

**COASTAL RESOURCES DIVISION**

**SHELLFISH POLICY MANUAL**

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**COASTAL RESOURCES DIVISION**

Georgia Department of Natural Resources Coastal Resources Division

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## **PURPOSE**

A primary objective of the Coastal Resources Division (CRD) Shellfish and Water Quality Program (the Program) is to ensure the safety of public health as it pertains to water quality and the sanitary control of molluscan shellfish produced and sold for human consumption. The policies and procedures outlined in this manual allow the Program to follow the requirements necessary to regulate the interstate commerce of molluscan shellfish from safe sources as described in the Model Ordinance produced by National Shellfish Sanitation Program (NSSP) and updated via the Interstate Shellfish Sanitation Conference (ISSC), both to which Georgia is a participating member. The guidelines set forth in the Model Ordinance must be followed to ensure that members of Georgia's shellfish industry can sell products to other states and countries.

Many of the requirements described in this document are established in the Official Code of Georgia Annotated Title 27 Chapter 4 Article 4 Part 4 to ensure sustainable management of the natural resources of the State of Georgia. The Program enforces many of the policies in this manual to limit the adverse impacts of commercial shellfish production on native shellfish, wetlands, and other organisms and ecosystems and to strongly encourage the use of sustainable farming techniques. Additionally, CRD considers the potential impact of commercial shellfish production on other uses of the public waterways on which these activities occur, including recreation, navigation, and riparian viewsheds, and attempts to limit adverse effects.

This policy manual was created to help current and potential shellfish farmers better understand the requirements set forth by the Program to properly regulate industry members in accordance with the requirements stated above and by other applicable local, state, and federal agencies. For the most up-to-date information (applications, interactive checklists, leasing opportunities, and the most recent version of this manual), please contact the CRD Shellfish and Water Quality Program at (912)264-7218 or visit the CRD website designated for commercial shellfish activities: [www.coastalga.org/commercialshellfishharvest](http://www.coastalga.org/commercialshellfishharvest).

## **DEFINITIONS**

**Approved Growing Area:** that area or areas approved by the department in conformance with the National Shellfish Sanitation Program which supports or could support the propagation of wild or maricultured shellfish that may be harvested and directly marketed for human consumption

**Comingling:** the act of combining different lots of shellfish

**Cultch:** includes, but is not limited to, oyster shells, clam shells, and other shellfish shells when those shells originated from Georgia salt waters; oak brush, nongalvanized wire fencing, small gravel, and any other material approved by the department

**Dealer:** a person to whom certification is issued for the activities of shellstock shipper, shucker-packer, repacker, reshipper, or depuration processor

**Department:** refers to Georgia Department of Natural Resources Coastal Resources Division unless otherwise described in this document

**Growing Area:** any site which supports or could support the propagation of shellstock by natural or artificial means

**Harvest:** the act of removing shellstock from growing areas and its placement on or in a manmade conveyance or other means of transport

**Harvest Area:** an area that contains commercial quantities of shellstock and may include aquaculture sites and facilities

**Harvester:** a person who takes shellstock by any means from a growing area

**Landing:** the point at which shellstock is put on land or a dock

**Management Plan:** a detailed plan submitted by the Master Harvester describing all activities related to shellfish production and marketing over the term of a shellfish lease, as approved by the department

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

**Master Harvester:** a person who has acquired a lease with permission to grow or harvest shellfish from the state or from an owner with exclusive rights to shellfish pursuant to Code Sections 44-8-6 through 44-8-8, who has been permitted by the department

**Seed:** juvenile shellstock intended for growth to market size

**Shellfish:** all species of oysters, clams, mussels, or scallops

**Shellstock:** live molluscan shellfish in the shell

**Water Bottoms:** the lands within this state covered at mean high water from the saltwater and freshwater demarcation line seaward to the state boundary.

## **ACRONYMS**

**CDF:** Cultch Deployment Form

**CRD:** Coastal Resources Division

**DNR:** Georgia Department of Natural Resources

**FDA:** United States Food and Drug Administration

**GADOA:** Georgia Department of Agriculture

**ISSC:** Interstate Shellfish Sanitation Conference

**MHHW:** Mean Higher High Water

**MHP:** Master Harvester Permit

**MLLW:** Mean Lower Low Water

**NSSP:** National Shellfish Sanitation Program

**OCGA:** Official Code of Georgia Annotated

**PCN:** Pre-Construction Notification

**SMP:** Shellfish Mariculture Permit

**USACE:** United States Army Corps of Engineers



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## SHELLFISH PERMITTING POLICY

**Statutory Authority:** O.C.G.A. Title 27 Chapter 4 Article 4 Part 4, and Georgia Department of Natural Resources Coastal Resources Division, Saltwater Fishing Regulations, Chapter 391-2-4-.19

This policy describes the permits and authorizations granted by the Department for an individual to harvest shellfish in commercial capacities in the State of Georgia. Most harvest activities do not require all the permits or authorizations described in this document, but the Master Harvester is responsible for obtaining all of those which are applicable.

