

North Carolina Marine Debris Action Plan 2020 Accomplishments Report

The [North Carolina Marine Debris Action Plan](#) (Action Plan) provides a strategic framework for prevention and removal of marine debris along the North Carolina coast. Despite the challenges of a global pandemic during 2020, the Action Plan inspired strategic coordination, focus, and direction for the organizations and communities that address marine debris on many levels. The Action Plan has laid the groundwork for organizations to collaborate more effectively, setting the stage for the [largest coordinated public lands cleanup](#) to be conducted in North Carolina's coastal history.

At the end of each annual operational cycle, Action Plan partners create an accomplishments report to encourage accountability, demonstrate and track successes as well as provide inspiration and motivation. Accomplishments are summarized below under the goals and/or objectives under which they fall in the Plan. The reader should keep in mind that these are highlights and major accomplishments that are captured through work groups of the Action Plan. Action Plan partners and many others conducted an impressive amount of work that is not reflected here.

Goal 1: Lead and Coordinate

Lead, coordinate, and communicate in a way that effectively engages partners and other stakeholders to carry out the Action Plan and advance the issue of marine debris at the state level.

- Efforts for applying the Action Plan were led by the N.C. Marine Debris Action Plan Advisory and Implementation Committee, facilitated by the N.C. Coastal Reserve and National Estuarine Research Reserve and the N.C. Coastal Federation. The full committee held four meetings this year (1 in person, 3 remote). Additionally, there are eight established subcommittees (that met in-between the committee meetings), including the Leadership Team that established a schedule and guidelines.

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Goal 2: Prevent

Prevent the introduction of marine debris with programs that increase awareness, improve policy, and inspire behavior change.

Objective: Collaborate with businesses to implement marine debris reduction strategies.

- Despite difficulties caused by the COVID-19 public health crisis and many businesses being shut down, N.C. voluntary programs continued to expand. North Carolina Green Travel added 11 new certifications and Ocean Friendly Establishments added 31 businesses.
- Funding was secured and distributed. The N.C. Clean Marina program received the Clean Vessel Act Grant provided by the U.S. Fish and Wildlife Service for \$120,000 to provide a source of funding for pump-out projects. The Ocean Friendly Establishments program awarded seven businesses with \$1,000 in grant funding provided by the N.C. Aquarium Society and Plastic Ocean Project to support their work to minimize the use of plastic products in their businesses.

- A [survey was created](#) to distribute to businesses (particularly restaurants with the support of the N.C. Restaurant Association) in 2021 to gain insight as to how COVID has impacted their environmentally friendly business practices.

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Objective: Develop a marine debris education strategy for K-12 students.

- Development of a K-12 Education Strategy was begun based upon objectives outlined in the N.C. Marine Debris Action Plan.
- Development of a marine debris curriculum guide was begun. The guide will help educators identify which lessons are best for their students; showcase current marine debris curricula, as well as a brief summary of topics covered, appropriate grade levels, materials needed, and learning standards.
- Partner groups educated 8,295* K-12 students about marine debris, and an additional 1,355 educators and professionals involved in marine debris education. **UNCW MarineQuest educated 7,272 students through their Turtle Trash Collectors program, funded by the NOAA Marine Debris Program.*

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Objective: Work with state and local governments to improve public policy that supports the prevention of marine debris.

- The Town of Beaufort, through multiple partnerships, removed thousands of tons of large scale marine debris ([view the outreach video](#)), conducted an abandoned vessel clean-up, and officially endorsed the N.C. Marine Debris Action Plan through an official proclamation.
- The Town of Atlantic Beach partnered with Crystal Coast Waterkeeper to install signs and beach cleanup baskets at each of the town's 22 beach accesses. The sign encourages promotion through social media and features a QR code that allows visitors to directly download the NOAA Marine Debris Tracker app.
- Carteret Big Sweep engaged all ages of the general public through their socially distanced and individual clean-ups. A total of 193 cleanups were recorded from July 4th through September 7th with 327 volunteers spending 465.5 hours removing 2,129 pounds of debris from Bogue Banks.

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Goal 3: Remove

Remove chronic and storm debris in a strategic and efficient way, inspiring and assisting citizens and other stakeholders to participate as appropriate.

Strategy: Use public and/or awarded funds to conduct large scale paid cleanups.

- The North Carolina Coastal Federation in partnership with the N.C. Division of Coastal Management, the Natural Resources Conservation Service and NOAA received approximately \$800,000 in federal and state funds to hire contractors to remove storm-related debris from publicly owned coastal shorelines and marshes. Projects focused on cleaning up debris from Rachel Carson Reserve, Hammocks Beach State Park, Permuda Island and Masonboro Island Reserves, as well as public lands and dredge spoil islands in Carteret, Onslow, Pender, New Hanover and Brunswick counties. A total of 346 tons (693,800 pounds) of marine debris was removed during 2020. Debris removal is continuing in 2021 with some of this funding.

Objective: Target select volunteer groups to assist with marine debris cleanups, while maximizing participant and public awareness of the issue.

- UNCW MarineQuest [Turtle Trash Collectors](#) outreach program, funded by the NOAA Marine Debris Program provided education and citizen science programs. Program participants learned how marine debris can impact sea turtles and how we can help by collecting debris and switching to reusable items. Participants were encouraged to join a digital program to earn badges by collecting litter in their neighborhoods and participate in a new citizen science project to track how our communities' debris is changing due to the pandemic. Turtle Trash Collectors also completed 29 solo cleanups during the pandemic, collecting 1,819 pieces of trash and posted these to Facebook to encourage others to do the same.

Objective: Establish and leverage centralized media campaigns to more effectively market cleanups.

