

**TESTIMONY OF J. CHARLES FOX
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BEFORE THE
SUBCOMMITTEE ON WATER AND WILDLIFE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U.S. SENATE**

November 9, 2009

Chairman Cardin and Members of the Subcommittee, I am J. Charles Fox, Senior Advisor to Administrator Lisa P. Jackson at the U.S. Environmental Protection Agency (EPA). Thank you for the invitation to speak today on S. 1816 which reauthorizes and strengthens the Chesapeake Bay Program. We appreciate greatly the leadership of this Subcommittee on the Chesapeake and we look forward to continuing to work closely with you in the weeks and months ahead.

President Obama's Executive Order on the Chesapeake Bay defines a new era of federal leadership, one that is characterized by new levels of accountability, performance, partnership and innovation. In this regard, we welcome the objectives and many elements of S. 1816, particularly those which closely parallel the Executive Order. The twenty-six year history of the modern Chesapeake Bay cleanup program suggests that we will need new tools to be successful in achieving our ambitious goals for the Bay and the watershed.

The Importance of the Watershed and the Bay

The Chesapeake Bay watershed encompasses 64,000 square miles, parts of six States and the District of Columbia. Nearly 17 million people live in the watershed. The land mass of the Bay watershed is sixteen times

the size of the Bay, a ratio higher than any other estuary in the world. This means that our actions on the land have a profound impact on our local streams, rivers and, ultimately the Bay.

The Chesapeake Bay is the largest estuary in North America and is ecologically, economically and culturally critical to the region and the country. It is home to more than 3,600 species of fish, plants and animals. For more than 300 years, the Bay and its tributaries have sustained the region's economy and defined its traditions and culture. The economic value of the Bay is estimated at more than \$1 trillion¹ and two of the five largest Atlantic ports (Baltimore and Norfolk) are located in the Bay.

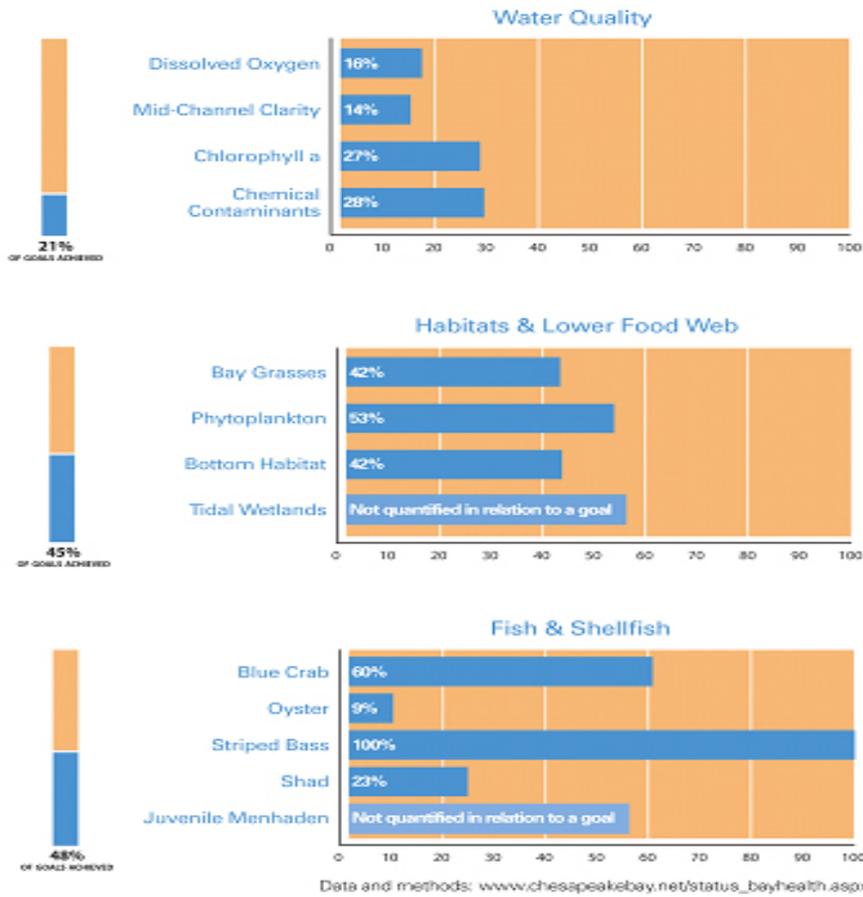
The Health of the Bay

In March 2009, the Chesapeake Bay Program issued its annual Health and Restoration Assessment of the Chesapeake Bay and Watershed, also referred to as the "Bay Barometer."

