

NOAA In Your State

Ohio

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. The entries are listed by statewide, region, and then by congressional districts and cities or towns.

OH

Statewide

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

NOAA's Damage Assessment, Remediation, and Restoration Program (DARRP) assesses and restores habitat, fisheries, protected species and recreational uses that have been harmed by oil spills, chemical releases, and ship groundings. Working with federal, state, and tribal entities, and responsible parties, we have recovered \$10.4 billion for restoration of critical habitats, fisheries, protected species and recreational uses nationwide. These projects promote recovery of the ecosystem and provide economic benefits from tourism, recreation, green jobs, coastal resiliency, property values and quality of life. In Ohio, the Program is currently working to restore natural resources in cases including the Ashtabula River hazardous waste site.

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

The Regional Geodetic Advisor is a National Ocean Service (NOS) employee that resides in a region and serves as a liaison between the National Geodetic Survey (NGS) and its public, academic and private sector constituents within their assigned region. NGS has a Regional Geodetic Advisor stationed in Columbus, Ohio serving the Appalachian region – Ohio, Kentucky, Pennsylvania, and West Virginia. The Geodetic Advisor provides training, guidance and assistance to constituents managing geospatial activities that are tied to the National Spatial Reference System (NSRS), the framework and coordinate system for all positioning activities in the Nation. The Geodetic Advisor serves as a subject matter expert in geodesy and regional geodetic issues, collaborating internally across NOS and NOAA to ensure that all regional geospatial activities are properly referenced to the NSRS.

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

The Automated Surface Observing Systems (ASOS) program is a joint effort of the National Weather Service (NWS), the Federal Aviation Administration (FAA), and the Department of Defense (DOD). ASOS serves as the Nation's primary surface weather observing network. ASOS is designed to support weather forecast activities and aviation operations and, at the same time, support the needs of the meteorological, hydrological, and climatological research communities. ASOS works non-stop, updating observations every minute, 24 hours a day, every day of the year observing basic weather elements, such as cloud cover, precipitation, wind, sea level pressure, and conditions, such as rain, snow, freezing rain, thunderstorms, and fog. There are 26 ASOS stations in Ohio.

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 173 COOP sites in Ohio.

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 18 NWR transmitters in Ohio.

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

NOAA's National Sea Grant College Program is a federal-university partnership that integrates research, education and outreach. Sea Grant forms a network of 33 programs in all U.S. coastal and Great Lakes states, Puerto Rico, and Guam. Ohio Sea Grant, based at The Ohio State University in Columbus, develops and supports research, education, and outreach to help people understand, rationally use, and conserve Great Lakes resources. Stone Laboratory, the Center for Lake Erie Area Research and the Great Lakes Aquatic Ecosystem Research Consortium are part of Ohio Sea Grant, with Stone Lab offering college-credit courses every summer and an aquatic workshop program for youths and adults. Five Sea Grant Extension agents are based in coastal communities between Toledo and Painesville. The program has provided great leadership in helping Ohio and the Great Lakes Region address problems associated with Harmful Algal Blooms (HABs) and excessive nutrient loading.

Great Lakes

Multiple NOAA Programs - [Experimental Harmful Algal Bloom Bulletin](#)

An experimental Harmful Algal Bloom Program (HAB) bulletin has been developed to provide a weekly forecast for *Microcystis* blooms in western Lake Erie to local health officials, water treatment managers, natural resource managers and several research scientists in the area. HABs produce toxins that may pose a significant risk to human and animal health through water recreation and may form scum that are unsightly and odorous to beach visitors, impacting the coastal economy. Forecasts depicting current and future locations of blooms, as well as intensity, will alert scientists and managers to possible threats to the Great Lakes beaches and assist in mitigation efforts. This forecast is transitioning to operational status by 2017.

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

NOAA's navigation managers work directly with pilots, port authorities, and recreational boating organizations in Louisiana to help identify the navigational challenges facing marine transportation in Louisiana 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 located in Silver Spring, MD to support mariners and stakeholders in Great Lakes waters.

