



COASTAL RESOURCES DIVISION

ONE CONSERVATION WAY · BRUNSWICK, GA 31520 · 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

February 10, 2025

MEMORANDUM

TO: Members, Board of Natural Resources

FROM: Doug Haymans

SUBJECT: Proposed Amendment to the Rules of the Georgia Department of Natural Resources, Saltwater Fishing Regulations, Rule 391-2-4

The Coastal Resources Division is proposing to adopt a new Rule, contained in the Saltwater Fishing Regulations, Rule 391-2-4-.19. The proposed Rule would provide for a Departmental procedure to approve Certified Shellfish Master Harvesters to operate during an otherwise closed season, requirements for shellstock tagging and shading, and a procedure for harvest closures in case of outbreak of illness.

Included in this packet are the following:

- Proposed Notice Page A-2
- Background and Synopsis Pages A-3 thru 5
- Date, time and place of Board action Page A-5
- Explanation of the Public Participation Plan Page A-6
- Analysis of Small Business Impacts Page A-7
- Exact Copy of Proposed Rule Pages A-8 thru 18

I respectfully submit these items for your consideration. The Coastal Resources Division looks forward to presenting these at the February meeting.

DH/ja

Attachments



DEPARTMENT OF NATURAL RESOURCES
COASTAL RESOURCES DIVISION
ONE CONSERVATION WAY · BRUNSWICK, GA 31520 · 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

February 26, 2025

NOTICE OF PROPOSED REGULATION CHANGES

TO: All Interested Persons and Parties

FROM: Doug Haymans

SUBJECT: Notice of Rule Making for Saltwater Fishing Regulations for Shellfish

Notice is hereby given that, pursuant to authority contained in O.C.G.A. §27-1-4, and §27-1-189, the Board of Natural Resources proposes to adopt a new Rule contained in the Saltwater Fishing Regulations, Rule 391-2-4-.19. The proposed section, when adopted, will provide requirements to participate in the harvest of molluscan shellfish during otherwise closed seasons, requirements for shellstock tagging and shading, and provide a procedure for shellfish closures in case of the outbreak of illness.

Written public comments will be received through Friday March 28, 2025. Mailed comments must be postmarked by March 28th, and e-mailed comments will be accepted through close of business (4:30 pm) on March 28th. Comments should be legible, concise and limited to the proposed rule.

Following this comment period, the Board of Natural Resources will consider the proposed amendment on Tuesday, April 22, 2025, at 9:00 a.m. at Charlie Elliott Wildlife Center, Shepherd Room, 543 Elliott Trail, Mansfield, GA 30055.

Mail or email comments to: Dominic Guadagnoli
Coastal Resources Division
One Conservation Way
Brunswick, GA 31520
Email: dom.guadagnoli@dnr.ga.gov

Additional information is available at www.coastalgadnr.org. Click in the “News and Public Notices”.

**BACKGROUND AND SYNOPSIS OF
PROPOSED AMENDMENTS TO THE RULES OF THE
GEORGIA DEPARTMENT OF NATURAL RESOURCES**

**CHAPTER 391-2
COASTAL RESOURCES**

**SUBJECT 391-2-4
SALTWATER FISHING REGULATIONS**

Background:

Georgia previously had a prosperous and lucrative oyster industry through the early 1900s. Today Georgia's oyster harvest represents a fraction of former yields. Despite diminished landings, wild oyster cultivation and harvest continues to be a very sustainable fishery in Georgia that provides a traditional commodity that many oyster consumers continue to enjoy. New techniques for oyster mariculture, or farming, in subtidal waters of creeks and rivers were developed and tested in Georgia, demonstrating the potential for substantial economic growth in the industry.

