Report: Identification of Areas Under a Moratorium for Shellfish Leasing that Could Potentially Be Established as Shellfish Aquaculture Enterprise Areas



Division of Marine Fisheries N.C. Department of Environmental Quality

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I. INTRODUCTION

The North Carolina General Assembly passed Session Law ("S.L.") 2019-37 effective July 1, 2019. The General Assembly noted that the purpose of the bill is "to provide further support to the shellfish aquaculture industry in the State of North Carolina."¹ Section 1.(d) of the bill requires the North Carolina Department of Environmental Quality ("NCDEQ"), Division of Marine Fisheries ("DMF") to identify areas in waters that are under a moratorium for shellfish leasing that could potentially be established as Shellfish Aquaculture Enterprise Areas ("SEA"). DMF shall report its findings to the General Assembly no later than April 1, 2020. Current moratorium areas included in this report are Core Sound, Bogue Sound, New Hanover County Area, and Brunswick County.

This report focuses on the examination of areas currently under a statutorily mandated shellfish lease moratorium that could potentially be established as SEAs. SEAs are intended in North Carolina as areas of public trust water bodies, identified by the Secretary of DEQ, and pre-approved for shellfish leasing in accordance with the shellfish lease statues that may be subdivided into multiple smaller parcels and made available for shellfish aquaculture. Approval of individual shellfish leases under the current North Carolina Shellfish Lease and Aquaculture Program can be a time-consuming and resource intensive process. Considering these challenges, other states have chosen to designate areas of public trust water bodies exclusively for prepermitted shellfish aquaculture activities. In these states, legislatures have statutorily designated large areas of public trust water bodies be set aside for shellfish aquaculture. Once the larger SEA is approved, these SEAs are then subdivided into smaller lease parcels thereby streamlining the shellfish leasing process. These parcels are non-transferrable, reducing speculative shellfish leasing practices.

The primary benefit to shellfish growers (and state shellfish regulators) is that applications for these pre-approved shellfish leases can proceed without going through the rigorous and lengthy application siting process.² Streamlined permitting encourages industry development by easing the state's shellfish lease application burden and potentially mitigating user conflict issues. This process also provides the state greater authority to regulate the activities within the designated SEAs.³

DMF staff compiled information for this report from its own ongoing work, stakeholder groups, shellfish and aquaculture experts, shellfish growers, non-governmental organizations, and internal DMF staff with expertise in this area. DMF also drew upon the findings and recommendations from previous legislative studies related to shellfish leases and aquaculture as well as iterations of the North Carolina Oyster Fishery Management Plan.⁴

¹ https://www.ncleg.gov/EnactedLegislation/SessionLaws/PDF/2019-2020/SL2019-37.pdf

 ² Study On How to Reduce User Conflict Related to Shellfish Cultivation Leases (N.C. Department of Environmental Quality, Division of Marine Fisheries and N.C. Marine Fisheries Commission), 2019
³ Id.

⁴ North Carolina Oyster Fishery Management Plan, Amendment II, North Carolina Department of Environment and Natural Resources [now NCDEQ], Division of Marine Fisheries, 2008, pp. 282, 378

II. BACKGROUND

A. North Carolina's Shellfish Lease and Aquaculture Program

Shellfish leases using public trust bottom areas for private shellfish cultivation (in brackish and higher salinity waters) have existed in North Carolina for over 150 years and are administered by the DMF. Private shellfish cultivation is commonly referred to as shellfish aquaculture or shellfish leases throughout this report. Shellfish leases are divided into two types: bottom and water column. The shellfish lease holder must have a shellfish bottom lease to have a shellfish water column lease. The shellfish water column lease can be granted over the entire footprint or a portion of a shellfish bottom lease. Similarly, a shellfish franchise is like a shellfish bottom lease as submerged lands claims.⁵

