



Alabama

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, and then [statewide programs](#).

Highlights of NOAA in Alabama

Weeks Bay National Estuarine Research Reserve	Fairhope	AL-1
Science On a Sphere® at GulfQuest National Maritime Museum of the Gulf of Mexico	Mobile	AL-1
National Water Center	Tuscaloosa	AL-7

The state of Alabama also has three Weather Forecasting Offices, one Regional Office, two Science on a Sphere® exhibitions, and one National Estuarine Research Reserves.

[Weather Forecast Offices](#)

Mobile AL-1
Huntsville AL-5
Birmingham AL-6

[NWS Weather Forecast Offices \(WFO\)](#) are staffed around-the-clock every day and provide the best possible weather, water, and climate forecasts and warnings to residents of Alabama. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, winter storms, floods, and heat waves. This essential information is provided 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 through dedicated government channels, satellite, the Internet, and NOAA Weather Radio All Hazards. Forecasters also provide Impact-based Decision-Support Services (IDSS), both remotely and on-site, during critical emergencies, such as wildfires, floods, chemical spills, and for major recovery efforts. The WFO collects and disseminates precipitation, river, and rainfall data, and prepares local climatological data. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs, which helps build strong working relationships with local partners in emergency management, government, the media and academic communities. The WFO operates Automated Surface Observing Stations (ASOS), as well as the local Doppler Weather Radar, which provides critical information about current weather conditions. The radar data enables forecasters to issue warnings for tornadoes, severe thunderstorms, and flash floods.

[Science On a Sphere®](#)

Mobile AL-1
Birmingham AL-7

[Science On a Sphere \(SOS\)](#) is a room-sized global display system that uses computers and video projectors to display planetary data onto a six-foot diameter sphere, analogous to a giant animated globe. Researchers at NOAA developed Science On a Sphere® as an educational tool to help illustrate Earth System science to people of all ages. Animated images of atmospheric storms, climate change, and ocean temperature can be shown on the sphere, which is used to explain in a way that is simultaneously intuitive and captivating what are sometimes complex environmental processes. They are located at the GulfQuest National Maritime Museum of the Gulf of Mexico in Mobile and McWane Science Center in Birmingham.

[AL-1](#) **[Fairhope](#)**

National Environmental Satellite, Data, and Information Service (NESDIS) and Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)

The U.S. Climate Reference Network (USCRN) is an operationally viable research network of 135 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).

National Ocean Service (NOS) - [Weeks 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 9,317 acre Weeks Bay Reserve was designated in 1986 and is managed by the Alabama Department of Conservation and Natural Resources. Located between the major metropolitan areas of Mobile, AL and Pensacola, FL, the reserve consists of tidal and forested wetlands within the greater Mobile Bay estuarine system along the northern Gulf of Mexico, and supports numerous rare and endangered species.

Mobile

National Marine Fisheries Service (NMFS) - [Seafood Inspection Program-Northern Gulf Inspection Office](#)

The National Seafood Inspection Program conducts a voluntary inspection program for fishery products on a fee-for-service basis. The office offers a wide range of services to the area's fishermen and fish processors including process and product inspection, product grading, lot inspection, laboratory analysis, and training. All edible foodstuffs, ranging from whole fish to formulated products, as well as fishmeal used for animal foods, are eligible for inspection and certification.

National Marine Fisheries Service (NMFS) - [Fishery Statistics Office](#)

Field agents serve as the principle data collection agent for marine fisheries throughout the Southeast US (NC-TX). They implement and coordinate surveys involving the collection of fishery related data from the public. Responsibilities and functions are to develop, implement, operate, and manage an integrated fishery statistical data acquisition program for research and fishery management. In Alabama, a field agent is stationed in Mobile.

National Ocean Service (NOS) - [Mobile Bay Storm Surge Monitoring Network](#)

NOAA's Center for Operational Oceanographic Products and Services partnered with Mobile County Commission, the Alabama Department of Transportation and the National Weather Service to install five microwave sensors at various locations throughout Mobile Bay. This is the first time NOAA has used this type of sensor, which is designed to withstand heavy storm-water levels while providing real-time storm surge data to Mobile County's emergency managers, the NWS Weather Forecast Office there, and others.

National Ocean Service (NOS) – OR&R [Gulf of Mexico Disaster Response Center](#)

The Gulf of Mexico Disaster Response Center (DRC), delivers state of the art science and information to emergency managers and other critical stakeholders to assist them in protecting and restoring the Gulf's coasts, communities, and economies. The DRC, located in Mobile, builds a collaborative environment for preparedness, response, recovery, and resiliency efforts by offering the Science of Oil Spills, Science of Chemical Releases, and Science of Coastal Natural Disasters trainings annually for responders in the Gulf and across the country. This hardened facility is built to withstand a Cat-5 storm and is home to staff from several NOAA programs and provides a large multifunction space for partners to conduct trainings, meetings, drills, and emergency response operations.