In an effort to support new oyster mariculture techniques and opportunities, significant policy reform was required. In 2019 the Georgia General Assembly passed House Bill 501, amending O.C.G.A Title 27, Chapter 4 to provide the basis for shellfish mariculture in a manner that is compatible with the environment and other public uses of coastal waters. The Bill, which went into effect on March 1, 2020, provides for mariculture development and includes provisions for permitting, leasing of intertidal and subtidal water bottoms, performance bonds, requirements for operational plans, shellfish mariculture permits, importation of shellfish seed, and approving harvest in areas otherwise closed. The Bill also authorizes the Board of Natural Resources to promulgate rules necessary to facilitate the oyster mariculture industry including, but not limited to size, possession, and creel limits; seasonal criteria; lease siting criteria; methods for issuing leases; and importation.

In 2020, the Board adopted rules for oyster mariculture that incorporated the National Shellfish Sanitation Program's "Model Ordinance" (NSSP MO) by reference, established minimum seed sizes, and criteria for shellfish seed importation and siting of subtidal leases. See Rule 391-2-4-.18. Subsequently, the Department produced a new Shellfish Policy Manual and an online leasing dashboard that outlines all of its requirements and expectations for commercial shellfish operations.

Georgia currently has 39 dealers certified in the Shellfish Program and 21 harvest areas which are permitted for commercial shellfish activities. Nine (9) subtidal harvest areas within three (3) “mariculture zones” have been established exclusively for floating oyster farms, and 15 intertidal areas support traditional oyster cultivation and clam mariculture.

O.C.G.A. § 27-4-187 through O.C.G.A. § 27-4-204 describes the Department’s role in establishing times and places for the harvest of shellfish, including harvest season closures, provided, however, that Master Harvesters may request to harvest during the closed season. The proposed rule sets the requirements and criteria for oyster harvest during the closed season.

Georgia typically closes the oyster harvest season during the warm summer months to control for *Vibrio* bacteria. The determination of when to close oyster harvest season is based on the Georgia *Vibrio* Control Plan (GVCP), which is required by the NSSP MO to be updated annually to assess the risk for *Vibrio* in Georgia and establish *Vibrio* control months that coincide with the closure of the oyster harvest season. Naturally occurring throughout estuarine waters, *Vibrio parahaemolyticus* (*Vp*) and *Vibrio vulnificus* (*Vv*) are bacteria that can cause moderate to severe gastrointestinal illness or more severe symptoms in those with compromised immune systems, including death. These concerns are minimized by thoroughly cooking the shellfish; however, consuming raw or undercooked shellfish is popular for oysters in particular, but greatly increases the risk of illness from these bacteria. *Vp* and *Vv* are more prevalent during warmer months when water temperatures are highest, which is the reason for Georgia’s long standing, proactive approach of closing the oyster harvest season in the warmer months.

Fortunately, there have not been any confirmed *Vv* cases or illnesses attributed to Georgia shellfish in the past ten years, nor have there been any outbreaks of *Vp* illness linked to the consumption of Georgia oysters or hard clams in the past five years, a statistic no doubt aided by Georgia’s proactive oyster harvest season closures. However, a 2022 collaborative study, between University of Georgia Marine Extension Service and Georgia Seagrant (UGA) and CRD, of the McIntosh County shellfish growing area confirmed baseline levels of *Vp* and *Vv* in oysters in floating gear; floating gear being the method of choice in the burgeoning commercial shellfish mariculture industry.

The proposed rule also seeks to codify proactive measures for reduced harvest times for oysters during the harvest season abutting either side of the closed season, as determined by the Georgia *Vibrio* Control Plan, for a period of 30 days as a means of minimizing *Vibrio* risk, and furthermore, sets standards for tagging and adequately shading of all shellstock, in accordance with the NSSP MO. Finally, while rare in Georgia, *Vibrio* illness outbreaks are not uncommon in warm regions where oysters are harvested year-round. To prepare for this possibility, the proposed rule also provides a method for an immediate closure of a growing area or alteration of harvest controls by

the Department should *Vp* or *Vv* illnesses be confirmed as originating from our waters. These rules are essential to ensure public health.

For more information about these rules and the shellfish mariculture industry, visit coastalgadnr.org/commercialshellfishharvest.

