

## Web Application User's Manual

### Disclaimer

Every effort has been made to provide accurate, real time data for the public to view. This application is intended as a supportive tool to aid in the understanding of the lease process, but is not used as the sole source reference for decision making for approvals or denials. Portions of the information contained in this web application are maintained by other agencies and are subject to change. Information on this web application is intended for public information and education. It will not display any information considered confidential under North Carolina General Statute

### Purpose

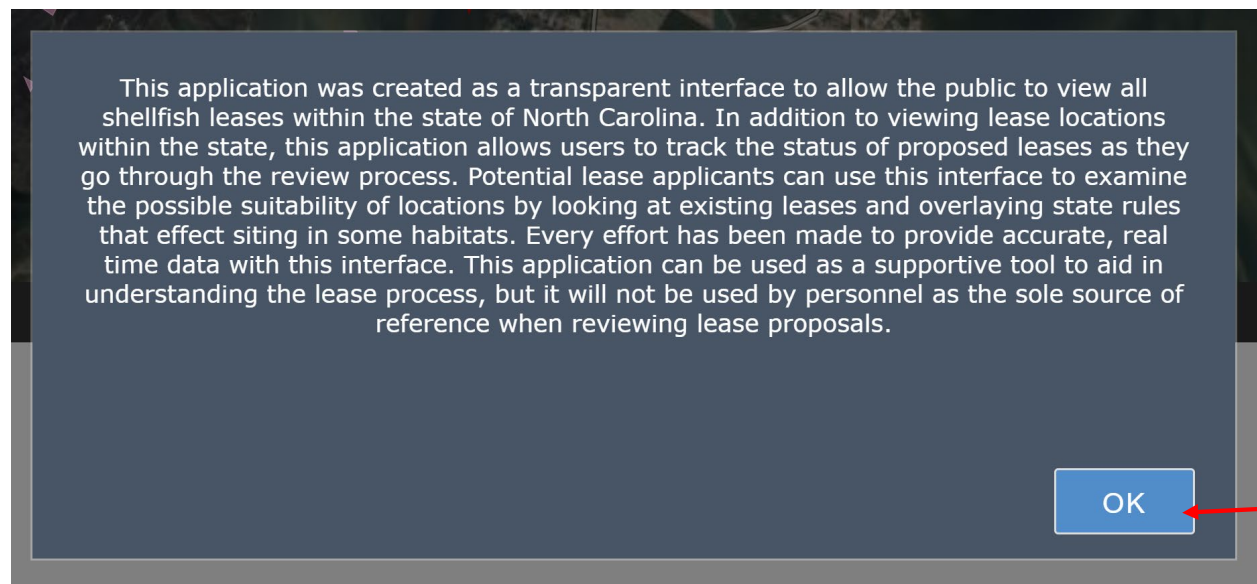
The purpose of this web application is to provide public information on the Shellfish Lease Program. By navigating this application, the public can search and identify locations and sizes of proposed lease sites, Active and Terminated Shellfish Leases, and Franchises. It provides users with real time updates on the status and stages of proposed applications. This web application may also assist in siting of potential leases.

### Comprehensive Guide

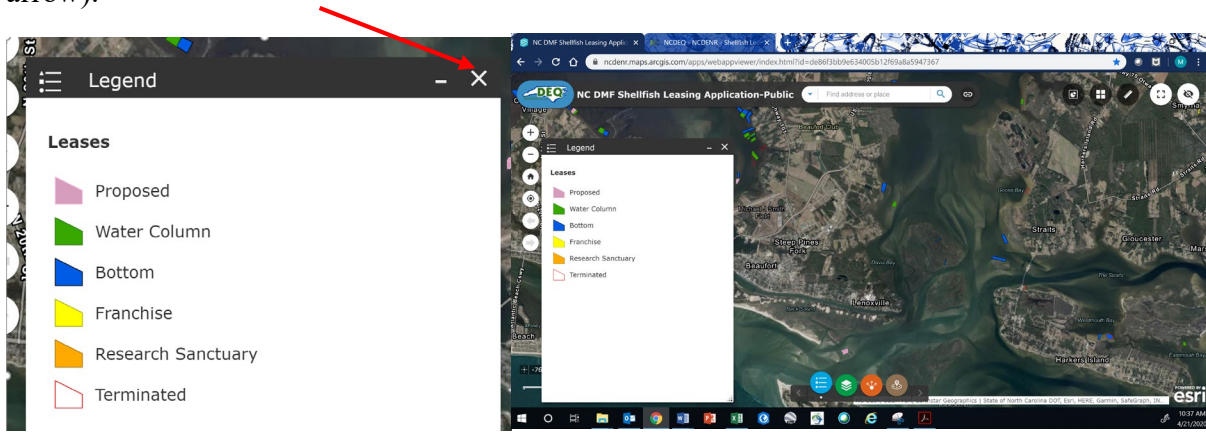
For instructional purposes, the guide is broken into different sections. The first section covers options and functions available for users to navigate the site

### Navigating the Site

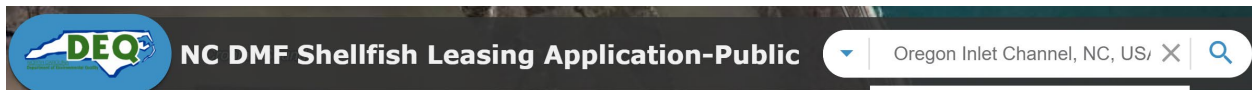
Upon logging in to the web interface, users will see the banner below. The banner is an overview of the interface's intended purpose. In order to access the site users must click OK with their mouse (red arrow).



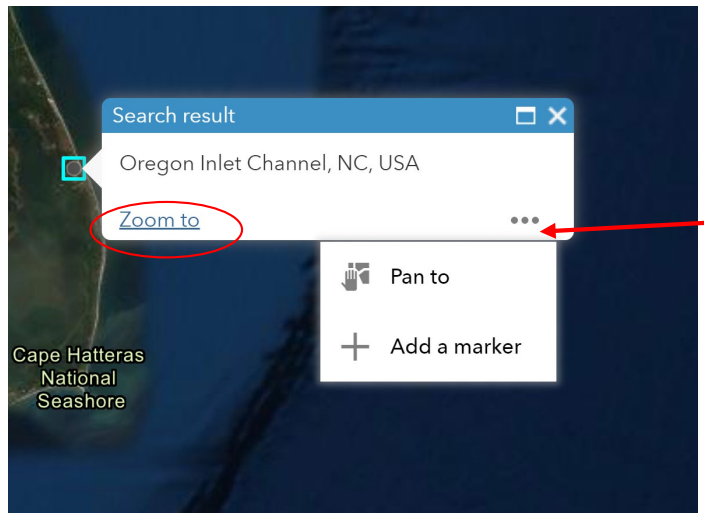
By default, the legend will appear over the map, as shown below. To better view the function buttons on the screen close the legend by pressing the “X” on the right of the pop-up box (red arrow).