### Harvest Area Types:

**Harvest Area** means an area that contains commercial quantities of shellstock and may include aquaculture sites and facilities. In Georgia, Harvest Areas are authorized via Master Harvester Permit (MHP). MHPs are authorized following the policy below.

Harvest Areas are described using three different attributes: designated use (wild harvest vs. mariculture), water bottoms type (intertidal vs. subtidal), and ownership of rights to shellfish (State Harvest Area vs. Private Harvest Area).

#### *Wild Harvest & Mariculture*

The wild harvest of shellfish is defined as the harvesting of any shellfish that are not contained in confinement at any life stage. This includes the harvesting of oysters from beds that were cultured or “cultched”. The placement of cultch materials requires submission and approval of a Cultch Deployment Form (CDF) to the Department and authorization from the United States Army Corps of Engineers (USACE) before placing materials into the waters of the state.

Mariculture activities are defined as the controlled cultivation of shellfish in confinement from seed size until harvest for commercial purpose. This includes any shellfish cultivation that uses bags, cages, coverings, racks, or any other placement of gear that is not considered cultch. Mariculture activities require a Shellfish Mariculture Permit (SMP) from the Coastal Resources Division (CRD) and approval from the USACE before gear may be placed in the waters of the state.

### *Intertidal & Subtidal Harvest Areas*

Intertidal Harvest Areas include rights to conduct shellfish operations within all unvegetated water bottoms located between MLLW (mean lower low water) and MHHW (mean higher high water). Wild harvest and mariculture are both permitted on intertidal Harvest Areas. No floating gear will be permitted on intertidal Harvest Areas. Master Harvesters must obtain proper authorizations from the Department and USACE before conducting shellfish operations.

Subtidal Harvest Areas are for mariculture purposes only and require an SMP from the Department and approval from the USACE. These Harvest Areas allow the use of floating gear such as floating cages, floating bags, and any other gear for shellfish mariculture purposes. Subtidal shellfish operations shall only be permitted in areas deeper than six feet at mean low water and will only be considered as state Harvest Areas.

### *State Harvest Areas & Private Harvest Areas*

State-owned water bottoms are leased at the discretion of the Department and permitted as State Harvest Areas. State Harvest Areas can be designated as intertidal (wild harvest or mariculture) or subtidal (mariculture only). State Harvest Areas are subject to CRD's State Harvest Area Leasing Policy. State Harvest Areas are pre-screened prior to leasing to mitigate conflicts with critical habitat, historic sites, federal or state managed lands, and other known conflicts of interest. However, the Department does not guarantee that no conflicts exist.

Water bottoms where rights to shellfish belong to private individuals, such as those recognized through verified Crown/State grants or riparian ownership, may be considered as Private Harvest Areas if they are fully contained within the boundaries of Shellfish Growing Areas. The Harvest Area must contain non-vegetated, intertidal water bottoms. If the Harvest Area is deemed eligible by the Department, a Master Harvester Permit must be obtained from the Department prior to any commercial activity within the area of question. Private Harvest Areas may be leased to an individual who is not the landowner for commercial shellfish activities, but a legal, notarized contract must be provided to the Department that contains a specific description of the Harvest Area to be leased, the term of lease, a description of rent payments, contact information of both parties, and a clause requiring the lessee to adhere to all state laws, rules and regulations. If the Harvest Area lease contract expires without providing evidence of renewal to the Department, the MHP will be revoked on the end date of the last known contract. All commercial shellfish operations on Private Harvest Areas must first receive proper authorizations from the Department. Authorization from the Department does not relieve you from obtaining any other required federal, state, or local permits.

### **Harvest Area Permitting:**

Individuals who have rights to commercial shellfish operations within eligible water bottoms as described above shall apply for an MHP from the department. Issuance of an MHP authorizes the permit holder (Master Harvester) to conduct commercial shellfish operations as described in the permit. The MHP contains five different authorizations:

- **Shellfish Harvest:** The harvest of shellfish shall be granted once the permittee has acquired all necessary certifications from the Georgia Department of Agriculture or if permission to take and possess shellfish has been granted by the Department.
- **Wild Cultivation:** The cultivation/planting of wild shellfish beds and the placement of cultch materials shall be authorized after a CDF supplied by the Master Harvester has been approved by the Department and the placement of cultch materials has been authorized by the USACE.
- **Shellfish Mariculture Permit:** Controlled cultivation of shellfish within confinement shall be authorized upon issuance of an SMP by the department. SMPs are issued upon SMP Application approval by the Department and authorization from the USACE.
- **Cage Permit:** Cage Permits are granted with the issuance of an SMP when applicable, as described in the “Cage Permits” section of this policy.
- **Closed Season Harvest Permit:** Closed Season Harvest may be authorized according to Board Rules & Regulations with the submission of approved harvest plans.

