



## NOAA In Your State

# South Carolina

**NOAA** is an agency that enriches life through science. Our reach goes from the surface of the sun to the depths of the ocean floor as we work to keep citizens informed of the changing environment around them. From daily weather forecasts, severe storm warnings, and climate monitoring to fisheries management, coastal restoration and supporting marine commerce, NOAA's products and services support economic vitality and affect more than one-third of America's gross domestic product. NOAA's dedicated scientists use cutting-edge research and high-tech instrumentation to provide citizens, planners, emergency managers and other decision makers with reliable information they need when they need it.

The following is a summary of NOAA facilities, staff, programs, or activities based in, or focused on, your state or territory: Starting with highlights, then by [congressional districts and cities or towns](#), [coastal programs](#), and then [statewide programs](#).

### Highlights of NOAA in South Carolina

<a href="#">Habitat Conservation Division Field Office</a>	Charleston	SC-1
<a href="#">NOAA Charleston and Hollings Marine Laboratories</a>	Charleston	SC-1
<a href="#">NOAA Ships <i>Nancy Foster</i> and <i>Ronald H. Brown</i></a>	Charleston	SC-1
<a href="#">ACE Basin National Estuarine Research Reserve</a>	Charleston	SC-1
<a href="#">North Inlet-Winyah Bay National Estuarine Research Reserve</a>	Georgetown	SC-1

The state of South Carolina also has three Weather Forecasting Offices, one Regional Office, two Labs and Field Offices, and two National Estuarine Research Reserves.

### [Weather Forecast Offices](#)

Columbia SC-2

Greenville/Spartanburg SC-4

Charleston SC-6

[National Weather Service \(NWS\) Weather Forecast Offices \(WFO\)](#) are staffed 24/7/365 and provide weather, water, and climate forecasts and warnings to residents of South Carolina. There are 122 [WFOs nationwide](#) of which three are in South Carolina. Highly trained forecasters issue warnings and forecasts for weather events, including severe thunderstorms, tornadoes, hurricanes, winter storms, floods, and heat waves to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including wireless emergency alerts, social media, [weather.gov](#), and NOAA Weather Radio All Hazards. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs that strengthen working relationships with local partners in emergency management, government, the media and academic communities. Forecasters provide Impact-based Decision Support Services (IDSS), both remotely and on-site during critical emergencies such as wildfires, floods, chemical spills, and major recovery efforts. To gather data for forecasting and other purposes, NWS WFO staff monitor, maintain and use Automated Surface Observing Stations and Doppler Weather Radar. In addition to the WFOs, NWS operates specialized national prediction [centers](#) and regional headquarters throughout the U.S. for a total of 168 operational units. Over 85% of NWS' workforce is in the field. For current South Carolina weather, visit [www.weather.gov](#) and, on the national map, click on the relevant county or district.

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#### **SC-1**

##### **[Charleston](#)**

##### **National Ocean Service (NOS) - OR&R Marine Debris Program (MDP)**

The NOAA Marine Debris Program (MDP) supports national and international efforts to research, prevent, and reduce the impacts of marine debris. The MDP Southeast Regional Coordinator, based in Charleston, supports coordination efforts with regional stakeholders, provides support to grant-funded projects, tracks progress of projects, and conducts regional marine debris outreach to local audiences.

##### **National Marine Fisheries Service (NMFS) - [Office of Law Enforcement](#)**

NOAA's Office of Law Enforcement is the only conservation enforcement program (Federal or State) that is exclusively dedicated to Federal fisheries and marine resource enforcement. Its mission is to protect global marine resources by enforcing domestic laws and international treaties and obligations dedicated to protecting wildlife and their natural habitat. Our special agents and enforcement officers ensure compliance with these laws and take enforcement action if there are violations. Additionally, the Cooperative Enforcement Program allows NOAA the ability to leverage the resources and assistance of 27 coastal states and U.S. territorial marine conservation law enforcement agencies in direct support of the Federal enforcement mission. Effective fisheries law enforcement is critical to creating a level playing field for U.S. fishermen and enabling sustainable fisheries to support vibrant coastal communities. The Charleston field office, located in North Charleston, is part of the Office of Law Enforcement's Southeast Division.

##### **National Marine Fisheries Service (NMFS) - [Southeast Regional Office, Habitat Conservation Division Field Office](#)**

The Southeast Regional Office has the Charleston Field Office, which is co-located with other NOAA facilities on the grounds of the South Carolina Department of Natural Resources campus near Charleston Harbor. Field Office staff

conduct mandated essential fish habitat consultations associated with extensive energy and coastal development activities, participate in state and regional habitat planning and restoration efforts, provide assistance during hazardous material incidents and hurricane events, participate in the planning processes for major federal water development projects, and restore diadromous fish habitat by working with the Federal Energy Regulatory Commission on hydropower licenses to ensure fish passage, and with stakeholders to remove dams no longer needed.