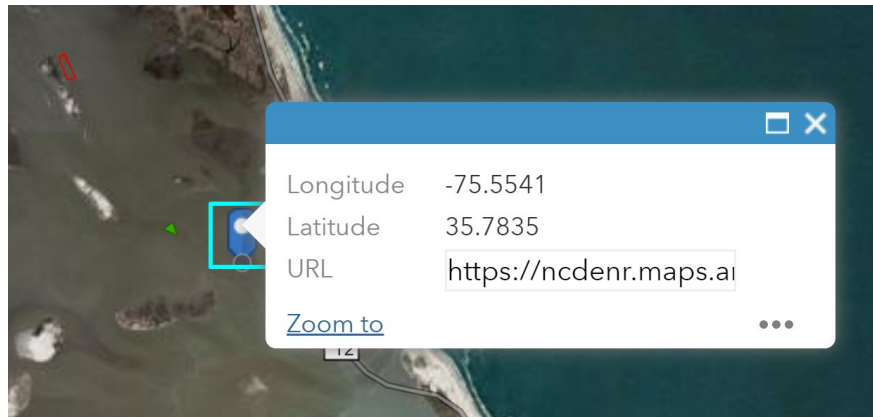
On the top left of the screen is a search bar. If you type in the number of a lease or a recognized waterbody, press enter on the keyboard or click the magnifying glass icon, and the map will move to that location.



The example below is Oregon Inlet. By continuously clicking the “Zoom to” (circled in red) the inlet area becomes more refined. Clicking on three dots on the bottom right (red arrow) gives users more options. The “Pan to” will center the location on the screen. The “Add a marker” will add a blue marker to the location.

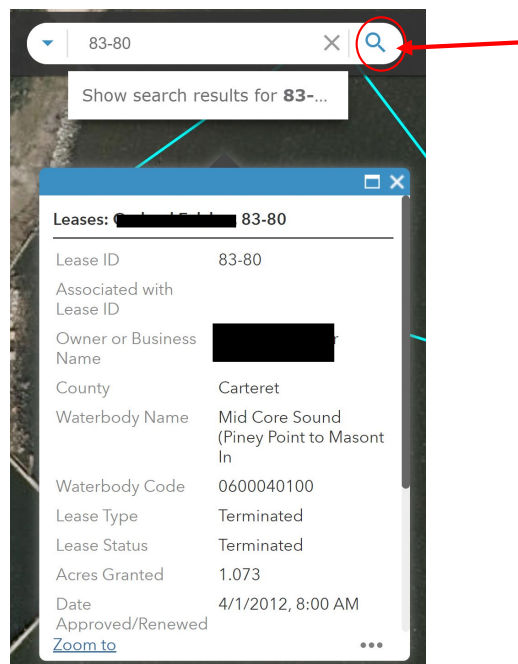


Clicking on the blue marker will display the coordinates (see below)

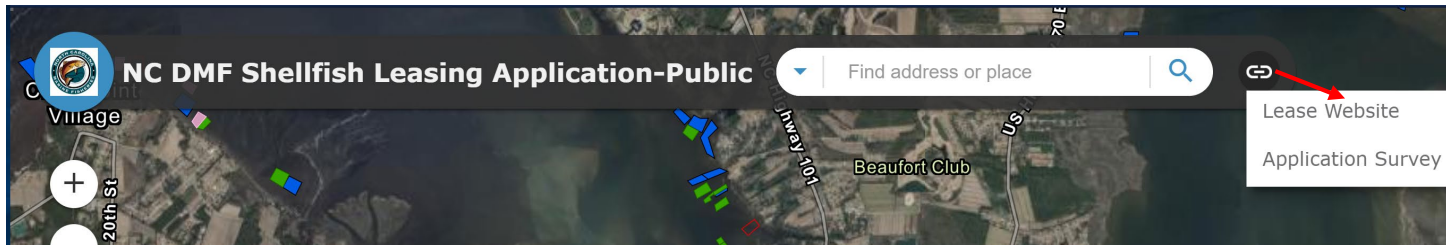


### Using the Search Bar to Find a Lease

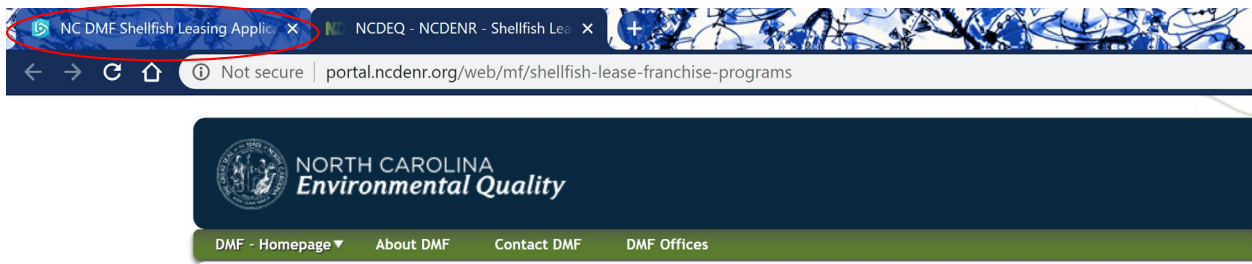
Type the lease number in the search area and then press enter or click on the magnifying glass. The map will zoom to the lease and display information about the lease. A more detailed explanation about the lease information is covered later in the legend.



If at any time the user wants to return to the DMF Aquaculture Website, there is a chain link next to the magnifying glass. By clicking on this, users are given a “Lease Website” option; selecting this will open a new browser tab with the DMF Aquaculture Website. The “Application Survey” link gives users the option of providing anonymous feedback to improve the interactive site.



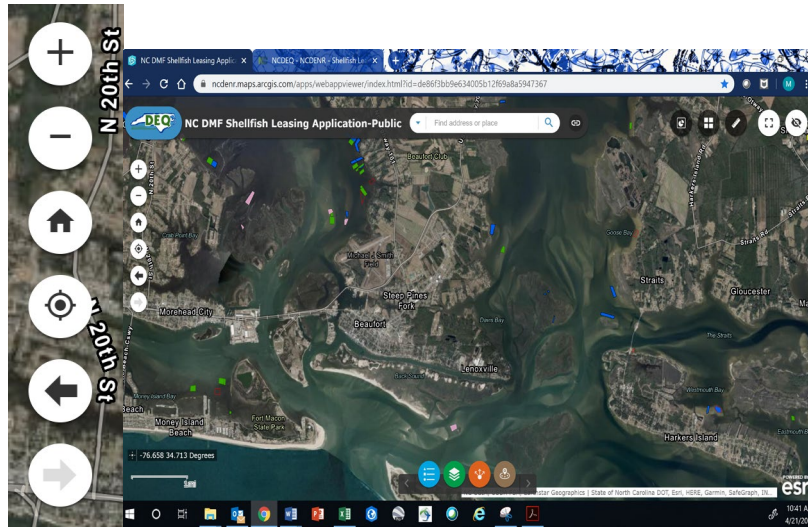
Click on the NCDMF Shellfish Leasing Tab to return to the web interface.



The Application Survey link will automatically direct user fill-out the form shown below. Once this is completed, click on submit and close the tab by clicking on the “X”



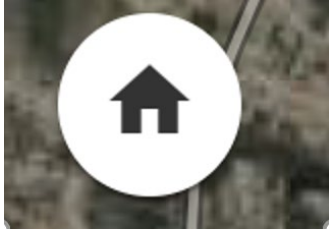
On the left side of the screen there are six circles that help navigate the screen. Descriptions are listed below but hovering the mouse over each circle provides a description in a pop-up window.



First is the “Zoom in” (+) function. By repeatedly clicking this, the image on the screen becomes more defined but cover less area. Below that is the “Zoom out” (-) function. Repeatedly clicking on this provides a less detailed picture but gives a larger overview. If using a mouse with scroll capabilities, click on the area and use you mouse to zoom in/ zoom out.



