Each year's annual rental will increase by three percent (3%) over the previous year's rental.

On-bottom rent

No Rental Fee (USACE permit required).

Off-bottom rent

Recent market analysis resulted in a rental fee of \$250/acre.

Any shellfish aquaculture harvest surcharge? If so, what is it?

Currently \$0.35 for single sack tags, \$1.50 for bulk tags.

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

ADCNR/MRD requires off bottom aquaculture facilities to purchase an annual license (currently it is \$250 and can be renewed during September of each year for the following Fiscal Year). All off bottom and on bottom private oyster growers must purchase tags for their sacks/harvest containers at ADCNR/MRD (currently \$0.35 for single sack tags, \$1.50 for bulk tags).

Land surveyor/hydrographic survey

Applicant obtains two prints of survey from an approved land surveyor.

Lease markering responsibility

Applicant

Biological assessment fee

No fees for ADCNR/AMRD to examine the water bottom for existing oyster resources, prior to being granted the right to plant and gather oysters on the bottom.

Property tax

No information.

Present shellfish value assessment on proposed lease site?

ADCNR/MRD's examination of the bottom for existing oyster resources is conducted according to Code of Alabama 9-12-21.

Additional Information Sources

Other websites of interest:

[LA Sea Grant: Oyster Aquaculture in the Gulf of Mexico](#)

Definitions

State definition of aquaculture:

Oyster aquaculture: the cultivation and harvesting of hatchery-spawned oysters for commercial purposes.

How is on-bottom defined?

Oysters remain submerged at all times along the seafloor.

Any on-bottom special conditions?

AMRD may grant the right to plant and gather oysters according to Code of Alabama 9-12-22.

How is off-bottom defined?

Oysters are suspended above the seafloor in mesh containers.

Any off-bottom special conditions?

After the right has been granted to plant and gather oysters on the bottom according to Code of AL 9-12-22, off bottom aquaculture requires permitting from other agencies including ADEM, USACE, ADPH and others which all have specific conditions for establishing the off bottom aquaculture facility.

Any alternative names of a 'lease'?

Shellfish aquaculture easement.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

No information.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

State will not issue a riparian easement if closer than 100 ft from a marked navigation channel.

Historic resources

Standard

Migratory Fish

No information.

Shellfish density threshold

Must not be located in or in close proximity to natural oyster reefs or result in adverse impacts.

Submerged aquatic vegetation (SAV)

Must not be located in or in close proximity to submersed grass beds or result in adverse impacts.

Other natural resource protection measures?

No information.

Riparian Setback

Waterfront property owners have riparian rights extending 600 yards from shore. Requires consent of riparian owner to lease within 600 yards. Riparian easements shall be no closer than 10 ft from adjacent riparian. Non-riparian easement may not infringe upon riparian rights as determined by ADCNR.

Social capacity

No information.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

Riparian rights out to 600 yards from shore; also 10 ft setback as noted above.

Any riparian owner notice requirement for lease applications?

No information.

Is applicant required to provide list of riparian owners to permitting agency?

Yes, on easement application.

Is any consent of riparian owner required? If so, under what condition?

If within 600 yards of waterfront property owner or within 10 ft of riparian lines of adjoining riparian upland property owners' riparian use areas.

Coastal Zone Management (CZM) Consistency Determination

[AL Dept of Environmental Mgt provided concurrence to NWP 48](#)

Section 401 Water Quality Certification (WQC)

[State concurrence with NWP 48](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Alabama NPDES Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No information.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- [Annual oyster aquaculture license](#), \$250
- [Easement application](#)
- USCG PATON
- Oyster dredge permit if applicable (\$25)

Any shellfish aquaculture lease/permit holder training/exam requirement?

Yes, every 5 years.

Are shellfish aquaculture leases/permits restricted to residents only?

No, for those claiming riparian rights to plant and gather oysters the first requirement is to show ownership of the property. The land owners who claim residence in another state can

still claim this right of their property in AL. Contact AL State Lands for info about Non-riparian leases.

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

Riparian easement applications average around 3-5 per year.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

The number of shellfish applications in review varies. Typically there are around 2-3 in review.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

16

All shellfish on bottom leases.

1

All shellfish off bottom leases.

15

Number of oyster leases (on and off bottom).

16

Total acreage of shellfish aquaculture leases. Separate by species if available.

Oyster=506 acres

All shellfish on bottom lease acreage.

196 ac.

All shellfish off bottom lease acreage.

312 ac.

Just oyster lease acreage (on and off bottom).

506 ac.

Total # of lease holders/individuals employed (if available)?

16

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

25,525 meat pounds - \$1,014,589

- Oysters: 25,525 meat pounds - \$1,014,589
- Clams: 0
- Mussels: 0
- Scallops: 0
- Live Rock Harvest: 0

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- Unknown

Alaska

Special Notes

Applications accepted 1/1 to 4/30 if on state lands/bottoms; if on private land, F&G operations permit can be applied for at any time.

Tribal

Applicants encouraged to reach out to local tribal entities to avoid any conflicts with user groups.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Yes. First class cities and boroughs (e.g. Ketchikan Gateway Borough, City of Craig, City and Borough of Juneau, City and Borough of Sitka, City of Thome Bay, City and Borough of Yakutat, and Kenai Peninsula Borough) typically have planning sections that issue permits for aquatic farm operations. Inquiry in with Kodiak. See worksheet in the joint-agency application, City/Borough Contacts, for contacts to obtain this information (note that joint app is currently being updated).

Local municipality website for shellfish aquaculture leasing/permitting:

See worksheet in the joint-agency application, City/Borough Contacts, for contacts to obtain this information. Note that joint application is currently being updated.

Local municipality application for shellfish aquaculture leasing/permitting:

See worksheet in the joint-agency application, City/Borough Contacts, for contacts to obtain this information. Note that joint application is currently being updated.

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

- Department of Natural Resources (DNR), Mining Land and Water Division issues aquatic farm lease
- Department of Fish and Game (ADF&G), Division of Commercial Fisheries, Aquaculture Section issues aquatic farm and hatchery operation permits
- Department of Env. Conservation (DEC) does sanitation survey after all else
- [Breakdown of each agency's role in the process](#)

State agency contact(s) for shellfish aquaculture leasing/permitting:

- DNR - Program Coordinator Karen Cougan, karen.cougan@alaska.gov
- DF&G - Permit Coordinator Michelle Morris, michelle.morris2@alaska.gov, 907-465-4235
- AQ Section Chief Flip Pryor, garold.pryor@alaska.gov, 907-465-4235

State agency website(s) for aquaculture leasing/permitting:

- [ADNR Aquatic Farm Leasing](#)
- [ADF&G Aquatic Farming Permits](#)

State shellfish aquaculture leasing/permitting law(s):

[Applicable Aquatic Farming Statutes and Regulations](#)

State shellfish aquaculture leasing/permitting regulation(s):

- [Applicable Aquatic Farming Statutes and Regulations](#)
- ADNR: 11 AAC 63

State application for shellfish leasing/permitting:

- [Full list of forms from AF&G](#)
- [Joint agency state application](#)

U.S. Army Corps of Engineers

Corps District(s):

Alaska

Corps contact(s) for shellfish aquaculture permitting:

District Office: regpagemaster@usace.army.mil (general mailbox), 800-478-2712

Mail: District Office, USACE, P.O. Box 6898, JBER, 99506-0898

Corps website for shellfish aquaculture permitting:

[Alaska Regulatory Permits](#)

Corps permit for shellfish aquaculture:

NWP 48 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

PCN. Can use form [ENG 6082](#)

Is there a State/Federal Joint Permit Application (JPA)?

Not with Corps but with involved state agencies.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes for activities in NWP 48 or if impacts to greater than 1/2 acre of special aquatic sites (and all Aquatic Farm Leases from DNR for new/modified farms MUST submit PCN).

Are there interagency meetings (state/federal)

No. USACE is informed of issued ADF&G operation permits.

Interagency Meeting Frequency:

DNR, ADF&G, and DEC keep in close communication through review process via telephone meetings and emails.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

- [Information on the Application Process, Guidelines, Authorizations, and Contacts](#)
- Also see NOAA Permitting Portal—Contact Alaska Regional Aquaculture Coordinator

Process flowchart available?

- See pg. 4 of guide linked above
- Also see NOAA Permitting Portal—Contact Alaska Regional Aquaculture Coordinator

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- [Aquatic Farming Operations GIS Map](#)
- USGS Topographic quadrangle maps can be obtained from [State of Alaska DNR Mapper application](#)
- The [NOAA Alaska ShoreZone mapping system](#) has biophysical data and aerial videos of the shoreline including identifying sensitive areas
- [AOOS Mariculture Map](#) that can help with siting and will help produce maps required for joint agency application

Is a pre-application meeting required, encouraged, not specified?

Recommended, but not required.

Application Fees

Any pre-determination meeting fee for applicants?

No

Shellfish lease/permit application fee?

Yes. See [table of all fees](#).

On-bottom fee

DNR:

- <1 acre, <24 hours of time: \$600
- 1-3 acres, <60 hours of time: \$1200
- >3 acres, <100 hours of time: \$2000

Off-bottom fee

DNR:

- <1 acre, <24 hours of time: \$600
- 1-3 acres, <60 hours of time: \$1200
- >3 acres, <100 hours of time: \$2000

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Not required but may be requested (contact ADNR). Public outreach may be recommended in locations with possible conflicting user groups.

Summary of advertisement requirement of lease application by agency and/or applicant?

30-day public notice and review period with notices published on ADNR web pages.

Who pays for advertisement?

Agency

Business/Operations Plan

Is a management or operations plan required with application?

Yes, an operation and development plan is required in joint application.

Is a business plan required with application?

Template provided in application to assist with submitting operation and development plan, but financial information not required.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

10 months to over a year for complex operations on state lands. ADF&G operation permit decision within 30 days after DNR lease issuance.

Lease Term and Conditions

Maximum term limit for lease?

10 years

Are renewals available?

Yes

Any renewal fee?

[\\$100 renewal fee](#)

Is there an active use requirement? Any criteria to assess?

Commercial use of the site beginning no later than the fifth year of the lease operations and continuing for the rest of the lease term. Commercial use of the site means annual sales of aquatic farm products of at least \$3,000 per acre or fraction of an acre or \$15,000 per farm, whichever is less.

On-bottom active use criteria

See above.

Off-bottom active use criteria

See above.

Is there a production report requirement?

Yes. Information, instructions and samples of completed forms [under 'Reporting' on F&G website](#).

Frequency for providing production report?

Annually

Can a shellfish aquaculture lease be transferred?

Yes (\$100)

Is there a bid process for leases?

N/A - allowed by law, but currently DNR does not currently accept or process bids for aquatic farm leases.

Any acreage limits?

No, but may be limited by location and existing users.

Limits per site

See limitation details under 11 AAC 63.050. Three miles between parcels.

Limits per person

No

Limits on number of lease sites a person can hold

No

Rental and Use Fees

Annual rental fee?

- DNR - Aquatic farm site: \$450 for the first acre or portion thereof plus \$125 for each additional acre. [Full fee schedule](#).
- Additional annual fees for housing facilities apply (see above link).

On-bottom rent

See above.

Off-bottom rent

See above.

Any shellfish aquaculture harvest surcharge? If so, what is it?

If the commissioner authorizes the removal and sale of the excess amount of wild stock from an aquatic farm site under AS 16.40.100(f), pay reasonable compensation to the state for the harvest and sale of the excess wild stock; reasonable compensation is a proportion of whichever is the greater of the average ex vessel price paid in the most recent commercial fishery or the amount paid at the first point of sale; the proportion for live geoducks is 21 percent; processed geoducks is 8 percent; shellfish, other than geoducks, is set on a case-by-case basis.

Other Fees**Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?**

- DNR - A minimum \$2,500 bond required (50% of the required bond if an association of 3+ farmers made)
- Also need commercial liability insurance.
- \$150 annual growing area reapproval
- Fee for initial water classification (\$500 first time)
- F&G: [Geoduck certificate of deposit or security bond for reseeding aquatic farm site within one year after harvest](#)

Land surveyor/hydrographic survey

Not required.

Lease markering responsibility

Applicant

Biological assessment fee

ADF&G: Shellfish abundance survey fee for on-bottom clam culture to determine initial abundance of the species intended for culture. Fees dependent on size of site and may be subject to reduction.

Intertidal survey - no more than \$2,000 per aquatic farm site, per day

subtidal survey - no more than \$5,000 per aquatic farm site, per day.

Property tax

N/A

Present shellfish value assessment on proposed lease site?

N/A

Additional Information Sources**Other websites of interest:**

- [Alaska Fisheries Development Foundation](#)
- AK Sea Grant: [General business planning information](#)
- [Commerce Mariculture Loan Program](#)
- [Pacific Coast Shellfish Growers Association](#)
- [NOAA Permit Portal](#)

Definitions**State definition of aquaculture:**

“Mariculture” means the farming of shellfish and aquatic plants as defined in AS 16.40.199. (§16.10.945). Aquatic farm in AS 16.40.199 means a facility that grows or cultivates aquatic farm products in captivity or under positive control. Positive control under this definition section means, for mobile species, enclosed within a natural or artificial escape-proof barrier; for species with limited or no mobility, such as a bivalve or aquatic plant, " positive control" also includes managed cultivation in unenclosed water.

How is on-bottom defined?

No definition, consider managed cultivation of shellfish, invertebrates, or aquatic plants residing in substrate (intertidal and subtidal).

Any on-bottom special conditions?

Yes. Site must be suitable for the farm or organism being cultured—the substrate composition is suitable for the target species or can be enhanced and still maintain a healthy environment for other marine organisms. On-bottom clam farming techniques require biological survey to assess abundance of wild stock. Not allowed in Fox River Flats and Kachemak Bay Critical Habitat Areas except for wild stock removed by a common property fishery, as provided in AS 16.40.100(e), upon termination of a permit for on-bottom culture, leave an approximate number of the species that were approved for culture on the aquatic farm site sufficient to restore the population to the level that was present when the site was permitted for use as an aquatic farm or hatchery.

How is off-bottom defined?

Suspended culture.

Any off-bottom special conditions?

Site must be suitable for the farm or organism being cultured—the water depth is sufficient to prevent gear from grounding and impacting the benthos under floating structures.

Any alternative names of a 'lease'?

Aquatic farm lease.

Special Natural Resource and Social Permit Conditions**Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?**

Standard stipulations address environment and user conflicts and special stipulations will be added to the lease on a case by case basis. See limitation details under 11 AAC 63.050, 5 AAC 41.240.

Protected Resources and Critical Habitat Designations

Standard under NWP. ADF&G Habitat Division must also approve and issue Special Habitat Permit for farms in critical habitat areas (e.g. Kachemak Bay). See permit application for more info. See [special use lands designation](#).

Essential Fish Habitat (EFH)

Standard; herring spawning areas should be avoided if possible (contact ADF&G for info on how to avoid significant impacts).

Navigation

Standard

Historic resources

Standard

Migratory Fish

May not be located within 300 ft of the mouth of an anadromous fish stream.

Shellfish density threshold

The proposed farm site may not include more than an insignificant population of a wild stock, on the site, of a shellfish species intended to be cultured.

An insignificant population of geoducks is no more than 12,000 pounds of geoducks on a six-acre aquatic farm site or an average of no more than 2,000 pounds per acre of an aquatic farm site.

An insignificant population of shellfish, other than geoducks, is the amount that, as determined by the commissioner on a case-by-case basis, will not attract and support a commercial fishery for that species of shellfish and the harvest and sale of the shellfish will not result in significant alteration in traditional fisheries or other uses of fish and wildlife resources if the population is included within the aquatic farm.

Submerged aquatic vegetation (SAV)

NWP 48 conditions apply. An operation permit will be issued from the Commissioner if the health and abundance of eelgrass and kelp beds can be maintained. [5 AAC 41.240](#).

Other natural resource protection measures?

An operation permit will be issued from the Commissioner if the proposed aquatic farm or hatchery is compatible with fish and wildlife resources in the area, and (A) any predator and pest control methods have been designed to minimize impacts to non-targeted fish and wildlife resources in the area; (B) does not adversely impact seabird colonies, sea lion haulouts and rookeries, seal haulouts and pupping areas, and walrus haulouts; (C) does not adversely impact endangered and threatened species recovery and habitat protection efforts; [5 AAC 51.240](#).

Riparian setback

Evaluated on an individual permit application basis.

Social capacity

Evaluated on an individual permit application basis.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

The State of Alaska asserts ownership to the mean high tide for tidelands and to the ordinary high water line for all navigable fresh water bodies. Under Generally Allowed Uses, 11 AAC 96.020 the upland owner has rights to access and use the adjacent water body but they can not block public access to and along.

Any riparian owner notice requirement for lease applications?

Yes, DNR will notify upland owners within 0.5 mile.

Is applicant required to provide list of riparian owners to permitting agency?

Yes, must provide names and addresses of upland owners within 0.5 mile.

Is any consent of riparian owner required? If so, under what condition?

Consent may be needed if the applicant needs access through the private property and no other access to the site is available or the site would hinder the upland owners access to their private property.

Coastal Zone Management (CZM) Consistency Determination

No program in Alaska (withdrew from National CZM Program on July 1, 2011).

Section 401 Water Quality Certification (WQC)

[Certified by Department of Environmental Conservation Division of Water](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[APDES Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

Only one type of aquatic farm lease that applies to both off bottom and on bottom.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- Growing Area Classification (DEC) - \$500 initially, \$150/day for recertification
- Harvester Permit (DEC) - \$162
- Shellfish Shipper's Permit (DEC) - \$162
- Export Certifications - \$25
- [Alaska Shellfish Program](#)
- F&G stock transport permit for between facilities (farm/hatchery to farm/hatchery), and stock acquisition permit for wildstock collection to farm/hatchery (juvenile or adult) other than natural set
- [Importation requirements and certifications](#) (including on seed distribution facilities)

Any shellfish aquaculture lease/permit holder training/exam requirement?

Yes, harvester training every 2 years (and dealer training every 5). Can be completed by reviewing booklets on DEC site and submitting the certificates.

Are shellfish aquaculture leases/permits restricted to residents only?

No

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

~15, but includes kelp.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

1

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

64 leases have shellfish on them, but they also may have kelp or marine plants.

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

15 just oyster, 49 leases have oysters on them.

Total acreage of shellfish aquaculture leases. Separate by species if available.

614.66 acres are granted to leaseholders farming at least one shellfish species, but some of these acres are being used for algae/kelp.

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture

- Oysters: 3,366,034 total number sold. Includes market sales and juveniles sold from farms and hatcheries to other farms. No separation of farm gate value in 2020. Total oyster sales \$880,268.
- Clams: 11,456 lb sold (2017; more recent data is confidential).
- Mussels: 2,186 lb sold.
- Scallops: No information.
- Live Rock Harvest: 0

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- see above
-

California

Special Notes

There haven't been any new shellfish leases in past 25 years.

Tribal

Tribal governments will need to be consulted in order to establish if the proposed project is on or near tribal lands of importance. New CEQA guidelines require communication and consideration from tribes, both federally recognized and not, for all projects. The Office of Aquaculture and the Department of Fish and Wildlife Tribal Liaison will assist in coordinating these consultations. See the [Tribal Affairs website for more information](#).

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

In some cases local jurisdiction has issuing authority. Local county offices administer and enforce zoning and subdivision regulations in accordance with County Plans and applicable state laws. Local county offices are responsible for processing applications for development permits and providing public information on general plan, zoning, and subdivision matters. To determine whether mariculture is zoned a permitted or conditional use in your location; contact the local county office within the county in which the aquaculture area is located. (Also, see below).

Local municipality website for shellfish aquaculture leasing/permitting:

Local authority may also rest with special districts, like Harbor Districts (where the State may have granted port development authority, and along with that, the leasing of water bottoms.

See Humboldt Bay (Humboldt Bay Harbor, Recreation, and Conservation District; the City of Arcata; and the City of Eureka), Monterey Bay, Agua Hedionda Lagoon, and San Diego Bay.

Local municipality application for shellfish aquaculture leasing/permitting:

[Humboldt Harbor District](#)

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

A variety of State agencies have some jurisdiction over aquaculture, but CA Department Fish & Wildlife (DFW) and the CA Fish & Game Commission (FGC) house the majority of code, regulations, and expertise for its oversight.

- FGC issues leases
- DFW registers commercial aquaculturists, and houses the State Aquaculture Coordinator's office
- CA Coastal Commission enforces the Coastal Zone Management Act (CZMA) in both State and Federal waters off CA, and uses Coastal Development Permits (State waters/land) or conducts Federal consistency reviews (Federal waters) as appropriate
- CA Department of Public Health also has oversight of growing areas and harvest closures comply with the National Shellfish Sanitation Program
- CA. State Water Resource Control Board handles WQCs

State agency contact(s) for shellfish aquaculture leasing/permitting:

- State Aquaculture Coordinator: Randy Lovell, randy.lovell@wildlife.ca.gov, 916-376-1650
- (marine): Sara Briley, sara.briley@wildlife.ca.gov, 562-342-7161

State agency website(s) for aquaculture leasing/permitting:

- [Department of Fish and Wildlife: Aquaculture](#)
- [Aquaculture Permit Counter](#)

State shellfish aquaculture leasing/permitting law(s):

- Chapters 1 through 8 of Division 12 of the Fish and Game Code (commencing with section 15000)
- [Marine Aquaculture Laws and Regulations Leaflet](#)
- [California Law Division 12: Aquaculture](#)

State shellfish aquaculture leasing/permitting regulation(s):

- Chapter 9 of Division 1 of Title 14, California Code of Regulations (commencing with section 235)
- [Marine Aquaculture Laws and Regulations Leaflet](#)
- [Code of Regulations, Title 14, Division 1, Subdivision 1, Chapter 9: Aquaculture](#)

State application for shellfish leasing/permitting:

- [Aquaculture registration](#)
- [Aquaculture lease information](#), pg. 53
- [Coastal Development Permit](#)

U.S. Army Corps of Engineers

Corps District(s):

Los Angeles and San Francisco (South Pacific Division)

Corps contact(s) for shellfish aquaculture permitting:

South Pacific Division Regulatory Appeals: 415-503-6574

Corps website for shellfish aquaculture permitting:

[South Pacific Division](#)

Corps permit for shellfish aquaculture:

- Los Angeles - Individual Permit (NWP 48 not used, but LA [regional conditions](#) may be helpful)
- San Francisco/Sacramento District [regional conditions](#) for NWP 48 (but very frequently use IP instead)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

- IP or PCN. Can use [form ENG 4345](#). Instructions found at same weblink.
- [ENG 6082 form](#) (suggested by San Francisco)
- For San Francisco Bay [JARPA-eligible](#) (but not typically used for aquaculture)

Is there a State/Federal Joint Permit Application (JPA)?

San Francisco Bay area counties have a [JARPA form](#), but it isn't typically used for aquaculture.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

For San Francisco District, yes for activities in NWP 48 (including specific regional conditions). LA District requires an IP anyway (\$100).

Are there interagency meetings (state/federal)

As needed; determined by USACE staff & applicant.

Interagency Meeting Frequency:

As needed.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

- [Permit Guide to Aquaculture in California](#)
- [Aquaculture Permit Counter](#) (interagency permit materials submittal portal)

Process flowchart available?

CEQA Process Flow Chart [in Appendix A of guidelines](#)

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

No information.

Is a pre-application meeting required, encouraged, not specified?

Available as first step in Aquaculture Permit Counter. Contact State Aquaculture Coordinator.

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Shellfish lease/permit application fee?

Yes, other permits also have accompanying fees.

On-bottom fee

\$500

Off-bottom fee

\$500

Is applicant fee returned if denied?

Non-refundable.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Public hearing.

Summary of advertisement requirement of lease application by agency and/or applicant?

Agency publishes public notice in newspaper before hearing when considering lease.

Who pays for advertisement?

Agency

Business/Operations Plan

Is a management or operations plan required with application?

Information required as part of lease application.

Is a business plan required with application?

Recommended

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Regulations are silent; varies according to project complexity and location.

Lease Term and Conditions

Maximum term limit for lease?

Up to 25 years

Are renewals available?

Yes

Any renewal fee?

No

Is there an active use requirement? Any criteria to assess?

- Proof of Use: (includes annual report & minimum "improvement" requirements)
- See [lease template link, pg. 6](#). In addition to below, production requirements: the annual harvest rate shall be an average of 2,000 oysters per acre (over one year of age) over the allotted acreage effective three years after the effective date of the lease.

On-bottom active use criteria

Must be improved at an average rate of at least two cases of seed-bearing shell (160 pounds of seed-bearing shell) or 30 bushels of shellfish one or more years of age per acre over the allotted acreage per year. Improvements by unattached, single seed (less than one year old) shall consist of planting an average rate of 10,000 single seed per acre per year over the allotted acreage. Term of improvement shall be four years for seed-bearing shell and three years for oysters one or more years of age.

Off-bottom active use criteria

Must be improved at an average rate of at least one case of seed-bearing shell (80 pounds of seed-bearing shell), or 15 bushels of oysters one or more years of age per acre over the allotted acreage per year. Improvement by unattached single seed (less than one year old) shall consist of planting an average rate of 5,000 single seed per acre per year over the allotted acreage. Term of improvement shall be four years for seed-bearing shell and three years for oysters one or more years of age.

Is there a production report requirement?

Yes for state leases, voluntary for Humboldt Bay leases.

Frequency for providing production report?

Monthly tax reports, annual production summary report.

Can a shellfish aquaculture lease be transferred?

Yes with approval of commission.

Is there a bid process for leases?

Yes

Any acreage limits?

Not in code, but in practice, competing uses often limit.

Limits per site

No information.

Limits per person

No information.

Limits on number of lease sites a person can hold

No information.

Rental and Use Fees

Annual rental fee?

- Current oyster rent based on productivity: high, >100,000 oysters/acre is \$150/acre; medium 20,000 to 99,999 is \$100/acre; low 2,000 to 19,999 is \$50/acre.
- Set by Commission not less than \$2/acre for 10+ acres and \$10/acre for <10 acres. Oyster rent recalculated every 5 years.
- Privilege tax species-dependent, and in addition to base rent (see harvest surcharge below).

On-bottom rent

See above.

Off-bottom rent

See above.

Any shellfish aquaculture harvest surcharge? If so, what is it?

Privilege tax of \$0.04/packed gallon of shucked oysters (if in shell, 100 oysters will be equivalent 1 packed gallon of shucked).

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

No information.

Land surveyor/hydrographic survey

Applicant

Lease markering responsibility

Applicant

Biological assessment fee

No standardized fee, but a component typical of CEQA and absorbed by applicant.

Property tax

Possessory tax administered by counties, based on lease rent.

Present shellfish value assessment on proposed lease site?

N/A

Additional Information Sources

Other websites of interest:

- [Aquaculture Matters](#)
- [Pacific Shellfish Institute](#)
- [NCCOS Coastal Aquaculture Siting and Sustainability program \(CASS\)](#)
- [CEQA guidelines](#)

Definitions

State definition of aquaculture:

Form of agriculture devoted to the propagation, cultivation, maintenance, and harvesting of aquatic plants and animals in marine, brackish, and fresh water.

How is on-bottom defined?

No distinction made in code/regulations, but in practice, what matters is the harvest method. Dredging for shellfish is no longer practiced in CA. However, many methods may include bags or containers resting on the bottom, but they are harvested manually.

Any on-bottom special conditions?

No information.

How is off-bottom defined?

See above

Any off-bottom special conditions?

No information.

Any alternative names of a 'lease'?

- Lease = entitlement to location, under certain terms & conditions (eg: species, methods, duration, etc): from Fish & Game Commission.
- Permits = issued by various agencies for other approvals (eg: coastal development, §401 CWA cert, USACE permit, etc).

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

Case by case; shall not unreasonably interfere with fishing/other uses/public trust values, unreasonably disrupt wildlife/marine habitats, or unreasonably harm ability of the marine environment to support ecologically significant flora and fauna.

Protected Resources and Critical Habitat Designations

Considered within CEQA.

Essential Fish Habitat (EFH)

NOAA PRD formal consultation within USACE permit

Navigation

CEQA & USACE & USCG

Historic resources

CEQA

Migratory Fish

NOAA PRD formal consultation within USACE permit.

Shellfish density threshold

Areas used by the public for digging clams shall not be leased. No other criteria.

Submerged aquatic vegetation (SAV)

- Within each permit & lease there may be specific conditions.
- San Francisco District regional condition: Notification to the Corps (in accordance with General Condition No. 32), including a compensatory mitigation plan, habitat assessment, and extent of proposed-project impacts to Eelgrass Beds are required for any activity permitted by NWP if it will take place within or adjacent to Eelgrass Beds (see Regional Condition B3).

Other natural resource protection measures?

Within CEQA

Riparian setback

Within CEQA

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

Via Coastal Development Permit.

Is applicant required to provide list of riparian owners to permitting agency?

Yes. Coastal Development Permit application requires for neighboring properties within 100 ft of project along with stamped addressed envelopes. Corps 4345 form requires addresses of adjacent property owners but PCN form (6082) does not.

Is any consent of riparian owner required? If so, under what condition?

Not directly, but through the CDP process (Coastal Commission)

Coastal Zone Management (CZM) Consistency Determination

[Enforced by CA Coastal Commission](#)

Section 401 Water Quality Certification (WQC)

[EPA waived authority to act on 48. State Water Resources Control Board did not certify NWP 48](#)

Projects shall be reviewed on an individual project-specific basis by the respective Regional Water Quality Control Boards. [Applications and Guidance Materials](#).

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#).

[California NPDES Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No information.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- Aquaculture Registration: New registration fee of \$927.75 with annual renewal of \$582.75. Additional renewal surcharge of \$697.75 if gross sales exceeded \$25K in previous calendar year. Registration fees adjusted annually.
- [Importation Permit](#) (fees adjusted annually)
- Coastal Development Permit in State Waters
- Department of Public Health Certifications
- USCG PATON

Any shellfish aquaculture lease/permit holder training/exam requirement?

No

Are shellfish aquaculture leases/permits restricted to residents only?

No

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

Recently treated a re-shape of existing site as part renewal, part new. Currently (2021), 3 new applications pending.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

~3 (1) offshore mussel; (1) offshore oyster + kelp; (1) intertidal oyster

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

17 state; local areas hold others

All shellfish on bottom leases.

See above

All shellfish off bottom leases.

N/A

Number of oyster leases (on and off bottom).

38 facilities (2019)

Total acreage of shellfish aquaculture leases. Separate by species if available.

907 State leases (185 used). With Humboldt Bay and other local areas, total of 5,740.

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

~5,737 have oysters listed as a primary species (but only 490 in active use)

Total # of lease holders/individuals employed (if available)?

