NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
UNITED STATES DEPARTMENT OF COMMERCE

NOAA In Your State

Florida

***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 Florida

Aircraft Operations Center	Lakeland	FL-17
Fisheries Southeast Regional Office	St. Petersburg	FL-14
Florida Keys National Marine Sanctuary	Key West, Key Largo	FL-28
National Hurricane Center	Miami	FL-28
Coral Reef Watch Environmental Monitoring	Miami	FL-27
Satellite Assisted Search and Rescue	Miami	FL-27
Southeast Fisheries Science Center	Miami, Virginia Key, Panama City	FL-27, 2

Atlantic Oceanographic and Meteorological Lab	Miami, Virginia Key	FL-27
Bipartisan Infrastructure Law (BIL) / Inflation Reduction Act (IRA) Projects	Project Specific	FL

The state of Florida also has two Cooperative Institutes, six Weather Forecasting Offices, one Regional Office, 6 Labs and Field Offices, one Cooperative Science Center, eight Science on a Sphere® exhibitions, three National Estuarine Research Reserves, one Habitat Focus Area, one coral reef monitoring station, and one communications station.

Weather Forecast Offices

Tallahassee	FL-2
Jacksonville	FL-4
Melbourne	FL-8
Tampa Bay	FL-15
Key West	FL-28
Miami	FL-28

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 Florida. There are 122 WFOs nationwide of which six are in Florida. 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 Florida weather, visit www.weather.gov and, on the national map, click on the relevant county or district.

Science On a Sphere®

Freeport	FL-1
Tallahassee	FL-2
Orlando	FL-10
Lakeland	FL-15

Ft. Myers	FL-19
Boynton Beach	FL-22
West Palm Beach	FL-22
Tavernier	FL-28

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 E.O. Wilson Biophilia Center in Freeport, Galaxy E3 Elementary in Delray Beach, Kennedy Space Center in Cape Canaveral, Orlando Science Center in Orlando, Plantation Key School in Tavernier, and South Florida Science Center and Aquarium in West Palm Beach.

FL-1
Freeport
NOAA Office of Education – Science on a Sphere® at E.O. Wilson Biophilia Center. See Page 2 for detail.

Gulf Breeze
National Ocean Service (NOS) - Gulf Regional Field Office
NOAA's Center for Operational Oceanographic Products and Services has opened a regional field office located in the EPA building in Gulf Breeze, FL. This office operates and maintains the Gulf Coast portion of the National Water Level Observation Network (NWLON) for the collection, analysis and dissemination of water level observations and long-term sea level trends. NWLON is nationally composed of 210 primary and long-term control tide stations, which provide basic tidal data for U.S. coastal and marine boundaries and for charting data. Other uses range from storm surge warnings to commercial and recreational vessel navigation to global climate change and tectonic studies.

FL-2
Apalachicola
National Ocean Service (NOS) - Apalachicola 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 234,715 acre Apalachicola Research Reserve was designated in 1979 and is managed by the Florida Department of Environmental Protection. Located in the Florida panhandle, the Apalachicola Bay basin features 1,300 plant species, 300 species of birds, over 180 species of fresh, estuarine and saltwater fish, and 50 species of mammals, as well as the greatest assortment of amphibians and reptiles in North America above Mexico. The reserve is also a partner in the NOAA Sentinel Site Program.

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 Apalachicola Bay National Estuarine Research Reserve will focus their research on plant, soil, and microbiome indicators of coastal wetland migration and the role of critical biogeochemical processes in controlling biological health.

Collier

NOAA Office of Education - Coastal Ecosystem Learning Centers (CELC) network

In Florida, NOAA's Office of Education provides support to the National Estuarine Research Reserve (NERR) Rookery Bay in Collier County as part of the Coastal Ecosystem Learning Centers (CELC) network, which is made up of 25 aquariums and marine science education centers located throughout North America. The CELC network collaborates on a variety of initiatives, ranging from youth summits to multi-institution projects, with the goal of better engaging the public in understanding, appreciating, and protecting marine and freshwater ecosystems. Through the CELC network, the Office of Education provides guidance, resources, and scientific expertise to these institutions, which collectively reach an estimated 20 million people annually across North America. By coordinating with the CELC network, NOAA helps to further its mission of engaging the public in protecting and preserving coastal and marine ecosystems.

Panama City

National Marine Fisheries Service (NMFS) - Panama City Laboratory

The Panama City Laboratory conducts research supporting the Southeast Fisheries Science Center.

National Marine Fisheries Service (NMFS) - Shark Fishery Observer Programs

The NMFS Shark Fishery Observer Program, based out of the Panama City Laboratory, covers vessels fishing in the U.S. Atlantic Ocean and Gulf of Mexico; primarily in US waters from North Carolina through Texas. The shark gillnet observer program primarily monitors vessels off east Florida and Georgia, and more recently in the Gulf of Mexico and North Carolina.

NOAA Commissioned Officer Corps (NOAA Corps) - Staff Scientist

The NOAA Commissioned Officer Corps stations an officer with the Southeast Fisheries Science Center Panama City Laboratory in support of the Lab's scientific operations. This officer conducts vessel operations and maintenance; assists in the management of research programs currently administered by the Laboratory; acts as liaison with Naval Support Activity, Panama City; conducts diving operations; participates in outreach and education programs for the Lab; and works with Lab scientists in efforts to publish collected and analyzed data from projects. In addition, they support the Lab in various ancillary roles as needed, such as with property management and supervisory positions.

Tallahassee

NOAA Office of Education - NOAA Center for Coastal and Marine Ecosystems

The NOAA Center for Coastal and Marine Ecosystems (CCME) is led by Florida A&M University in collaboration with its partner institutions: Bethune-Cookman University, California State University Monterey Bay, Jackson State University, Texas A&M University-Corpus Christi, and the University of Texas at Rio Grande Valley. The Center is supported through a cooperative agreement award from NOAA's Educational Partnership Program with Minority Serving Institutions (EPP/MSI) as a future workforce investment to support NOAA's mission enterprise. The purpose of the award is to expand participation in NOAA mission-aligned education, training, capacity building, and collaborative research focusing on expanding participation of groups traditionally underrepresented and historically excluded in NOAA mission aligned careers. The center's education and training focuses on Science, Technology, Engineering and Math (STEM), natural resources management, risk assessment, social justice and policy disciplines in support of resilient coastal communities and economies. The EPP/MSI Graduate Fellowship Program (GFP) supports CSC students pursuing graduate degrees in disciplines aligned with NOAA's mission. Since 2021, CCME Scholars have been awarded 3 GFP scholarships. In joint collaboration with the NOAA's Living Marine Resources Cooperative Science Center (LMRCSC), and NOAA subject matter experts, CCME has developed,and will implement, a Joint Collaborative Research Project (JCRP) that supports

NOAA's strategic goals and missions, while directly aligning with each Center type. Center scientists and students will employ an integrated approach to research and training students focusing on coastal and marine ecosystems approaches to develop products in support of NOAA's resource management and stakeholder priorities. The Center's primary collaborator at NOAA is the National Ocean Service (NOS). This Center's research is also aligned with the needs of NOAA's Office of Oceanic and Atmospheric Research (OAR), and the National Marine Fisheries Service (NMFS).

National Weather Service (NWS) - **Weather Forecast Office (WFO)** - See Page 2 for detail.

NOAA Office of Education – Science on a Sphere® (SOS) – at Florida State University, EOAS Building. See Page 2 for detail.

FL-3

Gainesville

National Marine Fisheries Service (NMFS) - Recruiting - Training - Research Program

The Southeast Fisheries Science Center's Recruiting Training Research Program is a joint program between NMFS and the University of Florida. The program recruits top undergraduates into the field of fisheries population dynamics and careers with NMFS; provides training via continuing education courses for NMFS employees; and conducts population dynamics and stock assessment research in support of the NMFS mission in a unique collaboration of undergraduates, graduate students, postdoctoral associates, university faculty, and NMFS biologists.

FL-4

Jacksonville

National Weather Service (NWS) - Weather Forecast Office - see page 2 for detail.

National Ocean Service (NOS) - Jacksonville PORTS®

A Physical Oceanographic Real-Time System (PORTS®) is operated cooperatively with the local maritime community in Jacksonville. Real-time data are quality-controlled and disseminated to local users for safe and efficient navigation and include water level from three stations, currents from five stations, meteorological data from five locations and air gap information for the Dames Point Bridge.

National Ocean Service (NOS) – Navigation Response Team

NOAA's navigation response team (NRT) operates out of Fernandina Beach, supporting navigation in the ports from North Carolina to Florida. These three-person teams measure depths of a changing seafloor and search for underwater dangers to navigation that can slow down commercial shipping immediately after storm events and other emergencies. The teams provide time-sensitive information to the U.S. Coast Guard or port officials and transmit data to NOAA cartographers for updating navigational charting products.

National Weather Service (NWS) - Center Weather Service Unit

Housed in the Federal Aviation Administration's Jacksonville Air Route Traffic Control Center (ARTCC) in Hilliard, the NWS Center Weather Service Unit (CWSU) staff provides aviation forecasts and other weather information to ARTCC personnel for their use in directing the safe, smooth flow of aviation traffic in northern Florida, parts of Alabama, southern Georgia and southern South Carolina.

FL-5
Ponte Vedra Beach

National Ocean Service (NOS) - Guana Tolomato Matanzas 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 76,760-acre Guana Tolomato Matanzas Research Reserve was designated in 1999 and is managed by the Florida Department of Environmental Protection. The site includes salt marsh and mangrove tidal wetlands, oyster bars, estuarine lagoons, upland habitat, and offshore seas in Northeast Florida. The reserve contains the northernmost extent of mangrove habitat on the east coast, with some of the highest dunes in Florida, some measuring 30-40 feet tall.

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 Guana Tolomato Matanzas National Estuarine Research Reserve will focus their research on developing a predictive framework for understanding the effects of climate and management strategies on fish community assemblages.

FL-8
Titusville

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.

Melbourne

National Weather Service (NWS) - **Weather Forecast Office (WFO)** - See Page 2 for detail.

National Environmental Satellite, Data, and Information Service (NESDIS) - Office of Common Services (OCS) - Radio Frequency Interference Monitoring System (RFIMS)
OCS provides sustainment and lifecycle reviews for Radio Frequency Interference Monitoring System (RFIMS). RFIMS goal is to provide near-real time spectrum monitoring, data collecting, and reporting methods to enhance radio capabilities to enhance radio frequency protection of the ground segment. The shared information will enable the wireless carriers to deconflict their operations through active management, supervision, and management of signal power spectral densities to prevent interference to NOAA's 17 ground stations operations.

FL-10
Orlando

NOAA Office of Education – Science on a Sphere® at Orlando Science Center. See Page 2 for detail.

Office of the Chief Information Officer (OCIO) - High Performance Computing and Communications
The Office of the Chief Information Officer oversees operational high performance computing in partnership with the National Weather Service. NOAA's operational supercomputers process and analyze earth observations at quadrillions of

calculations per second to support weather, water, and climate forecast models. The primary supercomputer, Luna, is located in Reston, Virginia, and the secondary supercomputer, Surge, is located in Orlando, Florida.

FL-14

Hillsborough

NOAA Office of Education - Coastal Ecosystem Learning Centers (CELC) network

In Florida, NOAA's Office of Education provides support to the Florida Aquarium in Hillsborough County as part of the Coastal Ecosystem Learning Centers (CELC) network, which is made up of 25 aquariums and marine science education centers located throughout North America. The CELC network collaborates on a variety of initiatives, ranging from youth summits to multi-institution projects, with the goal of better engaging the public in understanding, appreciating, and protecting marine and freshwater ecosystems. Through the CELC network, the Office of Education provides guidance, resources, and scientific expertise to these institutions, which collectively reach an estimated 20 million people annually across North America. By coordinating with the CELC network, NOAA helps to further its mission of engaging the public in protecting and preserving coastal and marine ecosystems.

St. Petersburg

National Marine Fisheries Service (NMFS) - Southeast Inspection Branch

NOAA's 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. Export health certificates as required by most countries are issued for U.S. exporters. All edible foodstuffs, ranging from whole fish to formulated products, as well as fishmeal used for animal foods, are eligible for inspection and certification.

NOAA Commissioned Officer Corps (NOAA Corps) - Southeast Regional Office Presence

The NOAA Commissioned Officer Corps stations multiple officers with the NOAA Fisheries Southeast Regional Office in support of various programs within the office. These officers' duties include overseeing division records-management and the shift to all-digital records, assisting in the development of division staffing plans and annual funding initiatives, coordinating division facility needs with the regional Operations, Management, and Information Division, and serving as the liaison between the National Marine Fisheries Service and the maritime community. In addition, they coordinate aircraft use and reporting requirements for early warning system surveys, serve as small boat vessel operations coordinators, assist with other large whale related issues such as river incursion responses, and help to plan and execute the various program budgets.

National Ocean Service (NOS) – Office for Coastal Management

The NOAA Office for Coastal Management practices a partner-based, boots on the ground approach to coastal management. The organization currently has staff in the eight regions to provide assistance to local, state, and regional coastal resource management efforts and facilitate customer feedback and assessments. For the Gulf Coast, these NOAA personnel are located in Stennis, Mississippi, St. Petersburg, Florida, and Austin, Texas. They provide a wide range of programs dedicated to improving the management of coastal resources in the Gulf region.

National Ocean Service (NOS) - OR&R Regional Coordinators

NOAA's Office of Response and Restoration (OR&R) is a center of expertise in preparing for, evaluating, and responding to threats to coastal environments, including oil and chemical spills, releases from hazardous waste sites, disasters, and marine debris. To fulfill its mission of protecting and restoring NOAA trust resources, OR&R provides scientific and technical support to prepare for and respond to environmental threats that coastal communities face; determines damage to natural resources from those releases; protects and restores marine and coastal ecosystems; and works with coastal communities to address critical local and regional coastal challenges.

OR&R identifies and quantifies environmental injury caused by releases of oil and hazardous materials. Our network of **Regional Resource Coordinators** work with multidisciplinary 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 (DARRP) to ensure the process is efficient, legally defensible and restoration focused. The RRCs serving the Southeast/Gulf of Mexico region are based in St. Petersburg, Florida.