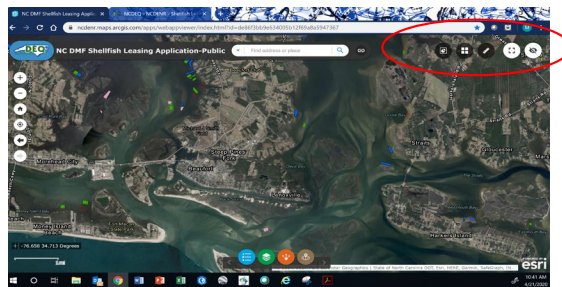
The next circle is the Home function, which has a default home screen setting with a view of Morehead City, Newport and North Rivers. If you need to re-orient yourself while navigating the system, simply click this button. The feature below that is the Current Location function, clicking this takes the user to their current location/ internet access point.



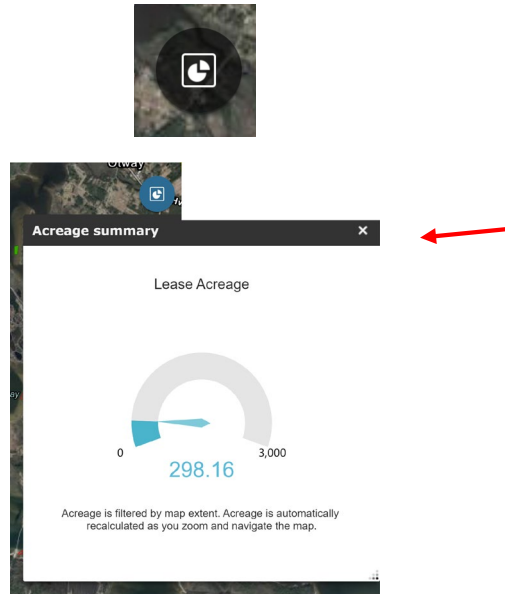
The last two functions on this side are the last screen and previous screens. These act as undo and redo tasks.



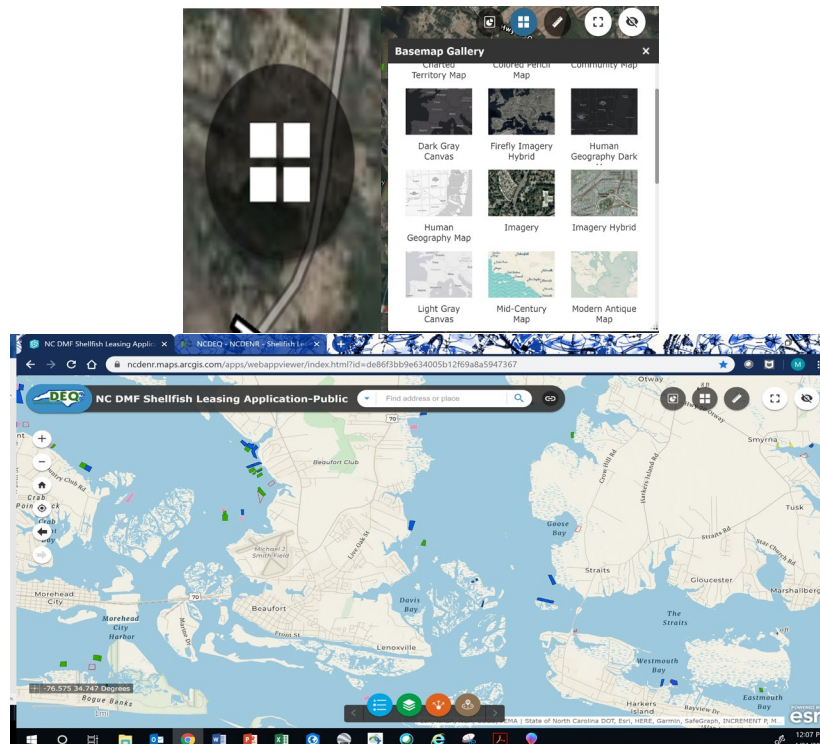
On the top right of the screen are five more tools for the website, which are indicated by the circles.



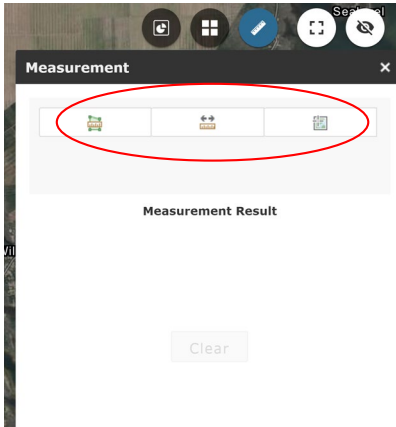
Clicking the first circle that looks like a piece of pie is the “Acreage Calculator”. This is useful in estimating the lease acreage on the screen. Using the “Zoom in” function discussed above, the acreage decreases and the area becomes more detailed, and the zoom out the acreage will increase. Click the “X” to close (red arrow).



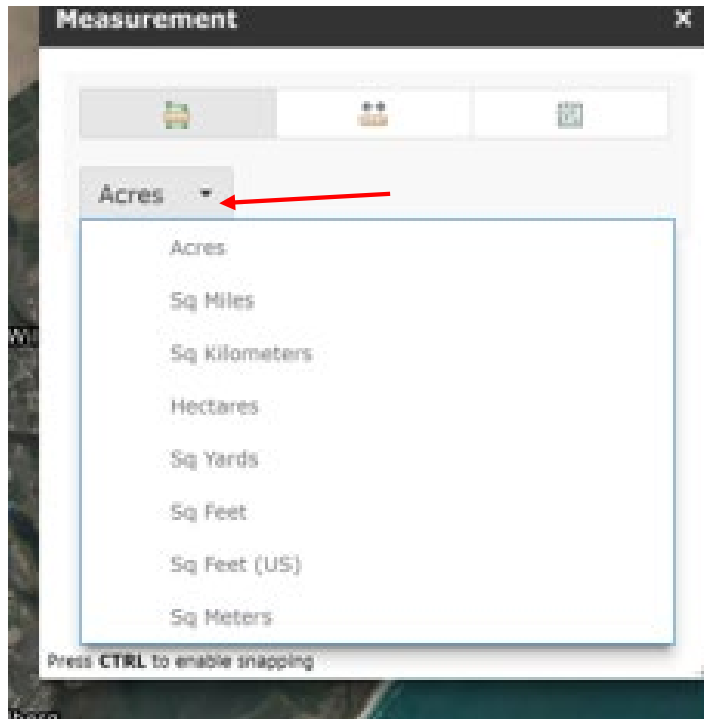
The next feature is the Basemap Gallery. Clicking on this gives the user the options to change the background image.



The middle circle with a ruler is the “Measurement Tool,” which is used to mark and calculate an area, distance, or identify coordinates (red circle) in a given location. Clicking on the ruler will give the user the options to select these tools. Once the measurement option opens, hover the cursor over each option to identify their function.

