



NOAA Chesapeake Bay Office Strategic Plan 2009-2013

VISION

A healthy and productive Chesapeake Bay ecosystem

MISSION

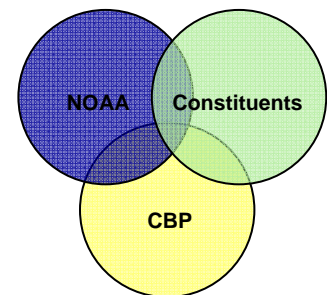
*Focusing NOAA's capabilities in science, service, and stewardship
to protect and restore the Chesapeake Bay*

The Chesapeake Bay is the nation's largest estuary, stretching across one of the most economically significant and populous regions of the United States. The Bay has two of the five major North Atlantic ports in the United States and yields approximately 500 million pounds of seafood annually. The estuary and connected rivers are home to more than 3,600 species of plants and animals, including some 350 species of finfish and 175 species of shellfish. Its waters have provided sustenance for generations of fishermen and supported the economies of Virginia and Maryland through tourism, commercial fisheries, transportation, and numerous forms of recreational activity. Over recent decades this biologically diverse ecosystem has declined dramatically, as evidenced by collapsed fishery stocks, such as native oysters and blue crab. Human effects on the ecosystem, such as overfishing, degraded water quality, and habitat destruction, are known or strongly presumed causes of most of the decline. Yet, there are success stories resulting from sound fisheries management, including a rebounding striped bass population. NOAA is committed to using state-of-the-art science and education programs to advise and support management decisions and to increase citizen stewardship of the Chesapeake Bay watershed.

Fulfilling Our Mandates

To help restore and protect the health and productivity of this valuable ecosystem, Congress directed the Department of Commerce to establish, within the National Oceanic and Atmospheric Administration (NOAA), a Chesapeake Bay Office. A primary function of the NOAA Chesapeake Bay Office (NCBO) is to provide technical assistance in: (1) identifying science-based management options for restoration and protection of living resources and their habitats; (2) monitoring and assessing the status of living resources and their habitats; and (3) evaluating the effectiveness of management plan implementation. Furthermore, NCBO is 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 programs and activities of NOAA, the Chesapeake Bay regional Sea Grant Programs, and the Chesapeake Bay units of the National Estuarine Research Reserve System. NCBO also works throughout the mid-Atlantic region to coordinate across NOAA and improve regional interactions with NOAA partners and customers.

NCBO provides critical scientific and policy support to the Chesapeake Bay Program, a voluntary regional partnership that has led efforts to restore the Bay since 1983. On behalf of the partnership, NOAA supports many of the goals outlined in the Chesapeake 2000 Agreement, including: Living Resource Protection and Restoration; Vital Habitat Protection and Restoration; Sound Land Use; and Stewardship and Community Engagement. NCBO also responds to the needs of local constituents by providing easy access to Bay data and products and ensuring information is distributed in a timely, easy to understand, and efficient manner.