Shellfish growers traditionally employed cultch or bed clams under netting on shellfish bottom leases. The General Assembly expanded traditionally based growing methods in 1989 by authorizing the leasing of the water column for shellfish aquaculture for areas above a shellfish bottom lease. This new growing method facilitates the use of intensive gear. Intensive shellfish aquaculture means shellfish grown on the bottom or in the water column using cages, racks, bags, or floats. Conversely, extensive shellfish aquaculture means shellfish grown on the bottom without the use of cages, racks, bags, or floats. The General Assembly amended the shellfish leasing statutes in 2015 to allow the use of gear up to 18 inches off the bottom for shellfish bottom leases.⁶

While shellfish water column leases have been authorized since 1989, the use of water column leases has only recently increased in popularity. The growth in shellfish water column leases has increased the use of intensive gear which, in turn, has led to a rise in user conflicts. DMF has observed a substantial growth in shellfish lease applications in the past several years with the caveat of a slight decrease in 2018 due to Hurricane Florence and Tropical Storm Michael (Table 1; Figure 1). There are eight coastal counties which have shellfish leases. As of March 5, 2020, there were 48 shellfish franchises, 220 shellfish bottom leases, and 84 shellfish water column leases in North Carolina covering 1,719 acres (Table 2; Figures 2 and 3). Carteret County has 127 shellfish leases, the largest of any North Carolina county (Table 2; Figure 2). Onslow County has the most acres covered by shellfish leases at 516 acres (Table 2; Figure 3). The number of shellfish lease applications in North Carolina has increased exponentially (1,491 percent) from the period of 2005 to 2011 (22 shellfish lease applications) compared to the period of 2012 to 2019 (350 shellfish lease applications). This is an increase from 2011 (two shellfish lease applications) to 2019 (106 shellfish lease applications) of 5,200 percent (Table 1; Figure 1). DMF's Shellfish Lease and Aquaculture Program has three full time dedicated staff, one manager, one biologist and one clerical position, to handle shellfish lease applications. The current level of dedicated staff has the capacity to process approximately 21 leases per year (Figure 1).

By way of comparison, Virginia has a much larger shellfish lease industry with 5,400 leases covering 122,000 acres. Unlike North Carolina, Virginia is not required to perform individual site investigations because their public oyster grounds are mapped, and they have a much higher

⁵ N.C.G.S. § 113-205

⁶ N.C.G.S. § 113-202(r)

frequency of submerged aquatic vegetation (SAV) mapping compared with North Carolina. Virginia also does not have a formal public hearing process. Currently, Virginia has hundreds of pending applications and the staff capable of processing approximately 100 applications a year. Virginia's Shellfish Lease and Aquaculture Program is staffed with eight full-time dedicated employees, including two managers, one mapper and draftsman, one clerical position and four surveyors. Likewise, other states shellfish aquaculture programs have significant staff and operational funding for program administration. The State of Maine has substantially fewer shellfish leases and acreage than North Carolina but has over six full time positions dedicated to administering its Shellfish Lease and Aquaculture Program. The State of Maryland has eight full time positions dedicated to administering its program. These resource comparisons underscore the significance of maintaining adequate staffing for administration of state shellfish aquaculture programs.

	Shellfish Lease Applications				
Year	Bottom	Water Column			
2005	3	1 1			
2006	5				
2007	3	0			
2008	5	0			
2009	0	0			
2010	1	1			
2011	1	1			
2012	8	6			
2013	6	10			
2014	8	7			
2015	9	2			
2016	10	11			
2017	52	46			
2018	36	33			
2019	58	48			
Total	205	167			

Table 1. Total North Carolina shellfish lease applications for bottom and water column leases from 2005 through 2019.



Figure 1. Total North Carolina shellfish lease applications for bottom and water column leases from 2005 through 2019.