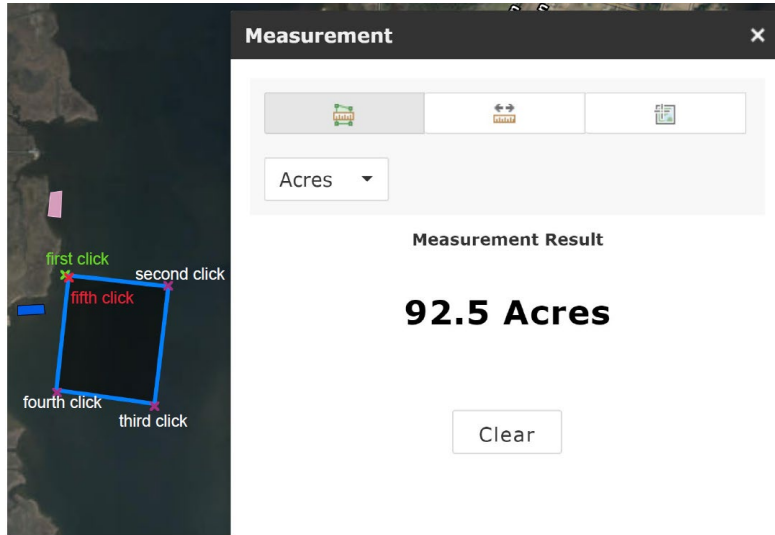


Click on the area. The “Area” tool is set to measure acres by default, but the user has the option to change that by clicking on the down arrow (in red). The division measures leases in acres.





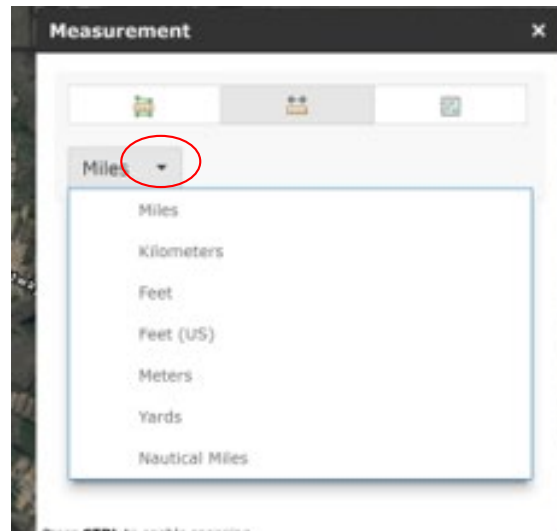
To draw an area or shape on the map, the first step is to pick a location. Once the location is chosen, click the mouse at a starting point and from there at every corner click the mouse (seen below). Once you get back to the starting point, double-click the mouse (fifth click). It is important to close the shape back to the starting point in order for the system to calculate the acreage. The example below has four points, but as long as the shape has at least three sides, the acreage will calculate.



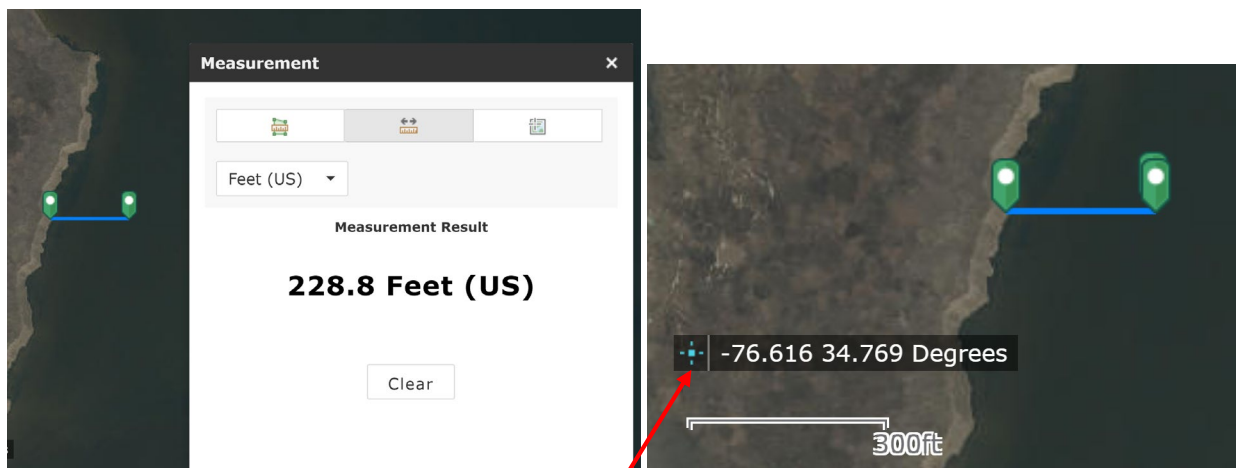
To get the coordinates for the shape you have drawn, there are two options. Hover the mouse over each corner, and look at the bottom left of the screen. The coordinates are displayed, and change with the movement of the mouse. If you want mark the corner points, click on the box to the left of the coordinates (red arrow) and then can click each corner for the same result.



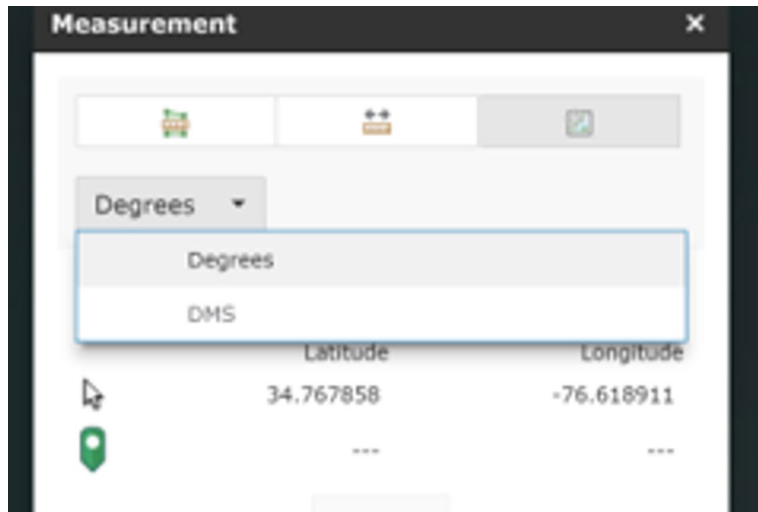
Measuring distance is accomplished in similar fashion as the drawing the shape. Miles are the default unit of measure, but the user has the option to change that by clicking on the down arrow (circled in red).



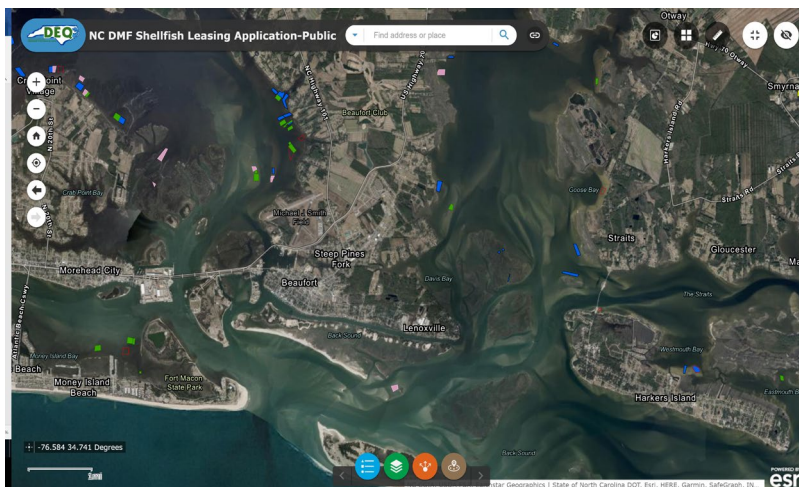
For the example below we will use feet. Click once to start your line and double-click the mouse to stop. The distance will then display in the pop-up box. To get the coordinates for the shape you have drawn, there are two options. Hover the mouse over each corner, and look at the bottom left of the screen. The coordinates are displayed and change with the movement of the mouse. If you want mark the corner points, click on the box to the left of the coordinates (red arrow) and then you can click each corner for the same result.