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

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 Alabama, ELP supports **GulfQuest Maritime Museum of the Gulf of Mexico** (Mobile), which has a permanent exhibit featuring NOAA's Science On a Sphere (SOS) and is a member of NOAA's SOS Users Collaborative Network. The SOS Network has more than 100 institutions worldwide, reaching over 60 million people, and shares best

practices in using the sphere to bring the latest global forecasts and models to the public. ELP also supports the **Dauphin Island Sea Lab**, 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. Additionally, **Gulf Coast Exploreum Science Center** (Mobile) provides support to and receives support from a grant recipient to advance NOAA's mission.

Office of Oceanic and Atmospheric Research (OAR) - [Science On a Sphere® at GulfQuest National Maritime Museum of the Gulf of Mexico](#) - See [Page 2](#) for details.

AL-4
Gadsden

National Environmental Satellite, Data, and Information Service (NESDIS) and Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)

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AL-5
Huntsville

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

Office of Oceanic and Atmospheric Research (OAR) - Infrasound Program

The Office of Weather and Air Quality plans to support up to several studies under this program to improve our understanding of infrasound as it relates to the detection of tornadoes in the U. S., particularly the Southeast U.S., the potential operational forecasting and warning benefits, and the limits of temporal and spatial detectability with various infrasound observing network configurations (e. g., how precise can source locations be determined, measures of detectability and warning such as false alarm rate and probability of detection, etc.).

Office of Oceanic and Atmospheric Research - [Ozone Measurements](#)

NOAA's Earth System Research Laboratory Global Monitoring Division (ESRL/GMD) conducts long-term monitoring of stratospheric ozone with balloons. Stratospheric ozone measurements provide data relevant to: surface pollution events, lower and upper atmosphere mixing dynamics, boundary layer stability, ozone trend studies (vertical distribution), and temperature and pressure profiles.

AL-6
Birmingham

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

AL-7
Birmingham

Office of Oceanic and Atmospheric Research (OAR) - [Science On a Sphere® at McWane Science Center](#)- See [Page 2](#) for details.

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 Alabama, ELP supports the **McWane Science Center** (Birmingham), which has a permanent exhibit featuring NOAA's Science On a Sphere (SOS) and is a member of NOAA's SOS Users Collaborative Network. The SOS Network has more than 100 institutions worldwide, reaching over 60 million people, and shares best practices in using the sphere to bring the latest global forecasts and models to the public.

Selma

National Environmental Satellite, Data, and Information Service (NESDIS) and Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)

The U.S. Climate Reference Network (USCRN) is an operationally viable research network of 135 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).

Tuscaloosa

National Weather Service (NWS) - [National Water Center](#)

Opened in 2015 and located on the campus of the University of Alabama in Tuscaloosa, the NWS National Water Center (NWC) is the first national center for water prediction operations in the U.S. The NWC also supports research and collaboration across the federal water science and management agencies, including the U.S. Geological Survey (USGS), the U.S. Army Corps of Engineers, and the Federal Emergency Management Agency (FEMA). The NWC features a water resources forecasting operations center, an applied water resources research and development center, a proving ground for transitioning research into operations, a geo-intelligence laboratory and an airborne snow and soil moisture observation analysis facility. In addition to NWS employees, the NWC hosts staff from USGS, FEMA and academic institutions.

AL

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. Through Community-based Restoration Program projects, more than 1400 acres of fisheries habitat have been restored, rehabilitated, and protected and over 300 miles of streams have been opened to migratory fish since 2000. The local community supported these restoration efforts through the time and effort of over 1,000 volunteers. The NOAA Restoration Center works with the state of Alabama to protect over one and half miles of shoreline as part of the Swift Tract Living Shoreline Deepwater Horizon Early Restoration project. The goal of this project is to reduce shoreline erosion by dampening wave energy and encouraging reestablishment of habitat in the region. The Restoration Center is deeply engaged in the coordination of projects through RESTORE, Natural Resource Damage Assessment, and the Gulf Environmental Benefit Fund as a result of the Deepwater Horizon oil spill. NOAA led the natural resource damage assessment restoration planning for the Deepwater Horizon oil spill. Restoration efforts will focus on 13 restoration types and 7 restoration areas to address a broad range of impacts across the Gulf of Mexico.

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 Alabama, 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.

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 is one stranding network member 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 FY18, 36 competitive grants were awarded nationwide for a total of \$2.8 million.

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, track factors affecting turtle health, and provide other information needed for sea turtle management and population recovery.