	Shellfish Leases									
	Bottor		Water Column		Franchise		Total			
County ¹	Number	Acres	Number	Acres	Number	Acres	Number	Acres ²		
Carteret	87	314	38	93	2	2	127	316		
Onslow	42	312	11	29	28	204	81	516		
Pender	43	224	9	10	0	0	52	224		
Hyde	25	255	9	34	9	236	43	492		
Pamlico	10	57	9	52	8	67	27	124		
Dare	7	27	6	22	0	0	13	27		
New Hanover	5	11	2	3	1	3	8	14		
Beaufort	1	5	0	0	0	0	1	5		
Total	220	1,206	84	242	48	513	352	1,719		

Table 2. Total number and acres of North Carolina shellfish leases per county and lease type sorted by total number of shellfish leases (highest to lowest).

¹ Current as of March 5, 2020

² Total only includes bottom and franchise because water column leases are over bottom leases

Shellfish Leases: Total



v

Figure 2. Total number of North Carolina shellfish leases per county and lease type sorted by county (north to south).



Figure 3. Total acres of North Carolina shellfish leases per county and lease type sorted by county (north to south).

DMF grants shellfish leases in North Carolina in public trust waters. Public trust resources are land and water areas, whether publicly or privately owned, which are subject to Public Trust Rights as defined under North Carolina law. Public Trust Rights are held in trust by the state for the use and benefit of all citizens of North Carolina in common. Public Trust Rights include, but are not limited to, the right to "navigate, swim, hunt, fish, and enjoy all recreational activities in" North Carolina waters.⁷ Public Trust Rights cannot be conveyed in a manner that adversely affects public trust uses. The General Assembly charged NCDEQ with the stewardship of the public trust marine and estuarine resources of the state. The NCDEQ Secretary may delegate that authority to the DMF Director.⁸

B. Federal Permitting - U.S. Army Corps of Engineers' Nationwide Permit 48

Permitting for shellfish leasing is accomplished both by statute, in part under N.C.G.S. § 113-202, and through the U.S. Army Corps of Engineers' ("USACE") Nationwide Permit 48 ("NWP 48") process - Commercial Shellfish Aquaculture Activities.⁹ The USACE re-issued NWP 48 in 2017. NWP 48 encompasses activities related to commercial shellfish aquaculture in waters of the United States. A recent federal court decision in the State of Washington could have an impact on future use of NWP 48 in North Carolina.¹⁰ NCDEQ's Office of the General Counsel will continue to monitor the potential impacts of this decision and any related case law.

C. Increased Review of Shellfish Lease Applications

A substantial increase in the number of user conflicts coincides with the recent expansion of the shellfish aquaculture industry and its use of intensive gear in shellfish water column leases (Table 1; Figure 1). The General Assembly promulgated several legislative changes affecting the Shellfish Lease and Aquaculture Program in recent years in order to help address these conflicts.¹¹ The North Carolina Marine Fisheries Commission ("MFC") unsuccessfully attempted to impose a moratorium for shellfish leases in 2018 to pause processing of applications long enough to address user conflict issues related to navigation, waterbody carrying capacity, hunting, waterfront development, and applicant experience.

Additionally, DMF increased staff review of shellfish lease applications, enlarged notice processes for public hearings on proposed shellfish leases, and directed more focus on possible conflicting uses in proposed shellfish lease areas. These efforts have resulted in higher quality information, both in terms of technical facts and stakeholder opposition, better facilitating the DMF Director's ability to inform a decision on whether to grant a shellfish lease.

⁷ N.C.G.S. § 1-45.1

⁸ N.C.G.S. § 113-131(b)

⁹ Nationwide Permit 48 - Commercial Shellfish Aquaculture Activities Effective Date: March 19, 2017; Expiration Date: March 18, 2022 (NWP Final Notice, 82 FR 1860)

¹⁰ The Coalition to Protect Puget Sound Habitat v. U.S. Army Corps of Engineers et al., No. 17-1209RSL, 2019 WL 5103309 (W.D. Wash. Oct. 10, 2019) (The court granted the plaintiffs' motion for summary judgment, finding that the USACE failed to adequately consider the impacts of commercial shellfish aquaculture activities authorized by NWP 48, the USACE claims of minimal individual and cumulative impacts were not substantially supported by the record, and the USACE's Environmental Assessment failed to satisfy National Environmental Policy Act requirements. The court's order held unlawful and set aside NWP 48 in the State of Washington, but the court must still decide whether NWP 48 should be vacated outright as applied in the state—and thus invalidate all operations currently authorized by the general permit—or NWP 48 should be left in place while the agency performs an adequate impact analysis and environmental assessment.)