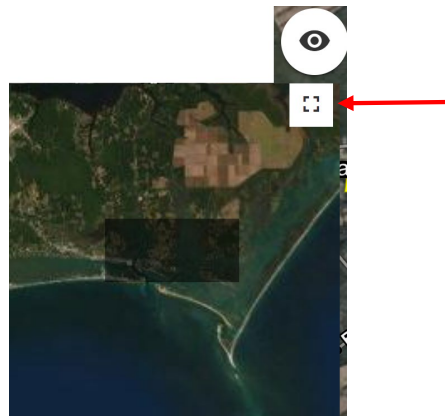
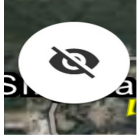
Clicking on the location option gives users the ability to mark a general location. The user also has the option to change the format from Degrees to Degrees Minutes Seconds (DMS). To move on to the next tool, click the “X” to close the measurement tool.



The next circle with a square is the “Full Screen” option. By clicking on the on the circle, the screen becomes larger by hiding the web browser. To exit this view, press Esc on the keyboard or click the circle again.

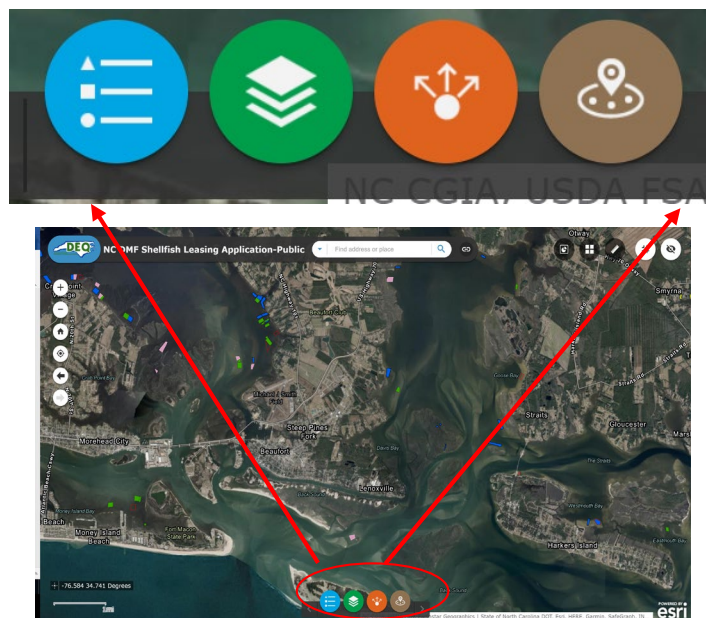


The last tool is the “Show Map Overview”, which has an eye with a line through it. Clicking that will open an inset map with a dark rectangle in the middle. By holding the left mouse button over the rectangle area and dragging the cursor, the user can move it to across the inset map to pan to a different area. Once the rectangle is moved to a desired location, release the mouse button, and the zoom in view is shown on the screen.



By clicking the “Maximize” button (red arrow) in the inset map, the inset map opens into a full screen. The user can drag the dark rectangle to a specified location in the same manner as above. When the mouse button is released, the screen will automatically zoom in to that location.

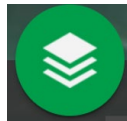
The last set of tools for the site are four colored circles located at the bottom, center of the screen. The blue is for the legend, the green is for the layers, orange is a sharing feature, and brown is a rule search feature.



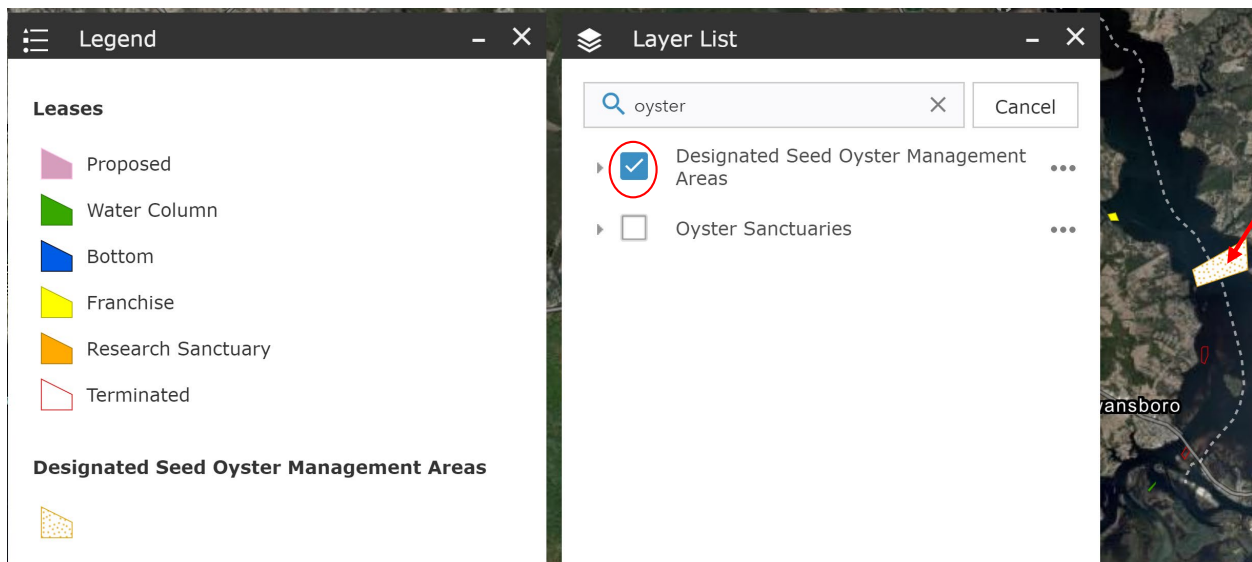
Clicking on the blue circle opens the legend, which by default will open at log-in. The leases also open in the legend by default. The legend is a chart that explains the symbols used on the map. Opening and closing the legend can be accomplished by clicking the blue button or clicking the “X” on the legend pop-up. To minimize the legend, click the line next to the “X.”



The layer list contains a few GIS layers the lease program uses to review after an application is received by DMF. These layers are a conglomerate of rules and statutes controlled by multiple agencies. Therefore, any updates or changes to these layers may not be reflected on this site. Clicking on the green circle will open the layer list. It is opened, closed, and minimized the same way as the legend. The legend and lease layer work in conjunction with one another. By default, the Lease layer is checked and represented in the legend.

