Executive Summary for Draft Reports Addressing Key Challenges to Chesapeake Bay Protection and Restoration

Executive Order 13508

September 9, 2009

Disclaimer:

This document is an executive summary of draft reports on key challenges to protecting and restoring the Chesapeake Bay that are required under Section 202 of Executive Order 13508 and submitted to the Federal Leadership Committee on September 9, 2009. This executive summary and draft reports have been released to the public. After the Federal Leadership Committee has considered the draft reports prepared pursuant to the Executive Order, it will prepare a draft strategy to restore the Bay and publish it in the Federal Register for public comment. The draft reports include preliminary recommendations which may change as the draft strategy is developed. The executive summary and draft reports are not final agency actions subject to judicial review. Nor are the executive summary and draft reports considered rules. Nothing in the executive summary or draft reports is meant to, or in fact does, affect the substantive or legal rights of third parties or bind the federal agencies.

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I. Introduction

On May 12, 2009, President Obama issued Executive Order 13508 to protect and restore the Chesapeake Bay and its watershed. The Executive Order called the Bay a national treasure and directed the federal government to exercise greater leadership and action to restore this unique ecological, economic and cultural resource. Restoring and protecting the Chesapeake Bay requires bold new approaches and renewed commitment to controlling pollution, protecting and restoring habitats and living resources, conserving lands, and improving the management of natural resources. Achieving lasting results to improve the Bay's health will also require the support of state and local governments and the private sector, as well as greater stewardship by all the region's residents.

The Executive Order established a Federal Leadership Committee (Committee) chaired by EPA with senior representatives from the departments of Agriculture, Commerce, Defense, Homeland Security, Interior and Transportation. As called for in the Executive Order, on September 9, federal agencies are submitting draft reports to the Committee to address key challenges (Text Box 1) in the Bay and its watershed and recommend actions for addressing them.

Despite the restoration efforts of the past 25 years, which have resulted in some successes in specific geographic areas and certain parts of the ecosystem, the overall health of the Bay and its watershed remain degraded. These draft reports will be used by the Federal Leadership Committee to develop a single, integrated strategy defining actions necessary to restore the Bay. This strategy will be released for public comment on November 9.

TEXT BOX 1: KEY CHALLENGES

Executive Order 13508 calls for federal agency reports addressing seven key challenge areas:

1) Reducing pollution and meeting water quality goals

2) Targeting conservation practices

3) Strengthening storm water management at Federal facilities

4) Adapting to impacts of a changing climate

5) Conserving landscapes

6) Strengthening science for decision making

7) Conducting habitat and research activities to improve outcomes for living resources

The Committee is sharing the initial recommendations and draft reports with the public. This summary provides a brief overview of challenges to Bay restoration (Section II); an outline of the initial recommendations from the draft reports (Section III); a description of the common objectives across the reports (Section IV); and a preview of important next steps (Section V). Readers are encouraged to provide comments on both the draft strategy and the individual reports beginning on November 9.

II. Overview of Challenges

The Chesapeake Bay watershed stretches across 64,000 square miles and encompasses parts of six states and the District of Columbia. The Bay watershed supports significant agricultural, forest, fishery and tourism sectors that provide goods and services to the 17 million residents in the watershed. In 2004, the Chesapeake Bay Watershed Blue Ribbon Finance Panel estimated that the economic value of the Bay may be more than $1 trillion annually. In addition to its monetary worth, it includes treasured landscapes, cultural history and recreational assets that are priceless.

Several of the Bay's living resources, including crabs, fish and oysters, are stressed by pollution and overharvest. Vital habitats such as wetlands and forests are lost to growth and development at significant rates. Water quality remains severely degraded from a variety of land-based activities. Some conditions are the legacy of decades of human activities. Other problems and challenges are magnified as the region continues to experience rapid population growth. There also challenges posed by emerging threats, such as climate change.

III. Roadmap to Report Recommendations

The initial agency draft recommendations for tackling challenges to the health of the Chesapeake Bay and its watershed are summarized in this section to help readers navigate across the seven reports. More details and recommendations are provided in each of the draft reports.