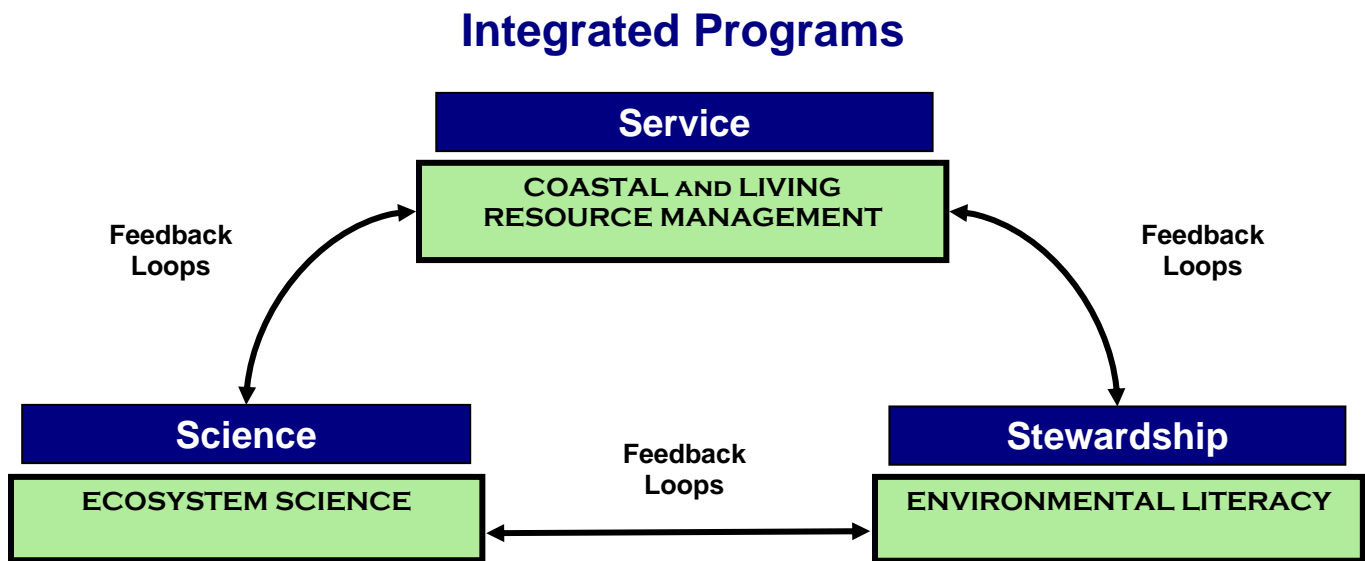


NCBO Principal Mission Drivers

Supporting NOAA

NOAA's Strategic Plan includes four Mission Goals and provides the foundation for all of the agency's activities. NCBO primarily focuses on NOAA's Mission Goal to "Protect, Restore, and Manage the Use of Coastal and Ocean Resources through an Ecosystem Approach to Management" and contributes to the outcomes of this goal largely through the NOAA Habitat Program. NCBO also supports NOAA's priorities in Integrated Global Environmental Observations and Data Management; Applied Research, Monitoring, and Modeling; and Environmental Literacy, Outreach, and Education.

NCBO provides a "storefront" for NOAA's activities in the mid-Atlantic region and serves as a model for regional collaboration by connecting and promoting the work of many NOAA offices and programs to advance the agency's mission. NCBO is staffed with professionals from multiple NOAA line offices including the National Marine Fisheries Service (NMFS), National Ocean Service, Office of Oceanic and Atmospheric Research, National Environmental Satellite and Data Information Service, and Office of Marine and Aviation Operations. This approach allows NCBO to support NOAA's priorities, which cut across multiple line offices, and fulfills the "one NOAA" vision established for the NOAA Chesapeake Bay Office in its authorizing language (see appendix A). NCBO is also committed to identifying and applying NOAA's full range of capabilities to addressing challenges in the mid-Atlantic region. NCBO embodies NOAA's core values of science, service, and stewardship through three integrated program areas—Ecosystem Science, Coastal and Living Resource Management, and Environmental Literacy. Together, these integrated program areas allow a comprehensive approach to ecosystem-based management:



In order to fulfill its mission, NCBO has identified three specific goals:

- 1) To provide science-based information and tools required to facilitate ecosystem approaches to management and stewardship;
- 2) To enhance implementation of ecosystem-based management through improved coordination and assistance and targeted protection and restoration; and
- 3) To foster ecosystem stewardship through increased environmental awareness, knowledge, and literacy in the Chesapeake Bay watershed.

This Strategic Plan describes the specific objectives and strategies NCBO will undertake from 2009-2013 to meet these goals and support efforts to restore and protect the Bay.

Goal: To provide science-based information and tools required to facilitate ecosystem approaches to management and stewardship.

NCBO's Ecosystem Science program focuses on applied research and monitoring; integrated coastal observations; and synthesis, analysis, and modeling to describe and predict ecosystem processes. NCBO undertakes these activities directly through its own capabilities, indirectly by supporting the work of outside entities (e.g., regional academic partners), and collaboratively with other NOAA offices and regional resource management partners (e.g., Chesapeake Bay Program and state partners).

Objective 1: Collect, analyze, and synthesize environmental data to create and enhance tools and models in support of ecosystem-based management.

Strategy: Expand the network and technical capabilities of buoys in the Chesapeake Bay Interpretative Buoy System to collect real-time observations data.

Strategy: Incorporate the Chesapeake Bay Interpretative Buoy System into the regional partnership of the Chesapeake Bay Observing System and the national Integrated Ocean Observing System.

Strategy: Map benthic habitats and collect water-quality data in select river systems.

Strategy: In partnership with the Cooperative Oxford Laboratory, develop ecosystem assessments in targeted coastal environments to further understanding of spatial and temporal relationships between living resources and their habitats.

Strategy: Validate and refine the Chesapeake Bay Fisheries Ecosystem Model using data from observations and fisheries monitoring programs. Use model outputs to identify data needs and make recommendations to refine and improve regional observations and monitoring programs.

Objective 2: Support applied fisheries and habitat research and monitoring to advance coastal and living resource management.

Strategy: Collect and maintain data on the spatial and temporal distribution of key fisheries species and critical habitats.