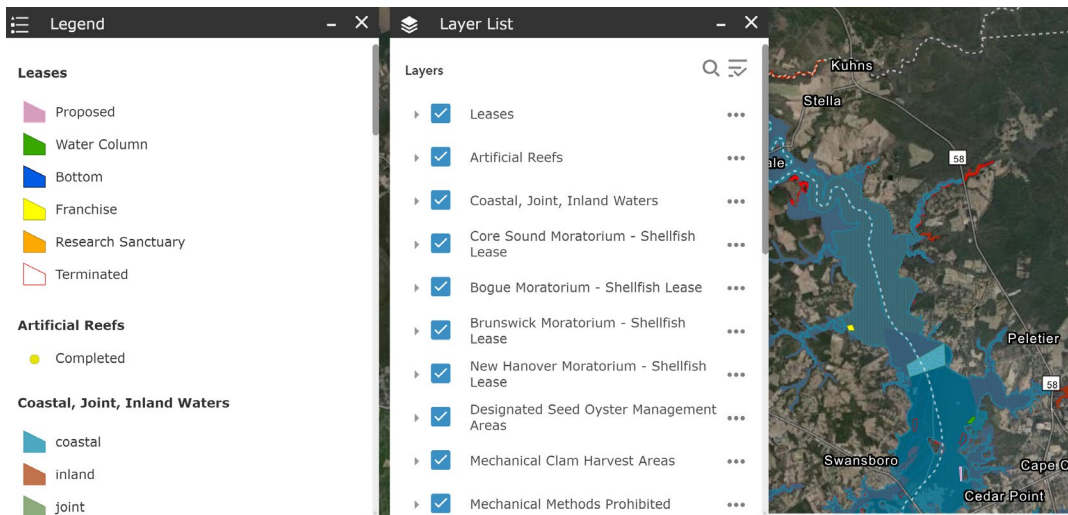
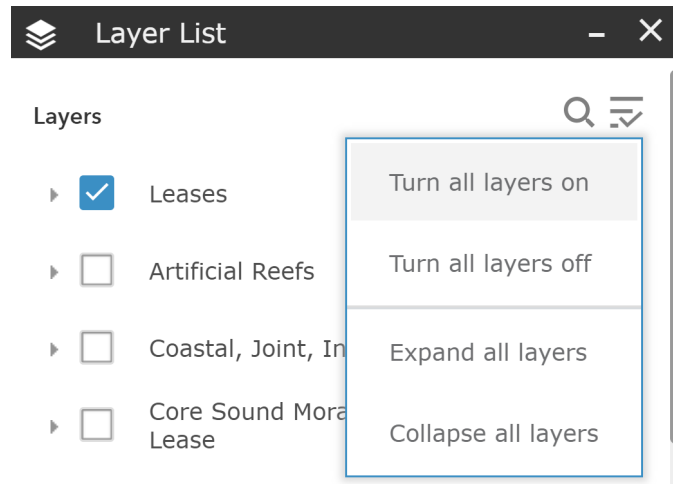


Clicking on the magnifying glass opens a keyword search bar for layers contained in the layer list. Open the legend and click in the empty box (red circle) in the layer list by the example. A couple actions happened simultaneously; the Designated Seed Oyster Management Areas layer was added to the legend and the map (red arrow). Click cancel to return to the main layer list



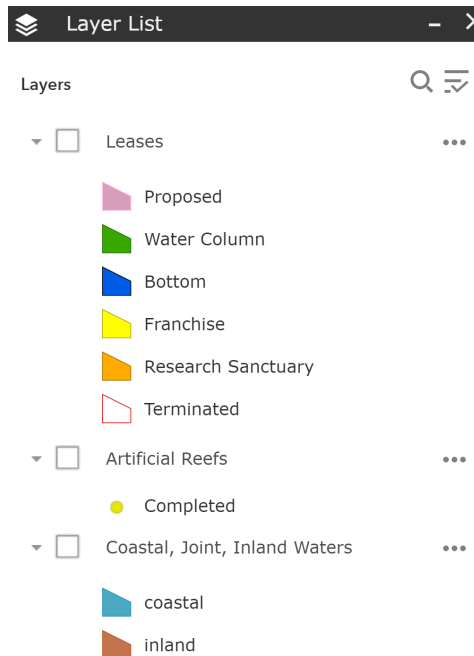
Next to the magnifying glass below, is a checklist icon and by clicking on this you get a series of options defined below:

**Turn all layers on-** This will check and make active all the layers in the list. In doing so you will notice that these all appear on the legend and the map. Minimizing the legend and layer list give a better view of the map. A disadvantage to turning all the leases on at one time is they are colored with different types of symbology, which can be cumbersome and difficult to visualize.



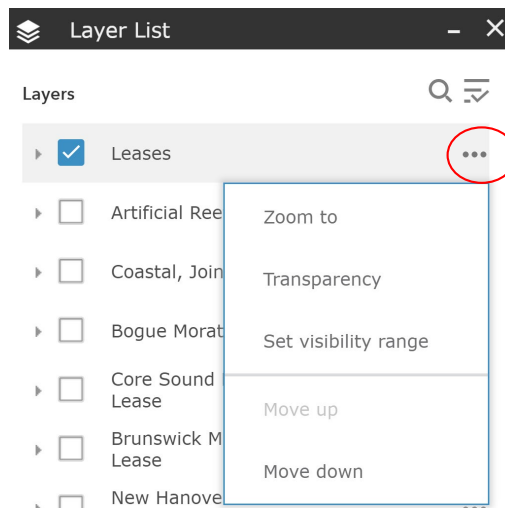
**Turn all layers off-** This will uncheck all layers and provide a blank legend.

**Expand all layers-** This will show all the symbology and colors associated with the layers and this is how they are represented on the legend.



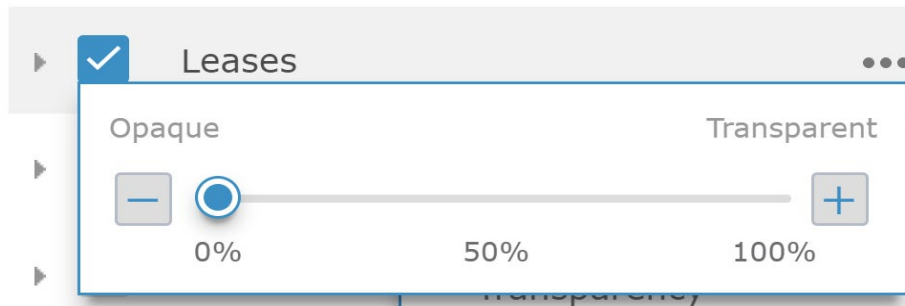
**Collapse all layers-** This is the default setting in the layer list which only identifies the layers without any symbols.

Next to each layer is a series of three dots. Clicking on these will give you more options for viewing.

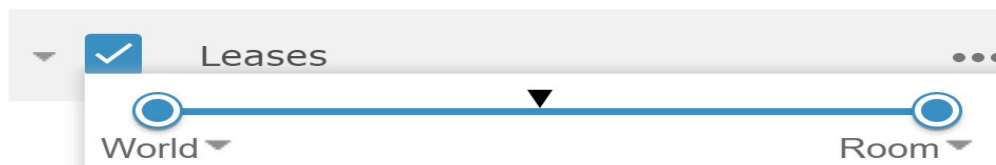


**Zoom to-** This will zoom to a particular layer. Most layers contain more than one object and therefore the screen will zoom out to show all the locations of a particular layer. This is better used for a layer with a specific location, such as the Core Sound Moratorium.

**Transparency-** This gives you the option to make a layer lighter or darker to by clicking the + or – buttons provide a better visual. This is useful if a dark colored layer sits on top of a lighter colored layer.



**Set visibility range-** This puts parameters on the zoom feature.



**Move Up/ Move Down-** This lets you reorder the order of the layers if you have a preference on which order the layers populate. By default, the lease layer is first, but the order of these layers does not signify importance of one over the other.