Purpose:

The purpose of the proposed Rule is to support the development of closed season shellfish mariculture through rigorous harvest controls aimed at ensuring public health, including the establishment of *Vibrio* control months, closed season harvest eligibility and time/temperature controls, other requirements for the safe harvest of shellfish, generally, including tagging and shading, and procedures for amending harvest controls following an illness outbreak. The proposed rule is compliant with the NSSP MO.

Main Features:

This is a new rule that requires the Department to produce a Georgia *Vibrio* Control Plan annually and establishes the criteria for commercial shellfish harvest during otherwise closed season. It elaborates on time/temperature control points, Master Harvester minimum eligibility criteria and reporting needs. The rule further clarifies shellstock tagging requirements, established standards for shading harvested product and provides a method for closing and/or amending time/temperature controls in the event of a *Vibrio* illness outbreak.

Date, Time, and Place of Board Action:

Board Action: Tuesday, April 22, 2025, at 9:00 a.m. at Charlie Elliott Wildlife Center, Shepherd Room, 543 Elliott Trail, Mansfield, GA 30055.

Public Participation Plan
Proposed Rule Saltwater Fishing Regulations, Rule 391-2-4-.19

During the 2019 session, the Georgia General Assembly passed House Bill 501 to amend O.C.G.A. Title 27 Chapter 4 relating to the development of mariculture in Georgia for oysters, clams and other molluscan species. The Bill authorized the Board of Natural Resources to promulgate rules necessary to develop and cultivate the shellfish industry. The proposed rule amends the Saltwater Fishing Regulations to include the adoption of oyster harvest requirements during *Vibrio* control months, shellstock tagging and shading requirements and procedures for closing or altering harvest controls as the result of an outbreak of shellfish-borne illnesses.

Master harvesters, of which there are approximately ten (10), are members of a panel that has been previously consulted during the development of this rule.

- February 25, 2025 - CRD presents proposed Rule 391-2-4-.19 to the Board of Natural Resources, Coastal Committee.
- February 26, 2025 - Public Notice of the Proposed Rule is advertised through various print media, Gov Delivery and on CRD website. Additionally, the notice will be mailed to all persons who have requested in writing that they be placed upon a mailing list which shall be maintained by the agency for advance notice of its rule-making proceedings and who have tendered the actual cost of such mailing as from time to time estimated by the agency.
- March 28, 2025 – Public comment period closes.
- April 22, 2025 - Consideration of public comments and final action on proposed rule.



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WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

February 10, 2025

MEMORANDUM

TO: Board of Natural Resources

FROM: Doug Haymans

SUBJECT: Economic Impact of Proposed Amended Rule on Small Businesses: Rule 391-2-4-.19, Saltwater Fishing Regulations

The Administrative Procedure Act requires that during the formation and adoption of any rules, attempts should be made to reduce the economic impact of those rules on small businesses. This applies to businesses that are independently owned and operated, are not dominant in the field and employ 100 employees or less.

The proposed rule should have no negative impact on small business. Currently, shellfish mariculture is limited in Georgia to eight months per year. The proposed Rule provides a mechanism for year-round oyster harvest which should provide for a positive impact to the industry.

The Coastal Resources Division has determined that proposed Rule 391-2-4-.19 will have no negative economic impact on small businesses.

DH/ja

**STRIKETHROUGH VERSION
ADDITIONS ARE UNDERLINED AND DELETIONS ARE
STRIKETHROUGH**

**RULES
OF
GEORGIA DEPARTMENT OF NATURAL RESOURCES**

**CHAPTER 391-2
COASTAL RESOURCES**

**SUBJECT 391-2-4
SALTWATER FISHING REGULATIONS**

TABLE OF CONTENTS

391-2-4-.19 Commercial Shellfish; Requirements for *Vibrio* Control.

(1) Purpose. The purpose of this Rule is to implement the authority of the Board of Natural Resources to promulgate rules and regulations based on current, sound principles of wildlife research and management establishing requirements for harvest of maricultured oysters from subtidal harvest areas during *Vibrio* control months, requirements for harvester tags and shading, additional harvest controls for shellfish harvested during certain months, and procedures for amending closures and harvest controls.

