



**NOAA  
FISHERIES**

*NOAA  
Chesapeake  
Bay Office*

## VISION

*A healthy and productive  
Chesapeake Bay ecosystem*

## MISSION

*Focusing NOAA's capabilities in  
science, service, and stewardship  
to protect and restore the  
Chesapeake Bay*

# NOAA Chesapeake Bay Office 2015-2020 Strategic Plan

The Chesapeake Bay is the nation's largest estuary, with a watershed that encompasses one of the most economically significant and populous regions of the United States. The 2012 National Oceanic and Atmospheric Administration (NOAA) Fisheries Economics of the United States report indicates that the commercial seafood industry in Maryland and Virginia contributed \$3.34 billion in sales, \$901 million in income, and 34,674 jobs to the local economy. Two of the top five major North Atlantic ports in the United States are located on the Bay. It is a highly valued resource for the community, including tourism, recreational boating, and scenic value. The estuary and its rivers are home to more than 3,600 species of plants and animals, including some 350 species of finfish and 175 species of shellfish. Over recent decades, this biologically diverse ecosystem has seen sharp declines in some of its keystone species, including the native oyster. Human effects on the ecosystem, such as overfishing, degraded water quality, and habitat destruction have all contributed to this decline. As a partner in the effort to protect and restore this national treasure, the NOAA Chesapeake Bay Office (NCBO) is focusing its science, service, and stewardship capabilities to improve the health of the Bay and ensure its sustainable use for generations to come.

## Our Mandate

The NOAA Chesapeake Bay Office was formally established by Congress through the NOAA Authorization Act of 1992 (Public Law 102-567) and reauthorized in 2002 (Public Law 107-372). NCBO applies NOAA's wide range of capabilities to help address the problems and challenges of natural resource management in the Bay region.

The congressional mandate requires NCBO to provide technical assistance in:

- Identifying science-based management options for restoration and protection of living resources and their habitats;
- Monitoring and assessing the status of living resources and their habitats; and
- Evaluating the effectiveness of management plan implementation.

NCBO is further charged with implementing a strategy for NOAA to integrate the agency's scientific, regulatory, and management responsibilities to assist the cooperative, intergovernmental Chesapeake Bay Program, by coordinating with programs and activities of NOAA, the Chesapeake Bay regional Sea Grant programs, and the Chesapeake Bay units of the National Estuarine Research Reserve System.

## Advancing NOAA's Mission

NOAA's Next Generation Strategic Plan outlines the highest-priority opportunities for NOAA to contribute substantially to the advancement of society. Under this plan, the Healthy Oceans Goal includes several objectives that are supported by the work of NCBO:

- Improved understanding of ecosystems to inform resource management decisions
- Recovered and healthy marine and coastal species
- Healthy habitats that sustain resilient and thriving marine resources and communities
- Sustainable fisheries and safe seafood for healthy populations and vibrant communities

NOAA also supports work in the region in three other strategic goals outlined in the Next Generation Strategic Plan:

- Climate Adaptation and Mitigation
- Weather-Ready Nation
- Resilient Coastal Communities and Economies

NCBO is a division of the National Marine Fisheries Service's Office of Habitat Conservation, which works to protect and restore coastal and marine habitat at the national level. In support of this work, NOAA launched the Habitat Blueprint Initiative to address the growing challenge of coastal and marine habitat loss and degradation. Under the Habitat Blueprint, NOAA has identified the Delmarva/Choptank River Complex as a Habitat Focus Area to achieve the following objectives:

- Habitat Conservation and Restoration
- Quantifying the Value of Ecosystem Services
- Integrating Science to Inform Better Management Decisions
- Community Engagement to Conserve Priority Habitats

## Chesapeake Bay Watershed Agreement

NOAA has been a partner in the Chesapeake Bay Program since the signing of a Memorandum of Understanding with the U.S. Environmental Protection Agency in 1984. In June 2014, the state jurisdictions in the Chesapeake Bay watershed, along with the District of Columbia, the Chesapeake Bay Commission, and the U.S. Environmental Protection Agency (on behalf of the federal government), signed a new Chesapeake Bay Watershed Agreement, establishing 10 goals that will advance the restoration and protection of the Bay watershed. These goals are linked to 31 outcomes with time-bound and measurable targets. This agreement formally commits the full Chesapeake Bay Program partnership to support key elements of the Executive Order for Chesapeake Bay Protection and Restoration, signed by the President in 2009.