Strategy: Provide detailed monitoring support to evaluate the effectiveness of habitat restoration projects.

Strategy: Assess the effects of marine debris, including derelict fishing gear, on fisheries and other aquatic resources in the Chesapeake Bay.

Ecosystem Science supports:

NOAA Strategic Plan, Mission Goal 1

Protect, Restore and Manage the Use of Coastal and Ocean Resources through an Ecosystem Approach to Management

NOAA Strategic Plan, Cross-Cutting Priorities

- Integrated Global Environmental Observation and Data Management
- Sound, State-of-the-Art Research

Chesapeake Bay Program Goals

- Healthy Habitats
- Ecosystem-Based Fisheries Management

Mandates

- Magnuson-Stevens Fishery Conservation and Management Act
- Clean Air Act
- U.S. Ocean Action Plan

...working with our key partners:

NOAA

- National Centers for Coastal Ocean Science
- CoastWatch
- Coastal Services Center
- National Estuarine Research Reserve System
- Sea Grant

External partners

- Chesapeake Bay Observing System
- Mid-Atlantic Coastal Ocean Observing Regional Association
- State resource agencies
- University of Maryland
- Virginia Institute of Marine Science

Objective 3: Provide products and decision-support tools for use by coastal and living resource managers and other Bay constituents.

Strategy: Develop products based on ecosystem and biogeographic assessments for use by regional and state natural resource managers.

Strategy: Ensure reliable, up-to-date, data-driven products are made available through NCBO's web-based Coastal Prediction Center.

Strategy: Provide science-based tools to Sea Grant and other regional partners for their use in developing outreach, education, and extension activities.

Strategy: Ensure environmental information collected by NCBO is accessible by its partners and stakeholders; increase the utility of online database tools and geographic information systems.

Goal: To enhance implementation of ecosystem-based management through improved coordination and assistance and targeted protection and restoration.

NCBO understands the needs of coastal and living resource managers and coordinates NOAA's programs to deliver focused policy advice, technical assistance, and facilitation services to Bay decisionmakers and beyond. NCBO's activities ensure data and information, generated or supported by NOAA, are delivered to coastal and living resource managers in a timely manner and in a useful form. NCBO ensures its efforts are responsive to NOAA's national and regional priorities, as well as the shared coastal management priorities of Chesapeake Bay state and local partners. Living resource management at NCBO encourages ecosystem-based approaches to management for the protection and restoration of key ecological species (e.g., oysters, striped bass, menhaden, and blue crabs) and their habitats (e.g., submerged aquatic vegetation).

Objective 1: Understand coastal and living resource management needs and the critical institutional and governmental decisionmaking frameworks used by Bay stakeholders.

Strategy: Coordinate with appropriate NOAA programs, including programs of the Office of Ocean and Coastal Resource Management, Coastal Services Center, National Centers for Coastal Ocean Science, Office of Habitat Conservation, Office of National Marine Sanctuaries, and NOAA Sea Grant to advance shared program goals and objectives (including providing comprehensive assistance to stakeholders), and avoid duplication of efforts.

Strategy: Assist the Chesapeake Bay Program in protecting and restoring living resources, aquatic habitats, and natural areas by working to align our organizational strategies and implementation mechanisms.

Coastal and Living Resource Management supports:
<p>NOAA Strategic Plan, Mission Goal 1 Protect, Restore and Manage the Use of Coastal and Ocean Resources through an Ecosystem Approach to Management</p> <p>NOAA Strategic Plan, Mission Goal 2 Understand climate variability and change to enhance society's ability to plan and respond</p> <p>Chesapeake Bay Program Goals</p> <ul style="list-style-type: none"> - Healthy Habitats - Ecosystem-Based Fisheries Management <p>Mandates</p> <ul style="list-style-type: none"> - Coastal Zone Management Act - Magnuson-Stevens Fishery Conservation and Management Act
...working with our key partners:
<p>NOAA</p> <ul style="list-style-type: none"> - Fisheries Northeast Regional Office - Office of Habitat Conservation - Office of Ocean and Coastal Resource Management - Office of National Marine Sanctuaries - Coastal Services Center - National Estuarine Research Reserve System - Sea Grant <p>External partners</p> <ul style="list-style-type: none"> - State coastal programs - State fisheries and habitat managers - U.S. Army Corps of Engineers - U.S. Fish and Wildlife Service - Oyster Recovery Partnership

Objective 2: Promote, apply, and transfer applied scientific research and ecosystem management tools to fisheries and habitat managers.