\*General maintenance activities such as the placement of signs, buoys, or other approved demarcation instruments are approved through either the Wild Cultivation or Shellfish Mariculture Permit endorsement described above.

### **Master Harvester Requirements:**

The Master Harvester has the responsibility to ensure anyone working their Harvest Area has obtained a Harvester Permit from the Department. Harvester Permits are supplied by the Department upon submission of a Shellfish Harvester Permit Application signed by a Master Harvester and completion of Georgia’s Shellfish Harvester Training. All persons working a Harvest Area must have their Harvester Permit on their person. The Master Harvester is also responsible for reporting landings to the Department monthly and maintaining all required permits and authorizations (lease, gear, and otherwise).

All commercial shellfish operations conducted in the state of Georgia must maintain compliance with applicable state and federal agencies, including but not limited to the Georgia Department of Agriculture (GADOA), USACE, and CRD. Failure to maintain compliance may result in mandated removal of gear and/or revocation of shellfish Harvest Area authorizations.

### **Wild Harvest Requirements:**

Master Harvesters who wish to engage in wild harvest of shellfish must maintain cultching requirements described in CRD’s Cultch Deployment Policy. A CDF must be submitted to the Department no later than July 1<sup>st</sup> each year. Master Harvesters are responsible for obtaining all other pertinent authorizations from other state/federal agencies. All contracts pre-dating the policy changes contained herein will be honored by the Department and shall be upheld by the lessee on all intertidal Harvest Areas.

## **Mariculture Requirements:**

### *Shellfish Mariculture Permit*

Any Master Harvester who wishes to engage in shellfish mariculture activities must obtain an annual SMP from the Department via application. The application requires details on an operation plan including species to be farmed, types and quantity of gear to be used, sources of seed, storm mitigation plans, and other information. Approval of mariculture operations from the Department also requires authorization from the USACE and any other applicable state/federal agency. SMPs shall be renewed annually through the Department via an SMP Renewal Form submitted by July 1st.

### *Cage Permit*

**Status Update:** As of 12/9/2021, cage permits and fees are temporarily suspended while seeking legislative fix.

~~O.C.G.A 27-4-204 states that all shellfish mariculture cages must have identification assigned by the Department attached to the cage if placed in the salt waters of this state. The Department defines a cage as a containment unit of any size that contains or may contain oysters for commercial grow out including but not limited to cages, bags, or baskets. The department will issue a cage permit when the Master Harvester obtains or renews an SMP. Cages will be permitted in increments of 25 and cage permits shall not be amended until renewal the following year. The cage permit shall be issued for an annual fee of \$1.00 per cage.~~

~~The Department will provide the Master Harvester cage tags when the SMP is issued. For containment units that hold multiple smaller containment units inside (ex: OysterGro® cages, Hoopers Island Oyster Co.™ Hi Flow System, and bottom cages), only the larger outer containment unit is required to have a Department issued cage tag and will only be charged the permit fee of \$1.00 for the whole unit. Cage tags shall be attached in a manner so that the tag is easily identified. Damaged tags will be replaced by the Department at no cost if the damaged tag is returned to the Department. Lost tags will be replaced at a cost of \$1 per tag.~~

~~Clam mariculture gear is exempt from the cage permit requirement.~~

### *Shellfish Importation Permit*

Mariculture operations will likely require the purchase of shellfish seed. Seed imported from out-of-state must come from a list of Department-approved hatcheries/nurseries. Currently, all seed imports must be inspected by the Department. All shellfish seed importations shall follow the Department's Molluscan Shellfish Importation Policy.

## **Revocation of Commercial Harvesting Rights:**

Master Harvester Permits may be suspended or revoked if the Master Harvester fails to comply with the Shellfish Policies set by the Department.

Any violation of the Official Code of Georgia may be deemed guilty of a misdemeanor of a high and aggravated nature. Any person convicted of violating the law shall have all authorizations revoked and not reissued for a period of three years.



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## SHELLFISH WATER BOTTOMS LEASING POLICY

**Statutory Authority: O.C.GA. Title 27 Chapter 4 Article 4 Part 4, and Georgia Department of Natural Resources Coastal Resources Division, Saltwater Fishing Regulations, Chapter 391-2-4-.19**

This policy describes the process utilized by the Department to offer leases of state-owned water bottoms to the public for the purposes of commercial shellfish production and the requirements that must be met by a leaseholder.