In order to fulfill its mission and respond to regional stakeholder needs, NCBO has identified four goals of the Chesapeake Bay Watershed Agreement on which to focus its activities: Sustainable Fisheries, Vital Habitats, Environmental Literacy, and Climate Resiliency. NOAA will also, in accordance with the agreement principles, support monitoring and research to inform decision making, track progress, and evaluate effectiveness of management actions.

This Strategic Plan describes the specific objectives and strategies that NCBO will undertake from 2015 through 2020 to meet these goals and support efforts to restore and protect the Bay. NCBO will conduct this work in four core focus areas:

- Fisheries
- Oysters
- Environmental Literacy
- Observations

NCBO will also apply its capabilities to two crossing-cutting project areas:

- Climate
- Choptank Habitat Focus Area



## CHESAPEAKE BAY WATERSHED AGREEMENT INTERJURISDICTIONAL FISHERIES MANAGEMENT GOAL

*Protect, restore and enhance finfish, shellfish and other living resources, their habitats and ecological relationships to sustain all fisheries and provide for a balanced ecosystem in the watershed and Bay*

### NOAA-SUPPORTED OUTCOMES

*Maintain a sustainable blue crab population based on the current 2012 target of 215 million adult females.*

*Manage for a stable and productive crab fishery including working with the industry, recreational crabbers and other stakeholders to improve commercial and recreational harvest accountability.*

*Continually improve the Partnership's capacity to understand the role of forage fish populations in the Chesapeake Bay.*

*Continually improve effectiveness of fish habitat conservation and restoration efforts by identifying and characterizing critical spawning, nursery and forage areas, and use existing and new tools to integrate information and conduct assessments to inform restoration and conservation efforts.*

## Fisheries

Recreational and commercial fisheries are among the most valuable economic activities in estuarine waters. Unfortunately, important Chesapeake Bay fisheries are negatively affected by fishing pressure, habitat loss, invasive species, degraded water quality, and toxics. NOAA supports well-managed Chesapeake Bay fisheries by delivering timely ecosystem-based science and forecasts to science and management partners.

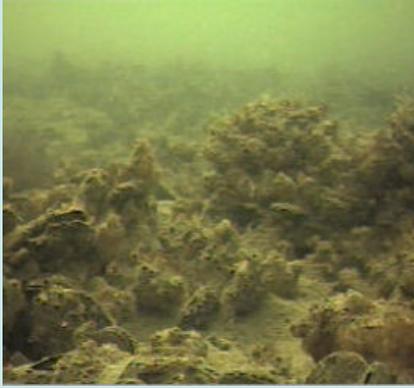
### *Objectives and Strategies*

- Support and conduct applied research to improve understanding of Chesapeake Bay fisheries and associated habitats
  - Fund applied fisheries research and monitoring through targeted competitive research grants
  - Develop and support cooperative research projects that include NCBO partners, citizen scientists, and watermen
  - Complete an evaluation of forage fish to inform development of future science and management approaches that balance sustainability of forage and predator species
  - Design and implement innovative water column habitat monitoring approaches to evaluate habitat restoration and protection projects
  
