



**Masonboro Island Reserve and Zeke's Island Reserve  
 Joint Local Advisory Committee Meeting Minutes  
 January 18, 2017, 4 pm  
 MarBioNC Conference Room, UNCW CMS**

**Attendance**

**Masonboro Island Reserve Local Advisory Committee**

<b><u>LAC Partner Organization Members</u></b>	<b><u>Present</u></b>
NC Audubon, Walker Golder	Yes
Friends of the Reserve (FOR)	No
New Hanover County Sheriff's Office, Sergeant Steve Schmidlin	No
New Hanover County Planning Department, Dylan McDonnell	Yes
NC Coastal Land Trust, Jesica Blake	Yes
Division of Marine Fisheries	No
Division of Parks and Recreation, Carolina Beach SP, Chris Helms	No
Town of Wrightsville Beach	No
<b><u>Community Members and Community Organizations Members</u></b>	
Neal Andrew	No
Richard Cecelski	No
Masonboro.org – Al Smeilus/Richard Johnson	Yes
Haywood Newkirk	No
William Raney	Yes
Pat Rittenmeyer	No
Sam Romano	Yes
Dr. Anthony Snider	Yes
Surfrider, Cape Fear – Peter Gillman-Bryan, Lindsey Deignan	Yes
Ted Wilgis	Yes
Martin Willard	Yes
Dr. Amanda Williard	No

**Zeke's Island Reserve Local Advisory Committee**

<b><u>LAC Partner Organization Members</u></b>	<b><u>Present</u></b>
Division of Archives and History, Nathan Henry	No
Division of Parks and Recreation – FFRA, Jeff Owen	No
NC Aquarium at Fort Fisher, Renee Weeks	No

<b>Community Members</b>	
Captain John Carty	No
Dr. Anthony Snider	Yes
<b>Others Present</b>	
Hope Sutton, DCM/NCCR & NCNERR Stewardship Coordinator & Southern Sites Manager	
Heather Wells, DCM/NCCR & NCNERR Research Specialist	
Rebecca Ellin, DCM/NCCR & NCNERR Reserve Program Manager	
Brandon Puckett, DCM/NCCR & NCNERR Research Coordinator	

<b>Public in Attendance</b>	<b>Commenting</b>
Judy Ratcliff, NC Dept. of Natural and Cultural Resources	No
Nancy Seamans	No
Beth Darrow	Yes
Troy Alphin	Yes
Dr. Martin Posey, Director, UNCW Center for Marine Science	Yes
Madison Lytle	No
Jacob Torok	No
Jay Styron	Yes
Dr. Ami Wilbur, Director, UNCW Shellfish Research Hatchery	No

**Welcome and opening remarks – Rebecca Ellin**

The Reserve Program Manager welcomed the committee members and members of the public in attendance. A brief introduction was provided to describe the purpose and objectives of the meeting and how the input received will be incorporated into policy development.

Staff heard at the fall local advisory committee meetings that there was considerable interest in the topic of shellfish cultivation at N.C. Coastal Reserve and National Estuarine Research Reserve (Reserve) sites and in having a more in-depth conversation about lease activity and management within Reserve boundaries. As a result, staff held local advisory committee meetings this week for sites that are currently open to shellfish harvesting. A similar advisory committee meeting was held January 18 in Wilmington for the Masonboro Island and Zeke’s Island Reserves.

The objectives of the meetings were to:

- Brief committee members on Reserve-related shellfish lease activity and policy development, including potential conflicts Reserve considered and draft conditions required for future leases that may be sited within Reserve boundaries, and
- Gather input on shellfish lease activity within Reserve boundaries in general and specific aspects to be incorporated in the policy.

The input gathered from the local advisory committee meetings will be summarized and used to inform internal discussions regarding shellfish cultivation policy within Reserve boundaries.

### **Background presentation – Hope Sutton**

The Stewardship Coordinator/Southern Sites Manager provided a presentation to provide context for the discussion including background about shellfish cultivation in N.C. and information about the Reserve's process to develop a draft shellfish cultivation policy.

### **Introduction**

The N.C. Division of Marine Fisheries (DMF) classifies shellfish cultivation as commercial fishing and regulates shellfish cultivation through its shellfish leasing program. Commercial fishing is allowed within Reserve boundaries and as such, shellfish cultivation may be allowed within Reserve boundaries; however, the activity must be considered in the context of all of the existing authorities and policies that affect the Reserve sites.

The North Carolina General Assembly, the Department of Environmental Quality, and various partner organizations have taken an increased interest in facilitating the production of aquaculture in N.C. The General Assembly called for several legislative studies related to this industry and increased funding to expand the DMF's lease program. Interest in shellfish cultivation has increased as evidenced by 43 applications DMF received for shellfish leases in 2016 compared to the 12 applications received in 2015.