22 operators

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

495.2 metric tons at \$15.3 million (2018)

- Oysters: 282 metric tons at \$7.1 million (2018)
- Clams: Half a ton, \$5,120 (2018)
- Mussels: 80.8 mt, \$534,465 (2018)
- Scallops: 0
- Live Rock Harvest: 0

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- \$16,096,460 oysters
- \$42,940 clams
- \$506,562 mussels

Connecticut

Special Notes:

State review has been an issue, sometimes taking up to 18 months; as always, applicant preparedness plays a major role in timeframe.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Local town shellfish commissions handle leasing (including town-specific leasing applications) in town waters. Townships have authority to establish fees.

Local municipality website for shellfish aquaculture leasing/permitting:

[Town contacts and websites](#)

Local municipality application for shellfish aquaculture leasing/permitting:

See [UConn aquaculture page](#) for specific Branford area application; see above contacts for others.

State Government

State lead agency for shellfish aquaculture leasing/permitting:

- Department of Agriculture, Bureau of Aquaculture issues lease and is lead state agency.
- Department of Energy and Environmental Protection (DEEP), Marine Fisheries reviews applications for effects on fish, fisheries and fish habitat.

State agency contact(s) for shellfish aquaculture leasing/permitting:

David Carey, david.carey@ct.gov, 203-874-0696 x 103

State agency website(s) for aquaculture leasing/permitting:

[CT Bureau of Aquaculture](#)

State shellfish aquaculture leasing/permitting law(s):

- [Title 26, Chapters 490-492](#)
- [List of all relevant statutes: pg. 33](#)
- [General Statutes of Connecticut](#)

State shellfish aquaculture leasing/permitting regulation(s):

- [Sec. 26-194-2. Bidding Procedures for Shellfish Grounds Lease](#)

State application for shellfish leasing/permitting:

- [Applications, Forms, and Licenses](#)
- [UConn aquaculture permitting](#)

U.S. Army Corps of Engineers

Corps District(s):

New England

Corps contact(s) for shellfish aquaculture permitting:

Cori Rose, cori.m.rose@usace.army.mil, 978-318-8306

If old, can also try:

Leslie Martin, leslie.martin@usace.army.mil, 978-318-8688

Corps website for shellfish aquaculture permitting:

[New England Regulatory/Permitting Division](#)

Corps permit for shellfish aquaculture:

[Connecticut General Permit](#) Activity 16

NWP 48 suspended in New England.

Corps permit expiration:

19-Aug-21

Corps application for shellfish aquaculture permitting:

[UConn Aquaculture resources](#); Select "Joint Agency Application for Marine Aquaculture"

Is there a State/Federal Joint Permit Application (JPA)?

Yes, submitted to DA/BA who coordinates review. Can also be found on [DoAg website](#).

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

SV Eligible. Temporary structures under <1,000 sq ft OR suspended cages within footprint of an authorized fixed/floating structure with depth/clearance reqs OR upweller floats <160 sf with depth/clearance reqs. No SVNF needed beyond state application No notice required but DEEP notifies Corps weekly and in turn Corps provides letter of verification to applicant.

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

Projects that do not meet Category 1.

Is a Pre-Construction Notification (PCN) required?

No. JPA required.

Are there interagency meetings (state/federal)?

Yes, joint permit screening meeting.

Interagency Meeting Frequency:

Quarterly

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

- Excellent [State Guide](#)
- 2019 [CT Shellfish Initiative Vision Plan](#)

Process flowchart available?

- [See pg. 18 of guide](#)
- An "outline" of process also provided to applicants

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- [Aquaculture mapping atlas](#)
- Can contact DABA for more information
- [A guide to NY and CT's shellfish and seaweed aquaculture viewer](#)

Is a pre-application meeting required, encouraged, not specified?

Encouraged, but mostly via email; applicant will be informed of best DABA contact for process.

Application Fees

Any pre-determination meeting fee for applicants?

No

Shellfish lease/permit application fee?

No

On-bottom fee

No fee, Shellstock Shipper I license and/or DEEP-OLISP-GP-2015-02 Section 3(a)(8)

Off-bottom fee

No fee, JPA

Is applicant fee returned if denied?

1-year rental fee returned if state bid fails; any app. registration fees nonrefundable.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

For town waters, required public hearing; depends on DEEP/USACOE.

Summary of advertisement requirement of lease application by agency and/or applicant?

1 day at least 10 days before bid announcement, and on agency website (state waters).

Who pays for advertisement?

Applicant (~\$200 for advertisement).

Business/Operations Plan

Is a management or operations plan required with application?

Project description required as part of application.

Is a business plan required with application?

Not required, but encouraged; business and finance planning info [under 'Economics of Aquaculture.'](#)

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Can range from 4 months to 2 years.

Lease Term and Conditions

Maximum term limit for lease?

3-10 years.

Are renewals available?

Yes

Any renewal fee?

\$10 process charge.

Is there an active use requirement? Any criteria to assess?

Yes, but enforcement limited.

On-bottom active use criteria

See above

Off-bottom active use criteria

See above

Is there a production report requirement?

Yes

Frequency for providing production report?

Yearly

Can a shellfish aquaculture lease be transferred?

Yes (if no changes made to lease)

Is there a bid process for leases?

Yes, min \$4/acre (state waters)

Any acreage limits?

50 acre minimum, 200 acre maximum per bid (state waters)

Limits per site

No information

Limits per person

No

Limits on number of lease sites a person can hold

No

Rental and Use Fees

Annual rental fee?

No information

On-bottom rent

No information

Off-bottom rent

No information

Any shellfish aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

- Possible DEEP Structures, Dredging, Fill (SDF) and Tidal Wetlands Permits (have fees)
- Town may have charges for ground

Land surveyor/hydrographic survey

Applicant, \$35 per corner

Lease marking responsibility

Applicant provides or pays based on set rates.

Biological assessment fee

N/A

Property tax

Required

Present shellfish value assessment on proposed lease site?

Not required

Additional Information Sources

Other websites of interest:

- [CT Shellfish Initiative and Vision Plan](#)
- [A guide to mariculture aquaculture permitting](#)
- [East Coast Shellfish Association](#)

Definitions

State definition of aquaculture:

Controlled rearing, cultivation and harvest plants and animals in land-based and marine-based culture systems, tanks, containers, impoundments, floating and submerged nets or pens and ponds.

How is on-bottom defined?

Hand, tong or mechanical cultivation and harvest (i.e. use of a shellfish dredge) of shellfish, and may include planting of cultch, transplanting and culling.

Any on-bottom special conditions?

Placement of clutch may be covered under DEEP CT General Permit for Coastal Maintenance if conducted under a number of specific conditions (see CT shellfish guide).

How is off-bottom defined?

Gear cultivation of any kind.

Any off-bottom special conditions?

Standard JPA.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

Limitation of number of vertical lines to reduce entanglement and use of weighted line to keep lines vertical, taut.

Protected Resources and Critical Habitat Designations

Standard, coordinated by USACE, USFWS, and CT DEEP Fisheries.

Essential Fish Habitat (EFH)

Standard, coordinated by USACE and CT DEEP Fisheries.

Navigation

No unreasonable interference with navigation. 200' setback from federal navigation projects. Any structure or work that extends closer to the horizontal limits of a FNP than a distance 3x the authorized depth shall be subject to removal at the owner's expense prior to any Corps dredging or performance of any hydrographic surveys.

CT DEEP Boating Safety Division will monitor.

Historic resources

Standard, all applications sent to CT SHPO.

Migratory Fish

No information.

Shellfish density threshold

Local municipality can not lease a natural clam bed (Sec 26-251).

Submerged aquatic vegetation (SAV)

- Activity banned in any eelgrass bed.

- Minimum buffer of 25' for routine lease activity.

Other natural resource protection measures?

Shellfish must be sourced from Long Island Sound (unless in RAS); see shellfish permit guide for listed exceptions (health certificates required).

Riparian setback

No information.

Social capacity

See aquaculture guide. Town commissions will assess social and use conflicts.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

USACE will notify abutters in case of needing Individual Permit.

Is applicant required to provide list of riparian owners to permitting agency?

Provided to Corps.

Is any consent of riparian owner required? If so, under what condition?

Yes if located in a marina or attached to private docking facility.

Coastal Zone Management (CZM) Consistency Determination

DEEP, LWRD will determine consistency.

Section 401 Water Quality Certification (WQC)

No information.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

See [DEEP website](#) for more info if intending to discharge pollutants.

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- [Permit Requirements for Aquaculture in CT](#)
- [UConn Commercial Aquaculture permit list](#)

Possible needs:

- - Sci./Resource Assess. License (free)
- - Shellstock Shipper I License (free)
- - DEEP Structures, Dredging, Fill and Tidal Wetlands Permit (has fees)

Any shellfish aquaculture lease/permit holder training/exam requirement?

Hazard Analysis and Critical Control Point training.

Are shellfish aquaculture leases/permits restricted to residents only?

Non-residents with leases prior to 1985 can renew. Non-residents from only those states that will lease to CT resident.

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

7-12

All shellfish species

No information.

Oyster

7-10

All shellfish on bottom lease applications

2-7

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

7

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

Town and state shellfish parcels total about 1,700 lots.

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

10-12 gear leases. Is growth area.

Number of oyster leases (on and off bottom).

No information.

Total acreage of shellfish aquaculture leases. Separate by species if available.

Over 70,000 acres (only hard clam and oyster and many lots between plantings of oysters may be clammed).

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

44 companies, 300 employees.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

- Oysters: 307k bags (\$16 million)
- Clams: 310k bags of hard clams (\$10 million)
- Mussels: No information.
- Scallops: No information.
- Live Rock Harvest: No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- \$30 million

Delaware (inland bays)

Special Notes

- Delaware's Inland Bays and Delaware Bay operate under two separate shellfish programs. Inland Bays is an established leasing program; Delaware Bay is an annually renewed program of harvesting/utilizing designated grounds.
- For Delaware Bay ([next section](#)), unclear whether Army Corps restrictions or PCN requirements, environmental conditions, gear usage, etc. apply. Speak with listed contact for further information.
- For Inland Bays, note [separate shellfish nursery application](#) (for areas not leasable for shellfish aquaculture).

Tribal

N/A

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

N/A

Local municipality website for shellfish aquaculture leasing/permitting:

N/A

Local municipality application for shellfish aquaculture leasing/permitting:

N/A

State Government

State lead agency for shellfish aquaculture leasing/permitting:

- Department of Natural Resources and Environmental Control (DNREC)'s Division of Fish and Wildlife administers program.
- DNREC's Wetlands and Subaqueous Lands Section (within the Division of Water) administers a Statewide Activity Approval for the Inland Bays' Shellfish Aquaculture Development Areas (SADA), and the Wetlands and Subaqueous Lands Section will issue Inland Bays leases for outside of the SADA.

State agency contact(s) for shellfish aquaculture leasing/permitting:

- Zina Hense, zina.hense@delaware.gov, 302-735-2960
- Dr. David Stormer, david.stormer@delaware.gov, 302-739-9914

State agency website(s) for aquaculture leasing/permitting:

[DNREC: Shellfish Aquaculture](#)

State shellfish aquaculture leasing/permitting law(s):

- [2013 Delaware Aquaculture Act](#)
- 7 DE Code Chapters 19, 20, 21 (Shellfish)
- [Ch. 19](#) (largely inapplicable to Inland Bays)
- [Ch. 20](#) (Inland Bays)
- [Ch. 21](#) (Oysters)

State shellfish aquaculture leasing/permitting regulation(s):

[DAC Title 7 : 3000 : 3800 : 3801](#) (Inland Bays)

State application for shellfish leasing/permitting:

[Separate applications](#) for SADA vs. non-SADA sites

U.S. Army Corps of Engineers

Corps District(s):

Philadelphia

Corps contact(s) for shellfish aquaculture permitting:

- 215-656-6728
- [Philadelphia District Contacts](#)

Corps website for shellfish aquaculture permitting:

[Philadelphia Nationwide Permits](#)

Corps permit for shellfish aquaculture:

[NWP 48 regional conditions](#)

Any proposed shellfish aquaculture activity within any portion of the Shellfish Aquaculture Development Areas (SADA) locations in the Delaware Inland Bays would not be subject to the terms of Regional General Conditions G-1.

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

[Philadelphia District Forms](#): The Division of Fish & Wildlife acts as the agent for lessees submitting application for leases within DE Inland Bays Shellfish Aquaculture Development Area (SADA) and will also submit information to USCG if the applicant wishes.

Is there a State/Federal Joint Permit Application (JPA)?

No, though applications in SADA are expedited through Corps.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes (DE regional conditions).

Are there interagency meetings (state/federal)?

Have been held, but not regularly scheduled.

Interagency Meeting Frequency:

See above.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

No formal guide at this time, but [detailed instructions and application](#).

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- [Shellfish Aquaculture Map](#) indicates the SADA, as well as waters that are prohibited and seasonally closed to shellfishing.
- The DNREC Shellfish and Recreational Water Programs also provides a [Shellfish Harvest Area map with known SAV location](#).

Is a pre-application meeting required, encouraged, not specified?

Can contact Division of Fish & Wildlife with questions.

Application Fees

Any pre-determination meeting fee for applicants?

No

Shellfish lease/permit application fee?

Yes

On-bottom fee

\$300

Off-bottom fee

\$300

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100 for lease outside of a SADA.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Yes, consideration of public comment required for areas outside of a SADA. (Public notice and hearing already completed for SADA).

Summary of advertisement requirement of lease application by agency and/or applicant?

For areas outside of SADA, the notice requirement:

1. That the application has been received;
2. A brief description of the nature of the application; and
3. A statement that a public hearing may be requested by any interested person who offers a meritorious objection to the application.

Who pays for advertisement?

Applicant, \$85

Business/Operations Plan

Is a management or operations plan required with application?

Yes, see regulations 4.3 and 5.2.2. Details required included in application.

Is a business plan required with application?

Yes, significant documentation requirements; see regulations 4.4 and 5.2.3. Details required included in application.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/corps if needed, available.

Lease applications are reviewed as they are received. The timeframe from receipt of complete application to approved lease is highly variable depending on number of applications currently being reviewed, novelty of gear, and applicant's timeframe for initiating the lease.

Lease Term and Conditions

Maximum term limit for lease?

Shellfish aquaculture leases shall be renewable annually for a term of 15 years from the date of issue.

Are renewals available?

Yes. Must submit new application.

Any renewal fee?

Annual lease fee applies.

Is there an active use requirement? Any criteria to assess?

Yes. Regulations (sec. 16) summarized as:

If inactive for period of 1 year, the lease shall be terminated. An active lease must meet the following conditions:

- After 2 years from the date of lease issuance or transfer, leaseholders must show they annually plant at least 100,000 shellfish/acre leased.
- After the first 3 years of the lease, each leaseholder shall annually harvest and produce proof of sale for an average of at least 10 bushels of oysters/acre or 5,000 clams/acre, or an equivalent combination.
- The min. planting requirement shall not apply to the initial 2 years of a lease, but lessees must plant enough to ensure that the production requirement can be met by the end of the 3rd year (and annually after).

On-bottom active use criteria

See above

Off-bottom active use criteria

See above

Is there a production report requirement?

Report of any planting, harvest and farm gate value.

Frequency for providing production report?

Monthly by 10th of the following month. Annual report required for nurseries.

Can a shellfish aquaculture lease be transferred?

Yes

Is there a bid process for leases?

No

Any acreage limits?

Yes

Limits per site

All leases shall be granted in minimum increments of 1 acre.

Limits per person

10 acres total. Combination of up to 5 acres in Rehoboth and Indian River Bays combined and/or up to 5 additional acres in Little Assawoman Bay. All leases shall be granted in minimum increments of 1 acre.

Limits on number of lease sites a person can hold

10 per above

Rental and Use Fees

Annual rental fee?

Yes

On-bottom rent

\$100/acre/year (\$1,000/acre/year for non-residents)

Off-bottom rent

\$100/acre/year (\$1,000/acre/year for non-residents)

Any shellfish aquaculture harvest surcharge? If so, what is it?

No information

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

The applicant of a non-SADA bears the burden of all costs to demonstrate the proposed activity is compatible with fishing, navigation and public safety. (Reg 5). Both SADA and non-SADA have a required proof of bond and liability insurance.

Land surveyor/hydrographic survey
Agency will conduct as resources allow.

Lease markering responsibility
Applicant

Biological assessment fee
Agency will conduct field assessment.

Property tax
No

Present shellfish value assessment on proposed lease site?
No

Additional Information Sources

Other websites of interest:

- [Delaware Sea Grant](#)
- [East Coast Shellfish Association](#)

Definitions

State definition of aquaculture:

Controlled propagation, growth, harvest and subsequent commerce in cultured aquatic stock by an aquaculturist (individual, partnership or corporation involved in the production of cultured aquatic stock or parts thereof).

How is on-bottom defined?

In the Inland Bays, all oysters must be contained in gear 7 DE Admin Code 3800 (23.2). It is unlawful to culture oysters unless they are fully contained in gear.

Any on-bottom special conditions?

See above

How is off-bottom defined?

In the Inland Bays, all oysters must be contained in gear 7 DE Admin Code 3800 (23.2). It is unlawful to culture oysters unless they are fully contained in gear.

Any off-bottom special conditions?

State reg 11.4: It is unlawful for any gear containing oysters to hold the oysters closer than four inches from the bottom. State reg 11.8: It is unlawful for an individual gear or shellfish aquaculture container to exceed 70 cubic ft in volume.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions**Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?**

In the Inland Bays, all oysters must be contained in gear 7 DE Admin Code 3800 (23.2). It is unlawful to culture oysters unless they are fully contained in gear.

Protected Resources and Critical Habitat Designations

- Regional condition for applicant to provide documentation in PCN that they have followed the [US FWS protected resource guidance document USFWS national mapping tool](#) to determine if there are protected resources in project area.
- [DE Environmental Reviews](#)

Essential Fish Habitat (EFH)

Standard

Navigation

Non-SADA lease boundaries must be 150 ft from existing marked navigational channels (3.2.7). Proposed non-SADA leases greater than one acre must reflect a 20 ft nav. channel between adjacent square 1 acre parcels (5.2.4.1.2).

Historic resources

Must show documentation in PCN from State on whether the proposed activity is in a State Natural Heritage Site/National Estuarine Research Reserve/property listed or eligible for listing on National Register of Historical Places

[DE Protection of Historic Properties](#)

Migratory Fish

No information.

Shellfish density threshold

State reg 6.2 prohibits DNREC from issuing a Shellfish Aquaculture Subaqueous Land Lease for any acreage where the Department determines the presence of a mean density of two or more hard clams per square yard per acre.

Submerged aquatic vegetation (SAV)

- SAV has not been documented in any of the SADA acres. The USACE NWP requirements state that "a PCN shall also be submitted to the Corps for any NWP activity that is proposed within 50 ft of SAV beds, mapped SAV habitat"
- As part of the application for a non-SADA lease, must provide "a full description of the proximity of the proposed lease site to SAV, including a description and estimate of coverage of any SAV within the boundaries of the proposed lease."

Other natural resource protection measures?

No information.

Riparian setback

No information.

Social capacity

N/A

Riparian Landowner Requirements**Any definition of what constitutes a riparian owner?**

There is no legal definition for riparian owner. Typically, DNREC Wetlands considers a waterfront property owner adjacent to subaqueous lands (even with wetlands in between) the riparian owner, but there is no formal definition. Subaqueous Lands Leases are only issued for public subaqueous lands. If a project is located on privately owned subaqueous lands, DNREC Wetlands would require a letter of no objection or support form the underwater landowner and would issue a Subaqueous Lands Permit.

Any riparian owner notice requirement for lease applications?

Non-SADA lease applications in the Inland Bays would require public notice (SADA lease areas have already been through a public notice process).

Is applicant required to provide list of riparian owners to permitting agency?

State reg 5.2.4.3 requires applicant to provide the names and addresses of riparian land owners whose property is within 150 ft of the proposed lease area.

Is any consent of riparian owner required? If so, under what condition?

Any projects within 10 ft of an adjacent property line requires a letter of no objection to DNREC Wetlands (Section 4.9.210). Possible extension of property lines, the possibility of inhibiting future application to wharf out and navigational concerns would also be reviewed. As a policy, DNREC Wetlands has required letters of no objection from adjacent upland property owners.

Coastal Zone Management (CZM) Consistency Determination

[State of DE issued CZM consistency letter to Philadelphia District](#) (provided activities are not in Critical Resource waters).

Section 401 Water Quality Certification (WQC)

[State of DE issued WQC consistency letter to Philadelphia District.](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

If discharge of pollution: [Delaware NPDES](#)

Miscellaneous Questions**Is a bottom lease required for an off-bottom lease?**

No, but all oysters must be grown in gear.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- Shellfish Aquaculture Harvester License is issued with lease. If someone other than a leaseholder wishes to obtain a Shellfish Aquaculture Harvester License, they may do so for \$25.
- A permit is required to import shellfish into the state (no fee).
- A permit is required to operate a shellfish nursery.

Any shellfish aquaculture lease/permit holder training/exam requirement?

Yes, short test required on shellfish food safety/harvesting for Shellfish Aquaculture Harvester License.

Are shellfish aquaculture leases/permits restricted to residents only?

No, but annual lease fee is higher for nonresidents.

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

9/year averaged over the past 3 years. But the first year of leasing (2017/2018) generated the most applications.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

0

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

14 (one of which is a scientific lease)

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

13 (commercial oyster)

Total acreage of shellfish aquaculture leases. Separate by species if available.

43

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

38

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

- Oysters: 184,033 (\$112,765.50)
- Clams: No information.
- Mussels: 0
- Scallops: 0
- Live Rock Harvest: No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

No information.

Delaware (Delaware Bay)

Special Notes

- Delaware's Inland Bays ([previous section](#)) and Delaware Bay operate under two separate shellfish programs. Inland Bays is an established leasing program;

Delaware Bay is an annually renewed program of harvesting/utilizing designated grounds.

- For Delaware Bay, unclear whether Army Corps restrictions or PCN requirements, environmental conditions, gear usage, etc. apply. Speak with listed contact for further information.
- For Inland Bays, note [separate shellfish nursery application](#) (for areas not leasable for shellfish aquaculture).

Tribal

N/A

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

N/A

Local municipality website for shellfish aquaculture leasing/permitting:

N/A

Local municipality application for shellfish aquaculture leasing/permitting:

N/A

State Government

State lead agency for shellfish aquaculture leasing/permitting:

Delaware Department of Natural Resources and Environmental Control, Division of Fish & Wildlife handles the issuance of leases to Delaware Bay oyster leases.

State agency contact(s) for shellfish aquaculture leasing/permitting:

- Michael Greco, michael.greco@delaware.gov, 302-735-2967
- Dr. David Stormer, david.stormer@delaware.gov, 302-739-9914

State agency website(s) for aquaculture leasing/permitting:

[DNREC: Shellfish Aquaculture](#) (largely applicable to Inland Bays only)

State shellfish aquaculture leasing/permitting law(s):

- [2013 Delaware Aquaculture Act](#)
- [7 DE Code Chapter 19 \(Shellfish\)](#)

State shellfish aquaculture leasing/permitting regulation(s):

[DAC Title 7 : 3000 : 3700 : 3765](#)

State application for shellfish leasing/permitting:

No information.

U.S. Army Corps of Engineers

Corps District(s):

Philadelphia

Corps contact(s) for shellfish aquaculture permitting:

- 215-656-6728
- [Philadelphia District Contacts](#)

Corps website for shellfish aquaculture permitting:

[Philadelphia Nationwide Permits](#)

Corps permit for shellfish aquaculture:

[NWP 48 regional conditions](#)

Any proposed shellfish aquaculture activity within any portion of the Shellfish Aquaculture Development Areas (SADA) locations in the Delaware Inland Bays would not be subject to the terms of Regional General Conditions G-1.

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

[Philadelphia District Forms](#): The Division of Fish & Wildlife acts as the agent for lessees submitting application for leases within DE Inland Bays Shellfish Aquaculture Development Area (SADA) and will also submit information to USCG if the applicant wishes.

Is there a State/Federal Joint Permit Application (JPA)?

No, though applications in SADA are expedited through Corps.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes (DE regional conditions).

Are there interagency meetings (state/federal)?

Have been held, but not regularly scheduled.

Interagency Meeting Frequency:

See above

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

No information.

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

The DNREC Shellfish and Recreational Water Programs also provides a [Shellfish Harvest Area map with known SAV location](#).

Is a pre-application meeting required, encouraged, not specified?

Not required.

Application Fees

Any pre-determination meeting fee for applicants?

No

Shellfish lease/permit application fee?

See details in annual rent section; leases last for one year with annual payment.

On-bottom fee

See details in annual rent section; leases last for one year with annual payment.

Off-bottom fee

See details in annual rent section; leases last for one year with annual payment.

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No

Summary of advertisement requirement of lease application by agency and/or applicant?

Twice published in a daily newspaper. Reference 1906 of [Chapter 19: Shellfish](#)

Who pays for advertisements?

DNREC

Business/Operations Plan

Is a management or operations plan required with application?

No

Is a business plan required with application?

No

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information.

Lease Term and Conditions

Maximum term limit for lease?

January 1 - December 1 each year.

Are renewals available?

Must submit annual application.

Any renewal fee?

Yes, usual annual fee.

Is there an active use requirement? Any criteria to assess?

No

On-bottom active use criteria

N/A

Off-bottom active use criteria

N/A

Is there a production report requirement?

Yes, harvest reports.

Frequency for providing production report?

Monthly if harvesting.

Can a shellfish aquaculture lease be transferred?

Yes

Is there a bid process for leases?

Competitive sealed bid if multiple applicants for same lease.

Any acreage limits?

On new leases only, 50 acre minimum, 100 acre maximum.

Limits per site

See above.

Limits per person

No

Limits on number of lease sites a person can hold

No

Rental and Use Fees

Annual rental fee?

§1907. Fees for lease.

(a) \$0.90 per acre annually for shellfish grounds leased pursuant to this chapter to a resident.

(b) \$11.50 per acre annually for new shellfish grounds leased pursuant to this chapter to nonresidents.

(c) \$1.75 per acre annually for shellfish grounds to nonresidents who hold valid leases at the time of adoption of this chapter.

On-bottom rent

See above.

Off-bottom rent

No information.

Any shellfish aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

§1907. In addition to the above application fee for a shellfish ground lease, charge of \$17.25 per corner within 60 days of the approval and acceptance of a lease. The Department will inspect all corners for leased grounds and where needed will assist in the relocation of buoys to their correct location. All corners will be located in accordance with the lease as filed with the Department.

Land surveyor/hydrographic survey

N/A

Lease marking responsibility

Applicant

Biological assessment fee

N/A

Property tax

No

Present shellfish value assessment on proposed lease site?

No

Additional Information Sources

Other websites of interest:

- [Delaware Sea Grant](#)
- [East Coast Shellfish Association](#)

Definitions

State definition of aquaculture:

Controlled propagation, growth, harvest and subsequent commerce in cultured aquatic stock by an aquaculturist (individual, partnership or corporation involved in the production of cultured aquatic stock or parts thereof).

How is on-bottom defined?

No information.

Any on-bottom special conditions?

No information.

How is off-bottom defined?

No information.

Any off-bottom special conditions?

No information.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

No information.

Protected Resources and Critical Habitat Designations

- Regional condition for applicant to provide documentation in PCN that they have followed the [US FWS protected resource guidance document USFWS national mapping tool](#) to determine if there are protected resources in project area.
- [DE Environmental Reviews](#)

Essential Fish Habitat (EFH)

Standard

Navigation

No information.

Historic resources

Must show documentation in PCN from State on whether the proposed activity is in a State Natural Heritage Site/National Estuarine Research Reserve/property listed or eligible for listing on National Register of Historical Places

[DE Protection of Historic Properties](#)

Migratory Fish

No information.

Shellfish density threshold

May not be leased in natural oyster beds.

Submerged aquatic vegetation (SAV)

No information.

Other natural resource protection measures?

No information.

Riparian setback

May not lease shellfish grounds within 1,000 ft of the natural shoreline (mean high water) of any waters under the jurisdiction of the State.

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

N/A, may not lease within 1,000 ft of shoreline (see setback).

Any riparian owner notice requirement for lease applications?

No information.

Is applicant required to provide list of riparian owners to permitting agency?

No information.

Is any consent of riparian owner required? If so, under what condition?

No information.

Coastal Zone Management (CZM) Consistency Determination

[State of DE issued CZM consistency letter to Philadelphia District](#) (provided activities are not in Critical Resource waters).

Section 401 Water Quality Certification (WQC)

[State of DE issued WQC consistency letter to Philadelphia District.](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

If discharge of pollution: [Delaware NPDES](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No information.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

Shellfish Aquaculture Harvesters License

Any shellfish aquaculture lease/permit holder training/exam requirement?

No

Are shellfish aquaculture leases/permits restricted to residents only?

No, but annual lease fee is higher for nonresidents.

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

No information.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

24

All shellfish on bottom leases.

24

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

24

Total acreage of shellfish aquaculture leases. Separate by species if available.

2,610

All shellfish on bottom lease acreage.

2,610

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

2,610

Total # of lease holders/individuals employed (if available)?

12

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

- Oysters: No information.
- Clams: No information.
- Mussels: No information.
- Scallops: No information.
- Live Rock Harvest: No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

No information.

Florida

Special Notes

Please see April 2020 industry overview for more details and context on the industry.

Tribal

None

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

In Hillsborough County, the Port retains leasing rights.

Local municipality website for shellfish aquaculture leasing/permitting:

No aquaculture leases in that county at this time.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

Department of Agriculture and Consumer Services (FDACS), Division of Aquaculture

State agency contact(s) for shellfish aquaculture leasing/permitting:

- Portia Sapp, portia.sapp@freshfromflorida.com, 850-617-7600
- aquaculture_web@fdacs.gov

State agency website(s) for aquaculture leasing/permitting:

- [FDACS Division of Aquaculture](#)
- [Shellfish](#)

State shellfish aquaculture leasing/permitting law(s):

[Florida Statutes Chapter 253 and Chapter 597](#)

State shellfish aquaculture leasing/permitting regulation(s):

- [Aquaculture Best Management Practices Manual](#)
- Florida Administrative Code [18-21.020](#) (Aquacultural Activities) and [18-21.021](#) (Applications for Aquaculture Activities)

State application for shellfish leasing/permitting:

[Application for Submerged Land Aquaculture Lease](#)

U.S. Army Corps of Engineers

Corps District(s):

Jacksonville

Corps contact(s) for shellfish aquaculture permitting:

Krista Sabin, krista.d.sabin@usace.army.mil, 561-335-8099

Corps website for shellfish aquaculture permitting:

[Jacksonville Regulatory Source Book](#)

Corps permit for shellfish aquaculture:

[PGP SAJ 99](#)

Corps permit expiration:

10-Aug-23

Corps application for shellfish aquaculture permitting:

- [Aquaculture Certificate of Registration](#)
- For anything outside of the PGP, would have to obtain an [individual permit from Corps](#)
- Also see NWP 48 and PCN form ENG 4345

Is there a State/Federal Joint Permit Application (JPA)?