- Analyze and synthesize environmental and fisheries data to create and enhance ecosystem-based models and tools
  - Coordinate research with Sea Grant and jointly support a post-doctoral fellow to develop ecosystem-based fisheries products for key Bay species
  - In partnership with the Cooperative Oxford Laboratory, develop ecological assessments in targeted environments to identify and characterize critical spawning, nursery, and forage areas for important fish and shellfish to inform restoration and conservation efforts
  - Apply the Chesapeake Atlantis Model and other ecosystem models to develop forecasts that demonstrate population responses of keystone fisheries species to changes in environmental conditions and use forecasts to improve monitoring and inform management
  
- Deliver emerging science and increase cross-jurisdictional collaboration to improve fishery management decisions
  - Improve application of fisheries science and coordination of management through the Chesapeake Bay Program Sustainable Fisheries Goal Implementation Team
  - Support the development of the annual Blue Crab Advisory Report and five-year blue crab stock assessments that incorporate products derived from NCBO and partners
  - Facilitate development of a Bay-wide allocation-based management strategy by working with managers, commercial and recreational crabbers, and Chesapeake Bay Program partners
  - Increase partnerships with the Greater Atlantic Regional Fisheries Office to collaboratively address shared regional fishery priorities
  - Incorporate NCBO modeling tools into the Chesapeake Bay Program modeling community to improve integration of living resources and habitats in regional decision making and evaluation

- Coordinate the development of a Bay-wide fish telemetry and tracking system, allowing greater understanding of fish movements, populations estimates, and distribution and colonization of invasive fish species
- Enhance awareness of fisheries-land use interactions among scientists, managers, and other partners and stakeholders

***Primary Partners***

- NOAA and NOAA affiliates
  - Greater Atlantic Regional Fisheries Office
  - Northeast Fisheries Science Center
  - Office of Habitat Conservation
  - Virginia Sea Grant (Virginia Institute of Marine Science)
  - Maryland Sea Grant (University of Maryland Center for Environmental Sciences)
  - National Centers for Coastal Ocean Science
- Federal Partners
  - U.S. Fish and Wildlife Service
- External Partners
  - Maryland Department of Natural Resources
  - Virginia Marine Resources Commission
  - Potomac River Fisheries Commission
  - Chesapeake Research Consortium
  - University of Maryland Center for Environmental Sciences
  - Virginia Institute of Marine Science
  - Atlantic States Marine Fisheries Commission
  - Virginia Department of Environmental Quality



## CHESAPEAKE BAY WATERSHED AGREEMENT INTERJURISDICTIONAL FISHERIES MANAGEMENT GOAL

*Protect, restore and enhance finfish, shellfish and other living resources, their habitats and ecological relationships to sustain all fisheries and provide for a balanced ecosystem in the watershed and Bay*

## NOAA-SUPPORTED OUTCOMES

*Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. Restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.*

## Oysters

The Chesapeake Bay oyster population is at roughly 1 percent of historic levels; the ecosystem functions of oyster reefs, including fish habitat and nitrogen removal, are similarly diminished. Past restoration efforts were small and scattered. These efforts demonstrated proof-of-concept and restoration techniques, but were limited in scope. The current and future challenge is to scale up to restore entire tributaries with self-sustaining oyster populations given financial and substrate constraints, and to measure the resulting ecosystem services. NOAA is working with partners to plan and implement this tributary-scale restoration.