The Division of Coastal Management (DCM) understands and fully appreciates the value of the environmental and economic opportunities that can be gained through increased shellfish cultivation, and is obligated to consider shellfish cultivation activities and policies in accordance with the N.C. Coastal Area Management Act (CAMA), the federal Coastal Zone Management Act (CZMA), and the N.C. Administrative Code (NCAC) as staff considers the future role of this activity within Reserve boundaries. As demand for leases has increased, there has been interest in siting shellfish leases within the boundaries of the Reserve sites, demonstrated by the three applications for new leases within the Masonboro Island Reserve in 2015. Two leases at this site were granted by the DMF and include special conditions mutually agreed upon by both Divisions and the applicants. One lease was previously granted at the Zeke's Island Reserve in 2012 that included no special conditions.

The DCM enacted a suspension of shellfish leases within Reserve sites from November of 2015 through December of 2016 during which no new shellfish lease applications were accepted by DMF. The purpose of the suspension was to provide time to develop a policy on shellfish cultivation within Reserve sites to best meet the purposes and rules of the Reserve program. The DMF will not be accepting new lease applications until March 2017, as federal environmental law dictates that site investigations must take place between April and October for the best detection of submerged aquatic vegetation. These additional months will be used to complete the policy and staff are seeking your input on key policy questions today.

### **Guiding Documents**

The Reserve purposes as defined in the 15A NCAC 07O were provided:

- Preserve coastal ecosystems representative of the various biogeographic regions and typologies in North Carolina and to make them available for continuous future study of the processes, functions, and influences which shape and sustain the coastal ecosystems;
- Provide new information on coastal ecosystem processes to decision makers as a basis for the promotion of sound management of coastal resources;
- Provide a focal point for educational activities that increase the public awareness and understanding of coastal ecosystems, effects of man on them, and the importance of the coastal systems to the state and the Nation;
- Accommodate traditional recreational activities, commercial fishing, and other uses of the Reserve as long as they do not disturb the Reserve environment and are compatible with the research and educational activities taking place there.

The fourth purpose includes commercial fishing and states that this activity is accommodated as long as it is compatible and does not disturb the environment. The Reserve is currently engaged in a collaborative research project conducted by UNCW researchers at the Masonboro Island Reserve to assess the ecosystem services of shellfish cultivation. Results of this study will help resource managers and shellfish growers make informed decisions about locations and scales of future shellfish cultivation operations, thereby meeting the second purpose listed above.

There is no specific mention of shellfish cultivation in the Reserve's Use Requirements in the 15A NCAC 07O but as the Reserve works to develop the policy, it is obligated to interpret the full NCAC associated with the Reserve.

The Reserve must also consider the dedication letters that dedicate Reserve sites as State Nature Preserves. The dedication letters are legal documents that include requirements for natural resource protection to meet 15A NCAC 12H. The Reserve is working with the Natural Heritage Program, the program responsible for overseeing the State Nature Preserve program, to ensure that legal requirements for protecting the dedicated preserves are being met as the Reserve develops its policy regarding this activity within Reserve boundaries.

### **Types of Shellfish Cultivation**

The two basic types of shellfish leases in N.C. were discussed – water column and bottom. Bottom leases involve a variety of cultivation methods in which only the bottom and up to 18 inches off the bottom are utilized while water column leases may utilize the entire depth of the water over the leased bottom. In 2016, approximately one-third of lease applications to DMF were for water column leases. This shift represents the evolution of the industry from earlier years when cultivation primarily involved planting seed on the bottom with little to no infrastructure to more recent methods which are typically more intensive and may involve significant infrastructure.

### **Potential conflicts**

While developing the Reserve's draft shellfish policy, staff identified the following list of uses or areas of concern that could potentially be impacted by shellfish aquaculture operations within Reserve boundaries: commercial and recreational fishing; commercial activity (tours, ferries); navigation; hiking and paddling trails; constructed/research reefs; research infrastructure; research activity areas; research sanctuaries; marsh; recreational use areas; egret and heron rookeries; shore/water bird nesting, feeding, loafing areas; Important Bird Areas; submerged aquatic vegetation; natural shellfish; primary nursery areas; duck blinds; and existing shellfish leases. For clarity, navigation includes both motorized and non-motorized boats; recreational use areas focus on high use areas; and Important Bird Area is not a legal designation but the designation acknowledges the importance of some areas as essential bird habitat. Each of these potential conflicts has been taken into account to meet the Reserve's guiding document requirements and utilize a cautious approach when considering shellfish cultivation activity as research is still needed to more fully answer questions about this activity's ecological effects.

