

MISSION FOCUSED

COASTAL SCIENCE

NCCOS's mission is to support achievement of NOAA's coastal missions by providing cutting-edge research, scientific information and tools that help balance ecological, social, and economic goals. Partnerships with scientists and managers from around the nation are central to our success in providing quality science and services.

In response to established legislation and NOAA priorities, and in concert with our scientific expertise and capabilities, we focus on four research areas to deliver quality, timely and relevant science and services to the Agency and our partners:

- ✓ Harmful algal blooms
- ✓ Coastal contamination impacts
- ✓ Climate change impacts
- ✓ Science to support coastal and marine spatial planning

LEGISLATIVE & POLICY DRIVERS

- Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA)
- Coastal Ocean Program
- National Coastal Monitoring Act
- National Contaminated Sediment Assessment and Management Act
- White House CEQ Ocean Policy Task Force
- NOAA Strategic Plan
- NOS 2010 Annual Operating Plan
- Oceans and Human Health



SCIENCE TO MANAGE THREATS OF HARMFUL ALGAL BLOOMS

Harmful algal blooms (HABs) present one of the most scientifically complex and economically significant coastal management issues facing the nation today. Reported in every coastal state, HAB impacts have caused an estimated \$1 billion in losses to coastal

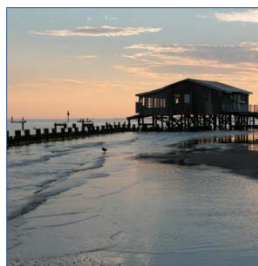
economies that rely on recreation, tourism, and seafood harvesting[†]. Authorized by the Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA), NCCOS provides leading research to forecast, prevent, detect, control, and mitigate HABs.



UNDERSTANDING IMPACTS OF COASTAL CONTAMINATION

Contaminated coastal waters degrade habitats, increase the occurrence of waterborne diseases, and impact human health: all symptoms of a decline in the quality of our coastal environment. NCCOS is a national leader in advancing the

science of contaminant monitoring, research, and impact assessment in coastal ecosystems. NCCOS is home to the Nation's longest running coastal pollution monitoring and assessment enterprise.



ADVANCING RESEARCH ON CLIMATE CHANGE IMPACTS TO COASTAL ECOSYSTEMS

Climate change is expected to dramatically affect the health, productivity, and biodiversity of coastal and marine ecosystems and the communities who live along our shores. With state-of-the-art

laboratories located in regions on the frontier of climate change, NCCOS is investigating how changes in sea levels, ocean chemistry, and temperature affect coastal ecosystems and the services they sustain.



SCIENCE TO SUPPORT COASTAL & MARINE SPATIAL PLANNING

Competition between the multiple users of our coasts has been on the rise for decades and will continue to increase. For over 25 years, NCCOS and its predecessors have developed innovative ecosystem maps, models, and assessments to guide planning in

coastal communities. These tools help managers preserve ecological goods and services while accommodating commerce, transportation, energy production, and growth.

COASTAL SCIENCE

OUR CENTERS

THE CENTER FOR SPONSORED COASTAL OCEAN RESEARCH (CSCOR)

SILVER SPRING, MD

Supports coastal managers through competitive research to better understand and predict the impacts of natural and man-made influences on coastal ecosystems, communities, and economies. CSCOR targets regional research that can be used to improve our coastal condition and prepare the Nation for emerging issues like hypoxia (dead zones), harmful algal blooms, climate change, and others. Through competitive research funding, CSCOR engages the nation's best talent to develop cutting-edge science for coastal management applications.

THE CENTER FOR COASTAL MONITORING AND ASSESSMENT (CCMA)

SILVER SPRING, MD

Administers a world-renowned program of research and monitoring at national, regional, and local levels. CCMA's capabilities include conducting science and developing tools to support coastal and marine spatial planning, ecological forecasting, coastal and ocean remote sensing, and contaminant monitoring through NOAA's National Status and Trends Program. The Center is a national leader in integrated mapping, monitoring, and research to meet national conservation and management goals.

THE CENTER FOR COASTAL FISHERIES AND HABITAT RESEARCH (CCFHR)

BEAUFORT, NC | KASITSNA BAY, AK

Provides coastal resource managers with cutting-edge science on habitat restoration, spatial planning, ecology of harmful algal blooms, and shoreline response to climate change. Models, products and services directly support Federal State and local restoration projects. Research has directly led to specific commercial products to protect human health from algal toxins, and support forecasts of harmful algae. Also, Center research directly supports State and local creation of resilient shorelines to buffer against sea level rise and other climate impacts.

THE CENTER FOR COASTAL ENVIRONMENTAL HEALTH AND BIOMOLECULAR RESEARCH (CCEHBR)

CHARLESTON, SC | OXFORD, MD


Conducts research on the health and functioning of coastal ecosystems, and the implications for human health. The Center's broad scientific expertise includes environmental chemistry, toxicology, microbiology, molecular biology, and ecology. CCEHBR conducts advanced field and laboratory research on harmful algal blooms, pollutant impacts on coastal resources, diseases, and other environmental impacts. This research evaluates the condition of the Nation's oceans and coasts, including particularly sensitive areas that NOAA manages through marine sanctuaries and marine protected areas (MPAs).

THE CENTER FOR HUMAN HEALTH RISK AT THE HOLLINGS MARINE LABORATORY (CHHR)

CHARLESTON, SC

Conducts research to understand and forecast relationships between coastal ocean ecosystems and human health and well-being. CHHR provides information, analytical models and diagnostic tools to resource managers and public health officials. CHHR is strengthened by collaboration among five partners; NOS, the Medical University of South Carolina, National Institute of Standards and Technology, College of Charleston, and South Carolina Department of Natural Resources. The Center is one of NOAA's "Centers of Excellence" in Oceans and Human Health, integrating medical and marine technologies and expertise through a diverse partnership among Federal, state, and academic organizations to sustain and protect healthy coastal ecosystems

 FOR MORE INFORMATION VISIT <http://coastalscience.noaa.gov/>

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