### *Objectives and Strategies*

- Plan and implement large-scale, tributary-based oyster restoration toward the outcome of 10 tributaries restored by the year 2025
  - Chair the interagency oyster restoration workgroups in Maryland and Virginia under the Sustainable Fisheries Goal Implementation Team
  - Select additional tributaries for restoration in Maryland and Virginia and develop restoration blueprints that will achieve established oyster metrics
  - Fund production and planting of oyster seed on areas identified as having the best available habitat for oysters
  - Further refine oyster restoration monitoring parameters, assign monitoring initiatives to partners, and provide funding to assess restoration success
  - Complete oyster reef restoration in selected Chesapeake Bay tributaries
- Incorporate science, track progress, and refine methods for restoration
  - Characterize benthic habitat by prerestoration mapping and postconstruction surveys in tributaries selected for restoration
  - Establish and maintain geographic information systems (GIS) databases for selected tributaries composed of data layers from NOAA and partners
  - Use GIS to track progress in selected tributaries toward oyster metrics success criteria and use these analyses to determine best restoration practices and refine blueprints
  - Coordinate with academic and other scientists to facilitate oyster research, including funding research on ecosystem services valuation and restoration techniques
- Demonstrate the benefits of oyster reef ecosystem services through applied research and living resource assessments
  - Conduct the Oyster Reef Ecosystem Services project in the Choptank Habitat Focus Area
  - Support research in the Choptank River complex and other Bay tributaries to demonstrate the ecosystem benefits of restored oyster reefs

- Apply sound science to inform a sustainable oyster industry in the Chesapeake Bay
  - Complete the Chesapeake Bay Oyster Stock Assessment, communicate results, and ensure the ability to repeat this assessment in future years
  - Develop oyster harvest metrics/reference points for management of the remaining wild oyster fishery and growing aquaculture industry
  - Apply oyster harvest metrics in concert with oyster restoration metrics in selected tributaries to determine the viability of coexisting harvest and restoration objectives
  - Promote oyster aquaculture and support sustainable expansion of this industry, including collecting and analyzing socioeconomic data, to create a safe and reliable source of seafood
  - Create an oyster harvest atlas (including using hydrographic surveys from partner agencies) to determine areas available for harvest to support oyster fishery management
  - Collaborate with the Greater Atlantic Regional Fisheries Office and the NOAA Aquaculture Program to further promote aquaculture as a means to reduce fishing pressure on remaining wild oyster stocks

***Primary Partners***

- NOAA
  - Greater Atlantic Regional Fisheries Office
  - NOAA Restoration Center
  - NOAA Aquaculture Program
  
- Federal Partners
  - U.S. Army Corps of Engineers
  
- External Partners
  - Maryland Department of Natural Resources
  - Virginia Marine Resources Commission
  - Potomac River Fisheries Commission
  - University of Maryland
  - Virginia Institute of Marine Sciences
  - Old Dominion University
  - Virginia Commonwealth University
  - Oyster Recovery Partnership
  - Chesapeake Bay Foundation
  - The Nature Conservancy
  - National Fish and Wildlife Foundation
  - Elizabeth River Project



## CHESAPEAKE BAY WATERSHED AGREEMENT ENVIRONMENTAL LITERACY GOAL

*Enable every student in the region to graduate with the knowledge and skills to act responsibly to protect and restore their local watershed*

### NOAA-SUPPORTED OUTCOMES

*Continually increase students' age-appropriate understanding of the watershed through participation in teacher-supported, meaningful watershed educational experiences and rigorous, inquiry-based instruction, with a target of at least one meaningful watershed educational experience in elementary, middle and high school.*

*Continually increase the number of schools in the region that reduce the impact of their buildings and grounds on their local watershed, environment and human health through best practices, including student-led protection and restoration projects.*

*Each participating Bay jurisdiction should develop a comprehensive and systemic approach to environmental literacy for all students in the region that includes policies, practices and voluntary metrics that support the environmental literacy Goals and Outcomes of this Agreement.*

## Environmental Literacy

The challenges of maintaining a healthy ecosystem are complex and diffuse, with many issues affected by the individual actions of citizens. This complexity requires a thoughtful citizen stewardship strategy that begins in the schools with the youngest citizens, building competencies that will carry forward in their lives and benefit society. NOAA encourages and supports efforts in K-12 and higher education to develop and implement comprehensive environmental literacy programs.