The NOAA Marine Debris Program (MDP) in the Office of Response and Restoration (OR&R) supports national and international efforts to research, prevent, and reduce the impacts of marine debris. The **MDP Florida Regional Coordinator**, based in St. Petersburg, 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) - Atlantic Highly Migratory Species Management Division
The Atlantic Highly Migratory Species Management Division manages Atlantic tuna, sharks, swordfish, and billfish under the Magnuson-Stevens Fishery Conservation and Management Act. In cooperation with an external advisory panel, the division develops and implements Fishery Management Plans for these species taking into account all domestic and international requirements under the Atlantic Tunas Convention Act, Marine Mammal Protection Act, the Endangered Species Act, and the Migratory Bird Treaty Act. The St. Petersburg office handles several Atlantic HMS fishery issues including billfish and swordfish fisheries, tournament registration, recreational fisheries, pelagic longline fishing, and recreational non-tournament reporting of billfishes and swordfish.

National Marine Fisheries Service (NMFS) - NOAA Fisheries Seafood Inspection Office
NOAA's 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) - Southeast Regional Office
The Southeast Regional Office headquarters are located in St. Petersburg, adjacent to the University of South Florida campus. The Office manages and conserves living marine resources and habitat of the Gulf of Mexico, South Atlantic and U.S. Caribbean to promote healthy, functioning marine ecosystems, afford economic opportunities and enhance the quality of life for the American public.

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 coast 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 Office of Law Enforcement's Southeast Division is headquartered in St. Petersburg.

FL-15
Lakeland
NOAA Office of Education – Science on a Sphere® (SOS) – at Florida Air Museum. See Page 2 for detail.

Seffner

National Marine Fisheries Service (NMFS) - Central Florida Lot Inspection Office

NOAA's 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.

Tampa Bay

National Weather Service (NWS) - Weather Forecast Office (WFO) - See Page 2 for detail.

National Ocean Service (NOS) - Tampa Bay PORTS®

A Physical Oceanographic Real-Time System (PORTS®) is operated cooperatively with the local maritime community in Tampa Bay and has been operating since 1991. Real-time data are quality-controlled and disseminated to local users for safe and efficient navigation and include water level from four stations, currents from four stations, and meteorological data from nine locations. Air gap is monitored at the Sunshine Skyway Bridge and a wave buoy is also part of this PORTS®.

National Ocean Service (NOS) - Tampa Bay Marine Channels Forecast System

NOAA's Tampa Bay Marine Channels Forecast (TBMCF) System is a decision support tool that centralizes critical oceanographic and meteorological forecast data from the National Weather Service and the National Ocean Service into one location. The first of its kind, Tampa Bay's Marine Channels Forecast system provides local mariners with a completely integrated view of forecasts along the area's shipping channels. Vessel operators transiting Tampa Bay can view all NOS water level and tidal current forecasts right alongside NWS 24-hour weather forecasts for winds, wind gusts, rain chance, marine hazard alerts, and visibility less than 1 mile. These forecasts are available at 13 points along the area's shipping channels all the way to Old Tampa Bay and Hillsborough Bay.

FL-18

Lakeland

Office of Marine and Aviation Operations (OMAO) - Aircraft Operations Center

The airplanes of the Aircraft Operations Center (AOC) are flown by the NOAA Commissioned Officer Corps (NOAA Corps) in support of NOAA's mission to promote global environmental assessment, prediction and stewardship of the Earth's environment. NOAA's aircraft operate throughout the United States and around the world; over open oceans, mountains, coastal wetlands, and Arctic pack ice. These versatile aircraft provide scientists with airborne platforms necessary to collect the environmental and geographic data essential to their research. NOAA demonstrates a challenging and multi-disciplinary approach to meeting the responsibilities as the "Earth Systems Agency." The AOC provides capable, mission-ready aircraft and professional crews to the scientific community wherever and whenever they are required. Whether studying global climate change or acid rain, assessing marine mammal populations, surveying coastal erosion, investigating oil spills, flight checking aeronautical charts, or improving hurricane prediction models, the AOC flight crews continue to operate in some of the world's most demanding flight regimes.

Aircraft based at the AOC include two Lockheed WP-3D Orions (also known as Hurricane Hunters), one Gulfstream IV, four DeHavilland Twin Otters, and two Beechcraft King Airs. The Hurricane Hunter Lockheed WP-3D Orion and the Gulfstream IV-SP high-performance long-range aircraft are among the most advanced airborne environmental research planes flying today. These aircraft give scientists a unique platform for the study of tropical cyclones and other severe storms, global climate change, air chemistry and pollution oceanography, Arctic ice formation, and many other environmental issues. The AOC and the aircraft are operated under the direction of officers from the NOAA Corps. 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 aircraft, manage research projects, conduct diving operations, and serve in staff positions throughout NOAA.

Sebring

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.

FL-19

Naples

National Ocean Service (NOS) - Rookery 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 110,000 acre Rookery Bay Reserve was designated in 1978 and is managed by the Florida Department of Environmental Protection. Located south of Naples on the Florida Gulf Coast, the site is situated near one of the fastest growing business and retirement areas in the nation. The reserve protects a nearly pristine subtropical mangrove forested estuary, and contains an estimated 70,000 acres of open waters, representing 64 percent of the reserve. The reserve protects and restores vital habitat, brings diverse stakeholders together to solve complex coastal issues, offers a dynamic visitor experience with land and water trails, and provides extensive education programs.

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 Rookery Bay National Estuarine Research Reserve will focus their research on patterns of coexistence and niche partitioning in a multi-species shark nursery.

Ft. Myers

NOAA Office of Education – Science on a Sphere (SOS) at IMAG History and Science Center**.** See Page 2 for detail.

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 coast 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 Office of Law Enforcement has a field office in Fort Myers.

FL-22

Boynton Beach

NOAA Office of Education – Science on a Sphere (SOS) at Galaxy E3 Elementary. See Page 2 for detail.

Palm Beach

NOAA Office of Education - Environmental Literacy Program

The Environmental Literacy Program (ELP), administered by NOAA's Office of Education, provides grants and support for formal (K-12) and informal education to advance the agency's mission. In Florida, ELP funded a project by the Pine Jog Environmental Education Center (FAU Pine Jog) in Palm Beach. The project aims to build the environmental literacy of children, youth, and adults so that they can become knowledgeable about ways to increase their community's resilience to extreme weather, climate change, and other environmental hazards, and be involved in achieving that resilience. To achieve this goal, the project integrates relevant state and local resilience plans and collaborates with stakeholders who are actively implementing these plans. The FAU Pine Jog project employs NOAA resources and educational methods to promote community-level environmental literacy, enabling participants to better comprehend threats and implement solutions that build resilience to extreme weather, climate change, and other environmental hazards. Environmental literacy includes the knowledge, skills, and confidence to 1) reason about the ways that human and natural systems interact globally and locally; 2) participate in civic processes; and 3) incorporate scientific information, cultural knowledge, and diverse community values when taking action to anticipate, prepare for, respond to, and recover from environmental hazards, including mitigating and adapting to climate change.

West Palm Beach

National Marine Fisheries Service (NMFS) - Southeast Regional Office, Protected Resources and Habitat Conservation Division Field Office

The Southeast Regional Office has the West Palm Beach Field Office. In addition to conducting mandated essential fish habitat and Endangered Species Act consultations associated with extensive coastal development activities, the Office contributes to implementation of NOAA's Coral Reef Conservation Program in Florida and the U.S. Caribbean, supports efforts combating Stony Coral Tissue Loss Disease, supports the infrastructure planning activities of the Federal Highway Administration and Florida Department of Transportation, participates in the planning processes for major federal water development projects such as port expansions, and works with state government and stakeholders to reduce the impacts of fishing on coral reef habitat.

West Palm Beach

NOAA Office of Education – Science on a Sphere (SOS) at Cox Science Center and Aquarium. See Page 2 for detail.

FL-23

Fort Lauderdale

National Ocean Service (NOS) - Port Everglades PORTS®

A Physical Oceanographic Real-Time System (PORTS®) is operated cooperatively with the local maritime community in Broward County at which real-time data are quality-controlled and disseminated to local users for safe and efficient navigation. Real-time water level and meteorological data is available at one station.

Office of Oceanic and Atmospheric Research (OAR) - Near Real-time Environmental Monitoring of Port Everglades

The monitoring network is a series of in situ oceanographic and meteorological mooring stations situated throughout Port Everglades in Fort Lauderdale, Florida. Data from the stations are transmitted to NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) and used to predict, monitor, and model incidences of high turbidity events. The data collected from Port Everglades are quality controlled and maintained for distribution at AOML and used by the US Army

Corps of Engineers and partners to adaptively manage the Port Everglades Deepening project. Local mariners and recreational fishermen have also found the data to be useful in planning their excursions.

FL-25
Hollywood

National Marine Fisheries Service (NMFS) - South Florida Lot Inspection Office
NOAA's 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.

FL-26
Everglades City

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.

FL-27
Miami

National Environmental Satellite, Data, and Information Service (NESDIS) -Office of Satellite and Product Operations (OSPO)- Search and Rescue Satellite Aided Tracking (SARSAT)
The Communications Station Miami is a key member of the Coast Guard's Atlantic Area Communications Systems and one of four Communications Stations on the east coast of the United States. They provide communication services to Coast Guard vessels and aircraft, the Navy, other agencies, and the maritime public. They also house eight NOAA Search and Rescue Satellite Aided Tracking (SARSAT) antennas and associated ground equipment supporting Medium-Altitude Earth Orbiting Search and Rescue Satellites and polar satellite search and rescue operations. These ground systems, referred to as Local User Terminals (LUTs) can receive signals, relayed through polar orbiting satellites, from ships, aircraft or individuals in distress. The location of the distress signal is automatically forwarded to the SARSAT Mission Control Center, which notifies the appropriate Rescue Coordination Center. SARSAT is part of an international humanitarian effort helping to improve the rescue of persons in distress. The system has saved more than 10,804 lives in the United States, and over 50,000 people rescued worldwide since 1982.

National Weather Service (NWS) - Center Weather Service Unit
Housed in the Federal Aviation Administration's Miami Air Route Traffic Control Center (ARTCC), the NWS Center Weather Service Unit (CWSU) staff provides aviation forecasts and other weather information to ARTCC personnel for their use in directing the safe, smooth flow of aviation traffic in southern Florida.

Office of Oceanic and Atmospheric Research (OAR) and Office of the Chief Information Officer (CIO) - 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.

National Weather Service (NWS) - National Hurricane Center
Located at Florida International University's University Park campus and co-located with the NWS Weather Forecast Office in Miami, the NWS National Hurricane Center (NHC) is responsible for hurricane forecasts for the Atlantic ocean, the Caribbean, Gulf of Mexico, and the Eastern North Pacific Ocean. While NHC is best known for its hurricane forecast and warning program, its other responsibilities include extensive year-round marine and aviation forecasts, as well as warning programs for tropical and subtropical regions of the North Atlantic, Caribbean, Gulf of Mexico and Eastern North Pacific, including adjacent land areas. To fulfill these responsibilities, the NHC prepares and distributes tropical weather forecasts that employ the latest electronic equipment. It also provides relevant training to meteorologists and emergency response officials from around the world. NHC is one of the nine NWS National Centers for Environmental Prediction and works very closely with the World Meteorological Organization.

National Weather Service (NWS) - **Weather Forecast Office (WFO)** - See Page 2 for detail.

Miami

National Ocean Service (NOS) - Miami PORTS®
A Physical Oceanographic Real-Time System (PORTS®) is operated cooperatively with the local maritime community in Miami. Real-time data are quality-controlled and disseminated to local users for safe and efficient navigation and include water level and meteorological data from one station and tidal currents from three stations.

Miami/Virginia Key

National Marine Fisheries Service (NMFS) - Miami Laboratory
The Miami Laboratory supports research and administration of the **Southeast Fisheries Science Center.**

Office of Oceanic and Atmospheric Research (OAR) - Experimental Reef Laboratory
The Experimental Reef Lab (ERL) at the University of Miami was designed and built by NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) and the Cooperative Institute for Marine and Atmospheric Science for the purpose of finely manipulating temperature and pH to mirror projected ocean conditions. Using custom-built technology, conditions can be controlled with a precision up to an order of magnitude higher than other contemporary systems. The lab has 16 completely independent aquarium systems which can each be programmed for changes in pH, temperature, and light. One of the unique features of the lab is the fully automated logging and control system, facilitating real-time manipulation of dynamic levels for temperature, pH, and/or light treatments. ERL now also features four Sequential Treatment Application Robots (STAR), which were created in house to facilitate and streamline research on the effects stressors will have on corals on an unprecedented scale. With two types of pumps and three injector tips on the end of each arm, scientists can inject specific dosages of nutrients, disease, and other variables into each tank to manipulate the conditions while the robots operate on autopilot.

Office of Oceanic and Atmospheric Research (OAR) - Miami Regional Library and the National Hurricane Center Library
NOAA's Miami Regional Library supports coastal and open ocean programs, tropical and hurricane meteorology, air-sea interaction, ocean physics, chemistry, acoustics, atmospheric chemistry, and marine geology. Special collections include: NOAA Laboratories Technical Report Series for atmospheric sciences, the Harris B. Stewart Collected Papers, foreign and Caribbean meteorological reports, handwritten local weather records, Wood Hole Oceanographic Institution technical reports and dissertations, film loops of weather, and historical weather data of Key West and Miami.The National Hurricane Center Library is a branch of NOAA's Miami Regional Library. The library specializes in hurricanes and tropical meteorology. The collection includes books and journals on hurricanes, cyclones, typhoons, hurricane damage, economic impact, disaster awareness, mitigation, handwritten weather records, anecdotal hurricane experiences, videos, slides, information on coastal storm-related building and construction, wind studies, and newspaper articles of hurricane damage.

