



NOAA In Your State

Hawaii

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 Hawaii

| | | |
|---|------------------------|--------|
| Humpback Whale National Marine Sanctuary | Kihei, Honolulu, Lihue | HI-1,2 |
| Papahānaumokuākea Marine National Monument | Honolulu and Hilo | HI-1,2 |
| NOAA Ship <i>Oscar Elton Sette</i> | Honolulu | HI-1 |
| Joint Institute for Marine and Atmospheric Research | Honolulu | HI-1 |
| He'eia National Estuarine Research Reserve | Kane'ohe Bay | HI-2 |
| Mauna Loa Observatory | Mauna Loa | HI-2 |
| Pacific Islands Ocean Observing System | Statewide | HI |

The state of Hawaii also has one Cooperative Institute, Weather Forecasting Office, one Regional Office, 3 Science on a Sphere® exhibitions, one National Estuarine Research Reserve, and one Habitat Focus Area.

[Weather Forecast Offices](#)

Honolulu HI-1

[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 Hawaii. There are 122 [WFOs nationwide](#) of which one is in Hawaii. 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 Hawaii weather, visit [www.weather.gov](#) and, on the national map, click on the relevant county or district.

[Science On a Sphere®](#)

Honolulu HI-1

Hilo HI-2

Oahu HI-2

[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 Inouye Regional Center, Bishop Museum, and Imiloa Astronomy Center of Hawaii.

HI-1

Honolulu

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.

- 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 Hawaii is based in Honolulu.
- The [NOAA Marine Debris Program \(MDP\)](#) in the Office of Response and Restoration (OR&R) supports national and international efforts to reduce the impacts of marine debris. The **MDP Pacific Islands Outreach Coordinator**, based in Honolulu, works with communities and partners across the Pacific to provide marine debris educational resources and communications support.

National Weather Service (NWS) - [International Tsunami Information Center](#)

The International Tsunami Information Center (ITIC) office is co-located with the National Weather Service (NWS) Pacific Region Headquarters in NOAA's Daniel K. Inouye Regional Center on Ford Island in Pearl Harbor. ITIC was established in 1965 by the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization, which provides partial funding. The NWS funds salaries and provides in-kind support, including office space and administrative assistance. ITIC maintains and develops relationships with scientific research and academic organizations, civil defense/emergency management agencies and the general public in order to carry out its mission to mitigate the hazards associated with tsunamis by improving tsunami preparedness for all Pacific Ocean nations. To accomplish this mission, ITIC monitors international tsunami warning activities in the Pacific; assists member states in establishing national warning systems; makes information available on current technologies and equipment for tsunami warning systems; disseminates information including educational materials and research reports; and publishes a newsletter for all parties interested in the activities of ITIC and other organizations involved in tsunami warning or tsunami hazard reduction. ITIC works closely with the NWS Richard H. Hagemeyer Pacific Tsunami Warning Center and Hawaii State and County Civil Defense in an advisory capacity and to conduct public education programs.

National Weather Service (NWS) - [Pacific Region Headquarters](#)

Located in NOAA's Daniel K. Inouye Regional Center on Ford Island in Pearl Harbor, the NWS Pacific Region Headquarters is the administrative and support center for NWS field operations in Hawaii and the territories of American Samoa, Guam and Commonwealth of the Northern Mariana Islands. These areas include offices in Honolulu, Hilo, Kahului, and Lihue in Hawaii; Guam; Pago Pago in American Samoa; Koror in the Republic of Palau; Majuro in the Republic of the Marshall Islands; and Pohnpei, Yap and Chuuk in the Federated States of Micronesia. The NWS Pacific Region operates its five Micronesian offices in cooperation with the Republic of the Palau, Republic of the Marshall Islands and the Federated States of Micronesia in accordance with the provisions of the Compact of Free Association between the United States and each Micronesian government. The five Micronesian Weather Service Offices provide the United States with critical Upper-Air Data and Aviation Weather Observations. These offices also provide adaptive weather forecasts and warnings to their local constituents. The Pacific Region Headquarters also oversees the NWS Central Pacific Hurricane Center and the NWS Richard H. Hagemeyer Pacific Tsunami Warning Center, and it also hosts the International Tsunami Information Center. The headquarters is also the home office of the Pacific Region Director, who oversees the management and administration of the NWS entities listed above, as well as other region-level officials and program managers.

National Weather Service (NWS) - [Richard H. Hagemeyer Pacific Tsunami Warning Center](#)

The NWS Richard H. Hagemeyer Pacific Tsunami Warning Center (PTWC), located in Ewa Beach, serves as the operational center of the Tsunami Warning System in the Pacific, an international program requiring the participation of many seismic, tide, communication and dissemination facilities operated by most of the nations bordering the Pacific Ocean. The operational objective of PTWC is to detect and locate major earthquakes in the Pacific Basin to determine whether tsunamis have been generated and to provide timely and effective tsunami information and warnings to the population of the Pacific. PTWC also acts as the Hawaii Regional Tsunami Warning Center for tsunamis generated within the Hawaiian Islands. The center works closely with Hawaii State and County Civil Defense to issue timely warnings and conduct public education programs.

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

Office of Oceanic and Atmospheric Research (OAR) – [Pacific Regional Integrated Sciences and Assessment](#)

The Pacific Regional Integrated Sciences and Assessments (Pacific RISA) is a cooperative agreement between NOAA's Climate Program Office (CPO) and Arizona State University. It is one of several Climate Adaptation Partnerships (CAP/RISA), formerly Regional Integrated Sciences and Assessments, teams contributing to the advancement of equitable climate adaptation through sustained regional research and community engagement. The Pacific RISA serves Hawaii and the US-Affiliated Pacific Islands, a region with over 2,000 islands and home to some of the populations most vulnerable to climate-related hazards due to their location, small size, and isolation. The team seeks to support and develop sustainable, equitable, and just climate solutions that increase Pacific Island resilience to compound disasters and extreme events. The Pacific RISA incorporates the needs of resource managers, policy makers, and communities throughout the Pacific to provide stakeholders with regionally relevant and sector specific climate knowledge at the seasonal, inter-annual, and decadal to end-of-century timescale to inform real-world adaptations. Underpinning all projects are commitments to environmental and climate justice, transparency, and the inclusion of communities that are vulnerable as a result of social and physical conditions. Core partners of Pacific RISA include Arizona State University's Global Institute of Sustainability and Innovation, the East-West Center, the University of Hawai'i at Manoa, NOAA/NCEI's Center for Weather and Climate, and the NOAA Joint Institute for Marine and Atmospheric Research. Contact information and more details about this team can be found [here](#).