¹¹ S.L. 2015-263; S.L. 2017-190; S.L. 2019-37

The General Assembly's legislative findings and declaration of policy for cultivation of shellfish in North Carolina states that "shellfish cultivation provides increased seafood production and long-term economic and employment opportunities" and "provides increased ecological benefits to the estuarine environment . . ."¹² Further, to enhance shellfish cultivation, the policy of the State is to encourage the development of private, commercial shellfish cultivation in ways that are compatible with other public uses of marine and estuarine resources such as navigation, fishing, and recreation.¹³

Enhancing private shellfish cultivation includes granting shellfish cultivation leases that benefit the public interest.¹⁴ Minimum standards for compatibility are provided to discern suitable areas for shellfish cultivation based on numerous factors, including, but not limited to: water quality, ability to cultivate shellfish, existing shellfish resources on the proposed lease, and other public trust uses in the area.¹⁵ Shellfish leases can often conflict with public trust uses which makes balancing these issues and determining compatibility challenging and somewhat subjective.

D. Recent Increase in Legal Challenges to DMF's Shellfish Lease Decisions

User conflict issues have resulted in an increase in contested cases filed by potentially aggrieved petitioners in the N.C. Office of Administrative Hearings ("OAH"), as well as other legal challenges. The N.C. Department of Justice represents DMF in defending DMF's shellfish leasing decisions. Many user conflict cases brought by riparian owners adjacent to shellfish lease locations seem to be driven by a concern for viewshed. Viewshed is not a public trust right traditionally acknowledged under North Carolina common law. Reference the User Conflict Study which summarizes and discusses several recent cases pertaining to shellfish aquaculture.¹⁶

¹² N.C.G.S. § 113-201(a)

¹³ N.C.G.S. § 1-45.1

¹⁴ N.C.G.S. § 113-202(a)

¹⁵ <u>Id</u>.

¹⁶ Study on How to Reduce User Conflict Related to Shellfish Cultivation Leases (N.C. Department of Environmental Quality, Division of Marine Fisheries and N.C. Marine Fisheries Commission), 2019

III. SOURCES OF INFORMATION CONCERNING SEAs

A. Previous Legislative Studies

There have been two prior legislative studies in North Carolina concerning shellfish aquaculture that include information regarding the use of SEAs. Each study has included recommendations for increased resources and positions for the Shellfish Lease and Aquaculture Program, regulatory reform, program evaluations, and collaboration. While previous recommendations have been considered, many have not yet been adopted. A summary of each report follows.

1. 2018 - N.C. Strategic Plan for Shellfish Mariculture: A Vision to 2030¹⁷

The North Carolina Policy Collaboratory ("Collaboratory") was directed to convene stakeholder meetings in 2016 aimed at advancing efforts to bolster and promote North Carolina's shellfish industry.¹⁸ Legislation was amended, adding a mandate for the Collaboratory to prepare a Shellfish Aquaculture Plan by December 31, 2018.¹⁹ To fulfill the mandates laid out in Senate Bill 257, the Collaboratory formed the Shellfish Mariculture Advisory Committee ("SMAC") to generate a report of findings and recommendations to the General Assembly. The final SMAC report was submitted on December 30, 2018 detailing 21 recommendations including the recommendation that DMF should designate appropriate tracts as SEAs containing multiple, connected parcels available for shellfish mariculture. The report further recommended that DMF would manage these efforts.²⁰

