

**WRITTEN TESTIMONY
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NATIONAL MARINE FISHERIES SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE**

**LEGISLATIVE HEARING ON
H.R. 1771, THE *CHESAPEAKE BAY SCIENCE, EDUCATION AND ECOSYSTEM
ENHANCEMENT ACT OF 2009*, H.R. 1053, THE *CHESAPEAKE BAY
ACCOUNTABILITY AND RECOVERY ACT OF 2009*, AND H.R. 905, THE
*THUNDER BAY NATIONAL MARINE SANCTUARY AND UNDERWATER
PRESERVE BOUNDARY MODIFICATION ACT***

**BEFORE THE
SUBCOMMITTEE ON INSULAR AFFAIRS, OCEANS, AND WILDLIFE
COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES**

July 8, 2009

Good morning Chairwoman Bordallo and members of the Subcommittee. My name is Peyton Robertson, and I am the Director of the National Oceanic and Atmospheric Administration (NOAA) Chesapeake Bay Office. Thank you for the opportunity to provide testimony describing the current activities of the NOAA Chesapeake Bay Office, as well as provide the Administration's views on H.R. 1771, which would reauthorize the NOAA Chesapeake Bay Office. In addition, my testimony will also provide views on H.R. 1053, the *Chesapeake Bay Accountability and Recover Act of 2009*, and H.R. 905, the *Thunder Bay National Marine Sanctuary and Underwater Preserve Boundary Modification Act*.

CHESAPEAKE BAY

The Chesapeake Bay is North America's largest estuary, stretching across one of the most economically significant and populous regions of the United States. Nearly 17 million people live in the Bay's watershed, which spreads across New York, Pennsylvania, West Virginia, Maryland, Delaware, Virginia, and Washington, D.C. Home to more than 3,600 species of plants and animals, including some 350 species of finfish and 175 species of shellfish, the Bay is a biologically diverse ecosystem. But the health of this ecosystem has faced many years of environmental challenges from a wide variety of sources, including the human-induced impacts of degraded water quality, overharvesting of fisheries, and habitat destruction.

The NOAA Chesapeake Bay Office (NCBO or the Office) was established by Congress through the *NOAA Authorization Act of 1992* (Public Law 102-567), to strengthen NOAA's multiple capabilities for science, service and stewardship to protect and restore the Chesapeake Bay. The NOAA Chesapeake Bay Office was reauthorized by Congress in 2002 (P.L. 107-372).

NCBO is a place where NOAA works across line offices and disciplines to serve the needs of the region. NCBO staff includes personnel from the National Marine Fisheries Service, the National Ocean Service, the Office of Oceanic and Atmospheric Research, and the National Environmental Satellite, Data, and Information Service. The Office provides a clear focal point within NOAA for Chesapeake Bay initiatives and a conduit to apply NOAA's wide range of capabilities to help address the problems and challenges of natural resource management in the Bay region.

Working with our constituents — resource managers and policymakers throughout the Bay region — NCBO provides state-of-the-art science, technical assistance and support, in addition to outreach and education activities to advance the restoration of the Chesapeake Bay ecosystem and increase citizen stewardship throughout the Bay watershed. NCBO seeks to understand the variety of factors that contribute to the Bay's health; examine the interactions between air, land and water that drive the ecosystem; and engage decision makers and the public in a meaningful way to improve their knowledge and ability to restore the estuary. Our staff works to improve the management of living resources, habitat restoration, and monitoring.

NCBO is co-located with the Chesapeake Bay Program in Annapolis, Maryland. The Chesapeake Bay Program is a unique regional partnership that has led and directed the restoration of the Chesapeake Bay since 1983. NOAA has been a valued federal partner of the Chesapeake Bay Program since the signing of a memorandum of agreement with the Environmental Protection Agency (EPA) in 1984, and collaborates with Bay Program partners on a daily basis. The Chesapeake Bay Program partners include the states of Maryland, Pennsylvania and Virginia; the District of Columbia; the Chesapeake Bay Commission, a tri-state legislative body; the EPA, representing the federal government; and participating citizen advisory groups.