**National Ocean Service (NOS) - [NOAA Charleston and Hollings Marine Laboratories](#)**

NOAA's National Centers for Coastal Ocean Science (NCCOS) Charleston Laboratory is a 45,000 square-foot facility that includes chemistry, toxicology, molecular, microbiology, and ecology laboratories. The laboratory has separate facilities for culture of coral species, as well as challenge laboratories to simulate and assess impacts of climate and stress changes. There is a similar building for the challenge of fish and invertebrates to chemical contaminants, and a greenhouse-enclosed salt marsh mesocosm with tidal influence, to assess the effects of contaminants under conditions simulating a southeastern U.S. estuarine habitat.

The Hollings Marine Laboratory (HML) is a partnership between NCCOS, the National Institute of Standards and Technology, the Medical University of South Carolina, South Carolina Department of Natural Resources, and the College of Charleston. Researchers from all partner institutions work side-by-side, combining expertise to conduct research they could not accomplish otherwise. HML is built on an approximately 8-acre site within the Fort Johnson campus of the South Carolina Marine Resources Center in Charleston, South Carolina. Dedicated in December 2000, the laboratory is a NCCOS-run facility that promotes collaborative and interdisciplinary scientific research to sustain, protect, and restore coastal ecosystems. About 130 staff work out of the 103,000 square-foot laboratory.

**National Ocean Service (NOS) - [Center for Human Health Risk](#)**

The Center's research mission is to develop advanced analytical tools for assessing impacts on coastal ecosystems and human health. Major research programs include: ecosystem assessments of impacts of changing land use and environmental conditions on coastal ecosystems and human health and wellbeing; marine animal health assessments, disease surveillance, epidemiology, immunology, and population modeling and associated correlations to ecosystem and human health; human dimensions research that integrates social, ecological, and health sciences to establish the links between ecosystem health and human health and well-being; genomics and bioinformatics research exploring linkages between land development, harmful algal blooms, animal health, and human health impacts; and natural product identification and evaluation focusing on algal species. The lab is a partnership between NCCOS, National Institute of Standards and Technology, Medical University of South Carolina, South Carolina Department of Natural Resources, and College of Charleston. Researchers from all partner institutions work side-by-side, combining expertise to conduct research they could not accomplish otherwise. The resulting synergy among the partner scientists results in exciting and innovative approaches that address NOS, the Medical University of South Carolina, National Institute of Standards and Technology, College of Charleston, and South Carolina Department of Natural Resources.

**National Ocean Service (NOS) - [Charleston Harbor PORTS®](#)**

A Physical Oceanographic Real-Time System (PORTS®) is operated cooperatively with the local maritime community in Charleston Harbor at which real-time data are quality-controlled and disseminated to local users for safe and efficient navigation. Real-time water level (tide) and meteorological data are available at one station, and bridge air gap data is monitored at 2 locations: Don Holt Bridge and Ravenel Bridge.

**National Ocean Service (NOS) - [Navigation Manager](#)**

NOAA's navigation managers work directly with pilots, port authorities, and recreational boating organizations in South Carolina. They help identify the navigational challenges facing marine transportation in South Carolina and provide

NOAA's resources and services that promote safe and efficient navigation. Navigation managers are on call to provide expertise and NOAA navigation response coordination in case of severe coastal weather events or other marine emergencies. The Office of Coast Survey has a navigation manager in Charleston, SC co-located at the NOAA Office for Coastal Management to support mariners and stakeholders in the Southeast region.

**National Ocean Service (NOS) - [ACE Basin National Estuarine Research Reserve](#)**

The National Estuarine Research Reserve System is a network of protected areas focused on long-term research, monitoring, stewardship, education, and training. NOAA's Office for Coastal Management provides funding and national guidance, and each site is managed on a daily basis by a lead state agency or university with input from local partners. The 99,308 acre ACE Basin Research Reserve was designated in 1992 and is managed by the South Carolina Department of Natural Resources. This site protects cultural heritages as well as many endangered or threatened species, such as short-nose sturgeon, wood storks, loggerhead sea turtles, and bald eagles.

**National Ocean Service (NOS) - [Margaret A. Davidson Graduate Fellowship](#)**

The Margaret A. Davidson Graduate Fellowship program funds graduate student research and professional development opportunities within the National Estuarine Research Reserve System. The program supports collaborative research addressing local management challenges that may influence future policy and management strategies. The Davidson Fellow at the ACE Basin National Estuarine Research Reserve will focus his research on understanding visitor use and impacts on key resources.

**National Ocean Service (NOS) - [Office for Coastal Management](#)**

NOAA's Office for Coastal Management provides national leadership, strategic direction, and services for the coastal management community. Major initiatives housed within this organization include the Coral Reef Conservation Program; the National Coastal Zone Management Program; the National Estuarine Research Reserve, and the Digital Coast. The primary offices are located in Charleston, South Carolina and Silver Spring, Maryland. Satellite offices and other field staff are located throughout the coastal zone.