Office of Oceanic and Atmospheric Research (OAR) - Atlantic Oceanographic and Meteorological Laboratory
The Atlantic Oceanographic and Meteorological Laboratory (AOML) is a federal research facility that houses approximately 160 employees on a permanent basis. Research at the AOML improves the understanding and prediction of both hurricane track and intensity, the ocean's role in annual to multi-decadal climate variability, and human impacts on coastal ecosystems. AOML's research encompasses the oceans and climate, the global impacts of increased carbon dioxide and ocean acidification, ocean and human health studies, and the ocean's influence on regional rainfall and hurricanes. AOML is also a major partner in the collection and interpretation of oceanographic data collected via ships, satellites, aircraft, drifting buoys, and floats. AOML houses numerous resources, including the Physical Oceanography Engineering Lab, which is used to develop, innovate, and maintain several monitoring platforms that support NOAA's Observing Network for climate and weather studies, including: Argo, global drifters, eXpendable BathyThermographs (XBTs), hurricane gliders, PIRATA moorings, and repeat hydrographs; the Advanced Manufacturing and Design Lab, which uses state-of-the-art equipment to create novel scientific tools, controlling the process from idea to prototype to proof of concept. The lab has embraced computer automated design (CAD) software, selective laser sintering (SLS) fused deposition modeling (FDM) and stereolithography (SLA) 3D printers, a 150W automated laser cutter, and an automated circuit board milling machine. Together these tools have given researchers at AOML the ability to quickly prototype and test new tools to assist in accomplishing our research goals by significantly reducing development lead time.

Office of Oceanic and Atmospheric Research (OAR) - AOML/PMEL Hurricane Observation Mission
The 2024 NOAA saildrone Atlantic hurricane observation mission includes 12 saildrones in the western Atlantic, Caribbean, and Gulf of Mexico, following the success of the experimental 2021, 2022, and 2023 missions. New to the 2024 mission are sensors for measurement of surface carbon fluxes. Saildrone observations cover a broad area with high chances of hurricane occurrence. Observations are sent to worldwide weather prediction centers in real time for their operational forecasts and to NOAA National Hurricane Center (NHC) to assist hurricane forecasters assessing hurricane strength and informing the public. Data are released for public use in near real time. This project also involves partnerships with NOAA's Atlantic Oceanic and Atmospheric Laboratory (AOML) Environmental Modeling Center (EMC) of the National Weather Service, the CoastWatch of NOAA's National Environmental Satellite and Data Information Service (NESDIS), and Saildrone, Inc.

Office of Oceanic and Atmospheric Research (OAR) - AOML Small Boats Program
The Atlantic Oceanographic and Meteorological Laboratory (AOML) Small Boats Program maintains three small boats (a 23-foot flats boat, a 25-foot Dusky™ cuddy cabin, and a 21-foot Parker™ center-console) allowing AOML to conduct a variety of coastal research, including investigations into coastal ecosystem and various chemical and oceanographic processes, including those on Florida Coral Reefs.

Office of Oceanic and Atmospheric Research (OAR) - Mobile Carbon Laboratory
The Carbon Dioxide (CO_2) laboratory–based out of the Atlantic Oceanographic and Meteorological Laboratory (AOML)–processes samples from research cruises around the world to determine the CO_2 uptake by the ocean and to monitor the effect of carbon uptake on ocean health. Sampling is performed at sea during open ocean and coastal cruises and processed in the onboard mobile CO_2 laboratory or AOML, depending on the nature of the project. Sampling is done through the whole water column so we can learn more about how the ocean takes up and stores carbon. This collaborative effort between AOML, universities, and other NOAA organizations is sponsored by the Global Oceans Monitoring and Observations (GOMO) program and Ocean Acidification Program (OAP). It provides long-term datasets in scientific programs such as GO-SHIP and Coastal Ocean Acidification Monitoring to determine the changes in carbon content and its effect on the health of the oceans over time. During FY24 a new custom mobile carbon laboratory was built to replace the current laboratory that after 15-year had reached the end of its life after use throughout the world's oceans.

Office of Oceanic and Atmospheric Research (OAR) - Cooperative Institute for Marine and Atmospheric Studies
The Cooperative Institute for Marine and Atmospheric Studies (CIMAS) was awarded to the University of Miami's Rosenstiel School of Marine and Atmospheric Science (RSMAS). CIMAS serves as a mechanism to promote collaborative research between university scientists and those in NOAA. CIMAS research is largely partnered with the Atlantic Oceanographic and Meteorological Laboratory, the Southeast Fisheries Science Center, and the National Hurricane Center. CIMAS conducts research across four themes: (1) tropical weather observations, analysis, and prediction; (2) ocean and climate observations, analysis, and prediction; (3) ecosystem observations, modeling, forecasting and management; and (4) protection and restoration of marine resources.

Office of Oceanic and Atmospheric Research (OAR) - Port Miami Coral Monitoring Site
Port of Miami Coral Monitoring Station, in collaboration with Coral City Camera, features experimental coral fragments as well as naturally occurring corals in a busy waterway that are monitored by scientists to better understand environmental conditions and measure coral community dynamics. The research team uses a suite of state-of-the-art instruments that include sub-surface autonomous samplers designed at CIMAS/AOML and coral photomosaics. The samplers monitor the temperature, pH, oxygen, carbonate chemistry, light, and tidal flow at three reef sites. Photomosaics consisting of thousands of high resolution underwater photos stitched together create detailed maps of these habitats to characterize their coral cover, spread, and species diversity. The corals in this area tend to be resilient so continued monitoring can help scientists understand why certain corals are more resilient than others.

Office of Oceanic and Atmospheric Research (OAR) - Hurricane and Ocean Testbed
The Hurricane and Ocean Testbed (HOT), a collaborative effort between NOAA's National Hurricane Center (NHC) and the Atlantic Oceanographic and Meteorological Laboratory (AOML) and received funding from the Weather Program Office. It has been successfully launched in the newly designed William M. Lapenta Laboratory at NHC. This testbed establishes a physical and virtual collaboration space for researchers and forecasters. It is equipped with state-of-the-art technology to facilitate teamwork, such as cloud-based interfaces, meeting space for both physical and virtual work, and monitors for sharing real-time observations and model forecasts during storm events. The mission of HOT is to transfer more rapidly and smoothly new technology, research results, and observational advances of the United States Weather Research Program, its sponsoring agencies, the academic community and other groups into improved tropical cyclone analysis and prediction at operational centers. HOT will allow researchers and forecasters to explore opportunities and find solutions to common forecast challenges, resulting in better analyses and forecasts of high-impact tropical and marine weather and ocean conditions. The goal is for it to become an environment where the end-to-end process for analyses, forecasts, warnings, and response can be optimized. Using this testbed, AOML and NHC scientists will collaborate on numerous joint projects, including how to integrate data from observing systems into better operational analyses and forecasts of tropical weather and ocean conditions. Developing the capability for forecasters to visualize and use data in real-time from AOML's aircraft-based instruments and uncrewed systems such as flying drones, hurricane gliders, and saildrones is a key focus of AOML's efforts to aid forecasters.

National Environmental Satellite, Data, and Information Service (NESDIS) and Office of Oceanic and Atmospheric Research (OAR) - Coral Reef Watch Environmental Monitoring and the Atlantic Oceanographic and Meteorological Laboratory (AOML)
The Coral Reef Watch program is within NOAA's Center for Satellite Applications and Research (STAR), and permanent monitoring stations are part of the program. In the Florida Keys, Port Everglades, and the Caymans, remote monitoring stations continually observe meteorological and oceanographic parameters. These data are transmitted to Office of Oceanic and Atmospheric Research's Atlantic Oceanographic and Meteorological Laboratory (AOML) and the integrated data are used to predict, monitor, and model incidences of coral bleaching and other coral-related biological events. AOML is also involved in FL Keys environmental monitoring. Since 1992, a network of 7 monitoring stations in the Florida Keys and Florida Bay, called C-Man stations, has been established through a cooperative effort between AOML and the

Florida Institute for Oceanography. These stations monitor and report meteorological and oceanographic parameters from their locations. The data is quality controlled and maintained for distribution at AOML and is used by the Florida Keys National Marine Sanctuary and research scientists to monitor and study coral-reef-related issues such as coral bleaching. Local mariners and recreational fishermen have also found the data to be useful in planning their excursions.

NOAA Commissioned Officer Corps (NOAA Corps) - Southeast Fisheries Science Center and Atlantic Oceanographic and Meteorological Laboratory Support
The NOAA Commissioned Officer Corps stations multiple officers at the Southeast Fisheries Science Center (SEFSC) and Atlantic Oceanographic and Meteorological Laboratory Virginia Key Facilities. These officers perform a mix of operational and administrative duties, including planning and managing annual budgets, assisting in development of division staffing plans, coordinating division facility needs, participating in Laboratory field seasons aboard NOAA Ships, and managing project logistics. In addition, they serve as certified small boat operators for the programs, lead various teams throughout the field season on smaller operational missions, serve as small boat vessel operations coordinators, NOAA Divemasters, Operations Officers, and Fisheries Research Biologists. In these roles, they maintain and operate the small boats at the facility, coordinate planning of the program's field operations, participate in research aboard NOAA Ships when necessary, manage property for the Fish and Coral unit, coordinate field operations between programs and senior scientists, and perform administrative functions such as contract management and procurement.

Key Biscayne

Office of Oceanic and Atmospheric Research (OAR) - Global Greenhouse Gases Reference Network
NOAA's Global Monitoring Laboratory (GML) operates the Greenhouse Gas Reference Network to measure the distribution and trends of carbon dioxide (CO_2) and methane (CH_4), the two gases most responsible for human-caused climate change, as well as other greenhouse gases and volatile organic compounds. Samples are collected weekly at fixed locations and on several commercial ships. The air samples are delivered to GML, located in Boulder, CO for analysis. The observed geographical patterns and small but persistent spatial gradients are used to better understand the processes, both natural and human induced, that underlie the trends. Air samples have been collected at Key Biscayne since 1972. Researchers at NOAA's Atlantic Oceanographic and Meteorological Laboratory collect the samples. Depending on the wind direction, samples collected at Key Biscayne may represent air that has been influenced by carbon sources and sinks in North America, or air that has been over the Atlantic Ocean. These measurements help determine the magnitude of carbon sources and sinks in North America.

National Environmental Satellite, Data, and Information Service (NESDIS) - The Center for Satellite Applications and Research - CoastWatch Gulf of Mexico and Caribbean node, collocated with NOAA Research, Key Biscayne, Florida NOAA CoastWatch exists to help people find, choose, access, and use observations from satellites for ocean, coastal and inland water applications that inform and benefit society. Our primary users include federal, state, and local marine scientists, coastal resource managers, and the public, including commercial users. The CoastWatch Program is managed within the Center for Satellite Applications and Research in the National Environmental Satellite, Data, and Information Service (NESDIS) of NOAA in College Park, MD. The program rests on four legs". Three of the legs, the central operations; training and outreach; and research and applications science teams, are located in College Park, MD. The fourth leg is composed of the seven CoastWatch Regional Nodes, maintained in collaboration with other NOAA Line Offices and located across the US.

The NOAA Research's Atlantic Oceanographic and Meteorological Laboratory (AOML) on Key Biscayne, FL hosts the CoastWatch Caribbean and Gulf of Mexico Regional node and the Atlantic OceanWatch node. Members of the government, academic, commercial, or public sectors may access data via the Caribbean/Gulf of Mexico Regional Node website free of charge. CoastWatch data are used in a variety of ways to monitor sea-surface-temperature and algal

blooms, study fish and marine mammal distributions, and aid in atmospheric forecasting. The Atlantic OceanWatch node includes the oceans and coastal waters of TX, LA, AL, FL, USVI, and Puerto Rico.

Biscayne Bay

National Marine Fisheries Service (NMFS) - Biscayne Bay Habitat Focus Area

Biscayne Bay was selected as a NOAA Habitat Focus Area (HFA). HFAs are targeted places where NOAA addresses high priority habitat issues by collaborating with partners and communities. Over the past several years, NOAA, led by the Office of Habitat Conservation, has selected 11 HFAs across the country which have achieved significant results for ecosystems and communities. While each HFA focuses on individual habitat conservation goals, the overarching goal is to leverage collective expertise and demonstrate results in a short time period. Administered by NOAA Fisheries, Office of Habitat Conservation, NOAA's Southeast Fisheries Science Center, Atlantic Oceanographic and Meteorological Laboratory, Office of National Marine Sanctuaries, Fisheries Southeast Regional Office, National Centers for Coastal and Ocean Science, National Centers for Environmental Information, Office for Coastal Management, and the National Weather Service Miami are coordinating NOAA and partner programs within the Biscayne Bay Habitat Focus Area (HFA). Scientists and resource managers worry that Biscayne Bay may reach conditions where nutrients cause large blooms of algae that shade seagrass beds and ultimately decay and deplete the shallow waters of oxygen. NOAA and its partners are working together in the HFA to monitor the water quality, and physical and biological parameters in Biscayne Bay to better understand and limit these algal blooms. Ultimately, NOAA's efforts in Biscayne Bay are aimed at understanding algal blooms, promoting healthy nursery grounds for fisheries and protected species, and promoting resilient coastal communities.

FL-28

Islamorada

Office of Oceanic and Atmospheric Research (OAR) - National Coral Reef Monitoring Program

This site is part of the National Coral Reef Monitoring Program's (NCRMP) network of sentinel climate and ocean acidification monitoring sites. Sentinel sites in the Atlantic are established in La Parguera, Puerto Rico, at Cheeca Rocks in the Florida Keys National Marine Sanctuary, Flower Garden Banks National Marine Sanctuary in the Gulf of Mexico, and the Dry Tortugas in the Florida Keys. These sites provide coral scientists with additional datasets and insight on changing ocean chemistry and the progression of ocean acidification, as well as the ecological impacts of these variables, across the Caribbean basin and the Gulf of Mexico. The NCRMP, co-funded by NOAA's Coral Reef Conservation Program and Ocean Acidification Program, seeks to provide sustained and long-term measurement of key variables to gauge the status and trends of coral reef health.