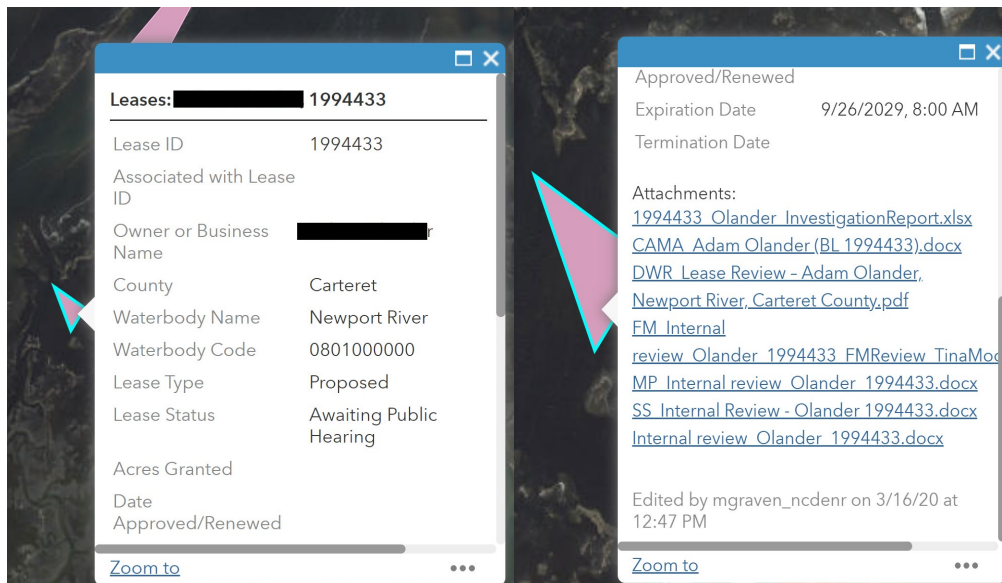


This section will briefly summarize the layers and/ or their significance to the Lease Program. The symbols to the left are as they appear on the layer list and legend. The pictures below each layer are as they appear on the map.

## Leases

If a user is looking for information on a lease and does not know the lease number, pan to the general location using navigation tools above. After locating the waterbody, the user can click on the lease in that location and see the following information:

Proposed – This is a lease application that is going through the lease process. Starting in the 2020 lease season, the applications on this site will have the following information available:



Two major components of this are the Lease Status and Attachments. As the lease goes through the application process, applicants and other parties can check here for updates. Additional information on the lease process can be found on the Lease Website (mentioned above) or in the application packet.

The second major component is the attachment section. Public information such as the biological investigation, agency reviews, and other information is available here. Acres Granted is left blank until a final determination is made on the proposal.



**Water Column-** For a lease that may have structures over 18 inches from the bottom, all water columns must have a bottom lease associated with them. Clicking a water column on the map opens a pop-up window that has the following lease information.

<b>Leases:</b> [REDACTED] 1627843	
Lease ID	1627843
Associated with Lease ID	9207
Owner or Business Name	[REDACTED]
County	Carteret
Waterbody Name	Newport River
Waterbody Code	0801000000
Lease Type	Water Column
Lease Status	Active
Acres Granted	4.39
Date	7/1/2019, 12:00 AM
Approved/Renewed	AM
Expiration Date	6/30/2029, 11:59

An important note in this window is the Associated with Lease ID block. Because statute requires a water column to be associated with a bottom lease, that information is identified here. Likewise, if a bottom lease has a water column on a portion of the lease; the bottom lease ID would be in this block, and the water column would be in the Associated with Lease ID.

- **Bottom Lease** – Is a lease that may have loose shell or structures that are no more than 18 inches above the bottom.

<b>Leases:</b> [REDACTED] 1891340	
Lease ID	1891340
Associated with Lease ID	[REDACTED]
Owner or Business Name	[REDACTED]
County	Carteret
Waterbody Name	Newport River
Waterbody Code	0801000000
Lease Type	Bottom
Lease Status	Active
Acres Granted	1.9
Date	7/13/2018, 8:00 AM
Approved/Renewed	AM
Expiration Date	6/30/2028, 8:00
<a href="#">Zoom to</a>	***

- Franchise- Is a bottom lease that is on a recognized submerged land claim. There is no annual rent but the owner pays property tax on the recognized bottom. If a recognized claim is looking to establish a shellfish franchise, this must be indicated on the declaration document. If it does not, the request would go through the lease process.

Leases: Oscar Schneider Jr. 44-C-97	
Lease ID	44-C-97
Associated with Lease ID	
Owner or Business Name	Oscar Schneider Jr.
County	
Waterbody Name	White Oak River
Waterbody Code	1001000000
Lease Type	Franchise
Lease Status	Active
Acres Granted	8.56
Date Approved/Renewed	4/22/1997, 8:00 AM
Expiration Date	12/31/9966, 7:00 AM

- Research Sanctuaries- Are leases for the purposes of research and have a 2-year contract with an optional one-time renewal.

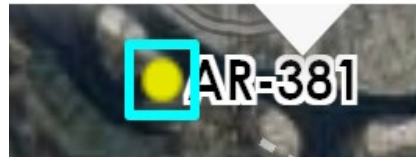
Leases: ██████████ 1951300	
Lease ID	1951300
Associated with Lease ID	
Owner or Business Name	██████████
County	Carteret
Waterbody Name	Bogue Sound
Waterbody Code	0900000000
Lease Type	Research Sanctuary
Lease Status	Active
Acres Granted	2.57
Date Approved/Renewed	7/1/2018, 8:00 AM
Expiration Date	6/30/2023, 8:00 AM




- Terminated leases- Legislation allows for leases terminated after July 1, 2019 to be re-leased within 18 months of termination for new leasing.

Leases: ██████████ 861	
Lease ID	861
Associated with Lease ID	
Owner or Business Name	██████████
County	Carteret
Waterbody Name	Newport River
Waterbody Code	0801000000
Lease Type	Terminated
Lease Status	Terminated
Acres Granted	5.812
Date Approved/Renewed	4/16/2015, 8:00 AM
Expiration Date	7/1/2019, 11:59 PM




Artificial Reefs- Although many are offshore or in deeper waters, there are some that are in shallow areas which could lead to a lease denial.




 Coastal,  Joint, and  Inland Waters –Boundaries of regulatory jurisdiction between NC Marine Fisheries Commission (MFC) and Wildlife Resource Commission. Shellfish leasing is only allowed in Coastal Waters, which are under MFC jurisdiction.




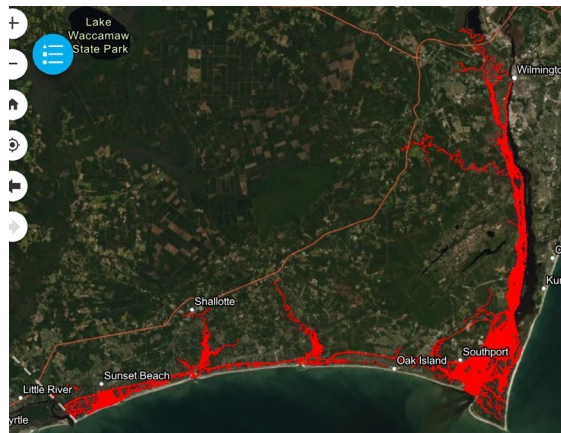
 Bogue Sound Moratorium - No new leases can be sited within the boundaries. Enacted in 2019 by the legislature and set to expire in 2021.