**Office of Oceanic and Atmospheric Research (OAR) - [Carbon Cycle Gases and Halocarbons](#)**

NOAA's Earth System Research Laboratory Global Monitoring Laboratory (ESRL/GML) operates a small aircraft-based North American network of sampling sites to measure vertical profiles of important greenhouse gas concentrations. Air is sampled above the surface up to approximately 25,000 feet above sea level using a relatively small, light, and economical automated system developed by ESRL researchers. These air samples are delivered to ESRL/GML in Boulder, Colorado for measurements of CO<sub>2</sub>, CH<sub>4</sub>, and other greenhouse gasses. This data will improve understanding and models of the global carbon cycle. Halocarbon measurements help determine the effectiveness of efforts to protect and restore the ozone layer so it can protect us from the sun's ultraviolet radiation.

**[Georgetown](#)**

**National Ocean Service (NOS) - [Centralized Data Management Office](#)**

Monitoring data for each National Estuarine Research Reserve are available from the Centralized Data Management Office. Each reserve uses automated data loggers to monitor physical and chemical variables, collecting data at a minimum of four stations, at 15-minute intervals. Data collections include water temperature, water depth, salinity, pH, dissolved oxygen, and turbidity (cloudiness or clarity). These parameters are important indicators of habitat quality.

**National Ocean Service (NOS) - [North Inlet-Winyah Bay National Estuarine Research Reserve](#)**

The National Estuarine Research Reserve System is a network of protected areas focused on long-term research, monitoring, stewardship, education, and training. NOAA's Office for Coastal Management provides funding and national guidance, and each site is managed on a daily basis by a lead state agency or university with input from local partners.

The 18,916 acre North Inlet-Winyah Bay Research Reserve was designated in 1992 and is managed by the University of South Carolina. This reserve provides habitat for many threatened and endangered species including sea turtles, sturgeons, least turns, and wood storks.

**National Ocean Service (NOS) – [Margaret A. Davidson Graduate Fellowship](#)**

The Margaret A. Davidson Graduate Fellowship program funds graduate student research and professional development opportunities within the National Estuarine Research Reserve System. The program supports collaborative research addressing local management challenges that may influence future policy and management strategies. The Davidson Fellow at the North Inlet-Winyah Bay National Estuarine Research Reserve will focus her research on using marsh organs to test the effects of salt marsh elevation and nutrient enrichment on *S. alterniflora* root exudate production and microbial community structure.

**[McClellanville](#)**

**Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)**

The US Climate Reference Network (USCRN) is an operationally viable research network of more than 138 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS). ARL/ATDD manage the USCRN in partnership with NOAA's NESDIS/NCEI.

**[Springmaid Pier](#)**

**National Ocean Service (NOS) - [National Water Level Observation Network](#)**

The National Ocean Service (NOS) operates two long-term, continuously operating tide stations in the state of South Carolina that provide data and information on tidal datums and relative sea level trends, and are capable of producing real-time data for storm surge warning. These stations are located at Springmaid Pier and Charleston. Each station is associated with a set of tidal benchmarks installed in the ground that is used to reference the height of the water levels and helps connect the water level to land.

**[SC-2](#)**

**[Blackville](#)**

**Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)**

The US Climate Reference Network (USCRN) is an operationally viable research network of more than 138 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS). ARL/ATDD manage the USCRN in partnership with NOAA's NESDIS/NCEI.

**Columbia**

**National Weather Service (NWS) - [Weather Forecast Office](#)**- See [Page 2](#) for details.

**[Beech Island](#)**

**Office of Oceanic and Atmospheric Research (OAR) - [Tall Tower Carbon Measurements](#)**

NOAA's Earth System Research Laboratory Global Monitoring Laboratory (ESRL/GML) operates trace gas monitoring sites at tall television transmitter towers, and other towers, in eight states, including South Carolina. The sites were established to extend ESRL/GML's monitoring network into the interior of North America in order to provide data to aid estimation of the net carbon balance of the continent. Variations of trace gases, especially carbon dioxide (CO<sub>2</sub>), are

largest near the ground, so existing tall towers are utilized as platforms for in situ and flask sampling for atmospheric trace gases. The tower site in South Carolina is operated by the Savannah River National Laboratory.

#### **SC-4**

##### **Greenville/Spartanburg**

**National Weather Service (NWS) - [Weather Forecast Office](#)**- See [Page 2](#) for details.

#### **SC-6**

##### **Charleston**

**National Weather Service (NWS) - [Weather Forecast Office](#)**- See [Page 2](#) for details.

#### **NOAA Chief Information Officer - [N-Wave NOAA Science Network](#)**

N-Wave is NOAA's science network connecting NOAA, academic, and state research network communities to data and resources needed to advance environmental science.