### **Proposed conditions**

If shellfish cultivation operations continue to be allowed in Reserve sites, the Reserve proposes to include the following conditions in future lease contracts for those sited within the Reserve boundaries. These conditions are designed to minimize conflict with other uses and support protection of natural resources. These conditions have been refined over time as Reserve staff. The lease at Zeke's Island Reserve does not include these conditions; the two leases at Masonboro Island Reserve include some to most of them.

Proposed conditions:

1. Only bottom lease activities shall be allowed.  
**Shall not be allowed:**
2. Infrastructure extending more than 18 inches off the bottom.
3. Semi-permanent or permanently moored infra-structure.
4. Permanent lights.
5. Observation cameras that are directed outside the immediate lease area.
6. Lease activities shall avoid conflicts with Reserve site resources and uses.
7. Cultivation of non-native shellfish.
8. Floats attached to bottom lease gear.
9. All lease operations must be contained within the lease boundary or conducted on private property.
10. No pesticides shall be applied at lease sites or on infrastructure to be deployed at lease sites.
11. Bags and cages must be labeled with the leaseholder's name and lease number.
12. The lease duration shall be five years with the opportunity for renewal if the terms of the lease are met. Lease conditions shall be evaluated as part of the five-year review conducted by DMF in consultation with DCM.
13. The lease is not transferable.

Some clarifying questions were asked; Reserve staff responded. A concern was raised about the use of crab pot floats to mark bottom cages or racks; some shellfish growers believe this practice increases public safety. One comment was made regarding the additional burden requiring labels on bags and cages could represent; others present suggested that this approach could help decrease marine debris. A suggestion was made that keeping the conditions somewhat flexible and customizing them to a specific location given the variation in appropriate techniques per location may be more realistic than applying conditions across all sites. Some concerns were raised by Dr. Martin Posey, Center for Marine Science Director, regarding the UNCW proposed demonstration lease and how the proposed conditions would apply. Staff responded that the intention of the proposed conditions is not to limit research or educational activities related to shellfish cultivation given the primary purposes of the Reserve are research and education. Although the conditions are proposed, they will not be regulations, so it will be possible to tailor conditions appropriate to the demonstration lease. Additionally, the triploid oyster stock typically used by commercial growers is allowed and was not intended to be included as being non-native for the purposes of these conditions.

### **Discussion – Heather Wells**

A facilitated discussion occurred in which committee members were invited to respond to the following four questions. Committee member responses are generalized below each question.

*Question 1 – What are your general thoughts on this activity occurring at the sites of the Reserve? What do you see as the benefits and concerns about leases being sited within the Reserve boundaries?*

General thoughts:

- Because Masonboro Sound contains many winding creeks and not as much open area, there may not really be much space where leases could occur, but conflicts may exist that will limit where leases should be sited.
- The DMF considers how leases will affect navigation and other commercial fishing.
- Water quality benefits of oysters are important, but water quality is already good at these sites; a cautious approach should be used to understand what this will mean in areas that already have good water quality.
- The Reserves are some of the prime open shellfish waters, especially in the southern half of the state. They will continue to be more and more valuable and will face increasing pressure. This needs to be taken into account in decisions on leases.
- The Reserve can play a role in researching shellfish growing methods. Water column leases are a growing approach that could be researched.
- The results of the NC Public Policy Collaboratory studies involving a large number of stakeholders should be looked at to inform the Reserve policy.
- The State already appears to be following a cautious approach; the Reserve should also do so.

Benefits:

- Shellfish are great for the environment and for recruitment of other species.
- Anecdotal evidence of habitat benefit was reported with a possible increase in invertebrate populations around leases.
- UNCW demonstration lease provides significant value for research and education.

Concerns:

- Leases could conflict with recreational activities.
- Leases should not be sited such that they interfere with traditional shellfishing activities – cutting fishermen off from good beds or interfering with navigation. There should be a maximum density for leases or a minimum of open space around traditional fishing areas.
- Signage could be used to inform other visitors about the leases; may help discourage poaching.
- Does Reserve staff have time to deal with monitoring and permitting aspects of this activity? Coordination and keeping DMF informed about what is going on at leases at the Reserve will take up staff time.
- Will allowing leases interfere with the basic restoration of native oyster populations? This population needs to be restored to support recreational harvest and for ecosystem benefits.