1) 202(a) Report: The Next Generation of Tools and Actions to Restore Water Quality in the Chesapeake Bay

***Key challenges*:** To meet water quality goals for the Bay, nitrogen and phosphorus pollution must be reduced by 44 percent and 27 percent respectively, despite expected population increases of 30 percent between 2000 and 2030. This will require significant reductions in pollution from urban, suburban and agricultural lands; municipal and industrial discharges; leaching to surface waters from septic systems; and atmospheric deposition of nitrogen to the Bay and its watershed. Existing tools, programs, authorities and resources have been insufficient. Future strategies to achieve water quality goals must account for existing loads and expected growth.

Major recommendations:

- **New accountability for Bay restoration:** EPA is now working with the Chesapeake Bay states and the District of Columbia to establish a "Total Maximum Daily Load" for the Bay and its tributaries that will include quantitative loading limits for nitrogen, phosphorus and sediments from point and nonpoint sources of pollution. As part of this process, EPA would issue new guidance this fall under CWA 117(g) and other authorities setting expectations for states to develop detailed implementation plans with clear milestones to reduce pollution in major Bay watersheds as needed to meet water quality goals. These plans would need to articulate precisely how states will reduce loads from nonpoint sources such as stormwater and agricultural runoff. EPA would impose tailored consequences if states do not take sufficient actions to reduce pollution to the Bay and its tributaries.

- **Strengthen pollution control regulations**: EPA would initiate rulemaking under the Clean Water Act to reduce nutrient and sediment pollution in the Chesapeake Bay watershed from:
    - Concentrated Animal Feeding Operations (CAFOs): EPA would expand the universe of regulated operations and set new minimum performance standards for permits, including regulating the land application of animal manure.
    - Stormwater: EPA would expand the jurisdiction of the regulatory municipal stormwater program to include high-growth areas and establish stringent minimum performance standards within permits consistent with Bay water quality goals.
    - New or expanding discharges of nutrients and/or sediment: EPA would ensure that any new or expanding discharges are offset by reductions from other sources at levels that account for scientific uncertainty and are in addition to existing commitments necessary to achieve Bay water quality goals.
- **Compliance and enforcement strategy:** EPA would implement a compliance and enforcement strategy focusing on key sectors.
- **Partnership with agriculture:** Working as partners, EPA and USDA would implement a "Healthy Bay-Thriving Agriculture Initiative."

EPA expects to initiate many of these and other actions using its existing authorities in the immediate future, concurrently with the development of new regulations and the strategy called for in the Executive Order.

2) 202(b) Report: Focus Conservation Resources to Restore and Protect the Chesapeake Bay

Key challenges: Agriculture and forestry accounts for 75 percent of the Bay watershed, representing the largest intensively managed land use. Stewardship of these lands can have a tremendous influence on the quality of natural resources in the watershed. About 25 percent of the Chesapeake Bay Watershed is used for agriculture, which delivers a diverse array of products; anchors rural communities; and provides open space, wildlife habitat, and other amenities. While agriculture is an important component of the landscape and economy, it also is a major source of nutrients and sediment that adversely affect water quality in the Bay and its tributaries. Although agriculture has reached nearly 50 percent of agriculture's goals for nitrogen, phosphorus, and sediment reduction, much more remains to be done to achieve the broader goals for protecting and restoring the Bay and its tributary waters. Effective coordination of the federal-state-local conservation efforts is needed to focus on the highest priority watersheds and implementation of high impact conservation practices in priority watersheds to better protect the Bay and its tributaries.

Major recommendations:

- **Focus public funding on the highest priority watersheds:** Identify high priority watersheds and critical acres for immediate conservation action to better protect the Bay and its tributary waters.

- **Focus and integrate federal and state programs:** Focus conservation programs on priority practices, enhance USDA-EPA coordination and ensure effective program delivery through coordinated outreach, marketing and technical assistance.
- **Accelerate conservation adoption:** Coordinate programs to increase financial assistance, simplify program participation and encourage private sector investment in conservation actions to restore the health of the Bay.
- **Accelerate development of new conservation technologies:** Increase public-private research partnerships and focus federal funding to foster innovation in conservation tools and technologies.
- **Implement a sound accountability system:** Establish environmental outcome measures; track, monitor and assess the conservation effects; and scientifically evaluate priority landscapes and conservation needs to protect and restore the Chesapeake Bay watershed.