N/A

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

N/A

Are there interagency meetings (state/federal)

No information.

Interagency Meeting Frequency:

N/A

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

- [Shellfish Aquaculture Leasing Process](#)
- Further guidance: [Shellfish Aquaculture Lease Management](#)

Process flowchart available?

Highly rudimentary visual process in [leasing guide](#) above

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Division of Aquaculture GIS](#)

Is a pre-application meeting required, encouraged, not specified?

Available to assist with completion of application, but not required.

Application Fees

Any pre-determination meeting fee for applicants?

No

Shellfish lease/permit application fee?

Yes

On-bottom fee

\$200

Off-bottom fee

\$200

Is applicant fee returned if denied?

Yes

Corps Individual Permit fee

\$100 in rare case requested activity falls outside of Florida's PGP.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Depends on public comment.

Summary of advertisement requirement of lease application by agency and/or applicant?

Advertise in a local paper for three consecutive weeks.

Who pays for advertisement?

Applicant's responsibility, but typically paid for by Agency.

Business/Operations Plan

Is a management or operations plan required with application?

Yes ("development plan").

Is a business plan required with application?

Yes ("business development plan").

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

State: 6 months to 1+ year for new locations, 1-3 months for existing areas or parcels that have already been approved and leased and the lease was terminated (cancelled or

returned) so the area can be released without going through the entire lease approval process again.

Lease Term and Conditions

Maximum term limit for lease?

10 years

Are renewals available?

Yes

Any renewal fee?

No, lease rental fees due annually but no renewal fee is charged.

Is there an active use requirement? Any criteria to assess?

Yes. Must plant 100,000 seed clams/acre/year or 70,000 seed oysters/acre/year.

On-bottom active use criteria

See above

Off-bottom active use criteria

See above

Is there a production report requirement?

Yes, annual audit report.

Frequency for providing production report?

Annually in January

Can a shellfish aquaculture lease be transferred?

Yes, \$50 transfer fee after leaseholder has held lease for 5 years from the original execution date.

Is there a bid process for leases?

n/a

Any acreage limits?

Yes.

Limits per site

10 acres or less for oysters. 5 acres or less for clams. Exceptions available. 1 acre for live rock under PGP.

Limits per person

n/a

Limits on number of lease sites a person can hold

n/a

Rental and Use Fees

Annual rental fee?

Yes

On-bottom rent

Minimum rate of \$15 per acre and fractional acres (currently \$16.73), and a \$10.00 per acre and fractional acres surcharge.

Off-bottom rent

Minimum rate of \$30 per acre and fractional acres (currently \$33.46), and a \$10.00 per acre and fractional acres surcharge.

Any shellfish aquaculture harvest surcharge? If so, what is it?

No but a \$10/acre or fractional acre annual surcharge.

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

\$10/acre surcharge, \$100 annual aquaculture certificate fee.

Land surveyor/hydrographic survey

Applicant obtains two prints of survey from an approved land surveyor.

Lease markering responsibility

Applicant

Biological assessment fee

N/A, agency will conduct site inspection and resource assessment.

Property tax

N/A

Present shellfish value assessment on proposed lease site?

N/A

Additional Information Sources

Other websites of interest:

- [UF Resource Guide for Florida Shellfish Aquaculture](#)
- [Aquaculture Business Resources](#)
- [East Coast Shellfish Association](#)

Definitions

State definition of aquaculture:

Cultivation of aquatic organisms.

How is on-bottom defined?

Water bottom and 6 in. of the water column above the bottom.

Any on-bottom special conditions?

Water column from 6 in. above the water bottom to the water surface are excluded from bottom leases.

How is off-bottom defined?

Bottom leases include 6 in. of the water column above the water. Water column leases include entire water column.

Any off-bottom special conditions?

- Require USCG PATON for off-bottom use and must comply with gear approved in ACOE permit.
- Off-bottom gear must be marked with leaseholder identification information tags.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

Leases in Aquaculture Use Zones help reduce user conflicts.

Protected Resources and Critical Habitat Designations

- PGP includes special conditions for certain listed species which leasee shall comply with.
- PGP includes limitations for aqua activities within Critical Habitat designation of several ESA listed species.

Essential Fish Habitat (EFH)

Standard

Navigation

Setback to ensure safety. PGP has 100 ft setback requirement for federal navigation channels but setback may vary or be greater than 100 ft. Other standard navigation requirements apply.

Historic resources

Standard

Migratory Fish

No information.

Shellfish density threshold

Lease cannot contain live bottoms or harvestable shellfish resources (more than five legal-size clams/square meter over over 50% of proposed area or oyster reef covering more than 100 square ft within proposed area)

Submerged aquatic vegetation (SAV)

Lease cannot contain seagrasses or live bottoms. May not negatively impact species of SAV listed in PGP.

Other natural resource protection measures?

- Mechanical harvest largely prohibited, subject to specific conditions (see link below).
- [Full list of mandatory BMPs](#)

Riparian setback

- Notice riparian owner(s) within 500 ft of proposed lease. Structures and activities must be set back 25 ft from riparian rights line unless concurrence from owner.
- An aquaculture lease area for a non-riparian applicant shall not be approved when the distance is less than or equal to 100 ft waterward of mean or ordinary high water or less than or equal to 100 ft waterward of existing structures and permitted activities on sovereignty lands, unless the applicant obtains a letter of concurrence from the upland riparian owner.

Social capacity

n/a

Riparian Landowner Requirements**Any definition of what constitutes a riparian owner?**

Riparian rights are those incident to land bordering upon navigable waters. They are rights of ingress, egress, boating, bathing, and fishing and such others as may be or have been defined by law. Such rights are not of a proprietary nature. They are rights inuring to the owner of the riparian land but are not owned by him or her. They are appurtenant to and are inseparable from the riparian land. The land to which the owner holds title must extend to the ordinary high watermark of the navigable water in order that riparian rights may attach. Conveyance of title to or lease of the riparian land entitles the grantee to the riparian rights running therewith whether or not mentioned in the deed or lease of the upland. Statute 253.141

Any riparian owner notice requirement for lease applications?

Agency notifies riparian owners within 500 ft of the nominated area.

Is applicant required to provide list of riparian owners to permitting agency?

Agency notifies riparian owners within 500 ft of the nominated area.

Is any consent of riparian owner required? If so, under what condition?

Riparian owner has ability to comment on proposed activity. Letter of concurrence needed to work within riparian setbacks (see riparian setback definitions above).

Coastal Zone Management (CZM) Consistency Determination

[State approval constitutes compliances with CZM](#)

Section 401 Water Quality Certification (WQC)

Pursuant to Florida Statutes 597.004 (d), there is a presumption of compliance with state groundwater and surface water standards if the holder of an aquaculture certificate of registration implements BMPs that have been verified by the Department of Environmental Protection to be effective at representative sites and complies with the following:

1. Provides the department with a notice of intent to implement applicable best management practices adopted by the department;
2. Implements applicable BMPs as soon as practicable according to rules adopted by the department; and
3. Implements practicable interim measures identified and adopted by the department which can be implemented immediately, or according to rules adopted by the department.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Florida NPDES Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- [Aquaculture certificate of registration](#) (\$100 annually)
- PATON
- [Appropriate documentation for imported seed/stock](#)

Any shellfish aquaculture lease/permit holder training/exam requirement?

Yes, [Shellfish Harvest Education Training](#)

Are shellfish aquaculture leases/permits restricted to residents only?

No

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

~75 applications/year for new and existing parcels.

All shellfish species

~75 applications/year for new and existing parcels.

Oyster

Typically what applicants apply for shellfish.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

19 under review as of 6/22/21.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

784

All shellfish on bottom leases.

515

All shellfish off bottom leases.

269

Number of oyster leases (on and off bottom).

359 (191 of these also clams) (2019)

Total acreage of shellfish aquaculture leases. Separate by species if available.

- Clams and oysters 790 acres
- Clams = 917 acres
- Oysters = 1047 acres

All shellfish on bottom lease acreage.

1,462

All shellfish off bottom lease acreage.

1,310

Just oyster lease acreage (on and off bottom).

1,047

Total # of lease holders/individuals employed (if available)?

418 Aquaculture Certificate of Registration holders work with shellfish.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

\$15.5 million (clams and oysters, 2018)

- Oysters: 3.55 million produced
- Clams: 88.6 million produced
- Mussels: n/a
- Scallops: n/a
- Live Rock Harvest: USDA NASS: Live rock was produced at 17 operations in 2018.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- Clams were \$14.3 million of total (92% of sales) in 2018.

Georgia

Special Notes

Shellfish code and rules recently updated (2019-2020). Consequently, the program is still very new and many policies and procedures are still being drafted and subject to change.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information.

Local municipality website for shellfish aquaculture leasing/permitting:

No information.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

Department of Natural Resources, Coastal Resources Division

State agency contact(s) for shellfish aquaculture leasing/permitting:

- GA DNR Shellfish Water Quality Program, 912-264-7218
- Dominic Guadagnoli, dom.guadagnoli@dnr.ga.gov

State agency website(s) for aquaculture leasing/permitting:

[GADNR Coastal Resources Division: Shellfish](#)

State shellfish aquaculture leasing/permitting law(s):

O.C.G.A. Title 27 Chapter 4 Article 4 Part 4

State shellfish aquaculture leasing/permitting regulation(s):

[Rule 391-2-4-.18](#): Shellfish sanitation; seed importation; water bottom lease terms

State application for shellfish leasing/permitting:

[GADNR website and permits](#)

U.S. Army Corps of Engineers

Corps District(s):

Savannah

Corps contact(s) for shellfish aquaculture permitting:
800-448-2402

Corps website for shellfish aquaculture permitting:
[Savannah Nationwide Permits](#)

Corps permit for shellfish aquaculture:
NWP 48 [regional conditions](#)

Corps permit expiration:
14-Mar-26

Corps application for shellfish aquaculture permitting:
Use [PCN form ENG 6082](#)

Is there a State/Federal Joint Permit Application (JPA)?
No

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.
N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?
N/A

Is a Pre-Construction Notification (PCN) required?
Yes (GA regional condition)

Are there interagency meetings (state/federal)
Yes

Interagency Meeting Frequency:
Monthly

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?
[CRD Shellfish Manual](#); overview of the program and requirements/policies

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

No

Is a pre-application meeting required, encouraged, not specified?

Pre-application meetings are encouraged and assistance with any department forms is offered.

Application Fees

Any pre-determination meeting fee for applicants?

No

Shellfish lease/permit application fee?

No

On-bottom fee

No

Off-bottom fee

No

Is applicant fee returned if denied?

N/A

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

DNR hosts public scoping meeting for new proposed subtidal lease areas.

Summary of advertisement requirement of lease application by agency and/or applicant?

Agency will advertise leases available for bid once a week for at least two weeks in a newspaper within the county (at a minimum).

Who pays for advertisement?

Agency

Business/Operations Plan

Is a management or operations plan required with application?

Yes, to DNR

Is a business plan required with application?

Yes, to Department of Ag

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

State permit timeframe 60-90 days. ACOE permit timeframe varies based on location and proposed activities.

Lease Term and Conditions

Maximum term limit for lease?

10 years

Are renewals available?

Yes

Any renewal fee?

No

Is there an active use requirement? Any criteria to assess?

Yes

On-bottom active use criteria

- The master harvester must place on each Harvest Area the equivalent of at least 10 bushels of cultch per acre of leased intertidal bottom OR the quantity of cultch equivalent to at least 1/3 of the landings reported from that Harvest Area the previous year, whichever is greater. Described in [Cultch Deployment Policy](#).
- Subtidal: 10k oyster seed/acre within 1st year, and reqs increase by 10k/acre each year until max. of 50k seed/acre is reached

Off-bottom active use criteria

- Intertidal: Must plant 100k clam seed or 50k oyster seed per acre per year (weighted combo may be accepted). If choose to conduct wild harvest, must meet cultching req. of 1/3 bushel deployed per bushel of wild oyster harvested.
- Subtidal: 10k oyster seed/acre within 1st year, and reqs increase by 10k/acre each year until max. of 50k seed/acre is reached.

Is there a production report requirement?

Yes.

Frequency for providing production report?

Monthly.

Can a shellfish aquaculture lease be transferred?

Yes, \$50 transfer fee.

Is there a bid process for leases?

- Yes for intertidal, \$15/acre minimum.
- Subtidal awarded via lottery.

Any acreage limits?

Yes.

Limits per site

No information.

Limits per person

Maximum subtidal acreage of 30 acres.

Limits on number of lease sites a person can hold

No information.

Rental and Use Fees

Annual rental fee?

- Intertidal-Equivalent to winning bid for lease (paid annually)
- Subtidal-Minimum \$50/acre/year for leases won by lottery

On-bottom rent

See above.

Off-bottom rent

- Above + for Cage Permits: \$1/cage annually
- Cage permits for oyster gear only

Any shellfish aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

A \$20,000 bond is required for all subtidal lease holders.

Land surveyor/hydrographic survey

Subtidal lease holder must submit drawings of gear configurations and anchoring plans with their Shellfish Mariculture Permit Application.

Lease markering responsibility

Applicant (when applicable)

Biological assessment fee

No

Property tax

No

Present shellfish value assessment on proposed lease site?

N/A

Additional Information Sources

Other websites of interest:

- [East Coast Shellfish Association](#)

Definitions

State definition of aquaculture:

Mariculture: the controlled cultivation of shellfish in confinement from seed size until harvest for commercial purposes.

How is on-bottom defined?

"Wild cultivation." Cultivation/planting of wild shellfish beds and placement of cultch materials (Cultch Deployment Forms).

Any on-bottom special conditions?

No information.

How is off-bottom defined?

Controlled cultivation of shellfish within confinement (Shellfish Mariculture Permit).

Any off-bottom special conditions?

Additional Cage Permit needed if cages used (only for oyster gear).

Any alternative names of a 'lease'?

Lease and Crown/State grants.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

No information.

Protected Resources and Critical Habitat Designations

Standard; DNR must determine subtidal lease is compatible with adjacent critical habitats.

Essential Fish Habitat (EFH)

Standard

Navigation

Boundaries of subtidal bottom leases shall not be within 150 ft of a federal project.

Historic resources

Standard; DNR must determine subtidal lease is compatible with adjacent Heritage Preserves.

Migratory Fish

No information.

Shellfish density threshold

Subtidal water bottoms leases may not be sited on or over an existing shellfish resource, live bottom, or saltmarsh.

Submerged aquatic vegetation (SAV)

Subtidal water bottoms leases may not be sited on or over an existing shellfish resource, live bottom, or saltmarsh.

Other natural resource protection measures?

No information.

Riparian setback

Subtidal leases shall not be within 50 ft of commercial, community, or private dock.

Social capacity

n/a

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

No information.

Is applicant required to provide list of riparian owners to permitting agency?

No information.

Is any consent of riparian owner required? If so, under what condition?

No information.

Coastal Zone Management (CZM) Consistency Determination

Must obtain individual [CZM consistency concurrence from GADNR](#)

[Georgia CRD Federal Consistency](#)

Section 401 Water Quality Certification (WQC)

GA DNR provided [WQC concurrence letter with basic conditions](#).

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#)

[Georgia NPDES Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- Cage permits: \$1/cage/year (increments of 25)
- Commercial fishing license with shellfish endorsement: (\$25/yr (\$210 non-resident))
- Department. of Ag. [certifications](#) (including wholesale dealer license (\$30-\$60)) for harvesting
- Importation Permits for out-of-state imports
- Master Harvesters must have a Seafood Dealers license

Any shellfish aquaculture lease/permit holder training/exam requirement?

Yes, Shellfish Harvester Training.

Are shellfish aquaculture leases/permits restricted to residents only?

No, though preference given to residents in bidding/lotteries.

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

No information.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

No information.

All shellfish on bottom leases.

5

All shellfish off bottom leases.

0

Number of oyster leases (on and off bottom).

5

Total acreage of shellfish aquaculture leases. Separate by species if available.

No information.

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

- Oysters: No information
- Clams: No information
- Mussels: n/a
- Scallops: n/a
- Live Rock Harvest: n/a

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- n/a

Guam

Special Notes

None.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information.

Local municipality website for shellfish aquaculture leasing/permitting:

No information.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

- Department of Agriculture, Division of Aquatic and Water Resources (DAWR) coordinates
- Department of Land Management permits the land use
- Guam EPA handles discharge

State agency contact(s) for shellfish aquaculture leasing/permitting:

DAWR fisheries biologists:

- Brent Tibbatts, brent.tibbatts@doag.guam.gov
- Frank Roberto, frank.roberto@doag.guam.gov

State agency website(s) for aquaculture leasing/permitting:

No information.

State shellfish aquaculture leasing/permitting law(s):

No information.

State shellfish aquaculture leasing/permitting regulation(s):

[9 GAR Div. 2, Chapter 12](#): Fishing Regulations

State application for shellfish leasing/permitting:

No information.

U.S. Army Corps of Engineers

Corps District(s):

Honolulu

Corps contact(s) for shellfish aquaculture permitting:

808-835-4303

Corps website for shellfish aquaculture permitting:

[Honolulu Nationwide Permits](#)

Corps permit for shellfish aquaculture:

NWP 48; [Regional conditions](#) (no special conditions)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

PCN. Can use [form ENG 6082](#).

Is there a State/Federal Joint Permit Application (JPA)?

No

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes for activities specified in NWP 48 (if activity affects more than 1/2-acre of SAV).

Are there interagency meetings (state/federal)

No information.

Interagency Meeting Frequency:

No information.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

No

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

No

Is a pre-application meeting required, encouraged, not specified?

Encouraged by both Corps and Guam.

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Shellfish lease/permit application fee?

Possibly. Fees have not been set but may be charged.

On-bottom fee

See above.

Off-bottom fee

See above.

Is applicant fee returned if denied?

No information.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Public hearing required.

Summary of advertisement requirement of lease application by agency and/or applicant?

Public hearing only.

Who pays for advertisement?

No information.

Business/Operations Plan

Is a management or operations plan required with application?

Yes, both general operations plan and contingency plan for storms required.

Is a business plan required with application?

No information.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information.

Lease Term and Conditions

Maximum term limit for lease?

Permits good for 1 year.

Are renewals available?

Yes

Any renewal fee?

No

Is there an active use requirement? Any criteria to assess?

No

On-bottom active use criteria

N/A

Off-bottom active use criteria

N/A

Is there a production report requirement?

Yes

Frequency for providing production report?

No information.

Can a shellfish aquaculture lease be transferred?

No

Is there a bid process for leases?

No

Any acreage limits?

No

Limits per site

None

Limits per person

None

Limits on number of lease sites a person can hold

None

Rental and Use Fees

Annual rental fee?

No

On-bottom rent

N/A

Off-bottom rent

N/A

Any shellfish aquaculture harvest surcharge? If so, what is it?

No information.

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

No information.

Land surveyor/hydrographic survey

N/A

Lease markering responsibility

Applicant

Biological assessment fee

N/A

Property tax

No information.

Present shellfish value assessment on proposed lease site?

No information.

Additional Information Sources

Other websites of interest:

No information.

Definitions

State definition of aquaculture:

No information.

How is on-bottom defined?

No information.

Any on-bottom special conditions?

Aquaculture must take place in waters greater than 60 ft in depth in order to protect from typhoon damage.

How is off-bottom defined?

N/A

Any off-bottom special conditions?

Aquaculture must take place in waters greater than 60 ft in depth in order to protect from typhoon damage.

Any alternative names of a 'lease'?

"Permit" issued by DLM.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

Ideally should culture native species; the permitting process will be more stringent for nonnative ventures. Aquaculture must be in waters greater than 60 ft in depth considering the need to submerge farms in the event of typhoons.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard

Historic resources

Standard

Migratory Fish

No information.

Shellfish density threshold

No information.

Submerged aquatic vegetation (SAV)

Standard

Other natural resource protection measures?

Contingency plan for storms required.

Riparian setback

N/A

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

Public hearing.

Is applicant required to provide list of riparian owners to permitting agency?

N/A

Is any consent of riparian owner required? If so, under what condition?

N/A

Coastal Zone Management (CZM) Consistency Determination

[Waived.](#)

Section 401 Water Quality Certification (WQC)

Waived.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#)

Regulated by NPDES in event of discharge

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No information.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- Import permits
- USCG PATON
- Certificate of health (and USFWS permits) needed if coming from outside of U.S.

Any shellfish aquaculture lease/permit holder training/exam requirement?

N/A

Are shellfish aquaculture leases/permits restricted to residents only?

No information.

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

No information.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

No information.

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

No information.

Total acreage of shellfish aquaculture leases. Separate by species if available.

No information.

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture

No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

No information.

Hawaii

Special Notes

Shellfish is permitted in Hawaii by the Division of Aquatic Resources with the Department of Health conducting free testing of facilities. However, shellfish aquaculture has not truly occurred in public waters, instead mainly occurring on private land due to the easier permitting process; leasing requirements are thus not listed. Four shellfish growers are currently permitted, though not all are actively producing.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No development can occur within a Special Management Area unless a permit is obtained from the county.

Local municipality website for shellfish aquaculture leasing/permitting:

No information.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

- DLNR, Office of Conservation & Coastal Lands (OCCL) administers Conservation District Use Application for submerged lands.
- Division of Aquatic Resources issues Aquaculture Dealer Permit.
- Department of Health (DOH) oversees shellfish sanitation/growing areas.

State agency contact(s) for shellfish aquaculture leasing/permitting:

Amanda Lowrey, 808.586.8000, amanda.lowrey@doh.hawaii.gov, Hawaii Department of Health

State agency website(s) for aquaculture leasing/permitting:

[Division of Aquatic Resources](#)

State shellfish aquaculture leasing/permitting law(s):

- [Sections 220-1, 187A-3.5](#)
- [Chapter 190D](#): Ocean and Submerged Land Leasing

State shellfish aquaculture leasing/permitting regulation(s):

- [Title 11, Chapter 35](#): Shellfish Sanitation
- [13-4-74](#): Licenses
- [The Aquaculture Loan Program](#)
- ["Aquaculture Special Development Fund" is adopted](#)

State application for shellfish leasing/permitting:

[Hawaii Division of Aquatic Resources](#)

U.S. Army Corps of Engineers

Corps District(s):

Honolulu

Corps contact(s) for shellfish aquaculture permitting:

808-835-4303

Corps website for shellfish aquaculture permitting:

[Honolulu Nationwide Permits](#)

Corps permit for shellfish aquaculture:

NWP 48; [Regional conditions](#) (no special conditions)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

PCN. Can use [form ENG 6082](#).

Is there a State/Federal Joint Permit Application (JPA)?

No information.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes for activities specified in NWP 48 (if activity affects more than 1/2-acre of SAV).

Are there interagency meetings (state/federal)

No information.

Interagency Meeting Frequency:

No information.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

[Permits and Regulatory Requirements for Aquaculture in Hawaii](#)

Process flowchart available?

No information.

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Hawaii Statewide GIS Program](#)

Is a pre-application meeting required, encouraged, not specified?

Encouraged by Corps and by State of HI.

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Shellfish lease/permit application fee?

Yes.

On-bottom fee

- Department (DAR) Aquaculture permit: \$50
- CUDP - Board Permit: \$100 application fee, plus additional \$100 per potential developed acre up to max. of \$2000

Off-bottom fee

- Department (DAR) Aquaculture permit: \$50
- CUDP - Board Permit: \$100 application fee, plus additional \$100 per potential developed acre up to max. of \$2000

Is applicant fee returned if denied?

No information.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Recommended before process, hearing required for state waters.

Summary of advertisement requirement of lease application by agency and/or applicant?

Publication in newspaper.

Who pays for advertisement?

Applicant, \$250 for hearing (CDUP).

Business/Operations Plan

Is a management or operations plan required with application?

Yes

Is a business plan required with application?

No information.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information.

Lease Term and Conditions

Maximum term limit for lease?

\$50 Aquaculture permits good for 1 year.

Are renewals available?

Yes

Any renewal fee?

No information.

Is there an active use requirement? Any criteria to assess?

No information.

On-bottom active use criteria

No information.

Off-bottom active use criteria

No information.

Is there a production report requirement?

Yes

Frequency for providing production report?

Annually by July 31

Can a shellfish aquaculture lease be transferred?

No information.

Is there a bid process for leases?

No information.

Any acreage limits?

No information.

Limits per site

No information.

Limits per person

No information.

Limits on number of lease sites a person can hold

No information.

Rental and Use Fees

Annual rental fee?

No information.

On-bottom rent

No information.

Off-bottom rent

No information.

Any shellfish aquaculture harvest surcharge? If so, what is it?

No information.

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

- \$50 site plan approval
- \$100 temporary variance
- [Full cost breakdowns](#)
- [CDUA application: \\$250-\\$2500 \(2.5% cost of Board permit\)](#)

Land surveyor/hydrographic survey

\$50 subzone boundary determination fee.

Lease markering responsibility

No information.

Biological assessment fee

- EA/EIS preparation costs are applicant's responsibility.
- Sanitary survey to classify a shellfish growing area is agency's responsibility.

Property tax

No information.

Present shellfish value assessment on proposed lease site?

No information.

Additional Information Sources

Other websites of interest:

[Pacific Aquaculture and Coastal Resource Center](#) (PACRC)

Definitions

State definition of aquaculture:

"Aquaculture" means the cultivation and production of aquatic life in a controlled salt, brackish, or fresh water environment.

How is on-bottom defined?

N/A

Any on-bottom special conditions?

No information.

How is off-bottom defined?

N/A

Any off-bottom special conditions?

No information.

Any alternative names of a 'lease'?

"Shellfish Harvest Area" is an approved area in which shellfish are grown.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

Note military uses and other use conflicts off-shore.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard

Historic resources

State Historic Preservation Division will have opportunity to review projects for historical sites, burial sites, etc. Must notify at least 90 days before any action that might affect historic site. Historical site surveys have specific costs.

Migratory Fish

No information.

Shellfish density threshold

No information.

Submerged aquatic vegetation (SAV)

Standard

Other natural resource protection measures?

- Special Management Area Use Permit (SMAP) needed in Special Management Areas.
- Not charging for private lab testing for shellfish health and water quality, but must be able to provide boat, access, etc. to testing site.

Riparian setback

No information.

Social capacity

No information.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

No information.

Is applicant required to provide list of riparian owners to permitting agency?

No information.

Is any consent of riparian owner required? If so, under what condition?

No information.

Coastal Zone Management (CZM) Consistency Determination

Aquaculture facilities that require a Corps permit will be sent to the state CZMP for consistency review as part of the federal permit process.

Section 401 Water Quality Certification (WQC)

[Not required.](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#)

\$1000 filing fee for 5-year [NPDES permit](#) in event of discharge (of a sufficient level).

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No information.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- Permit to Import Restricted Commodities from DOA (fee applies)
- Shell stock shipper's certificate

Any shellfish aquaculture lease/permit holder training/exam requirement?

No information.

Are shellfish aquaculture leases/permits restricted to residents only?

No information.

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

No information.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

4, 2 of which are active (1 starting up again); all inland and on private property.

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

No information.

Total acreage of shellfish aquaculture leases. Separate by species if available.

No information.

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture

No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

No information.

Louisiana

Special Notes

- Major Mariculture changes passed in Summer 2021. Some rules and regulations are being completely rewritten.
- Leasing moratorium established in 2002 to reduce state exposure to lawsuits from leases holders suing state for damages from coastal restoration projects (e.g. freshwater divergences).

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information.

Local municipality website for shellfish aquaculture leasing/permitting:

No information.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

- Department of Wildlife and Fisheries is given authority over issuing permits and leases for oyster-related activities on state submerged lands.
- The Office of Coastal Management within the Department of Natural Resources (DNR) is responsible for the management and regulations of the use of Louisiana's coastal management zone.

- The Office of Coastal Management sets forth additional regulations.

State agency contact(s) for shellfish aquaculture leasing/permitting:

Marc Maniscalco, 504-284-5279, mmaniscalco@wlf.la.gov

State agency website(s) for aquaculture leasing/permitting:

[Louisiana Wildlife and Fisheries, Commercial Oysters](#)

State shellfish aquaculture leasing/permitting law(s):

[La. Rev. Stat. § 56:425-432](#). Title 56 of the Louisiana Revised Statutes provides extensive provisions regarding permitting and leasing of SSL for traditional and alternative oyster culture.

State shellfish aquaculture leasing/permitting regulation(s):

- [Admin. Code Title 76, Part VII, Chapter 5](#) (Oysters)
- [Louisiana Admin. Code](#)

State application for shellfish leasing/permitting:

- [Alternative oyster culture permit](#)
- [Alternative oyster culture forms and instructions](#)

U.S. Army Corps of Engineers

Corps District(s):

Vicksburg, New Orleans, Galveston

Corps contact(s) for shellfish aquaculture permitting:

- New Orleans: 504-862-2300
- Galveston: 409-766-3869

Corps website for shellfish aquaculture permitting:

- [New Orleans Regulatory Permits](#)
- [Galveston Regulatory Permits](#)
- [Vicksburg Nationwide Permits](#)

Corps permit for shellfish aquaculture:

NWP 48 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

- PCN. Can use [form ENG 6082](#)
- [JPA for alternative leases \(CUP\)](#)

Is there a State/Federal Joint Permit Application (JPA)?

For alternative aquaculture leases, will need a [Coastal Use Permit \(CUP\)](#), which is joint form.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes for activities specified in NWP 48 (if activity affects more than 1/2-acre of SAV).

Are there interagency meetings (state/federal)

No

Interagency Meeting Frequency:

N/A

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

No real guide. [Good overview of alternative culture process \(with links\)](#).

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

Interactive [Oyster Map](#) with basic information.

Is a pre-application meeting required, encouraged, not specified?

Encouraged

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Shellfish lease/permit application fee?

Yes

On-bottom fee

\$40 for land that has been subject to lease in the past or present. Currently a moratorium on lease areas that have not previously been used for oyster harvesting (currently being lifted in stages).

Off-bottom fee

\$100 for alternative oyster lease.

Is applicant fee returned if denied?

No, but can be (conditionally) requested back before application process is over.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No

Summary of advertisement requirement of lease application by agency and/or applicant?

Lease applications posted on Department website for 90 days. Application for alternative culture permit posted on Department website for 15 days+.

Who pays for advertisement?

Agency puts on website.

Business/Operations Plan

Is a management or operations plan required with application?

No information.

Is a business plan required with application?

To apply for alternative culture, requires a cost estimate to remove and properly dispose of all equipment, facilities and other items sought to be permitted, prepared by a contractor that has a valid Louisiana Commercial Contractor License.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

- Average CUP permitting time is 3.5 months
- Average AOC Permit packet with all other permits and information 4.5 months.