National Marine Fisheries Service (NMFS) - [Southeast Regional Office, Gulf of Mexico Bay-Watershed Education and Training Program](#)

The NOAA Bay-Watershed Education and Training (B-WET) Program is an environmental education program that promotes locally relevant, experiential learning in the K-12 environment. The primary delivery of B-WET is through competitive funding that promotes Meaningful Watershed Educational Experiences (MWEEs). B-WET currently serves seven areas of the country: California, Chesapeake Bay, Great Lakes, Gulf of Mexico, Hawai'i, New England, and the Pacific Northwest. The Gulf of Mexico B-WET Program recognizes that knowledge and commitment built from firsthand experience, especially in the context of one's community and culture, is essential for achieving environmental stewardship. Gulf of Mexico B-WET responds to regional education and environmental priorities through local implementation of competitive grant funds. Please see the regional funding opportunity for priorities and eligibility details.

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 to assess and predict the status of fish stocks, marine mammals and other protected resources, develop and ensure compliance with fishery regulations, restore and protect habitat, and recover threatened and

endangered species in waters off Alabama and throughout the Southeast Region. The Southeast Regional Office also fosters sustainable [aquaculture](#) in the region, acting 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 Alabama, the Program is currently working to restore natural resources in cases including the Ciba-Geigy hazardous waste site.

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 Jackson, Mississippi serving the Gulf Coast region – Alabama, Florida, Louisiana, and Mississippi. 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 (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, thunderstorm, and fog. There are 20 ASOS stations in Alabama.

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

The National Weather Service (NWS) Cooperative Observer Program (COOP) uses the help of more than 10,000 volunteers who 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 143 COOP sites in Alabama.

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 21 NWR transmitters in Alabama.

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 Alabama, 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) - [Mississippi-Alabama Sea Grant College Program](#)

NOAA's National Sea Grant College Program is a federal-university partnership that integrates research, education and outreach. Sea Grant forms a network of 33 programs in all U.S. coastal and Great Lakes states, Puerto Rico, and Guam. The Mississippi-Alabama Sea Grant Consortium is a federal-state partnership that matches NOAA Sea Grant expertise and resources with state academic institutions. Created in 1972, members of the consortium include Auburn University, Dauphin Island Sea Lab, Jackson State University, Mississippi State University, The University of Alabama, The University of Alabama at Birmingham, the University of Mississippi, The University of Southern Mississippi and the University of South Alabama. The mission of Mississippi-Alabama Sea Grant Consortium is to enhance the sustainable use and conservation of ocean and coastal resources to benefit the economy and environment. The bi-state consortium focuses on healthy coastal ecosystems, sustainable fisheries and aquaculture, resilient communities and economies, and environmental literacy and workforce development.

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. In FY 2019, research is being prioritized in two regions -- the southeast (states include VA, NC, SC, GA, FL, AL, MS, LA, TX, and the Caribbean islands) and the west coast (WA, OR, CA).

National Ocean Service (NOS) - [Mobile Bay PORTS®](#)

A Physical Oceanographic Real-Time System (PORTS®) is operated cooperatively with the local maritime community in the Mobile Bay at which real-time data are quality-controlled and disseminated to local users for safe and efficient navigation. Real-time data are available for water levels data from eight stations, currents from three stations and meteorological from six stations. The PORTS® program integrated visibility sensors at Mobile Bay to help guide users in navigation-related decisions. The first PORTS® visibility sensor was installed at Pinto Island, AL. A second sensor was installed at Middle Bay Port and completes the effort to equip the PORTS® with visibility sensors and to integrate the new data type into CO-OPS systems. Visibility data in the Mobile Bay are critical, as the bay is susceptible to heavy fog beginning in the fall at the upper end of the bay and lasting into the winter months where the middle of the bay is especially affected.

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

NOS operates two long-term continuously operating tide stations in the state of Alabama, which 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 Dauphin Island and Mobile. 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.

National Ocean Service (NOS) - [Mussel Watch Program](#)

Mussel Watch sites in Alabama were sampled pre- & post-oiling in response to the Deepwater Horizon (DWH) incident. Sites were sampled for contaminant analysis (PAHs and trace elements) of oyster tissue and sediments, plus benthic infaunal analysis. Contaminant data are being used to determine the impact of the DWH event on seafood safety.

National Ocean Service (NOS) - [Phytoplankton Monitoring Network](#)

The Phytoplankton Monitoring Network is a research-based volunteer program educating the public on Harmful Algal Blooms (HABs). Volunteers serve as data collectors for marine and freshwater algae blooms at more than 250 coastal sites in the U.S. and Caribbean. Monitoring is conducted at least twice a month, year-round, measuring salinity, water temperature and collecting phytoplankton samples using a plankton net. Volunteers include middle and high schools, colleges and universities, aquariums, state and national parks, national estuarine research reserves, national marine sanctuaries, museums, non-profit organizations, master naturalists, and individuals. Data collected helps NOAA researchers predict when and where HABs occur. Accurate predictions and event monitoring can assist state and federal agencies to issue timely warnings about shellfish consumption and other public health worries.