NCBO played a substantial role in working with the Bay Program to develop the 2008 Chesapeake Action Plan, the new road map for implementing Bay restoration actions. This Action Plan reflects a more strategic approach to targeting resources and developing realistic annual targets from which to measure progress. Under the Bay Program's reorganized structure, NOAA is playing a lead role in the goal to "Protect and Restore Fisheries," utilizing the technical expertise and state partnerships described previously to further define the way forward in inter-jurisdictional fisheries and living resources management. NOAA's coastal observing capabilities, including the newly established Chesapeake Bay Interpretive Buoy System, are helping to evaluate the efforts of the Bay states to further reduce nutrient pollution and improve Bay water quality. NOAA is working with partners to meet many of the commitments of the Chesapeake 2000

Agreement, including goals for stewardship education, blue crab management, submerged aquatic vegetation and oyster restoration, and ecosystem-based fisheries management.

On May 12, 2009, President Obama issued Executive Order 13508, the *Chesapeake Bay Protection and Restoration Executive Order*, which calls for a greater federal role and accountability for bay protection and restoration. The Executive Order established a Federal Leadership Committee that is responsible for developing a coordinated federal strategy to protect and restore the Chesapeake Bay, and will oversee the development and coordination of programs and activities undertaken by federal agencies involved in Bay restoration efforts. The Committee, which is chaired by the Environmental Protection Agency, includes senior representatives from the Departments of Agriculture, Commerce, Defense, Homeland Security, the Interior, Transportation, and others. NOAA participates in the Federal Leadership Committee on behalf of the Department of Commerce, and NCBO is providing support to NOAA leadership for this important effort. NCBO is also supporting NOAA and the Department of Commerce's responsibility for development of three of seven reports required by the Executive Order, along with our partners at the Department of the Interior. These reports focus on: (1) assessing climate change impacts; (2) strengthening scientific support for decision making; and (3) developing habitat protection and living resources research activities.

NCBO'S EFFORTS TO ADDRESS EMERGING ISSUES IN CHESAPEAKE BAY

NCBO has organized its activities into three primary functions to ensure our capabilities are aligned with the current and future needs of the Bay and our constituent partners. The three primary functions are ecosystem science, coastal and living resources management, and environmental literacy. Our efforts in these functional areas support NCBO's goals to advance the restoration of the Chesapeake Bay ecosystem through ecosystem-based management, and to provide for broad engagement of students and citizens to help restore the estuary.

Ecosystem Science

NCBO's ecosystem science capabilities provide an important response to emerging needs for collection of environmental data in "real time," as harmful algal blooms, weather-driven changes in water quality, and other environmental phenomena require such technologies for early detection and response. NCBO utilizes applied research and monitoring; integrated coastal observations; and synthesis, analysis, and modeling to describe and predict Bay ecosystem processes. NCBO undertakes these activities directly through its own capabilities, including a state-of-the-art field program, indirectly by supporting the work of outside entities (including regional academic partners), and collaboratively with other NOAA offices and regional resource management partners (including the Chesapeake Bay Program and state partners).

Some recent examples of NOAA's work in the area of ecosystem science include:

- **The Chesapeake Bay Interpretive Buoy System (CBIBS):** Buoys have been deployed at the mouths of the Susquehanna, Patapsco, Potomac, and Rappahannock rivers; in the James River off Jamestown, Virginia; and in the Elizabeth River off Norfolk. Each CBIBS buoy is deployed with an appropriate set of sensors for its location. For example, wave height and current velocity sensors are installed on buoys located in high-traffic boating areas such as the Rappahannock River. These buoys also mark and interpret key points along the Captain John Smith Chesapeake National Historic Trail.
- **Habitat Characterization:** NCBO's field program operates a variety of vessels to collect up-to-date acoustic information on the sea floor, bottom dwelling organisms (e.g., oysters), sediment types, and fish stocks. Native oyster restoration and fish habitat programs in Maryland and Virginia have been key users of NCBO benthic habitat characterizations. Acoustic mapping information has helped identify where optimal oyster habitat exists and aided site selection for oyster restoration projects.
- **Derelict Fishing Gear:** NCBO organized a derelict fishing gear research effort, in collaboration with a number of federal, state, and academic partners, including the Virginia Marine Resource Commission, Maryland Department of Natural Resources, Virginia Institute of Marine Science, and the NOAA Marine Debris Program. A derelict fishing gear sonar survey of the Maryland portion of the Bay (and analysis of the commercial fishing effort) enabled NCBO to estimate approximately 42,000 derelict crab traps in Maryland Bay waters alone.

Coastal and Living Resources Management

NCBO's efforts in coastal and living resources management includes identification and analysis of the needs of coastal and living resource managers, and coordination with other NOAA programs, to deliver policy advice and technical assistance to decision makers. Living resource management strategies supported by NCBO foster ecosystem-based approaches to management for the protection and restoration of key ecological species, such as oysters, striped bass, menhaden, blue crabs, and their habitats, including submerged aquatic vegetation.

Some recent key NCBO accomplishments in the area of coastal and living resources management include:

- **Non-Native Oyster Research:** As a cooperating agency on a recent Programmatic Environmental Impact Statement (PEIS) to evaluate the best alternative for recovering the oyster population in Chesapeake Bay, NOAA funded a research program to examine the risks associated with the proposed introduction of the Asian oyster, *Crassostrea ariakensis*. The PEIS utilized findings from NOAA's research to examine issues such as the level of competition between the native oyster, *C. virginica*, and *C. ariakensis*, their relative resistance to oyster diseases, and the two species' ability to form habitat (reefs) for other living resources. NCBO played a critical role in linking the science from this research to the policy of the PEIS, ultimately resulting in the

selection of a preferred alternative that favors native oyster restoration over the introduction of a non-native species.

- **Blue Crab Science for Management:** The blue crab is an icon of the Bay, but population levels and harvest numbers remain below average. Of special concern are trends that show juvenile and female populations at low numbers. NCBO plays a critical role in delivering the science resource managers need to make informed decisions regarding blue crabs in the Chesapeake Bay. The Chesapeake Bay Program Fisheries Steering Committee, chaired by NOAA, releases an annual Blue Crab Advisory Report providing regional resource managers with the data and information needed to support sustainable management of the blue crab fishery. In light of this technical guidance, and other scientific input, in April 2008 the Governors of Maryland and Virginia called for new blue crab restrictions. State resource management entities responded by strengthening regulations on fishing for female crabs and reducing time periods for the crab fishery.

Environmental Literacy

NCBO provides a continuum of educational programming designed to increase awareness, build knowledge, and facilitate productive and lasting citizen involvement in stewardship of the Chesapeake Bay watershed. NCBO's environmental literacy program has driven change and enhanced the environmental literacy of Bay watershed citizens.

Some recent NCBO accomplishments in the area of environmental literacy include:

- **Stewardship Education:** NCBO has been a leader in designing the Bay Watershed Education and Training (B-WET) program, which provides meaningful educational experiences for students in the watershed. A recent formal evaluation of this effort demonstrated tangible links between students participating in these experiences and an increase in their environmental stewardship and literacy. A research team, led by eeEvaluations, released an evaluation of the B-WET Chesapeake Program in February 2007. This report found that students increased their knowledge of issues facing the Bay watershed and actions they can take to protect the Bay, thereby strengthening their intention to take action.
- **Supporting Local Decision Makers:** One of the most difficult challenges for bay restoration is the impact associated with land use in the watershed. As the population continues to increase, the land development decisions made by a local elected officials and governments determine the landscape patterns we see on the ground. NCBO is a partner in organizing Chesapeake NEMO — the Network for Education of Municipal Officials — which helps communities in the Chesapeake watershed foster well-planned growth, preserve water quality, and protect natural areas. Chesapeake NEMO connects communities with educational and financial assistance programs on natural resource-based planning, and delivers customized technical assistance, helping communities implement sound planning and watershed protection.