Key Largo & Key West

National Ocean Service (NOS) - Florida Keys National Marine Sanctuary and Eco Discovery Center

Designated in 1990, Florida Keys National Marine Sanctuary protects 3,800 square miles of water, surrounding the Florida Keys, from south of Miami westward to encompass the Dry Tortugas, excluding Dry Tortugas National Park, using an approach that addresses the variety of impacts, pressures, and threats to the Florida Keys ecosystem. The sanctuary is administered by NOAA and is jointly managed with the State of Florida. Within the boundaries of the sanctuary lie spectacular, unique, and nationally significant marine resources including the continental United States' only coral barrier reef, extensive seagrass beds, mangrove fringed islands, and more than 6,000 species of marine life. Together, these habitats support the life cycles of a rich array of tropical marine and estuarine organisms, endangered and protected species. Numerous historic shipwrecks and lighthouses within the sanctuary typify the rich cultural heritage of the Florida Keys, which, in addition, may contain evidence of human activity and the remains of animals from 15,000 years ago.

The Eco-Discovery Center, operated by Florida Keys National Marine Sanctuary, has been reimagined through a million-dollar renovation funded by the local Tourist Development Council. Featuring more than 6,000 square feet of

interactive and dynamic exhibits, visitors leave with an increased awareness and appreciation of the need to protect and conserve this irreplaceable, South Florida ecosystem.

National Ocean Service (NOS) and National Marine Fisheries Service - Mission: Iconic Reefs
In December, 2019, NOAA and partners announced a decades-long coral reef restoration effort, Mission: Iconic Reefs, to restore seven iconic reefs in Florida Keys National Marine Sanctuary. Mission: Iconic Reefs will proactively intervene with natural conditions by restoring a diversity of stony corals, reintroducing algae-grazing species to support coral health, and building community stewardship by engaging stakeholders in the continued maintenance and monitoring of the sites. This ongoing effort is supported by a network of expert scientists, federal and state agencies, and local restoration partners. NOAA offices involved include the Office of Habitat Conservation, Office of National Marine Sanctuaries, National Centers for Coastal Ocean Science, Coral Reef Conservation Program, Southeast Regional Office - NOAA Fisheries.

National Weather Service (NWS) - **Weather Forecast Office (WFO)** - See Page 2 for detail.

Tavernier
NOAA Office of Education – Science on a Sphere (SOS) at Plantation Key School. See Page 2 for detail.

Statewide
Office of Oceanic and Atmospheric Research (OAR) - Ocean Acidification Observing Network (NOA-ON)
The NOAA Ocean Acidification Observing Network (NOA-ON) is a sustained investment in ocean chemistry observing networks in U.S. waters and abroad. There are currently 16 buoys sponsored by the NOAA OAR Ocean Acidification Program in coastal, open-ocean and coral reef waters that contribute to this network. The long-term datasets collected from these moorings are key to understanding how ocean chemistry and other ocean conditions are changing over time, and their impacts on marine and coastal ecosystems. These buoys are located in Alaska (Gulf of Alaska, Bering Sea), American Samoa (Fagatele Bay),California (California Current Ecosystem 1 & 2), Chesapeake Bay (MD, VA), Louisiana (Coastal LA), Florida (Cheeca Rocks), Georgia (Grays Reef), Hawaii (Kāneʻohe Bay and CRIMP-II, both in O'ahu) Oregon (Coos Bay), Maine (Gulf of Maine), Puerto Rico (La Parguera), Washington (Cha'ba), and Lake Huron (Thunder Bay).

National Marine Fisheries Service (NMFS) - Restoration Center
The NOAA Restoration Center, within the Office of Habitat Conservation, works with partners across the nation to restore habitat to sustain fisheries, recover protected species, and maintain resilient coastal ecosystems and communities. We have over 30 years conducting habitat restoration through competitive funding opportunities and technical assistance. We also work to reverse habitat damage from disasters like oil spills, ship groundings, and severe storms.In Florida, the Restoration Center works with private and public partners to restore habitats such as mangrove forests, oyster reefs, coral, and submerged aquatic vegetation beds; remove invasive species; improve storm-water management; establish wetland buffers; and restore historic tidal flow to degraded sites. The *Deepwater Horizon* oil spill in 2010 impacted the entire Gulf ecosystem as well as the communities that rely on the Gulf's natural resources. NOAA and other federal and Gulf state partners are working with the public, partners, and industry to support restoration and recovery of the Gulf of Mexico's natural resources using the $20.8 billion environmental damage settlement. NOAA led the natural resource damage assessment restoration planning for the *Deepwater Horizon* oil spill. The NOAA Fisheries Office of Habitat Conservation's 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.

Restoration projects can be found in this interactive mapping atlas. See the interactive Restoration Atlas to find habitat restoration projects near you. Site visits to see habitat projects may be available in your state, please inquire if interested.

In addition, the Office of Habitat Conservation is responsible for executing an unprecedented $1.4 billion in funding under Bipartisan Infrastructure Law and Inflation Reduction Act for habitat restoration and fish passage. We are working with our partners to do this through our expert technical assistance and four funding competitions: Fish Passage, Tribal Fish Passage, Transformational Habitat Restoration, and Habitat Restoration for Tribes and Underserved Communities. We have funded 214 awards totaling $985M in rounds one and two with more to come in round 3. We are funding work all over the country, explore them on our interactive map.

National Marine Fisheries Service (NMFS), National Ocean Service (NOS), and NOAA General Counsel - 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. Florida is a co-trustee with NOAA for assessment and restoration after pollution incidents in Florida. For more information about our work in Florida, visit: DARRP in Your State (and use the top menu to navigate to "Florida") and this interactive map.

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 coast 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 Office of Law Enforcement's Southeast Division is headquartered in St. Petersburg, Fla., with Florida field offices in Jacksonville, Miami/Sunrise, Florida Keys , Niceville, Panama City, Fort Myers, and Cape Canaveral.

NOAA Office of Education - Gulf of Mexico Bay Watershed Education and Training Program
The NOAA Bay Watershed Education and Training (B-WET) program is a competitive grants program that provides funding for locally relevant environmental education projects for K-12 audiences. The Gulf of Mexico B-WET program is managed by NOAA's Office of Education. The Gulf of Mexico B-WET program currently serves Alabama, Florida, Louisiana, Mississippi, and Texas. 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 regional grant competitions are responsive to local education and environmental priorities. Please see the funding opportunities for specifics.

National Marine Fisheries Service (NMFS) - Southeast Regional Office, Ocean Guardian School
An Ocean Guardian School makes a commitment to the protection and conservation of its local watersheds, the world's ocean, and special ocean areas, like national marine sanctuaries. Funds are provided to schools at $4,000 per year if the school makes this commitment by proposing and then implementing a school- or community-based conservation project. Once the school has completed its project, the school receives official recognition as a NOAA Ocean Guardian School. To

date, the Ocean Guardian School Program has partnered with more than 147 schools and has reached more than 80,400 students.

National Ocean Service (NOS) – Bipartisan Infrastructure Law
The Bipartisan Infrastructure Law is helping coastal communities build the future they want to see. The legislation provides a historic investment in coastal protection and restoration that will increase community resilience to climate change and extreme weather events, and improve how we manage our ocean resources. Projects funded under this law protect and restore ecologically significant habitats, including conserving lands that play a critical role in helping communities become more resilient to natural hazards. Florida received funding for two projects in FY22 and one project in FY23, as well as funds to build the state's capacity to protect its coastal communities and resources.

National Ocean Service (NOS) - Regional Advisor Program
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 Lake City, Florida 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 - **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 seven are in Florida.

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 39 ASOS stations in Florida.

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 124 COOP sites in Florida.

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 32 NWR transmitters in Florida.

National Weather Service (NWS) - Incident Meteorologists
The NWS, as mandated by Congress, provides fire weather forecast products and services to the fire and land management community for the protection of life and property, promotion of firefighter safety, and stewardship of America's public wildlands. Since 1928, this effort has included providing critical on-scene support to wildfire managers via specially-trained NWS forecasters called Incident Meteorologists (IMETs). When a fire reaches a large enough size, IMETs are rapidly deployed to the incident and set-up a mobile weather center to provide constant weather updates and forecast briefings to the fire incident commanders. IMETs are very important members of the firefighting team, as changes in the fires are largely due to changes in the weather.

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 advance NOAA's mission through formal (K-12) and informal education. In Florida, ELP supports the Manatee Bowl and Spoonbill Bowl in Florida, two of 25 regional competitions of the National Ocean Sciences Bowl (NOSB). The NOSB is an academic competition that engages high school students in learning about ocean sciences and related STEM careers while helping them become knowledgeable citizens and environmental stewards. ELP supports the American Meteorological Society's DataStreme courses for K-12 educators through a grant and in-kind support. These courses 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) - Florida Sea Grant College Program
The National Sea Grant College Program (Sea Grant) is a federal-university partnership administered by NOAA that integrates research, extension education and outreach. Sea Grant forms a network of 34 programs in all U.S. coastal and Great Lakes states, Puerto Rico, Lake Champlain, and Guam. The Florida Sea Grant College Program, based at the University of Florida, focuses research on climate change and its effects on the coast, fisheries, aquaculture, seafood safety, healthy coastal habitats, sustainable communities, water access and coastal hazards. In conjunction with its research, Florida Sea Grant also provides support to graduate education. Extension and education programs and workforce training are conducted in partnership with UF/IFAS Extension and the 35 coastal counties of Florida through a cadre of more than 35 marine extension agents and specialists. Administrative offices are located in Gainesville. Extension agents are located in Escambia County, Santa Rosa County, Crestview, Bay County, Gulf County, Franklin County, Taylor County, Cedar Key, Hernando County, Pinellas County, Palmetto County, Charlotte County, Collier County,

Monroe County, Miami County, Stuart, Fort Pierce, Brevard County, and St. Augustine. Get involved with Sea Grant through state and national opportunities like the John A. Knauss Marine Policy Fellowship program at seagrant.noaa.gov.

National Marine Fisheries Service (NMFS) - Southeast Regional Office
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 mammal and sea turtle populations, as well as other protected resources, including coral. The Southeast Regional Office is responsible for over 40% of all federal fishery management plans nationwide which cover hundreds of species ranging from diverse, relatively sedentary and vulnerable coral reef fish - like the popular snappers and groupers - to wide ranging pelagic species like mackerel and mahi mahi. More than 90 marine mammal stocks and 27 threatened or endangered species, including the North Atlantic right whale and smalltooth sawfish, six sea turtle species, and seven coral species also occur in this region. The Office consults on approximately 50% of the nation's coastal development permits, provides fish passage and ecological flow recommendations at dozens of barriers, engages partners in regional collaboration, and supports large-scale conservation and restoration programs aimed at protecting essential fish habitat and coastal communities from development, subsidence, sea level rise, and storms. While 99% of the nation's outer continental shelf oil production is in this region, it is also the focus of new wind energy development off the Carolinas and in the Gulf of Mexico. 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.

National Marine Fisheries Service (NMFS) - The Southeast Fisheries Science Center
The Southeast Fisheries Science Center implements a multi-disciplinary science and research program in support of living marine resource management.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.provides the scientific advice and data needed to effectively manage the living marine resources of the Southeast region and Atlantic high seas through the following divisions.

Fisheries Assessment, Technology, and Engineering Support division provides essential services and development of new innovative technologies to support the center's mission. The branches of Biology and Life History, Advanced Technology, Gear Research, and Gear and Vessel Support branches provide state-of-the-art life history information and innovative solutions to reduce bycatch and optimize the performance of biological and fishery monitoring programs across the science center.

Fisheries Statistics division provides extensive support to management and science through the collection, management, and dissemination of commercial and recreational fisheries statistics. The branches of Commercial Fisheries Monitoring, Recreational Fisheries Monitoring, Survey Design, Data Management and Dissemination, Catch Validation and Bio-sampling, and Observer Program works extensively with various internal and external partners to collect the fishery dependent information used to support marine resource management in the region.

Marine Mammals and Sea Turtles division supports and conducts science that leads to improved knowledge and meaningful conservation of marine mammals and turtles and their habitats in a changing environment, helping to achieve NOAA Fisheries' mission of implementing the Marine Mammal Protection Act and Endangered Species Act and making a positive impact on society.

Population and Ecosystems Monitoring division provides data, analytical products, research, and expertise to support NOAA Fisheries priorities. The branches of Ocean and Coastal Pelagics, Trawl and Plankton, Gulf and Caribbean Reef Fish, Atlantic and Caribbean Reef Fish and Habitat Ecology carry out fishery-independent surveys and applied research focused on fisheries and habitat ecology, and provides support for ecosystem- and climate-related initiatives in the region.

Sustainable Fisheries division works in partnership with fisheries managers and constituents to provide reliable scientific advice that enhances the stewardship of living marine resources. The branches of Gulf of Mexico Fisheries, Atlantic Fisheries, Highly Migratory Species, Caribbean Fisheries, and Data Analysis and Assessment Support also strive to advance scientific knowledge and promote diverse and sustainable fisheries through innovative research and development activities, and the use of advanced technologies.

Social Science Research Group conducts research and data collections to assess the social and economic performance of fisheries and regulatory impacts.

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. NOAA Fisheries funds eligible members of the Stranding Network through the competitive John H. Prescott Marine Mammal Rescue Assistance Grant Program.

National Marine Fisheries Service (NMFS) - Deep-Sea Coral Research and Technology Program
NOAA's Deep Sea Coral Research is administered by NOAA Fisheries' Office of Habitat Conservation. Mandated by the *Magnuson-Stevens Fishery Conservation and Management Act*, it is the nation's only federal research program dedicated to increasing scientific understanding of deep-sea coral ecosystems. Deep-sea corals occur off of every coastal state in the country, and create important habitats for countless species, including many fish species. The Program collaborates closely with partners, including other NOAA offices, to study the distribution, abundance, and diversity of deep sea corals and sponges. This work then informs critical management decisions in the waters of the United States and its territories. These decisions enhance the sustainability of deep-sea fisheries and other ocean uses, while conserving deep-sea coral and sponge habitats.

The Program works with partners to complete multi-year regional fieldwork initiatives, as well as smaller projects around the country, centered on integrating new and existing information on these vulnerable and biologically diverse habitats. The first research initiative took place from 2009 to 2011 in the U.S. South Atlantic region and provided valuable information to help decision-makers refine protected area boundaries. To date, the Program has completed one or more initiatives in each region of the United States.