(2) Definitions.

(a) "Adequately iced" means the amount and application of ice is sufficient to ensure that immediate cooling begins and continues

for oysters harvested during *Vibrio* control months. If ice slurry is used and the shellfish are submerged the presence of ice in the slurry indicates adequate icing.

(b) “Adequately shaded” means measures taken to shelter shellstock from direct exposure to sunlight that may cause a significant increase in *Vibrio* growth due to an increase in temperature. Adequate shading may be accomplished by any means that effectively protects shellstock from direct sunlight and prevents excessive heat build-up in the shaded area. A gap must be maintained between the top of the shellstock and shade cover to allow for sufficient air flow.

(c) “Approved icing container” means a clean and durable receptacle fabricated from safe non-porous materials with effective drainage.

(d) “Closed season harvest record” means a document where harvesters during the *Vibrio* control months record the date, harvester name, harvest location, the time of initial harvest, the time of initial icing, the time of final harvest, quantities harvested, the time of final icing or any information as determined and approved by the Department.

(e) “Harvest” means the removal of shellstock from the water with the intention of marketing the product for consumption and not returning the shellstock to the water after husbandry practices. Harvest commences when the first shellstock not intended to be returned to the water is removed from the water, regardless of whether the shellstock is temporarily placed back into the water after culling, sorting, or other activities.

(f) “Harvester” means a person who is authorized by the Department to harvest shellfish for commercial purposes at the request of a master harvester.

(g) “Harvest area” means the designated area that has been granted to an individual to plant, grow and harvest shellfish for commercial purposes.

(h) “Harvest tag” means a durable, waterproof tag affixed by a commercial shellfish harvester to an individual container of shellstock or, if a bulk tag is used, an individual lot of shellstock, and meeting the specifications for harvester tags contained in the NSSP Model Ordinance and as required by the Department and Georgia Department of Agriculture.

(i) “Husbandry” means any activity related to the cultivation and management of shellstock prior to their harvest, including but not limited to grading, sorting, culling, tumbling, biofouling control and cleaning, but does not include processing.

(j) “Internal temperature” means the internal temperature of the meat of any shellstock as measured using a calibrated probe thermometer. The internal temperature of shellstock is, under most circumstances, reflected by the external temperature of the space surrounding the shellstock, or the external temperature of its shell. The internal temperature of shellstock may be measured by inserting a thermometer probe into the center of the container of shellfish or by measuring the external shell temperature with an infrared thermometer. Should circumstances dictate, it may be necessary for the Department, Georgia Department of Agriculture or a harvester to open the shellstock to measure its internal temperature with a thermometer probe.

(k) “Landing” means the point of time at which shellstock are put on land or a dock at the certified dealer’s facility.

(l) “Lot” means the shellstock harvested during a distinct harvest operation from a shellfish harvest area. A lot of shellstock may be identified by a single harvest tag or a single bulk harvest tag.

(m) “Master harvester” means 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.

(n) “Mechanical refrigeration” means a mechanically refrigerated cooler which is part of a certified shellfish dealer’s facility permitted by the Georgia Department of Agriculture and which shall maintain an ambient air temperature of 45°F or below and shall be capable of achieving the time-temperature requirements of this rule.

(o) “Original dealer” means the dealer who initially received shellstock from a harvester. The original dealer may also be the master harvester, if permitted by the Georgia Department of Agriculture as a certified shellfish dealer.

(p) “Potable water” means water from a water supply that meets the requirements of the Safe Drinking Act, as administered by the US Environmental Protection Agency, and all applicable state or local requirements.

(q) “Processing” means any activity associated with the handling, shucking, freezing, packing, labeling or storing of shellfish in preparation for distribution.

(r) “Resubmergence” means the return of market-sized oysters by a harvester to their harvest area for reconditioning due to excessive time-temperature exposure from oyster husbandry activities or off-site culling or due to a recall and as prescribed by the Department and in the NSSP Model Ordinance.