Office of Oceanic and Atmospheric Research (OAR) - [Cooperative Institute for Marine and Atmospheric Studies](#)

The Cooperative Institute for Marine and Atmospheric Research (CIMAR) was awarded to the University of Hawai'i at Mānoa (UHM). The principal NOAA lab with which CIMAR collaborates is the Pacific Islands Fisheries Science Center (PIFSC) on Oahu Island, Hawai'i. CIMAR is a part of the School of Ocean and Earth Science and Technology (SOEST) within the University of Hawai'i. CIMAR conducts research across eight themes: (1) Ecological Forecasting; (2) Ecosystem Monitoring; (3) Ecosystem-based Management; (4) Protection and Restoration of Resources; (5) Oceanographic Monitoring and Forecasting; (6) Climate Science and Impacts; (7) Air-Sea Interactions; (8) Tsunamis and Other Long-period Ocean Waves.

National Marine Fisheries Service (NMFS)- [Cooperative Institute for Marine and Atmospheric Research](#)

The Cooperative Institute for Marine and Atmospheric Research (CIMAR) was established at the University of Hawaii at Manoa. CIMAR serves as a mechanism to promote collaborative research between university scientists and those in NOAA. The primary NOAA research partner for CIMAR is the Pacific Islands Fisheries Science Center. CIMAR conducts research across eight themes: (1) ecosystem forecasting; (2) ecosystem monitoring; (3) ecosystem-based management; (4) protection and restoration of resources; (5) oceanographic monitoring and forecasting; (6) climate science and impacts; (7) air-sea interactions; and (8) tsunamis and other long-period waves.

Office of Oceanic and Atmospheric Research (OAR) - [Exploration Command Center](#)

The Exploration Command Center in Hawaii is located at the NOAA Daniel K. Inouye Regional Center on Ford Island.

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.

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

Office of the Chief Administrative Officer (CAO) - [Ford Island Office](#)

The Office of the Chief Administrative Officer (CAO) provides comprehensive facility project management support services for NOAA's Daniel K. Inouye Regional Center project, at Ford Island in Pearl Harbor. In addition to providing overall facility project management support for the project, once the Center is constructed, CAO will provide overall campus management services for this regional facility.

NOAA Office of Education — [Coastal Ecosystem Learning Centers \(CELC\) network](#)

In Hawaii, NOAA's Office of Education provides support to the Waikiki Aquarium in Honolulu 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.

Office of Marine and Aviation Operations (OMAO) - [Marine Operations Center Pacific Islands](#) and Homeport of the NOAA Ship [Oscar Elton Sette](#)

Honolulu is the home to the Marine Operations Center Pacific Islands (MOC-PI), which provides regional management of NOAA Fleet vessels operating throughout the Pacific Islands and Western Pacific. It also serves as the homeport for the NOAA Ship *Oscar Elton Sette*. The NOAA Ship *Oscar Elton Sette* operates throughout the central and western Pacific and conducts fisheries assessment surveys, physical and chemical oceanography, marine mammal projects, marine debris removal, and coral reef research. All vessels support NOAA's mission to protect, restore, and manage the use of coastal and ocean resources through an ecosystem approach to management. Vessels are operated under the direction of officers from the NOAA Commissioned Officer Corps in concert with NOAA Professional Mariners. The NOAA Corps today provides a cadre of professionals trained in engineering, earth sciences, oceanography, meteorology, fisheries science, and other related disciplines. Officers operate ships, fly aircrafts, conduct diving operations, and serve in other NOAA staff positions. NOAA Professional Mariners perform the deck, engineering, steward, and survey tech functions aboard NOAA vessels, providing critical support to NOAA missions. The vessel is operated under the direction of officers from the NOAA Commissioned Officer 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.

NOAA Commissioned Officer Corps (NOAA Corps) - [Line Office Support Officers](#)

The NOAA Commissioned Officer Corps stations multiple officers in Honolulu, HI in support of various line office missions. These officers perform a wide array of duties, including serving on the Pacific Islands Regional Administrator's staff;

liaising with senior staff members throughout PIRO, NMFS, other NOAA line offices, other uniformed services, and State and other Federal agencies; serving as the manager and curriculum developer of the Biological Survey Technician journeyman program; supporting dive operations both directly and indirectly; participating in projects aboard NOAA vessels as a researcher or Operations Lead; serving as the Chair of the Working Group on Operational Climate Observations; leading communications, education, and outreach for programs; ensuring climate information deliverables are disseminated appropriately; and serving as vessel operations coordinator for the four vessels in the Papahānaumokuākea Monument small boat fleet.

National Environmental Satellite, Data, and Information Service (NESDIS) - [The Center for Satellite Applications and Research](#) - [CoastWatch/OceanWatch Central Pacific](#), [collocated with NOAA Fisheries Pacific Region](#), Honolulu, Hawaii

The CoastWatch mission is to provide and ensure timely access to near real-time satellite data to protect, restore, and manage U.S. coastal ocean resources, and understand climate variability and change to further enhance society's quality of life. Our primary users include federal, state, and local marine scientists, coastal resource managers, and the public. There are two components to CoastWatch: Central Operations and Regional Nodes. Central Operations, managed by NOAA's National Environmental Satellite, Data, and Information Service (NESDIS), coordinates the processing, delivery, quality control and storage of data products.