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 Florida, 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 Florida Fish and Wildlife Conservation Commission has received multiple awards through this program, including funding to support projects addressing conservation priorities for listed sea turtles, corals, sturgeon, and smalltooth sawfish.

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. Two Florida projects have been successfully completed and these lands are protected in perpetuity. In addition, one land conservation project was funded in FY22 and one in FY23 in Florida under the CELCP authority with funding through the Bipartisan Infrastructure Law.

National Ocean Service (NOS) - Coral Reef Conservation Program
NOAA's Coral Reef Conservation Program brings together multidisciplinary expertise from over 30 NOAA offices and partners to protect, conserve, and restore coral reef resources. The program focuses on three threats to coral reefs - climate change, fishing impacts, and land-based sources of pollution - as well as coral reef restoration. In response to identified threats and management priorities developed by coral reef managers in Florida, the program invests in coordinated management approaches for Florida's Coral Reef (extending from the southeast Florida coast through the Keys and out to the Tortugas Banks); interagency efforts to prevent, prepare for and respond to major disturbances to coral reef ecosystems including Stony Coral Tissue Loss Disease, coral bleaching and invasive species through the Florida's Coral Reef Resilience Program; the development and implementation of watershed management plans for priority inlet contributing areas to reduce the input of land-based pollutants and support for the resilience based, ecosystem level restoration of Florida's coral reefs. In addition, NOAA funds are also allocated to implement conservation programs designed to increase the size, abundance, and protection of coral reef species. Examples of projects include: biogeographic assessments to characterize the distribution of coral reef species, research to understand how corals respond to environmental threats and climate change, benthic sampling, and assessing fish spawning aggregation sites. NOAA's Coral Management Liaison is located in West Palm Beach.

National Ocean Service (NOS) – Susan L. Williams National Coral Reef Management Fellowship
The Susan L. Williams National Coral Reef Management Fellowship Program is a partnership between NOAA's Coral Reef Conservation Program, the U.S. Department of Interior Office of Insular Affairs, Nova Southeastern University's Halmos College of Natural Sciences and Oceanography, and the U.S. Coral Reef All Islands Committee. The program recruits Coral Reef Management Fellows for the seven U.S. coral reef jurisdictions, including Florida. The Fellow for Florida is helping manage the Department of Environmental Protection-funded projects for the expansion of Florida's coral

restoration and propagation efforts. This includes working with state and federal partners, as well as universities and nongovernment organizations to help translate ongoing research into management practices.

National Ocean Service (NOS) - National Coastal Zone Management Program
Through a unique federal-state partnership, NOAA's Office for Coastal Management works with the Florida Department of Environmental Protection to implement the National Coastal Zone Management Program in Florida. 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 tools, training, and information needed to make these data useful for coastal decision makers. The Digital Coast Act authorizes the Digital Coast as a standing national program and supports NOAA's efforts to increase access to authoritative data, tools, and training that enable coastal communities to plan for long-term resilience, manage water resources, and respond to emergencies.

National Ocean Service (NOS) – Digital Coast Fellowship
This program matches postgraduate students with members of the Digital Coast Partnership to work on two-year projects proposed by the partner organization. The Nature Conservancy is hosting a fellow from 2024-2026 to use The Nature Conservancy and Digital Coast resources related to the Community Rating System and nature-based solutions more broadly to help achieve The Nature Conservancy's 2030 conservation goals along the Gulf and Atlantic coasts of the U.S., while improving the resiliency of coastal communities to climate change.

National Ocean Service (NOS) and National Marine Fisheries Service (NMFS)- Regional Ocean Partnerships: Gulf of Mexico Alliance
Staff members from NOAA's Office for Coastal Management and NMFS SERO's' Habitat Conservation Division are active in the Gulf of Mexico Alliance (GOMA). The Gulf of Mexico Alliance is a Regional Ocean Partnership working to sustain the resources of the Gulf of Mexico. Led by the five Gulf States, the broad partner network includes federal agencies, academic organizations, businesses, and other non-profits in the region. GOMA's goal is to significantly increase regional collaboration to enhance the environmental and economic health of the Gulf of Mexico. With funding provided through the Bipartisan Infrastructure Law, NOAA is investing approximately $56 million nationwide over five years to enhance and support the priorities of established regional ocean partnerships, including coordinating interstate and intertribal management of ocean and coastal management issues, and enhancing sharing and integration of data.

National Ocean Service (NOS) – National Coastal Resilience Fund
The National Coastal Resilience Fund restores, increases, and strengthens natural infrastructure to protect coastal communities while also enhancing habitats for fish and wildlife. The National Fish and Wildlife Foundation (NFWF) executes this program in partnership with NOAA to invest in conservation projects that restore or expand natural features, such as coastal marshes and wetlands, dune and beach systems, oyster and coral reefs, forests, coastal rivers and floodplains, and barrier islands, which minimize the impacts of storms and other naturally occurring events on nearby communities. In Florida, 26 projects have been funded: two in FY18, one in FY19, nine in FY20, three in FY21, four in FY22, and seven in FY23.

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 federally-declared disaster areas impacted by hurricanes and wildfires in 2018, 2020, and 2021.. Florida received funding for six projects in 2019 and one in 2021.

National Ocean Service (NOS) - U.S. Integrated Ocean Observing System (Gulf of Mexico Coastal Ocean Observing System and 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) and the Gulf of Mexico Coastal Ocean Observing System (GCOOS) are two of the 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. 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 Floridians safe.

The Gulf of Mexico Coastal Ocean Observing System (GCOOS) 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. GCOOS supports coastal stations and other ocean observation infrastructure in Florida. Additionally, GCOOS works with NOAA in the development and operation of a daily forecast of human respiratory efforts due to harmful algal blooms along the coast, which is powered by a volunteer network across the west coast.

National Ocean Service (NOS) - OR&R Preparedness, Response, and Restoration Coordinators
NOAA's Office of Response and Restoration (OR&R) is a center of expertise in preparing for, evaluating, and responding to threats to coastal environments, including oil and chemical spills, releases from hazardous waste sites, disasters, and marine debris. To fulfill its mission of protecting and restoring NOAA trust resources, OR&R provides scientific and technical support to prepare for and respond to environmental threats that coastal communities face; determines damage to natural resources from those releases; protects and restores marine and coastal ecosystems; and works with coastal communities to address critical local and regional coastal challenges.

The **Regional Preparedness Coordinator (RPC)** is strategically placed within the region to ensure that NOS and our partners are able to effectively prepare for, respond to, and recover from all hazards, including coastal disasters. The RPC serves as a liaison between NOS and its federal, state, and local disaster preparedness and emergency response partners. A key role of the RPC is to better understand the needs and opportunities within the region and to ensure partners have the tools and resources necessary to inform decision-making. The RPC has expertise across the spectrum of emergency management and provides preparedness, response, and recovery services including planning, training, exercises, response coordination, continuous improvement, and long-term recovery. The RPC, based in Charleston, South Carolina, serves the Southeast & Caribbean region – Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Puerto Rico, and the U.S. Virgin Islands.

Eleven regionally based **Scientific Support Coordinators (SSC)** 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. The SSC in Florida is based in Miami.

National Ocean Service (NOS) - OR&R Gulf of Mexico Environmental Response Management Application and Response Tools for Oil and Chemical Spills, Preparedness Training for Responders
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. Gulf of Mexico Environmental Response Management Application (ERMA®) is an online mapping tool that integrates both static and real-time data, such as ship locations, weather, and ocean currents, providing an easy-to-use common operating picture for environmental responders and decision makers. In addition to ERMA, the Office of Response and Restoration (OR&R) offers a suite of tools to support emergency responders dealing with oil and chemical spills. From Environmental Sensitivity Index (ESI) maps and data which provide concise summaries of coastal resources including biological resources and sensitive shorelines to GNOME, a trajectory and fate model that predicts the route and weathering of pollutants spilled on water, and so much more, these tools provide easy-access to critical data that support a wide range of needs for emergency responders, ultimately supporting our coastal communities. In addition, OR&R offers training to help spill responders increase their understanding of oil spill science when analyzing spills and making risk-based decisions. The training classes include the Science of Oil Spills (SOS), the Science of Chemical Releases (SOCR), Shoreline Cleanup Assessment Technique (SCAT), among others. Each year, OR&R teaches these classes around the country, see our calendar for upcoming training..

National Ocean Service (NOS) - Marine Debris Projects and Partnerships in Florida
The NOAA Marine Debris Program (MDP) in the Office of Response and Restoration (OR&R) leads national and international efforts to 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 Florida Regional Coordinator, based in St. Petersburg, 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 Florida, the MDP is working with numerous partners on projects under funding provided by the Bipartisan Infrastructure Law. In partnership with the Gulf of Mexico Alliance, the MDP is helping administer a regional competitive grant program for large marine debris removal throughout the Gulf. In partnership with the Ocean Conservancy, MDP is also helping administer a national competitive grant program for the removal of large marine debris, including in Florida's Lower Keys. Further, the MDP has partnered with the Pinellas County Government to remove more than 20,000 tires from the Gulf of Mexico near Tampa Bay that were placed in the 1960s-1980s as artificial reefs. The MDP is also working with the University of Florida to install trash capture devices, litter booms, and monofilament collection bins to intercept litter in partnership with local governments and state aquatic preserves in Pasco and Levy Counties, and with Florida State University to prevent the introduction of marine debris into the St. Andrew Bay watershed by deploying catch basin interception devices in storm drains. Additionally, the MDP is partnering with the Ocean Conservancy to engage local Miami-Dade County youth and businesses through their Plastic Free Cities campaign to reduce single-use plastics. The MDP is also partnering with the National Parks Service to install an educational marine debris display at Biscayne National Park to bring attention to the issue of marine debris along the Florida coast. The Florida Marine Debris Action Plan was published in 2020. This plan is facilitated by the MDP, and it establishes a road map for strategic progress in making Florida, its coasts, people, and wildlife free from the impacts of marine debris. The MDP continues to work with state and local governments, and other stakeholders, to develop and implement the Florida Marine Debris Emergency Response Guide.

National Ocean Service (NOS) - National Water Level Observation Network
NOS operates 16 long-term continuously operating tide stations in the state of Florida which provide data and information on tidal datum and relative sea level trends, and are capable of producing real-time data for storm surge warning. These

stations are located at Fernandina Beach, Mayport, Trident Pier, Lake Worth Pier, Virginia Key, Vaca Key, Key West, Naples, Fort Myers, St. Petersburg, Clearwater Beach, Cedar Key, Apalachicola, Panama City, Panama City Beach, and Pensacola. Station data feeds into many CO-OPS products that are used to support safe navigation, mitigate coastal hazards, and protect communities. Such products include:

- Coastal Inundation Dashboard - view water levels in real-time and during storms
- High Tide Flooding Outlooks
- Sea level trends and maps
- Real-time current measurements
- Hydrodynamic models
- Tidal and water level datums

National Ocean Service (NOS) - Navigation Manager
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 a variety of navigation related challenges.NOAA's navigation managers work directly with pilots, port authorities, and recreational boating organizations in Florida. They help identify the navigational challenges facing marine transportation in Florida and provide NOAA's resources and services that promote safe and efficient navigation. They work with local stakeholders to ensure the NOAA's nautical charts are up to date and accurate. 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 St. Petersburg/Tampa, FL to support mariners and stakeholders in the Southeast and Caribbean.

National Ocean Service (NOS) -COMIT Center
The University of South Florida's (USF) College of Marine Science has been awarded a five-year, $9 million cooperative agreement by the National Oceanic and Atmospheric Administration's (NOAA) Office of Coast Survey to launch the Center for Ocean Mapping and Innovative Technologies (COMIT). The center, located on the USF St. Petersburg campus, will develop new technologies and approaches to ocean and coastal zone mapping in line with NOAA's commitment to building resilient coastal ecosystems, communities and economies. USF's center plan also includes a robust education strategy to ensure the research is shared with stakeholder audiences in communities near and far. COMIT will evaluate and demonstrate the cost-effectiveness of innovative technologies including autonomous surface vessels, underwater robots and satellites. COMIT will also build on USF's expertise in ocean engineering, habitat and bathymetric mapping, modeling of coastal storm events, coastal geodesy, sea level rise and safe navigation in ports such as Tampa Bay.

National Ocean Service (NOS) - Operational Forecast of Gulf of Mexico Harmful Algal Blooms
NOAA and partners provide twice-weekly forecasts on harmful algal blooms (HABs) along the west coast of Florida, the east coast of Florida, the Florida panhandle, and Texas. The HAB Forecasting System relies on satellite imagery, real-time and forecast winds, and field samples to provide information on the location, extent, and movement of HABs.

National Ocean Service (NOS) - Phytoplankton Monitoring Network
The Phytoplankton Monitoring Network (PMN) is a nationwide community-based volunteer program of citizen scientists monitoring for the presence of organisms that can lead to Harmful Algal Bloom (HAB) formation. Volunteers serve as data collectors for marine and freshwater blooms at more than 200 coastal and inland sites in the U.S. and Caribbean. Monitoring is conducted year-round and volunteers are trained to measure salinity, air and water temperatures, and how to collect phytoplankton samples using a plankton net. Samples are then analyzed for any HAB organisms via microscopy. Data collected by PMN volunteers enhances the Nation's ability to respond to and manage the growing threat posed by HABs by collecting important data for species composition and distribution in coastal and freshwater environments and creating working relationships between volunteers and professional marine biotoxin researchers. Event monitoring can assist state and federal agencies to issue timely warnings about shellfish consumption and other public health concerns.

National Ocean Service (NOS) - Aquaculture Phytoplankton Monitoring Network
The Aquaculture Phytoplankton Monitoring Network (AQPMN) is a volunteer-based network that works with coastal US aquaculture farms and organizations. The network has adapted its protocols to specifically monitor for species known to have adverse effects on shellfish and finfish aquaculture. Participating hatcheries and growers receive training on methods to collect and identify local phytoplankton and potential HAB species. NOAA supplies each network member with plankton nets, thermometers, salt refractometers and digital microscopes free of charge.