- **NOAA @ Nauticus: Storefront to the Public:** Engaging the public in efforts to restore Chesapeake Bay is a challenge, given that the population of the watershed is so large and spread out. Nauticus, a maritime museum located on the Norfolk waterfront, is visited by over 300,000 people each year. Targeting this venue and the opportunities it presents to reach a discrete segment of the interested public, NCBO staff at this location focus on education and outreach. Activities include a NOAA Education Resource Center, which disseminates NOAA products to educators in and around the Norfolk area, and “Science on a Sphere,” a NOAA-developed six-foot spherical representation of the Earth that illustrates phenomena such as global climate change and ocean circulation, connecting Chesapeake Bay residents with the larger earth ecosystem.

H.R. 1771

NOAA and the Administration support ongoing efforts to restore the Chesapeake Bay. H.R. 1771, the *Chesapeake Bay Science, Education and Ecosystem Enhancement Act of 2009*, would reauthorize the NCBO and provide specific authority for the Office to continue several ongoing activities, including to: (1) conduct integrated coastal observations, including the Chesapeake Bay Interpretive Buoy System; (2) create a Chesapeake Bay Watershed Education and Training Program to promote environmental literacy through grants to eligible entities; and (3) establish a Chesapeake Bay coastal living resources management and habitat program to support coordinated management, protection, characterization, and restoration of priority Chesapeake Bay habitats and living resources, including oysters, blue crabs, and submerged aquatic vegetation.

We support the goal of this legislation to ensure NOAA’s science, research, and resource management capabilities are applied to address the challenges facing Chesapeake Bay. However, we note that each of the newly added sections for NOAA’s Chesapeake Bay Office authorization in H.R. 1771 includes a mandatory requirement, and is very specific in listing details relating to these proposed activities. Therefore, the Administration recommends the Committee consider changing "shall" to "may" in the following sections of the legislation: Sec. 2(4)(A) and 2(4)(C) (Integrated Coastal Observations); Sec. 2(5)(A) (Chesapeake Bay Watershed Education and Training Program); Sec. 2(6)(A) (Coastal and Living Resource Management and Habitat Program). This change would allow the Administration to maintain program flexibility and determine appropriate spending as new issues emerge within the Chesapeake Bay region.

NOAA supports H.R. 1171 and looks forward to working with the Committee as the bill moves forward.

H.R. 1053

The Administration supports the underlying purpose of H.R. 1053, which is to ensure coordinated and efficient use of federal dollars for the restoration of Chesapeake Bay.

However, the bill's requirements would duplicate existing efforts. As noted above, the President recently issued Executive Order 13508, which established a Federal Leadership Committee to develop a coordinated long-term federal strategy to protect and restore the Chesapeake Bay. The Executive Order also requires an annual Chesapeake Bay Action Plan that describes how proposed federal funding for the upcoming year will be used for restoration activities and an annual progress report to assess implementation of the plan and review indicators of environmental conditions. The Administration believes the strategy developed by the Federal Leadership Committee, which will be released for public review later this year, and the annual action plan effectively meet the objectives of H.R. 1053.