Central Pacific is hosted by the National Marine Fisheries Service and includes Hawaii and U.S.-affiliated Pacific Islands Territories of Guam, American Samoa, the Commonwealth of the Northern Mariana **Islands**, the Republic of Palau, the Federated States of Micronesia, and the Republic of the Marshall Islands (RMI). The Central Pacific node is based at the [NOAA Pacific Islands Fisheries Science Center \(PIFSC\)](#) in Honolulu, Hawaii. Our office acquires and processes satellite information and creates a variety of satellite data products for the Pacific Islands region. In this manner we seek to serve as an updated source of daily regional and global satellite oceanographic observations. Anyone may access data free of charge. Our satellite-based activities include:

- Observation
- Monitoring
- Analysis
- Data Distribution
- Capacity Building and User Training

[Midway Island](#)

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 (CO₂) and methane (CH₄), the two gases most responsible for human-caused climate change, as well as other greenhouse gases and volatile organic compounds. Samples are collected in specially designed flasks each week and delivered to GML 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. These measurements help determine the magnitude of carbon sources and sinks.

[HI-1, 2](#)

[Kihei, Honolulu, and Lihue](#)

National Ocean Service (NOS) - [Hawaiian Islands Humpback Whale National Marine Sanctuary](#)

The warm, shallow waters surrounding the main Hawaiian Islands provide some of the most important humpback whale habitat in the world and are the only place in the U.S. where these iconic creatures reproduce. Hawaiian Islands Humpback Whale National Marine Sanctuary encompasses 1,370 square miles of nearshore waters around the islands of

Maui, Moloka'i, and Lāna'i; off the north shore of Kaua'i; the north and south shores of O'ahu; and the north Kona and South Kohala coasts of Hawai'i Island. The sanctuary has visitor and community centers in Kīhei, Maui and Līhu'e, Kaua'i. Scientists estimate that two-thirds of the entire North Pacific humpback whale population migrates to Hawaiian waters to breed, calve and nurse their young. The sanctuary is co-managed with the State of Hawaii to protect humpback whales and their habitat, conduct research to inform management, and educate the public about humpback whales and their importance to Hawai'i's culture and marine environment. An advisory council, representing local communities, business, cultural practitioners, and other government agencies provides guidance to sanctuary management.

NOAA Commissioned Officer Corps (NOAA Corps) - [Maui Facility and Vessel Coordinator, HIHWNMS](#)

The NOAA Commissioned Officer Corps stations an officer at the Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS) in support of facility and vessel operations management. This officer performs various administrative and operational duties, including operating the Sanctuary vessels; scheduling, coordinating, and managing the small boat operations, maintenance, and training programs; and coordinating with local, state, federal, or other agencies for permits, permissions, or joint exercises. In addition, they serve as OIC of the small boat KOHOLA for upwards of 100 days out of the year, and participate as a core member of the Large Whale Entanglement Response Team. The officer fulfills the role of safety officer, as well as facility operations coordinator and liaison to the USCG, NOAA Office of Law Enforcement, Department of Land and Natural Resources, Koho'olawe Island Reserve Commission and other agencies with small boat operations.

[Honolulu and Hilo](#)

National Ocean Service (NOS) - [Pacific Islands Regional Office of National Marine Sanctuaries](#)

Located in Honolulu on O'ahu, and in Hilo on Hawai'i Island, the Pacific Islands Regional office administers the two sanctuaries, Hawaiian Islands Humpback Whale National Marine Sanctuary and the National Marine Sanctuary of American Samoa, and two monuments: Rose Atoll Marine National Monument and Papahānaumokuākea Marine National Monument. In addition, the Pacific Islands Region partners or works with many local and regional organizations including the Whole Foods Maui, Waikīkī Aquarium, University of Hawai'i Institute of Marine Biology, University of Hawai'i Maui College, Kaua'i Community College, the American Samoa Government and the Commonwealth of the Northern Mariana Islands.

[HI-2](#)

[Hilo](#)

National Ocean Service (NOS) - [NOAA's Papahānaumokuākea Marine National Monument Mokuāpāpapa Discovery Center](#)

NOAA's Mokuāpāpapa Discovery Center in Hilo, Hawai'i Island was established in 2003 to interpret the natural science, culture and history of the Northwestern Hawaiian Islands and surrounding marine environment. An important educational hub in the Hilo community for more than a decade, the Mokuāpāpapa Discovery Center hosts more than 75,000 visitors annually and also provides free monthly lectures and learning activities to schools and other community groups. The 30,000 square-foot facility features new exhibits, artwork and activities including: a 3,500 gallon saltwater tank showcasing rare Hawaiian coral reef fish from Papahānaumokuākea Marine National Monument; wall-size map of the Hawaiian Archipelago with interactive iPad kiosks; Liquid Galaxy immersive theater for virtual explorations of the Monument; Keiki area for children's activities and explorations, life-size Hawaiian monk seal exhibit featuring Crittercam footage; a Marine Debris exhibit; a double-hulled canoe interactive voyaging exhibit; artwork and photographs by celebrated artists and award-winning photographers; guided tours, activities and programs for school and community groups; and facility rental and meeting spaces for special events. Since most people will never have the opportunity to visit these remote islands and atolls, Mokuāpāpapa serves to "bring the place to the people" and spur greater public awareness of [Papahānaumokuākea](#) and ocean conservation issues.

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.

National Weather Service (NWS) - [Hilo Data Collection Office](#)

The Hilo Data Collection Office has responsibility for the Island of Hawaii. The office provides surface and upper air observations; critical input on forecasts, watches and warnings to the Honolulu NWS forecast office for the Big Island; assistance in collecting significant weather observations for the Big Island; and outreach and education programs.

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

Office of Oceanic and Atmospheric Research (OAR) - [Ozone Measurements; Water Vapor Measurements](#)

NOAA's Global Monitoring Laboratory (GML) conducts long-term monitoring of stratospheric ozone with balloon sondes. Balloon sonde ozone profiles enhance our understanding of surface pollution/air quality events, lower and upper atmosphere mixing dynamics, boundary layer stability, ozone trends, and the health and recovery of the ozone layer. Once per month, balloon payloads flown from Hilo, HI also carry a stratospheric water vapor instrument that use chilled mirror hygrometers to obtain water vapor profiles in the upper troposphere and lower stratosphere (to ~28 km). The Hilo flights began in 2007 and support the 40+-year record of measurements at Boulder showing changes in stratospheric water vapor. These ongoing observations are essential for improving our understanding of stratospheric ozone and climate processes.