### Lease Advertising and Leasing of State Water Bottoms:

State-owned intertidal water bottoms will be offered via public bid for the purpose of commercial shellfish production. All available leases will be advertised in the newspaper of the county the lease is located in and via public notice on the CRD website for a period of no less than two consecutive weeks. Available leases may also be advertised by newspaper in neighboring counties or by other means of notification including but not limited to social media. The advertisement shall include a description of the water bottoms advertised, the quantity of acres leased (an estimate of intertidal, non-vegetated water bottoms), the minimum bid acceptable for each lease area advertised, and a guidance document for submitting a bid package. Minimum bids will be set at no less than 15 dollars per acre of leased water bottom, for a contract term of 10 years. Bid packages shall include a refundable certified check or cashier's check valued no lower than the minimum bid of the lease applied for and a management plan. Management plans are evaluated by a committee of CRD staff outside of the Shellfish and Water Quality program based on a combination of factors including husbandry techniques, knowledge of applicable laws and requirements, certifications held, and goals for the property using a scoring matrix. Ranking of management plans is used as the primary means to decide who will be offered leases. In the event of a tie, bids submitted will be used as the tie breaker. If a bid package is accepted, the bid offered will serve as the annual lease fee for the 10-year duration of the contract. Right of first refusal may be offered to leaseholders at the end of a contract term, but the contract offered may differ due to changes in department policy or market value of leased areas.

Subtidal leases are offered via a lottery devised and operated by the Department. The lottery has minimum requirements for entry, and candidates will be ranked using priority points. Priority points will be awarded based primarily on characteristics that make an applicant more likely to succeed, such as experience in the industry, and have been vetted through CRD's Shellfish

Mariculture Advisory Panel. Further information can be found in the Lottery Application for Subtidal Shellfish Mariculture Leases and the attached Guidance Document (Appendix C). Winners will be chosen at random from candidates within the highest tier of priority points, moving down by tier until all leases have been awarded. The Department reserves the right to change lottery entry and priority point requirements. Subtidal leases shall be leased at an annual fee of no less than 50 dollars per acre per year for a contract term of 10 years. Right of first refusal may be offered to leaseholders at the end of a contract term, but the contract offered may differ due to changes in Department policy or market value of leased areas.

State leaseholders must be in good standing with the Department before being considered for any additional leases.

### **General Lease Requirements:**

- Within 30 days of the execution of any shellfish lease, a lessee shall have a copy of the lease recorded by the Clerk of the Superior Court of the county or counties in which the leased area is located.
- Each person granted a shellfish lease shall pay an annual lease fee. If the annual lease fee is not paid by August 1, the department shall assess a late penalty of 10%. If the Department does not receive the fee and any penalty before September 1, the lease shall be void.
- Annual lease fees shall be prorated as determined necessary by the Department.

### **Intertidal Lease Requirements:**

#### *Wild Harvest*

All shellfish leaseholders on state leases that participate in the wild harvest of oysters and clams are contractually obligated to meet the minimum cultching requirements set by the Department's Cultch Deployment Policy on each of their Harvest Areas.

#### *Minimum Planting Requirement (Mariculture-Designated Leases Only)*

Once all authorizations have been obtained, all intertidal State Harvest Areas designated for mariculture use are held to a minimum cultivation requirement that must be met annually to maintain the right to conduct commercial shellfish operations on the lease. State leases designated for intertidal shellfish mariculture must plant 100,000 clam seed or 50,000 oyster seed per acre per year. A weighted combination of the two may also be accepted. Receipts from all seed purchases or transfers shall be provided to the Department to verify compliance with minimum planting requirements. The Department reserves the right to alter the minimum planting requirement based on Harvest Area acreage, seed availability, market volatility, natural disasters, or any other event the Department deems qualifying.

If leaseholders of intertidal leases designated for mariculture use choose to conduct wild harvest, they must meet the cultching requirement of 1/3 bushel of cultch deployed per bushel of wild oyster harvested.

## **Subtidal Lease Requirements:**

### *Minimum Planting Requirement*

Once all authorizations have been obtained, subtidal State Harvest Areas will be held to a minimum planting requirement of 10,000 oyster seed per acre within the first year. Planting requirements will increase by 10,000 per acre each year until the maximum of 50,000 oyster seed per acre is reached and maintained for the remainder of the lease contract. Renewed lease contracts will maintain the 50,000 seed per acre per year requirement for the remainder of the lease contract and upon lease renewal. See the table below for an example of planting requirements on leases of different sizes.

<b>Year</b>	<b>Planting Requirement (per acre)</b>	<b>5 Acre Lease Requirement</b>	<b>10 Acre Lease Requirement</b>
1	10,000	50,000 (~50 cages)	100,000 (~100 cages)
2	20,000	100,000 (~100 cages)	200,000 (~200 cages)
3	30,000	150,000 (~150 cages)	300,000 (~300 cages)
4	40,000	200,000 (~200 cages)	400,000 (~400 cages)
5+	50,000	250,000 (~250 cages)	500,000 (~500 cages)

Minimum oyster seed requirements may be reevaluated by the Department on an annual basis and may be changed based on seed availability, market volatility, natural disasters, encouraging maximal use of the area of the lease, or for another reason the Department deems necessary. The Department reserves the right to reduce the lease area if the leaseholder has failed to meet the minimum production standard or upon a leaseholder's request. All forfeited lease areas must go through a lottery process before being leased again; the former leaseholder would be allowed to participate in the lottery but would receive no preference for being the prior leaseholder.