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 Ocean Service (NOS) – HABScope
HABscope is a portable tool used to count and identify harmful algal blooms (HABs) in the field, including the red tide species *Karenia brevis*. HABscope is routinely used by trained community scientists to monitor HAB cell densities during HAB events. HAB cell concentrations are used to support the Red Tide Respiratory Forecast, which provides an estimate of the risk of respiratory irritation at Florida Gulf Coast beaches. The tool has been transferred to 40 US and international stakeholders, including the fishing industry, community groups, non-profits, and county managers.

National Ocean Service (NOS) - Mussel Watch Program
The National Oceanic and Atmospheric Administration (NOAA) Mussel Watch Program (MWP) monitors the status and trends of chemical contaminants and biological stressors in the nation's coastal waters. MWP began in 1986, and is based on the periodic collection and analysis of bivalves (oysters and mussels) and sediment from a network of more than 300 monitoring sites nationwide. Contaminants monitored at each site include the EPA's Priority Pollutant List of toxic substances and a suite of chemicals of emerging concern such as flame retardants, PFAS, pharmaceuticals, and current use pesticides.

National Weather Service (NWS) - National Data Buoy Center 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. NDBC also operates NOAA's network of Deep-ocean Assessment and Reporting of Tsunami (DART®) stations, for the early detection and real-time reporting of tsunamis in the open ocean. Data from the DART®s are used by the National Weather Service Tsunami Warning Centers in Alaska and Hawaii to provide tsunami forecasts, warnings, and information.

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.

National Ocean Service (NOS) - NOAA Ocean Guardian School Program
A NOAA Ocean Guardian School makes a commitment to the protection and conservation of its local watersheds, the world's ocean, and special ocean areas, like national marine sanctuaries. Funds are provided to schools at $4,000 per year if the school makes this commitment by proposing and then implementing a school- or community-based conservation project. Once the school has completed its project, the school receives official recognition as a NOAA Ocean Guardian School. To date, the Ocean Guardian School Program has reached more than 88,797 students and 3,599 teachers.

National Ocean Service (NOS) - NOAA Ocean Guardian Youth Ambassador Program
Youth aged 13-18 from across the United States and its territories that are committed to ocean conservation and stewardship of our blue planet can apply to become a NOAA Ocean Guardian Youth Ambassador. This year-long program looks for enthusiastic youth with new ideas and a unique perspective who want to learn more about America's underwater treasures and share their passion with others. Youth learn how to become a leader at their school or in their local community to make a difference in the conservation of the ocean through marine protected areas.

Bipartisan Infrastructure Law (BIL) / Inflation Reduction Act (IRA) Projects

The National Oceanic and Atmospheric Administration (NOAA) was entrusted with billions of supplemental federal funding dollars with passage of the Bipartisan Infrastructure Law on November 15, 2021 and the Inflation Reduction Act on August 16, 2022. This historic infrastructure funding has been invested in communities across the nation to build resilience in the face of climate change. NOAA distributed funding to communities, tribal, state and local governments, higher education programs, businesses, non-profit organizations, and facilities in need. NOAA funded billions of dollars in grants and cooperative agreements across the country to fund projects that enhance climate resilience, restore coastal and marine habitats, improve safety, and create jobs. For an interactive map of NOAA BIL and IRA investments in your state, visit https://www.noaa.gov/bil-ira-awards-explorer.

BIL

Scaling Ghost Gear Removal on a National Level by Catalyzing Local Impact, $5,218,000
Ocean Conservancy is administering a national competitive grant program for the removal of large marine debris, working with California fishers on solutions to ghost gear challenges, creating tools to better prevent derelict fishing gear, and removing marine debris in southwest Alaska and the Lower Florida Keys. *This award supports work in AK, FL, CA*

Coordinated Large Marine Debris Removal in the Gulf of Mexico, $7,725,000
The Gulf of Mexico Alliance is working across all five Gulf states to lead a regional competitive grant program for large marine debris removal, remove abandoned and derelict vessels, and assess habitat impacts and recovery. *This award supports work in AL, FL, LA, MS, TX*

GulfCorps Resilience Collaborative (GRC): Transformative Restoration through Partnerships in the Gulf of Mexico, $12,000,000
The Nature Conservancy, through the GulfCorps Resilience Collaborative, will support the work of young adult conservation corps crews to implement 200 science-guided and community supported conservation and nature-based restoration projects across approximately 10,000 acres of diverse Gulf of Mexico habitats. The Corps crews will be located in nine ecologically important but socially vulnerable sub-regions of the Gulf, from Florida through Texas. *This award supports work in AL, FL, LA, MS, TX*

Gulf of Mexico Community Based Oyster Recycling and Reef Restoration Network, $4,993,897
This project will restore oyster reef habitat in Texas, Louisiana, Alabama, and Florida, focusing on the resilience priorities of tribal and underserved communities. They will also develop the Gulf Regional Oyster Network, which will expand and enhance oyster shell recovery programs across the region. The GRO Network will collect oysters from restaurants, recycle them, and put them back in the environment at the oyster reef restoration sites. *This award supports work in AL, LA, TX, FL*

Assessing opportunities for improved coastal data assimilation in ocean model analyses and seasonal forecasting systems, $739,040
Existing seasonal forecasting systems have poor skill predicting sea level anomalies for most of the U.S. East Coast and in the Gulf of Mexico. The poor capability of forecasting monthly sea level anomalies for the U.S. East and Gulf Coasts are especially disappointing because outlooks of high tide flooding in these regions would benefit from skillful predictions. Since coastal flooding occurrence is strongly influenced by monthly anomalies of sea level, better seasonal forecasts are highly relevant to improving resilience. *This award supports work in AL, TX, MS, FL, LA, GA, NC, SC*

Incorporating Principles of Environmental Justice into Forecast Informed Reservoir Operations, a Climate and Flood Adaptation Strategy, $474,343
Under Forecast Informed Reservoir Operations (FIRO), improved forecasts can provide reservoir operators greater flexibility. With sufficient forecast skill, water can be strategically pre-released ahead of storms, reducing flood risk and allowing operators to store more water throughout the wet season. The U.S. Army Corps of Engineers (USACE) Engineer Research and Development Center (ERDC) is currently screening sites for FIRO viability assessments to expand FIRO across the country. *This award supports work in CA, GA, AL, FL, MS*

Hogans Creek Restoration Design Project, $2,947,955
This project will undertake early planning stages for restoring wetland and upland habitat along Hogans Creek. Once implemented, this work will create habitat for species such as sturgeon and shrimp. It will also significantly reduce flooding in nearby communities, improve water quality in the creek, and provide community access to green space and recreation along the river as part of a 30-mile trail system.

McCoys Creek Restoration Construction: The Branches, $2,814,254
This project will restore habitat on the Branches reach of McCoys Creek. The project will support the creekâ€™s overall food web, and will improve habitat for forage fish relied on by species like red drum. The project is a top flood reduction priority for the City of Jacksonville, and will eliminate or reduce flooding for homes and other structures. It will also provide enhanced green space and improve water quality in the stream.

North Port St. Joe Stormwater Management, $279,989
This project will gather critical data needed to finalize the design for nature-based solutions to address frequent flooding impacting homes and infrastructure in the North Port St. Joe neighborhood. They will engage community members and partners in understanding the study’s findings and their implications for designing future restoration projects.

Your Shores: Coastal Habitat Restoration with Frost Science's Upward Bound Math and Science Program, $606,456
This project will restore coastal habitat in northern Miami-Dade County while providing high school students with paid, immersive opportunities in the restoration field. Students will receive training and hands-on experience in restoring coral reefs, mangroves, and beach dunes in Haulover Park, one of the longest remaining stretches of undeveloped beachfront in the county.

Apalachicola Comprehensive Watershed Planning and Coordination Blueprint, $300,000
This funding will build the capacity of the Apalachicola National Estuarine Research Reserve within the Florida Department of Environmental Protection to plan for and implement habitat restoration and conservation projects proposed through funding opportunities connected to the Bipartisan Infrastructure Law. Specifically, the Apalachicola National Estuarine Research Reserve proposes to implement a comprehensive watershed coordination blueprint for water quality, quantity, hydrologic restoration, natural system restoration, land acquisition, and land management will assist the state in understanding, preparing for, and mitigating for adverse events now and into the future.

Funding for three years to develop capacity for competitive restoration and conservation acquisition applications within the watershed of GTM NERR, $300,000
This funding will build the capacity of the Guana Tolomato Matanzas National Estuarine Research Reserve (GTM NERR) within the Florida Department of Environmental Protection to plan for and implement habitat restoration and conservation projects proposed through funding opportunities connected to the Bipartisan Infrastructure Law. Specifically, GTM NERR will use these funds to prioritize and support projects that will improve our knowledge of the functions, conditions, and stressors of our coastal wetlands; develop best management practices for managing healthy wetlands; and implement those practices with restoration and preservation when possible.

NERRS Citizen Science Restoration Monitoring Program, $300,000
This funding will build the capacity of the Rookery Bay National Estuarine Research Reserve within the Florida Department of Environmental Protection to plan for and implement habitat restoration and conservation projects proposed through funding opportunities connected to the Bipartisan Infrastructure Law. Specifically, the Rookery Bay National Estuarine Research Reserve proposes to meet this goal by developing monitoring protocols and associated performance measures which can be used to train citizen scientists to conduct pre and post monitoring for habitat restoration projects at Rookery Bay NERR. The multiyear effort will guide a citizen science monitoring program through hiring a coordinator and consultant who will work together to develop a specific plan that meets monitoring requirements.

Florida Coastal Management Program: Coastal Zone Management Habitat Protection and Restoration Infrastructure Investment and Jobs Act (IIJA) Cooperative Agreement Application, $450,000
This funding will build the capacity of the state's federally-approved coastal management program within Florida Department of Environmental Protection to plan for and implement habitat restoration and conservation projects proposed through funding opportunities connected to the Bipartisan Infrastructure Law. Specifically, Florida Department of Environmental Protection will use this funding to increase staffing capacity to focus on the identification, prioritization, and implementation of habitat acquisition and conservation projects that meet the goals of the Bipartisan Infrastructure Law and further the coastal community resilience, conservation and protection goals of the state.

Critical Conservation Land Acquisition for Climate Resilience in the Northeast Florida Blueway, $6,000,000
This award will fund the acquisition of a portion of the remaining, privately-owned 10,976 acres of the 73,400-acre Northeast Florida Blueway project, which is on the Florida Forever Program's Climate Change Lands List. Most of the acquisition is within the boundaries of the Guana Tolomato Matanzas National Estuarine Research Reserve. Acquiring this acreage will protect and maintain the waters and shoreline plant communities of the Tolomato and Matanzas Rivers,

which provides critical habitat for 14 federally listed species of fish, amphibian, reptiles, birds, mammals, and plants. This acquisition will also connect existing natural areas to form a conservation corridor and watershed buffer along the Intracoastal Waterway in Northeast Florida.

Operation TRAP (Trash Reduction for Aquatic Preserves), $747,944
The University of Florida's Operation TRAP is strategically capturing debris before it enters Aquatic Preserves in the Big Bend and Nature Coast area of Florida and developing a toolkit for other municipalities to adopt similar strategies.

Controlled Altitude Ballooning (CAB) for monitoring Energetic Particle effects on the Atmosphere, $50,633
The absence of linkage between space weather events and atmospheric physics, chemistry, and dynamics, creates voids in understanding climate variability. To harness measurements directly connecting space weather phenomena with atmospheric response and dynamics across multiple atmospheric layers, better balloon platforms are required. SpaceLoon proposes to design, prototype, and test a consistent, reliable, and bi-directional Controlled Altitude Ballooning (CAB) system for monitoring climate constituents, such as energetic particles (solar and cosmic) and thermodynamic variables, across various atmospheric layers.

Time-Gated Optical Oceanographic Sensors (TGOOS), $4,060
Affordable and effective methods to extend the measurement range and improve sensitivity of traditional optical instruments will enable scientists to greatly improve harmful algal blooms (HABs) prediction. The proposed effort combines new Time-of-Flight (TOF) optical detectors with pulsed light sources, to produce new high sensitivity, low-noise optical sensing capabilities that can measure time-synchronized photons within an asynchronous ambient light field that includes scattered light (noise). Fluorescence produced by phytoplankton at a distance from the sensor will be determined by the time-of-flight and spatial distribution of the received photons from source-to-plankton-to-detector.

Developing a more resilient Southwest Atlantic Meridional overturning circulation (SAM) array, $156,418
Variations in the Atlantic Meridional Overturning Circulation (AMOC) have been shown to affect precipitation patterns, air temperatures, coastal sea levels, ecosystems, and extreme weather conditions over large segments of the globe. The Southwest Atlantic Meridional overturning circulation (SAM) project is an integral part of the NOAA/Global Ocean Monitoring and Observing (GOMO) program's contribution to the AMOC observing network.

Sustained monitoring and analysis of western boundary currents in the subtropical North Atlantic, $473,433
Western boundary currents are some of the strongest ocean currents found on the western sides of ocean basins due to western intensification. Since the early 1980s the NOAA's Western Boundary Time Series (WBTS) project and its predecessors have maintained regular observations of western boundary currents in the subtropical North Atlantic at ~27 N. Sustained measurements of these flows have provided the western boundary endpoint of a subtropical AMOC and heat transport monitoring array designed to measure the thermohaline overturning circulation at 26.5 N and the time varying meridional heat transport.

Predictability of Seasonal to Interannual Coastal Flood Risk, $739,000
Sea level rise is increasingly threatening the coastal zone under a continuously warming climate,with many coastal and island communities already feeling its impacts. While sea level rise due to anthropogenically forced thermal expansion and land-ice melt increases flood risk overall, flood risk on seasonal to annual timescales is more directly connected to natural climate variability such as ENSO, NAO and MJO.