National Ocean Service (NOS) - [NOAA Marine Debris Program \(MDP\)](#)

The NOAA Marine Debris Program (MDP) in the Office of Response and Restoration (OR&R) supports national and international efforts to reduce the impacts of marine debris. The MDP Pacific Islands Regional Coordinator, based in Hilo, 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.

[Kāne'ohe Bay](#)

National Ocean Service (NOS) – [He'eia 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 1,385 acres of land and water constituting the He'eia National Estuarine Research Reserve is located in Kāne'ohe Bay on the windward side of the Oahu, Hawai'i. Designated in 2017, the reserve is managed by the University of Hawai'i's Hawai'i Institute of Marine Biology in collaboration with a wide array of state and local partners. This reserve includes unique and diverse upland, estuarine, and marine habitats within the He'eia estuary and a portion of Kāne'ohe Bay, protecting features such as the He'eia stream, coral reefs, sand flats, and important cultural components. The cultural sites include traditional agricultural and heritage lands and the He'eia Fishpond.

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's project at the He'eia National Estuarine Research Reserve will be ka lepo ke kumu wai, e hua'i ana ka lepo kai: assessing disease risk from feral Felis cactus and Sus Scrofa within the He'eia watershed

Līhu'e

National Weather Service (NWS) - [Lihue Data Collection Office](#)

The Lihue Data Collection Office has responsibility for the Island of Kauai. The office provides surface and upper air observations; critical input on forecasts, watches and warnings to the Weather Forecast Office Honolulu for Kauai; assistance in collecting significant weather observations for Kauai; and outreach and education programs is used to explain complex environmental processes in a way that is simultaneously intuitive and captivating.

National Ocean Service (NOS) - [Kaua'i Ocean Discovery, National Marine Sanctuaries](#)

Through a partnership with the National Marine Sanctuary Foundation and Kukui Grove Center, ONMS opened a small, year-round discovery center on the island of Kaua'i in January, 2020. Kaua'i Ocean Discovery features interactive displays, maps, illustrated panels, and a special children's learning area designed to share the traditions and knowledge of our ocean connections and inspire lifelong learning and stewardship. The facility features attractions for all ages and presents information about the resources and programs of Hawaiian Islands Humpback Whale National Marine Sanctuary and Papahānaumokuākea Marine National Monument, as well as Kaua'i's unique marine environment. Visitors learn about humpback whales, Hawaiian monk seals, sea turtles, albatross, and more while touring the extensive Hawaiian archipelago and visiting an underwater world through videos, interactive displays, and hands-on activities. Guests will also learn about the Kumulipo, or Hawaiian creation chant, that details the ancient history of our island culture.

Maui

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 Hawaii, ELP funded a project by the University of Hawai'i Maui College. 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 [University of Hawai'i Maui College 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.

Mauna Loa

Office of Oceanic and Atmospheric - [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.

Office of Oceanic and Atmospheric Research (OAR) - [Atmospheric Mercury Monitoring Network](#)

NOAA's Air Resources Laboratory maintains a specialized ambient air mercury measurement site at the Mauna Loa Observatory, Mauna Loa, HI, in collaboration with NOAA's Earth System Research Laboratory and the U.S. EPA. The site is operated as part of the National Atmospheric Deposition Program's Atmospheric Mercury Monitoring Network (AMNet). The state-of-the-art monitoring provides semi-continuous measurements of reactive gaseous mercury, elemental mercury, and particulate mercury in air. Additional data are collected for ambient air concentrations of trace gases (e.g., sulfur dioxide, nitrogen oxides, carbon monoxide, ozone), as well as meteorological parameters such as temperature, humidity, precipitation, wind speed and direction. NOAA took over this site in January 2011 in order to provide high quality data to air quality and mercury transport models.

Office of Oceanic and Atmospheric Research (OAR) - [Mauna Loa Atmospheric Baseline Observatory](#)

The Mauna Loa Atmospheric Baseline Observatory (ABO) is one of four baseline observatories operated by the NOAA Office of Oceanic and Atmospheric Research, Global Monitoring Laboratory, located in Boulder, CO. The observatories are part of a global network of observatories that acquire long-term records of atmospheric gases, aerosol particles, and surface radiation to study the causes and consequences of change. Air samples are collected weekly in specially designed flasks that are then delivered to GML in Boulder for analysis. This program allows us to track trends in the trace greenhouse gases associated with climate change and those most responsible for anthropogenic depletion of the ozone layer (halocarbons). Measured aerosol optical properties (how the particles absorb and scatter solar radiation), aerosol number concentration and the chemical composition of the aerosol particles inform our understanding of the Earth's radiative balance on regional scales. Surface monitors track ozone and sulfur dioxide concentrations, the latter of which are emitted by volcanic activity on the Big Island. Over 250 different atmospheric and solar radiation properties are monitored at the Mauna Loa ABO, located at over 11,000 ft above sea level. The observatory's 60+ year record of continuous atmospheric carbon dioxide concentrations is one of the longest atmospheric constituent records on earth. The observatory is a key facility in the international Network for the Detection of Atmospheric Composition Change, which monitors long-term changes in the composition of the atmosphere to understand impacts, study air quality, and provide satellite observation validation, initiated in 1991. Ultraviolet (UV) radiation reaching the surface is measured with a world-standard UV instrument as part of an international program tracking the health and recovery of the ozone layer. GML operates a NIWA UV spectroradiometer that measures ultraviolet radiation (UV) at Mauna Loa in collaboration with NIWA (National Institute of Weather and Atmospheric Research, New Zealand). The Mauna Loa site is a global reference site for this UV work. Research efforts are devoted to the extent and cause of observed variations in long-term radiation and meteorological measurements, using satellite observations and climate model calculations. In addition, observations of spectral solar radiation are made for the purpose of remote sensing of certain atmospheric constituents and spectral solar UV is measured for the investigation of the interaction of ozone and solar radiation. GML operates three stratospheric lidar systems to measure atmospheric aerosol profiles. The Mauna Loa record extends back to 1974. Stratospheric lidar systems measure light which is backscattered from particles suspended in the air and which are used for monitoring stratospheric aerosols. This includes aerosols from volcanic origins and from potential geo-engineering activities in the future. Stratospheric aerosols act as catalysts for large-scale stratospheric ozone depletions and therefore need to be considered when studying the recovery of the ozone layer. Stratospheric aerosols also have a cooling effect on the earth by scattering sunlight back into space and are therefore a candidate for geo-engineering. The Mauna Loa ABO is host to over 75 cooperative programs from around the world, including the NASA stratospheric ozone lidar and the National Center for Atmospheric Research High Altitude Observatory, supported by the National Science Foundation.