The Bay Barometer affirms what we all know. Despite the impressive restoration work done by the array of partners, the health of the Bay and watershed remains severely degraded. The data included in this report are sobering. Virtually all of the 13 measures which comprise Bay health show conditions that fall short of restoration goals (water quality, habitats and lower food web and fish and shellfish) (see Figure 1). There have been positive improvements in the population of striped bass, which is generally attributed to the actions by Maryland, Virginia and other east coast states to limit harvest pressure years ago.

¹ *Saving a National Treasure: Financing the Cleanup of the Chesapeake Bay*, A Report to the Chesapeake Bay Executive Council, Chesapeake Bay Blue Ribbon Finance Panel, October 27, 2004

Figure 1. Chesapeake Bay Measures of Health Progress (2008)



In general, the Bay Program partners have made some important – but not sufficient -- progress to reduce nutrient pollution from agriculture and wastewater treatment plants. EPA estimates that restoration of the Bay will require a thirty percent reduction in nutrients from current pollution levels and an eight percent reduction in sediment. Accomplishing these reductions over the coming years while population growth and related development continue is an extraordinarily difficult challenge.

Agriculture is the single largest source of nutrient and sediment pollution to the Bay, with about half of that load directly related to animal manure.

Pollution from urban and suburban stormwater has also an increasingly large impact on the Bay's water quality. The negative trend in nutrient and sediment pollution from stormwater is directly linked to the rise in population and land use patterns in the watershed. Since 1950, the number of residents has doubled. Experts predict that population will continue to rise through the next three decades, topping 19 million in 2020.

Impervious surfaces, such as roads and rooftops, increased by 41% from 1990 to 2000 compared to an 8% increase in population. Low density, disconnected development -- commonly referred to as sprawl -- has been the predominant form of development in the Bay watershed for the past several decades. New development that is spread-out, far from existing communities, schools, wastewater treatment facilities, shopping, and jobs explains the disparity between the rate of population growth and the increase in impervious surfaces. Impervious surfaces do not allow water to filter into the ground. Instead, rainfall runs off, picking up pollution and quickly carrying it into waterways. Increasing impervious surface increases the volume and speed of storm water carried in nearby streams and rivers, causing bed and bank erosion, increased rates of nutrient and sediment discharges downstream and into the Bay, and destruction of aquatic habitat throughout the watershed. Projections through 2030 show continued population growth, which could result in the loss of natural areas if we continue the development patterns of recent decades. People are coming to the Chesapeake Bay watershed. Where and how these people are accommodated will have a profound influence on the health of the Bay.

Executive Order 13508

On May 12, 2009, President Obama presented all citizens who cherish the Chesapeake with an historic opportunity when he signed an Executive Order on Chesapeake Bay Protection and Restoration, directing a new era of federal leadership to restore the Bay. The Executive Order acknowledged that the efforts of the past 25

years to reduce pollution and clean up the Bay and its tributaries have yielded some progress. However, it concluded that the poor health of the Chesapeake remains one of our nation's most significant environmental challenges. Indeed, Administrator Jackson has emphasized repeatedly that communities in the Chesapeake Bay watershed expect and deserve rivers and streams that are healthy and thriving.

The Executive Order created a Federal Leadership Committee, chaired by EPA, to strengthen the role of the federal government in the Bay restoration and align the capabilities of EPA, and the Departments of the Interior, Commerce, Agricultural, Defense, Homeland Security, and Transportation. The Order directed federal agencies to prepare seven draft reports to support a joint federal strategy. These topical reports, on issues ranging from water quality to public access, were released in preliminary draft form on September 10, 2009.

The Executive Order directed the Federal Leadership Committee to prepare and release a Draft Strategy for Protecting and Restoring the Chesapeake Bay. That Draft Strategy was released today. It contains a comprehensive suite of federal initiatives that collectively support three objectives:

1. Restoring clean water,
2. Conserving treasured places and restoring habitats, fish and wildlife, and
3. Adapting for Climate Change.

To achieve these objectives, there are three mechanisms that pervade our approach:

1. Empowering local efforts by governments, citizens, and conservation districts;
2. Promoting science-based decision making, and
3. Establishing a new era of federal leadership.