Lease Term and Conditions

Maximum term limit for lease?

15 years (note alternative culture permits expire after 10 years).

Are renewals available?

Yes

Any renewal fee?

\$30 renewal application fee.

Is there an active use requirement? Any criteria to assess?

No

On-bottom active use criteria

See above.

Off-bottom active use criteria

See above.

Is there a production report requirement?

Approved permits may have reporting information requirements.

Frequency for providing production report?

Nothing stipulated.

Can a shellfish aquaculture lease be transferred?

Yes. \$10 fee per lease.

Is there a bid process for leases?

A lottery will open in Phase IV of moratorium lifting.

Any acreage limits?

Yes

Limits per site

1,000 acres

Limits per person

2,500 acres

Limits on number of lease sites a person can hold

No, see above

Rental and Use Fees

Annual rental fee?

Yes

On-bottom rent

\$3/acre (for traditional lease).

Off-bottom rent

\$2/acre for alternative lease (maximum of \$1000).

Any shellfish aquaculture harvest surcharge? If so, what is it?

\$0.025/barrel.

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

No information.

Land surveyor/hydrographic survey

Department can perform desktop examination and plat drafting for \$260 fee. Or, applicant can contract a private surveyor.

Lease markering responsibility

Applicant (or via private surveyor).

Biological assessment fee

Applicants pays for any required field examination.

Property tax

No

Present shellfish value assessment on proposed lease site?

No

Additional Information Sources

Other websites of interest:

- [Oyster lease moratorium lifting process](#)
- [LA Sea Grant: Oyster Aquaculture in the Gulf of Mexico](#)
- 2021 [Commercial Fisheries Rules & Regulations](#)

Definitions

State definition of aquaculture:

Producing, raising, managing, harvesting, transporting or marketing of aquatic livestock in privately owned waters or ponds. This definition does not include traditional or alternative oyster culture activities on state owned water bottoms.

How is on-bottom defined?

Note traditional vs. alternative: Alternative means any on- OR off- bottom cultivation other than directly on bottoms, including use of on- or off-bottom cages, bags, floats, suspension, etc.

Any on-bottom special conditions?

No information.

How is off-bottom defined?

Note traditional vs. alternative: Alternative means any on- OR off- bottom cultivation other than directly on bottoms, including use of on- or off-bottom cages, bags, floats, suspension, etc.

Any off-bottom special conditions?

No information.

Any alternative names of a 'lease'?

Traditional and alternative lease.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

May not lease any water bottom located within 75 ft of the centerline of a pipeline that is located on purchased right-of-way.

Protected Resources and Critical Habitat Designations

No leases within the boundaries of Wildlife Management Areas or public seed grounds.

Essential Fish Habitat (EFH)

Standard

Navigation

No oyster leases within 50 ft of the permitted boundary of a navigable channel or waterway. No alternative aquaculture permits granted within 1500ft of the centerline of a navigable channel or waterway.

Historic resources

Standard

Migratory Fish

No information.

Shellfish density threshold

No leases within water bottoms designated as public oyster seed ground, reservation, or other public oyster harvest area.

Submerged aquatic vegetation (SAV)

Standard

Other natural resource protection measures?

No information.

Riparian setback

None.

Social capacity

No information.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

No, aside from publication on website.

Is applicant required to provide list of riparian owners to permitting agency?

No

Is any consent of riparian owner required? If so, under what condition?

No, however leases can only be issued on state owned water bottom or private water bottom where the private land owner has consented or the applicant proves ownership of the water bottom.

Coastal Zone Management (CZM) Consistency Determination

[LA DNR provides consistency](#)

Section 401 Water Quality Certification (WQC)

[LA Dept of Environmental Quality provides certification](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#)

[LPDES Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

Yes, for alternative lease must hold some kind of bottoms lease or rights.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- For alternative lease, must have a traditional oyster lease, commercial fishermen license and a current oyster harvest license. Also need a [CUP from DNR](#) (\$20).
- If desired, license to use devices to protect oysters from predation (\$100 application fee + \$50/acre up to \$1000). Many limitations under law.

Any shellfish aquaculture lease/permit holder training/exam requirement?

Yes, [oyster harvester training](#) every three years.

Are shellfish aquaculture leases/permits restricted to residents only?

Yes

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

No information.

All shellfish species

No information.

Oyster

6 active AOC permits.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

6 active AOC permits.

Number of complete shellfish applications currently in review?

0

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

8,020

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

No information.

Total acreage of shellfish aquaculture leases. Separate by species if available.

403,943

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

No information.

Maine

Special Notes:

- [Act To Amend Maine's Aquaculture Leasing and Licensing Statutes \(2021\)](#) to take effect.
- Note that Maine provides a number of leasing options, including two levels of standard lease, an experimental leasing program, and limited purpose aquaculture leases. Information is provided primarily in terms of the Standard Leasing program, but further details are provided for experimental and limited purpose leases where possible.

Tribal

Corps requires applicant to apply to all five Tribal Historic Preservation Officers. DMR retains leasing authority and Corps issues permit.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

For intertidal leasing, the owner of the intertidal to be leased and the municipal officers, if the municipality has a shellfish conservation program, must consent. Notice given to municipality of scoping session for standard lease. For LPA licenses, the owner of the intertidal and the municipal shellfish committee, in towns with a municipal conservation program, must consent.

Local municipality website for shellfish aquaculture leasing/permitting:

No information.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

Department of Marine Resources (DMR)

State agency contact(s) for shellfish aquaculture leasing/permitting:

Director Marcy Nelson (also contact for pre-application meeting) marcy.nelson@maine.gov, 207-441-4681.

State agency website(s) for aquaculture leasing/permitting:

[Department of Marine Resources \(DMR\)](#)

State shellfish aquaculture leasing/permitting law(s):

- [DMR Aquaculture Laws and Regulations](#)
- [Act to Amend Maine's Aquaculture Leasing and Licensing Statutes](#) (2021, to take effect)

State shellfish aquaculture leasing/permitting regulation(s):

[DMR Chapter 2: Aquaculture Lease Regulations](#)

State application for shellfish leasing/permitting:

[Aquaculture Lease Applications and Forms](#)

U.S. Army Corps of Engineers

Corps District(s):

New England

Corps contact(s) for shellfish aquaculture permitting:

LeeAnn B. Neal, 207-623-8367, ext. 2, leeann.neal@usace.army.mil

Corps website for shellfish aquaculture permitting:

[New England Regulatory/Permitting Division](#)

Corps permit for shellfish aquaculture:

[Maine General Permit Activity 23](#). NWP 48 suspended in New England (4/13/2021)

Corps permit expiration:

14-Oct-25

Corps application for shellfish aquaculture permitting:

- Category 1: SVNF: See pg. 36 of General Permit above
- Category 2: PCN using ENG Form 4345: See pgs. 37-42 of General Permit above.
- See General Permit for other submission requirements. Either of above forms may instead use [JPA](#)
- [Application checklist](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, [JPA](#).

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

See regional conditions; must meet several conditions for SVNF instead of PCN regarding acreage, impacts to environment, gear, FNPs, etc.

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

PCN required. Cannot have more than minimal impacts to environmental resources/navigation

Is a Pre-Construction Notification (PCN) required?

Yes, for Category 2.

Are there interagency meetings (state/federal)

Yes, via Corpsconsultation process.

Interagency Meeting Frequency:

Every 3 weeks.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

[Conducting Aquaculture in Maine](#), currently pending on DMR site.

Process flowchart available?

[For state process.](#)

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Aquaculture Map of current and pending lease sites.](#)

Is a pre-application meeting required, encouraged, not specified?

Required by DMR for Standard Lease applications, encouraged by Corps.

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Shellfish lease/permit application fee?

Yes

On-bottom fee

\$1,500 for standard lease (\$2000 for discharge), \$100 for experimental lease, \$100 (residents) or \$400 (non-residents) for LPA (LPA fees are \$50 and \$300 respectively until January 1, 2022)

Off-bottom fee

\$1,500 for standard lease (\$2000 for discharge), \$100 for experimental lease, \$100 (residents) or \$400 (non-residents) for LPA (LPA fees are \$50 and \$300 respectively until January 1, 2022)

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Required of applicant for standard lease.

Summary of advertisement requirement of lease application by agency and/or applicant?

DMR Public hearing for std lease, may be required for exp lease. Applicant required to publish in newspaper before scoping session and after leases granted.

Who pays for advertisement?

Applicant for scoping session, DMR for public hearing (applicant may have to reimburse for public hearing with new legislation).

Business/Operations Plan

Is a management or operations plan required with application?

Yes (application qualifies as operational plan).

Is a business plan required with application?

Operational plans, financial capability and cost estimates, and technical capability must be provided in application.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Estimates are very difficult, depending on how many applications in the queue and the time of year for site assessments. 1-2 years for standard lease and 3-12 mths for experimental leases without hearings. LPAs within weeks.

Lease Term and Conditions

Maximum term limit for lease?

Up to 20 yrs for standard lease and 3 yrs for experimental lease.

Are renewals available?

Yes for standard and LPA. For experimental lease no, unless for scientific research only.

Any renewal fee?

Yes, \$1,500 for standard lease. LPA is same as initial application.

Is there an active use requirement? Any criteria to assess?

Yes - lease may be revoked if not used. Monthly reporting of harvests and annual inspections are required. An annual report may also be required.

On-bottom active use criteria

See above.

Off-bottom active use criteria

See above.

Is there a production report requirement?

Yes.

Frequency for providing production report?

Monthly.

Can a shellfish aquaculture lease be transferred?

Yes, subject to fees (\$2,500 for non-discharge, \$5,000 for discharge).

Is there a bid process for leases?

No.

Any acreage limits?

Yes.

Limits per site

Up to 100 acres for standard lease and up to 4 acres for experimental lease.

Limits per person

1,000 acres combined across all kinds of leases (typically 500, but can be increased up to the 1,000 if deemed beneficial and appropriate; [Title 12, sec. 6072](#)).

Limits on number of lease sites a person can hold

No (but maximum of 4 LPA licenses per licensee)

Rental and Use Fees

Annual rental fee?

Yes

On-bottom rent

\$100 for both standard and experimental lease

Off-bottom rent

\$100 for both standard and experimental lease

Any shellfish aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

Additional fees for lease transfers/expansions, [Aquaculture License](#)

Land surveyor/hydrographic survey

DMR conducts on-site mapping.

Lease markering responsibility

Applicant

Biological assessment fee

Must conduct a Department-approved environmental baseline if using a Discharge Permit (otherwise n/a)

Property tax

No information

Present shellfish value assessment on proposed lease site?

Not value but occurrence and abundance.

Additional Information Sources

Other websites of interest:

- [Public Participation in the leasing process](#)
- [East Coast Shellfish Association](#)

Definitions

State definition of aquaculture:

"Aquaculture" means the culture or husbandry of marine organisms by any person. Storage or any other form of impounding or holding wild marine organisms, without more, shall not qualify as aquaculture. In order to qualify as aquaculture, a project must involve affirmative action by the lessee to improve the growth rate or quality of the marine organism.

How is on-bottom defined?

Cultured organism only - no structures or gear.

Any on-bottom special conditions?

No

How is off-bottom defined?

Use of any gear or structures either at surface or on bottom.

Any off-bottom special conditions?

No

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

If aquaculture has been conducted in a manner substantially injurious to marine organisms, if no substantial aquaculture or research has been conducted over the course of the lease or if any condition of the lease has been violated, the commissioner may initiate revocation proceedings and revoke the lease.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

GC 17 of Maine's General Permit provides list of salmon areas for which screening for impacts on EFH is required (SV projects exempt).

Navigation

No unreasonable interference with navigation. Any structure or work that extends closer to the horizontal limits of a FNP than a distance 3x the authorized depth requires a PCN and shall be subject to removal at the owner's expense prior to any Corps dredging or performance of any hydrographic surveys.

For Maine's purposes, high tide "short cuts" do not qualify as navigational ways.

Historic resources

Corps requires applicant to notify Maine Historic Preservation Commission.

Migratory Fish

Corps process. Could also be considered under DMR decision criterion #5 (Existing System Support).

Shellfish density threshold

This refers to operational conditions for approved licensees, NOT required shellfish density max/mins for licensees growing their product.

Unreasonable interference or failure to meet decision criteria. Criteria are described at 12 M.R.S.A. §6072 (7-A) and DMR Regulations Chapter 2.37.

Submerged aquatic vegetation (SAV)

PCN required unless avoidance and 25' setback. Also assessed by DMR as part of decision criteria #5: Existing System Support.

Other natural resource protection measures?

DMR Chapter 24 regulations that govern importation and movement of marine organisms for biosecurity.

Riparian setback

Must meet decision criteria for ingress and egress - all riparian owners within 1,000 ft of proposed lease are notified. For LPAs, riparian landowners within 300 ft are notified. For both, this is measured from MLW.

Social capacity

See decision criteria. Criteria are described at 12 M.R.S.A. §6072 (7-A).

Riparian Landowner Requirements**Any definition of what constitutes a riparian owner?**

Shorefront property owner whose property boundaries are within 1,000 ft of proposed lease boundaries (<300ft for LPAs).

Any riparian owner notice requirement for lease applications?

If project is within 1,000'; 300' for LPAs

Is applicant required to provide list of riparian owners to permitting agency?

Yes, certified by town. [Riparian Owners List form](#).

Is any consent of riparian owner required? If so, under what condition?

Yes, for intertidal leases only (to the mean low water mark).

Coastal Zone Management (CZM) Consistency Determination

[Activities covered under GP are consistent with CZM standards](#). Both the Site Law (38 MRS sec. 488(13)) and NRPA (38 MRS sec. 480-Q(10)) contain exemptions for aquaculture projects subject to DMR's review and approval under aquaculture leasing laws.

Section 401 Water Quality Certification (WQC)

[Activities covered under GP are consistent with WQC standards](#). LPAs must be located in areas classified as approved or conditionally approved, unless for the cultivation of seed only. No LPAs within a 300:1 dilution zone around a wastewater treatment plant (Chapter 2.90(3)(D)). Aquaculturists are also subject to any harvest closures/restrictions due to water quality or biotoxin.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#)

See forms at end of standard lease application w/ discharge.

If discharge: [Maine NPDES Permits](#).

Note that net pen and salmon aquaculture GPs have expired.

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No - a suspended lease is used for any gear. Lease can be issued for bottom and/or suspended (may also include bottom gear)

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- USCG PATON
- Aquaculture Harvest License (\$133)
- Important/Introduction/Movement of Invertebrates Application
- [DMR Additional Forms](#)

Any shellfish aquaculture lease/permit holder training/exam requirement?

No for leases; annual training for LPA license holders. Certain waters require Vibrio training & control plan through Bureau of Public Health

Are shellfish aquaculture leases/permits restricted to residents only?

No.

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

~40 annually.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

~38. See [Table of Aquaculture Lease Applications Under Review](#).

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

172 leases total for all aquaculture (64 Experimental, 108 Standard), of which ~135 (very rough estimate) mention some variety of shellfish. See [Table of Standard and Experimental Aquaculture Leases](#).

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

103 leases mention oysters.

Total acreage of shellfish aquaculture leases. Separate by species if available.

[Table of Standard and Experimental Aquaculture Leases](#)

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

619

Total # of lease holders/individuals employed (if available)?

[Table of Standard and Experimental Aquaculture Leases](#)

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

Refer to Maine's [Aquaculture Harvest, Lease, and License Data](#).

- Oysters: 10.1 million
- Clams: No information
- Mussels: 1.4 million
- Scallops: No information
- Live Rock Harvest: No information

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

\$7.0 million for oysters. \$2.6 million for blue mussels.

Maryland

Special Notes

Maryland has a few special shellfish programs:

- Three sites for experimental oyster propagation activities (10 acres each) per Md. NATURAL RESOURCES Code Ann. § 4-11A-18.
- Aquaculture Enterprise Zone in Chesapeake Bay per Md. NATURAL RESOURCES Code Ann. § 4-11A-05.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information.

Local municipality website for shellfish aquaculture leasing/permitting:

No information.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency for shellfish aquaculture leasing/permitting:

Department of Natural Resources, Fisheries Service, Aquaculture and Industry Enhancement Division.

State agency contact(s) for shellfish aquaculture leasing/permitting:

- Karl Roscher (Director), 410-260-8313, karl.roscher@maryland.gov
- [Other staff contacts](#)

State agency website(s) for aquaculture leasing/permitting:

[MD DNR Aquaculture and Industry Enhancement Division](#)

State shellfish aquaculture leasing/permitting law(s):

- [Statute: Natural Resources, 4-11, 4-11A](#)
- [Maryland General Assembly](#)

State shellfish aquaculture leasing/permitting regulation(s):

[COMAR Title 8](#) - primarily 08.02.23, with some in 08.02.04

State application for shellfish leasing/permitting:

[Maryland DNR Getting Started](#)

U.S. Army Corps of Engineers

Corps District(s):

Baltimore

Corps contact(s) for shellfish aquaculture permitting:

Beth Bachur, 410-962-4336, Beth.Bachur@usace.army.mil

Corps website for shellfish aquaculture permitting:

[Maryland Permitting](#)

Corps permit for shellfish aquaculture:

NWP 48 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

[Maryland JPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, see ["Aquaculture in Maryland"](#) on Corps permitting site.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Required, but completed by the JPA.

Are there interagency meetings (state/federal)?

Yes, MD Aquaculture Review Board

Interagency Meeting Frequency:

Monthly

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

[Lease application instructions with process overview and map drawing examples](#)

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Maryland Shellfish Aquaculture Siting Tool](#)

Is a pre-application meeting required, encouraged, not specified?

Encouraged

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Shellfish lease/permit application fee?

Yes

On-bottom fee

\$300

Off-bottom fee

\$300

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Public informational meeting may be provided based upon public comments.

Summary of advertisement requirement of lease application by agency and/or applicant?

State advertisement via mail, newspaper, and social media for 2 consecutive weeks followed by a 30 day public comment period, notification of riparian shoreline owners and County Oyster Committee.

Who pays for advertisement?

Agency

Business/Operations Plan

Is a management or operations plan required with application?

Yes, for first three years of operations

Is a business plan required with application?

No

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

8 to 12 months. Could be longer if application is protested by a member of the public.

Lease Term and Conditions

Maximum term limit for lease?

20 years

Are renewals available?

Yes. Limit to 2x. Must submit new application after 40 years.

Any renewal fee?

Annual lease fee, eventual application fee after 40 years.

Is there an active use requirement? Any criteria to assess?

Yes. Currently, annual planting at least one-fifth of the leased area at a minimum density of 200,000 shellfish seed per acre, and alternative plan/requirements approved by Department of Natural Resources.

On-bottom active use criteria

see above

Off-bottom active use criteria

see above

Is there a production report requirement?

Yes

Frequency for providing production report?

Monthly harvest reports are required to be submitted. In addition, an annual lease usage report is also required. [Maryland Harvest Reporting](#).

Can a shellfish aquaculture lease be transferred?

Yes

Is there a bid process for leases?

No

Any acreage limits?

No

Limits per site

None

Limits per person

None

Limits on number of lease sites a person can hold

None

Rental and Use Fees

Annual rental fee?

Yes

On-bottom rent

\$3.50/acre

Off-bottom rent

\$25/acre

Any shellfish aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

Shellfish Nursery Permit application fee is \$100.

Land surveyor/hydrographic survey

Agency cost

Lease markering responsibility

Applicant

Biological assessment fee

N/A

Property tax

No

Present shellfish value assessment on proposed lease site?

No

Additional Information Sources

Other websites of interest:

- [MD Sea Grant Extension](#)
- [MD Shellfish Aquaculture Loan Program](#)
- [East Coast Shellfish Association](#)

Definitions

State definition of aquaculture:

"Aquaculture" means the commercial rearing of fish or aquatic plants for sale, trade, barter, or shipment.

Per regs: Aquaculture activity is the purchase, monitoring, bottom preparation, planting, sale, possession, harvest, production, breeding, transportation, and processing of shellfish in State waters on or in an area used for shellfish cultivation.

How is on-bottom defined?

"Submerged Land Lease': Shell/seed, no gear

Any on-bottom special conditions?

Allow only planting of shell without additional approval from DNR.

How is off-bottom defined?

"Water Column Lease": Cages and/or floats

Any off-bottom special conditions?

Additional documentation/sketches required as well as additional liability insurance conditions.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

No information.

Protected Resources and Critical Habitat Designations

- Standard with vessel distance buffer when listed species is sighted (RGP).
- [For FWS ESA species, must use IPaC and submit documentation](#)
- Must also report interactions with specific species.

Essential Fish Habitat (EFH)

Standard

Navigation

State law does not allow lease within 150 ft of federal navigation channel. Corps Regional Conditions states that no work may extend into anchorage areas; customary boating channels; navigation fairways; marked, lighted, or charted channels; or State or Federal Navigation Channels.

Historic resources

Standard

Migratory Fish

No information

Shellfish density threshold

State law does not allow leasing of public shellfish fishery areas (productive oyster bars) and requires a 150' setback from oyster bars. An individual can submit a petition to remove the PSFA classification, and if a state survey shows the density of oysters to be less than 1 per square meter, the state can remove the classification and allow leasing to occur.

Submerged aquatic vegetation (SAV)

State law does not allow leasing in SAV protected zone based upon VIMS baywide SAV survey. Must supply mapping of SAV from last 5 years of VIMS survey to Corps.

Other natural resource protection measures?

No information.

Riparian setback

State law does not allow a lease within 50' of riparian property without consent of landowner.

Social capacity

State law does not allow leasing in any cover, bay or inlet that has <300' mouth at low tide with the exception of a riparian land owner with specified area.

Riparian Landowner Requirements**Any definition of what constitutes a riparian owner?**

Owns the riparian property or is legal tenant.

Any riparian owner notice requirement for lease applications?

Agency sends letter when issuing public notice for public comment.

Is applicant required to provide list of riparian owners to permitting agency?

No

Is any consent of riparian owner required? If so, under what condition?

Letters of permission required from riparian owners for proposed leasees closer than 50' to shore at mean low water.

Coastal Zone Management (CZM) Consistency Determination

Signing lease includes agreeing to abide by CZMP. If further CZM agreement needed in the case of an IP, it's incorporated into Corps' IP authorization. [More information on CZM in Maryland.](#)

Section 401 Water Quality Certification (WQC)

Needed in the case of an IP, but incorporated into Corps' IP authorization. [More information on WQC in Maryland.](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#)

[MD Wastewater Permits Program.](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- No fee [aquaculture harvester permit and registration card.](#)
- Possible need for Shellfish Import Permit if bringing seed/larvae across state lines.
- Shellfish Nursery Permit needed for hatcheries meeting certain criteria.
- [Fisheries Forms and Permits.](#)

Any shellfish aquaculture lease/permit holder training/exam requirement?

Harvester Training once every five years (currently can complete by reviewing and signing training guide).

Are shellfish aquaculture leases/permits restricted to residents only?

No

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

No information.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

420 (2017)

All shellfish on bottom leases.

345 (2017)

All shellfish off bottom leases.

75 (2017)

Number of oyster leases (on and off bottom).

No information.

Total acreage of shellfish aquaculture leases. Separate by species if available.

6803 (2017)

All shellfish on bottom lease acreage.

6420 (2017)

All shellfish off bottom lease acreage.

383 (2017)

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

463 permitted to work on leases (2018)

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

- Oysters: 74,066 bushels (2017)
- Clams: No information.
- Mussels: 0
- Scallops: 0
- Live Rock Harvest: 0

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- No information.

Massachusetts

Special Notes

- Oyster growers in MA must comply with a [Vibrio Control Plan](#) May-Oct

Tribal

Corps mandates that must notify the Board of Underwater Archaeological Resources (BUAR) and applicable tribes/Tribal Historic Preservation Officers (THPOs). [Historic Property Notification Form \(Section X\)](#) recommended to make above notifications; contact

information can be found in general permit. The Massachusetts Environmental Policy Act (MEPA) review process also requires consultation with BUAR.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Municipalities issue license (lease) under MGL Cht 130 Sec 57 guidelines. Rules vary by municipality. Requires Department of Fish and Game, Division of Marine Fisheries certification prior to issuance.

Local municipality website for shellfish aquaculture leasing/permitting:

Varies between municipalities.

[Inventory of municipal programs](#)

Local municipality application for shellfish aquaculture leasing/permitting:

Varies between municipalities but must at a minimum include site conditions, species to be cultured, quantities and densities, and proposed structures (cage, racks, etc.).

State Government

State lead agency for shellfish aquaculture leasing/permitting:

- Department of Fish and Game, Division of Marine Fisheries (DMF) must review application materials and conduct a site survey prior to certifying municipalities license.
- Conservation Commission (DEP) permit (Chapter 91 10A) or proof of exemption required for the placement of structures (cages, floats).
- DMF issues Aquaculture Permit annually to possess and plant shellfish seed.
- An Order of Conditions (OOC) permit may be required by MA DEP and local Conservation Commission pursuant to the MA Wetlands Protection Act. The local ConCom actually issues the OOC.
- Other DEP permits that may be required are 401 Water Quality Certification (cultch/fill) or typically a Chapter 91 10A permit for gear (e.g., floats, moorings).
- MEPA does not issue a permit, but requires projects that may have significant environmental impacts to be reviewed by the Secretary of Energy and Environmental Affairs. If MEPA review thresholds are triggered, no other state agency action, including DMF's license site certification, is valid until issuance of a Certificate from the Secretary of Energy and Environmental Affairs.

State agency contact(s) for shellfish aquaculture leasing/permitting:

Chrissy Petitpas, 508-742-9766, christian.petitpas@mass.gov

State agency website(s) for aquaculture leasing/permitting:

[Division of Marine Fisheries: Shellfish Sanitation and Management](#)

State shellfish aquaculture leasing/permitting law(s):

[M.G.L Title XIX, Chapter 130, Sec. 57-67](#) (Shellfish Aquaculture Leases)

State shellfish aquaculture leasing/permitting regulation(s):

Title 322 CMR, especially [322 CMR 15.00 \(Management of Marine Aquaculture\)](#)

State application for shellfish leasing/permitting:

MA has Home rule over shellfish aquaculture site leasing and applications vary by municipality. Contact DMF Aquaculture Coordinator for DMF Aquaculture/Propagation permit application once local license is certified by DMF and officially issued by city/town.

U.S. Army Corps of Engineers

Corps District(s):

New England

Corps contact(s) for shellfish aquaculture permitting:

Christine Jacek, 978-318-8026, christine.m.jacek@usace.army.mil

Corps website for shellfish aquaculture permitting:

[New England Regulatory/Permitting Division](#)

Corps permit for shellfish aquaculture:

[Massachusetts General Permit](#) Activity 22
NWP 48 suspended in New England (4/13/2021).

Corps permit expiration:

5-Apr-23

Corps application for shellfish aquaculture permitting:

- Category 1: [SVNF](#)

- Category 2: PCN using ENG Form 4345: See Section VI of general permit for additional information that must be provided. Email application to cenae-r@usace.army.mil or to assigned project manager.

Is there a State/Federal Joint Permit Application (JPA)?

State forms **cannot** be substituted for Form 4345 but may be used supplementally.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

SVNF. Projects that do not require a PCN or an IP and meet specific construction criteria. See pg. 17 of the General Permit for more info.

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

PCN required. See pg. 17 of the General Permit for more info.

Is a Pre-Construction Notification (PCN) required?

Yes for Category 2.

Are there interagency meetings (state/federal)?

Yes

Interagency Meeting Frequency:

Yes, 1st and 3rd Thursdays (local municipalities do not attend).

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

- [Permitting Tool](#)
- [Corresponding checklist](#)

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

Below links show aquaculture siting, eelgrass beds, etc.

[MA-ShellfAST Viewer](#)

From mass.gov (may not be supported for much longer due to move to AGOL):

[OLIVER](#)

[MORIS](#)

Is a pre-application meeting required, encouraged, not specified?

Encouraged to talk with town/municipality. Applicant's may also request a pre-app meeting with state and federal permitting agencies.

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Shellfish lease/permit application fee?

Yes

On-bottom fee

State application permit \$10. Town may have application fee.

Off-bottom fee

State application permit \$10. Town may have application fee.

Is applicant fee returned if denied?

Most towns do not reimburse local fee. The \$10 aquaculture/propagation permit fee is only processed if approval is in place.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Public hearing. Lease approval by vote of selectman/town council at open meeting. DMF will not initiate site certification process until town forwards certification request with proof of advertisement and copy of meeting minutes that include BOS vote to approve.

Summary of advertisement requirement of lease application by agency and/or applicant?

Public hearing notice posted in 3 or more public places, and published in a newspaper at least 10 days before hearing. Also, ad must state the name and residence of the applicant or transferee, as the case may be, the date of the filing of the application for such license, transfer or renewal, and the location, area and description of said territory. MGL Ch 130 § 60.

Who pays for advertisement?

Applicant

Business/Operations Plan

Is a management or operations plan required with application?

Town application and state aquaculture permit cover operational plan requirements.

Is a business plan required with application?

Town may require.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Best case 2 months, worst case 2 years; typical is 6-7 months. Corps target of within 60 days.

Lease Term and Conditions

Maximum term limit for lease?

1-10 years. Renewals may be for up to 15 years.

Are renewals available?

Yes

Any renewal fee?

Check with town/municipality

Is there an active use requirement? Any criteria to assess?

Varies by municipality. (May consist of investment/production minimums, % of space used, etc.). State statute allows revocation "for lack of substantial use".

On-bottom active use criteria

See above

Off-bottom active use criteria

See above

Is there a production report requirement?

Yes, both to state and municipality

Frequency for providing production report?

By 15th of each month (sales reports; this requirement may not kick in immediately for new lessees) with additional annual production report by Jan. 31.

Can a shellfish aquaculture lease be transferred?

Yes

Is there a bid process for leases?

No

Any acreage limits?

No true state limit. To fall under general permit, Corps says up to 10 acres for private sites and 25 for municipalities, but larger leases can file via an IP. MEPA review has its own thresholds. Additional acreage limits set by Towns.

Limits per site

Town determines

Limits per person

Town determines

Limits on number of lease sites a person can hold

Town determines

Rental and Use Fees

Annual rental fee?

Yes

On-bottom rent

Town license fee of \$5 to \$25/acre

Off-bottom rent

Town license fee of \$5 to \$25/acre

Any shellfish aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

\$1 for each recording of a license granting/renewal and \$4 for each license issued (paid to town clerk). Additional fees if Chapter 91 waterways authorization required, if Wetlands Protection Act filings (NOI) required, or for MESA filings.

Land surveyor/hydrographic survey

Some towns may require applicants to have professional survey conducted, most do not. DMF requires town to submit request for DMF personnel to conduct site survey and verify town licensing of the site. [Aquaculture Description Form](#) is a supplemental app to complement municipality's license site app.