### Objectives and Strategies

- Incorporate watershed education into state and local education policy
  - Create financial incentives through NOAA's Bay Watershed Education and Training (B-WET) program by using funding and strategic partnerships to increase and improve systemic implementation of meaningful watershed educational experiences (MWEEs)
  - Support a community of practice around MWEEs and NOAA sciences that will provide a means for grantees and partners to share information about model programs and identify barriers to implementation
  - Serve as the backbone for regional environmental literacy efforts by leading the Chesapeake Bay Program Education Workgroup and engaging with partners as part of state environmental education policy initiatives
  - Grow the capacity of states, school divisions, and other partners to support, deliver, and track MWEEs and systemic environmental literacy programs
  
- Increase the use of rigorous scientific inquiry and NOAA content, products, and data in education programs
  - Use B-WET funding to support NOAA priorities and better integrate NOAA sciences, products, and services into K-12 formal education
  - Provide targeted training through the NOAA Environmental Science Training Center to increase the capacity of B-WET grantees and other nonformal educators to deliver science content
  - Deliver NOAA content at programs offered by B-WET grantees, Environmental Science Training Center participants, and local community partners
  - Develop education products and learning modules that showcase NOAA science, products, and data using the tenets of science, technology, engineering, and math (STEM), ocean and climate literacy principles, and state science standards
  - Work with the NOAA Education Council and the NOAA Office of Education to pilot new initiatives, including a regional education framework, urban STEM, Global Learning and Observation to Benefit the Environment (GLOBE), and geographic literacy
  - Partner with other NOAA educators (National Estuarine Research Reserve System, Sea Grant, Sanctuaries) and grantees to more efficiently and effectively define and meet regional education objectives

- Develop opportunities for college-level students to learn about and participate in NOAA research and policy initiatives
  - Manage a competitive internship program
  - Encourage university partners to use NOAA science, products, and data in college-level courses
  - Develop partnerships with university faculty to identify students to participate in work-study projects with NCBO staff
  - Ensure the active engagement of students in NOAA-funded grants with institutions of higher learning

***Primary Partners***

- NOAA
  - NOAA Office of Education
  - NOAA Education Council
  - National Estuarine Research Reserve System
  - National Marine Sanctuary Program
  - Virginia Sea Grant (Virginia Institute of Marine Science)
  - Maryland Sea Grant (University of Maryland Center for Environmental Sciences)
  - NOAA Chesapeake Bay Sentinel Site Cooperative
- Federal Partners
  - U.S. Department of Education
  - National Park Service
  - U.S. Fish and Wildlife Service
  - Environmental Protection Agency
  - National Aeronautics and Space Administration (NASA)
  - U.S. Forest Service
- External Partners
  - Maryland State Department of Education
  - Virginia Department of Education
  - Pennsylvania Department of Education
  - West Virginia Department of Education
  - Delaware Department of Education
  - District of Columbia Office of the State Superintendent for Education
  - Maryland Department of Natural Resources
  - Virginia Department of Conservation and Recreation
  - Pennsylvania Department of Environmental Protection
  - Delaware Department of Natural Resources and Environmental Control
  - District of Columbia Department of the Environment
  - North American Association for Environmental Education state affiliates
  - Chesapeake Bay Trust
  - Chesapeake Bay Foundation
  - National Wildlife Federation



## CHESAPEAKE BAY WATERSHED AGREEMENT MONITORING PRINCIPLE

*Maintain a coordinated watershed-wide monitoring and research program to support decision-making and track progress and the effectiveness of management actions*

## Observations

The Chesapeake Bay ecosystem is dynamic, and water-quality conditions are driven by highly variable local and regional forces. In order to monitor, understand, forecast, and provide information for science-based decisions, high-quality data needs to be continuously measured, monitored, and summarized. To meet this need, the NOAA Chesapeake Bay Office maintains the Chesapeake Bay Interpretive Buoy System, a network of 10 buoys that collect and relays near-real-time data to users.