The SMAC report explains the streamlining effect of implementing SEAs. For example, SEA designations and associated streamlined shellfish leasing processes in the state of New Jersey have been credited in part for an increase in actual shellfish leases granted from 163 in 2005 to 851 leases in 2016.²¹ Generally, SEAs have been found to provide a further benefit to participating states since they provide those states with enhanced control and regulatory authority in state owned SEA designated areas. State sponsored SEA designations place the responsibility on the state for identifying sites, completing site inspections. and acquiring all relevant federal permits.²² In some cases, the permitting of large blocks of acreage is appreciably more cost and labor efficient than conducting individual site inspections of applicant-proposed areas.²³

 ¹⁷ North Carolina Strategic Plan for Shellfish Mariculture: A Vision to 2030 (Drs. Joel Fodrie, Charles Peterson, Christine Voss, and Christopher Baillie on behalf of the North Carolina Shellfish Mariculture Advisory Committee), 2018
¹⁸ S.L. 2016-94, Section 14.11.(d)

¹⁹ Senate Bill 257, Section 13.13.(b)

²⁰ North Carolina Strategic Plan for Shellfish Mariculture: A Vision to 2030 (Drs. Joel Fodrie, Charles Peterson, Christine Voss, and Christopher Baillie on behalf of the North Carolina Shellfish Mariculture Advisory Committee), 2018

²¹ Legal Tides: Looking to the Future of Oyster Aquaculture in North Carolina: A Comparison of Regulations Among Mid-Atlantic States, P. Hilton, J. Harrison, and L. Schiavinato (North Carolina Sea Grant, UNC School of Law and UNC Department of City and Regional Planning) 2016

²² <u>Id.</u>

²³ <u>Id.</u>

2. 2019 - User Conflict Study²⁴

Previous work completed for S.L. 2019-37 includes the User Conflict Study that describes the complicated and often lengthy permitting process now in place in North Carolina for shellfish leases.²⁵ These permitting challenges can be a considerable barrier to entry by some potential applicants. The study also highlighted other directives mandated by S.L. 2019-37 including the development and implementation of SEAs similar to those employed by other states. The User Conflict Study discussed the existing regulatory framework governing shellfish leases in North Carolina and summarized information regarding other states shellfish aquaculture permitting processes. One of the recommendations from the User Conflict Study was for DMF to collaborate with other states to facilitate a joint interstate discussion to try and overcome the obstacles state shellfish regulators face. This effort will be of mutual benefit to participating states in compiling and evaluating information relevant to each states' respective aquaculture regulation and permitting processes.²⁶

B. SEA Information from Other States

Many states have been dealing with similar issues much longer then North Carolina.²⁷ To streamline the process, reduce the cost of permitting, and attempt to mitigate user conflict issues, states such as Maryland, Florida, Delaware, Massachusetts, New Jersey, New York, and California have established SEAs where state agencies perform shellfish lease siting, including environmental and public trust suitability review, as well as acquisition of necessary Federal permits. These states then sub-lease smaller parcels within the SEA to shellfish growers. This process in some states has been found to be more efficient on the backend, where states only have to verify the suitability of an applicant and issue a permit to operate within those pre-approved SEAs.²⁸

SEAs have various titles among different states.²⁹ For example, the State of Maryland designates SEAs as Aquaculture Enterprise Zones ("AEZs") and designates 176 acres of preapproved areas distributed between two AEZs. Florida denotes 21 SEA areas as Aquaculture Use Zones ("AUZs)". The State of New Jersey designates SEAs as Aquaculture Development Zones ("ADZs") and has 1,250 acres that use cages, racks, bags, and floats for grow-out culture operations. To promote the development of oyster aquaculture, New Jersey designated 1,250 acres of ADZs in the mid-2000s. The New Jersey Bureau of Shellfisheries obtains the necessary permits on behalf of the individual growers. By grouping multiple shellfish leases, the state can manage aquaculture operations efficiently. While the various state acronyms are different, each

²⁴ Study on How to Reduce User Conflict Related to Shellfish Cultivation Leases (N.C. Department of Environmental Quality, Division of Marine Fisheries and N.C. Marine Fisheries Commission), 2019