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

The NOAA Restoration Center, within the Office of Habitat Conservation, works with private and public partners locally and nationwide to increase fisheries productivity by restoring coastal habitat. Projects support sustainable fisheries, help recover threatened and endangered species, and reverse damage from disasters like oil spills, ship groundings, and severe storms. Since 1992, they have provided more than \$750 million to implement more than 3,300 coastal habitat restoration projects. In the Great Lakes and Ohio, the Restoration Center focuses on restoring the most degraded environments--designated Areas of Concern. For example, we are working with local partners on restoring coastal wetland habitat in Ohio's western Lake Erie basin at Howard Farms -- one of the largest farmland-to-coastal wetland restoration in the western Lake Erie watershed in many decades. NOAA is also working with the Great Lakes Restoration Initiative (GLRI) to implement habitat restoration projects that will help improve Areas of Concern.

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

The National Ocean Service (NOS) operates four long-term, continuously operating water level stations in the state of Ohio, which provide data and information on Great Lakes and interconnecting waterways datum and lake level regulation and are capable of producing real-time data for storm surge warning. These stations are located on Lake Erie at Fairport, Cleveland, Marblehead and at Toledo.

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

A Physical Oceanographic Real-Time System (PORTS®) is operated cooperatively with the local maritime community on the Cuyahoga River. Real-time data are quality-controlled and disseminated to local users for safe and efficient navigation and include water level with meteorological data from one station in Cleveland and a current meter on the Cuyahoga River.

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

The Phytoplankton Monitoring Network (PMN) engages volunteers in monitoring for marine phytoplankton and HABs. Data collected by PMN volunteers is used to better understand species composition and distribution in coastal and Great Lakes waters, and to identify areas for further research and monitoring. Through this program, we have alerted managers to previously undetected toxins in commercial shellfish beds, and the potential for human Amnesic Shellfish Poisoning and domoic acid toxicity in marine animals. This year PMN is active along the West Coast from CA to AK, in Lake Erie, in the Gulf of Maine, and the Gulf of Mexico.

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

The Coastal and Estuarine Land Conservation Program brings conservation partners together to protect coastal and estuarine lands considered important for their ecological, conservation, recreational, historical, or aesthetic values. To date the program has protected more than 100,000 acres of land with program funds and over 16,000 acres with an in-kind match. The program provides state and local governments with matching funds to purchase coastal and estuarine lands or obtain conservation easements for important lands threatened by development. Fourteen grants in Ohio have been completed with CELCP funds. Another eight projects were awarded using funds from EPA's Great Lakes Restoration Initiative, including two active projects—Middle Bass Islands Forested Wetlands and the new Red Brook Preserve project. Lifeboat Station Park phases 1 and 2, and protection of four parcels under the Lake Erie Islands Critical Habitat Protection project were successfully completed in 2017. These lands are protected in perpetuity.

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

Through a unique federal-state partnership, NOAA's Office for Coastal Management works with the Ohio Department of Natural Resources to implement the National Coastal Zone Management Program in Ohio. 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) and National Marine Fisheries Service (NMFS) – [Coastal Resilience Grant Award](#)

These grants help coastal communities prepare for and recover from extreme weather events, climate hazards, and changing ocean conditions. The focus is on comprehensive regional approaches that use science-based solutions and rely on collaborative partnerships. This approach expands reach and impact, thereby ensuring maximum success. In Ohio, the NOAA Office for Coastal Management awarded \$703,028 to the Association of State Floodplain Managers and the American Planning Association to research options and develop new national planning guidelines for infrastructure investments. Pilot projects are focused in Toledo, Ohio and Savannah, Georgia. The region will benefit from the resulting risk assessments and the implementation of improved-upon resilience plans and strategies.

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

The NOAA Bay-Watershed Education and Training (B-WET) Program is an environmental education program that promotes locally relevant, experiential learning in the K-12 environment. The primary delivery of B-WET is through competitive funding that promotes Meaningful Watershed Educational Experiences (MWEEs). B-WET currently serves seven areas of the country: California, Chesapeake Bay, Great Lakes, Gulf of Mexico, Hawai'i, New England, and the Pacific Northwest. The Great Lakes 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. Great Lakes B-WET responds to regional education and environmental priorities through local implementation of competitive grant funds.