System-wide Habitat Restoration Through an Integrated Community of Practice (CoP) for the Indian River Lagoon, $9,398,412
This project will implement a suite of fifteen projects to restore fish habitat, enhance ecosystem function, and increase resilience in the Indian River Lagoon in Florida. These efforts will help reverse recent habitat declines by restoring and enhancing seagrass, oyster, salt marsh, and shoreline habitats. Individual projects will engage the community through outreach events and volunteer opportunities.

Next-Generation Coral Restoration Implementing and scaling new approaches to increase the climate resilience of Florida Coral Reef, $16,000,000
This project will implement and scale-up strategies to increase the heat tolerance of restored corals, by focusing on corals that survived the summer 2023 heating event and conditioning early life stages of corals to prepare them for warmer temperatures. The project will use its partner network to restore tens of thousands of corals at key sites in South Florida and the Florida Keys, including Mission: Iconic Reefs locations. Partners will also provide bilingual education and community science opportunities in seven South Florida counties focused on how coral restoration contributes to creating healthy reefs that are part of Florida's cultural identity.

Cape Haze Ecosystem Restoration, $3,700,000
This project will implement a large-scale effort to create and enhance estuary and coastal habitat in Charlotte Harbor Preserve State Park on the Southwest Florida Gulf Coast. The project will benefit Florida sportfish nursery habitat by providing ecological enhancement for up to 410 acres of coastal habitat, including conversion of canals into upland, wetland, and marsh habitats; and removal of barriers to provide access to new and restored fish nursery habitat.

Manatee River Corridor Acquisition, $5,000,000
The project intent is a simple acquisition of the Crooked River Ranch property with the goal of preserving 68 acres of native coastal habitat in perpetuity. This will contribute significantly to a connected wildlife corridor along the Manatee River and provide water quality protection and improvement, coastal resiliency, and passive public recreation. One of the few large, privately-owned, undeveloped upland parcels along the Manatee River, Crooked River Ranch is surrounded by suburban residential and commercial development in the rapidly growing community of Parrish in northeast Manatee County. Without protection, the property will be sold for intense development.

Reducing debris entering our bays in partnership with local municipalities, $677,554
Florida State University is reducing marine debris entering the St. Andrew Bay Watershed by deploying catch basin interception devices in storm drains and facilitating community outreach about stormwater pollution and prevention.

Western Boundary Sea Level (IIJA), $141,890
Sea level rise significantly threatens low-lying coastal regions along the U.S. East Coast and Gulf of Mexico, where it has risen faster than average. Coastal flooding stems from storm surges and long-term dynamic sea-level changes. Sea level is linked to North Atlantic western boundary currents, which influence the Atlantic Meridional Overturning Circulation (AMOC). This proposal continues research on dynamic sea-level variability, focusing on how ocean circulation changes affect flooding frequency. We will utilize high-resolution downscaling of Coupled Model Intercomparison Project Phase 6 (CMIP6) models to estimate future sea level increases tied to AMOC decline.

Development of a surface water CO2 reference network SOCONET, $1,565,546
This project will provide support for the upgrade and addition of pCO2 systems to ships in the UNOLS fleet and other commercial vessels, and training of shipboard personnel. Lack of training has been a limiting factor in acquiring high quality data. The processed data will be made publicly available at official carbon data repositories for use in global surface water and marine air carbon assessments, policy decisions, and research.

Plastic Free Orlando: Building a Community of Ocean Champions, $295,876
This project aims to expand efforts to train youth as sustainability consultants and gain the skills to work with local businesses to voluntarily reduce their waste, and in particular single-use plastics (e.g. foam food containers, plastic bags and straws). Activities to be performed: Youth from 4 disadvantaged and underserved high schools will learn and impart to local businesses information about the impact of marine debris on the environment and human health. Businesses will gain tools, resources, and knowledge on how to save money by reducing single-use plastic purchasing through alternative materials, as well as modifying processes in daily operations that reduce debris generation.

Preventing Marine Debris through the Zero Waste Miami Coalition, $269,984
The project proposes the formalization and activation of "Zero Waste Miami," a coalition uniting diverse stakeholders such as non-profits, businesses, and government entities, to develop a local economic system where materials are maintained in circularity through reduction, reuse, repair, recycling, and composting. The project aims to catalyze circularity projects, disseminate zero-waste resources, and craft a community-driven Zero Waste Strategic Plan for Miami-Dade County.

AI-powered characterization of solids and microplastics in stormwater runoff and their mitigation via green and gray infrastructure in urban coastal areas, $2,327,898
Stormwater runoff carries debris, including microplastics and other pollutants, from urban areas to coastal waters. This project will assess the performance of urban stormwater systems and use artificial intelligence and particle imaging to develop a tool that quickly and effectively identifies microplastics in urban stormwater. The findings will also be used to create a tool that helps improve the functioning of urban stormwater systems to remove suspended solids and microplastics while providing flood control.

The impact of local-scale variability on regional patterns of total water levels, $459,592
Coastlines across the United States face increasing risks of coastal inundation due to episodic extreme events and long-term sea level rise, exacerbated by more frequent and intense storms from climate change. Coastal flooding results from various water level components, including mean sea level, tides, storm surges, sea level anomalies, and waves. Our work will guide the National Oceanic and Atmospheric Administration (NOAA) in creating baseline climatologies of total water levels, identifying variability modes at gridded model outputs, and developing integrated monthly to annual outlooks for coastal inundation probabilities along the Gulf and East coasts.

Attribution of past, present, and future sea-level changes along the United States east seaboard for Infrastructure Investment and Jobs Act, $284,302
Sea level rise is one of the most threatening aspects of the present-day climate change, especially for low-lying and flood-vulnerable coastal regions, such as the east coast of the United States, including the Gulf of Mexico. We propose to carry out the accurate attribution of the dynamic sea level variability along the U.S. east coast using a suite of available satellite (altimetry and gravimetry missions, SST) and in situ (tide and pressure gauges, Argo floats, CTD and XBT sections) observations, numerical ocean models, and ocean and atmospheric reanalyses. *This award supports work in FL, AL, MS, LA, TX*

Modernization and Recapitalization of the Gulf of Mexico Coastal Ocean Observing System (Phase I), $1,169,000
The Gulf of Mexico Coastal Ocean Observing System (GCOOS) will update observing infrastructure related to waves, currents, and water column profiles, as well as make improvements to the gathering and dissemination of observing data and information. Support for high-frequency radars, gliders, and wave and current profilers augment and expand available observations in the Gulf of Mexico, which in turn support maritime commerce and transportation, tracking and forecasting of harmful algal blooms, ocean acidification monitoring. These along with expansion of data delivery capabilities are crucial to improving hurricane tracking and forecasting, enabling and monitoring critical industry operations offshore, and the availability of water quality data. *This award supports work in FL, AL, MS, LA, TX*

Building Partnerships for a Healthy and Resilient Gulf Coast, $3,926,466
The Gulf of Mexico Alliance will provide support to conduct robust stakeholder collaboration across the region to understand the needs associated with healthy ecosystems, resilient communities, and the associated data sharing. The Gulf of Mexico Alliance will conduct thorough assessments to identify gaps as well as existing information and partner expertise needed to support improved ecosystem health, enhanced coastal community resilience. *This award supports work in FL, AL, MS, LA, TX*

Improving coastal flood modeling infrastructure by including inland hydrologic extremes through coupling using next-generation NOAA inland hydrologic model, $693,000
We propose to create an operational Southeast Coastal Operational Forecast System (SECOFS) based on the work we have done on the Surge and Tide Operational Forecast System (STOFS). In addition to extracting the outputs from STOFS and using the same NOS operational boundary conditions, SECOFS will also include enhancement of the coupling infrastructure itself to be compliant with the Unified Forecast System (UFS), and the NOAA efforts for the development of a generic coastal flood modeling skill assessment and evaluation infrastructure for operational models. *This award supports work in FL, GA, NC, SC*

Southeast Coastal Ocean Observing Regional Association (SECOORA): Implementation of the Infrastructure Investments and Jobs Act, $1,906,000
The Southeast Coastal Ocean Observing Regional Association (SECOORA) will increase capacity of the water level network by filling in data gaps during coastal inundation events, supporting local decision making. New high-frequency radar and buoy equipment supports ongoing efforts to measure waves, currents, and more variables off the coast, providing observation data and information for marine and commercial operations, recreation, and community management. This award will address gaps in the existing ocean acidification monitoring network to support coral reefs. SECOORA will also receive ROP funding to support data and product development, establish communities of practice, and support resilience planning. *This award supports work in FL, GA, SC, NC*

Building Partnerships for a Healthy and Resilient Gulf Coast - Round 2, $1,963,233
The Gulf of Mexico Alliance will provide support to conduct robust stakeholder collaboration across the region to understand the needs associated with healthy ecosystems, resilient communities, and the associated data sharing. The Gulf of Mexico Alliance will conduct thorough assessments to identify gaps as well as existing information and partner expertise needed to support improved ecosystem health, enhanced coastal community resilience, and increased data sharing, and then implement phased initiation of projects resulting from stakeholder engagement and assessments. In addition, the Gulf of Mexico Alliance will engage with tribes in the Gulf of Mexico region through workshops intended to facilitate tribal engagement in GOMA Priority Issue Teams and identifying key regional priorities. *This award supports work in MS, FL, AL, LA, TX*

IRA

Perdido Watershed Habitat and Community Resilience Initiative: Incorporating Nature Based and Hybrid Solutions Across Alabama and Florida, $12,574,655
This project will enhance climate resilience in Alabama and Florida as part of the Perdido Watershed Habitat and Community Resilience Initiative. Living shorelines and habitat restoration will be implemented at multiple locations across the coastlines of both states to protect communities from flooding and storms. This will be coupled with a large-scale planning effort to help communities prioritize, plan, and implement additional nature-based solutions to climate impacts. *This award supports work in AK and FL*

Gulf Coast - Center for Addressing Microplastics Pollution (GC - CAMP), $1,910,628
The Mississippi-Alabama Sea Grant was awarded $1,910,628 to develop techniques and tools to help mitigate and prevent the presence of microplastics in the Gulf of Mexico through leveraging resources in three states along the Gulf Coast, including 10 wastewater treatment facilities in Mississippi, Alabama, and Florida. The project aims to improve microplastic understanding, develop microplastic reduction techniques, measure microplastic concentration, and enhance collaboration around addressing microplastics in Gulf Coast communities, specifically urban communities, communities that are predominantly Black, and rural, isolated communities. *This award supports work in AL, MS, FL*

Climate impacts on foundational nearshore habitats: status and trends as indicators of sanctuary health, $385,214
The project aims to quantitatively link climate and other environmental drivers to the extent, quality, and services of foundational benthic ecosystems, including corals, seagrasses, mangroves, salt marshes, and rocky intertidal, in two National Marine Sanctuaries: the Florida Keys and Greater Farallones. These ecosystems are critical habitats that provide a wealth of benefits, including enhanced biodiversity and significant stores of carbon, and are therefore central to the mission and management of sanctuaries. The project will leverage existing survey data from these two sanctuaries. *This award supports work in CA, FL.*

Sarasota County Alligator Creek Stream Restoration, $14,592,212
This project will restore stream and floodplain habitat in Alligator Creek. Removal of stream barriers will increase access to low-salinity habitats, which are important as fish nurseries and as safe harbor during toxic red tide algal blooms. Habitat restoration will benefit endangered smalltooth sawfish and important recreational species such as red drum. Local communities will benefit from increased protection from flooding, reduced park maintenance costs, and enhanced recreational opportunities.

Pathways to transformative ecological restoration of Florida's Coral Reef, $6,986,687
This project will restore coral reefs at multiple sites in the Florida Keys National Marine Sanctuary, focusing on reefs associated with the Mission: Iconic Reefs effort - an unprecedented, decades-long approach to restore iconic coral reef sites in the sanctuary. They will outplant multiple species of coral, including threatened staghorn and elkhorn coral, as well as massive reef-building species such as brain, boulder, and star corals. They will also significantly increase the production and release of Caribbean king crabs to help combat algae.

Pensacola Bay System Oyster Restoration Initiative, $10,993,732
This project, in partnership with the Pensacola and Perdido Bays Estuary Program, will launch the Oyster Restoration Initiative, an estuary-scale oyster restoration project in the Pensacola Bay watershed. The project also includes the early stages of restoration planning for the Sandy Hollow Gully Restoration Project, which will address upstream sediment impacting downstream oyster habitat quality. A new program will provide cost assistance to encourage the use of living shorelines and other nature-based solutions by local property owners.

Henderson Creek Hydrologic Restoration Project, $3,999,163
This award will fund restoration of hydrologic sheet flow and related hydrologic regimes within the Rookery Bay National Estuarine Research Reserve in Collier County, Florida. The project will increase habitat resilience against future climate change impacts by enhancing wildlife habitat, hydrologic connectivity, wildlife corridor connectivity, water quality, and preservation of stormwater receiving areas that help prevent flooding in local communities.

Bridging Predictions and Projections: Understanding Predictability fromInitialized Multi-Year to Decadal Predictions for High-Impact Climate Futures, $196,698
The low frequency variability of North Atlantic sea surface temperature (SST) can affect summer US precipitation, winds, and heat through its impact on the North Atlantic SubtropicalHigh (NASH). We will test the hypothesis that the NASH is a source of predictability for high-impact multi-year to decadal climate futures in hydrology/water resources, extreme temperatures, and coastal inundation, and that initialized multi-year to decadal predictions can better predict these high-impact climate futures than uninitialized projections. If our hypothesis is true, then the implication is that we need an initialized multi-year to decadal prediction system to make skillful and useful predictions of high-impact climate futures on these timescales.

Developing next generation surveys to improve and automate detection of red snapper across diverse water column conditions using acoustic technologies in support of the Inflation Reduction Act, $1,096,496
This project will adapt existing camera platforms, used to survey red snapper and other fishes in the Gulf of Mexico and South Atlantic, to include both autonomous echosounders and imaging sonars. This project will integrate a combination of technological approaches leveraging advancements in optics and acoustics within a moored video platform focused on estimating the abundance and size of red snapper in the Gulf of Mexico and South Atlantic. The Marine Ecology and Acoustics Laboratory at Florida International University will partner with the NOAA Southeast Fisheries Science Center to develop the mooring system.