THUNDER BAY — H.R. 905

The Thunder Bay National Marine Sanctuary (Sanctuary) was designated in October 2000 for the purposes of providing long-term protection and management to the conservation, recreational, research, educational, and historical resources and qualities of a nationally significant collection of shipwrecks and other maritime heritage resources in the area. The sanctuary also enhances the ability of NOAA and its partners to observe, protect, and manage the Great Lakes. By working with various partners on interdisciplinary Great Lakes research, NOAA is working toward a better understanding of the physical, chemical, and biological processes that specifically affect sanctuary resources, while contributing to efforts to better understand the Great Lakes overall.

H.R. 905, the *Thunder Bay National Marine Sanctuary and Underwater Preserve Boundary Modification Act*, has widespread support in local communities as a proposal that would provide immediate federal protection to the shipwrecks, and other maritime heritage resources, located off Michigan's Presque Isle and Alcona Counties by incorporating them into the Sanctuary.

On May 22, 2007, the Thunder Bay National Marine Sanctuary Advisory Council, recommended the boundaries of the Sanctuary be expanded. The advisory council is a diverse body that represents the community's different interests, including government, education, maritime history and interpretation, fishing, diving, tourism, economic development, and the community-at-large. Advisory council members serve as liaisons between their constituents and the sanctuary, keeping sanctuary staff informed of issues and concerns and performing outreach to their respective constituents on the sanctuary's behalf. Formal support for sanctuary expansion has been received from the City of Alpena, Alpena County, Alpena Township, Sanborn Township, Presque Isle Township, the City of Rogers City, Alcona County, Michigan Sunrise Side Travel Association, the Thunder Bay Underwater Preserve, and the Sunrise Side Coastal Highway Management Council. Additionally, the sanctuary has received numerous public comments supporting expansion at public meetings held in 2005, 2006, and 2009.

Support for Sanctuary expansion should not be surprising given the success we have had in managing the Sanctuary, building a strong partnership with the State of Michigan, and maintaining relationships with the local communities. Enthusiastic support for sanctuary expansion is due to resource protection programs, like our mooring buoy program, that increase access in addition to promoting responsible use of the resources and the Great Lakes. Sanctuary education and outreach programs, such as telepresence, shipboard education, and remotely operated vehicle building, help to enrich the lives of people of all ages and backgrounds as they learn about, physically experience, and work to preserve the Great Lakes and their maritime heritage. Research by sanctuary staff and its partners has led to discovery, documentation, assessment, management, and interpretation of the area's historically significant shipwrecks and other archaeological, historical, and environmental resources. The Sanctuary has also benefited local communities by highlighting the region's maritime heritage resources and provided additional opportunities for tourism and economic growth in Northeastern Michigan.

H.R. 905 would expand the Sanctuary's boundaries to approximately nine times its current size of 448 square miles. The Sanctuary's shoreline would also increase from 95 to 225 miles and subsequently include the cities of Alpena, Harrisville and Rogers City. Under this proposal an additional five state park properties, seven historic lighthouses and one lifesaving station would also be adjacent to the expanded boundaries. H.R. 905 would add important protection for nationally and internationally significant maritime heritage resources that are vulnerable to human impacts.

More than 100 additional shipwrecks rest within the proposed expansion area. Magnificently preserved by the cold freshwater of Lake Huron, these archeological sites are one of the nation's best-preserved and historically-significant collections of shipwrecks. From pioneer steamers to majestic schooners to modern freighters, these sites represent a microcosm of maritime commerce on the Great Lakes. Memorials to the men and women that worked the inland seas, these unique sites have tremendous historical, archaeological, and recreational value.

NOAA agrees with the underlying purpose of H.R. 905, which is to provide federal protection to the shipwrecks, and other maritime heritage resources, located off Michigan's Presque Isle and Alcona Counties by incorporating them into the Sanctuary. While there is public support for such an expansion, as a general matter NOAA prefers to see that significant actions such as these be vetted through public management plan and regulatory development processes rather than legislatively, as H.R. 905 would do.

CONCLUSION

Thank you very much for the opportunity to provide testimony on H.R. 1771, H.R. 1053, and H.R. 905. We look forward to working with you.