Lease markering responsibility

Applicant

Biological assessment fee

If town requires professional pre-app survey/assessment (again this is rare), this varies with contracted consultant.

Property tax

Town determines

Present shellfish value assessment on proposed lease site?

Town may do an initial determination in deciding whether or not to approve the license application. DMF considers the lease site of significant value to the public fishery if natural densities of 1 quahog/ft², 3 soft shelled clams/ft², 3 oysters/ft² are observed during site survey. Other shellfish species are considered on a case by case basis.

Additional Information Sources

Other websites of interest:

- [Shellfish culture BMPs](#) (focus on production)
- [2018 report on siting and permitting](#)
- [East Coast Shellfish Association](#)

Definitions

State definition of aquaculture:

Farming of aquatic marine organisms including, but not limited to fish, mollusks, crustaceans, echinoderms and plants. Farming implies some sort of intervention in the rearing process to enhance production including, but not limited to controlled propagation, feeding, protection from predators, etc.

How is on-bottom defined?

No formal definition. DMF considers on-bottom to be when any gear (other than mooring/site markers) or planted product are in direct contact with the sediment/bottom.

Any on-bottom special conditions?

Depends whether there are any municipal gear constraints. Necessity for special conditions are usually site-specific and assessed by the state on a case by case basis.

How is off-bottom defined?

No formal definition. DMF considers off-bottom to be when gear (other than mooring/site markers) or shellfish product are NOT in direct contact with the sediment/bottom.

Any off-bottom special conditions?

License may be conditioned for the removal of floating gear and reduction of vertical lines during right whale critical period and rope gear may be conditioned to be kept under tension, have breakaway links and/or a specific breaking strength. Growers using floating gear must submit a bird deterrence plan to DMF.

Any alternative names of a 'lease'?

May be referred to as a license/grant.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

Any special conditions are assessed on a site and project-specific basis.

Protected Resources and Critical Habitat Designations

License may be conditioned for the removal of floating gear and reduction of vertical lines during right whale critical period and rope gear may be conditioned to be kept under tension, have breakaway links and/or a specific breaking strength. Growers using floating gear must submit a bird deterrence plan to DMF.

Operations in Priority Habitats require MESA Review Filing.

Essential Fish Habitat (EFH)

The need for any special conditions is assessed on a site and project-specific basis.

Navigation

No unreasonable interference with navigation. If future U.S. operations require the removal, relocation, or other alteration of the structure or work, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, to remove, relocate, or alter the structural work or obstructions without expense to the U.S.

Historic resources

Historic Property Notification Form found on MA General Permit for notification of BUAR and THPOs.

Migratory Fish

The need for any special conditions is assessed on a site and project-specific basis

Shellfish density threshold

For DMF determining whether to grant license certification, maximum density guidance (1 quahog/ft², 3 soft shelled clams/ft², 3 oysters/ft².) Other shellfish species are considered on a case by case basis.

Submerged aquatic vegetation (SAV)

State will not certify if <25' from eelgrass.

Other natural resource protection measures?

The need for any special conditions associated resource protection is assessed on a site and project-specific basis.

Riparian setback

Varies by municipality.

Social capacity

n/a

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

Varies by municipality.

Any riparian owner notice requirement for lease applications?

Most towns require notification of abutters (of either application or public hearing).

Is applicant required to provide list of riparian owners to permitting agency?

Yes, may be required on applications of some permitting agencies.

Is any consent of riparian owner required? If so, under what condition?

Yes in some cases. In a court decision in the 1990's (Pazolt), if the upland property owner has riparian rights then permission is required to conduct aquaculture.

Coastal Zone Management (CZM) Consistency Determination

MA CZM concurs for SVNF activities and requires individual application review for other projects (Corps coordinates).

Section 401 Water Quality Certification (WQC)

[Activity covered by state GP approved](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#)

If applicable discharge, need NPDES-issued permit:

[Mass. NPDES Forms](#)

Note applicable general permits (submit NOI)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

Yes

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- [DMF Propagation permit](#), \$10 (updated annually)
- [Commercial fishing permit](#) (for harvesting), \$40+
- [Aquaculture Description Form](#) (before siting visit)
- Possibly [Chapter 91 DEP](#) (\$330+)
- Possibly USCG PATON

Any shellfish aquaculture lease/permit holder training/exam requirement?

No

Are shellfish aquaculture leases/permits restricted to residents only?

Most towns require applicants to be residents.

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

20

All shellfish species

14 for 2020

Oyster

14 in 2020

All shellfish on bottom lease applications

11 (at least one site doing both on and off-bottom)

All shellfish off bottom lease applications

4 (at least one site doing both on and off-bottom)

Number of complete shellfish applications currently in review?

10

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

646

All shellfish on bottom leases.

Data do not have a good handle on this. A conservative estimate is 450.

All shellfish off bottom leases.

Data do not have a good handle on this. Best estimate is 136.

Number of oyster leases (on and off bottom).

642

Total acreage of shellfish aquaculture leases. Separate by species if available.

1,283

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

As of 2021 there are 409 propagation permit holders. This number does not accurately reflect the number of lease holders because some towns name multiple people to a lease but only one may actually get a propagation permit. There are many more people employed by the license/grant holders.

Harvest and Value (2020 unless otherwise noted)**Harvest and value of shellfish aquaculture.**

Landings value in 2019: \$29,858,281

- Oysters: In 2019: 52,079,804 pieces with value of \$29,035,187
- Clams: In 2019: 2,808,380 pieces with value of \$823,094
- Mussels: No information.
- Scallops: No information.
- Live Rock Harvest: No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- The output of the shellfish aquaculture industry in Massachusetts was valued at approximately \$29.9m in 2019. No current extrapolated economic value or farm gate value.

Mississippi***Special Notes***

- DMR has recently separated their program into on-bottom and off-bottom leases; contact program for questions.
- [Proposed changes to shellfish aquaculture regulatory structure](#) (2021); while the actual legislative text itself is in many cases remaining the same, changes to rules or permitting processes could occur.

Tribal

N/A

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

N/A

Local municipality website for shellfish aquaculture leasing/permitting:

N/A

Local municipality application for shellfish aquaculture leasing/permitting:

N/A

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

- Department of Marine Resource, MS Commission on Marine Resources issues lease
- Marine Fisheries Division (Shellfish Bureau) issues aquaculture harvest permit

State agency contact(s) for shellfish aquaculture leasing/permitting:

- Willa Brantley, Wetlands Permitting Bureau Director, 228-523-4108, willa.brantley@dmr.ms.gov
- Erik Broussard, Shellfish Bureau Director, 228-523-4032, erik.broussard@dmr.ms.gov

State agency website(s) for aquaculture leasing/permitting:

[Mississippi DMR, Shellfish Bureau](#)

State shellfish aquaculture leasing/permitting law(s):

- [Mississippi Aquaculture Act of 1988](#) (79-22)
- Also see Title 49, Chapter 15

State shellfish aquaculture leasing/permitting regulation(s):

- [22-13, Rules and Regulations for Aquaculture in the Marine Environment in the State of Mississippi](#)
- [Mississippi Title 22 Regulations](#)
- [Department of Agriculture Chapter 11, Guidelines for Aquaculture Activities](#)

State application for shellfish leasing/permitting:

[JPA](#)

U.S. Army Corps of Engineers

Corps District(s):

Mobile and Vicksburg Districts

Corps contact(s) for shellfish aquaculture permitting:

- Vicksburg District: Jennifer Mallar, 601-631-7071
- Mobile District: Don Mroczko, 251-690-3185, donald.e.mroczko@usace.army.mil

Corps website for shellfish aquaculture permitting:

- [Mobile Nationwide Permits](#)
- [Vicksburg Nationwide Permit](#)

Corps permit for shellfish aquaculture:

NWP 48 Regional conditions:

- [Vicksburg](#)
- [Mobile](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

[IPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, [IPA](#)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes for activities specified in NWP 48 for both Vicksburg and Mobile Districts, but JPA serves as PCN in coastal counties.

Are there interagency meetings (state/federal)

Yes, it is part of the JPA process.

Interagency Meeting Frequency:

No information.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

No

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

No. Some very simple (and somewhat outdated) maps at [on DMR website](#). Call listed numbers for more info.

Is a pre-application meeting required, encouraged, not specified?

Encouraged

Application Fees

Any pre-determination meeting fee for applicants?

Yes

Shellfish lease/permit application fee?

Yes

On-bottom fee

\$5 per acre (100 acre minimum)

Off-bottom fee

Rate is set by the MS SOS. Currently at \$82

Is applicant fee returned if denied?

Non-refundable.

Corps Individual Permit fee

JPA includes both MDMR and USACE fee.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No information.

Summary of advertisement requirement of lease application by agency and/or applicant?

Public notice requirement.

Who pays for advertisement?

MDMR

Business/Operations Plan

Is a management or operations plan required with application?

Applications shall include a statement to demonstrate applicant's capability to conduct proposed activity.

Is a business plan required with application?

Yes

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Typically 5-12 months.

Lease Term and Conditions

Maximum term limit for lease?

Five years.

Are renewals available?

Yes, another five years.

Any renewal fee?

Standard annual rental fee.

Is there an active use requirement? Any criteria to assess?

Must be engaged in shellfish aquaculture activities throughout term (outside of periods when prevented from gathering due to storms or natural phenomena).

On-bottom active use criteria

See above.

Off-bottom active use criteria

See above.

Is there a production report requirement?

Yes

Frequency for providing production report?

Monthly with additional annual written summary.

Can a shellfish aquaculture lease be transferred?

Yes (but transferee must submit a full application); no subleases.

Is there a bid process for leases?

Yes for on-bottom, N/A for off-bottom.

Any acreage limits?

Yes

Limits per site

Must be >5 acres but <500 acres.

Limits per person

500 acres per person for on-bottom.

Limits on number of lease sites a person can hold

No information.

Rental and Use Fees

Annual rental fee?

Negotiated but not less than \$25/acre.

On-bottom rent

See above.

Off-bottom rent

See above.

Any shellfish aquaculture harvest surcharge? If so, what is it?

No information.

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

Insurance/bond fee.

Land surveyor/hydrographic survey

If requested in permit process, applicant submits with land survey by an approved surveyor along with application.

Lease markering responsibility

Applicant

Biological assessment fee

N/A

Property tax

Applicant pays.

Present shellfish value assessment on proposed lease site?

N/A

Additional Information Sources

Other websites of interest:

- [LA Sea Grant: Oyster Aquaculture in the Gulf of Mexico](#)
- [Off-Bottom Oyster Aquaculture Training Program](#)

Definitions

State definition of aquaculture:

Any form of agriculture that includes the process of growing, farming, cultivating, and/or harvesting cultured aquatic products in marine or freshwaters and includes management by an aquaculturist.

How is on-bottom defined?

Molluscan shellfish aquaculture operations in the marine waters that use natural shell, spat on shell, or other approved cultch material deployed on the water bottoms, without employing racks, cages, or other containers or support structures.

Any on-bottom special conditions?

Must minimize impacts to sediment movements and water circulation. All operations must occur in waters 3 ft or deeper as measured by mean low water.

How is off-bottom defined?

Molluscan shellfish aquaculture operations in the marine waters that utilize the water column or do not otherwise fall within the definition of on-bottom aquaculture.

Any off-bottom special conditions?

Same as on-bottom. Also, within 750 yards of shoreline, containers must be in rows with space for ingress/egress to shore. No racks of cages shall be within 200 ft of shoreline unless proven there will be no conflicts with traditional user groups.

Any alternative names of a 'lease'?

N/A

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

State regulation requires applicant to conduct pre-environmental assessment survey.

Protected Resources and Critical Habitat Designations

No leases within 1 mile of habitats of special significance (e.g. ESA species, public oyster reefs, nesting bird areas, sea turtle nesting areas).

Essential Fish Habitat (EFH)

Standard

Navigation

Must be > 0.5 mile away from centerline of Federal Navigation Channel.

Historic resources

Standard

Migratory Fish

No information.

Shellfish density threshold

Areas defined as tonging reefs or natural reefs may not be leased.

Submerged aquatic vegetation (SAV)

Standard (can't cause substantial negative impact).

Other natural resource protection measures?

Non-lethal predator control, and predator control plan must be approved.

Riparian setback

Leases will not be approved within 100 ft of existing lease from another party.

Social capacity

No information.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

- [MS Code § 49-15-9](#)
- 750 yards from shore or equidistance if shore to shore is <1,500 yards.

Any riparian owner notice requirement for lease applications?

JPA requires applicant to submit list of names and addresses with application. Adjacent property owners (those whose visual access to Coastal Wetlands could be reasonably expected to be impacted by the project) are notified by the State of the application.

Is applicant required to provide list of riparian owners to permitting agency?

Yes, see above.

Is any consent of riparian owner required? If so, under what condition?

Yes

Coastal Zone Management (CZM) Consistency Determination

- [Only granted outside of specific wetland areas](#)
- If in an area for which not granted, submit proposed project info directly to MDMR using JPA and include CZMA consistency determination.

Section 401 Water Quality Certification (WQC)

[Granted with conditions](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Mississippi NPDES Permits](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

Speak to agency; relatively recent split of on-bottom and off-bottom.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- [Aquaculture harvest permit](#)
- USCG PATON

Any shellfish aquaculture lease/permit holder training/exam requirement?

Required for off-bottom.

Are shellfish aquaculture leases/permits restricted to residents only?

Yes

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

No information.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

No information.

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

No information.

Total acreage of shellfish aquaculture leases. Separate by species if available.

No information.

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

No information.

New Hampshire

Special Notes:

- Only product in cages/floats is protected.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information.

Local municipality website for shellfish aquaculture leasing/permitting:

No information.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency for shellfish aquaculture leasing/permitting:

Department of Fish and Game

State agency contact(s) for shellfish aquaculture leasing/permitting:

Robert Atwood, 603-868-1095, robert.atwood@wildlife.nh.gov

State agency website(s) for aquaculture leasing/permitting:

[Fish and Game: Marine Resources](#)

State shellfish aquaculture leasing/permitting law(s):

[Title XVIII, Section 211:62-e, Aquaculture](#)

State shellfish aquaculture leasing/permitting regulation(s):

[Chapter Fis 800 \(The Importation, Possession, and Use of all Wildlife\), Section 807](#)

State application for shellfish leasing/permitting:

Each applicant for a marine aquaculture license under RSA 211:62-e shall make an application as described in [Fis 807.07\(b\)](#) in writing to the executive director.

U.S. Army Corps of Engineers

Corps District(s):

New England

Corps contact(s) for shellfish aquaculture permitting:

Richard Kristoff, richard.c.kristoff@usace.army.mil

Corps website for shellfish aquaculture permitting:

[New England Regulatory/Permitting Division](#)

Corps permit for shellfish aquaculture:

[New Hampshire General Permit](#) Activity 16:

NWP 48 suspended in New England (4/13/2021).

Corps permit expiration:

18-Aug-22

Corps application for shellfish aquaculture permitting:

- Use F&G app for PGP. Details in [GP](#)
- Also submit [historical form](#)

Is there a State/Federal Joint Permit Application (JPA)?

Applicants use NH F&G application for activities which fall under the PGP, send to NHDES Wetlands Bureau.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

SVNF. Corps reviews projects according to State of NH classifications of minimal, minor and major impact projects. < 1,000 sq ft, aren't in SAS, use only transient gear, minimum depth clearance requirements. Documentation of harbormaster approval required. See permit for further details. Corps may elevate to PCN if believed appropriate.

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

PCN required. Corps reviews projects according to State of NH classifications of minimal, minor and major impact projects. Any work not eligible for SV/Minimum.

Is a Pre-Construction Notification (PCN) required?

Yes for Minor/Major Impact, may be subject to Corps' discretion for Minimal Impact.

Are there interagency meetings (state/federal)?

Yearly meetings among state agencies to discuss Vibrio concerns/importation of shellfish seed (F&G, DES, HHS).

Interagency Meeting Frequency:

Annually

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

Application procedure outline in [Fis 807.07](#)

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

Can meet with staff to discuss areas of interest (they can coordinate with other agencies to identify if the area has concerns).

Is a pre-application meeting required, encouraged, not specified?

Encouraged

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Shellfish lease/permit application fee?

Yes

On-bottom fee

\$200

Off-bottom fee

\$200

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No public scoping but public hearing required.

Summary of advertisement requirement of lease application by agency and/or applicant?

Agency pays for public hearing. Applicant responsible for sending notice of hearing to abutters and littoral owners and notice of hearing and application to other state and federal agencies.

Who pays for advertisement?

Agency (hearing, newspaper) and applicant (notice to landowners, other agencies).

Business/Operations Plan

Is a management or operations plan required with application?

Describe methodology in application.

Is a business plan required with application?

N/A

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

45 days to a couple of months depending on area.

Lease Term and Conditions

Maximum term limit for lease?

1 to 5-year license, no leases

Are renewals available?

Yes

Any renewal fee?

\$100 in addition to annual rental fee applies.

Is there an active use requirement? Any criteria to assess?

No

On-bottom active use criteria

See above.

Off-bottom active use criteria

See above.

Is there a production report requirement?

Yes.

Frequency for providing production report?

By the 10th of each month with an additional annual report by Jan. 31.

Can a shellfish aquaculture lease be transferred?

Yes.

Is there a bid process for leases?

No.

Any acreage limits?

Yes.

Limits per site

4.5 acres for bottom sites inland of General Sullivan Bridge.

Limits per person

No limits

Limits on number of lease sites a person can hold

No limits

Rental and Use Fees

Annual rental fee?

Not a true rental, but annual license fee required.

On-bottom rent

\$200 per acre for bottom culture

Off-bottom rent

\$500 per acre for suspended culture

Any shellfish aquaculture harvest surcharge? If so, what is it?

\$0.015 per oyster

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

No

Land surveyor/hydrographic survey

Agency conducts site evaluation.

Lease markering responsibility

Applicant

Biological assessment fee

N/A

Property tax

No

Present shellfish value assessment on proposed lease site?

No, site would be denied if shellfish bed(s) were present.

Additional Information Sources

Other websites of interest:

- [East Coast Shellfish Association](#)
- [NH Nature Conservancy SOAR program](#)

Definitions

State definition of aquaculture:

"Aquaculture" means the propagation and rearing of aquatic species and marine species and includes the planting, promoting of growth, harvesting and transporting of these species in, on, or from the waters of this state, or the operation of a fishing preserve.

How is on-bottom defined?

No information

Any on-bottom special conditions?

If inland of General Sullivan Bridge, maximum size of 4.5 acres.

How is off-bottom defined?

No information

Any off-bottom special conditions?

PCN required

Any alternative names of a 'lease'?

Does not assign property 'right.' Issues a license. Gear is protected by law, but marine space is a public resource.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

License may be revoked if conditions not followed or executive director believes license is against public interest.

Protected Resources and Critical Habitat Designations

Standard (see NH GP)

Essential Fish Habitat (EFH)

Standard (see NH GP)

Navigation

No unreasonable interference with navigation. Any structure or work that extends closer to the horizontal limits of a FNP than a distance 3x the authorized depth shall be subject to removal at the owner's expense prior to any Corps dredging or performance of any hydrographic surveys.

Historic resources

Historic resources [review request form](#) available.

Migratory Fish

Water column projects blocking >25% of a critical migratory fish route do not qualify for PGP.

Shellfish density threshold

Projects proposing to fill or dredge in a delineated shellfish bed do not qualify for PGP. State guidelines:

1. No bottom culture should be allowed in areas where natural populations of indigenous molluscan species are present in the following densities (or greater): a. American oyster (*Crassostrea virginica*) - ten (10) per square meter, of oysters with shell height of 50mm or more. b. Soft shell clam (*Mya arenaria*) - ten (10) per square meter of clams with shell length 50mm or more. c. Razor clam (*Ensis directus*) - ten (10) per square meter of razor clams with shell length of 75mm or more.
2. No bottom culture should be allowed where natural populations of commercially valuable crustaceans are present in the following densities (or greater); a. American lobster (*Homarus americanus*) - five (5) per 10 square meters, any size.
3. No bottom culture shall be allowed where the concentration of lobster traps (as shown by buoys) is greater than five per quarter acre during the months of June - October.

Submerged aquatic vegetation (SAV)

State guidelines: No bottom culture shall be allowed where eelgrass (*Zostera marina*) occurs in contiguous beds of 1/20 of an acre. All such eelgrass must be separated from any bottom culture operation by a 10 meter buffer zone.

Other natural resource protection measures?

State guidelines: No bottom culture should be allowed where high density benthic invertebrates exist that are important food sources for commercially or recreationally valuable finfish. Examples of such concentrations are provided. No bottom culture should be allowed in areas shown to be important for spawning of commercially or recreationally valuable species. An example of this would be an area where rainbow smelt deposit their eggs.

Riparian setback

No information.

Social capacity

N/A

Riparian Landowner Requirements**Any definition of what constitutes a riparian owner?**

- Abutter: any person whose property adjoins or is directly across a right of way from the site.
- Littoral owner: a shore front property owner who owns to the high water mark or other public/private boundary and whose property boundaries abut the site.

Any riparian owner notice requirement for lease applications?

Applicant shall send written notice to abutters and littoral owners at least 21 days prior to agency hearing.

Is applicant required to provide list of riparian owners to permitting agency?

Yes, all abutters and littoral owners.

Is any consent of riparian owner required? If so, under what condition?

Application requires a written statement that the applicant either owns or has written permission from the owner(s) to exercise any littoral right, necessary to carry out the proposed project.

Coastal Zone Management (CZM) Consistency Determination

No information

Section 401 Water Quality Certification (WQC)

[Activities covered by state GP approved](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

If there is going to be a point discharge of pollution to waters of the U.S.: NPDES Permit Application Forms 1 and 2B. If a relevant General Permit is in effect, a Notice of Intent (NOI) form should be used.

[EPA NPDES Forms](#)

For more info (and to see if you need an NPDES permit), see [state contacts](#).

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No information

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- See information in leasing section above. Annual license: \$250 for on bottom culture, \$500 for suspended culture.
- USCG PATON/coordination with CG

Any shellfish aquaculture lease/permit holder training/exam requirement?

No.

Are shellfish aquaculture leases/permits restricted to residents only?

No.

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

<5

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

35

All shellfish on bottom leases.

28

All shellfish off bottom leases.

4 (blue mussel), 3 (oyster upwellers), 2 (floating gear - oysters)

Number of oyster leases (on and off bottom).

31

Total acreage of shellfish aquaculture leases. Separate by species if available.

80.44 oysters, 8.5 blue mussels

All shellfish on bottom lease acreage.

77.7

All shellfish off bottom lease acreage.

11

Just oyster lease acreage (on and off bottom).

80.44

Total # of lease holders/individuals employed (if available)?

18

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

- Oysters: 725004 (&495421)
- Clams: No information
- Mussels: No information
- Scallops: No information
- Live Rock Harvest: No information

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- No information

New Jersey

Special Notes

The New Jersey Shellfisheries Council (Council), along with the Commissioner of the NJDEP (Commissioner), determines whether an area should be leased to an individual or should remain open for public use. As per N.J.S.A. Title 50, the Council has the exclusive authority to lease grounds in tidal waters for shellfish aquaculture with the approval of the Commissioner. The Council is comprised of two sections, Atlantic Coast section and Delaware Bay section, with representation from licensed commercial shellfishermen, by county of residence, appointed by the Governor. The Bureau of Shellfisheries acts on behalf of the Commissioner to manage the industry and protect the State's shellfish resources and marine habitats in accordance with N.J.S.A. Title 50 and N.J.A.C. 7:25A. The Bureau of Shellfisheries is responsible for managing shellfish leases by conducting biological surveys, reports, conducting hydrographic surveys, maintaining maps and databases, and processing all lease transactions (e.g., agreements, transfers, renewals etc.).

Tribal

No tribal leasing.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No municipality leasing.

Local municipality website for shellfish aquaculture leasing/permitting:

n/a

Local municipality application for shellfish aquaculture leasing/permitting:

n/a

State Government

State lead agency for shellfish aquaculture leasing/permitting:

- Department of Environmental Protection (DEP), Division of Fish and Wildlife, Bureau of Shellfisheries administers the leasing program, which includes shellfish licenses, and provides biological advice to Councils.
- Delaware Bay or Atlantic Coast Section of NJ Shellfisheries Council approves all leases upon concurrence of DEP Commissioner.
- Department of Agriculture provides technical and promotion support.
- The Bureau of Marine Water Monitoring (BMWM) issues permits for shellfish harvesting in NJ waters, this includes permits for shellfish research, for shellfish restoration and enhancement, for toxins monitoring in shellfish, and for shellfish aquaculture.
- Permits and/or a Tidelands License may also be required from the NJDEP's Division of Land Resource Protection for certain commercial shellfish aquaculture activities depending on location and type of gear used. The permit type varies depending on the project scope.

State agency contact(s) for shellfish aquaculture leasing/permitting:

- Megan Kelly, 609-748-2020, megan.kelly@dep.nj.gov
- Amanda Wenczel, 609-984-2502, amanda.wenczel@ag.state.nj.us

State agency website(s) for aquaculture leasing/permitting:

- [DEP F&W Bureau of Shellfisheries](#)

- [Dept of Agriculture, New Jersey Aquaculture](#)
- [BMW, National Shellfish Sanitation Program](#)
- [Division of Land Resource Protection](#)

State shellfish aquaculture leasing/permitting law(s):

- [Shellfish Aquaculture Leasing Policy of the Atlantic Coast Section of the New Jersey Shellfisheries Council](#): N.J.S.A. Title 50

State shellfish aquaculture leasing/permitting regulation(s):

- [Shellfish Aquaculture Leasing Policy of the Atlantic Coast Section of the New Jersey Shellfisheries Council](#): N.J.A.C 7:12-8, 7:12-9, 7:25-24, 7:25A
- [Resolution Concerning Aquaculture License Fees Assessed by the Tidelands Resource Council](#)

State application for shellfish leasing/permitting:

Must contact Bureau of Shellfisheries for a lease application (not available online).

U.S. Army Corps of Engineers

Corps District(s):

New York and Philadelphia

Corps contact(s) for shellfish aquaculture permitting:

- NY: 917-790-8007
- [Philadelphia District Contacts](#)

Corps website for shellfish aquaculture permitting:

- [NY Nationwide Permits](#)
- [Philadelphia Nationwide Permits](#)

Corps permit for shellfish aquaculture:

Both Districts use NWP 48 with regional conditions:

- [NY Nationwide Permits](#)
- [Philadelphia Nationwide Permits](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

- [NY District Forms](#)
- [Philadelphia District Forms](#)

Is there a State/Federal Joint Permit Application (JPA)?

No. Corps and DEP don't coordinate review of applications.

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes (NJ regional conditions).

Are there interagency meetings (state/federal)?

State and Federal agencies meet on a case by case basis for joint permit planning meetings, but the applicant sends information directly to Corps separately from the State permitting process.

Interagency Meeting Frequency:

N/A

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

- [A Guide to Aquaculture in New Jersey](#) includes both fish and shellfish, state application instructions, business planning advice, finance information, contacts and resources.
- DEP is working on guides at this time, but they are not yet available for public use.

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- Atlantic Coast area has some maps that can be used for operational plan [in their policy document](#).
- DEP is also working with Rutgers University on a project to develop a GIS-based commercial aquaculture siting tool.

Is a pre-application meeting required, encouraged, not specified?

Encouraged.

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Shellfish lease/permit application fee?

Yes

On-bottom fee

\$250

Off-bottom fee

\$250

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

All shellfish applications are publicly vetted at Shellfisheries Council meetings.

Summary of advertisement requirement of lease application by agency and/or applicant?

n/a

Who pays for advertisement?

n/a

Business/Operations Plan

Is a management or operations plan required with application?

- Yes via [Aquatic Farmer License Application I](#)
- Required for Aquatic Farmers License

Is a business plan required with application?

No, not currently required for lease application.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Best is 3 months; normal is 6 months; long is 8-12 months.

Lease Term and Conditions

Maximum term limit for lease?

Annual renewal.

Are renewals available?

Annually

Any renewal fee?

Annual \$100 lessee renewal fee applies in addition to the lease fee per acre.

Is there an active use requirement? Any criteria to assess?

- Both Atlantic Coast and Delaware Bay shellfisheries councils have Leasing Committees which are discussing the topic of utilization criteria. The Leasing Committees make recommendations to the Council for decision.
- Currently, no active use requirements to assess utilization. As part of a complete annual lease renewal application it is required to submit a [shellfish lease utilization report](#) detailing the number of days worked during lease term.

On-bottom active use criteria

See above

Off-bottom active use criteria

See above

Is there a production report requirement?

Utilization report required at lease renewal.

Frequency for providing production report?

Annually

Can a shellfish aquaculture lease be transferred?

- Yes, \$5.00 per lease, \$1.00 per additional lease (i.e. 3 leases = \$7.00)
- Lease is non-transferrable on ADZ

Is there a bid process for leases?

No, but lottery for ADZ area.

Any acreage limits?

Yes.

- 2 acre max on Atlantic Coast
- 200 acre max on Delaware Bay

Limits per site

No information.

Limits per person

Can only have one active application for a new lease at a time.

Limits on number of lease sites a person can hold

No

Rental and Use Fees

Annual rental fee?

Yes

On-bottom rent

- Atlantic Coast: Annual Lease Fee \$2 per acre or 100 linear foot (\$5 min.)
- Delaware Bay: Annual Lease Fee \$0.50 per acre
- ADZ: Annual Lease Fee \$100.00 per acre

Off-bottom rent

- Atlantic Coast: Annual Lease Fee \$2 per acre or 100 linear foot (\$5 min.)
- Delaware Bay: Annual Lease Fee \$0.50 per acre
- ADZ: Annual Lease Fee \$100.00 per acre

Any shellfish aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

No information.

Land surveyor/hydrographic survey

Hydrographic survey: \$30/corner

Lease markering responsibility

Applicant

Biological assessment fee

\$15

Property tax

n/a

Present shellfish value assessment on proposed lease site?

No

Additional Information Sources

Other websites of interest:

- [Atlantic Coast Section Shellfish Aquaculture Leasing Policy](#)

- [Update of Development Plan](#)
- Rutgers Cooperative Extension: [BMP for Aquatic Farmers](#)
- [East Coast Shellfish Association](#)
- [Tidelands Shellfish Aquaculture Policy](#)

Definitions

State definition of aquaculture:

The propagation, rearing, and subsequent harvesting of aquatic organisms in controlled or selected environments, and the subsequent processing, packaging and marketing, and shall include, but need not be limited to, activities to intervene in the rearing process to increase production such as stocking, feeding, transplanting and providing for protection from predators. "Aquaculture" shall not include the construction of facilities and appurtenant structures that might otherwise be regulated pursuant to any State or federal law or regulation (Statute 4:27-3).