Office of Oceanic and Atmospheric Research (OAR) - [Uncrewed Systems Research Transition Office \(UxSRTO\) Project for Greenhouse Gas Detection](#)

Uncrewed Aircraft Systems (UAS) are used by NOAA to monitor and understand the global environment and bridge the gap between measurements made on Earth's surface and on satellites. At the Mauna Loa Observatory of the Global

Monitoring Laboratory (GML), UAS operated with nearly continuous power from tethered lines are used to monitor the chemical composition of the atmosphere. In 2018, a violation of the Montreal Protocol's prohibition on production of ozone-depleting gases was discovered by this laboratory. However, a volcanic eruption soon after destroyed the infrastructure needed to execute GML's sampling missions there. Support from the Uncrewed Systems Research Transition Office (UxSRTO) for this R&D development began in 2019 and concluded in August 2022, resulting in the successful development of a new tethered UAS application. This new capability has been transitioned for operational use by GML to continue their important gas sampling work, and it has also spurred development of new capabilities for use around sensitive parts of the world.

Oahu

Office of the Chief Information Officer (OCIO) - [Inouye Regional Center](#)

The Office of the Chief Information Officer (OCIO) at NOAA's Inouye Regional Center (IRC), in O'ahu, Hawaii maintains staff and offices to provide support for corporate services such as telecommunications, cable plant and colocation facilities, supervisory control and data acquisition, A/V and Exhibits, networking, computing, software and hardware management, and cyber security. In addition, the OCIO at IRC provides select enterprise and regional IT support services to all of the NOAA Line and Program Offices as well as other government agencies located in the Pacific region. This work includes IT infrastructure design, operations and maintenance, network and server management and administration, desktop configuration and maintenance, application and system design and implementation, IT security, and telecommunications.

Honolulu, HI, is also one of five NOAA Trusted Internet Connection Access Points (TICAPs) which monitors the connection of NOAA networks with the greater Internet. This is required by OMB policy to ensure secure communication from NOAA IT systems to untrusted networks. TICAPs are NOAA's first line of defense for protecting NOAA's mission from external cyber-attacks. The information the TICAPs provide is invaluable for determining the nature and scope of cyber threats. NOAA is also able to offer this as a service to other government agencies, eliminating the requirement for them to build and manage their own TICAPs

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

NOAA Commissioned Officer Corps (NOAA Corps) - [NOAA Liaison to PACOM](#)

The NOAA Commissioned Officer Corps stations an officer at Camp Smith as a liaison to the US Pacific Command. This officer performs a variety of functions, most notably educating and communicating with USPACOM on NOAA initiatives, products, and services which could be of value to USPACOM and NOAA. In addition, the officer serves on and advises the NOAA Pacific Island Regional Team and Pacific Region Executive Board; serves as duty watch officer as required during 24/7 stand-up for catastrophic events in the Area of Responsibility; maintains awareness of the overall status for NOAA resources in the region and offer or request support where appropriate or when necessitated by PACOM; represents NOAA, PACOM, and the nation through delegation visits; and engages in discussions regarding climate-related impact, a primary, long-term concern of USPACOM and the Pacific Islands.

Pahoa [Cape Kumukahi]

Office of Oceanic and Atmospheric Research (OAR) - [Global Greenhouse Gases Reference Network: Halocarbon Measurements](#)

NOAA's Global Monitoring Laboratory (GML) operates the Greenhouse Gas Reference Network to measure the distribution and trends of carbon dioxide (CO₂) and methane (CH₄), the two gases most responsible for human-caused climate change, as well as other greenhouse gases and volatile organic compounds. Samples are collected in specially designed flasks each week and delivered to GML 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. These measurements help determine the magnitude of carbon sources and sinks. Weekly flask samples are also analyzed at GML in Boulder for halocarbon content. These gases are most responsible for human-caused depletion of the stratospheric ozone layer. Halocarbon measurements help determine the effectiveness of efforts to protect and restore the ozone layer - so it can protect us from the sun's ultraviolet radiation.

Wahiawa

National Environmental Satellite, Data, and Information Service (NESDIS) - [Office of Satellite and Product Operations](#) - [Satellite Assisted Search and Rescue](#)

The Naval Computer Telecommunication Area Master Station Pacific delivers and operates a reliable, secure and battle-ready Navy network. A Coast Guard facility on the base houses eight NOAA Search and Rescue Satellite Aided Tracking (SARSAT) antennas and associated ground equipment supporting MEOSAR 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. SARSAT has saved more than 10,153 lives in the United States, and over 50,000 people rescued worldwide since 1982.

West Hawai'i

National Marine Fisheries Service (NMFS), National Ocean Service (NOS) - [West Hawaii Habitat Focus Area](#)

West Hawai'i 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. West Hawai'i HFA contains one of the longest contiguous coral reefs in the state, which is also one of the healthiest and most productive in the state. Nearly a quarter of the marine species that live along this coast are found nowhere else in the world. The area is also home to federally listed endangered or threatened species such as Hawaiian monk seals, humpback whales, and green sea turtles as well as many other species. There are numerous factors contributing to the loss or degradation of habitat in West Hawaii: climate change, erosion and sedimentation, nutrient input, wildlife interaction pressures, and loss of biomass. The primary goals of the West Hawai'i Habitat Focus Area are to improve coral reef habitat, foster the sustainable use of marine resources, and improve local capacity for long-term management.