### *Objectives and Strategies*

- Ensure fast and reliable availability of CBIBS data
  - Develop and implement quality-assurance processes and procedures to meet appropriate standards, including those of the Integrated Ocean Observing System (IOOS)
  - Develop and apply performance metrics by analyzing user requirements and historical system and sensor performance data
  - Improve website and mobile application performance and features to provide the most accurate and timely observations available in the most user-friendly way to enhance information and decision making
  
- Use the Chesapeake Bay Interpretive Buoy System (CBIBS) to evaluate the health and status of the Chesapeake Bay ecosystem
  - Provide and incorporate continuous measurements of meteorological, oceanographic, and water-quality parameters into data products and services that are used by the Chesapeake Bay Program to track and monitor progress toward goals and outcomes of the Chesapeake Bay Watershed Agreement
  - Improve the accuracy and reliability of CBIBS to provide long-term environmental monitoring records suitable for climate change studies
  - Increase the use of and reliance on CBIBS data in ecosystem models and ecological forecasts
  - Gather data at greater temporal and spatial resolution to enhance products used by decision makers
  
- Conduct outreach to user groups to continually expand and enhance CBIBS capabilities
  - Establish a standard suite of CBIBS data products used by federal and state government, local communities, nonprofit groups, fishers, boaters, and others
  - Increase and enhance the use of CBIBS data by educators through innovative educational opportunities such as Chesapeake Exploration
  - Work with partners to develop content that uses CBIBS data and information to improve historic understanding and increased recreational use of the Bay

### *Primary Partners*

- NOAA
  - Integrated Ocean Observing System Program Office
  - NOAA Chesapeake Bay Sentinel Site Cooperative
  - National Weather Service

- Federal Partners
  - National Park Service
  - Environmental Protection Agency
  - U.S. Geological Survey
  
- External Partners
  - Chesapeake Conservancy
  - Chesapeake Bay Foundation
  - Mid-Atlantic Regional Association for Coastal Ocean Observing Systems
  - Virginia Commonwealth University
  - Maryland Department of Natural Resources
  - Virginia Institute of Marine Science



## CHESAPEAKE BAY WATERSHED AGREEMENT CLIMATE RESILIENCY GOAL

*Increase the resiliency of the Chesapeake Bay watershed, including its living resources, habitats, public infrastructure and communities, to withstand adverse impacts from changing environmental and climate conditions*

### NOAA-SUPPORTED OUTCOMES

*Continually monitor and assess the trends and likely impacts of changing climatic and sea level conditions on the Chesapeake Bay ecosystem, including the effectiveness of restoration and protection policies, programs and projects.*

*Continually pursue, design and construct restoration and protection projects to enhance the resiliency of Bay and aquatic ecosystems from the impacts of coastal erosion, coastal flooding, more intense and more frequent storms and sea level rise.*

## Cross-Cutting Project Areas

In addition to the four core focus areas, NCBO also engages in two cross-cutting activities—climate and the Choptank Habitat Focus Area—where the office applies its capabilities to advance local initiatives.

## Climate Resiliency

Climate variability, sea-level rise, and land subsidence are already affecting Chesapeake Bay natural systems and human-built communities. Monitoring and modeling these changes and effects is critical in providing guidance to resource managers and community planners. NOAA will help communities become more resilient by providing climate and sea-level change information and forecasts to protect critical assets such as roads, bridges, buildings, emergency facilities, and private businesses, as well as natural infrastructure.

### *Objectives and Strategies*

- Facilitate information exchange among researchers, resource managers, and planners to support improved decisions by fisheries, habitat, and community managers.
  - Strengthen monitoring of ecological impacts due to sea-level rise, recurring flooding, and ocean acidification through the Chesapeake Bay Sentinel Site Cooperative
  - Develop integrated ecosystem and climate science decision-support tools for communities and managers
  - Facilitate the delivery of climate science to NCBO environmental literacy programs
  - Evaluate the capability of using Chesapeake Bay Interpretive Buoy System observations to contribute to climate science and to monitor environmental changes after extreme weather events such as hurricanes
  - Foster and support expanded research on climate-related impacts among National Estuarine Research Reserve System and other environmental research organizations in the Chesapeake Bay
  
