Introduction

Given the current circumstances related to the Covid-19 pandemic, the Local Advisory Committees for the N.C. Coastal Reserve and National Estuarine Research Reserve are not holding Spring 2020 meetings. This written update is being provided to inform committee members about current activities, including Reserve-wide updates and site-specific items. Committee members are invited to respond with questions or comments through COB June 30.

Reserve-wide Administrative Update
• Included as a separate document.

Site Update
• General site conditions
  • Conditions and activities at the site were typical of the winter season through March. Research activities have continued uninterrupted through the winter and spring.
  • Access to the driving beach and barrier island portion of the site was closed temporarily in line with State and local State of Emergency Declarations related to the Covid-19 epidemic. The Reserve maintained communication with Fort Fisher Recreation Area staff during this time. The Federal Point boat ramp, maintained by the Wildlife Resources Commission remained open, providing access to the basin area of the site and to Zeke’s Island proper. The site was fully reopened on May 9 as the State moved into Phase 1. The Reserve continues to track State and local guidance and conditions related to this situation to determine if any further Covid-19 related management actions will need to be taken.

• Seasonal activities
  • Fort Fisher Recreation Area will continue to conduct monitoring of shorebird and sea turtle nesting on the barrier island portion of the site. Fort Fisher Aquarium normally conducts educational activities at the site but the aquarium is closed and all of its summer camps are cancelled due to the Covid-19 epidemic.

• White poplar treatment
  • Surveys to assess effectiveness of the last treatment of the white poplar were scheduled for early spring. Due to field work restrictions related to the Covid-19 epidemic, this activity was postponed indefinitely.
COVID-19 Update
Below is a summary of how the Reserve is working during these challenging and evolving times.

- Most staff began teleworking in mid-March and all offices remain closed to visitors.
- All Reserve sites are open now that North Carolina is in Phase 2 of the state’s plan of slowly easing certain COVID-19 restrictions. In accordance with the Governor’s Executive Order 141, mass gatherings that bring together more than 25 persons outdoors at a time are prohibited. To ensure health and safety, visitors should follow the “three Ws” outlined by N.C. Department of Health and Human Services – wear a mask of cloth face covering; wait at least 6 feet away from others; and wash hands frequently. The wet/dry beaches and uplands of the Rachel Carson, Masonboro Island, and Bird Island Reserves were closed to visitors on April 3, 2020 to protect public safety and reduce the spread of COVID-19, and to support current state and local restrictions and guidance. Sites reopened on May 9, 2020 as North Carolina entered Phase 1 of the state’s plan of slowly easing certain COVID-19 restrictions. The Reserve will continue to closely monitor state and local COVID-19 guidelines and directives and encourage Reserve visitors to comply with these measures to protect themselves and their communities.
- All in-person trainings and public programming are canceled; education and training staff are conducting virtual outreach as well as assisting partners with virtual meeting support. Virtual training workshops will be coming in the fall and will focus on grant writing, water quality, climate communication, and community resilience.
- Research and stewardship work is continuing at the sites, although activities are more limited as they must meet social distancing and mission critical requirements.
- The Reserve is not hosting its traditional cadre of seasonal staff and interns this summer as a result of COVID-19; see the staffing news section for updates on those who are working with the Reserve this summer.
- The Reserve is not holding spring local advisory committee meetings and will instead, provide written Reserve-wide and site-specific updates to the committees. Reserve staff will monitor COVID-19 conditions and will determine the most appropriate methods for conducting committee business in the fall.

Periodic Rules Review
The Rules Review Commission approved the requested readoption timeline of November 30, 2021 for Coastal Reserve rules (15A NCAC 07O). Input on proposed rule revisions was solicited from the local advisory committees at the fall 2019 meetings. That input informed version 2 of the proposed rule revisions; the committees will have an opportunity to review the updated rule language shortly and the Reserve anticipates taking the rules to the N.C Coastal Resources Commission for their input later this year. This work is part of the Legislative Periodic Review and Expiration of Existing Rules process (G.S. 150B-21.3A).

N.C. NERR Management Plan
The Reserve and NOAA are preparing to publish the final revised management plan for the N.C. National Estuarine Research Reserve for 2020-2025. The plan will be available on the Reserve
and NOAA’s websites and notification will be published in the federal register. The Reserve will send notification to the relevant committees when the plan is published.

**N.C. NERR Federal Program Evaluation**
NOAA conducts periodic evaluations of coastal management programs and National Estuarine Research Reserves as required by the federal Coastal Zone Management Act. The N.C. National Estuarine Research Reserve and coastal management program are scheduled for evaluation in the current federal fiscal year (October 2019-September 2020). The site visit was scheduled to occur in May 2020 but was postponed until October 2020 as a result of COVID-19 and will now be conducted virtually. More details regarding the evaluation will be provided to the relevant committees as they become available.

**Federal Budget**
The budget table below is a summary of the current status of the federal budget* for fiscal years 17, 18, 19, and 20 as it relates to the Coastal Reserve.

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- Federal Fiscal Year 21: The President’s budget request does not include funding for the NERRS Operations or the CZM Grants budget lines. The House and Senate will begin marking up their budgets in early summer.
- Thank you to the National Estuarine Research Reserve Association and Friends of the Reserve for their work to educate Congress on the value of the national system and the NCNERR.