### *Performance Bond Requirement*

Subtidal leases require a performance bond of \$20,000 per lease provided to the Director of CRD by the Master Harvester to ensure compliance with the procedures and standards set by the Department.

## **Maximum Lease Allotments:**

For state intertidal lease allotment, preference may be given to applicants that lease less than half of the state-leased water bottoms within a Growing Area, by lease quantity or leased acreage. No Master Harvester shall hold more than 30 acres of subtidal water bottoms. For either lease type, the Department may grant an exception if there are no other applicants for any advertised Harvest Area. The Department reserves the right to change maximum Harvest Area quantities if deemed necessary.

## **Grounds for Removal:**

In instances where Master Harvesters are found in breach of contract, written warning may be administered via certified mail at two-week intervals until any issues have been corrected. Accrual of written warnings within any lease term may result in revocation of leasing rights. Written warnings may be issued for the following offenses:

- Failure to apply for MHP renewal by the deadline
- Failure to apply for SMP renewal by the deadline
- Failure to submit Cultch Deployment Forms by the deadline
- Failure to pay rent fees by the date specified in the contract
- Failure to meet production standards or minimum cultch requirements
- Master Harvesters on new state leases will be held to a set of deadlines similar to those found in the Section below. The exact deadlines will be listed in the lease contract and may vary due to pertinent circumstances. The Department reserves the right to extend leniency to these deadlines when deemed appropriate.

Any violation of Georgia laws or regulations may be deemed guilty of a misdemeanor of a high and aggravated nature. Any person convicted of violating the law shall have all authorizations revoked and not reissued for a period of three years. Revocation of authorizations in these instances shall result in the immediate termination of lease contracts and Harvest Areas may be advertised for leasing to other individuals.

## **Example Deadlines:**

Master Harvesters on state leases shall be contractually obligated to follow a set of deadlines similar to those below (as applicable):

- Lease contracts for State Harvest Areas must be signed within 30 days of winning the public bid process or lottery.
- Lessee shall have a copy of the lease contract recorded within 30 days of its execution by the Clerk of the Superior Court of the county or counties in which the Harvest Area is located.
- An SMP application/CDF must be submitted to the Department within 60 days of the execution of the lease contract.
- Pre-construction notifications shall be submitted to the USACE within 60 days of conditional approval of an SMP application or CDF. The department shall be notified upon submission.
- Master Harvesters shall obtain all applicable GADOA certification(s) to handle shellfish, or a department-approved alternative, within one year of signing a lease contract.

These deadlines have been created to ensure state leases are utilized in a timely manner. After receiving all required authorizations, Master Harvesters shall be held to the minimum planting requirements described in this policy. The amount of time given in the deadlines above are subject to change as the department sees fit and are only provided to show an example of the stipulations a prospective grower should expect in their lease contract.



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## CULTCH DEPLOYMENT POLICY

**Statutory Authority:** O.C.G.A. 27-4-196

This policy is to establish guidelines for cultching and planting activities in Harvest Areas in accordance with O.C.G.A. §27-4-196. The Department must approve a Cultch Deployment Plan before any activities are performed in the Harvest Area. All Cultch Deployment Forms must be submitted annually by July 1<sup>st</sup> for Department review and approval. A Pre-Construction Notification (PCN) must also be submitted to and approved/acknowledged by the USACE prior to cultch deployments. Signage or hazard markers may be required to mark cultch depending on the cultch material and relief from natural sediment bottoms. The approval by the Department and/or the USACE may contain specific requirements for signage. Failure to adhere to this policy could result in a violation of O.C.G.A. §27-4-196.

### Wild Harvest Cultch Requirements:

All shellfish lease holders on **State Harvest Areas** that participate in the wild harvest of oysters and clams are contractually obligated to meet minimum cultching requirements on each of their Harvest Areas:

- For wild oyster harvest the Master Harvester must place **on each Harvest Area** the equivalent of at least ten (10) bushels of cultch per acre of leased intertidal bottom **OR** the quantity of cultch equivalent to at least thirty-three and one-third (33 1/3) percent by volume of the landings reported **from that Harvest Area** from the previous year, **whichever is greater**.
- For wild clam harvest on **State Harvest Areas**, the Master Harvester must annually replant seed clams no smaller than four (4) millimeters in width or transplant larger clams, in the amount of at least a two to one (2:1) ratio of planted clams to harvested clams from the previous year from that Harvest Area. If smaller seed clams are planted, additional cultch will be required to establish viable clam habitat and serve as a protective barrier from predators.

All Master Harvesters on **Private Harvest Areas** that participate in the wild harvest of oysters are also obligated to meet minimum cultching requirements on each of their Harvest Areas:

- Each Master Harvester is required to place the quantity of cultch equivalent to at least thirty-three and one-third (33 1/3) percent by volume of the landings reported from that Harvest Area from the previous year.