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

NOAA's Office of Response and Restoration (OR&R) brings decades of experience, technical expertise and scientific analysis in response to oil and hazardous chemical spills. In addition to events that draw the national eye like the Enbridge pipeline spill, OR&R also supports response to local emergencies. Nine regionally based Scientific Support Coordinators (SSCs) harness the input of a multi-disciplinary team to address issues such as oil slick trajectory forecasting, environmental tradeoffs, best practices, resources at risk, oil science and properties, and chemical hazard assessment to reduce risks to coastal habitats and resources. For spills in Ohio, the SSC based in Cleveland works directly with U.S. Coast Guard and the U.S. Environmental Protection Agency to provide critical scientific support to the Federal On-Scene Coordinator. OR&R also helps develop preparedness plans that identify spill response actions with the greatest environmental benefit and trains hundreds of members of the response community each year on the scientific and technical aspects of spills.

OR&R's Regional Resource Coordinators (RRCs) provide scientific and technical expertise and timely response to oil spills or hazardous materials releases to collect information, samples, and evidence that are time dependent and critical to support natural resource damage assessments throughout the coastal US. RRCs work on multi-disciplinary scientific, economic, and legal teams and are responsible for determining and quantifying injuries to NOAA trust natural resources through determination of injuries and pathway, and demonstration of causal mechanisms. The goal of the RRCs efforts is to determine, often through the Damage Assessment, Remediation, and Restoration Program, the appropriate amount and type of restoration required to restore injured NOAA trust resources and compensate the public for their lost use.

National Ocean Service (NOS) – [Great Lakes Environmental Response Management Application](#)

Assessing important spatial information and designing successful restoration projects rely upon interpreting and mapping geographic information, including the location, duration, and impacts from oil spills, other hazardous materials, or debris released into the environment. Great Lakes Environmental Response Management Application (ERMA®) is an online mapping tool that integrates both static and real-time data, such as Environmental Sensitivity Index maps, ship locations, weather, and ocean currents in a centralized, easy-to-use format for environmental responders and decision makers.

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

The NOAA Marine Debris Program (MDP) leads national and international efforts to research, prevent, and reduce the impacts of marine debris. The program supports marine debris removal, education and outreach, and research projects in partnership with state and local agencies, tribes, non-governmental organizations, academia, and industry. The MDP Great Lakes Regional Coordinator is based in Oak Harbor and supports coordination efforts with regional stakeholders, provides support to grant-funded projects, tracks progress of projects, and conducts regional marine debris outreach to local audiences. In Ohio, the MDP is partnering with the City of Cleveland to explore barriers to behavioral change around the use of plastic products and to develop a social marketing campaign for the city. In a newly funded removal project, Cleveland Metroparks is removing concrete slabs and metal from Euclid Beach Park on the shores of Lake Erie and conducting accompanying volunteer beach cleanups. The MDP has also worked with state and local governments, and stakeholders, to develop the Great Lakes Land-Based Marine Debris Action Plan.

National Ocean Service (NOS) - [Great Lakes 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. The Great Lakes Observing System (GLOS), one of the 11 IOOS regional coastal ocean observing systems, provides public access to critical, real-time and historical data and information about the Great Lakes, St. Lawrence River and interconnecting waterways for use in managing, safeguarding and understanding these immensely valuable freshwater resources. GLOS is intended to gather and integrate chemical, biologic and hydrologic data, and monitor lake conditions and trends over time.

OH-4

Cleveland

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

Housed in the Federal Aviation Administration's Cleveland Air Traffic Control Center (ARTCC), the Center Weather Service Unit (CWSU) staff provides aviation forecasts and other weather information to ARTCC personnel for use in directing the safe, smooth flow of aviation traffic in northern Ohio, western Pennsylvania, western New York, northern West Virginia, and southeast Michigan.