(s) “Resubmergence Closed Season Logbook” means a document that clearly identifies and segregates shellstock under resubmergence and where harvesters (during the closed season harvest periods) must record the harvest area, date when oysters were removed from the site and quantities, date when oysters were returned to the harvest area for resubmergence and quantities, approximate size range, type and number of cages, reason for resubmergence (off-site culling, on-site culling e.g. exposure time was greater than two hours, anti-fouling, etc.), date oysters were taken out of resubmergence and any other information as determined and approved by the Department.

(t) “Shellstock” means live molluscan shellfish in the shell.

(u) “Subtidal” means the area of the marine shoreline that is below mean low tide and is covered with seawater at all stages of the tide.

(v) “Temperature control” means the use of adequate icing methods or mechanical refrigeration which is capable of lowering the internal temperature of oysters to 50°F then maintaining the internal

temperature of the oysters at 45°F or below, and of achieving the time-temperature requirements of this Rule.

(w) “Time of final harvest” means the time when the last oyster or clam harvested in a lot is removed from the water.

(w) “Time of initial harvest” means the time when the first oyster or clam harvested in a lot is removed from the water.

(x) “Time of final icing” means the time when the last oyster in a lot is adequately iced.

(y) “Time of initial icing” means the time when the first oyster in a lot is adequately iced.

(z) “*Vibrio* control months” means the months with heightened risk for *Vibrio* presence due to elevated air and water temperatures that require closures to harvest or more restrictive harvest controls, as determined by the Department.

(3) Georgia *Vibrio* Control Plan.

(a) The Department shall produce an annual Georgia *Vibrio* Control Plan. The plan shall prescribe the controls and requirements for eligible master harvesters to petition the Department for the harvest of maricultured oysters from subtidal harvest areas using additional harvest controls during otherwise closed seasons corresponding to *Vibrio* control months, as determined by the Department.

(b) Months that require additional temperature controls will be specified in the most recent version of the Georgia *Vibrio* Control Plan. Specifically for this plan, shellstock shall refer to Eastern Oysters (*Crassostrea virginica*) and Hard Clams (*Mercenaria* spp.), unless otherwise specified by the Department.

(4) Shellstock Temperature Controls.

(a) Harvest When Additional Temperature Controls are Not Required. Shellstock harvested during the months that do not require additional temperature controls shall be placed under mechanical refrigeration by the certified dealer within ten (10) hours from the start of harvest.

(b) Harvest When Additional Temperature Controls are Required, But Harvest is Outside of *Vibrio* Control Months. All maricultured oysters harvested during the 30 days prior to and the 30 days following the *Vibrio* control months shall be limited to five (5) hours from harvest to mechanical refrigeration.

(c) Harvest When Additional Temperature Controls are Required and Harvest is During the *Vibrio* Control Months.

(1.) Master harvesters and their harvesters may harvest oysters during the closed season/*Vibrio* control months without the use of an approved icing method, in accordance with their approved Closed Season Shellfish Operations Plan, provided that the oysters are delivered within two (2) hours of initial harvest and placed into mechanical refrigeration at their certified dealer's facility before 10:00 AM on the same day. Upon receipt, the certified dealer is required to cool the oysters under mechanical refrigeration to an internal shell/meat temperature of 50°F or less within two (2) hours; or

(2.) Master harvesters and their harvesters may harvest oysters during the closed season/*Vibrio* control months provided adequate ice is used upon harvest and the oysters are placed into mechanical refrigeration at a certified dealer's facility within four (4) hours from the start of harvest. Upon receipt, the certified dealer is required to cool the oysters under mechanical refrigeration to an internal shell/meat temperature of 50°F or less within two (2) hours.

(d) Approved icing methods for all harvested oysters are:

(1.) Upon removal from the water, immediate placement of oysters into mesh bags by a harvester and placement of mesh bags between layers of wet ice into an approved icing container completely surrounded by ice; or

(2.) Upon removal from the water, immediate placement of loose oysters into an approved icing container completely surrounded by ice; or

(3.) Upon removal from the water, immediate placement of oysters into an ice and water mixture (e.g., ice slurry) at or below 45 degrees Fahrenheit and fully submerged until the temperature of the oysters is at or below 55 degrees Fahrenheit. After the oysters have been submerged and are below 55 degrees Fahrenheit, oysters must be stored in an approved icing container as prescribed in either method 1. or 2. above. The water used for the slurry must be from a potable source or from the approved growing area.