*Question 2 – If new leases are to be allowed within the Reserves going forward, what are your thoughts on how it should be limited or managed to balance this use with other uses and protection of site natural resources?*

- The first priority is the existing resources. A new use should not displace the existing uses, so good siting is important.
- Lease activity needs to be balanced with traditional recreational fishing and access.
- Leases can reduce pressure on natural oysters and lease holders may stop harvesting from natural beds if they are granted a lease.
- DMF has processes for siting leases but the Reserve staff can be proactive about siting leases; preferred sites at Reserves should be used to reduce problems before they occur.
- DMF has conditions on leases, but the Reserve could have conditions that limit lease size and duration. This would allow more leaseholders to have access to the site while reducing total area impacted, spread the use to more growers, and make it more flexible.
- There may be very limited places within the Reserve where this activity could even occur – need more information to comment.
- Water column leases should not be restricted.
- What portion of the Reserve will be set aside as not available for leasing? What is known about loss of native oysters historically? There should be a quantifiable target for how much will be set aside to maintain balance.
- Identifying suitable areas first may help identify limits.
- Need to encourage growers who demonstrate good stewardship.

*Question 3 – What are other uses or concerns we should be taking into account when deciding where leases should be allowed to be sited?*

- Access points
- Navigational channels
- Native shellfish beds
- Fishing and hunting
- Need to get more information on native oyster bed loss to work toward restoration; prime areas for restoration should not be used for leases.

*Question 4 – How should we decide how many leases or how much area is appropriate to use for this activity? What are your thoughts on how we will know when there is too much aquaculture activity?*

- Greater understanding of the areas that might be suitable for leases is needed.
- Use UNCW siting tool to help identify areas for leases.
- Let oyster experts use sound science to determine when leasing activity is too much.
- Leasing may be self-limiting; growers may stop making money if too many leases are granted.
- Current restrictions and regulations are enough; the Reserve shouldn't add additional layers of bureaucracy.
- The Reserve should set a minimum amount of open space or a cap on lease density.
- If only 3% of the site might be suitable for example, no further limits may be needed.

### **Public Comments**

Dr. Beth Darrow, UNCW researcher, discussed the project she is leading that will look at ecological issues related to shellfish leases. She stated that nationally and internationally, others are struggling with similar questions. She hopes that their project will help to answer questions about how much aquaculture activity may have effects on the surrounding ecosystem and to better understand some of the benefits that may be derived from aquaculture.

Troy Alphin, UNCW researcher, provided a historical perspective stating that leases had been within the Reserve prior to the 1950's. He also suggested that the Reserve seemed to be scrutinizing this activity more than other activities. He also expressed a concern about limiting the use of floats on lease equipment. He stated that his lab is working on signage for the research sanctuary areas associated with the previously discussed research project to clarify for the public which areas will still be open to wild harvest.

Dr. Martin Posey, Center for Marine Science Director, discussed the importance of question #4, and that this is an area of focus nationally. He stated that questions about the critical density beyond which a threshold effect will occur and force conversion of systems have not been



answered yet. He suggested that some current work in Virginia may help to better understand this and that he and other researchers are trying to get at these questions about cumulative impacts to ecosystems. He compared this question about the potential impacts of shellfish cultivation activities to that of the impact of bulkheads. He explained that although any individual bulkhead has fairly minimal ecological impact, there will be a point at which the cumulative effect of multiple bulkheads becomes negative in terms of ecological effect and the same will likely be true of shellfish leases.

Jay Styron, President of the NC Shellfish Growers Association and Center for Marine Science Operations Director, expressed a desire to not have leases interfere with the CMS dock and research vessel operations. He also stated that, in general, he does not feel that the area around Masonboro Island Reserve is a good location for shellfish growing due to the number of potential conflicts, the intertidal nature of the site, and the limited available space. He stated that these factors were likely to limit the activity at the site. He reiterated the idea that most concerns will be addressed through the DMF lease application process. He also commented on the historic nature of shellfish growing and that the Reserve should be addressing the condition of the native shellfish beds and harvesting activity associated with them. He expressed a willingness to provide information about gear and practices to inform the Reserve's policy development process if needed.

### **Wrap up – Rebecca Ellin**

The Reserve Program Manager discussed the next steps the Reserve will be taking to complete development of the shellfish lease policy. The input gathered at this meeting and the Rachel Carson Reserve committee meeting will be summarized and used to inform internal discussions regarding policy on leases within Reserve boundaries. Minutes will be developed for the committee meetings per standard practice. The intent is to complete the policy prior to March 1 to coincide with when DMF begins accepting lease applications. Staff will share the policy with the advisory committees once it is complete. If lease activities are allowed to continue moving forward, DMF's proclamation notices regarding leases within Reserve boundaries will be shared with the committees so that members are aware of leases proposed and can weigh in through the DMF process. Committee members and other participants were thanked for their input and engagement at the meeting.