Statewide

National Environmental Satellite, Data, and Information Service (NESDIS) - [Center for Satellite Applications and Research](#) - [Marine Optical Buoy Project](#)

The Marine Optical Buoy (MOBY) project supports the calibration of satellite ocean color radiometry data. MOBY measures hyperspectral water-leaving radiance in clear ocean waters off shore of Hawaii. MOBY's unique role as the primary ocean color reference standard requires high quality consistent measurements over time to maintain a true ocean color climate data record. MOBY is a 14-meter long buoy system developed and instrumented to measure upwelling radiance and downwelling irradiance at the sea surface and at three deeper depths. Submarine light is transmitted by fiber optics to the MOBY spectrograph for continuous energy measurements at subnanometer resolution from 340 (ultraviolet) to 950 (near-infrared) nanometers.

National Ocean Service (NOS) - [Papahānaumokuākea Marine National Monument](#)

Papahānaumokuākea Marine National Monument was created by Presidential Proclamation 8031 in June 2006 to protect the extraordinary natural and cultural resources of the Northwestern Hawaiian Islands. Expanded by Presidential Proclamation 9478 in August 2016, the site now encompasses 582,578 square miles; it is the largest fully-protected/highly-protected permanent conservation area on the planet. In July 2010, Papahānaumokuākea was designated as the first mixed UNESCO World Heritage site in the United States for its universal and outstanding natural and cultural values. Management offices are located in Honolulu, O'ahu and Hilo, Hawai'i Island. NOAA also facilitates the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve Advisory Council, a group of community, scientific, educational and Native Hawaiian representatives that provide the Office of National Marine Sanctuaries with advice and recommendations on management of the monument. Papahānaumokuākea is cooperatively managed to ensure ecological integrity and achieve strong, long-term protection and perpetuation of Northwestern Hawaiian Islands ecosystems, Native Hawaiian culture, and heritage resources for current and future generations. Four co-trustees—the Department of Commerce, Department of the Interior, State of Hawai'i and the Office of Hawaiian Affairs—work collaboratively to protect this special place.

National Environmental Satellite, Data, and Information Service (NESDIS) - [National Centers for Environmental Information - Pacific Regional Climate Services Director](#)

NOAA's six Regional Climate Services Directors (RCSDs), which are part of NCEI, support the development and delivery of a wide range of place-based climate science and information products and services to help people make informed decisions. RCSDs regularly communicate with stakeholders about climate information needs, and help build and strengthen active partner networks with public and private constituents. They play a primary role in integrating the work within NOAA and among its partners in developing and delivering climate services at the regional level. These efforts serve to increase the value of climate information to users and support more efficient, cost-effective delivery of products and services. The Pacific RCSD region encompasses Hawaii, Guam, and the U.S.-affiliated Pacific Islands.

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

NOAA's Office of Law Enforcement is the only U.S. conservation enforcement agency that is exclusively dedicated to Federal fisheries and marine resource enforcement. Its mission is to protect global marine resources by enforcing domestic laws, international treaties, and regulations dedicated to protecting wildlife, and their natural habitat. Our Special Agents and Enforcement Officers ensure compliance with these laws and take enforcement actions if there are violations. In addition, the Cooperative Enforcement Program gives OLE the ability to leverage their resources with the assistance of 27 coastal states and U.S. territorial marine conservation law enforcement agencies in supporting its 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 all the communities throughout the Pacific Islands. The Office of Law Enforcement's Pacific Islands Division is headquartered on Ford Island in Honolulu, Hawaii, with field offices in American Samoa and Guam.

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 Hawaii, 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 Hawaii Department of Land and Natural Resources has received multiple awards through this program, including grants to support the conservation and recovery of monk seals and sea turtles, and research on insular false killer whales.

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

The National Marine Mammal Stranding Network and its trained professionals respond to dead or live marine mammals in distress that are stranded, entangled, out of habitat or otherwise in peril. Our long-standing partnership with the Network provides valuable environmental intelligence, helping NOAA establish links among the health of marine mammals, coastal ecosystems, and coastal communities as well as develop effective conservation programs for marine mammal populations in the wild. There are four stranding network members in the state.

NOAA Fisheries funds eligible members of the Stranding Network through the competitive John H. Prescott Marine Mammal Rescue Assistance Grant Program. In FY20, 43 competitive grants were awarded nationwide for a total of \$3.7 million, with two awards totalling \$200,000 going to two recipients in Hawaii: the University of Hawaii and The Marine Mammal Center.

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

NMFS is responsible for the management, conservation, and protection of living marine resources within the U.S. Exclusive Economic Zone. The Pacific Islands Region includes the waters surrounding American Samoa, Guam, Hawaii, and the Commonwealth of the Northern Mariana Islands as well as the Pacific Remote Island Areas. It is the largest geographic area within NMFS jurisdiction, with a U.S. Exclusive Economic Zone of more than 1.7 million square nautical miles of ocean. Using the tools provided by the Magnuson-Stevens Fishery Conservation and Management Act, NMFS monitors and assesses fish stocks, promotes sustainable fisheries, manages Essential Fish Habitat, develops and ensures compliance with fisheries regulations, restores and protects habitats, and works to reduce wasteful fishing practices. Under the Marine Mammal Protection Act and the Endangered Species Act, NMFS regulates and conducts research supporting the recovery of protected marine species (e.g., Hawaiian monk seals, sea turtles, whales, and dolphins). NMFS also co-manages four marine national monuments in the Pacific Islands Region: Rose Atoll Marine National Monument, Marianas Trench Marine National Monument, Pacific Remote Islands Marine National Monument, and Papahānaumokuākea Marine National Monument.

The Pacific Islands Regional Office uses ecosystem-based strategies to manage the marine resources of the region. Responsibilities include maintaining healthy fish stocks for commercial, recreational and subsistence fishing in coordination with the Western Pacific Fishery Management Council and the Western and Central Pacific Fisheries Commission, protecting and recovering populations of protected species, preserving and restoring marine habitat, and coordinating with international organizations to implement and monitor fishery agreements and treaties. The Pacific Islands Regional Office also manages the at-sea observer program for longline vessels in the region. The Regional Office also fosters sustainable aquaculture in the region. The regional aquaculture coordinator assists federal and state agencies with permitting and other activities. They also support aquaculture outreach and education, and work with industry, academia, and other stakeholders on a variety of regional marine aquaculture topics. The Regional Office is located at the Inouye Regional Center located on Ford Island and also maintains the NOAA Fisheries Honolulu Service Center at the Pier 38 Fishermen's Village in Honolulu where commercial fishermen can conveniently submit permit applications, turn in logbooks, obtain compliance and regulatory information on fishing, receive training, education and outreach, ask questions, and interact with Fisheries staff.