How is on-bottom defined?

No gear/structure

Any on-bottom special conditions?

No

How is off-bottom defined?

Water column gear

Any off-bottom special conditions?

No

Any alternative names of a 'lease'?

No

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

No information

Protected Resources and Critical Habitat Designations

- NY and Philadelphia regional condition for applicant to provide documentation in PCN that they have followed the [US FWS protected resource guidance document](#).
- [USFWS national mapping tool](#) to determine if there are protected resources in project area.
- [Biological opinion on aquaculture and the red knot](#).

Essential Fish Habitat (EFH)

Standard

Navigation

Standard

Historic resources

Standard, included within application review

Migratory Fish

No information

Shellfish density threshold

- Leases not approved in areas of moderate and high shellfish density.
- Hard clam productivity survey to classify area as high, medium or low density.
- Permission to import shellfish product into the State of New Jersey is required per N.J.S.A. 50:1-34 and 1-35. State statute states that no shellfish brought from any other state or foreign country shall be planted in State waters without prior written permission from the Commissioner of the Department of Environmental protection (DEP).

Submerged aquatic vegetation (SAV)

Leases not approved where SAV is observed, DEP opposes if any SAV present (due to NJAC 7.7-9.6). Historic mapping exists, modern mapping more limited.

Other natural resource protection measures?

No information.

Riparian setback

None

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

Lease applications are publicly vetted through the Shellfisheries Councils.

Is applicant required to provide list of riparian owners to permitting agency?

- Public notice requirements depend on permitted activity for Division of Land Resource Protection and Tidelands Resource Council.
- NY District recommends applicant include with PCN answers to an [Environmental Questionnaire](#).

Is any consent of riparian owner required? If so, under what condition?

Public notice requirements depend on permitted activity for Division of Land Resource Protection and Tidelands Resource Council.

Coastal Zone Management (CZM) Consistency Determination

- NY District has a [NJ Coastal Zone consistency form](#) for applicant.

Section 401 Water Quality Certification (WQC)

New Jersey denied CZMA certification and Section 401 water quality certification for all ACOE Nationwide Permits. Therefore, prior to applying for a Nationwide Permit or for the Nationwide Permit to be considered valid, the activity must be authorized under a waterfront development permit and Water Quality Certificate issued by the NJDEP. The waterfront development permit is the CZMA consistency certification and water quality certificate.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#)

NJPDES permit needed if point discharge; fees apply; however, check with govt., as some exemptions from this requirement exist.

[NJPDES Permit Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

n/a

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- [Tidelands License](#).
- No fee [aquaculture farmers license](#) and consolidated shellfish applications.
- In addition, no fee for [shellfish importation applications](#).

Any shellfish aquaculture lease/permit holder training/exam requirement?

[Shellfish Harvester Training](#) (annually)

Are shellfish aquaculture leases/permits restricted to residents only?

Yes (N.J.S.A. 50:1-25)

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

>50 a year

All shellfish species

n/a

Oyster

n/a

All shellfish on bottom lease applications

n/a

All shellfish off bottom lease applications

n/a

Number of complete shellfish applications currently in review?

>50

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

- Atlantic Coast (2019): 921
- Delaware Bay (2020): 935

All shellfish on bottom leases.

n/a

All shellfish off bottom leases.

n/a

Number of oyster leases (on and off bottom).

n/a

Total acreage of shellfish aquaculture leases. Separate by species if available.

- Atlantic Coast (2019): 2,359.85 acres (32,947.74 linear ft)
- Delaware Bay (2020): 32,090 acres

All shellfish on bottom lease acreage.

n/a

All shellfish off bottom lease acreage.

n/a

Just oyster lease acreage (on and off bottom).

n/a

Total # of lease holders/individuals employed (if available)?

- Atlantic Coast (2019): 187
- Delaware Bay (2020): 73

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

n/a

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

No information.

New York

Special Notes

Suffolk County was required to prepare a generic EIS to comply with SEQA. Suffolk County also conducting ongoing monitoring to assess environmental impacts of leasing program. Town of Islip interested applicants are on waiting list of 183 individuals (6/8/21).

Tribal

If on federally recognized tribal lands or the Saint Regis Mohawk Tribal land, WQC is denied and must be applied for.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Local where State ceded land conveyance. Suffolk County has comprehensive program. Also see Brookhaven for its own systems.

Local municipality website for shellfish aquaculture leasing/permitting:

- [Suffolk County](#)
- [Town of Islip](#)
- [Brookhaven](#)

Local municipality application for shellfish aquaculture leasing/permitting:

[Suffolk County](#)

State Government

State lead agency for shellfish aquaculture leasing/permitting:

Department of Environmental Conservation, Division of Marine Resources (NYSDEC)

State agency contact(s) for shellfish aquaculture leasing/permitting:

- Jennifer O'Dwyer, 631-444-0489, jennifer.odwyer@dec.ny.gov
- Shellfish: 631-444-0477, fw.marine@dec.ny.gov

State agency website(s) for aquaculture leasing/permitting:

[NYSDEC: Aquaculture Permits](#)

State shellfish aquaculture leasing/permitting law(s):

- [ENV Article 13, Title 3 \(Marine Fisheries\)](#)
- [New York Statutes](#)

State shellfish aquaculture leasing/permitting regulation(s):

- [6 CRR-NY I F 48: Marine Hatcheries, On-Bottom and Off-Bottom Culture of Marine Plant and Animal Life](#)

State application for shellfish leasing/permitting:

- [On/Off-Bottom Culture Permit](#)
- [NY "Obtaining a Permit" page](#)

U.S. Army Corps of Engineers

Corps District(s):

New York

Corps contact(s) for shellfish aquaculture permitting:

917-790-8511, cenan-r-permit-app@usace.army.mil

Corps website for shellfish aquaculture permitting:

[NY Nationwide Permits](#)

Corps permit for shellfish aquaculture:

- [NWP 48](#)
- [NY NWP 48 Regional Conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

See "[Joint Application for Permit](#)"

Is there a State/Federal Joint Permit Application (JPA)?

Yes, see "[Joint Application for Permit](#)"

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes if activity affects more than 1/2-acre of SAV (also see regional conditions regarding EFH).

Are there interagency meetings (state/federal)?

State & County/Town Meetings.

Interagency Meeting Frequency:

1-2 times annually.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

- State/Corps [lease application instruction form](#)
- [Suffolk County](#) (good, various web pages including process overview, application, laws)

Process flowchart available?

Yes for Suffolk County; in prep for state

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- Suffolk County has [interactive lease map with NOAA depths](#)

- More Suffolk [program maps](#)

Is a pre-application meeting required, encouraged, not specified?

Required for Suffolk County; available for NYSDEC if desired.

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Shellfish lease/permit application fee?

Yes (Brookhaven has a fee of undisclosed amount per sec. 57-40(A)(6) of town codes Article VII).

On-bottom fee

- Suffolk Cty: \$100
- NYSDEC: On/Off-Bottom Culture permit: \$100; Shellfish Digger permit (resident): \$50.

Off-bottom fee

- Suffolk Cty: \$100
- NYSDEC: On/Off-Bottom Culture permit: \$100; Shellfish Digger permit (resident): \$51.

Is applicant fee returned if denied?

- Suffolk Cty: non-refundable
- NYSDEC: yes

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

- Suffolk county: Yes
- NYSDEC: No

Summary of advertisement requirement of lease application by agency and/or applicant?

- Suffolk County: 60 day public comment period and 2 Aquaculture Lease Board public meetings
- 30-day public comment period for NYSDEC Temporary Marine Area Use Assignments (TMAUA) on state-owned underwater lands

Who pays for advertisement?

NYSDEC: No cost

Business/Operations Plan

Is a management or operations plan required with application?

Yes, cultivation/operational plan required by state.

Is a business plan required with application?

Business entities must demonstrate "active" status in good standing.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

- Suffolk County: 9-12 months
- NYSDEC permitting time frame generally contingent on access (Suffolk Co., Towns) and other permitting agency timeframes (USACE)

Lease Term and Conditions

Maximum term limit for lease?

- Suffolk Cty: 10 years
- Brookhaven: 5 years

Are renewals available?

Yes

Any renewal fee?

- Suffolk County: \$100 application fee + annual lease rental fee

- NYSDEC: On/Off-Bottom Culture permit: \$100; Shellfish Digger permit (resident): \$50

Is there an active use requirement? Any criteria to assess?

- Yes in Suffolk County (if no substantial activity for two years) unless excused by a hardship exemption
- Brookhaven: lease revoked if not growing species for 3 years
- Not for NYSDEC permits or TMAUAs

On-bottom active use criteria

See above

Off-bottom active use criteria

See above

Is there a production report requirement?

- Suffolk County: Yes, [leaseholder annual report form](#)
- State: Yes, report to NYSDEC

Frequency for providing production report?

- Suffolk County: Annual
- State: Monthly
- Brookhaven: Biannual

Can a shellfish aquaculture lease be transferred?

- Suffolk County: Yes
- State: Franchises not transferable (sec. 13-0303)
- Brookhaven: No

Is there a bid process for leases?

Yes, however no formal leasing program with regulations has been adopted.

Any acreage limits?

Yes

Limits per site

- Suffolk County: 5 to 10 acres
- Town of Islip: 1 to 5 acres
- 5 acres for NYSDEC TMAUAs

Limits per person

NYSDEC: 1 TMAUA per individual or business entity, though acreage could be split between multiple sites not exceeding 5 acres total.

Limits on number of lease sites a person can hold

- Suffolk County: 2 per person
- NYSDEC: 1 TMAUA per individual or business entity

Rental and Use Fees

Annual rental fee?

- Suffolk County: Yes
- NYSDEC: No

On-bottom rent

Suffolk County: \$200 plus \$5/acre

Off-bottom rent

Suffolk County: \$200 plus \$5/acre

Any shellfish aquaculture harvest surcharge? If so, what is it?

NYSDEC: No

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

NYSDEC: No

Land surveyor/hydrographic survey

- Suffolk: Will be completed by licensed land surveyor
- NYSDEC: No

Lease markering responsibility

Applicant

Biological assessment fee

Applicant, if applicable. May be required by Town/NYSDEC/USACE for shallow sites <6' MLW.

Property tax

No

Present shellfish value assessment on proposed lease site?

No

Additional Information Sources

Other websites of interest:

- [NY Suffolk County Shellfish Aquaculture Management Plan](#)
- [East Coast Shellfish Association](#)

Definitions

State definition of aquaculture:

Culture or cultivation means the controlled or partially controlled raising, breeding, growing, planting and containment of marine plant or animal life in any marine hatchery or through on-bottom or off-bottom culture.

How is on-bottom defined?

The raising, breeding, growing or planting of marine plant or animal life on, or in, any natural underwater lands of the State.

No containment; shellfish on or in bay bottom.

Any on-bottom special conditions?

- Additional supplementary details needed for application
- No seed/shellfish planted on or in bottom (not in cages) in TMAUAs

How is off-bottom defined?

The raising, breeding or growing of marine plant or animal life, including containment on, or in, any raft, rack, float, cage, box or other similar device or structure in any natural waters of the State.

Any off-bottom special conditions?

Additional supplementary details needed for application, including a bird mitigation plan only if floating cages/bags or other infrastructure.

Any alternative names of a 'lease'?

- Grant or legal control (state waters)
- For NYSDEC: Temporary Marine Area Use Assignment (TMAUA or "Assignment")

Special Natural Resource and Social Permit Conditions**Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?**

Bird deterrents and lighted buoys/markers (and thus, USCG PATON permits) for floating cages or other floating gear/infrastructure.

Note: [Suffolk County prepared an EIS to comply with SEQRA](#)

Protected Resources and Critical Habitat Designations

- NYSDEC evaluates Suffolk Co. lease program every ten years for EFH significance based on finfish trawl survey data for that period and identifies areas where leases are unlikely to be permitted due to high CPUE.
- Corps provides an incident reporting form for sea turtles and other protected species. [More info on Corps regulations.](#)

Essential Fish Habitat (EFH)

See above.

Navigation

- Typically 100' setback from FNPs.
- For NYSDEC TMAUAs, nothing in law or regulation but siting is done in consultation with agency on a case-by-case basis and final site published in public notice is believed to be free of conflict.
- Brookhaven: 100' from marked/unmarked navigation channels.
- CT DEEP Boating Safety Division will monitor.

Historic resources

For NYSDEC TMAUAs: some areas in LIS off limits for siting due to historic shellfish (hard clams, oysters, surfclams) productivity.

Migratory Fish

See above for Suffolk County.

Shellfish density threshold

- Suffolk County: If an objection based on natural hard clam (*Mercenaria mercenaria*) productivity is deemed credible by the Aquaculture Lease Board, the Aquaculture Lease Board may find that a proposed lease site is conditionally eligible, as provided in the Administrative Guidance.
- [Hard Clam Productivity Survey Protocol](#)
- State and Suffolk waters cannot be leased in the "presence of shellfish in sufficient quantity and quality and so located as to support significant hand raking or tonging harvesting" (Article 13, Title 3, Sec. 13-0301, 13-0302).

Submerged aquatic vegetation (SAV)

- Benthic survey requirement for new sites in Town access programs <6' MLW
- Corps regional condition does not authorize lease within SAV if project is in EFH area
- Brookhaven leases may not be within seagrass bed

Other natural resource protection measures?

[NY Regional Conditions](#)

Riparian setback

- State law establishes no leasing within 1,000 of high water mark for Suffolk Cty. NYSDEC TMAUAs must also be 1,000 ft from shore and 1 mile from nearest TMAUA.
- Brookhaven must be 375ft seaward from any private property line.

Social capacity

- Suffolk County has max. total acreage of 600 acres. See Suffolk lease conditions for other criteria.
- Islip has max. 100 acres.
- NYSDEC TMAUA program is very small (approx. ten 5-acre sites with many inactive) relative to area (Long Island and Block Island Sounds).

Riparian Landowner Requirements**Any definition of what constitutes a riparian owner?**

NYSDEC: not in mariculture laws or regulations.

Any riparian owner notice requirement for lease applications?

- Suffolk Cty requires two month public notice.
- By NYSDEC for TMAUA: No. Public Notice and map sent to adjacent Long Island Town government for comment.

Is applicant required to provide list of riparian owners to permitting agency?

- Provide names and addresses in [Corps Environmental Questionnaire](#) that goes with Joint State/Corps application.
- By NYSDEC for TMAUA: No. Applicant follows other involved agency requirements of joint application.

Is any consent of riparian owner required? If so, under what condition?

By NYSDEC for TMAUA: No.

Coastal Zone Management (CZM) Consistency Determination

- [NYSDOS reviews all apps for CZM consistency](#) with NWP 48.
- [Federal consistency assessment form](#) to comply with state CZM.

Section 401 Water Quality Certification (WQC)

- [DEC provided WQC for NWP 48 with conditions](#), including not being used for expansion of aquaculture activities into new areas of a project.
- NYSDEC does not require WQC as part of On/Off-Bottom Shellfish Culture permitting process.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[SPDES Permit Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- NY DEC \$100 annual culture permit.
- [Full state checklist](#), including:
 - USACE JPA
 - Federal Consistency Assessment Form
 - USCG PATON
 - SEAF 1
- [\\$50 annual commercial harvest license](#) (\$150 non-residents)
- Marine hatchery permit for land-based or floating (fixed to dock/bulkhead) upwelling/nursery systems, fee: \$100.
- Importation permit for out-of-state seed or shellstock (limited to sources from CT to ME), no fee.
- Seed relay permit for moving seed between nursery and grow-out site subject to season and shell size restrictions, no fee.
- Transplant permit for movement of market-size shellfish between sites, with significant supervision fees if source area is classified as uncertified (restricted), rarely occur.

Any shellfish aquaculture lease/permit holder training/exam requirement?

Shellfish Harvester Certification Training (for all shellfish digger permit holders).

Are shellfish aquaculture leases/permits restricted to residents only?

No (except in Brookhaven Town's Mariculture Leasing Program).

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

For NYSDEC TMAUAs: average of 1 per year for this period.

All shellfish species

Applicants often include other shellfish species. on applications, but production reports show it's all oysters.

Oyster

All oyster except for 2 permittees.

All shellfish on bottom lease applications

0

All shellfish off bottom lease applications

9

Number of complete shellfish applications currently in review?

1

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

2019: 79 permits issued, which closely approximates number of sites though a few growers do have multiple sites.

All shellfish on bottom leases.

2 permits involve active on-bottom culture.

All shellfish off bottom leases.

78 permits involve active off-bottom culture.

Number of oyster leases (on and off bottom).

79 permits/approximately 79 sites.

Total acreage of shellfish aquaculture leases. Separate by species if available.

2019: 2,811.6 acres; without large, historical on-bottom operation in one LI Town: 1,163.8 acres.

All shellfish on bottom lease acreage.

Approximately 2,000 acres.

All shellfish off bottom lease acreage.

Approximately 950 acres.

Just oyster lease acreage (on and off bottom).

2,811.6 acres.

Total # of lease holders/individuals employed (if available)?

2019: 79 permits issued, one permit per operation even if multiple sites.

Harvest and Value (2020 unless otherwise noted)**Harvest and value of shellfish aquaculture.**

- Oysters: 5,993,860 pcs (2019)
- Clams: 1 permit only; cannot be disseminated due to confidentiality of commercial fishery landings data
- Mussels: 0
- Scallops: 0
- Live Rock Harvest: 0

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- For oysters, estimated at approximately \$3 million at average of \$0.50 per piece.

North Carolina***Special Notes***

Applications accepted annually from March 1 through August 1.

Tribal

No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights. Any work on Eastern Band of Cherokee Indians trust land must comply with MOU between Corps and EBCI. May need a Tribal Approval Letter.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

n/a

Local municipality website for shellfish aquaculture leasing/permitting:

n/a

Local municipality application for shellfish aquaculture leasing/permitting:

n/a

State Government

State lead agency for shellfish aquaculture leasing/permitting:

Department of Environmental Quality, Marine Fisheries Division, Habitat and Enhancement Section, Shellfish Lease and Aquaculture Program

State agency contact(s) for shellfish aquaculture leasing/permitting:

Owen Mulvey-McFerron, Shellfish Lease and Aquaculture Program Coordinator, 252-269-3082, owen.mulvey-mcferron@ncdenr.gov

State agency website(s) for aquaculture leasing/permitting:

[NCDEQ Shellfish Lease and Franchise](#)

State shellfish aquaculture leasing/permitting law(s):

[Chapter 113, Article 16](#) (Cultivation of Shellfish)
15A NCAC 030.0201-0211, G.S. 113-201 to 210, 215 to 218

State shellfish aquaculture leasing/permitting regulation(s):

Title 15A (Env. Quality) - [Chapter 3](#) (subchapter K, O) and Chapter 18

State application for shellfish leasing/permitting:

[Lease and Permitting Program](#)

U.S. Army Corps of Engineers

Corps District(s):

Wilmington

Corps contact(s) for shellfish aquaculture permitting:

910-251-4625

Corps website for shellfish aquaculture permitting:

[Wilmington Corps Permits](#)

Corps permit for shellfish aquaculture:

[NWP 48 regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

PCN Form ENG 6082 or [PCN e-version](#) (preferred)

Is there a State/Federal Joint Permit Application (JPA)?

No

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

The permittee must submit a pre-construction notification to the district engineer if: (1) the activity will include a species that has never been cultivated in the waterbody; or (2) the activity occurs in a project area shellfish aquaculture activities during the past 100 years that has not been used for commercial.

Are there interagency meetings (state/federal)?

As needed

Interagency Meeting Frequency:

As needed

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

State application provides a good overview of permitting process. NWP 48 permit conditions are integrated into state lease approval process. DMF and Corps have existing agreements for thresholds for SAV density. If lease application is approved by DMF, it is also approved by Corps.

Process flowchart available?

Yes

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- Lease siting tool available [on program website](#)
- [NC Shellfish Siting Tool](#) run by UNC Wilmington

Is a pre-application meeting required, encouraged, not specified?

Strongly encouraged.

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Shellfish lease/permit application fee?

Yes

On-bottom fee

\$200

Off-bottom fee

\$100

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

DMF organizes public hearing by county, mandatory step in the application process.

Summary of advertisement requirement of lease application by agency and/or applicant?

Agency required to issue two notices in newspaper in county of lease application. First notice shall be 20+ days before hearing followed by second notice 7 to 11 days after first. Press release made.

Who pays for advertisement?

Agency

Business/Operations Plan

Is a management or operations plan required with application?

Yes. Form template included in application.

Is a business plan required with application?

Basic information included with management plan.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Barring any major modifications or additional agency approvals during the internal review, time from application submission to final approval is around 12 months. However, this varies based on any issues that arise during the process and overall number of applications processing (workload of staff).

Lease Term and Conditions

Maximum term limit for lease?

10 years

Are renewals available?

Yes.

Any renewal fee?

\$100

Is there an active use requirement? Any criteria to assess?

Yes, based on production minimums

Conversions:

Clams/scallops: 1 bu. = 400 count

Oysters: 1 bu. = 300 count

On-bottom active use criteria

- No gear: Plant 15,000 seed/acre/year or harvest average 20 bushels/acre
- Gear use: Plant 23,000 seed/acre/year or harvest an average 20 bushels/acre

Off-bottom active use criteria

Plant 23,000 seed/acre/year or harvest an average. 50 bushels/acre

Is there a production report requirement?

Yes

Frequency for providing production report?

Annually

Can a shellfish aquaculture lease be transferred?

Yes

Is there a bid process for leases?

No

Any acreage limits?

Yes

Limits per site

Minimum 0.5 acres, maximum 10 acres

Limits per person

50 acres

Limits on number of lease sites a person can hold

No. Only limits acreage.

Rental and Use Fees

Annual rental fee?

Yes (prorated for the first year).

On-bottom rent

\$10/acre/year (\$1/acre for first year)

Off-bottom rent

\$100/acre/year

Any shellfish aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

All aquaculture permits are free of charge.

Land surveyor/hydrographic survey

Survey not required but suggested (applicant cost). Agency will collect GPS coordinates of corner markers.

Lease markering responsibility

Applicant (agency supplies temporary markers during application process).

Biological assessment fee

n/a, completed by agency

Property tax

None

Present shellfish value assessment on proposed lease site?

None

Additional Information Sources

Other websites of interest:

- Corps has [useful ESA consultation and resource web page](#)
- [North Carolina Sea Grant](#) can provide valuable assistance in helping you determine capital investment, lease size, grow-out methods, seed sources, etc.
- [East Coast Shellfish Association](#)

Definitions

State definition of aquaculture:

G.S. 113-215. Definitions. In addition to the definitions in G.S. 113-128 and G.S. 113-129, the following definitions shall apply in this Article:

1. Marine aquaculture. The propagation and rearing of marine aquatic species in controlled or selected environments, including, but not limited to, ocean ranching, marine hatcheries, and other deep water fish farming operations in the coastal fishing waters of the State and, to the extent not inconsistent with federal law, to the limits of the United States exclusive economic zone, as that term is defined in the Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1801, et seq.
2. Marine aquaculture lease. A lease of the public bottom and superjacent water column granted by the Secretary for marine aquaculture.
3. Marine aquatic species. Any species of finfish, mollusk, crustacean, or other aquatic invertebrate, amphibian, reptile, or aquatic plant, and including, but not limited to, "fish" and "fishes," as defined in G.S. 113-129(7), found exclusively or for part of its life cycle in coastal fishing waters. (2017- 190, s. 1.)

How is on-bottom defined?

On or within 18" from bottom.

Any on-bottom special conditions?

No information.

How is off-bottom defined?

Above or more than 18" from bottom.

Any off-bottom special conditions?

No information.

Any alternative names of a 'lease'?

Franchise: A lease is a piece of public trust bottom for 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. Because franchise owners have deeded rights to the bottom, some of the lease and franchise rules differ. Statutes now prohibit granting private deeds on public trust bottom.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

SAV density threshold.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard (cannot block marked/unmarked channels, if need for removal must cover expense, etc.)

Historic resources

Standard

Migratory Fish

Standard

Shellfish density threshold

Lease area may not contain or be within 10 ft of a natural shellfish bed/area with 10 or more bushels/acre.

Submerged aquatic vegetation (SAV)

Cannot have lease in area where SAV covers 15%+ of the area (will be checked for historical presence of SAV and SAV density). Cannot use mechanical gear to harvest within 100 ft of SAV. Sample April-October

Other natural resource protection measures?

May not be within 20 ft of a vegetated marsh (5 ft for cultch-on-bottom only) to allow public access.

Riparian setback

>100 ft unless written consent (increases to 250' beginning June 2022).

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

The holder(s) of the fee title to land that is bordered by waters of an arm of the sea or any other navigable body of water. (Statute: 113-201.1)

Any riparian owner notice requirement for lease applications?

Applicant is required to notify applicant and have them sign an acknowledgement form (within 500 ft).

Is applicant required to provide list of riparian owners to permitting agency?

Only on Corps IP.

Is any consent of riparian owner required? If so, under what condition?

Yes, for leases within 100 ft (increases to 250 ft beginning June 2022).

Coastal Zone Management (CZM) Consistency Determination

[NC Division of Coastal Management concurrence letter](#) granting CZM consistency for all 2021 NWP.

Section 401 Water Quality Certification (WQC)

- [General WQC issued](#)
- [Additional EBCI WQC issued](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[NC NPDES Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

Yes

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

[Commercial Fishing License Information](#)

- Harvesting shellfish requires one of the following: Shellfish License (\$50), Standard Commercial Fishing License with Shellfish Endorsement (\$400), or Retired Standard Commercial Fishing License with Shellfish Endorsement (\$200)
- Commercial Fishing Vessel Registration (fee per foot)
- Aquaculture Operations Permit (no fee)
- Importation Permit for out of state seed
- Mechanical Harvest Permit

Any shellfish aquaculture lease/permit holder training/exam requirement?

Required training

Are shellfish aquaculture leases/permits restricted to residents only?

Yes

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

~80 applications/year on average since 2017

All shellfish species

Oysters and clams.

Oyster

Diploid and triploid

All shellfish on bottom lease applications

29 from 2020 onward

All shellfish off bottom lease applications

25 from 2020 onward

Number of complete shellfish applications currently in review?

39

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

381 (including franchises/research)

All shellfish on bottom leases.

232

All shellfish off bottom leases.

97

Number of oyster leases (on and off bottom).

n/a

Total acreage of shellfish aquaculture leases. Separate by species if available.

2073 (including franchises/research)

All shellfish on bottom lease acreage.

1,241

All shellfish off bottom lease acreage.

296

Just oyster lease acreage (on and off bottom).

n/a

Total # of lease holders/individuals employed (if available)?

n/a

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

n/a

- Oysters: 117,439 bu, \$3,294,142
- Clams: 698 bu, \$53,658
- Mussels: n/a
- Scallops: n/a
- Live Rock Harvest: n/a

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- n/a

Northern Mariana Islands (CNMI)

Special Notes

- All aquaculture, mariculture and silviculture that have the potential to directly and significantly impact coastal resources are processed through the DCRM Saipan office as Major Siting projects, regulations and definitions pertaining to the application and permit process can be found at Admin Code (cnmilaw.org), Title 15, Chapter 15-10. of the Coastal Resources Management Regulations, Part 500 § 15-10-501 and § 15-10-020. While information is provided for Major Siting Projects, aquaculture with few to no impacts may instead be categorized as Use Priorities. Speak to DCRM about the scale of your project.
- May need legislature's approval for submerged land matters (Title 2, Division 1, Sec. 1223); speak with DNR before starting your project.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Zoning Permit required in Saipan by the Commonwealth Zoning Board; zoning needed in Saipan before Major Siting Permit done.

Local municipality website for shellfish aquaculture leasing/permitting:

[Commonwealth Zoning Board](#)

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

- Bureau of Environmental and Coastal Quality, Division of Coastal Resource Management handles Major Siting Permit.
- Department of Natural Resources, Division of Fish and Wildlife, handles submerged lands leasing.

State agency contact(s) for shellfish aquaculture leasing/permitting:

- BECQ-DCRM: Sam Sablan, 670-664-8301, ssablan@dcrm.gov.mp
- For submerged land lease for aquaculture, apply to: Division of Fish and Wildlife Department of Natural Resources Lower Base, Tanapag Saipan, MP 96950

State agency website(s) for aquaculture leasing/permitting:

No information.

State shellfish aquaculture leasing/permitting law(s):

- [Commonwealth Code](#)
- Title 2 (Natural Resources), Division 1 (Maritime and Coastal Resources): [2 CMC 1, § 1201](#)

State shellfish aquaculture leasing/permitting regulation(s):

- [145-60-505: Aquaculture](#)
- [Major Siting Permit Guide](#), pg. 14
- [Chapter 15-10: Coastal Resource Management Rules and Regulations](#)

State application for shellfish leasing/permitting:

For submerged land lease for aquaculture, apply to:
Division of Fish and Wildlife Department of Natural Resources Lower Base
Tanapag Saipan, MP 96950

U.S. Army Corps of Engineers

Corps District(s):

Honolulu

Corps contact(s) for shellfish aquaculture permitting:

808-835-4303

Corps website for shellfish aquaculture permitting:

[Honolulu Nationwide Permits](#)

Corps permit for shellfish aquaculture:

NWP 48; [Regional conditions](#) (no special conditions)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

PCN. Can use [form ENG 6082](#).

Is there a State/Federal Joint Permit Application (JPA)?

N/A

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes for activities specified in NWP 48 (if activity affects more than 1/2-acre of SAV).

Are there interagency meetings (state/federal)

No information.

Interagency Meeting Frequency:

No information.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

[Know your CRM: Major Siting Permit](#)

Process flowchart available?

A number of flow charts and diagrams on the Major Siting Permit scattered through guide (pg. 9, 17, 49, 55) on various aspects of the process.

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Maps for public permitting and areas of particular concern](#)

Is a pre-application meeting required, encouraged, not specified?

Required by DCRM (encouraged by Corps).

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Shellfish lease/permit application fee?

- Leases: [Chapter 145-60-401](#); minimum \$25, but rises with price
- Major Siting Permit: \$200 to \$2,000 based on construction costs; fee can be reduced if environmental BMPs incorporated

On-bottom fee

No information.

Off-bottom fee

No information.

Is applicant fee returned if denied?

No information.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Public hearing required for both lease and for Major Siting Projects.

Summary of advertisement requirement of lease application by agency and/or applicant?

- Lease: Department schedules public meeting and notifies via a local newspaper 2+ weeks before the meeting.

- Major Siting: 2 public notice periods.

Who pays for advertisement?

Department

Business/Operations Plan

Is a management or operations plan required with application?

Yes, extensive project description needed.

Is a business plan required with application?

No information.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information.

Lease Term and Conditions

Maximum term limit for lease?

25 years.

Are renewals available?