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

Through a unique federal-state partnership, NOAA's Office for Coastal Management works with the Alabama Department of Conservation and Natural Resources and Department of Environmental Management to implement the National Coastal Zone Management Program in Alabama. 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) - [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. To date the program has protected more than 100,000 acres of land nationally with program funds and over 16,000 acres with an in-kind match. 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. Five project grants have been completed in Alabama, and these lands are protected in perpetuity.

National Ocean Service (NOS) and National Marine Fisheries Service (NMFS) – [Coastal Resilience Grant Award](#)

These grants help coastal communities prepare for and recover from extreme weather events, climate hazards, and changing ocean conditions. The focus is on comprehensive regional approaches that use science-based solutions and rely on collaborative partnerships. In Alabama, the NOAA Office for Coastal Management awarded three grants that are ongoing in 2018, including a grant to the Gulf of Mexico Alliance to identify and implement proactive, cost-effective solutions to increase local coastal resilience in 10 communities across Texas, Louisiana, Mississippi, Alabama, and the Gulf coast of Florida; a grant to the Marine Environmental Sciences Consortium's Northern Gulf of Mexico Sentinel Site Cooperative for enhancing the region's ability to address coastal flooding impacts and recovery through information outreach, small-grant funding, and technical assistance; and a grant to the National Association of Counties Research Foundation to help local officials in the Gulf communicate risk and options for addressing impacts of extreme weather and climate-related hazards to their communities.

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. Nine 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. The SSC in Alabama is based in Mobile at NOAA's Disaster Response Center.

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.

National Ocean Service (NOS) - OR&R [Gulf of Mexico Environmental Response Management Application](#)

During an emergency, responders and decision-makers need the best available information to protect and restore our coasts from threats like oil and chemical pollution. Gulf of Mexico Environmental Response Management Application

(ERMA®) fills that need with 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. Gulf of Mexico ERMA was extensively used during the Deepwater Horizon Oil Spill. More recently, data and bookmark map views were created in response to Hurricanes Harvey and Irma.

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

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, education and outreach, and research projects in partnership with state and local agencies, tribes, non-governmental organizations, academia, and industry. The MDP Gulf of Mexico Regional Coordinator is based in Mobile and 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. In Alabama, the MDP is partnering with the Alabama Department of Conservation and Natural Resources Marine Resources Division and the Mobile Bay National Estuary Program to remove over 1,000 derelict crab traps through volunteer removal events. The Mobile Baykeeper is working with partners and the community to “Make Mardi Gras Debris Free” in the City of Mobile over the next several years. In a newly funded removal project, the Weeks Bay Foundation will remove five derelict vessels and other large and small debris from the Weeks Bay Reserve. The MDP is also currently working with state and local governments, and other stakeholders, to maintain and exercise the Alabama Marine Debris Emergency Response Guide.

National Ocean Service (NOS) - [Gulf of Mexico Coastal Ocean Observing System](#)

The U.S. Integrated Ocean Observing System (IOOS®) is an operational system and a network of regional partners responsible for regional observations, data management, modeling and analysis, education and outreach, and research and development. The overarching purpose of U.S. IOOS is to address regional and national needs for ocean, coast, and Great Lakes data and information. The Gulf of Mexico Coastal Ocean Observing System (GCOOS), one of the 11 IOOS regional coastal ocean observing systems, seeks to establish a sustained observing system for the Gulf of Mexico that will provide observations and products needed by users in the region for the purposes of detecting and predicting climate variability and consequences, preserving and restoring healthy marine ecosystems, ensuring human health, managing resources, facilitating safe and efficient marine transportation, enhancing national security, and predicting and mitigating against coastal hazards.

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

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

National Ocean Service (NOS) – [NOAA RESTORE Science Program](#)

The mission of NOAA’s RESTORE Science Program is to carry out research, observation, and monitoring to support the long-term sustainability of the Gulf of Mexico ecosystem. The Science Program receives 2.5 percent of the Gulf Coast Restoration Trust Fund, which is funded from penalties associated with the Deepwater Horizon Oil Spill. The Science Program uses stakeholder input to design funding competitions that support teams of resource managers and researchers to work collaboratively to address regional needs. The Science Program has an office at the Stennis Space Center.

National Weather Service (NWS) - [Center of Excellence in Marine Technology](#)

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 each 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.

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