### **Achieving Cultch Requirements:**

There are several approved techniques to meet the required planting quotas that are covered in this policy. The Department must be notified **5 working days before** any cultching or planting activities occur on a Harvest Area to receive credit towards the cultch requirement. The Department may supervise the deployment to ensure cultching activities are performed in accordance with the approved plan. In some cases, cultch or planting site conditions may need to be assessed before the placement of cultch or planting occurs. CRD will notify the Master Harvester if a pre-evaluation site visit is necessary with the approval of their Cultch Deployment Plan.

A U.S Bushel is equal to 1.25 cubic feet. One cubic yard of shell is equal to 27.1 U.S. Bushels. Other materials may be approved by the Department only if first requested in writing by the Master Harvester. If a Master Harvester plans to use a cultch material not listed in the conversions below, the Department must assess the cultch for volume and assign a bushel credit value.

- Recycled Oyster Shell      60LBS = 1 BU.
- Recycled Clam Shell      75LBS = 1 BU.
- Recycled Scallop Shell      40LBS = 1 BU.
- 2 in. Fossil Stone (Marl)      90LBS = 1 BU.
- Wood Bundles 3'H x 10'L      1 BUN = 10 BU.
- Crab Trap (non-fishing)      1 Trap = 1 BU.

### **Accepted Cultching Techniques:**

#### *Shell Cultch*

Shell used for cultching may include oyster, clam, whelk, mussel, scallop and any other shell species native to Georgia. Green shell coming from out of state sources must be cured on land for a minimum of six (6) months before use. Shell may be deployed using a variety of methods including scattering loose shell on suitable bottom, bagging with Department-approved materials, and placing bags on untreated pallets on the bottom. The scarcity of shell may restrict this method and the Master Harvester is encouraged to develop recycling strategies with customers who purchase shell stock to ensure future access to shell. **Shell Cultch can account for up to 100% of the annual cultch requirement.**

#### *Alternative Cultch*

Due to limited sources and the high cost of available shell cultch, the Department will grant credit for the use of alternative cultch materials. Examples of materials that have been approved and used include untreated wood (tree limbs, pallets, and wooden stakes), bamboo, vinyl coated wire (non-fishing crab traps), non-galvanized wire, PVC (spat sticks), crushed aggregate (gravel,

limestone, etc.) and bio-concrete (oyster reef balls, oyster restorations tiles, etc.). Requests for approval of other alternative cultch materials must be submitted in writing and may be approved by the Department. A Cultch Deployment Plan with specific details of how the material will be configured and used must be approved by the department **before** any credit will be granted for the use of alternative cultch material. The Department must assess alternative cultch for volume and will assign a bushel credit value. **Alternative cultch can account for up to 100% of the annual cultch requirement.**

#### *Rake-Down or Breaking Clusters*

Rake-Down of oyster beds is a method of breaking down clusters of small or unmarketable oysters and placing the oysters in the lower intertidal zone. Research has shown that oysters thrive and are most productive along the lower portions of the intertidal slope. This activity generally creates a reduction in the numbers of animals per square meter which results in accelerated growth of marketable oysters and promotes new growth for the oyster bed. **Before** this technique can be used, the Department must complete an evaluation of the beds considered and may be present during the rake-down process. A cultch credit amount will be given during the evaluation process. Oysters may only be raked down to the lowest layer of shell material above the sediment level. No rake-down area shall be left entirely bare of shell material or rake-down rights may be revoked. **Rake-Down may account for up to 50% of the annual cultch requirement.**

#### *Clam Seed Planting*

Clam seed no smaller than 4mm in width should be planted in areas with a protective overburden. To create an area of protective overburden, the bottom may be planted with oyster shell, seed oysters, gravel, limestone aggregate, etc. to a depth of approximately 3 ½ inches. The protective overburden creates a habitat for the seeded clams to provide protection from predators and enhance survival. This technique is best accomplished during January and February, a period of limited predator activity. CRD will validate an area of protective overburden **before** clam seed can be planted. Any seed purchased must come from an approved in-state or out of state source and follow the Molluscan Shellfish Importation Policy. **Clam seed planting must meet 100% of the annual cultch requirement.**

#### **Request to reduce cultch requirement:**

A Master Harvester can apply for a reduction in the annual cultch requirement. A request for cultch reduction must be submitted **in writing** to CRD. CRD will evaluate the request using current sound principles of wildlife research and resource management and determine if the reduction is warranted and continues to meet sustainable yields for the property. Some percentage of the cultch requirement must be met every year, even in events of major oyster mortalities or other natural catastrophic events.



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## MOLLUSCAN SHELLFISH IMPORTATION POLICY

**Statutory Authority:** O.C.GA. 27-4-203 and Georgia Department of Natural Resources Coastal Resources Division, Saltwater Fishing Regulations, Chapter 391-2-4-.19.