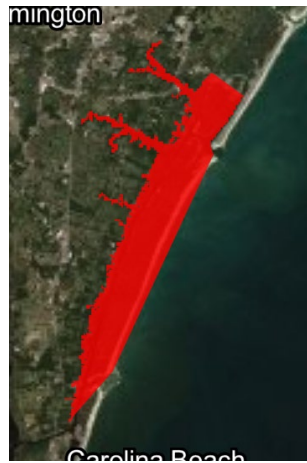
 Core Sound Moratorium - No new leases can be sited within the boundaries. Enacted in 2001 by the legislature. Terminated leases can be re-leased if they were active at the time of the moratorium.




 Brunswick County Moratorium-No leases can be sited within county boundaries. In effect since 1967 by the legislature.




 New Hanover Moratorium- No new leases can be sited within the boundaries. Enacted in 2019 by the legislature and set to expire in 2021.



 Designated Seed Oyster Management Areas- Designated areas where seed oysters can be removed with a permit. Avoid siting close to these boundaries to reduce boat traffic through a proposed site.



 Mechanical Clam Harvest Areas –Are designated areas where the public can harvest clams through mechanical means. Siting leases in is these areas obstructs the public from the use of mechanical harvest methods. This could also lead to potential damage to lease equipment.





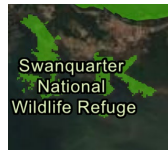
Mechanical Methods Prohibited - These are designated areas where the use of mechanical methods to harvest shellfish is prohibited. If you have a lease in these areas, using mechanical means to lift shellfish gear out of the water is not allowed.



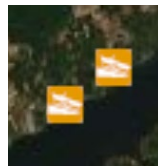
National Estuarine Research Reserves/DCM Coastal Reserves- Areas managed by the Division of Coastal Management to preserve natural conditions and facilitate research. Proposed sites in these location will likely be denied.



National Wildlife Refuges- Areas managed for enhancing wildlife, particularly birds, and where hunting is allowed. Boundaries usually end at the high water mark but USFWS may provide comments regarding conflicts.



NC WRC Boating Locations –Location of public boat ramps.



Primary Nursery Areas - Those areas in the estuarine system where initial post-larval development takes place. The use of trawl net, long haul seine, swipe net, dredge, or mechanical method for clams or oysters is prohibited in these areas.





Permanent Secondary Nursery Areas - Those areas in the estuarine system where later juvenile development takes place. The use of trawls is prohibited in these areas.



Permanent Shellfish Closures - Applications for shellfish leases in these areas will be denied. If there is an active shellfish lease in an area that becomes permanently closed, the shellfish lease will be modified to remove the closed area. If the modified area is less than 0.5 acres, the shellfish lease will be terminated.




Special Secondary Nursery Areas- A type of secondary nursery areas where it is unlawful to use trawl nets for any purpose. May be open by proclamation, to shrimp or crab trawling from August 16 through May 14.




Submerged Lands- Lease cannot be sited in an area recognized as a submerged lands claim.






 Taking Crabs with a Dredge- Areas where blue crabs can be harvested by dredge. Use caution when siting in these areas to avoid potential navigation hazards and/or equipment damage.



 Temporary Shellfish Closures- Areas where shellfish harvest is restricted on a temporary basis, usually due to rainfall events increasing bacteria levels. This layer provides real time update of area designated by proclamation from the DMF Director's office. In planning a site, tracking closures in these area provides some insight on the frequency this happens in an area of interest.



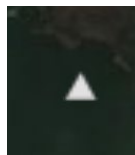
 Trawl Net Prohibited- Areas where use of trawls is prohibited. Most of these areas are located where submerged aquatic vegetation is present. Use caution when siting near these boundaries to avoid potential navigation hazards and/or equipment.



— Military Danger Zones & Restricted Areas- Areas restricted by the military for all public use, including commercial and recreational fishing and shellfish aquaculture.



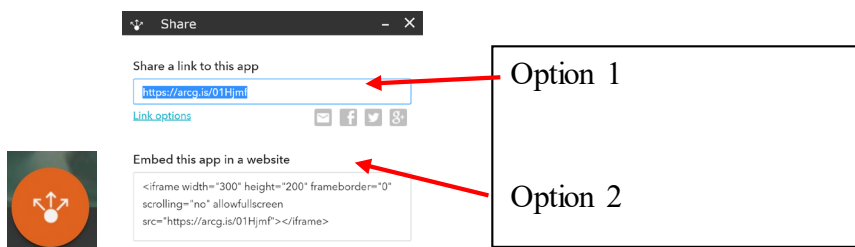
▲ Oyster Sanctuaries- DMF managed areas where oyster habitat has been restored and no shellfish harvest is permitted. The areas are off limits for commercial fishing and shellfish aquaculture.



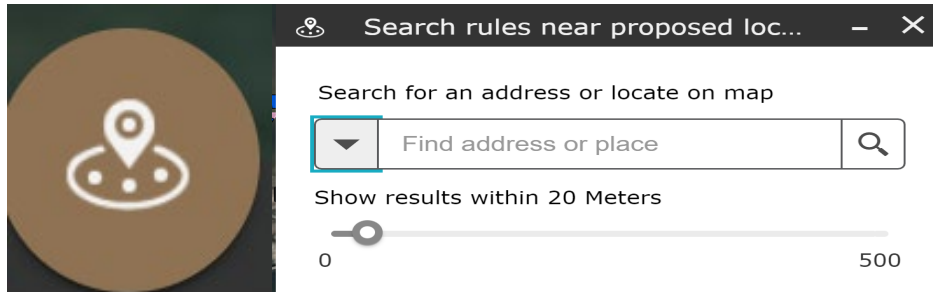
■ Submerged Aquatic Vegetation (SAV)- Underwater grasses that provide critical habitat to numerous fishery species. A lease cannot be sited in areas that have been identified as having SAV during the growing season or within the last 10 years.



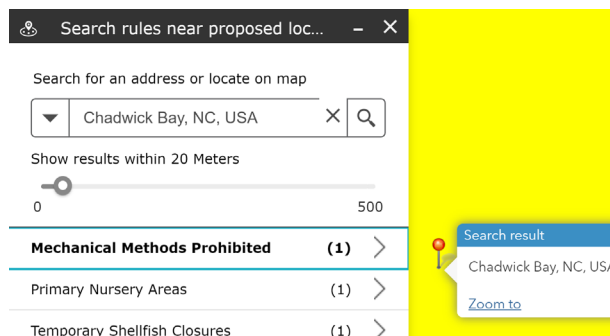
To use the “Share” feature on the map, click the orange button. Currently there are two options; copy the top link to share this site, or copy the bottom link to embed this site in another website for access.



To use the “Search rules near location” feature, click the brown button. This will open a pop-up window, which gives the option to search a waterbody location or manually by using the “Map Overview” tool. After clicking the brown button, the search option opens. By default the system will search rules (from the layer list) within 20 meters of the searched location, the user has the option to increase or decrease the distance with the slide bar.



The example below shows that within 20 meters of the pin location Mechanical Methods are prohibited, a Primary Nursery Area exists, and there is a history of Temporary Closures.



The last example shows a location chosen manually with a 100-meter radius. The rules affecting this location are Core Sound Moratorium, Mechanical Clam Harvest Area, Mechanical Methods Prohibited, and a history of Temporary Closures.