²⁵ <u>Id.</u>

²⁶ <u>Id.</u>

²⁷ http://www.ct.gov/deep/cwp/view.asp?a=2705&q=431902&depNav_GID=1622; https://www.freshfromflorida.com/Divisions-Offices/Aquaculture; https://www.maine.gov/dmr/aquaculture; http://dnr.maryland.gov/fisheries/pages/aquaculture/index.aspx https://www.capecodextension.org/marine/semac/; https://www.nj.gov/dep/fgw/pdf/marine/shellfish_leasing_policy_atlantic.pdf; http://assembly.state.ny.us/leg/?default_fld=&bn=A07120&term=2011&Summary=Y&Actions=Y&Votes=Y&Memo=Y&Text= Y http://www.shellfishri.com/ri-shellfish-initiative/; http://www.mrc.state.va.us/Shellfish_Aquaculture.shtm

²⁸ <u>Id.</u>

²⁹ <u>Id.</u>

State's SEA program has a similar intent – to streamline the permitting process for shellfish aquaculture.³⁰

Protocols and requirements for siting and permitting SEAs follow the same guidelines as siting individual shellfish leases. Maryland has specific requirements for siting AEZs including minimum setbacks and consideration of potential conflicts presented by other uses of the proposed area, to include navigation, recreation, and commercial fishing.³¹ Public hearings and compatibility with oyster restoration activities are also requirements for establishing leases in Maryland's AEZs.³²

Similar work is being completed for federal waters to increase marine aquaculture production in the Northeast by pre-permitting ocean space.³³ This effort received funding from the National Oceanic and Atmospheric Administration and includes a team review of the efficiency of the current permitting process. A tertiary objective is to analyze the feasibility of establishing a federal system for pre-permitting federal waters for aquaculture similar to SEAs in state waters.³⁴

C. SEAs in North Carolina

Session Law 2019-37 required DMF to develop new standards for methods and procedures for siting SEAs in North Carolina and authorized the Secretary of DEQ to establish SEAs in North Carolina in compliance with existing shellfish lease statutes.³⁵ This includes the notice, public hearing, and public comment requirements, and any other State and federal requirements for shellfish leasing. Meaning that the siting of SEAs would have the same minimum standards and procedures required of any other shellfish lease application. Further, the same appeal rights apply and do not limit DMF's exposure to legal action. The session law does include rulemaking authority for the MFC.³⁶

The development of SEAs in North Carolina will benefit from the successes of SEA programs in other states. The effort will require the development and implementation of new methods and procedures for the shellfish lease process, building on the examples from other state SEA programs. The time required to complete this process will be dependent on the size and location of the SEA. It will also require collaboration with other state agencies to facilitate a joint interstate discussion to compile and evaluate information relevant to each states' respective aquaculture regulation and permitting processes. DMF anticipates continued consideration of competing public trust uses (and viewshed arguments). This contingency will be especially significant in the southern region of the state due to the narrower waterbody sizes as compared to the larger sounds in the central and northern regions of the state.

Moving forward, DMF plans to begin public outreach efforts with communities about SEAs in contentious waterways. Specifically, two moratorium areas, Bogue Sound and the New

³⁰ Id.

³¹ MD Nat Res Code § 4-11A-05 (2013)

³² <u>Id.</u>

 ³³ https://seagrant.whoi.edu/increasing-northeast-u-s-aquaculture-production-by-pre-permitting-federal-ocean-space/
³⁴ Id.