Yes, can renew or can also extend conveyance by up to 15 years during last 5 years of term.

Any renewal fee?

No information.

Is there an active use requirement? Any criteria to assess?

Lease can be terminated if contractual obligations are not being complied with and corrective action is not taken.

On-bottom active use criteria

See above.

Off-bottom active use criteria

See above.

Is there a production report requirement?

No information.

Frequency for providing production report?

No information.

Can a shellfish aquaculture lease be transferred?

Lease can be transferred with a fee.

Is there a bid process for leases?

No

Any acreage limits?

Note: If will take up <500 square ft, may be able to get a Use Permit (statute 145-60-205) instead of a lease.

Limits per site

No information.

Limits per person

No information.

Limits on number of lease sites a person can hold

No information.

Rental and Use Fees

Annual rental fee?

Determined by multiplying area in square ft by current square foot rental rate (adjusted for Consumer Price Index). Minimum rate is \$1200/yr (rent is paid annually unless minimum is used, in which case paid in 5 year increments).

On-bottom rent

No information.

Off-bottom rent

No information.

Any shellfish aquaculture harvest surcharge? If so, what is it?

No information.

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

No information.

Land surveyor/hydrographic survey

No information.

Lease markering responsibility

No information.

Biological assessment fee

Applicant

Property tax

No information.

Present shellfish value assessment on proposed lease site?

No information.

Additional Information Sources

Other websites of interest:

No information.

Definitions

State definition of aquaculture:

Aquaculture is the culture or farming of food fish, shellfish, or other aquatic plants and animals. (Reg. 145-60-505)

How is on-bottom defined?

No formal definition.

Any on-bottom special conditions?

N/A

How is off-bottom defined?

No formal definition.

Any off-bottom special conditions?

N/A

Any alternative names of a 'lease'?

No information.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

Aquaculture is a preferred, water-dependent use. Water surface, column, and bedland areas suitable for aquaculture are limited to certain sites. These sites are subject to pressures from competing uses and degradation of water quality. A special effort should be made through the CRM program to identify and resolve resource use conflicts and resource management issues in regard to use of identified sites.

Protected Resources and Critical Habitat Designations

Standard, including considering cumulative impacts on wildlife.

Essential Fish Habitat (EFH)

Standard, including considering cumulative impacts on wildlife.

Navigation

Should be located in areas where the navigational access of upland owners, recreational boaters, and commercial traffic is not significantly restricted.

Historic resources

Must consult with archeologists to identify areas containing potentially valuable archaeological data and coordinate with CNMI Historical Preservation Office; where possible, preserve such sites for scientific study.

Migratory Fish

Standard, including considering cumulative impacts on wildlife.

Shellfish density threshold

No information.

Submerged aquatic vegetation (SAV)

Standard (must preserve).

Other natural resource protection measures?

- Non-polluting aquaculture permitted in lagoon and reef Areas of Particular Concern.
- EIA submitted to DCRM as part of Major Siting Permit process.
- May need legislature's approval for submerged land matters; speak with DNR before starting your project. See [Title 2, Division 1, Sec. 1223](#) for information on leases needing to be approved by [law](#).

Riparian setback

No information.

Social capacity

Recognition should be given to the possible detrimental impact aquacultural development might have on the visual access of upland owners and on the general aesthetic quality of the shoreline area.

Riparian Landowner Requirements**Any definition of what constitutes a riparian owner?**

No information.

Any riparian owner notice requirement for lease applications?

Yes, if not owner of adjacent upland, must get riparian consent for lease.

Is applicant required to provide list of riparian owners to permitting agency?

See above.

Is any consent of riparian owner required? If so, under what condition?

Yes, if not owner of adjacent upland, must get riparian consent for lease.

Coastal Zone Management (CZM) Consistency Determination

[Waived.](#)

Section 401 Water Quality Certification (WQC)

[Waived.](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[CNMI NPDES \(EPA\)](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

N/A

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- Zoning permit
- Potentially an Area of Particular Concern (APC) Permit with or instead of Major Siting Project (depending on scale and location of project)

Any shellfish aquaculture lease/permit holder training/exam requirement?

No information.

Are shellfish aquaculture leases/permits restricted to residents only?

No information.

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

No information.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

No information.

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

No information.

Total acreage of shellfish aquaculture leases. Separate by species if available.

No information.

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture

No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

No information.

Oregon

Special Notes

- Only oysters may be cultivated on leases unless lease was in effect on or before June 1, 1997, in which case clams/mussels may be grown.
- Note that OYSTERS are regulated by Department of Agriculture, but other kinds of shellfish/non-bivalves are not covered by Agriculture and would require a Fish Propagation License from ODFW.

Tribal

A food safety permit will be required if harvesting and packaging of shellfish occurs off of tribal lands.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Local land use planning agencies are asked to verify that proposed use of estuary land is consistent with acknowledged comprehensive land use plan. Must be consistent with local regulations, plans, and zoning requirements.

Local municipality website for shellfish aquaculture leasing/permitting:

No information.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency for shellfish aquaculture leasing/permitting:

Department of Agriculture is the lead agency, with additional regulations from Department of Fish & Wildlife (many state agencies asked to comment during application process).

State agency contact(s) for shellfish aquaculture leasing/permitting:

Alex Manderson, 503-801-0751, amanderson@oda.state.or.us

State agency website(s) for aquaculture leasing/permitting:

[Department of Agriculture, Shellfish Plat Leasing](#)

State shellfish aquaculture leasing/permitting law(s):

- [ORS: Chapter 622: Shellfish](#)
- [Shellfish Plat Leasing](#) (see Resources)

State shellfish aquaculture leasing/permitting regulation(s):

OAR: DA Chapter 603 Divisions [82 \(Oyster, Clam, and Mussel Leases\)](#) and [100 \(Shellfish Sanitation\)](#)

State application for shellfish leasing/permitting:

[Contact ODA Food Safety Program for an application packet](#)

U.S. Army Corps of Engineers

Corps District(s):

Portland

Corps contact(s) for shellfish aquaculture permitting:

503-808-4373

Corps website for shellfish aquaculture permitting:

[Portland Nationwide Permits](#)

Corps permit for shellfish aquaculture:

NWP 48 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

- PCN. Can use [form 6082](#)
- If applying for activities with Department of State Lands, [see JPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, [JPA with Department of State Lands](#) (DSL)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes for activities specified in NWP 48 (if activity affects more than 1/2-acre of SAV).

Are there interagency meetings (state/federal)?

Yes

Interagency Meeting Frequency:

No specific frequency—interagency meetings are held as needed.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

- [Shellfish Aquaculture Plat Lease Application Instructions](#)
- [User's Guide for 2021 Nationwide Permits in the State of Oregon](#)

Process flowchart available?

[Shellfish Aquaculture Leasing Process for State-Owned Lands](#)

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- Contact Oregon Department of Agriculture: 503-986-4701
- Siting tool under development; [most recent update](#)

Is a pre-application meeting required, encouraged, not specified?

Yes, required by state (ORS 622.248).

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Shellfish lease/permit application fee?

Yes

On-bottom fee

\$250

Off-bottom fee

\$250

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Public hearing if requested by applicant.

Summary of advertisement requirement of lease application by agency and/or applicant?

Applicant to provide notice of the application to be published once a week for two consecutive weeks in a newspaper of general circulation in each county where any area applied for.

Who pays for advertisement?

Applicant

Business/Operations Plan

Is a management or operations plan required with application?

Application requires a good amount of information on operations. An aquaculture operations plan is required at the time a Grower license (shellfish aquaculture sanitation license) is sought from Department of Agriculture.

Is a business plan required with application?

No

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Oregon Department of Agriculture 3-9 months.

Lease Term and Conditions

Maximum term limit for lease?

No

Are renewals available?

N/A

Any renewal fee?

N/A

Is there an active use requirement? Any criteria to assess?

Yes. Can be considered unproductive if nothing produced/harvested for a period of three years or if more than one-half the lands in the plat are unproductive for a period of three years. Plat not considered unproductive if lack of production is due to restrictions by government health authorities, unavailability of seed, or infestation of plat by pest or disease.

On-bottom active use criteria

See above

Off-bottom active use criteria

See above

Is there a production report requirement?

Yes

Frequency for providing production report?

Annually before March 1

Can a shellfish aquaculture lease be transferred?

Yes, \$100 fee

Is there a bid process for leases?

No

Any acreage limits?

None

Limits per site

N/A

Limits per person

N/A

Limits on number of lease sites a person can hold

No

Rental and Use Fees

Annual rental fee?

\$14/acre approved waters and \$5/acre for prohibited waters.

On-bottom rent

See above.

Off-bottom rent

See above.

Any shellfish aquaculture harvest surcharge? If so, what is it?

- \$0.10/gal or bu (oysters) or \$0.01/doz (oysters)
- \$0.005/lb (clams/mussels)

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

No information.

Land surveyor/hydrographic survey

Applicant to provide survey after lease issuance by approved surveyor.

Lease markering responsibility

Applicant

Biological assessment fee

None

Property tax

None

Present shellfish value assessment on proposed lease site?

None

Additional Information Sources

Other websites of interest:

- [Oregon Shellfish Initiative](#)
- [Oregon Aquaculture Association](#)
- [Pacific Shellfish Institute](#)

Definitions

State definition of aquaculture:

"Cultivation" means the process of growing or farming cultured oysters, clams or mussels with the primary intent to make a profit in money. Cultivation includes activities associated with bed or site preparation, seeding, grow out and harvesting and includes methods that:

- A. Are or may be used on an operation of a similar nature;
- B. Are or may become generally accepted, reasonable and prudent in conjunction with the commercial production of oysters, clams or mussels; and
- C. Comply with applicable laws.

How is on-bottom defined?

No specific definition.

Any on-bottom special conditions?

No information.

How is off-bottom defined?

No specific definition.

Any off-bottom special conditions?

No information.

Any alternative names of a 'lease'?

Lease, plat, or grant certificate.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

No information.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard

Historic resources

Standard

Migratory Fish

No information.

Shellfish density threshold

No information.

Submerged aquatic vegetation (SAV)

Mitigation plan may be required if project impacts eelgrass. Must provide a map showing areas of SAV in project area.

Other natural resource protection measures?

Aquaculture activity must not disturb migrating Black Brant.

Riparian setback

No information.

Social capacity

No information.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No

Any riparian owner notice requirement for lease applications?

No

Is applicant required to provide list of riparian owners to permitting agency?

Yes. Corps form 4345 requires.

Is any consent of riparian owner required? If so, under what condition?

No

Coastal Zone Management (CZM) Consistency Determination

[Consistency review always required for NWP 48](#)

Section 401 Water Quality Certification (WQC)

- [Denied for NWPs by DEQ.](#)
- [Tribal ruling](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Oregon NPDES Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No information.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

ODA [Shellfish Harvester or Grower Permit](#)

Any shellfish aquaculture lease/permit holder training/exam requirement?

[HACCP training usually required](#)

Are shellfish aquaculture leases/permits restricted to residents only?

No

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

About 1

All shellfish species

1

Oyster

No information.

All shellfish on bottom lease applications

1

All shellfish off bottom lease applications

1

Number of complete shellfish applications currently in review?

2

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

77

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

No information.

Total acreage of shellfish aquaculture leases. Separate by species if available.

3,847.49

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

All—no other species being cultivated

Total # of lease holders/individuals employed (if available)?

26

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

Ballpark of 2,320,000 dozen oysters and 20,000 gallons of shucked product based on very rough estimates.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

No information.

Rhode Island

Special Notes

Commercial viability permit is an administrative permit for the first 1.5 years and then a CRMC permit for the next 1.5 year, and limited to <1,000 sq ft. This permit is used as a prospecting permit.

Tribal

Recommended to consult with tribes (see GP) if believed to be a potential reason for concern.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

Harbormaster and other town officials present at preliminary determination meeting (usually hosted at nearby town). Notified of application during later 30-day public comment period. Usually it is the harbor commission but towns are free to designate which bodies or officials are involved and therefore it varies town to town.

Local municipality website for shellfish aquaculture leasing/permitting:

No information.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency for shellfish aquaculture leasing/permitting:

Coastal Resources Management Council (CRMC) (a regulatory state agency) is lead in consultation with Department of Environmental Management (DEM).

State agency contact(s) for shellfish aquaculture leasing/permitting:

Ben Goetsch (CRMC) Aquaculture Coordinator, 401-783-3370, bgoetsch@crmc.ri.gov

State agency website(s) for aquaculture leasing/permitting:

[CRMC: Aquaculture](#)

State shellfish aquaculture leasing/permitting law(s):

[CRMC Guide to Aquaculture Applications, pg. 25](#)

State shellfish aquaculture leasing/permitting regulation(s):

- [CRMC Guide to Aquaculture Applications, pg. 32](#)
- [250-RICR-40-00-1: Aquaculture of Marine Species in Rhode Island Waters](#)
- [216-RICR-50-10-6: Processing and Distribution of Shellfish](#)

State application for shellfish leasing/permitting:

[CRMC Aquaculture page](#)

U.S. Army Corps of Engineers

Corps District(s):

New England

Corps contact(s) for shellfish aquaculture permitting:

Leslie Martin, 978-318-8688, leslie.martin@usace.army.mil

Corps website for shellfish aquaculture permitting:

[New England Regulatory/Permitting Division](#)

Corps permit for shellfish aquaculture:

[Rhode Island General Permit](#) Activity 16:

NWP 48 suspended in New England (4/13/2021).

Corps permit expiration:

3-Mar-22

Corps application for shellfish aquaculture permitting:

[CRMC Application](#)

Is there a State/Federal Joint Permit Application (JPA)?

Not called a JPA but CMRC form sent to Corps

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

SV Eligible. Projects done for RIDEM project OR temporary research structures under CRMC supervision OR suspended cages within footprint of an authorized fixed/floating structure with depth/clearance reqs OR upweller floats <160 sf with depth/clearance reqs. No SVNF needed beyond state application.

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

Projects that do not meet Category 1.

Is a Pre-Construction Notification (PCN) required?

No; Core and CMRC coordinate PCN-level reviews for Category 2 projects based on the state application.

Are there interagency meetings (state/federal)?

Yes

Interagency Meeting Frequency:

Reviews coordinated mostly via email with CRMC and applicant. No exact dates.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

Very thorough [CRMC guide](#) (permit types, application forms and instructions, and laws)

Process flowchart available?

- [CRMC Permitting Process](#)
- Updated flow chart currently in progress

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- See link to interactive lease map [on CRMC aquaculture website](#)
- New siting tool (ShellFAST R) in progress (comparable to Massachusetts set-up)

Is a pre-application meeting required, encouraged, not specified?

Preliminary Determination is required, it is a separate application to the full permit application.

Application Fees

Any pre-determination meeting fee for applicants?

\$25

Shellfish lease/permit application fee?

Yes

On-bottom fee

- Sliding scale based on project costs with minimum of \$50.
- \$25 for experimental or commercial viability application.

Off-bottom fee

- Sliding scale based on project costs with minimum of \$50.

- \$25 for experimental or commercial viability application.

Is applicant fee returned if denied?

No

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Mandatory open pre-determination meeting.

Summary of advertisement requirement of lease application by agency and/or applicant?

30 day public comment period. CRMC holds local hearing (in addition to standard Council hearing) if any objection.

Who pays for advertisement?

No information.

Business/Operations Plan

Is a management or operations plan required with application?

Operations plan.

Is a business plan required with application?

No information.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

Best 6 months , worst 13-14 months , average 8-9 mths (a year or more common in 2021 due to COVID-19 backlog). 2-3 months for commercial viability permit.

Lease Term and Conditions

Maximum term limit for lease?

15 years (3 years for experimental, research, and viability permits).

Are renewals available?

At 10 year increments (3 years for experimental, research permits; viability permit must be replaced with full permit).

Any renewal fee?

Annual rental fee applies.

Is there an active use requirement? Any criteria to assess?

Yes, if goes for a year without being actively "farmed," lease may be revoked.

On-bottom active use criteria

See above

Off-bottom active use criteria

See above

Is there a production report requirement?

Yes

Frequency for providing production report?

Annual (due in January).

Can a shellfish aquaculture lease be transferred?

Yes

Is there a bid process for leases?

No

Any acreage limits?

Yes

Limits per site

- 3 acres in Narragansett Bay north of 41°35' only.

- 1,000 sq. ft. for experimental/viability/research.

Limits per person

No information

Limits on number of lease sites a person can hold

- Max. 1 site for commercial viability permits
- Max. 3 sites for experimental and education/research permits

Rental and Use Fees

Annual rental fee?

Yes

On-bottom rent

- \$75 for <0.5 acres
- \$150 for 0.5-1 acre
- \$100 for each additional acre

Off-bottom rent

See on-bottom rent

Any shellfish aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

\$200 DEM Aquaculture License

Land surveyor/hydrographic survey

N/A

Lease markering responsibility

Applicant

Biological assessment fee

N/A

Property tax

No

Present shellfish value assessment on proposed lease site?

No

Additional Information Sources

Other websites of interest:

- [Rhode Island Shellfish Management Plan](#)
- [East Coast Shellfish Association](#)

Definitions

State definition of aquaculture:

Cultivation, rearing, or propagation of aquatic plants or animals under either natural or artificial condition.

How is on-bottom defined?

Includes on bottom gear culture.

Any on-bottom special conditions?

N/A

How is off-bottom defined?

Floating or suspended gear (see GP).

Any off-bottom special conditions?

Higher bonding requirement.

Any alternative names of a 'lease'?

State assent.

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

No information.

Protected Resources and Critical Habitat Designations

Standard; cannot threaten critical habitat, and PCN required if any involvement.

Essential Fish Habitat (EFH)

Standard

Navigation

No unreasonable interference with navigation. Any structure or work that extends closer to the horizontal limits of a FNP than a distance 3x the authorized depth shall be subject to removal at the owner's expense prior to any Corps dredging or performance of any hydrographic surveys.

Historic resources

All proposals are forwarded to the Rhode Island Historical Preservation & Heritage Commission.

Migratory Fish

DEM reviews for impacts and submits recommendation to CRMC.

Shellfish density threshold

No information.

Submerged aquatic vegetation (SAV)

- GP does not cover impacts to SAV.
- Per state regulations must avoid impacts to SAV habitat.
650-RICR-20-00-1.3.1(K)(4)(g): "Proposed aquaculture leases may not be sited where eelgrass (*Zostera marina*) or widgeon grass (*Ruppia maritima*) exists", however if SAV moves into a lease that's ok.

Other natural resource protection measures?

DEM will review for impacts.

Riparian setback

No information.

Social capacity

Established a 5% 'social capacity' for coastal ponds in 2009.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

Neither CRMC nor applicant required to notify. CRMC does notify towns, who may inform residents/landowners.

Is applicant required to provide list of riparian owners to permitting agency?

Must provide list of neighboring owners as part of application.

Is any consent of riparian owner required? If so, under what condition?

No

Coastal Zone Management (CZM) Consistency Determination

CRMC determines consistency.

Section 401 Water Quality Certification (WQC)

[Activity covered by state GP approved through Feb. 23, 2022](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website](#)

If discharge, need RIPDES permit. [RIPDES Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

Lease is the same either way.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- [\\$200 DEM aquaculture license](#) (for selling product)
- [DEM Special Permit for Aquaculture](#), free, but must be renewed annually

Any shellfish aquaculture lease/permit holder training/exam requirement?

Mandatory shellfish handling/temperature control training every 3 years.

Are shellfish aquaculture leases/permits restricted to residents only?

No

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

8-10

All shellfish species

No information.

Oyster

8-10

All shellfish on bottom lease applications

10 (many want multiple techniques)

All shellfish off bottom lease applications

4

Number of complete shellfish applications currently in review?

8

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

81 farms (all species but primarily oysters) (2019)

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

No information.

Total acreage of shellfish aquaculture leases. Separate by species if available.

339 (all species but primarily oysters) (2019)

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

219 employed (all species but primarily oysters) (2019).

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

[CRMC Aquaculture Report](#)

- Oysters: 8.3 million oysters (2019)
- Clams: 71,000 hard clams (2017)
- Mussels: 11,876 lb blue mussels (2017)
- Scallops: No information.
- Live Rock Harvest: No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- \$6.1 million (2019)

South Carolina

Special Notes

In SC culture permits are roughly equivalent to shellfish leases for wild harvest. They do not confer ANY mariculture privileges. They are strictly for harvest/husbandry of wild resource. Mariculture permits are for controlled cultivation in containers. A mariculture permit can exist within a culture permit since they use different resources. SCDNR defines and maps culture permits and has a competitive application process. Mariculture on the other hand is proposed by an applicant who takes responsibility for locating an area and demonstrating that there is not a conflict (JPA exists for this).

If permit meets criteria for individual permit from state, there will be a \$1,000 fee due to involvement of other agencies.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information.

Local municipality website for shellfish aquaculture leasing/permitting:

No information.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency for shellfish aquaculture leasing/permitting:

- Department of Natural Resources, Shellfish Management Section
- Department of Health and Environmental Control's Office of Coastal Resource Management (DHEC-OCRM) works on application review

State agency contact(s) for shellfish aquaculture leasing/permitting:

Henry DaVega, Shellfish Management Mariculture Coordinator, 843-953-0126,
davegaw@dnr.sc.gov

State agency website(s) for aquaculture leasing/permitting:

- [SC DNR Shellfish Culture Permits](#)
- [SC DNR Mariculture](#)

State shellfish aquaculture leasing/permitting law(s):

- SCDNR [Summary of Commercial Shellfish Laws](#)
- [Marine Resources Act, Article 9](#)

State shellfish aquaculture leasing/permitting regulation(s):

- SCDNR [Summary of Commercial Shellfish Laws](#)
- [DNR Chapter 123](#)
- SC DHEC [Water Regulations & Standards: Shellfish](#)
- DHEC Chapter [30-12\(O\)](#)

State application for shellfish leasing/permitting:

- [Application for Shellfish Culture Permit](#)
- [Joint Shellfish Mariculture Application](#)

U.S. Army Corps of Engineers

Corps District(s):

Charleston

Corps contact(s) for shellfish aquaculture permitting:

843-329-8044

Corps website for shellfish aquaculture permitting:

[Charleston Permitting Process](#)

Corps permit for shellfish aquaculture:

NWP 48 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

[JPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, see [JPA](#)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes (but fulfilled by JPA) if activity affects more than 1/2-acre of SAV or for activities involving floating or suspended culture (see regional conditions).

Are there interagency meetings (state/federal)?

No information.

Interagency Meeting Frequency:

No information.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

No

Process flowchart available?

[Process Flowchart](#)

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- [Siting guidance](#)
- [Siting tool](#)

Is a pre-application meeting required, encouraged, not specified?

Strongly encouraged to first meet with DNR. Later is a joint meeting between SCDNR, OCRM, and USACE. Corps has pre-application meeting request form.

Application Fees

Any pre-determination meeting fee for applicants?

n/a

Shellfish lease/permit application fee?

Yes; note that if permit meets criteria for individual permit from state, will be a \$1,000 fee due to involvement of other agencies.

On-bottom fee

\$25 for state GP and NWP

Off-bottom fee

\$25

Is applicant fee returned if denied?

Non-refundable

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

No

Summary of advertisement requirement of lease application by agency and/or applicant?

Applicant required to place ad in newspaper once a week for three consecutive weeks.

Who pays for advertisement?

Applicant

Business/Operations Plan

Is a management or operations plan required with application?

Yes.

Is a business plan required with application?

Basic information included with operations plan for JPA.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

No information.

Lease Term and Conditions

Maximum term limit for lease?

5 years

Are renewals available?

Yes.

Any renewal fee?

Usual \$5 annual rent fee applies

Is there an active use requirement? Any criteria to assess?

- For Shellfish Culture permits only: Annually plant 50 bu/acre of seed or approved cultch as determined by Department. Person who believes seed/cultch not needed may seek Department approval.
- For Mariculture Permits: These are issued with the intent to be used for a commercial purpose. If during the review at the end of the permit cycle there is no commercial use the permit will likely be recommended to be non-renewed.

On-bottom active use criteria

See above

Off-bottom active use criteria

See above

Is there a production report requirement?

Yes

Frequency for providing production report?

No information.

Can a shellfish aquaculture lease be transferred?

No

Is there a bid process for leases?

No

Any acreage limits?

Yes

Limits per site

No information.

Limits per person

500 acres for bottom lease and 100 acres for surface waters.

Limits on number of lease sites a person can hold

No information.

Rental and Use Fees

Annual rental fee?

Yes

On-bottom rent

\$5/acre

Off-bottom rent

\$5/acre

Any shellfish aquaculture harvest surcharge? If so, what is it?

No information.

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

Up to \$1000 individual permit through DHEC may be needed if gear used for mariculture.

Land surveyor/hydrographic survey

No information.

Lease markering responsibility

Applicant (not required, must be approved).

Biological assessment fee

Completed by DNR.

Property tax

No information.

Present shellfish value assessment on proposed lease site?

No information.

Additional Information Sources

Other websites of interest:

- [East Coast Shellfish Association](#)
- [Mariculture BMPs](#)

Definitions

State definition of aquaculture:

In SC culture permits are roughly equivalent to shellfish leases for wild harvest. They do not confer ANY mariculture privileges. They are strictly for harvest/husbandry of wild resource. Mariculture permits are for controlled cultivation in containers. A mariculture permit can exist within a culture permit since they use different resources. SCDNR defines and maps culture permits and has a competitive application process. Mariculture on the

other hand is proposed by an applicant who takes responsibility for locating an area and demonstrating that there is not a conflict.

"Mariculture" means controlled cultivation in confinement of marine and estuarine organisms in salt waters.

How is on-bottom defined?

No information.

Any on-bottom special conditions?

No information.

How is off-bottom defined?

No information.

Any off-bottom special conditions?

No information.

Any alternative names of a 'lease'?

Culture permit, mariculture permit (see definition of aquaculture).

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

No information.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard

Historic resources

Standard

Migratory Fish

No information.

Shellfish density threshold

No information.

Submerged aquatic vegetation (SAV)

Standard

Other natural resource protection measures?

No information.

Riparian setback

No information.

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

Must provide notice to adjacent property owners and attempt to obtain letters of no objection (submitted with JPA).

Is applicant required to provide list of riparian owners to permitting agency?

Yes, on JPA.

Is any consent of riparian owner required? If so, under what condition?

No information.

Coastal Zone Management (CZM) Consistency Determination

[State of SC provided CZM concurrence](#) without conditions.

Section 401 Water Quality Certification (WQC)

[State of SC provided WQC concurrence](#) without conditions

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[SC NPDES Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No information.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

[SC Shellfish Page](#)

- Commercial saltwater license (\$25.00 for SC residents; \$300 nonresident)
- Individual harvest permit (goes along with your commercial shellfish license and hand harvest permit that you obtain when purchasing your commercial license for either State grounds, Mariculture or Culture harvest areas)
- Certified shellfish Wholesale Dealer or documentation that shellfish going to another dealer or facility (DHEC)
- Mechanical harvest permit (if applicable)
- For mariculture operations involving gear, DHEC [may require an individual permit](#) (up to \$1,000)

Any shellfish aquaculture lease/permit holder training/exam requirement?

DHEC harvester annual training

Are shellfish aquaculture leases/permits restricted to residents only?

Yes

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

No information.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

36 mariculture permits (2 of which are impoundments)

All shellfish on bottom leases.

26

All shellfish off bottom leases.

10 (2 of which are impoundments)

Number of oyster leases (on and off bottom).

21 (4 also include clams; 2 impoundments)

Total acreage of shellfish aquaculture leases. Separate by species if available.

976.4 (311 clam only, 154 oyster only, 511 both clam and oyster)

All shellfish on bottom lease acreage.

889.9

All shellfish off bottom lease acreage.

86.5

Just oyster lease acreage (on and off bottom).

665.1 have oysters (154.2 of these have JUST oysters)

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

No information.

Texas

Special Notes

- Texas has two different programs: the Certificates of Location program and the Cultivated Oyster Mariculture (COM or COMP) program (the latter started in 2020, allowing off-bottom culture with gear). Leasing moratorium since 1989 still applies to certificates of location and deals with on-bottom cultch planting and exclusive rights to created oyster beds.
- While this report attempts to provide information on both program, please note that:
 - "Off bottom" ALWAYS refers to the COM program, and "on bottom" ALWAYS refers to the certificates of location program.
 - Information has largely been updated with the more recent COM rules in mind given the leasing moratorium applicable to certificates of location, so on-bottom rules may be more prone to inaccuracies.

Tribal

No information.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

No information.

Local municipality website for shellfish aquaculture leasing/permitting:

No information.

Local municipality application for shellfish aquaculture leasing/permitting:

No information.

State Government

State lead agency(ies) for shellfish aquaculture leasing/permitting:

Texas Parks and Wildlife Department (TPWD) is the lead agency for COM and issues the COM Permit to authorize the activity. As part of this process, the applicant must also obtain a surface lease from the General Land Office (GLO), and all other required permits (Army Corps of Engineers, TCEQ, etc.)

State agency contact(s) for shellfish aquaculture leasing/permitting:

Emma Clarkson, 361-694-0226, emma.clarkson@tpwd.texas.gov

State agency website(s) for aquaculture leasing/permitting:

- [General Lands Office](#)
- [Dept of Parks and Wildlife. Cultivated Oyster Mariculture](#)

State shellfish aquaculture leasing/permitting law(s):

- [Chapter 33: Management of Coastal Public Land](#) (leasing)
- [Parks & Wildlife Code 5-76](#): Oysters
- [Title 5-75](#): Cultivated Oyster Mariculture

State shellfish aquaculture leasing/permitting regulation(s):

Texas Admin. Code, Title 31, Part II, Chapter 58, [Subchapter A \(Statewide Oyster Fishery Proclamation\)](#) and [E \(Cultivated Oyster Mariculture\)](#)

State application for shellfish leasing/permitting:

[Cultivated Oyster Mariculture Permit](#)

U.S. Army Corps of Engineers

Corps District(s):

Galveston

Corps contact(s) for shellfish aquaculture permitting:

Galveston: 409-766-3869

Corps website for shellfish aquaculture permitting:

[Galveston Regulatory Division](#)

Corps permit for shellfish aquaculture:

NWP 48 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

PCN. Can use [form 6082](#)

Is there a State/Federal Joint Permit Application (JPA)?

No

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes for activities specified in NWP 48 (if activity affects more than 1/2-acre of SAV).

Are there interagency meetings (state/federal)

No information.

Interagency Meeting Frequency:

No information.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

No. However, [Cultivated Oyster Mariculture Permit \(COMP\) application](#) is extremely detailed with extensive instructions.

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

- [Texas Shellfish Harvest Area Viewer](#)
- [Texas COM Sites and Application Status](#)
- TPWD has a Marine Spatial Planning Tool that is not yet available online; applicants can consult the tool through a pre-application consultation meeting with TPWD staff.