#### **NOAA Office of Education — [Environmental Literacy Program](#)**

NOAA's Environmental Literacy Program (ELP), administered by the Office of Education, provides grants and in-kind support to build the capacity of institutions and networks to advance NOAA's mission through formal (K-12) and informal education. In South Carolina, ELP supports the **South Carolina Aquarium** (Charleston), a member of the Coastal Ecosystem Learning Center (CELC) Network, a consortium of 25 aquariums and marine science education centers with a reach of over 20 million people. The CELC Network works with NOAA and each member institution to engage the public in protecting coastal and marine ecosystems.

#### **Office of Marine and Aviation Operations (OMAO) - [NOAA Ships Ronald H. Brown and Nancy Foster](#)**

The NOAA Ships *Ronald H. Brown* and *Nancy Foster* are homeported in Charleston and managed by the OMAO Marine Operations Center-Atlantic in Norfolk, Virginia. The NOAA Ship *Ronald H. Brown* primarily supports the science and research missions of NOAA's Office of Oceanic and Atmospheric Research plus a wide range of academic research institutions. The NOAA Ship *Nancy Foster* operates in support of NOAA's Office for Coastal Management and the National Sea Grant College Program. Both vessels are operated under the direction of officers from the NOAA Commissioned Officer Corps in concert with NOAA civilian Wage Mariners. The NOAA Corps today provides a cadre of professionals trained in engineering, earth sciences, oceanography, meteorology, fisheries science, and other related disciplines. Officers operate ships, fly aircrafts, conduct diving operations, and serve in other NOAA staff positions. NOAA Wage Mariners perform the deck, engineering, steward, and survey tech functions aboard NOAA vessels, providing critical support to OMAO marine operations.

#### **Columbia**

##### **Office of Oceanic and Atmospheric Research (OAR) - [Carolinas Integrated Sciences and Assessments](#)**

The Carolinas Integrated Sciences and Assessments (CISA) is a cooperative agreement between NOAA's Climate Program Office (CPO) and the University of South Carolina. It is one of several Regional Integrated Sciences and Assessments (RISA) teams contributing to the development of knowledge, expertise, and abilities of decision-makers to plan and prepare for climate variability and change. CISA conducts applied research in North Carolina and South Carolina that incorporates climate information into water, health, coastal management, and decision making. The team investigates how decision makers currently use climate information to manage water and how such use could be expanded most beneficially. CISA's research includes drought monitoring and assessment, watershed modeling, coastal climatology, adaptation, and climate assessment activities for the Carolinas. Researchers at CISA work in collaboration with stakeholders to identify and develop effective methods of providing climate science, data, and education around these

issues. Core partners of CISA include the University of South Carolina, the Southeast Regional Climate Center (SERCC), and the South Carolina Sea Grant Consortium.

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### **Coastal**

#### **National Marine Fisheries Service (NMFS) - [Deep-Sea Coral Research and Technology Program](#)**

NOAA's Deep Sea Coral Research and Technology Program is the only federal program dedicated to mapping, characterizing, and understanding deep-sea coral ecosystems, and sharing the information needed to conserve these habitats. The Program -- called for in the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act and within the Office of Habitat Conservation -- is working with other NOAA offices and external partners to conduct fieldwork to study the distribution, abundance, and diversity of deep sea corals and sponges. Since 2009, more than 42,500 square miles of seafloor have been mapped and surveyed for deep-sea coral habitats from Florida to Maine, in Alaska and the West Coast, and in Hawaii and the Marianas Trench. The program has conducted research cruises off the Southeastern U.S. Using sonar technology and remotely operated and manned submersibles, new deep-sea coral reefs were discovered off the Southeastern seaboard.

#### **National Marine Fisheries Service (NMFS) - [Cooperation with States Program](#) and [Species Recovery Grants](#)**

Under the authority of section 6 of the Endangered Species Act, the Cooperation with States Program brings states, NMFS, and other partners together to recover threatened and endangered species. A total of 25 U.S. territories and coastal states, including South Carolina, currently participate in this program. Competitive grants are awarded to states through the Species Recovery Grants to States Program to support management, monitoring, research and outreach efforts for species that spend all or a portion of their life cycle in state waters. The funded work is designed to prevent extinctions or reverse the decline of species, and restore ecosystems and their related socioeconomic benefits. The South Carolina Department of Natural Resources has received multiple awards through this program, including grants to support projects focused on loggerhead sea turtles and Atlantic and shortnose sturgeon.