³⁵ https://www.ncleg.gov/EnactedLegislation/SessionLaws/PDF/2019-2020/SL2019-37.pdf

³⁶ <u>Id.</u>

Hanover County Area, were designated in S.L. 2019-37 for a 2-year period, expiring July 1, 2021, as a result of intensifying user conflict.³⁷ These two areas, present a unique opportunity for DMF to explore the use of SEAs to allow shellfish leases within contentious water ways. DMF will contact local towns and municipalities in these short-term moratorium areas to begin discussions on potential SEA locations within the currently designated moratorium areas. It is anticipated that education and outreach to citizens and stakeholders will be a key element to the successful development of SEAs in these areas and in all of coastal North Carolina. This education and outreach may include, but not be limited to: public scoping meetings, educational presentations, field visits to existing aquaculture facilities and workshops on the benefits and potential impacts of shellfish aquaculture. This outreach will be significant and until complete, DMF does not recommend any specific locations within these moratorium areas to site as a SEA at this time. Any consideration of SEAs in North Carolina should include the history of the current moratoriums including the user conflict and viewshed issues discussed in this report.

³⁷ https://www.ncleg.gov/EnactedLegislation/SessionLaws/PDF/2019-2020/SL2019-37.pdf

IV. SOURCES OF INFORMATION CONCERNING MORATORIUM AREAS IN NORTH CAROLINA

A. History of Shellfish Lease Moratoriums in North Carolina

Shellfish lease moratoriums in North Carolina date back to 1949 and are well documented in the North Carolina Oyster Fishery Management Plan and subsequent amendments.³⁸ Historically, public opposition to shellfish leases resulting from user conflicts has been a major concern. As previously stated, the public often oppose shellfish leasing on the grounds that it violates the public trust. Shellfish moratorium have been imposed in recent years in areas where user conflict issues have been especially acute. A discussion of each of the current shellfish moratoriums in North Carolina follows.

1. Brunswick County Moratorium

A moratorium on shellfish leases has existed in Brunswick County since 1949 resulting from public opposition by county residents to an already limited area available to shellfish on public bottom (Figure 4).³⁹ North Carolina House Bill 317 (1949), which became S.L. Chapter 1030, terminated existing shellfish leases and prohibited future oyster leases in Brunswick County.

On June 21, 1967, North Carolina House Bill 1137, *An Act Providing For the Lease of State-Owned Bottoms for Oyster and Clam Cultivation* ("Oyster and Clam Act") was ratified and became law.⁴⁰ This bill provided updated opportunity and requirements for shellfish leases throughout North Carolina. Section 2 of this bill states that the Oyster and Clam Act shall not apply to Brunswick County. Through Section 2, Brunswick County became exempt from N.C.G.S. § 113-202 which provided new shellfish lease regulations.⁴¹

³⁸ North Carolina Oyster Fishery Management Plan, Amendment II, North Carolina Department of Environment and Natural Resources [now NCDEQ], Division of Marine Fisheries, 2008, pp. 282, 378

³⁹ North Carolina Oyster Fishery Management Plan, Amendment 4, North Carolina Department of Environmental Quality, Division of Marine Fisheries, 2017, p. 378

⁴⁰ S.L. 1967, Chapter 876, House Bill 1137, Section 2

⁴¹ North Carolina Oyster Fishery Management Plan, Amendment 4, North Carolina Department of Environmental Quality, Division of Marine Fisheries, p. 378



Figure 4. Brunswick County Moratorium on shellfish leases.

2. Core Sound Moratorium

A moratorium on shellfish leases has existed in Core Sound in some form since 1993 when a contentious seven-acre shellfish lease was granted and resulted in user conflicts in the area (Figure 5).⁴² A two year moratorium on new shellfish leases in this area was enacted by the General Assembly in response to a petition from a group of 875 individuals opposing private shellfish leases of public bottom land because it interfered with fishing and recreational activities.⁴³ This two-year moratorium for new shellfish leases within all of Core Sound expired on July 1, 1995.

Immediately after the moratorium lifted, DMF received eight shellfish lease applications on the east side of Core Sound. DMF subsequently received more than 400 protests resulting in 1996 legislation that permanently implemented moratoriums on new leases. This moratorium covered more than half of the eastern-side of Core Sound and a portion of Pamlico Sound in Carteret County.⁴⁴ A moratorium was also implemented for the remainder of the Core Sound area and Western Core Sound by S.L. 2003-64 in 2003.⁴⁵ This legislation provided for an indefinite moratorium except for existing lease areas.⁴⁶

The underlying fear expressed by commercial fishing interests opposing the issuance of shellfish leases focused on uncontrolled proliferation of leases. The concern was that an increase

⁴² Id.