The Pacific Islands Fisheries Science Center administers scientific research and monitoring programs that support the domestic and international conservation and management of living marine resources. It conducts a wide range of research activities including: resource surveys and stock assessments, fishery monitoring, economic and social science

studies, oceanographic research and monitoring, coral reef ecological assessments and monitoring, life history and ecology studies, protected species health and disease studies, ecosystem modeling, marine debris research and removal, and the development of advanced technology survey instrumentation. At the NOAA Inouye Regional Center, the Science Center operates a seawater facility (which is capable of housing sea turtles, Hawaiian monk seals, and fishes) and multiple laboratories to complement its field research activities. The Center uses the NOAA Ship Oscar *Elton Sette* as its primary at-sea research platform. This ship is managed and operated by NOAA's Office of Marine and Aviation Operations and the NOAA Commissioned Officer Corps. In addition to the offices at the NOAA Inouye Regional Center in Honolulu, Hawaii, both the Regional Office and Science Center have field offices serving American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

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 Hawai'i, we focus on restoring habitats from ridge to reef. We support a variety of projects, from stabilizing erosion and sedimentation in the watersheds to removing invasive algae on coral reefs. We also support traditional community practices such as fishpond restoration. 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.

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. Hawaii is a co-trustee with NOAA for assessment and restoration after pollution incidents in Hawaii. For more information about our work in Hawaii, visit: [DARRP in Your State](#) (and use the top menu to navigate to "Hawaii & American Samoa") and this [interactive map](#).

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 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. Hawai'i received funding for one project in FY22, as well as funds to build the state's capacity to protect its coastal communities and resources.

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

NOS operates six long-term continuously operating tide stations in the state of Hawaii, which provide data and information on tidal datum and relative sea level trends, and are capable of producing real-time data for tsunami warning and for storm surge warning. These stations are located at Nawiliwili, Honolulu, Mokuoloe, Kawaihae, Kahului, and Hilo. NOS also operates four continuously operating stations at Sand (Midway) Island, Guam, Kwajalein, Wake Island, and Pago Pago across the Pacific Ocean. 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) - [U.S. Integrated Ocean Observing System \(Pacific Islands Ocean Observing System\)](#)

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. IOOS regional partners provide coordination with regional stakeholders while contributing data and other outputs to the national system. The Pacific Islands Ocean Observing System (PacIOOS) empowers ocean users and stakeholders throughout the Pacific Islands, by providing accurate and reliable coastal and ocean information, tools, and services that are easy to access and use. Fishermen, commercial operators, surfers, resource managers, scientists, and many others rely on PacIOOS' real-time, model, and archival coastal and ocean information to make well-informed decisions and to enhance our understanding of the Pacific Ocean. The PacIOOS wave buoys around the main Hawaiian Islands, for example, provide real-time information on wave height, direction and period, and sea surface temperature.

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

The NOAA Office for Coastal Management practices a partner-based, boots-on-the ground regional approach to coastal management, with staff available in the eight regions. Assistance is provided to local, state, and regional coastal resource management efforts. Constituent feedback and assessments are an important part of the effort. Pacific representatives are located in Hawai'i, American Samoa, Guam and the Commonwealth of Northern Marianas Islands. These employees represent NOAA on several regional ocean governance initiatives (e.g., Hawai'i Ocean Resource Management Plan), coordinate NOAA involvement in ocean observing system activities, and support research reserves, coastal zone management, and other NOAA and state coordinated activities.

National Ocean Service (NOS) – [Pacific Risk Management 'Ohana](#)

NOAA's Office for Coastal Management facilitates and engages in Pacific Risk Management 'OHana (PRiMO) to bring people and organizations together to promote resilient communities in the face of many natural and man-made challenges. PRiMO members participate in hui, or working groups, to develop and implement action plans that improve resilience in the Pacific region. A highlight of the PRiMO effort is the annual conference in Hawai'i, where hundreds of participants gather to discuss ongoing initiatives, learn from each other, and make the connections and action plans that ultimately result in improved safety and sustainability for Pacific Island communities.

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. NOAA awarded six grants in Hawaii, and these lands are protected in perpetuity.

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, unsustainable fishing practices, 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 Hawaii, the program invests in initiatives that reduce anthropogenic threats to priority coral reef sites, increase the abundance and size of coral reef fishery species, promote resilience to climate change, and increase public stewardship. Examples of projects include coral reef monitoring, support for coral reef restoration efforts, revegetation efforts, fencing of sensitive areas upland of coral reefs, assessing herbivore-focused management strategies, community involvement and support for innovative management initiatives. Priority sites in Hawaii include South Kohala on the Big Island and West Maui. NOAA's Coral Management Liaison is located in Honolulu.

National Ocean Service (NOS) - [National Coral Reef Management Fellowship](#)

The 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 Hawaii. The Fellow for Hawaii is working with the Division of Aquatic Resources to amplify and investigate diverse sustainable funding streams for coral restoration projects and other nature-based solutions. This project will ensure diverse funding to protect Hawaii's coastlines from natural disasters and to enhance the state's marine resources for recreational use.

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

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

National Ocean Service (NOS) - [Coastal Management Fellowship](#)

This program matches postgraduate students with state and territory coastal zone programs to work on two-year projects proposed by the state or territory. The Hawaii Coastal Management Program is hosting a fellow from 2022-2024 who is developing knowledge and resources for Hawaii to have a better understanding of who and where the vulnerable communities are that require the most support to adapt to coastal hazards.

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) – [National Coastal Resilience Fund](#)

The National Coastal Resilience Fund is a partnership effort between NOAA and the National Fish and Wildlife Foundation (NFWF) to restore, increase, and strengthen natural infrastructure to protect coastal communities, while also enhancing habitat for fish and wildlife. In Hawaii, the NCRF has awarded fifteen projects, two in FY18, two in FY19, two in FY20, four in FY21, and five in FY22.

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 West Coast/Pacific region are based in Seattle, Washington and Anchorage, Alaska.

