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**Written Testimony**

**U.S. House Subcommittee on Fisheries Conservation, Wildlife and Oceans**

**Oversight Field Hearing on Chesapeake Bay Restoration**

**Annapolis, MD (December 13, 2004)**

Please allow me to introduce myself. My name is Howard R. Ernst, and I received a Ph.D. from the Woodrow Wilson School of Government and Foreign Affairs at the University of Virginia. I currently serve as an Assistant Professor of Political Science at the United States Naval Academy and as Senior Scholar at the University of Virginia Center for Politics. While my academic research has covered a wide range of topics, it tends to focus on the interaction between citizen groups and public policy, with my more recent work focusing on environmental policy in the Chesapeake Bay watershed. In the spring of 2003, I published *Chesapeake Bay Blues: Science, Politics, and the Struggle to Save the Bay* which focused on the political factors that have limited environmental progress for the Chesapeake Bay. This book has been favorably reviewed by numerous academic and popular publications and discussed in over two-dozen newspaper articles and radio programs. It is currently one of the best selling environmental politics books in the nation and is being used as a textbook at numerous academic institutions, including the Yale University School of Forestry and New York University School of Law.

*Chesapeake Bay Blues* asks the simple question, why after more than 100 years of study and more than twenty years after the creation of the Chesapeake Bay Program, has the overall Chesapeake Bay restoration effort failed to restore the Chesapeake Bay? In the midst of the Bay's highly esteemed restoration program, the Bay's oyster harvests have fallen to record lows, the crab population has been pushed to the point of collapse, nutrient pollution and low oxygen levels continue to plague the Bay, unhealthy contaminants have been found in many of the Bay's fish, and the Chesapeake Bay and virtually every one of its tributaries have been listed by the Environmental Protection Agency as impaired bodies of water.

It is important to note that the Bay's problems did not sneak up on us. The Bay has been studied and monitored for well over a hundred years. It is often said that the scientific community knows more about the Chesapeake Bay than any other body of water on the face of the earth. Moreover, there is a genuine public commitment to restore the Bay, built from over thirty years of education programs by the region's numerous environmental education groups. A large bureaucracy was also created to give the restoration effort a permanent institutional structure. Add to the mix the region's considerable wealth, and the recipe for success, so the story goes, should be complete: scientific knowledge, public commitment, political structure, and material resources. So why does the Bay remain in abysmally poor condition?

It appears that the restoration effort was built on an unfounded assumption. The assumption was that a heavy reliance on collaborative decision-making and voluntary programs would be sufficient to restore the Bay. Armed with scientific evidence, a modest amount of financial inducements, and heavy doses of moral arm-twisting, environmental managers believed that state and local governments, industry leaders and private individuals would voluntarily make economic sacrifices for the benefit of the Chesapeake Bay. This belief, which in hindsight appears to be based more on wishful thinking than empirical observations, has served as the guiding principle for the restoration effort, influencing its organizational structure, decision-making process, and environmental programs. And after three decades of stressing collaboration and voluntary programs, the Bay Program has been left with agreements instead of necessary laws, goals instead of legally binding pollution limits, endless committees instead of action, and a severely impaired Chesapeake Bay.

The current state of the Chesapeake Bay is a direct reflection of the current state of the failed Chesapeake Bay restoration effort. Under-funded voluntary programs are insufficient to bring about the widespread behavioral changes that would be necessary to restore the Chesapeake Bay.

It is now more clear than ever that there are two primary ways to change the harmful human behaviors that threaten the Chesapeake Bay (i.e., rules and resources). Rules, which are often translated into environmental laws or regulations, have the benefit of placing the financial responsibility on the polluter, creating an incentive structure that rewards clean industries and municipalities, and punishes those who fail to comply. Instead of punishing industries and local governments that pursue an environmentally friendly course of action, as the voluntary approach does in practice, the rule-based approach rewards them. This polluter pays concept also promotes economic efficiencies, as economic interests and local governments

attempt to abide by the rules at the lowest possible cost.

Relying on public resources (i.e., the taxpayer pays concept) could also bring about the desired changes. This approach relies on public resources as an economic incentive to promote the desired changes (for example, monetary incentives for farmers who adopt environmentally friendly farming practices or monetary grants for municipalities to upgrade their sewage treatment facilities). The problem with relying exclusively on this approach, as the recently released Chesapeake Bay Blue Ribbon Finance Report reveals, is that the taxpayers are left with a prohibitively large cleanup bill. In the absence of tough pollution reduction laws and strict enforcement, taxpayers are left with a multi-billion cleanup. Since polluting industries and foot dragging local governments are rewarded with public grants for their inaction, rather than held accountable, there is little incentive for these actors to find efficient pollution reduction practices, thereby driving up the cost of environmental protection.

Taxpayer pay plans that rely heavily on federal dollars, like the 80-20 proposal of the Blue Ribbon Finance Committee, which calls on the federal government to pay 80 percent of the Chesapeake Bay cleanup cost, create other problems. For example, citizens in a wealthy state like California, a state which has environmental problems of its own, but that contributes no pollution to the Chesapeake Bay, are called on to contribute substantial resources to fund the Chesapeake Bay restoration effort. Meanwhile, a Chesapeake Bay state like Virginia, which has relatively low per capita spending for environmental protection and a great deal to gain from a clean Chesapeake Bay, would have its years of environmental neglect rewarded through generous federal grants.