This policy is for the protection of the natural ecosystems of Georgia with emphasis on the health and genetics of native molluscan shellfish and pertains only to the importation of molluscan shellfish for aquaculture purposes. This includes hatchery/nursery operations and intertidal and subtidal mariculture operations but does not apply to the importation of shellfish for direct human consumption. The Department must approve the importation of all molluscan shellfish from out-of-state sources. The Department shall not approve importation of any non-indigenous species of molluscan shellfish. Relevant examples of such non-indigenous species for this policy would include, but not be limited to, the Pacific oyster (*Crassostrea gigas*) and Suminoe oyster (*Crassostrea ariakensis*). No molluscan shellfish will be allowed into the State without an **approved** Importation Permit. Failure to adhere to this policy may result in loss of hatchery/nursery certification, Master Harvester permits, and any other authorization as deemed relevant by the Department. Molluscan Shellfish imported in violation of this policy will be removed and destroyed as directed by the Department.

### General Requirements:

An Importation Permit Application must be submitted to the Department by the importing party at least five working days before importation and approved by the Department prior to the importation of seed. Shellfish intended for importation into Georgia must be native to Georgia and contain genetics from Georgia populations. Triploid seed are exempt from the genetic requirement. Out-of-state hatcheries/nurseries must be on the approved/certified list provided by the department (contact the Department for an up-to-date list) to allow importations into the state; out-of-state hatcheries/nurseries must submit an annual application and undergo an inspection to be placed on this list. Molluscan shellfish seed must be under the **maximum** seed size set for that shellfish species. All parties shall maintain records of all shellfish and shellfish gamete importations for at least two years. These records must be made available for inspection by the Department upon request.

### **Eastern Oyster (*Crassostrea virginica*):**

Maximum Seed Size: 1 inch

Seed exceeding the maximum seed size must obtain special permission from the Department.

Eastern oyster seed imported from out-of-state sources for aquaculture purposes must be accompanied by diagnostic results from a Department approved source (contact the Department for an up-to-date list). The diagnostic results must document that the stock shows no evidence of the following pathogens: *Haplosporidium nelsoni* (MSX), *Haplosporidium costale* (SSO), *Perkinsus marinus* (Dermo), *Roseovarius crossostreae* (ROD), and *Bonamia exitiosa* (Bonamiosis). Additional pathogens as identified by the Department may require additional testing. Pathogen testing results are valid for 30 days following issuance and must be provided to the Department prior to shipment.

For non-diploid shellfish, the suppliers must test and verify the ploidy of the shellfish or gametes to be imported and results sent to the Department prior to shipping.

Triploid seed suppliers must provide written documentation including:

- Methods used to create the triploid (tetraploid x diploid breeding or chemical induction of triploidy).
- How the ploidy of the seed will be tested.
- Provide ploidy test results from a representative sample of seed purchased.
- Provide guarantee of triploid sterility.

### *Hatchery Seed*

In the hatchery inspection process, the department shall determine the classification of seed produced as hatchery seed or nursery seed. Eastern oyster seed produced in a closed system with water filtered to one micron or less and supplied a diet of cultured or purchased algae/microalgae shall be considered hatchery seed. Hatchery seed shall remain in the closed system while cohorts from the batch to be shipped (no less than 60 individuals per batch) are sent off for pathogen testing. Once results are deemed acceptable then a Shellfish Importation Permit may be approved.

### *Nursery Seed*

Oyster seed from outside Georgia that has been exposed to raw water (any unfiltered water or water filtered at greater than 1 micron) or fed with naturally occurring algae sourced from outside Georgia shall be considered nursery seed. Nursery seed must be quarantined in a closed system with water filtered at less than or equal to one micron while cohorts from that batch (no less than 90 individuals per batch) have been sent off for pathogen testing. Once results are deemed acceptable, a Shellfish Importation Permit may be approved.

**Hard Clam (*Mercenaria mercenaria*):**

Maximum Seed Size:  $\frac{1}{2}$  inch

Seed exceeding the maximum seed size must obtain special permission from the Department.

Clam seed imported from out-of-state sources for aquaculture purposes must be accompanied by diagnostic results from a Department approved source (no less than 50 individuals per batch shall be tested). The diagnostic results must document that the stock shows no evidence of the following pathogens: Quahog Parasite Unknown (QPX) and *Perkinsus marinus* (Dermo). Additional pathogens as identified by the Department may require additional testing. Pathogen testing results are valid for 30 days following issuance and must be provided to the Department prior to shipment.

**Acceptance Criteria:**

All molluscan shellfish importations require an inspection from the Department. An appointment with the Department shall be arranged no less than 5 working days prior to importation. The Department reserves the right to waive inspection requirements. Each batch of shellfish seed within an importation shipment shall be inspected using the following criteria:

- Hatchery Seed:
  - PASS: No non-target organisms per batch.
  - FAIL: Greater than or equal to one non-target organism per batch.
- Nursery Seed:
  - PASS: Less than 5% non-target organisms per batch.
  - CONDITIONAL: 5-20% of batch is non-target organisms. Non-target organisms shall be removed from shipment and the shipment shall be inspected again. All non-target organisms shall be disposed/destroyed.
  - FAIL: Greater than 20% non-target organisms in batch.