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

NOAA's navigation managers work directly with pilots, port authorities, and recreational boating organizations in Hawaii. They help identify the navigational challenges facing marine transportation in Hawaii and provide NOAA's resources and services that promote safe and efficient navigation. Navigation managers are on call to provide expertise and NOAA navigation response coordination in case of severe coastal weather events or other marine emergencies. The Office of Coast Survey has a navigation manager in Seattle, WA to support mariners and stakeholders in the Pacific Northwest and the Pacific Islands region.

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

The Office of Coast Survey (OCS) maintains the nation's nautical charts and publications for U.S. coasts and the Great Lakes. OCS navigation managers are strategically located in U.S. coastal areas to provide regional support to federal and state agencies in order to assist with navigational challenges. The Office of Coast Survey's Navigation Response Branch (NRB) conducts routine and emergency hydrographic surveys; and working with the regional Navigation Managers, navigation response teams (NRT) work around-the-clock after storms to speed the reopening of ports and waterways. During emergency response, the NRTs provide time-sensitive information to the U.S. Coast Guard or port officials, and transmit data to NOAA cartographers for updating the Coast Survey's suite of navigational charts. Mobile integrated response team (MIST) kits are available that can be used on a vessel of opportunity and staffed by NRT members.

National Ocean Service (NOS) - [Marine Debris Projects and Partnerships](#) in Hawaii

The NOAA Marine Debris Program (MDP) in the Office of Response and Restoration (OR&R) leads national and international efforts to research, prevent, and reduce the impacts of marine debris. The program supports marine debris removal, prevention, and research projects in partnership with state and local agencies, tribes, non-governmental organizations, academia, and industry. The MDP Pacific Islands Regional Coordinator, based in Hilo, 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 Hawaii, the MDP is partnering with the Hawaii Department of Land and Natural Resources, Division of State Parks on a prevention project that aims to decrease the use of single-use plastic water bottles within Hawaii State Parks through the installation of water bottle fillings stations and a prevention awareness campaign. In addition to the intermittent large-scale marine debris removal efforts in the Papahānaumokuākea Marine National Monument, the MDP is also working with the Hawaii Wildlife Fund and partners to remove derelict fishing gear and other large marine debris from remote coastlines on the islands of Kaua'i, Maui, and Hawai'i Island. The MDP is supporting Hawai'i Pacific University's program to provide financial incentives for commercial fishers to collect and bring in derelict fishing gear they encounter during regular fishing operations. The MDP is also providing support for the Parley Foundation to implement a marine debris prevention initiative focused on underserved youth. The MDP has facilitated and maintained the Hawai'i Marine Debris Action Plan, along with state and local governments, and other stakeholders, since 2010. The MDP is also beginning the collaborative development of a marine debris emergency response guide for Hawai'i.

National Ocean Service (NOS) - OR&R [Pacific Islands Environmental Response Management Application and Response Tools for Oil and Chemical Spills](#)

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. Pacific Islands 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. ERMA staff continued to work closely with Federal and State agencies for drills, hurricane response, and incidents. Maintained habitat data for sensitive species. Ensured data was kept up-to-date and data collection methods were kept consistent. 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.

National Ocean Service (NOS) - [Hawaii Bay Watershed Education and Training Program](#)

The NOAA Bay Watershed Education and Training (B-WET) program is an environmental education program that promotes locally relevant, experiential learning in the K-12 environment. NOAA's Office for Coastal Management helps lead the Hawaii B-WET program in partnership with the Office of National Marine Sanctuaries. The Hawaii 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. Hawaii B-WET responds to regional education and environmental priorities through local implementation of competitive grant funds.

National Ocean Service (NOS) - 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 reached more than 88,700 students and 3,500 teachers.

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

The Regional Geodetic Advisor is a National Ocean Service (NOS) employee that resides in a region and serves as a liaison between the National Geodetic Survey (NGS) and its public, academic and private sector constituents within their assigned region. NGS has a Regional Geodetic Advisor stationed in Honolulu, Hawaii serving the Pacific region – American Samoa, Guam, Hawaii, and the Northern Mariana Islands. 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 four are in Hawaii.

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 seven ASOS stations in Hawaii.

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 265 COOP sites in Hawaii.

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 eight NWR transmitters in Hawaii.

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

The National Weather Service (NWS), through its National Data Buoy Center (NDBC), develops, deploys, operates, and maintains the current national data buoy network of moored and drifting weather buoys and land stations that serve 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 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. NDBC also operates the Tropical Atmosphere Ocean Array of buoys in the tropical Pacific. The TAO/TRITON array consists of approximately 70 moorings in the Tropical Pacific Ocean, telemetering oceanographic and meteorological data to shore in real-time via the Argos satellite system. The array is a major component of the El Niño/Southern Oscillation (ENSO) Observing System, the Global Climate Observing System (GCOS) and the Global Ocean Observing System (GOOS).

Office of Oceanic and Atmospheric Research (OAR) - [University of Hawaii Sea Grant College Program](#)

The National Sea Grant College Program (Sea Grant) is a federal-university partnership administered by NOAA that integrates research, extension outreach, and education. Sea Grant forms a national network of 34 programs in all U.S. coastal and Great Lakes states, Puerto Rico, and Guam. As part of the prestigious School of Ocean and Earth Sciences and Technology, the University of Hawaii Sea Grant College Program links NOAA to its constituents by connecting academia, federal, state, and local government, industry and community members through state of the art technology transfer. Hawaii Sea Grant is dedicated to achieving resilient coastal communities characterized by vibrant economies, social and cultural sustainability, and environmental soundness. Research and extension activities cover a broad spectrum of areas including design sciences, coastal natural hazards, coastal and nearshore resources, sustainable coastal tourism, aquaculture, traditional knowledge, and environmental literacy. Get involved with Sea Grant through state and national opportunities like the John A. Knauss Marine Policy Fellowship program at seagrant.noaa.gov.

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.

NOAA In Your State is managed by [NOAA's Office of Legislative and Intergovernmental Affairs](#) and maintained with information provided by NOAA's Line, Corporate, and Staff Offices. Questions about specific programs or offices should be directed to the NOAA Line, Corporate, or Staff Office listed.

More information for those offices may be found at NOAA.gov.