#### **National Marine Fisheries Service (NMFS) - [National Marine Mammal Stranding Network](#) and [John H. Prescott Marine Mammal Rescue Assistance Grant Program](#)**

The National Marine Mammal Stranding Network and its trained professionals respond to dead or live marine mammals in distress that are stranded, entangled, out of habitat or otherwise in peril. Our long-standing partnership with the Network provides valuable environmental intelligence, helping NOAA establish links among the health of marine mammals, coastal ecosystems, and coastal communities as well as develop effective conservation programs for marine mammal populations in the wild. There are three stranding network members in the state. NOAA Fisheries funds eligible members of the Stranding Network through the competitive John H. Prescott Marine Mammal Rescue Assistance Grant Program. In FY20, 43 competitive grants were awarded nationwide for a total of \$3.7 million, with two awards totalling \$114,803 going to South Carolina: Coastal Carolina University and Lowcountry Marine Mammal Network.

#### **National Marine Fisheries Service (NMFS) - [Sea Turtle Salvage and Stranding Network](#)**

The Sea Turtle Stranding and Salvage Network (STSSN) was formally established in 1980 to collect information on and document strandings of marine turtles along the U.S. Gulf of Mexico and Atlantic coasts. The network, which includes federal, state and private partners, encompasses the coastal areas of the eighteen-state region from Maine to Texas, and includes portions of the U.S. Caribbean. Data gathered by the Network helps inform bycatch reduction efforts, monitor factors affecting turtle health, and provide other information needed for sea turtle management and population recovery.

#### **National Ocean Service (NOS) - [Coastal and Estuarine Land Conservation Program](#)**

The Coastal and Estuarine Land Conservation Program brings conservation partners together to protect coastal and estuarine lands considered important for their ecological, conservation, recreational, historical, or aesthetic values. Subject to availability of funding, the program provides state and local governments with matching funds to purchase coastal and estuarine lands or obtain conservation easements for important lands threatened by development. Since 2002, the program has protected more than 110,000 acres of coastal land nationally, including over 16,000 acres protected as in-kind matching contributions. Three projects have been completed in South Carolina, and these lands are protected in perpetuity.

**National Ocean Service (NOS) – [National Coastal Zone Management Program](#)**

Through a unique federal-state partnership, NOAA's Office for Coastal Management works with the South Carolina Department of Health and Environmental Control to implement the National Coastal Zone Management Program in South Carolina. NOAA provides the state coastal management program with financial and technical assistance to further the goals of the Coastal Zone Management Act and ensure coastal waters and lands are used in a balanced way to support jobs, reduce use conflicts, and sustain natural resources.

**National Ocean Service (NOS) – [Digital Coast](#)**

The Digital Coast is a focused information resource developed to meet the unique needs of coastal communities. Developed and maintained by NOAA's Office for Coastal Management, content comes from hundreds of organizations, including federal, state, and local agencies, plus private sector and non-profit contributors. The Digital Coast website provides not only site-specific coastal data, but also related the tools, training, and information needed to make these data useful for coastal decision makers.

**National Ocean Service (NOS) – [National Coastal Resilience Fund](#)**

The National Coastal Resilience Fund is a partnership effort between NOAA and the National Fish and Wildlife Foundation (NFWF) to restore, increase, and strengthen natural infrastructure to protect coastal communities, while also enhancing habitat for fish and wildlife. In South Carolina, the NCRF awarded one project in FY18, two in FY19, and one in FY20.

**National Ocean Service (NOS) – [Emergency Coastal Resilience Fund](#)**

The Emergency Coastal Resilience Fund is a partnership effort between NOAA and the National Fish and Wildlife Foundation (NFWF) to increase the resilience of coastal communities within areas affected by Hurricanes Florence and Michael, Typhoon Yutu, and the coastal California wildfires in 2018. South Carolina received funds to implement four projects. Project goals include, addressing barriers to coastal resilience by engaging stakeholders within the community to reach consensus, conducting Restoration Master Planning to reduce flood risk and restore habitat, and implementing nature-based solutions and green infrastructure to protect critical infrastructure.

**National Ocean Service (NOS) - [Navigation Response Team](#)**

The Office of Coast Survey (OCS) maintains the nation's nautical charts and publications for U.S. coasts and the Great Lakes. OCS navigation managers are strategically located in U.S. coastal areas to provide regional support to federal and state agencies in order to assist with navigational challenges. The Office of Coast Survey's Navigation Response Branch (NRB) conducts routine and emergency hydrographic surveys; and working with the regional Navigation Managers, navigation response teams (NRT) work around-the-clock after storms to speed the reopening of ports and waterways. During emergency response, the NRTs provide time-sensitive information to the U.S. Coast Guard or port officials, and transmit data to NOAA cartographers for updating the Coast Survey's suite of navigational charts. NRT 2 is assigned to Fernandina Beach, FL and is able to respond within 24 to 48 hours.