*Failed Shipments*

Any batch of shellfish within a shipment that fails inspection must be removed from the state or disposed/destroyed. The inspection agent may escort the shipment out of Georgia but must witness disposal/destruction if that method is chosen.

**Importations Other than Eastern Oyster and Hard Clam Seed:**

*Species of Molluscan Shellfish other than Eastern Oysters and Hard Clams*

Importation of shellfish other than Eastern Oysters and Hard Clams for commercial and/or research purposes will require a separate authorization from the Department and will be handled on a case-by-case basis.

### *Broodstock & Gametes*

Importation of broodstock and gametes for commercial or research purposes will require a separate authorization from the Department and will be handled on a case-by-case basis.

### *Out-of-State Green Shell Importation*

Green shell coming from out-of-state sources must be cured before use and must be placed on land for a minimum of six months before deployment in state waters. Purchase and shipping receipts of out-of-state green shell imports shall be provided to the department upon purchase to verify shell is purchased six (6) months before deployment.

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## SHELLFISH WILD HARVEST CHECKLIST

### Obtain a Water Bottom for a Shellfish Harvest Area

- State Intertidal water bottom
  - Leases are advertised by CRD and awarded via a competitive bid process.
- Private Intertidal water bottom
  - Must be inside an Approved Growing Area.
  - Applicant must prove valid ownership and/or lease contract.

Contacts: CRD (912)264-7218

For more information and view current leasing opportunities, visit:

<https://coastalga.dnr.org/commercialshellfishharvest>

### Start GA Dept. of Agriculture Certification Process

\*You must be certified by the GADOA before harvesting any product from your Harvest Area\*

GADOA Contact: Krissa Jones (404) 657-4801

For more information, visit: <http://www.agr.georgia.gov/seafood.aspx>

### Obtain CRD Commercial Fishing License with Shellfish Endorsement

Contacts: CRD (912)264-7218

For more information, visit: <https://coastalga.dnr.org/CommercialFishing>

### Obtain CRD Master Harvester Permit (MHP)

Contacts: CRD (912)264-7218

An MHP application will be provided by the department once a valid Harvest Area has been identified.

### Submit a Cultch Deployment Form (CDF)

Contacts: CRD (912)264-7218

For a digital copy of a CDF, visit: <https://coastalga.dnr.org/commercialshellfishharvest>

### Obtain US Army Corps of Engineers Permit

Contact: Skye Stockel (912)652-5690, [Skye.H.Stockel@usace.army.mil](mailto:Skye.H.Stockel@usace.army.mil)

For more information, visit: <https://www.sas.usace.army.mil/Missions/Regulatory/Permitting/>

\*Before placing Cultch in the waters of the state, all State and Federal Permits must be obtained\*



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## SHELLFISH MARICULTURE CHECKLIST

### Obtain a Water Bottom for a Shellfish Harvest Area

- State Intertidal water bottom
  - Leases are advertised by CRD and awarded via a competitive bid process.
- Private Intertidal water bottom
  - Must be inside an Approved Growing Area.
  - Applicant must prove valid ownership and/or lease contract.
- Subtidal water bottoms
  - Leases are advertised and offered via a lottery by CRD.

For more information and view current leasing opportunities, visit

<https://coastalgadnr.org/commercialshellfishharvest>

### Start GA Dept. of Agriculture Certification Process

\*You must be certified by the GADOA before harvesting product from your Harvest Area\*

GADOA Contact: Krissa Jones (404) 657-4801

For more information, visit: <http://www.agr.georgia.gov/seafood.aspx>

### Obtain CRD Commercial Fishing License with Shellfish Endorsement

Contacts: CRD (912)264-7218

For more information, visit: <https://coastalgadnr.org/CommercialFishing>

### Obtain CRD Master Harvester Permit

Contacts: CRD (912)264-7218

An MHP application will be provided by the department once an applicable Harvest Area has been identified.

### Apply for Shellfish Mariculture Permit

Contacts: CRD (912)264-7218

For a digital copy of an SMP, visit: <https://coastalgadnr.org/commercialshellfishharvest>

### Obtain US Army Corps of Engineers Permit

Contact: Skye Stockel (912)652-5690, [Skye.H.Stockel@usace.army.mil](mailto:Skye.H.Stockel@usace.army.mil)

For more information, visit: <https://www.sas.usace.army.mil/Missions/Regulatory/Permitting/>

### Receive GA DNR Shellfish Mariculture Permit

- Cage Permit authorized with SMP if necessary (oyster gear only).

\*Before placing gear in the waters of the state, all State and Federal Permits must be obtained