3) 202(c) Report: Strengthening Storm Water Management at Federal Facilities and on Federal Lands

Key challenges: In 2008, Chesapeake Bay water quality was rated "very poor," with only 21 percent of the established goals met. This lack of progress and the emergence of new storm water management techniques argue powerfully for a new and improved approach to storm water management. The federal government is the largest single landowner within the Chesapeake Bay watershed. Federal lands account for 7.8 percent of the watershed and range in type from highly industrial to wilderness. The largest pollutant contribution per acre from federal agency lands derives from urban and suburban storm water discharges. The federal government can provide leadership in improved management of storm water through strengthened management of storm water on federal lands.

Major recommendations:

- **Implement EISA Section 438:** Federal agencies should adopt agency-specific policy that defines the administrative and management controls needed to comply with the storm water requirements for new development and redevelopment projects in Section 438 of the Energy Independence and Security Act.
- **Employ Environmentally Sensitive Design techniques for site selection and layout:** Federal agencies should incorporate knowledge of soil types and hydrology when planning new development and redevelopment projects to facilitate the use of storm water management practices that maintain or restore natural hydrology.
- **Upgrade existing storm water management practices and install new practices on existing developed facilities:** Federal agencies should install urban storm water retrofit practices that reduce runoff volume and improve storm water quality from existing development where technically and economically feasible.
- **Install best management practices to control storm water runoff from paved roads:** Federal landholders should identify high priority areas to install retrofit best management practices to manage storm water from existing paved roads.
- **Institute practices to prevent and control erosion from unpaved roads**: Federal agencies that own large tracts of undeveloped lands should implement erosion control practices on

unpaved roads, trails and associated drainage ditches to prevent soil loss into nearby receiving streams.

- **Expand use of land conservation easement programs:** Federal agencies should expand existing conservation easement programs to preserve forest land and serve to install storm water management practices off-site where it is not technically or economically feasible to install retrofits on-site.
- **Improve GIS data on federal land ownership and land use:** Federal agencies should report all of their real estate holdings and publicly available land use data on federal lands to allow for more effective management of federal lands within the context of the Bay program and aid in implementation of the Bay TMDL.
- **Guidance on proven, cost-effective tools**: Publish guidance that describes proven, cost-effective practices that reduce water pollution and applies to agencies managing 10 or more acres in the watershed.

4) 202(d) Report: Addressing Chesapeake Bay Watershed Climate Change Impacts

Key challenges: While there are some uncertainties around climate change projections, there is broad scientific consensus that air and water temperatures are increasing, sea-level rise is accelerating and precipitation patterns will likely change in the Chesapeake Bay region. Climate change threatens past gains and the effectiveness of future actions to restore Bay habitat and water quality. Moreover, the impacts of a changing climate could add to degraded conditions by negatively affecting water quality and quantity; public health; the sustainability of freshwater, marine and terrestrial living resources; and the quality of life and economic well-being of the watershed's 17 million residents. Changes in climate patterns may significantly increase costs and timelines for restoring water quality and living resources.

Major recommendations:

- **Center for climate science research and assessment:** Consider establishing a center for climate science research and assessment, which would be a regional Chesapeake Bay component of national-scale efforts to address climate change.
- **Climate change integration**: Integrate climate change concerns into Chesapeake Bay partnership activities and strengthen legislative authority to ensure restoration programs and goals consider climate change implications.
- **New and enhanced tools**: Enhance existing and/or develop new technical information and decision support tools to better understand, project and respond to climate change and its impacts (e.g., modeling, observation stations, remote sensing, etc.).
- **Adaptation guidance for managing federal programs**: Establish adaptation guidance for managing federal programs, federally-managed lands and federally financed state, local and private lands.
- **Climate change outreach and education:** Develop a coordinated strategy for climate change outreach and education to provide the public and decision-makers with consistent and current information regarding climate change and its impacts.

5) 202(e) Report: Landscape Conservation and Public Access in the Chesapeake Bay Region

Key challenges: Conserving land in the Chesapeake Bay region is no longer a simple matter of sealing off wild places to remain untouched. Today, land conservation is at the crux of both ecological health and community well-being. The Bay's most important landscapes are those that reflect and promote the ongoing exchange between people and place. Population growth and development are outpacing our ability to protect ecologically and culturally significant landscapes. The loss of forests, wetlands and healthy streams damages the ecosystem. Working farms and forests, significant to rural economies, have been fragmented and reduced. Historic landscapes are threatened by encroaching development.