**National Ocean Service (NOS) - [OR&R Regional Preparedness Coordinator](#)**

The Regional Preparedness Coordinator is a National Ocean Service (NOS) Disaster Preparedness Program (DPP) employee that resides in a region and serves as a liaison between NOS and its federal, state, and local disaster preparedness and emergency response partners. DPP has a Regional Preparedness Coordinator serving the Southeast region – North Carolina, South Carolina, Georgia, and Florida. The DPP supports NOS, and federal, state, and local partners in their ability to assess risks and respond quickly and effectively to natural disasters and pollution events. The DPP provides a breadth of preparedness, response, and recovery services to allow NOS and our partners move through the emergency management cycle efficiently, safely, and effectively including planning, training, exercises, response coordination, continuous improvement, and long-term recovery.

**National Ocean Service (NOS) - OR&R [Scientific Support Coordinator and Regional Resource Coordinator](#)**

NOAA's Office of Response and Restoration (OR&R) brings decades of experience, technical expertise and scientific analysis in response to oil and hazardous chemical spills. Eleven regionally based Scientific Support Coordinators (SSCs) harness the input of a multi-disciplinary team to address issues such as oil slick trajectory forecasting, environmental tradeoffs, best practices, resources at risk, and chemical hazard assessment to reduce risks to coastal habitats and resources. OR&R also helps develop preparedness plans that identify spill response actions with the greatest environmental benefit and trains hundreds of members of the response community each year on the scientific and technical aspects of spills.

OR&R identifies and quantifies environmental injury caused by releases of oil and hazardous materials. Our network of Regional Resource Coordinators (RRC's) work on multi-disciplinary scientific, economic, and legal teams with the goal of securing the appropriate amount and type of restoration required to restore injured NOAA trust resources and compensate the public for their lost use. We collaborate with NMFS Restoration Center and NOAA General Council through the Damage Assessment, Remediation, and Restoration Program to ensure the process is efficient, legally defensible and restoration focused. To date, DARRP and co-trustees have recovered over \$13M for restoration of natural resources injured by oil spill and waste site releases in South Carolina.

**National Ocean Service (NOS) - OR&R [Atlantic Environmental Response Management Application](#)**

Assessing important spatial information and designing successful restoration projects rely upon interpreting and mapping geographic information, including the location, duration, and impacts from oil spills, other hazardous materials, or debris released into the environment. Atlantic Environmental Response Management Application (ERMA<sup>®</sup>) is an online mapping tool that integrates both static and real-time data, such as Environmental Sensitivity Index maps, ship locations, weather, and ocean currents, in a centralized, easy-to-use format for environmental responders and decision makers. ERMA staff continued to work closely with Federal and State agencies for drills, hurricane response, and incidents. Maintained habitat data for sensitive species. Ensured data was kept up-to-date and data collection methods were kept consistent. One of our key ERMA project managers is based in Charleston, SC.

**National Ocean Service (NOS) - OR&R [Marine Debris Projects and Partnerships](#)**

The NOAA Marine Debris Program (MDP) leads national and international efforts to research, prevent, and reduce the impacts of marine debris. The program supports marine debris removal, prevention, and research projects in partnership with state and local agencies, tribes, non-governmental organizations, academia, and industry. The MDP Southeast Regional Coordinator, based in Charleston, supports coordination efforts with regional stakeholders, provides support to grant-funded projects, tracks progress of projects, and conducts regional marine debris outreach to local audiences. The MDP has worked with state and local governments, and stakeholders, to develop the South Carolina Marine Debris Emergency Response Guide and implement the Southeast Marine Debris Action Plan.

**National Ocean Service (NOS) - [U.S. Integrated Ocean Observing System \(Southeast Coastal Ocean Observing Regional Association\)](#)**

The U.S. Integrated Ocean Observing System, or IOOS®, is a federally and regionally coordinated observing system with 17 interagency and 11 regional partners. The System addresses regional and national needs for coastal, ocean, and Great Lakes data and information. This includes gathering and disseminating regional observations; data management; modeling and analysis; education and outreach; and research and development. The Southeast Coastal Ocean Observing Regional Association (SECOORA) is one of eleven Regional Associations that partner with the NOAA led Integrated Ocean Observing System (U.S. IOOS®) to address regional and national needs for coastal and ocean data and information. Headquartered in South Carolina, SECOORA coordinates coastal and ocean observing activities in the southeast. Its mission is to observe, understand, and increase awareness of our coastal ocean; promoting knowledge, economic and environmental health through strong regional partnerships. SECOORA invests in buoys and other technologies to collect information about the ocean to help keep South Carolinians safe.

**National Weather Service (NWS) - [Buoys](#)**

The National Weather Service (NWS), through its National Data Buoy Center (NDBC), develops, deploys, operates, and maintains the current national data buoy network of moored and drifting weather buoys and land stations that serve all of the Nation's coastal states and territories. Within this network, 110 of the buoys and 51 of the land stations are maintained directly by NDBC. Located at NASA's Stennis Space Center in Mississippi, supports weather and marine warning and forecast services in real time by providing deep ocean and coastal meteorological and oceanographic observations. These data provide valuable information used by NWS supercomputers to produce computer-generated model forecasts of the atmosphere and climate. NDBC manages the Volunteer Observing Ship program to acquire additional meteorological and oceanographic observations supporting NWS mission requirements. NDBC also supports operational and research programs of NOAA and other national and international organizations.