⁴³ An Act to Prohibit New Shellfish Leases in Core Sound, S.L. 1993-44 (HB 416)

⁴⁴ An Act to Prohibit Shellfish Leases in Core Banks, S.L. 1995-547 (HB 1074)

⁴⁵ An Act to Limit Shellfish Lease Area in Core Sound, S.L. 2003-64 (SB 765)

⁴⁶ Division of Marine Fisheries, 2017. North Carolina Oyster Fishery Management Plan, Amendment 4. North Carolina Department of Environment and Natural Resources, Division of Marine Fisheries, Morehead City, North Carolina. 378 pp.

in lease operations would eventually deprive fishermen of their livelihood by overtaking traditional fishing areas or by driving down shellfish prices because of an oversupply from culture operations. The control of shellfish aquaculture by large corporations was also expressed as a concern.⁴⁷

Amendment 4 to DMF's Oyster Fishery Management Plan initially revisited the Core Sound Shellfish Lease Moratorium.⁴⁸ These efforts were discontinued due to the passage of S.L. 2015-241 in 2015, where Section 14.8 of that law required DMF, resource agencies and stakeholder groups to create a proposal to open shellfish cultivation leasing in certain areas of Core Sound currently subject to a moratorium. Recommendations were created in year one of the proposal but were ultimately abandoned due to lack of support.⁴⁹



Figure 5. Core Sound Moratorium on shellfish leases.

3. Bogue Sound and New Hanover County Area Moratoriums

The Bogue Sound and New Hanover County Area moratoriums were established by S.L. 2019-37, Section 7, effective July 1, 2019 and expiring July 1, 2021 (Figures 6 and 7).⁵⁰ The two moratoriums cover new shellfish leases and new shellfish water column leases for aquaculture. These moratoriums resulted from the substantial increase in the number of user conflicts

⁴⁷ Id.

⁴⁸ Id.

⁴⁹ Id.

⁵⁰ https://www.ncleg.gov/EnactedLegislation/SessionLaws/PDF/2019-2020/SL2019-37.pdf

coinciding with the recent expansion of the shellfish aquaculture industry and its use of intensive gear in water column leases.⁵¹



Figure 6. Bogue Sound Moratorium on shellfish leases.



Figure 7. New Hanover County Area Moratorium on shellfish leases.

⁵¹ Study On How to Reduce User Conflict Related to Shellfish Cultivation Leases (N.C. Department of Environmental Quality, Division of Marine Fisheries and N.C. Marine Fisheries Commission), 2019

V. RECOMMENDATIONS

At this time, DMF is unable to recommend specific SEAs within the waters currently under moratorium. Though the criteria for shellfish leases are already established, the criteria for SEAs are still under development. Any area in waters that are currently under moratorium for shellfish leasing, and that meet the criteria laid out in the shellfish leasing statutes, could potentially be established as SEAs. Determining these areas in moratorium waters that meet these statutorily required criteria while also narrowing that down to identify optimal leasing areas will take more time.

It is important to note that user conflicts play a significant role in determining appropriate locations for shellfish leases. The current moratoriums were established as a result of acute user conflict and public opposition to shellfish leases. DMF anticipates continued and strong public opposition during the permitting process. Therefore, DMF offers the following recommendations before moving forward with establishing SEAs in current moratorium areas:

- Conduct significant public outreach with various stakeholders, including local government entities and residents.
- Gather community input to determine the least contentious areas for shellfish leasing.
- Identify optimal SEA locations and build community support around those sites.

DMF remains committed to the establishment of SEAs, which will boost the rapidly growing shellfish aquaculture industry in North Carolina.