Strategy: Provide science-based resource management tools (e.g., habitat mapping applications) to targeted partners responsible for managing ecosystem structure, function, and services.

Strategy: Share NCBO's fisheries-based ecosystem modeling capabilities with other NOAA programs to expand the use of models to support ecosystem-based resource management.

Strategy: Design and publish fisheries and habitat science syntheses for key Bay species such as blue crabs and menhaden and key habitats such as submerged aquatic vegetation for use by fisheries and habitat managers.

Strategy: Leverage NOAA's investments in shellfish aquaculture, habitat restoration, and non-native species to inform and influence native oyster restoration strategies and consideration of non-native oyster introductions (i.e., *Crassostrea ariakensis*).

Objective 3: Collect, synthesize, and communicate information to inform and influence coastal and living resource management issues.

Strategy: Provide facilitation and coordination services to coastal and living resource management stakeholders to address multi-state and regional management issues, such as living shorelines, climate change, and fisheries management in the Chesapeake Bay and throughout the mid-Atlantic region.

Strategy: Facilitate coordination and integration of Chesapeake Bay regional observation and monitoring efforts into management framework.

Strategy: Encourage living resource data sharing, access, and use by scientists and managers in the Chesapeake region.

Objective 4: Prioritize and implement NOAA restoration and protection actions in the Chesapeake.

Strategy: Develop more strategic protection strategies for Bay habitats by identifying desired goals for ecosystem improvements (ecological endpoints) and focusing NCBO's restoration efforts on specific actions and areas to further those goals.

Goal: To foster ecosystem stewardship through increased environmental awareness, knowledge, and literacy in the Chesapeake Bay watershed.

NCBO's Environmental Literacy program provides educational programming designed to increase awareness, build knowledge, and facilitate productive and lasting citizen involvement in stewardship of the Chesapeake Bay watershed through meaningful educational experiences. The educational programming includes general communication and outreach to Bay citizens, planning assistance to local decisionmakers, and support for formal education (e.g., K-12 and post-secondary).

Objective 1: Deliver and support high-quality education programming to increase environmental literacy and stewardship of K-16 students.

Strategy: Utilize Bay Watershed Education and Training (B-WET) funding to continually improve and institutionalize meaningful watershed educational experiences and better integrate NOAA sciences into K-16 formal education.

Strategy: Establish an Environmental Science Training Center at the Cooperative Oxford Laboratory to provide workshops and materials targeted to meet the needs of environmental education professionals.

Strategy: Refine the Emerging Scientist Project to showcase NOAA capabilities through teacher training, hands-on student experiences, and distance learning to meet the needs of underserved communities.

Strategy: Develop opportunities for students to learn about and participate in NCBO research and policy initiatives.

Strategy: Actively engage in the environmental education policy initiatives of the states in the mid-Atlantic region, including working with partners to better represent environmental literacy principles in standards and programming.

Objective 2: Improve knowledge and understanding of complex science and management issues by community and business leaders to ensure informed decisionmaking.

Strategy: Coordinate the Chesapeake Network for Education of Municipal Officials (CNEMO) to better link network partner efforts and improve delivery of educational programs and technical and financial assistance to foster well-planned growth, preserve water quality, and protect natural resources.

Strategy: Use lessons learned from existing partner networks to better engage the CNEMO partners and build a strong foundation for increased collaboration.

Strategy: Develop and utilize new communication and interpretation tools to enhance and support the science, management, and restoration of the Chesapeake Bay through improved spatial analyses, report cards, and forecasts, accomplished in part through partnering with Chesapeake EcoCheck.

Objective 3: Raise the public's awareness of NOAA issues with significance to Bay residents by communicating and interpreting information about regional, national, and global systems and their stressors.

Strategy: Deliver basic information about NOAA sciences related to critical local and national issues at key outreach events and through targeted media outlets.

Strategy: Convey important NOAA scientific and management findings to constituents in a timely manner using a variety of tools, including media, web, and lecture series, as appropriate.

Strategy: Strengthen and promote Nauticus as a premier NOAA outreach center in the mid-Atlantic region to deliver information on NOAA products and services that are significant to Chesapeake Bay residents and visitors.

Strategy: Enhance and expand the ability of the Chesapeake Bay Interpretive Buoy System to deliver and interpret real-time data and environmental and historical messages in support of the Captain John Smith Chesapeake National Historic Trail.