**National Ocean Service (NOS) - Students for [Zero Waste Week](#)**

Students are inviting their local communities to "Go Green and Think Blue" by joining them in the annual *Students for Zero Waste Week campaign*. During this campaign led by the Office of National Marine Sanctuaries, students focus on reducing land-based waste in order to protect the health of local marine environments. These young leaders are raising awareness of how single-use plastic and other types of litter affect the health of local watersheds, national marine sanctuaries, and the ocean. In addition, some schools are looking at ways to reduce their energy use on campus with hopes of raising awareness of how the burning of fossil fuels also impacts the health of the ocean.

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**[Statewide](#)**

**National Marine Fisheries Service (NMFS) - [Restoration Center](#)**

The NOAA Restoration Center, within the Office of Habitat Conservation, works with private and public partners locally and nationwide to increase fisheries productivity by restoring coastal habitat. Projects support sustainable fisheries, help recover threatened and endangered species, and reverse damage from disasters like oil spills, ship groundings, and severe storms. Since 1992, they have provided more than \$750 million to implement more 3,300 coastal habitat restoration projects. In South Carolina, the Restoration Center works to rebuild native oyster beds, establish wetland buffers, and restore tidal wetlands.

**National Marine Fisheries Service (NMFS) - [Southeast Regional Office](#) and [Southeast Fisheries Science Center](#)**

NMFS studies, protects and conserves living marine resources to promote healthy, functioning marine ecosystems, afford economic opportunities and enhance the quality of life for the American public. NMFS' Southeast Regional Office

(headquartered in Saint Petersburg, FL) and Southeast Fisheries Science Center (headquartered in Miami, FL) are responsible for living marine resources in federal waters of the Gulf of Mexico, South Atlantic, and U.S. Caribbean. Using the authorities provided by the *Magnuson-Stevens Fishery Conservation and Management Act*, *Endangered Species Act*, *Marine Mammal Protection Act* and other federal statutes, the Southeast Regional Office and Southeast Fisheries Science Center partner together to assess and predict the status of fish stocks, marine mammals and sea turtle populations, as well as other protected resources, including coral. Additionally, in collaboration, they develop and ensure compliance with fishery regulations, restore and protect habitat, and recover threatened and endangered species in waters off South Carolina and throughout the Southeast Region. The Southeast Regional Office also fosters sustainable [aquaculture](#) in the region, with two Regional Aquaculture Coordinators that act as a liaison between federal and state agencies to assist in permitting and coordination activities, supporting aquaculture outreach and education, and collaborating with industry, academia and other stakeholders on regional marine aquaculture issues. The Southeast Fisheries Science Center develops the scientific information required for fishery resource conservation; fishery development and utilization; habitat conservation; the protection of marine mammals, sea turtles and other protected species; impact analyses and environmental assessments for management plans and/or international negotiations; and pursues research to answer specific needs in areas of population dynamics, fishery economics, fishery engineering, food science, and fishery biology.

**National Marine Fisheries Service (NMFS) and National Ocean Service (NOS) - [Damage Assessment, Remediation, and Restoration Program](#)**

NOAA's Damage Assessment, Remediation, and Restoration Program (DARRP) assesses and restores habitat, fisheries, protected species and recreational uses that have been harmed by oil spills, chemical releases, and ship groundings. Working with federal, state, and tribal entities, and responsible parties, we have recovered funding from responsible parties for restoration of critical habitats, fisheries, protected species and recreational uses nationwide. These projects promote recovery of the ecosystem and provide economic benefits from tourism, recreation, green jobs, coastal resiliency, property values and quality of life. In South Carolina, the Program is currently working to restore natural resources in cases including the Cooper River (M/V Everreach) oil spill and the Macalloy, Calhoun Park, and Koppers hazardous waste sites.

**National Ocean Service (NOS) - [Regional Geodetic Advisor](#)**

The Regional Geodetic Advisor is a National Ocean Service (NOS) employee that resides in a region and serves as a liaison between the National Geodetic Survey (NGS) and its public, academic and private sector constituents within their assigned region. NGS has a Regional Geodetic Advisor stationed in Raleigh, North Carolina serving the Mid-Atlantic region – Delaware, Georgia, North Carolina, Puerto Rico, Maryland, South Carolina, the Virgin Islands, Virginia, and Washington D.C. The Geodetic Advisor provides training, guidance and assistance to constituents managing geospatial activities that are tied to the National Spatial Reference System (NSRS), the framework and coordinate system for all positioning activities in the Nation. The Geodetic Advisor serves as a subject matter expert in geodesy and regional geodetic issues, collaborating internally across NOS and NOAA to ensure that all regional geospatial activities are properly referenced to the NSRS.