While hundreds of public access sites exist in the region public access to the Bay and its rivers falls short of public demand – less than 2 percent of the 11,600 mile shoreline of the tidal region is publicly accessible. Forty-eight federally managed properties provide a small portion of these sites. While there are additional public access opportunities on federal lands, public demand can best be met with a concerted effort that involves federal, state, local, agencies and nonprofit organizations working in partnership.

Major recommendations:

- **Chesapeake Treasured Landscape Initiative**: Provide coordinated and targeted federal funding for landscape conservation and public access.
    - Target available funding, particularly through the Land and Water Conservation Fund, for investment in the Chesapeake region.
    - Identify and prioritize treasured landscapes and public access sites throughout the region.
    - Develop public access on federal lands, through federal partnership systems and in coordination with state and local governments.
    - Ground future conservation actions in a coordinated strategy that leverages federal, state, local and private funds.
- **New federal management units and expand existing units:** Consider new and expanded management units including expanded National Wildlife Refuges, a new or expanded unit of the National Park System, a new National Forest and marine or aquatic sanctuaries.
- **Incentives for conservation and public access:** The federal government should continue to play a role in providing incentives through tax policy, funding and market-based programs.
- **Landscape conservation assistance and capacity building:** Provide assistance and capacity building by supporting a conservation capacity-building program focused on land trusts, coordinating the network of technical assistance providers, and integrating and supporting local, state, regional and landscape scale conservation planning.
- **Coordinate regulatory tools:** Coordinate regulatory tools by integrating federal mitigation requirements and focus them through "ecosystem banking" and directly linking water quality regulations to landscape conservation planning.

6) 202(f) Report: Strengthening Science and Decision Support for Ecosystem Management in the Chesapeake Bay and its Watershed

Key challenges: The Chesapeake Bay and its watershed encompass a large geographic area, including different landscapes and an increasingly diverse society. The choices made by individuals, communities and governments drive ecosystem changes measured in the health of fish and wildlife, the quality of water, and condition of habitats and lands. In order to better inform these choices, there is a growing need to improve collection, dissemination and relevance of scientific information such that decisions are made with the best available knowledge. Such information needs to include not only measures of ecological health, but also the economic and social ramifications of available options toward a sustainable Bay ecosystem.

Major recommendations:

- **Promote sustainability and ecosystem-based management:** Focus on sustainability and adopt an ecosystem-based, adaptive management approach to improve and sustain the Bay and its watershed. This will require revision of existing Bay partner restoration goals and inclusion of a broader group of partners whose capabilities can help achieve sustainability.
- **Integrate interagency support to improve decision-making**: Bring together subject matter experts, decision-support tools, key science elements and the information technology structure needed for more timely and integrated decision making.
- **Expand Chesapeake Monitoring and Observation System**: Expand partner efforts for a Chesapeake Monitoring and Observation System to provide integrated monitoring of upland watersheds, estuaries and the coastal ocean using common criteria and standards.
- **Align federal research**: Align federal research efforts in a new Chesapeake Bay Research Plan.
- **Improve communications:** Improve communication products, technical assistance and social marketing campaigns to more effectively translate scientific findings into management options and recommendations for the public, local governments, resource managers and elected officials.

7) 202(g) Report: Habitat and Research Activities to Protect and Restore Chesapeake Bay Living Resources and Water Quality

Key challenges: The Chesapeake Bay and its watershed make up one of the most biologically productive systems in the world, with more than 3,600 migratory and resident animal species that live, feed, find shelter and reproduce in the estuary and its watershed. Habitats in the watershed provide a vital ecological link for Atlantic Coast fish populations and birds using the Atlantic Flyway. The Chesapeake Bay is also one of the best studied ecosystems in the world, yet it remains in a degraded state due to a variety of stressors including poor water quality, eutrophication, hypoxia, development, disease, overfishing, invasive species, contaminants and climate change. To succeed in achieving a system that is both resilient and sustainable in the face of these stressors, all stakeholders must embrace a management approach that is ecosystem-based. Sustaining and restoring the proper function of these habitats, through protection of healthy habitats and restoration of degraded ones, is essential to the long term

resilience and sustainability of the Chesapeake ecosystem, the regional economy, and the quality of life enjoyed by residents.