Environmental Literacy supports:

NOAA Strategic Plan, Cross-Cutting Priorities

- Environmental Literacy, Outreach, and Education

NOAA Education Plan

Chesapeake Bay Program Goals

- Fostering Chesapeake Stewardship

Mandates

- America Competes Act

...working with our key partners:

NOAA

- Office of Education
- National Centers for Coastal Ocean Science
- National Estuarine Research Reserve System
- Sea Grant

External partners

- State departments of education
- State resource agencies
- National Park Service
- Smithsonian Environmental Research Center
- Nauticus
- Chesapeake Bay Foundation
- Other local and regional educational nonprofits

Objective 4: Strategically communicate with NOAA line offices, the Chesapeake Bay Program, Congress, and state legislatures on key issues facing the restoration and protection of the Chesapeake Bay.

Strategy: Communicate the latest products, services, and accomplishments of NCBO and the North Atlantic Regional Team to NOAA leadership.

Strategy: Provide the Chesapeake Bay Program leadership, staff, and partners with timely information on NOAA science, products, and funding opportunities to ensure broad understanding of NOAA's role in restoration and protection of Bay resources.

Strategy: Coordinate with NOAA's Office of Legislative Affairs to provide the latest NCBO science and accomplishments in a usable format to key Members of Congress, their staff, and state legislators.

APPENDIX A: NOAA Chesapeake Bay Office Authorization

In a Memorandum of Understanding signed in 1984 with the U.S. Environmental Protection Agency, NOAA established its participation in the Chesapeake Bay Program (CBP). The MOU reflects a mutual desire that the capabilities of NOAA in the area of environmental studies and state/federal resource management functions, such as coastal zone and fishery management, benefit from and are coordinated with Chesapeake Bay cleanup activities. NCBO was officially established by Congress in 1992 by Section 307 of the NOAA Authorization Act [102-567] and reauthorized in 2002 by Section 401 of the NOAA Hydrographic Services Improvement Act [Public Law 107-372].

2002 Authorization Language

FUNCTIONS.—The Office, in consultation with the Chesapeake Executive Council, shall—

- (1) provide technical assistance to the Administrator, to other Federal departments and agencies, and to State and local government agencies in—
 - (A) assessing the processes that shape the Chesapeake Bay system and affect its living resources;
 - (B) identifying technical and management alternatives for the restoration and protection of living resources and the habitats they depend upon; and
 - (C) monitoring the implementation and effectiveness of management plans;
- (2) develop and implement a strategy for the National Oceanic and Atmospheric Administration that integrates the science, research, monitoring, data collection, regulatory, and management responsibilities of the Secretary of Commerce in such a manner as to assist the cooperative, intergovernmental Chesapeake Bay Program to meet the commitments of the Chesapeake Bay Agreement;
- (3) coordinate the programs and activities of the various organizations within the National Oceanic and Atmospheric Administration, the Chesapeake Bay Regional Sea Grant Programs, and the Chesapeake Bay units of the National Estuarine Research Reserve System, including—
 - (A) programs and activities in—
 - (i) coastal and estuarine research, monitoring, and assessment;
 - (ii) fisheries research and stock assessments;
 - (iii) data management;
 - (iv) remote sensing;
 - (v) coastal management;
 - (vi) habitat conservation and restoration; and
 - (vii) atmospheric deposition; and
 - (B) programs and activities of the Cooperative Oxford Laboratory of the National Ocean Service with respect to—
 - (i) nonindigenous species;
 - (ii) estuarine and marine species pathology;
 - (iii) human pathogens in estuarine and marine environments; and
 - (iv) ecosystem health;
- (4) coordinate the activities of the National Oceanic and Atmospheric Administration with the activities of the Environmental Protection Agency and other Federal, State, and local agencies;
- (5) establish an effective mechanism which shall ensure that projects have undergone appropriate peer review and provide other appropriate means to determine that projects have acceptable scientific and technical merit for the purpose of achieving maximum utilization of available funds and resources to benefit the Chesapeake Bay area;
- (6) remain cognizant of ongoing research, monitoring, and management projects and assist in the dissemination of the results and findings of those projects; and
- (7) submit a biennial report to the Congress and the Secretary of Commerce with respect to the activities of the Office and on the progress made in protecting and restoring the living resources and habitat of the Chesapeake Bay, which report shall include an action plan consisting of—
 - (A) a list of recommended research, monitoring, and data collection activities necessary to continue implementation of the strategy described in paragraph (2); and
 - (B) proposals for—
 - (i) continuing any new National Oceanic and Atmospheric Administration activities in the Chesapeake Bay; and
 - (ii) the integration of those activities with the activities of the partners in the Chesapeake Bay Program to meet the commitments of the Chesapeake 2000 agreement and subsequent agreements.

The Office also is directed to carry out a Chesapeake Bay Fishery and Habitat Restoration Small Watershed Grant Program.