OH-9

Cleveland

National Weather Service (NWS) - [Weather Forecast Office](#)

Located at Cleveland Hopkins International Airport, this NWS Weather Forecast Office (WFO) is staffed around-the-clock every day, and provides the best possible weather, water, and climate forecasts and warnings to residents of northern Ohio and northwestern Pennsylvania. This office also provides marine forecasts for Lake Erie. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, winter storms, floods, and heat waves. This essential information is provided to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including through dedicated government channels, satellite, the Internet, and NOAA Weather Radio All Hazards.

Forecasters also provide Impact-based Decision-Support Services (IDSS), both remotely and on-site, during critical emergencies, such as wildfires, floods, chemical spills, and for major recovery efforts such as those following the Joplin and Moore tornadoes, Hurricanes Katrina and Sandy, and the Sept. 11, 2001, terrorist attacks in New York City and Washington D.C. The WFO collects and disseminates precipitation, river, and rainfall data, and prepares local climatological data. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs, which helps build strong working relationships with local partners in emergency management, government, the media and academic communities. The WFO operates Automated Surface Observing Stations (ASOS), as well as the local Doppler Weather Radar, which provides critical information about current weather conditions. The radar data enables forecasters to issue warnings for tornadoes, severe thunderstorms, and flash floods.

Huron

National Ocean Service (NOS) - [Old Woman Creek National Estuarine Research Reserve](#)

The 573-acre Old Woman Creek Research Reserve, designated in 1980 and managed by Ohio Department of Natural Resources, is one of two reserves representing a freshwater estuary on the Great Lakes. Located on the southwestern shore of Lake Erie, the site features freshwater marshes, swamp forests, a barrier beach, upland forests, and a riparian stream. As one of the few remaining intact examples of a freshwater estuary on the southern shore of Lake Erie, the reserve is a critical spawning and nursery ground for many recreational and commercial fisheries including crappie, bluegill, and channel catfish. The reserve's stewardship, research, education and training programs increase public awareness and increase the capacity of local decision makers.

OH-16

Wooster

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

The U.S. Climate Reference Network (USCRN) is an operationally viable research network of 135 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS).

Sandusky

National Ocean Service (NOS) - [Great Lakes Real-Time Currents Monitoring](#)

The Center for Operational Oceanographic Products and Services (CO-OPS) collects, analyzes, and distributes observations and predictions of currents. The goals are to ensure safe, efficient and environmentally sound maritime commerce, and to support environmental needs such as HAZMAT response. The principal product generated by this program is information used to maintain and update the Tidal Current Tables. There are two real-time current meters operating in Ohio at the Maumee River in Toledo and the Cuyahoga River in Cleveland.

Toledo

Office of Oceanic and Atmospheric Research (OAR) - [Realtime Environmental Coastal Observation Network Stations](#)

The goal of the Great Lakes Environmental Research Laboratory's Realtime Environmental Coastal Observation Network (RECON) project is to develop a national network of low cost coastal buoys capable of seabed to sea-surface observations. This wireless Internet observation system, with shore stations at coastal locations covering approximately 800 square miles of sea surface, uses commercially available networking equipment allowing straightforward integration into a nationwide network. The Toledo Marker 2 Station is a shore station that measures/records wind speed, wind direction, air temperature and has a web cam all updated hourly).

OH-10

Dayton

Office of Oceanic and Atmospheric Research (OAR) - [Science On a Sphere® at the Boonshoft Museum](#)

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 complex environmental processes in a way that is simultaneously intuitive and captivating.

OH-15

Wilmington

National Weather Service (NWS) - [River Forecast Office](#)

The Ohio River Forecast Center (RFC) performs continuous river basin modeling and provides hydrologic forecast and guidance products for rivers and streams for the entire Ohio River Basin and its tributaries, and the Lake Erie drainage basin in Ohio. These products include forecasts of river stage and flow, probabilistic river forecasts, reservoir inflow forecasts, gridded precipitation estimates and forecasts, spring flood outlooks, and flash flood and headwater guidance. RFCs work closely with local, state and federal water management agencies, including the U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, and U.S. Geological Survey, to provide water and flood information for critical decisions (aka Impact-based Decision-Support Services or IDSS).

National Weather Service (NWS) - [Weather Forecast Office](#)

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

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