(5) Tagging Requirements for All Shellstock. All containers of commercially harvested shellstock must be tagged with a harvester

tag or, if a bulk tag is used, an individual lot of shellfish, and meeting the specifications for harvester tags as prescribed in the NSSP Model Ordinance and as required by the Department and Georgia Department of Agriculture.

(6) Shading Requirements for All Shellstock. All harvested shellstock must be adequately shaded at all times using effective coverings that shade the shellstock from direct sunlight and other contaminants, such as bird waste, onboard the vessel as well as during transport in any vessel, vehicle or conveyance from the harvest area to the original dealer. A gap must be maintained between the top of the shellstock and shade cover to allow for sufficient air flow.

(7) Confirmed Illness Response. In the event that a confirmed *Vibrio vulnificus* or *Vibrio parahaemolyticus* illness outbreak, as defined in the NSSP Model Ordinance, occurs due to the consumption of shellfish that have been commercially harvested in Georgia, the Department will follow the established protocols as defined in the most recent version of the NSSP Model Ordinance to amend shellfish growing area closures for harvest and temperature controls. Public notice of such an amendment shall be given by posting a notice at the courthouse in each coastal county and by other means as may appear feasible to inform interested persons. Such notice shall be posted at least 24 hours prior to any enforcement action taken pursuant to this rule.

(8) Requirements for Harvest During *Vibrio* Control Months.

(a) Master harvesters may annually request permission from the Department to harvest maricultured oysters from subtidal harvest areas during *Vibrio* control months. Master harvesters may be required to demonstrate their ability to meet shellstock temperature controls as described above to receive or maintain *Vibrio* control months permissions.

(b) Master harvesters must submit a Closed Season Shellfish Operations Plan to be approved by the Department prior to conducting harvesting activities during *Vibrio* control months. The plan shall include a list of trained and licensed harvesters, a resubmergence plan, husbandry plans, a routine schedule for all harvest and landing plans and all other information as required by the Department.

(c) Master harvesters that are authorized for harvest during *Vibrio* control months shall only harvest oysters that have been submerged for a minimum of 14 consecutive days prior to harvest.

(d) Resubmergence plans shall clearly identify and segregate all oysters greater than two (2) inches in the harvest area that have been put into resubmergence due to excessive time/temperature exposure. Oysters are required to remain in resubmergence for 14 consecutive days prior to harvest and must be clearly identified in a Resubmergence Closed Season Logbook.

(e) Master harvesters and their harvesters must maintain and complete a Resubmergence Closed Season Logbook for their designated harvest area. Logbooks must be maintained for a

minimum of 90 days and made immediately available to the Department or a law enforcement officer upon request.

(f) Master harvesters and their harvesters shall complete a harvest tag and closed season harvest record for each lot of shellstock from the time of initial harvest through final harvest prior to leaving the harvest area. Closed season harvest records must be maintained for a minimum of 90 days and made immediately available to the department or a law enforcement officer upon request.

(g) Master Harvesters and their harvesters will be required to use only the shellstock temperature controls described above and must ensure continuous cooling is maintained during delivery and upon receipt of the oysters by the certified dealer.

(9) Minimum Eligibility Requirements for Harvest During *Vibrio* Control Months. A master harvester meeting the following minimum requirements may petition the Department for permission to harvest maricultured oysters from subtidal harvest areas during *Vibrio* control months:

(a) The master harvester must have a minimum of six (6) months of reported harvested shellstock outside of *Vibrio* control months in accordance with the Department's control plan, and

(b) The master harvester's past compliance with the provisions in O.C.G.A. § 27-4-187 through O.C.G.A. § 27-4-204 and associated Rules and Regulations will be considered by the Department in determining eligibility.