- The Debris Free NC social media brand was created in the early stages of the N.C. Marine Debris Action Plan to communicate the action plan while inspiring participation and change. The vision behind #debrisfreenc was to imagine a North Carolina where people and wildlife never encounter marine debris. This year a collaborative effort was made to update the logo to represent the hope for the future that the action plan provides. The Debris Free NC spotlight series featured on Instagram and [Facebook](#) highlighted great work happening across the North Carolina Coast. The collective media campaign promoted the great work being done, bringing attention and awareness to these organization's accomplishments while encouraging other organizations to participate to further increase our spread of collaboration for the NC Marine Debris Action Plan. Show your support of the Action Plan on social media by using the tags @debrisfreenc and #debrisfreenc.

Objective: Increase readiness and capacity for engaging in storm response.

- The N.C. Wildlife Resources Commission utilized ArcGIS Online to create a web based mapping tool that will serve as a searchable interactive map for the public, and will provide an active inventory of abandoned and derelict vessels (ADVs) in NC. The current ADV inventory is a result of the ongoing reassessment efforts from the N.C. Coastal Federation, the Division of Coastal Management, and the Wildlife Resources Commission. This ArcGIS Online map will be paired with the ArcGIS Collector App so that WRC and other partners can efficiently collect consistent ADV data in the field. This map will be available for the public to view on the ArcGIS Online website. It shows the location of 150 vessels, most of which are storm-related vessels eligible for removal under grant funding.

- The Department of Environmental Quality included a request to the NOAA Disaster Preparedness Program for expansion of pre and post- storm flight areas, if anticipated as a need, as a step for named storm preparation.
- The [NOAA Marine Debris Emergency Response Guide](#) was included as a resource document in planning and response procedures for the Department of Environmental Quality. The document is also available through the State Emergency Operations Center.

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Goal 4: Prevent and Remove Abandoned and Derelict Vessels (ADV)

Implement strategies that support removal of existing derelict vessels, increased capacity for prevention, and careful environmental response.

Objective: Establish and maintain a comprehensive georeferenced database of derelict vessels in coastal North Carolina.

- An ADV database was updated and reformed out of the ongoing reassessment efforts from the N.C. Coastal Federation, the Division of Coastal Management, and the N.C. Wildlife Resources Commission. Wildlife Resources Commission will continue to maintain and update this database as vessel removal projects are completed. The database will be updated by utilizing the ArcGIS Online Collector application. There are about 150 vessels on the list, most of which are under grant funding for removal.
- Interagency data management and coordination efforts among State partners were undertaken and are ongoing to ensure efficient response during projects, disasters, or when individual new ADVs occur.

Objective: Remove existing abandoned and derelict vessels with state and federal funds that have been provided since Hurricane Florence

- In 2019, the N.C. General Assembly provided \$1 million to N.C. Wildlife Resources Commission to remove abandoned boats from coastal waters. The North Carolina Coastal Federation in partnership with the Division of Coastal Management received \$2,416,884.00 in funding through the Natural Resources Conservation Service's Emergency Watershed Program to remove abandoned boats and marine debris. In addition, the National Fish and Wildlife Foundation in partnership with NOAA provided \$645,557 to the Coastal Federation to remove boats from Currituck to Brunswick Counties. The Coastal Federation also received \$121,090 from NOAA to remove abandoned boats from Dare County.

Objective: Actively encourage county government ordinances that prevent and remove abandoned and derelict vessels.

- In the fall of 2019, [two workshops](#) hosted by N.C. Division of Coastal Management, N.C. Wildlife Resources Commission, and N.C. Coastal Federation increased awareness of available State funding for removal of select vessels and the ability of coastal counties to pass local laws that address abandoned and/or derelict vessels. In part, this inspired the City of Jacksonville to amend a local law to address abandoned vessels.

Strategy: Obtain legislative authority from the General Assembly for vessel removals.

- In 2020 the federation in collaboration with the Commission and N.C. Division of Coastal Management worked with legislators to clarify the process for removing abandoned vessels – including public notice - from public trust waters and lands. These changes helped speed the removal of abandoned boats while also protecting boat owners’ private property rights.

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Goal 5: Research and Assessment

Identify, support and conduct research to understand the extent and impacts of marine debris and monitor trends to progressively improve strategies.

Objective: Improve understanding of plastic debris entering coastal waters.

- North Carolina Sea Grant and N.C. State University secured a \$25,000 grant from the National Ocean and Atmospheric Administration to research how much macro- and microplastic is being delivered through streams and river flow to the lower Neuse River. Sampling began in summer of 2020 at fifteen locations using various methods including fine trawl nets, streamside and streambed trash collection, and visual assessments of floating debris. Results from the project are expected to be available in spring of 2022. Partners include University of North Carolina - Wilmington, Plastic Ocean Project and Sound Rivers.

Objective: Establish standardized protocols for marine debris cleanups that would contribute to quantitatively assembling and analyzing debris status and trends.

- A team was assembled to improve and facilitate marine debris research in the state, including promoting specific data collection methods for cleanups.

Objective: Produce an annual list of research priorities related to marine debris

- A working group is committed to annually updating both an inventory of marine debris related research in the state and priority topics that need to be analyzed or investigated. Please use the following links to access Google Forms to conveniently provide input. Note that priority topics can include any aspect of the marine debris issue including, but not limited to environmental, biological, chemical, social, regulatory or economic.

[Current NC Marine Debris Research Inventory and Priorities List](#)

[Submit A Research Project](#) that is underway (or soon to be) and not currently included on the above list.

[Submit A Priority Research Topic](#) that needs investigation.

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