- Better incorporate climate change considerations into the Chesapeake Bay Program
  - Work with Chesapeake Bay Program Goal Implementation Teams to develop specific actions and a plan to coordinate climate science priorities
  - Use the Environmental Science Training Center to deliver content on climate science and education



## CHESAPEAKE BAY WATERSHED AGREEMENT HABITAT PROTECTION AND RESTORATION GOAL

*Restore, enhance and protect a network of land and water habitats to support fish and wildlife, and to afford other public benefits, including water quality, recreational uses and scenic value across the watershed*

## Choptank Habitat Focus Area

- Restore degraded oyster reef habitat to increase native oyster populations and rebuild important fish habitat
  - Develop and implement oyster restoration blueprints in Maryland (Harris Creek, Little Choptank River, Tred Avon River)
  - Work with partners to restore more than 900 acres of oyster reef habitat in three major tributaries of the Choptank River complex, including Harris Creek, Tred Avon River and the Little Choptank River
  - Map and characterize water column and near-shore habitats in the Choptank Complex using the Coastal and Marine Ecological Classification System in order to identify critical fish, shellfish, and protected resources habitat; conserve and manage habitat for priority species; and identify priority areas for restoration and conservation
  - Identify habitat restoration opportunities related to fish passage and wetland restoration that enhance ecosystem benefits derived from oyster restoration
  
- Demonstrate the benefits of oyster reef ecosystem services through the Oyster Reef Ecosystem Services project and living resource assessments
  - Quantify the fish utilization and productivity associated with large-scale oyster restoration to improve understanding of the ecological functions of restored reefs and to support restoration planning
  - Assess the ability of the restored oyster reef to be self-sustaining by quantifying the spawning stock and reproductive capacity
  - Assess the ability of the restored oyster reef to support adjacent degraded reefs by quantifying larval transport
  - Assess and quantify the oyster stock required to significantly improve water quality in and around restored reefs
  - Understand ecosystem services associated with armored shorelines and compare to natural shorelines
  - Conduct socioeconomic assessments, including a site profile and human use activities that depend on healthy habitats
  
- Apply NOAA science to inform better management and encourage complementary conservation actions across federal, state, and local levels of government
  - Improve delivery of NOAA's habitat science in the context of a changing climate, sea-level rise and coastal inundation, land use, and hydrologic patterns that drive delivery of nutrient and sediment pollution to this tidal tributary
  
- Engage local communities to ensure their increased involvement in and ownership of the protection and restoration of coastal habitats
  - Support collective impact toward the ecological health and community resilience of the Choptank River
  - Work with partners to encourage the use of NOAA resources and tools to support critical upcoming community decisions
  - Communicate NOAA and partner restoration and science efforts to the community
  - Work with school divisions in the Choptank complex to integrate NOAA content into the curriculum and environmental literacy plans



## NCBO RESEARCH VESSELS

### *R/V Bay Commitment*

The R/V *Bay Commitment* provides support for education, scientific, and management programs at the Office.

### *R/V Potawaugh*

The R/V *Potawaugh* is a safe and capable platform for research in the Chesapeake Bay and coastal waters, featuring the ability to run several types of sonar simultaneously.

### *R/V Allision*

The R/V *Allision* is used to maintain the network of Chesapeake Bay Interpretive Buoys (CBIBS) "smart buoys" around the Bay. Its rigid hull, inflatable boat (RHIB) design is ideal for coming alongside buoys to service their sensors and other hardware.

### *R/V Mugil*

The R/V *Mugil* is a specialized platform for biological sampling. Arranged with engine forward, the *Mugil* is specifically designed for near-shore deployment of seines and other net sampling gear.