The Draft Strategy focuses on a number of recommendations that include:

- **Expanding regulatory and voluntary programs to improve runoff pollution control from urban, suburban and agricultural lands**, through new national regulations, new work with the states and the District of Columbia, and enhanced assistance to farmers.
- **Targeting federal resources** to enhance the efficiency and effectiveness of investments to protect the Chesapeake Bay and the watershed.
- **Strengthening storm water management practices** as soon as possible at federal facilities and on federal lands within the Chesapeake Bay watershed, consistent with the requirements of the Energy Independence and Security Act of 2007.
- **Adapting to the impacts of climate change** on water quality and living resources.
- **Expanding public access** to waters and open spaces of the Bay and its tributaries.
- **Strengthening monitoring** and decision support for ecosystem management.
- **Restoring habitat and living resources.**

The Draft Strategy is available online at: <http://executiveorder.chesapeakebay.net>

Actions to Restore Water Quality

The Executive Order challenged EPA to identify potential changes to programs, policies and regulations that would be sufficient to achieve water quality standards. Like S. 1816, the Strategy states the goal of implementing, by 2025, all pollution control measures needed to restore water quality and attain water quality.

As explained in the draft Strategy, EPA is proposing three key steps to accomplish these pollution reductions:

1. Create a **new accountability program** to guide federal and state water quality efforts;
2. Initiate **new federal rulemakings** as needed and other actions under the Clean Water Act (CWA) and other authorities; and,
3. Establish an **enhanced partnership with USDA** to implement a “Healthy Bay – Thriving Agriculture” Initiative.

New Accountability Program

The proposed new accountability framework builds on the requirements of Sections 117(g) and 303(d) of the Clean Water Act to establish new expectations to guide state and federal efforts for reducing nutrient and sediment pollution.

On November 4, 2009, EPA sent a letter to the six watershed states and the District of Columbia providing the Agency's expectations for the development of Watershed Implementation Plans (WIPs). These plans, which are similar to those the States would be required to submit to EPA under S. 1816, are a key element of this new era of ecosystem restoration, greater transparency and accountability, and improved performance.

WIPs will express the specific intentions and commitments of the States, and through the States, the local partners, for achieving the Bay TMDL nitrogen, phosphorus and sediment load reductions necessary to meet Bay water quality standards. EPA expects Phase One plans to be submitted by November 2010 and include a description of the authorities, actions and control measures that will be implemented to achieve point and nonpoint source target loads and TMDL allocations. Phase Two plans, due November 1, 2011, will further divide loads at a finer scale and among smaller geographic areas.

EPA expects the States and the District to have controls in place for 60% of the necessary load reductions by 2017 as an interim milestone to meeting the 2025 goal. These plans will be further measured through a series of two-year milestones detailing near term actions to evaluate progress. The expectations we have communicated to the States are extremely similar to the requirements contained in S. 1816.

EPA's new accountability program, modeled on the Clean Air Act, also includes actions we may take in the event that jurisdictions do not commit to establish and implement effective restoration programs or do not achieve interim milestones. These so-called "consequences," which will be defined more precisely in the next month, could include:

- Revising the draft or final pollutant reduction allocations in the Bay TMDL that EPA will establish in December 2010 to assign more stringent pollutant reduction responsibilities to pollution sources where pollution reductions are more reliable;
- Objecting to state-issued CWA National Pollutant Discharge Elimination System (NPDES) permits that fail to incorporate limitations derived from and in compliance with the pollutant allocations in the TMDL;
- Acting to limit or prohibit new or expanded discharges of nutrients and sediments unless appropriate offsets are made;
- Withholding, conditioning, or reallocating federal grant funds; and,
- Taking other actions as appropriate.

EPA's new accountability program also includes expanding its compliance and enforcement activities in the watershed by focusing on four key sectors: concentrated animal feeding operations, stormwater discharges, wastewater treatment plants and Clean Air Act regulated mobile and industrial sources of nitrogen deposition.

New Federal Rulemakings

The new draft Strategy calls for new clean water rulemakings to reduce pollution from concentrated animal feeding operations (CAFOs), stormwater, and new or expanding discharges of nutrients and sediment.

EPA also expects to take action to substantially reduce air deposition of nitrogen to the Bay watershed. With these rulemakings, EPA would significantly strengthen or clarify federal requirements that would further limit nutrient and sediment discharges to the Bay.

New federal rulemakings require significant investments of time and energy. In the interim, EPA will prepare detailed guidance documents to assist the states in establishing appropriate new pollution control programs that are consistent with the load reductions that we anticipate will be necessary to achieve water quality standards. EPA's rulemakings and guidance are expected to include elements for:

- Concentrated animal feeding operations (CAFOs): EPA expects to consider mechanisms to expand the jurisdiction of federal and state CAFO programs in the watershed and strengthen minimum permit requirements, particularly those designed to address the land application of animal manure.
- Stormwater: EPA expects to consider mechanisms to expand the jurisdiction of federal and state MS4 programs in the watershed and strengthen minimum permit requirements. EPA will consider the projected increases in pollution from this sector when developing standards²
- New and expanding discharges of nitrogen, phosphorus and sediment: EPA expects to consider mechanisms to ensure that new pollution discharges have appropriate, enforceable offsets to reduce overall pollution loads to the watershed. Such actions are necessary given historical patterns of growth throughout the region.