Modernization and transformation of advanced technology and data acquisition capabilities in support of NMFS Essential Data Acquisition, $2,205,054
The goals of this project are multifaceted and include: 1) Territorial/Tribal Data Acquisition seeks to reduce gaps in data critical to inform stock assessment and resource management in the US Caribbean; 2) Passive Acoustics SI seeks to advance passive acoustic monitoring technologies to inform marine species and climate trends; 3) Active Acoustics SI seeks to revolutionize echo classification to classify backscatter from echosounder datasets; 4) The Remote Sensing Strategic Initiative is dedicated to enhancing the effectiveness and utility of the extensive remote sensing, modeling, and direct observational data; 5) The Optics Strategic Initiative will make significant investments to transform NMFS's approach to optical data collection and processing.

The Upwell Co-accelerator seeks to break down systemic & geographic barriers keeping startups from getting to market, making support for ocean-based climate resilience startups accessible & inclusive, $249,848
Seaworthy Collective's intergenerational partnership collectively seeks to break down systemic and geographic barriers keeping startups from getting to market, while making support for ocean-based climate resilience solutions more scalable, efficient, and interconnected. Altogether, we're driving entrepreneurial "upwelling"; inclusive bottom-up participation and acceleration for identifying and pursuing viable business opportunities in ocean-based climate resilience. Our program will target all of the climate resilience challenge areas including ocean renewable energy, coastal and ocean carbon sequestration monitoring and accounting, hazard mitigation and coastal resilience, ecosystem services, plus upstream and downstream pollution, with a bottom-up pilot starting in South Florida.

Catching the Blue Wave: Accelerating America's Ocean Economy, $250,000
This award will support the development of a self-perpetuating climate resilience business accelerator that will develop commercialization pathways and sustainable business models for startups to deliver solutions to address some of the most vexing challenges in Hazard Mitigation and Coastal Resilience and Ecosystem Services centered on society's interactions with the oceans and coasts. Integrating a dynamic Tampa Bay coastal location with proven entrepreneurial support services will provide a competitive advantage for at least 50 innovators. In doing so, our BlueTech Accelerator will create economic opportunities and career pathways for communities that heretofore have not shared in the benefits

derived from the blue economy and include a more diverse and inclusive set of entrepreneurs than currently exists in this space.

Florida Coastal Management Program: Coastal Zone Management Inflation Reduction Act Non-Competitive Award Cooperative Agreement Application, $875,000
This funding will build the ability of the Florida's Department of Environmental Protection (FLDEP) within the Florida Coastal Management Program (FCMP) to implement projects, initiatives, and programs that increase the climate resilience of coastal communities within coastal counties. Specifically, The FCMP intends to utilize this funding to increase staffing capacity to focus on the identification, prioritization, and implementation of habitat acquisition and conservation projects that further the coastal community resilience, conservation and protection goals of the state. The first project focuses on dune restoration, hydrologic connection and reforestation project in Gulf County, Florida. Furthermore, FCMP administers two competitive subgrant programs through the Coastal Partnership Initiative (CPI) and the Partner Agency Grant (PAG) program focused on activities that protect, promote, and preserve the state's coastal resources, and both are evaluated and scored/ranked by interagency committees. In addition, the FCMP is developing a pilot grant program for underserved communities.

Apalachicola NERR Restoration Coordinator, $400,000
This funding will build the ability of the Apalachicola National Estuarine Research Reserve within the Florida Department of Environmental Protection to implement projects, initiatives, and programs that increase the climate resilience of coastal communities within coastal counties. Specifically, Apalachicola NERR will use these funds to support a Restoration Coordinator position. This position will closely coordinate and strengthen partnerships with local and regional stakeholders to support the Apalachicola Bay System Initiative (ABSI) Community Advisory Board; the Florida's Estuarine Restoration Teams; workforce coordination; the Resilient Florida Program to develop a statewide restoration plan; and the Apalachicola River Watershed Coordinator to identify data gaps/needs for restoration within the watershed/bay.

Increasing capacity for climate resilience: vulnerability planning and expanded monitoring in Rookery Bay NERR, $400,000
This funding will build the ability of the Rookery Bay National Estuarine Research Reserve within the Florida Department of Environmental Protection to implement projects, initiatives, and programs that increase the climate resilience of coastal communities within coastal counties. Specifically, Rookery Bay NERR will use these funds to support current monitoring, and a comprehensive vulnerability assessment that will result in critical information on infrastructure and habitats most vulnerable to the effects of sea level rise resulting in increased habitat and local community resilience.

Projects to increase the climate resilience of coastal communities within the GTM NERRs watershed, $400,000
This funding will build the ability of the Guana Tolomato Matanzas National Estuarine Research Reserve (GTM NERR) within the FL Department of Environmental Protection to implement projects, initiatives, and programs that increase the climate resilience of coastal communities within coastal counties. Specifically, GTM NERR will use these funds to fill the following three knowledge gaps in planning and implementing coastal conservation and resilience projects in the GTM watershed: provide better localized water level data to inform resilience projects; assess coastal wetland vulnerability and the potential for marshes to migrate using models like Sea Level Rise Affecting Marshes Model (SLAMM) and incorporate edge factors (slope, soil attributes, upland vegetation structure, etc.) along undeveloped lands that may impact migration potential; and assess Guana watershed health including water quality monitoring data and increases in nutrients and algae after flood events.

Tampa Bay Tire Cleanup, $2,250,000
This project will remove tires from the Gulf of Mexico that were intentionally placed in the 1960s-1980s as artificial reefs. Pinellas County will remove more than an estimated 20,000 tires from sites located within designated essential fish habitat

areas. The project has a goal to divert 100% of the removed tires from landfills through the Pinellas County Solid Waste Department's waste-to-energy facility. Outreach to the local community to share project outcomes and to promote the prevention of marine debris will complement the tire-removal effort.

A Species-level Automated Monitoring Tool for Coral Reef Ecosystem Management, $174,892
This project will develop fluorescence-enhanced, AUV-mounted, high-resolution 3D laser imaging systems for coral reef management. This system will automate the discrimination of bottom cover types (e.g., live coral, dead coral, algae) and enable detection and counting of coral recruits, along with direct measurement of 3D reef structures. By integrating fluorescence imaging with 3D LiDAR and machine learning, we will create a precise tool for monitoring reef health. BeamSea estimates $5 million in sales from this sensor over the first 10 years, with applications in pollution and fisheries habitat surveys.

Bipartisan Infrastructure Law (BIL) IRA_Climate and Ecosystem Fishery Initiative (CEFI), $325,514
High-resolution ocean biogeochemical (BGC) models play a crucial role in bridging existing observational gaps. To explore future changes, we will carry out downscaled high-resolution regional ocean model simulations using the Modular Ocean Model6 (MOM6-COBALT-NWA12 v1.0). The main goals are (1) to downscale future projections of Coupled Model Intercomparison Project Phase 6 (CMIP6) using the high-resolution MOM6-COBALT-NWA12 model; and (2) to explore future changes in BGC patterns, ocean circulations and thermohaline structure over the Northwestern Atlantic Ocean. The proposed work will contribute to NOAA's Climate, Ecosystems, and Fisheries Initiative (CEFI).

Bipartisan Infrastructure Law (BIL) Marine CO2 Surface Water (MCDR), $29,944
Foraminifera are ubiquitous, single-celled protists whose $CaCO_3$ shells make up 25-56% of surface ocean $CaCO_3$ production . OAE seeks to chemically increase the CO_2 absorption capacity of the ocean by increasing its buffering capacity, but its impact on foraminifera remains unknown. We propose to conduct a series of laboratory experiments assessing the impact of Ocean Alkalinity Enhancement (OAE) on the calcification and physiology of foraminifera, a critical group of marine calcifiers. Constraining the response of calcifying plankton to OAE is crucial for understanding open-ocean ecosystem impacts as well as the efficacy of OAE.

Developing Decadal Climate Projection Services Through Stakeholder Guidance and Foundational Science, $2,800,000
This project focuses on mid-to-long-range climate outlooks for phenomena such as coastal inundation, extreme heat, flooding, drought and wildfires. Researchers will work closely with decision-makers, including representatives from groups focused on western water resources, heat waves, coastal flood risk, wildfire risk and extreme wind events, to develop customized climate information. This effort aims to provide decision-ready information for water resource planning as well as preparing, constructing and planning resilient infrastructure.

Developing Decadal Climate Projection Services Through Stakeholder Guidance and Foundational Science, $400,000
This project focuses on mid-to-long-range climate outlooks for phenomena such as coastal inundation, extreme heat, flooding, drought and wildfires. Researchers will work closely with decision-makers, including representatives from groups focused on western water resources, heat waves, coastal flood risk, wildfire risk and extreme wind events, to develop customized climate information. This effort aims to provide decision-ready information for water resource planning as well as preparing, constructing and planning resilient infrastructure.

Capacity Expansion to Support Habitat Restoration and Resilience in the Gullah Geechee Corridor, $536,223
This project will create new staff positions to expand their work creating a plan for restoration and resilience across the Corridor in North Carolina, South Carolina, Georgia, and Florida. The new positions will help build relationships between

restoration organizations and Gullah Geechee communities, identify the resilience priorities of community members, and form local advisory committees to support future restoration efforts. *This award supports work in FL, GA, NC, SC*

Inflation Reduction Act (IRA)- Supporting Decision Making for designating new National Marine Sanctuaries: an Integrated Ecosystem Assessment Approach, $492,615
This project would support the designation of new national marine sanctuaries by conducting integrated ecosystem assessments to establish a connection with baseline marine resource conditions and the goals and objectives of resource management. This will include: indicator development, vetting and selection, creating results chains to define and connect resource management goals and objectives, and conducting and connecting management strategy evaluation to assess changes in condition and track success of these resource management efforts. *This award supports work in FL, MA, CA, NY*

Multi-Site Coral Reef Restoration to Build Resilient Communities in Florida, Puerto Rico, and the U.S. Virgin Islands, $6,926,134
This project will help rebuild populations of five Endangered Species Act-listed corals across Florida, Puerto Rico, and the U.S. Virgin Islands. The project will span multiple sites associated with ongoing NOAA efforts in these areas. It will also use technologies and best practices from the Florida Keysâ€”where practitioners are at the forefront of coral restorationâ€”to help increase the capacity for coral restoration in Puerto Rico and USVI, developing and scaling up coral nursery infrastructure. *This award supports work in FL, PR, VI.*

The development and implementation of conservation and management measures for our nations marine fisheries, $1,232,940
The Gulf of Mexico Fishery Management Council (GMFMC) will use funding to enhance staffing to assist with climate-ready fisheries programming. Increased staffing will coordinate and ultimately execute project deliverables, and assist with federal reporting requirements, fisheries data acquisition and analyses, and research to support the Council. Funding will meet NOAA's objectives to operationalize fishery climate vulnerability assessments and other scientific products, including ecosystem status reports. Initial year funding will support a full-time Ecosystem Analyst to coordinate and execute the project deliverables. *This award supports work in LA, MS, AL, TX, FL.*

Infrastructure Improvements to Support Integration of State Recreational Survey Data at Gulf States Marine Fisheries Commission, $1,484,263
To coordinate, plan, and administer new projects that are aimed at improving the quality and timeliness of recreational fishery dependent databases that are provided by state partners to help assist in managing red snapper populations. This work will be focusing on improving data management systems within Gulf States Marine Fisheries Commission along with state partners' individual data management systems to provide increased quality control and improve the efficiency for moving state data to the GSMFC warehouse. GSMFC along with its state partners have already identified this as its highest current development priority. This funding opportunity will allow for a faster timeline for accomplishing the work associated with this objective. This agreement will also create opportunities for discussions and pilot projects aimed at improving recreational discard estimates along with visioning for a pilot study to validate recreational fishing effort estimates. *This award supports work in MS, AL, FL, LA, TX.*

South Atlantic Fishery Management Council IRA Funds, $990,077
The South Atlantic Fishery Management Council (SAFMC) will use funding to help oversee the day-to-day management of climate-related projects, in response to the East Coast Climate Scenario Planning (ECCSP) effort to "conduct evaluations and/or develop tools to describe and visualize past, current, and projected spatial distribution of managed resources to inform management", and collectively address climate change in fisheries. The SAFMC also proposes a

series of projects to improve climate resiliency and management responsiveness, evaluate the need for governance changes, and increase the resilience of underserved communities. *This award supports work in NC, SC, GA, FL.*

Southeast Coastal Ocean Observing Regional Association (SECOORA): Inflation Reduction Act, 2022, $5,000,000
Through this project, SECOORA aims to ensure equitable service delivery, including the recapitalization of high-frequency radar, gliders and buoy assets; a program to deploy low-cost wave buoys near frontline communities; continued development of the Sargassum Watch product; and stakeholder engagement and workforce development in underserved communities through workshops, enhanced communications and internship opportunities. *This award supports work in NC, SC, GA, FL.*

mCDR 2023: Determining the Influence of Ocean Alkalinity Enhancement on Foraminifera Calcification, Distribution, and CaCO3 Production, $480,415
Ocean alkalinity enhancement aims to increase the ocean's ability to absorb carbon dioxide by enhancing its buffering capacity. However, the impact of the addition of alkalinity on foraminifera, single-celled organisms that produce calcium carbonate shells and play a crucial role in the ocean's carbon cycle, is not well understood. To examine the effects of different materials used in ocean alkalinity enhancement on foraminifera, the researchers will grow foraminifera in culture experiments and use advanced imaging techniques to examine the impact on calcification (shell building).
This award supports work in NY, OR, FL, Bermuda.

Supporting Coastal Resilience with Inflation Reduction Act at GCOOS - RA, $4,885,000
GCOOS will use this funding to support projects to deploy assets that complement and fill observation gaps in existing networks, build new asset networks and enhance regional technical capacity to provide equitable data service delivery to communities to build coastal resilience. These include new observation projects and tools co-developed with frontline and Indigenous communities to measure and equip them with knowledge about surface currents, flooding, harmful algal blooms, rip currents to validate offshore data, and to develop multilingual program materials. *This award supports work in TX, LA, MS, AL, FL.*

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