Major recommendations:

- **Unified Watershed-wide spatial map:** Develop a unified watershed-wide spatial map to drive integrated and proactive planning.
- **Outcomes for priority species:** Identify outcomes for priority species to guide placement of habitat projects.
- **Integrated Ecosystem Management:** Conduct an integrated ecosystem assessment including socioeconomic analysis.
- **Aquatic Protected Areas:** Consider establishing aquatic protected areas and networking these areas with land-based preserves.
- **Targeting funding and technical assistance:** Consider targeting federal funding and technical assistance to maximize benefit for priority species.
- **Permit compliance:** Enforce permit compliance to protect habitat functions and improve regulatory predictability.
- **National Fish Habitat Action Plan**: Support and implement the National Fish Habitat Action Plan.
- **Inter-jurisdictional fisheries management:** Consider establishment of an inter-jurisdictional regulatory body to manage fisheries Bay-wide.
- **Target oyster restoration:** Target oyster restoration through a new Bay-wide ecological strategy.
- **Long-term, multi-species monitoring**: Support long-term, multi-species monitoring framework to inform decision-making for priority species and habitats.

IV. Emerging Themes

Initial review of the reports identifies a number of common and emerging themes. The agencies must collaborate with each other and with state, local and private partners to focus and further develop these policies and actions. The common themes emerging from the seven reports include:

Increase Regulatory Scope and Oversight - Increase the rigor and scope of regulations where needed to achieve outcomes and increase compliance oversight and enforcement of existing regulations.

Set High Standards and Improve Accountability - Set a higher standard for federal and state actions, and lead by example on federal lands and facilities, while ensuring the investment is aligned with priorities and targeted outcomes. Ensure that all levels of government are held accountable for their actions.

Strengthen Science to Improve Decision Making - Improve the delivery and application of science and monitoring information for decision making to achieve desired management outcomes, including more deliberative consideration of consequences of actions and adapting approaches based on results.

Provide Enhanced Tools and Assistance to Solve Problems - Provide tools, services and technical assistance to local governments, communities, farmers, land trusts and watershed organizations to facilitate better decisions at the ground level, helping people make choices to better sustain their lands and the environment.

Align and Coordinate Efforts to Achieve the Greatest Results – Align federal, state, local and private efforts and set priorities that accomplish multiple outcomes in key locations to meet those priorities.

Value a Healthy Bay - Conserving habitats and the services provided by intact natural systems is far more cost-effective than restoring degraded habitat or building infrastructure to replace lost services. Developing economic values for these services can identify emerging markets and stimulate private investment that complements joint federal and state priorities.

Increase Conservation of Existing Habitats and Landscapes - Landscapes and aquatic areas of highest value must be protected to ensure the Bay and tributary waters do not degrade further. New growth and development must be managed in a sustainable way that avoids any increase in pollutants or loss of habitat and productive lands.

Engage Watershed Residents and Foster Stewardship - Ensure that all residents understand their connection to local streams and rivers to foster stewardship and achieve the overall goals for a healthy Bay. We must utilize all available tools and programs to encourage and support private landowners to use land conservation methodologies and techniques, given that the vast majority of land within the Chesapeake Bay watershed is held by private landowners.

V. Next Steps and Overall Process

The federal agencies are exceptionally aware of the need to consider recommendations and actions in light of budgetary requirements and have heard from participating states on the strain to resources, staffs and budgets as the nation works toward economic stability. Some draft report recommendations could be achieved with a reprioritization of current efforts and staffs. Others might only be accomplished with new authorities or appropriations. Any budgetary or legislative requirements necessitate thoughtful consideration of potential costs in light of economic and environmental sustainability achievable through coordinated federal, state, local and private actions. As the Federal Leadership Committee develops its draft strategy, it will carefully consider the costs and benefits of its recommended actions, as well as the President's budget policies. This will ensure a targeted, cost-effective strategy that achieves results for Chesapeake Bay protection and restoration.

The Committee will begin working with Bay partners to integrate recommendations from these draft reports with existing programs and to draft the "coordinated implementation strategy" called for in the Executive Order. It can be expected that new ideas not reflected in the reports may arise and be incorporated in the strategy; likewise, some elements found in the reports may not be carried forward.

Next steps are:

- The Federal Leadership Committee conducts policy review of the reports and provides comments to lead agencies by early October 2009.
- The draft coordinated strategy, along with revised versions of the seven reports, is made available for extensive public review and comment beginning November 9, 2009.
- In May 2010, the final strategy is released. This final strategy will reflect coordination with state and other partners and consideration of public comments and will be consistent with Administration budgets and priorities.