Is a pre-application meeting required, encouraged, not specified?

Recommended by state. Corps also offers pre-application screening consultation which may result in a request for a joint agency meeting with applicant.

Application Fees

Any pre-determination meeting fee for applicants?

No

Shellfish lease/permit application fee?

Yes

On-bottom fee

\$200 (submerged lands lease/certificate of location).

Off-bottom fee

\$200 (COMP).

Is applicant fee returned if denied?

Non-refundable.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Yes

Summary of advertisement requirement of lease application by agency and/or applicant?

Agency will hold a public hearing and post in newspaper beforehand. Will post on web page and schedule public meeting for COMP.

Who pays for advertisement?

Applicant

Business/Operations Plan

Is a management or operations plan required with application?

Yes

Is a business plan required with application?

No

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

For COMP, worst: 1+ year, Average = 6 months, Best = 3 months

Lease Term and Conditions

Maximum term limit for lease?

10 years

Are renewals available?

Yes

Any renewal fee?

\$200 (also a renewal fee for COMP).

Is there an active use requirement? Any criteria to assess?

Yes for COMP; see off-bottom criteria.

On-bottom active use criteria

Certificates of location program: The department shall "require the permittee to cull (process of separating undersized oysters from oysters that are lawful to possess) the oysters on the grounds where they are to be located."

Off-bottom active use criteria

For mariculture permit, must plant at least 100,000 oyster seed per acre annually.

Is there a production report requirement?

Yes

Frequency for providing production report?

Monthly harvest reports and additional annual report.

Can a shellfish aquaculture lease be transferred?

- COMP: may not be transferred.
- Certificate of location: \$200 fee

Is there a bid process for leases?

- COMP: No
- Certificate of location: Department may auction off locations that aren't renewed

Any acreage limits?

- COMP: No
- Certificate of location: Yes

Limits per site

- COMP: n/a
- Certificate of location: 100 acres

Limits per person

- COMP: n/a
- Certificate of location: 300 acres

Limits on number of lease sites a person can hold

COMP: No

Rental and Use Fees

Annual rental fee?

Yes (also see additional required fees; GLO Surface Lease is \$1,500/acre/year and is required for COM operations).

On-bottom rent

\$20/acre (Certificate of location).

Off-bottom rent

COMP: for grow-out activities occurring in public water, the fees will be \$450 per acre per year. For grow-out activities occurring on private property, the fees will be \$170 per acre per year. For the Nursery-Only permit on private property, the fees will be \$170 per acre per year. For Nursery-Only permit activities occurring in public waters, there will be a surcharge of \$0.01 per square foot per year.

Any shellfish aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

GLO Surface Lease is \$1,500/acre/year and required for COM.

Land surveyor/hydrographic survey

- COMP: Does not apply
- Certificate of location: Agency does survey through competent surveyor

Lease markering responsibility

Applicant

Biological assessment fee

Applicant expected to complete natural resources field survey for COMP (see mariculture application for extensive description).

Property tax

No

Present shellfish value assessment on proposed lease site?

No

Additional Information Sources

Other websites of interest:

- [LA Sea Grant: Oyster Aquaculture in the Gulf of Mexico](#)
- Texas Sea Grant website pending

Definitions

State definition of aquaculture:

"Cultivated oyster mariculture" [COM] means the process of growing cultivated oysters.

How is on-bottom defined?

Certificates of location program: deals with on-bottom cultch planting and exclusive rights to created oyster beds.

Any on-bottom special conditions?

No information.

How is off-bottom defined?

- Water column; this is the Cultivated Oyster Mariculture Permit (COMP).
- "Cultivated oyster mariculture" [COM] means the process of growing cultivated oysters.

Any off-bottom special conditions?

May not simply place cultch on bottom—that's a separate on-bottom operation. You do need a lease or private property of some kind for a COMP.

Any alternative names of a 'lease'?

- Certificate of Location (on-bottom only)
- Note additional "Surface Lease" required by GLO for COMP

Special Natural Resource and Social Permit Conditions

Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?

Stringent Biosecurity Protocols due to two different genetic populations of *C. Virginica* in Texas. See TPWD website for Biosecurity Protocols.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard

Historic resources

Standard

Migratory Fish

No information.

Shellfish density threshold

- No lease on sites publicly fished within an 8-year period.
- 500 ft minimum buffer for oyster habitat (presence of live oysters or consolidated oyster shell substrates or shells greater than 25mm).
- The department shall "require the permittee to cull (process of separating undersized oysters from oysters that are lawful to possess) the oysters on the grounds where they are to be located".

Submerged aquatic vegetation (SAV)

200 ft minimum buffer for seagrass habitat.

Other natural resource protection measures?

2,000 ft minimum buffer for bird rookeries

Riparian setback

May not lease in exclusive riparian areas (occur within 100 yards of shoreline in some areas), within 100 yards of shore in bay areas, or within 1,000 ft of a location not owned or controlled by applicant.

Social capacity

No information.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

Riparian owners have exclusive rights to lease within 100 yards from shoreline in some areas (not exclusive in bay areas), see Parks & Wild. Code Title 5 Section 76.004.

Any riparian owner notice requirement for lease applications?

Yes, must also provide riparian consent if within 1,000 ft, see below.

Is applicant required to provide list of riparian owners to permitting agency?

Yes. Both mariculture permit and corps form 4345 require (within 2,000 ft for mariculture permit).

Is any consent of riparian owner required? If so, under what condition?

Written consent needed if within 1,000 ft of shoreline.

Coastal Zone Management (CZM) Consistency Determination

TX General Land Office provides [CZMA consistency concurrence letter](#)

Section 401 Water Quality Certification (WQC)

TX Commission on Environmental Quality provides [WQC consistency concurrence letter](#)

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Texas Discharge Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

Totally separate programs. Bottom "culture" and off-bottom COMP cannot overlap, as COMP cannot take place within 500 ft of oyster beds.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

COMP: The full list of permits required for COM includes:

- TPWD COM Permit
- GLO Surface Lease
- TCEQ authorization (typically General Permit Level V but depends on activity)
- USACE NWP 48
- comply with the Marking Determination from the USCG (PATON)
- TDSHS Certification is only required if they wish to sell their product directly to a restaurant rather than through a certified shellfish dealer.

For certificates of location (bottom culture):

- commercial oyster fisherman permit from TPWD (\$126)

Also see:

- Wholesale Fish Dealer's License
- Broodstock license

Any shellfish aquaculture lease/permit holder training/exam requirement?

Training certifications under Department of State Health Services if being sold directly to restaurants.

Are shellfish aquaculture leases/permits restricted to residents only?

- COMP: No
- Certificate of location: Yes, but non-resident can apply if they assign a resident agent

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

2 active, but ~9 in pre-applicant process.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

No information.

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

No information.

Total acreage of shellfish aquaculture leases. Separate by species if available.

No information.

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

No information.

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

No information.

Virginia

Special Notes

- Virginia also has a [General Permit #4 Shellfish permit](#). This is only for leaseholders who wish to place bottom cages on their lease that exceed the regulatory 12-inch height restriction, or if they wish to mark the bottom cages individually with buoys versus long line marking of a row of bottom cages (12-inches or less in height). No public notice, processing fees, or expirations; riparian landowners within 500 ft notified. The permittee is charged annually (\$125-\$1000 depending on number of structures).
- 4VAC20-1130-60. General Permit Fees.
- Oyster crop budget tool for business planning. VMRC allows for an individual to apply for bottom culture, and once a lease is issued, to use cages <12" if regulations are complied with.

Tribal

None other than VMRC.

Local Municipality

Any local municipality leasing/permitting authority? If so, who?

None other than VMRC.

Local municipality website for shellfish aquaculture leasing/permitting:

No

Local municipality application for shellfish aquaculture leasing/permitting:

No

State Government

State lead agency for shellfish aquaculture leasing/permitting:

Virginia Marine Resources Commission

State agency contact(s) for shellfish aquaculture leasing/permitting:

Ben Stagg, 757-247-2225, ben.stagg@mrc.virginia.gov

State agency website(s) for aquaculture leasing/permitting:

[VMRC Shellfish Aquaculture](#)

State shellfish aquaculture leasing/permitting law(s):

[Title 28.2](#), Chapters 5 (Oysters and Clams) and 6 (Planting Grounds)

State shellfish aquaculture leasing/permitting regulation(s):

- [Marine Resources Commission Regulation Index](#)
- [VMRC Shellfish Aquaculture](#) has links to appropriate regulations for each scenario
- Culture in cages that extend no more than 12 inches off the bottom: Habitat Management regulation [4 VAC 20-335-10](#)
- [General Permit #4 for Temporary Protective Enclosures for Shellfish](#)

State application for shellfish leasing/permitting:

For permits JPA and [permit form index](#)

Also, see Special Notes for details on General Permit #4 Shellfish permit for special gear permitting

U.S. Army Corps of Engineers

Corps District(s):

Norfolk

Corps contact(s) for shellfish aquaculture permitting:

- Regulator of the day: 757-201-7652
- Peter Kube, 757-201-7504, peter.r.kube@usace.army.mil
- Tucker Smith, 757-201-7653, tucker.smith@usace.army.mil

Corps website for shellfish aquaculture permitting:

[Norfolk District NWP Conditions](#)

Corps permit for shellfish aquaculture:

- NWP 48 [regional conditions](#)
- [Regional permit 19](#)

Corps permit expiration:

NWP: 3/14/2026; RGP 19: 9/5/2023

Corps application for shellfish aquaculture permitting:

[Tidewater JPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes, [Tidewater JPA](#)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes (required by regional permit 19), but can use the JPA.

Are there interagency meetings (state/federal)?

No

Interagency Meeting Frequency:

n/a

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

[Basic permit types and regulation links](#)

Process flowchart available?

No

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

[Maps and GIS Data](#)

Is a pre-application meeting required, encouraged, not specified?

Encouraged

Application Fees

Any pre-determination meeting fee for applicants?

No

Shellfish lease/permit application fee?

Yes

On-bottom fee

Yes. \$300 for <5 acres, \$500 for 5-25 acres, and \$1000 for >25 acres

Off-bottom fee

\$300, \$500, or \$1k fee as above + additional Habitat Mgmt. Division permit process fees - \$100, \$300, or \$600 for projects costing <\$10k, \$10k-500k, or >\$500k respectively (see Other Fees).

Is applicant fee returned if denied?

[Non-refundable](#)

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

Possible public hearing depending on conditions.

Summary of advertisement requirement of lease application by agency and/or applicant?

State advertisement in newspaper for 2 consecutive weeks, 60 day wait period before field survey, and 30 day wait period after markers are installed.

Who pays for advertisement?

Applicant (min. \$5.60 per letter for notifying adjoining leaseholders).

Business/Operations Plan

Is a management or operations plan required with application?

Use plan questionnaire required.

Is a business plan required with application?

No information.

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

For leases and permits, worst is 1-3 years and best is 90 days.

Lease Term and Conditions

Maximum term limit for lease?

10 years for leases, 5 years for float permits.

Are renewals available?

Yes.

Any renewal fee?

\$150 for leases, none for permits.

Is there an active use requirement? Any criteria to assess?

Yes, use requirement document adopted 3-2021 (see website).

Also see § 28.2-613. Duration of lease.

The Commission shall not renew or extend an assignment where there has been no significant production of oysters or clams, no reasonable plantings of oysters, clams or cultch or no significant oyster or clam aquaculture operation, during any portion of the 10-year period immediately prior to the application for renewal, unless the Commission finds that there was good cause for the failure to produce or plant oysters, clams or cultch or finds that the assignment is directly related to and beneficial to the production of oyster-planting grounds immediately adjacent to the assignment.

On-bottom active use criteria

see above

Off-bottom active use criteria

Must promptly remove any enclosure not actively in use for planting/propagating of shellfish.

Is there a production report requirement?

Yes

Frequency for providing production report?

Monthly

Can a shellfish aquaculture lease be transferred?

Yes, subject to fees

Is there a bid process for leases?

No

Any acreage limits?

Yes

Limits per site

250 acres except in Chesapeake Bay

Limits per person

3,000 acres (5,000 in Chesapeake Bay)

Limits on number of lease sites a person can hold

May not apply for another lease until 6 months have passed since last assignment.

Rental and Use Fees

Annual rental fee?

Yes

On-bottom rent

\$1.50/acre

Off-bottom rent

\$1.50/acre + additional permit fees that are associated with the number of containers:
<500 is \$125, >500 up to 1,000 is \$250, >1,000 up to 2,500 is \$625, and >2,500 is \$1,000.

Any shellfish aquaculture harvest surcharge? If so, what is it?

No

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

- Habitat Management. Division permit process fees for off-bottom operations - \$100, \$300, or \$600 for projects costing <\$10k, \$10k-500k, or >\$500k respectively
- [Details of application fees](#) (also described previously)

Land surveyor/hydrographic survey

\$750 site survey fee, \$100 for each additional Plat needed

Lease markering responsibility

Applicant cost

Biological assessment fee

N/A

Property tax

N/A

Present shellfish value assessment on proposed lease site?

N/A

Additional Information Sources**Other websites of interest:**

- [VA Sea Grant Business Budget Spreadsheet](#) to estimate costs and earnings
- [East Coast Shellfish Association](#)

Definitions**State definition of aquaculture:**

The propagation, rearing, enhancement, and harvest of aquatic organisms in controlled or selected environments, conducted in marine, estuarine, brackish, or fresh water.

How is on-bottom defined?

- Includes cages if <12" from bottom (with an oyster ground lease).
- Also, see Special Notes for details on General Permit #4 Shellfish permit for special gear permitting.

Any on-bottom special conditions?

- <12" from bottom.
- Also, see Special Notes for details on General Permit #4 Shellfish permit for special gear permitting.

How is off-bottom defined?

- >12" off bottom (see Special Notes if applicable) or float culture.
- Also includes cages <12" from bottom but with surface floats or without an oyster ground lease.

Any off-bottom special conditions?

- Individual cages/enclosures shall not: exceed 70 cubic ft in volume, exceed an average of 250 containers per acre, or exceed 250 arrays of containers within the permitted area.
- For float culture: \$0.005/square foot fee and 5 year term limits.

Any alternative names of a 'lease'?

Leases are for "General Oyster Grounds"

Special Natural Resource and Social Permit Conditions**Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?**

No information.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

No unreasonable interference with navigation. If future U.S. operations require the removal, relocation, or other alteration of the structure or work, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, to remove, relocate, or alter the structural work or obstructions without expense to the U.S.

Historic resources

Applicant required to provide statement indicating potential for impact to historical properties (regional conditions and also RP 19); state review may be needed for specific sites.

Migratory Fish

Can't disrupt necessary life cycle movements of indigenous, including migratory species (RP 19).

Shellfish density threshold

Regional Permit 19 states that an aquaculture activity will not qualify for this RP if it will have more than minimal adverse effects on existing or naturally occurring beds or population of shellfish. RP 19 also says no activity may occur in areas of concentrated shellfish populations.

Submerged aquatic vegetation (SAV)

No new leases in SAV beds. CorpsRP 19 does not allow leasing in SAV based on [VIMS SAV maps](#). Further ban on placing enclosures on SAV in sec. 28.2-603.1.

Other natural resource protection measures?

Corps RP 19 states that an aquaculture activity will not meet the terms for this RP if it will have more than minimal adverse effects on avian resources. New permittees must provide bird exclusion methods.

Riparian setback

None

Social capacity

N/A

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

Within 500 ft.

Any riparian owner notice requirement for lease applications?

Applicant is required to notify applicant and have them sign an acknowledgement form (within 500 ft).

Is applicant required to provide list of riparian owners to permitting agency?

Yes, but limited to JPA form; encouraged elsewhere, but not required (in which case agency will identify the riparian owners themselves).

Is any consent of riparian owner required? If so, under what condition?

JPA has Adjacent Property Owner Acknowledgement Form, but project not necessarily denied if owners object.

Coastal Zone Management (CZM) Consistency Determination

VA Department of Environmental Quality concurs with CZM consistency for RP 19 pending state permit compliance.

Section 401 Water Quality Certification (WQC)

VA State Water Control Board provided conditional approval for RP 19 pending state permit compliance.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[VPDES Program](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- Annual Oyster Resource User Fee (\$50+)
- Annual anyone harvesting aquaculture products must have \$10 Aquaculture Product Owners License or \$5 Aquaculture Harvester License.
- [MRC License Fees](#)

Any shellfish aquaculture lease/permit holder training/exam requirement?

[Mandatory online shellfish sanitation training](#)

Are shellfish aquaculture leases/permits restricted to residents only?

Yes for leases

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

Until 2020, 300; since 2020, 60

All shellfish species

Oysters and clams.

Oyster

see above

All shellfish on bottom lease applications

see above

All shellfish off bottom lease applications

5

Number of complete shellfish applications currently in review?

249

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

5,217

All shellfish on bottom leases.

5,217

All shellfish off bottom leases.

unknown

Number of oyster leases (on and off bottom).

unknown

Total acreage of shellfish aquaculture leases. Separate by species if available.

136,136

All shellfish on bottom lease acreage.

136,136

All shellfish off bottom lease acreage.

unknown

Just oyster lease acreage (on and off bottom).

136,136 (includes oyster & clams)

Total # of lease holders/individuals employed (if available)?

VIMS est. roughly 480 full time equivalents employed; 1,600 leaseholders, though

Harvest and Value (2020 unless otherwise noted)**Harvest and value of shellfish aquaculture.****[Virginia Shellfish Aquaculture Situation and Outlook Report: Results of the 2018 Virginia Shellfish Aquaculture Crop Reporting Survey](#)**

- Oysters: 32.1 million (2018); see VIMS
- Clams: 177.7 million (2018); see VIMS
- Mussels: No information
- Scallops: No information
- Live Rock Harvest: No information

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

- \$53.3 million (\$38.8 million hard clams and \$14.5 million oysters); see VIMS

Washington***Special Notes***

Geoduck aquaculture is not currently taking place on state-owned lands. DNR is implementing [a small pilot leasing program](#) on less than 5 acres at this time in order to better understand potential offsite impacts and to decide whether to expand this leasing activity on state-owned aquatic land in the future.

Tribal

May need a tribal harvest agreement or management plan for any activity affecting wild shellfish, submitting section 6.3 Form as needed. [The Northwest Indian Fisheries Commission helps coordinate activities with the Tribes.](#)

Local Municipality**Any local municipality leasing/permitting authority? If so, who?**

Over 40 Shoreline Master Plans exist, dependent on county.

May need a Shoreline Substantial Development, Conditional Use Permit, or Variance Permit (depending on jurisdiction), or some combination of these. Recommended to meet with locals first.

Local municipality website for shellfish aquaculture leasing/permitting:

[Shoreline Master Plan Guidebook for Aquaculture](#)

Local municipality application for shellfish aquaculture leasing/permitting:

[JARPA](#)

State Government

State lead agency for shellfish aquaculture leasing/permitting:

- Department of Natural Resources (DNR) Aquatic Resources Program issues aquatic use authorizations (leases) for State-Owned Aquatic Lands (not required for privately owned tidelands). DNR can verify land ownership.
- Department of Ecology reviews for WQC and CZMA consistency.
- Department of Health issues permits for shellfish harvest and sales.
- Department of Fish and Wildlife issues permits for shellfish harvest, sales and transfers.

State agency contact(s) for shellfish aquaculture leasing/permitting:

- WA Department of Ecology, 206-594-0066, Misty Blair, misty.blair@ecy.wa.gov
- Laura Butler, 360-902-1842, lbutler@agr.wa.gov
- WA DNR, Kristin Swenddal, 360-902-1124, kristin.swenddal@dnr.wa.gov

State agency website(s) for aquaculture leasing/permitting:

- [Department of Ecology, Aquaculture](#)
- [Department of Natural Resources, Aquaculture](#)

State shellfish aquaculture leasing/permitting law(s):

- [Chapter 79.135 RCW](#) (Aquatic Lands—Oysters, Geoducks, Shellfish, Other Aquacultural Uses, and Marine Aquatic Plants)
- [Aquaculture Leasing Statutory and Regulatory Framework](#)

State shellfish aquaculture leasing/permitting regulation(s):

- [Chapter 220-370 WAC](#): Aquaculture
- [Chapter 332-30 WAC](#): Aquatic Land Management
- [Shellfish Laws and Rules to Protect Public Health](#)

- [Aquaculture Leasing Statutory and Regulatory Framework](#)

State application for shellfish leasing/permitting:

- [JARPA](#)
- [One-Stop JARPA Resource Center](#)
- DNR requires Attachment E to be submitted with JARPA

U.S. Army Corps of Engineers

Corps District(s):

Seattle

Corps contact(s) for shellfish aquaculture permitting:

- Andy Dangler, 518-487-0215, andrew.c.dangler@usace.army.mil
- Matt Bennett, 206-764-3428
- Pam Sanguinetti, 206-764-6904

Corps website for shellfish aquaculture permitting:

[Seattle Regulatory Division](#)

Corps permit for shellfish aquaculture:

NWP 48 [regional conditions](#)

Corps permit expiration:

14-Mar-26

Corps application for shellfish aquaculture permitting:

[JARPA](#)

Is there a State/Federal Joint Permit Application (JPA)?

Yes. [JARPA](#)

Is there a Category 1 tier for Corps permit? (SV/Minimum Impact in NH) SVNF.

N/A

Is there a Category 2 for Corps permit (Minor/Major Impact in NH)?

N/A

Is a Pre-Construction Notification (PCN) required?

Yes for activities specified in NWP 48. Can use JARPA for PCN.

Are there interagency meetings (state/federal)?

[Shellfish Interagency Permitting Team](#)

Interagency Meeting Frequency:

Quarterly with Ad Hoc Permit Work Groups that meet as needed.

Applicant Guide/Tools

Is there a shellfish aquaculture applicant guide book/information?

- [Shellfish Interagency Permit Team website](#) has flow chart, list of primary things needed, etc
- [JARPA instructions](#)
- [Department of Health guidance](#)

Process flowchart available?

[Existing Permitting Process](#) (2014)

Any siting tool(s) available to help applicants identify suitable lease sites and/or agency review of applications?

Nothing specific to shellfish aquaculture. DNR has info on State Owned Aquatic Lands (SOAL) [and appropriate contacts](#)

Is a pre-application meeting required, encouraged, not specified?

Encouraged by Corps, DNR. Pre-filing meeting required by Ecology for WQC review.

[Pre-Filing Meeting Request Form](#)

Application Fees

Any pre-determination meeting fee for applicants?

N/A

Shellfish lease/permit application fee?

Yes

On-bottom fee

DNR requires a non-refundable \$25 check to be submitted with the JARPA and Attachment E

Off-bottom fee

DNR requires a non-refundable \$25 check to be submitted with the JARPA and Attachment E

Is applicant fee returned if denied?

\$25 check is non-refundable.

Corps Individual Permit fee

Yes, \$100.

Advertisement and Public Scoping

Is a public scoping meeting required by agency or applicant?

DNR issues a public notice after the application is processed. No public meetings though.

Summary of advertisement requirement of lease application by agency and/or applicant?

N/A

Who pays for advertisement?

N/A

Business/Operations Plan

Is a management or operations plan required with application?

Yes

Is a business plan required with application?

No

Lease Review/Approval Timeframe

Permit review/approval timeframe (best, worst, average) from time applicant applies to final issuance? Separate by state/Corps if needed, available.

6-12 months for JARPA (note that county level permits may incur significant time delays if appealed and DNR can not issue lease until all permits in place).

Lease Term and Conditions

Maximum term limit for lease?

- Intertidal - 10 years max (RCW 79.135.130)
- Suspended/floating - 12 to 30 years (79.130.020)

Are renewals available?

DNR may renew for a period not exceeding 30 years (RCW 79.135.150).

Any renewal fee?

Same \$25 application fee. Rents may be renegotiated prior to executing a new lease.

Is there an active use requirement? Any criteria to assess?

If the described lands shall cease to be used for the purpose of oyster beds, clam beds, or other edible shellfish beds, they shall revert to and become the property of the state. If from any cause any lands leased for the purpose of planting and cultivating oysters, clams, or other edible shellfish become unfit and valueless for any such purposes, the lessee or the lessee's assigns, upon certifying the fact under oath to the department, together with the fact that the lessee has abandoned the land, shall be entitled to make application for other lands for such purposes.

On-bottom active use criteria

See above

Off-bottom active use criteria

See above

Is there a production report requirement?

Yes. See WAC 220-370-170. DNR may require an annual or quarterly production report for the purposes of calculating rent.

Frequency for providing production report?

Quarterly

Can a shellfish aquaculture lease be transferred?

Yes

Is there a bid process for leases?

The competitive bidding process is at DNR's discretion. That process is not currently in use.

Any acreage limits?

No

Limits per site

No

Limits per person

No

Limits on number of lease sites a person can hold

No

Rental and Use Fees

Annual rental fee?

Per RCW 79.135.100, rents shall be established through competitive bidding or negotiations. The annual rent is established through those negotiations.

On-bottom rent

See above

Off-bottom rent

See above

Any shellfish aquaculture harvest surcharge? If so, what is it?

Per RCW 79.135.100, rents shall be established through competitive bidding or negotiations. An additional rent (i.e., surcharge or royalty fee) may be established through those negotiations.

Other Fees

Other required fees/costs associated with obtaining a shellfish aquaculture lease/permit?

Cost for registered land surveyor (see below)

Land surveyor/hydrographic survey

Applicant, by registered land surveyor

Lease markering responsibility

Applicant

Biological assessment fee

Varies (no fee from DNR)

Property tax

No, but leasehold excise tax may be included with annual rent.

Present shellfish value assessment on proposed lease site?

Applicants pay the cost (if any) of DFW conducting the evaluation.

Additional Information Sources

Other websites of interest:

- [WA Shellfish Initiative](#)
- [Pacific Shellfish Institute](#)
- [Shellfish Interagency Permit Team](#)

Definitions

State definition of aquaculture:

Aquaculture WAC 173-26-020(6) means the culture or farming of fish, shellfish, or other aquatic plants and animals. Aquaculture does not include the harvest of wild geoduck associated with the state managed wild stock geoduck fishery.

How is on-bottom defined?

No formal definition.

Any on-bottom special conditions?

This varies by site/location, and DNR may incorporate habitat stewardship measures related to this activity. For instance, conditions may be applied to frosting, mechanical harvest, and geoduck culture.

How is off-bottom defined?

No formal definition.

Any off-bottom special conditions?

This varies by site/location, and DNR may incorporate habitat stewardship measures related to this activity. For instance, conditions may include spacing between lines when in eelgrass or conditions related to rafts/floating culture.

Any alternative names of a 'lease'?

Aquatic use authorization.

Special Natural Resource and Social Permit Conditions**Any special Corps/State permitting conditions to address environmental/user conflicts (in addition to standard NWP 48 conditions)?**

Geoduck farmers have to agree to allow DNR to conduct environmental monitoring of lease activity. Ecology reviews any new geoduck farm application.

Protected Resources and Critical Habitat Designations

Standard

Essential Fish Habitat (EFH)

Standard

Navigation

Standard

Historic resources

Standard

Migratory Fish

No information.

Shellfish density threshold

Not specified but DNR has DFW conduct site evaluation for impact to wild shellfish populations.

Submerged aquatic vegetation (SAV)

May not adversely impact eelgrass/macroalgae.

Other natural resource protection measures?

Forage fish spawning time period restrictions.

Riparian setback

No information.

Social capacity

No information.

Riparian Landowner Requirements

Any definition of what constitutes a riparian owner?

No information.

Any riparian owner notice requirement for lease applications?

DNR required to notify abutters of and shoreline property owners within 300' of proposed activity for geoduck aquaculture. WAC 332-30-122(a)(iii) also requires DNR to notify abutting upland property owners when proposing to lease tidelands to someone other than them (intertidal aquaculture).

Is applicant required to provide list of riparian owners to permitting agency?

Yes, JARPA requires upland owners to be listed.

Is any consent of riparian owner required? If so, under what condition?

Per WAC 332-30-122(a)(iii), when not adverse to the public's ownership, the abutting owner's water access needs may be reasonably accommodated.

Coastal Zone Management (CZM) Consistency Determination

Individual CZM determination needed if individual WQC is needed. [CZM federal consistency form](#).

Section 401 Water Quality Certification (WQC)

- [Contact Ecology for preapplication meeting and latest updates.](#)
- Individual WQCs will be required as described in [supplemental decision document for permit NWP 48.](#)
- Department of Ecology initially had granted with conditions (within 25 ft of eelgrass, culture above tidal elevation of +5 ft, or lacking management strategy for Pacific herring spawn). However, individual WQCs are now required.

Section 402/403 Pollution Control

NPDES Permit (not always required)

Required for discharge of pollutants to waters of United States (feed, nutrients, pharmaceuticals, antifouling agents, disinfectants, etc.) [More info from NPDES website.](#)

[Ecology NPDES Certifications](#)

Miscellaneous Questions

Is a bottom lease required for an off-bottom lease?

No information.

Any other license, permit and/or registration required for shellfish aquaculture and other related activities (e.g. shellfish import/nursery permits)? What are fees?

- [Aquatic farm registration](#) (\$105 annually) with WA DFW
- Shellfish Import Permits, Transfer Permits
- [Operators License \(Harvester, Shipper, etc.\) and Harvest Site Certification](#) from Department of Health
- USCG PATON

Any shellfish aquaculture lease/permit holder training/exam requirement?

Yes, [Commercial Shellfish Training](#)

Are shellfish aquaculture leases/permits restricted to residents only?

Not for DNR leases

Annual Permit/Lease Application Activity (2020)

Average # of shellfish lease applications/year (last 3-5 years)?

No information.

All shellfish species

No information.

Oyster

No information.

All shellfish on bottom lease applications

No information.

All shellfish off bottom lease applications

No information.

Number of complete shellfish applications currently in review?

No information.

Total Number of Leases (2020 unless otherwise noted)

Total # of shellfish leases.

Approximately 1,000 which includes privately owned tidelands and state owned aquatic lands (based on verifications issued by Corps).

All shellfish on bottom leases.

No information.

All shellfish off bottom leases.

No information.

Number of oyster leases (on and off bottom).

No information.

Total acreage of shellfish aquaculture leases. Separate by species if available.

No information.

All shellfish on bottom lease acreage.

No information.

All shellfish off bottom lease acreage.

No information.

Just oyster lease acreage (on and off bottom).

No information.

Total # of lease holders/individuals employed (if available)?

No information.

Harvest and Value (2020 unless otherwise noted)

Harvest and value of shellfish aquaculture.

Refer to DFW or Coastal Economist Kevin Decker with Washington Sea Grant

Any farm gate value estimates of shellfish aquaculture harvest? Separate by species if available.

Refer to DFW or Coastal Economist Kevin Decker with Washington Sea Grant