**National Weather Service - [NEXRAD \(WSR-88D\) Systems](#)**

NEXRAD is used to warn the people of the United States about dangerous weather and its location. This radar technology allows meteorologists to warn the public to take shelter with more notice than ever before. The NEXRAD network provides significant improvements in severe weather and flash flood warnings, air traffic safety, flow control for air traffic, resource protection at military bases, and management of water, agriculture, forest, and snow removal. NEXRAD radar has a range of up to 250 nautical miles, and can provide information about wind speed and direction, as well as the location, size, and

shape of precipitation. There are 159 operational NEXRAD radar systems deployed throughout the United States and overseas, of which two are in South Carolina.

**National Weather Service (NWS) - [Automated Surface Observing Systems Stations](#)**

The Automated Surface Observing Systems (ASOS) program is a joint effort of the National Weather Service (NWS), the Federal Aviation Administration (FAA), and the Department of Defense (DOD). ASOS serves as the Nation's primary surface weather observing network. ASOS is designed to support weather forecast activities and aviation operations and, at the same time, support the needs of the meteorological, hydrological, and climatological research communities. ASOS works non-stop, updating observations every minute, 24 hours a day, every day of the year observing basic weather elements, such as cloud cover, precipitation, wind, sea level pressure, and conditions, such as rain, snow, freezing rain, thunderstorms, and fog. There are 12 ASOS stations in South Carolina.

**National Weather Service (NWS) - [Cooperative Observer Program Sites](#)**

The National Weather Service (NWS) Cooperative Observer Program (COOP) is truly the Nation's weather and climate observing network of, by and for the people. More than 10,000 volunteers take observations on farms, in urban and suburban areas, National Parks, seashores, and mountaintops. The data are representative of where people live, work and play. The COOP was formally created in 1890 under the NWS Organic Act to provide observational meteorological data, usually consisting of daily maximum and minimum temperatures, snowfall, and 24-hour precipitation totals, required to define the climate of the United States and to help measure long-term climate changes, and to provide observational meteorological data in near real-time to support forecast, warning and other public service programs of the NWS. The data are also used by other federal (including the Department of Homeland Security), state and local entities, as well as private companies (such as the energy and insurance industries). In some cases, the data are used to make billions of dollars' worth of decisions. For example, the energy sector uses COOP data to calculate the Heating and Cooling Degree Days which are used to determine individuals' energy bills monthly. There are 128 COOP sites in South Carolina.

**National Weather Service (NWS) - [NOAA Weather Radio All Hazards Transmitters](#)**

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service (NWS) forecast office. NWR broadcasts official NWS warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week. Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "All Hazards" radio network, making it the single source for comprehensive weather and emergency information. In conjunction with federal, state, and local emergency managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards – including natural (such as earthquakes or avalanches), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 911 Telephone outages). Known as the "Voice of NOAA's National Weather Service," NWR is provided as a public service by the NWS. NWR includes 1,100 transmitters covering all 50 states, adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Territories. There are 15 NWR transmitters in South Carolina.

**NOAA Office of Education — [Environmental Literacy Program](#)**

NOAA's Environmental Literacy Program (ELP), administered by the Office of Education, provides grants and in-kind support to build the capacity of institutions and networks to advance NOAA's mission through formal (K-12) and informal education. In South Carolina, ELP supports the American Meteorological Society's DataStreme courses for K-12 educators through a grant and in-kind support. Local implementation teams in the state offer DataStreme courses that use weather, climate, and the ocean as contexts for teaching science and improving understanding about the Earth system.

**Office of Oceanic and Atmospheric Research (OAR) – [South Carolina Sea Grant College Program](#)**

The National Sea Grant College Program (Sea Grant) is a federal-university partnership administered by NOAA that integrates research, extension outreach, and education. Sea Grant forms a national network of 34 programs in all U.S. coastal and Great Lakes states, Puerto Rico, and Guam. The South Carolina Sea Grant Consortium is a statewide program that generates and provides science-based information to enhance the practical use and conservation of coastal and marine resources that foster a sustainable economy and environment. The Consortium develops balanced and integrated scientific research, as well as formal and informal education, extension, and communications programs, which are driven by stakeholders' needs at the local, state, and regional levels. A 30-member Program Advisory Board and extension specialists' advisory committees help prioritize research and outreach projects. Five focus areas guide research, education, and outreach programs: understanding coastal and ocean ecosystems; supporting sustainable coastal development and economies; enhancing hazard resilience in coastal communities; promoting sustainable fisheries and aquaculture industries; and fostering scientific literacy and workforce development. Administrative offices are located in Charleston.

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