## Organizational Excellence

NCBO is organized into two programs, the Ecosystem Science and Synthesis Program and the Environmental Literacy and Partnerships Program. The Ecosystem Science and Synthesis Program focuses on applied research and monitoring in fisheries and aquatic habitats; synthesis, analysis, and modeling to describe and predict Bay ecosystem processes; and the delivery of policy advice and technical assistance to Bay decision makers. The Environmental Literacy and Partnerships Program focuses on strategic partnerships with the Chesapeake Bay Program and other government, university, and nonprofit partners toward office priorities; the development of K-12 and higher education environmental science education programs; and communication about NOAA products, services, and programs to targeted audiences.

NCBO is headquartered in Annapolis, Maryland. The office also has staff located at the Cooperative Oxford Laboratory in Oxford, Maryland, and in Norfolk, Virginia.

Building partnerships, conducting field operation, providing top-notch IT support, strategically communicating about NCBO's work, and enabling finance and administration are critical operations that support organizational excellence at NCBO.

### *Objectives and Strategies*

**Partnerships:** Build strategic partnerships with organizations that can help advance NCBO priorities

- Provide the Chesapeake Bay Program partners with timely information on NOAA science, products, and funding opportunities to ensure broad understanding of the NOAA contribution to the Chesapeake Bay Watershed Agreement
- Strengthen partnerships with NOAA affiliates in the Chesapeake Bay region, including Sea Grant, National Estuarine Research Reserve System, and the Coastal Zone Program
- Maintain awareness of NCBO priorities and projects by key NOAA offices to foster partnership opportunities
- Actively engage with the North Atlantic Regional Team to identify opportunities to increase regional collaboration of NOAA offices

**Field Operations:** Prioritize, plan, and safely implement field operations in support of NCBO core missions

- Develop and deliver field program plans annually that directly link to NCBO priorities while coordinating with key partners, including requirements, schedules, and staffing needs
- Improve the effectiveness and efficiency of field operations by centralizing vessel, buoy, and other operational support assets
- Deliver management-driven mapping products, analytical tools, and peer-reviewed literature in a timely manner for use by NCBO and other decision-makers
- Maintain the highest possible maintenance and safety ratings through routine training, coordination with NOAA's small boat program, timely vessel upkeep and repair, and compliance with mandated safety procedures

**Information Technology:** Maintain IT infrastructure that is reliable, supports mission-critical NCBO programs, and allows broad data accessibility to a wide range of users

- Design and implement data systems that comply with NOAA policy and security requirements
- Design and implement redundancy for mission-critical NCBO data systems
- Improve NCBO data systems and tools to provide centralized and easily accessible data to partners and the public

**Communications:** Strategically communicate with key audiences to highlight NOAA science, programs, and projects and to raise the awareness of key issues facing the protection and restoration of the Chesapeake Bay

- Demonstrate the relevance to the agency of the latest NCBO products, services, and accomplishments to NOAA leadership to ensure long-term support for priorities and activities
- Coordinate with NOAA's Office of Legislative Affairs to provide the latest NCBO science and accomplishments to key Members of Congress, their staff, and state legislators
- Deliver information about NOAA sciences with significance to Bay residents through a robust web presence, targeted media outreach, and participation in key outreach events
- Actively engage with local communities where NCBO staff are located to increase awareness and understanding of NOAA priorities, products, and services

**Finance and Administration:** Ensure NCBO is responsive and actively engages with OHC to improve organizational administration

- Ensure compliance with NOAA Fisheries core policies, including travel, safety, and time and attendance
- Facilitate ongoing professional development opportunities for NCBO staff
- Conduct budget formulation and execution in a timely manner and maintain financial compliance with Office of Habitat Conservation
- Ensure that staff complete all required training on time
- Respond to data collection efforts on time and to high-quality standards

For more information contact:

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For more detailed information on the NOAA Chesapeake Bay Office, please visit:

[www.chesapeakebay.noaa.gov](http://www.chesapeakebay.noaa.gov)