**Program Activities**
Reserve staff are leading several new initiatives summarized here.

- *Hurricane Florence debris removal*: The Division secured federal funding from the U.S. Department of Agriculture’s Emergency Watershed Protection program to address large marine debris such as dock sections and lumber and remaining vessels stranded on public lands as a result of Hurricane Florence. This funding will address these issues at the Rachel Carson, Permuda Island, and Masonboro Island Reserve sites. This work will be conducted in partnership with the N.C. Coastal Federation and is expected to begin this summer. $1,873,764.00 in federal funds was awarded and is matched by $543,120 in

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non-federal funds provided by the General Assembly and Department of Environmental Quality. Central Sites Manager Paula Gillikin is leading this project for the Division.

- **Overcoming Local Barriers to Implementation and Getting to Shovel Readiness:** The Division was awarded $1,141,050 from the National Fish and Wildlife Federation’s Emergency Coastal Resilience Fund to increase the resilience of N.C.’s natural resources and coastal communities. The two-part project will 1. establish an incentive-based state framework which will support comprehensive local community resilience planning, and 2. build upon an existing vulnerability assessment and knowledge base to develop an evidence-based resilience plan to help strengthen ecosystems at the Rachel Carson Reserve, which protects the Town of Beaufort. More information on the National Fish and Wildlife Federation’s Emergency Coastal Resilience Fund awards is available [here](#). $830,000 in non-federal funds match the federal funds and are provided by the Department of Environmental Quality. Central Sites Manager Paula Gillikin is leading the Rachel Carson Reserve part of this project with involvement from additional Reserve staff.

- **Beaufort Inlet Dredging Monitoring (BIDMon):** Following decades of seasonal restrictions, the US Army Corps of Engineers is now proposing summertime dredging of federal shipping channels at both NC State Ports (Wilmington and Morehead City), and state and federal resource agencies have raised significant concerns about potential impacts to protected species, water quality, and marine fisheries. Through an agreement with the Corps, a one-time dredging operation has been authorized to begin June 1, 2020 in the Beaufort Inlet shipping channel serving the Port of Morehead City. This one-time authorization was based on a cooperative research and monitoring agreement between the State of North Carolina and the Corps of Engineers. Researchers from the Reserve, East Carolina University, and Duke University are examining water quality, fish migration, and protected species utilization in and around Beaufort Inlet before, during, and immediately following the dredging event to improve our understanding of potential impacts. Research Coordinator Brandon Puckett is coordinating the science for this project and is leading the water quality component which also involves additional Reserve staff.

- **UAS in Wetland Monitoring in Support of the NOS/NERRS Science Mission:** The Reserve has partnered with NOS National Centers for Coastal Ocean Science, National Estuarine Research Reserve System (NERRS), and Duke University Marine Robotics and Remote Sensing Lab to develop a Unoccupied Aerial System (UAS) based tidal wetlands monitoring protocol to complement the current NERRS System Wide Monitoring Program. This effort will result in the production of step-by-step protocols and best practices for incorporation of UAS in wetland monitoring programs to help facilitate the widespread adoption and routine use of UAS in wetland monitoring efforts both within the NERRS and beyond. Research Coordinator Brandon Puckett is leading the Reserve’s participation in this project.

- **Inholding Parcel Donation at the Masonboro Island Reserve:** The Reserve was awarded $4,950 from the Clean Water Management Trust Fund to support the donation of a
privately held inholding within the boundary of the Masonboro Island Reserve to the State from a willing property owner. Acquiring the remaining inholdings at the site from willing owners is a priority for the Reserve as identified in the 2020-2025 NCNERR management plan. The parcel is approximately 25 acres. Stewardship Coordinator/Southern Sites Manager Hope Sutton is leading this project for the Reserve.

Staffing News
The Reserve is excited to welcome the following interns and seasonal staff for the summer. Due to COVID-19, the number of interns and seasonal staff working with the program is reduced from previous years.

- The Coastal Training Program is hosting two interns this summer who are working remotely to develop a grant writing workshop and updating watershed education products.
  - Zofia Knorek is working to develop a grant writing workshop. Zofia is an environmental educator and PhD student in Ecology at UNC's Institute of Marine Sciences studying oyster reef restoration in the Rachel Carson Reserve.
  - Kira Matthews is working to update a game that is used in water quality outreach with decision-makers. Kira is a rising senior at Pitzer College in Claremont, California majoring in Environmental Analysis and English World Literature.
- Two seasonal staff joined the reserve team for the summer and will be monitoring shorebird and sea turtle nesting and creating virtual outreach projects.
  - Danielle Devonport graduated from UNC-Wilmington in 2018 with a degree in environmental science and is currently pursuing her master’s degree in secondary science education. She is conducting nesting monitoring at the Masonboro Island Reserve and producing virtual tours of reserve sites.
  - Hillman Kraus graduated from UNC Wilmington with a degree in conservation biology. He is monitoring shorebirds at Masonboro Island, focusing on the nesting habits of American Oystercatchers and mapping how they change over time.

* The federal fiscal year is October 1-September 30. The National Estuarine Research Reserve System (NERRS) budget line provides funding to the 29 reserves within the System through cooperative agreements that are matched by the states, and supports national coordination of programs and implementation of system-wide and competitive projects. The Coastal Zone Management (CZM) grants budget line provides funding to coastal states with approved coastal management programs through cooperative agreements that are matched by the states. The Division of Coastal Management (DCM) receives funding from both budget lines to operate the N.C. National Estuarine Research Reserve (NCNERR) and N.C. Coastal Management Program. The CZM grant funds DCM receives provides funding for Reserve staffing, state site operations, and administrative support.

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