Enhanced Partnership between USDA and EPA

² More information: <http://www.epa.gov/npdes/stormwater/rulemaking>

Recognizing that well-managed forest and farm lands are the preferred land uses for water quality in the Bay, EPA and USDA have committed to developing and implementing a “Healthy Bay-Thriving Agriculture Initiative” that may include:

- An intensive and strategic effort to expand the use of key conservation practices in the high priority watersheds in the Bay;
- Coordination with other federal and state partners on the development of next generation nutrient management planning tools;
- Establishment of centerpiece projects in each of the Bay states to demonstrate benefits of significant and innovative conservation approaches to addressing key issues in the region; and
- Implementation of a targeted, collaborative initiative using USDA and EPA funds to support development of critically needed tools and technologies that can create new market and revenue streams that support the adoption of conservation measures.

S. 1816, Chesapeake Bay Program Reauthorization

First and foremost, we would like to commend you, Mr. Chairman and other members of the Subcommittee for developing this legislation to amend the Clean Water Act to strengthen and reauthorize the Chesapeake Bay Program. You have engaged leaders from throughout the watershed in a meaningful and thoughtful manner. You have incorporated many useful comments and ideas. S. 1816 is an important and highly constructive initiative to address the nutrient and sediment pollution problems plaguing the Bay. EPA strongly supports reauthorization of the Chesapeake Bay Program and welcomes the opportunity to continue to work with the Committee to make restoration and protection of the Bay happen more effectively and efficiently.

Many aspects of S. 1816 align with the Draft Federal Strategy and the more detailed reports developed pursuant to the Executive Order. For example, both the Executive Order and S. 1816 promote accountability and transparency through a series of initiatives designed to improve pollution control. Specific provisions in S.1816 to expand the stormwater permit program for urban and suburban runoff, provide more accountability for agricultural pollution control, and establish offset requirements for new and increased nutrient discharges are highly consistent with the Executive Order and the direction EPA is headed in its programs.

S. 1816's focus on interstate trading of nitrogen and phosphorous allowances also aligns very well with the Draft Strategy's proposal to increase support for the development of innovative technologies and economic markets for nutrient reductions and ecosystem services. We appreciate, too, the bill's acknowledgement of the important roles of state and local governments, as it is a view that we share.

S. 1816 has also recognized the vital importance of on-the-ground progress reporting through monitoring. The Draft Strategy proposes expanded monitoring that will address current gaps and broaden our reach to upstream waters throughout the watershed. At the same time, S.1816 recognizes the impacts of storm water run-off from developed areas and the additional effort needed to address these impacts in the face of increasing growth.

As noted earlier, the fundamental challenge for the Bay's water quality is reducing wet weather pollution from urban, suburban and agricultural lands. In fact, urban and suburban wet weather pollution to the Chesapeake is increasing, while agricultural pollution is not declining nearly enough as needed to restore the Bay. Presently, we have a range of tools that we are implementing to tackle these problems, and through our work to

implement the Executive Order we have found potential ways to increase the number and effectiveness of the tools available to us.

We look forward to continuing to work with the Subcommittee and other Members of Congress to explore these issues in the months ahead. A reauthorization of the Chesapeake Bay Program presents all of us with a unique opportunity to redefine our future and we greatly appreciate the Subcommittee's leadership in this regard.

Closing

Across the Chesapeake Bay watershed, there have been important actions over the past 25 years - by farmers to implement nutrient management practices and install buffer strips and fences; by homeowners to reduce energy consumption and runoff pollution; by localities to upgrade wastewater treatment plants and to reduce stormwater pollution; by developers to implement sediment and erosion control plans and implement smart growth practices; by states to expand land conservation and strengthen their water quality protection programs. These good efforts, however, are simply not sufficient.

The unavoidable conclusion is that the Chesapeake Bay ecosystem remains severely degraded, despite the concerted efforts of many people for more than 25 years. Although we face daunting challenges, in all my conversations with government officials and citizens around the Bay, I have heard a strong sense of optimism for the future. Scientists have learned much about the Bay and that knowledge is being used by managers to help plan and evaluate new policies and practices. Our region's elected officials are engaged as never before. At EPA and partner federal agencies, we have clear direction from the President to provide the leadership necessary to

protect and restore the Bay. Today, we have a wonderful opportunity to make a clean and healthy Chesapeake Bay a reality.

Thank you again Chairman Cardin, and Members of the Subcommittee, for the opportunity to appear before you today.