The Chesapeake Bay Program, as it is currently configured, lacks the regulatory powers to achieve its goals coercively and lacks the resources necessary to achieve its goals through an incentive-based approach. But the current problems within the Bay Program appear to run far deeper than its structural flaws. As many readers of the Washington Post were surprised to learn from a recent article on the topic, the Chesapeake Bay Program has consistently overestimated their own success in improving Chesapeake Bay water quality. For close followers of the Bay Program, the information was nothing new, as they have long recognized that the Bay Program overestimated its pollution reduction figures. This was the case from 1987 through the late 1990s when the Bay Program insisted on only calculating what they then called "controllable" nutrients. They over estimated the reductions in nitrogen and phosphorous in 1999 when they reported that they would achieve their 40% reduction goal for phosphorous and that they would come close to meeting their reduction goal for nitrogen. Most recently, they overestimated the environmental benefits from agricultural best management practices, and they continue to misuse computer modeling as a primary assessment tool, rather than its proper role as a forecasting instrument.

Behind each overestimate and misuse of computer modeling can be found poor human judgment, judgments that reflect a culture of complacency that can arise in a bureaucratic agency that is overwhelmed by a task that it is not empowered to complete. Take the most recent mistake for an example (the overestimation of gains derived from agricultural land under best management practices). While it might have been politically expedient to assume the best management practices were completely implemented and perfectly maintained, as the Chesapeake Bay Program's virtual reality computer models assumed, it was not scientifically justifiable. The Chesapeake Bay Program chose an unrealistic best case scenario that painted their restoration efforts in the best possible light.

As far back as 1991, in Tom Horton's first edition of *Turning the Tide*, he noted that the Bay Program's "accounting procedures are almost certainly overstating progress in keeping agricultural nutrients out of the water" (pg. 54). In my more recent book, *Chesapeake Bay Blues* (2003), which incidentally hit bookstores three months prior to the Bay Program's most recent revelation regarding their computer model, the balance of evidence once again revealed that the Bay Program's "models overestimate nutrient reduction efforts" (pg., 66).

By promulgating misinformation, resisting meaningful oversight, and being slow to correct their problems, the Chesapeake Bay Program has caused unnecessary harm to the Bay restoration effort. The Bay Program's rosy scenarios have fostered a culture of complacency that have allowed difficult decisions to be put off for years. The task before us today is bigger and more expensive because of the Bay Program's mistakes. But while the Chesapeake Bay Program is at fault for years of overstating its pollution reduction accomplishments and understating the magnitude of the restoration problem, it is ultimately not to blame for the Bay's decline. From the outset, the group was not empowered with the regulatory powers and necessary funding to restore the Bay. There is now an unprecedented gap between what we know needs to be done and what the Bay Program is accomplishing.

Any meaningful discussion of Bay restoration must include a serious analysis of the current role of the Bay Program and the overall restoration bureaucracy. The Bay Program's budget has remained flat for nearly a decade, and the organization has no meaningful regulatory powers. The list that follows outlines a few big picture thoughts that could breathe life into the Bay Program and the larger Bay restoration effort that the Program is tasked with coordinating:

1) The Bay Program's major studies and annual reports should undergo a peer review process by an independent scientific review panel. External scientific audits should be used to assess the use of science in the various sub-committees of the Bay Program.

2) Steps should be taken to disrupt the culture of complacency within the Bay Program. An external audit should not only identify the flaws within the Program's water quality model, but it should also identify and correct the flaws within the larger decision-making process that failed to correct the poor judgments that led to over-reliance on a flawed assessment tool.

3) Once the internal problems within the existing Bay Program are fully identified and meaningfully addressed, the reformed organization (referred to as the Bay Authority in the recommendations that follow) should be empowered to meaningfully implement Chesapeake Bay restoration programs. Some steps in this direction would include:

- Granting the new Bay Authority environmental permitting authority over large-scale development programs in the watershed.
- Granting the Bay Authority environmental permitting authority over large animal and farming operations in the watershed.
- Granting the Bay Authority management responsibilities for the Bay's interstate fisheries.
- Funding the Bay Authority through a 50-50 cost-sharing arrangement between the federal government and the participating Bay states.

4) The "Bay Agreements" should be replaced with legislative accords (Chesapeake Bay Accords) that are signed into law by the Bay states and the federal government, providing a legal basis for the partnership.

5) The environmental goals set in the new Bay Accords should come due at frequently and regular intervals (perhaps every four years).

6) The Chesapeake Bay Commission could be provided resources to establish a permanent office in Washington to help it identify federal funding opportunities (perhaps most importantly, funding opportunities within the next Farm Bill). The Commission should also be expanded to include federal officials, as well as the existing state officials, to reflect the federal-state partnership that the Bay Authority would represent. The newly restructured Chesapeake Bay Commission should be seen as the chief negotiating arm for the Chesapeake Bay Accords.

Environmental failure is not inevitable for the Chesapeake Bay. Laws, programs, and reforms that fall short of their intended goals can and should be modified or replaced with more promising alternatives. Existing political structures represent nothing more than the latest attempt to achieve society's common goals, and they receive their value from their ability to promote these goals. As the region's political system continues to grapple with environmental protection, it is important not to adjust environmental goals to reflect "political realities" or to grow content with hollow "successes" that fail to reflect tangible environmental improvements. It is politics that must adapt to society's ever-changing needs. Through a more aggressive political strategy, we may yet secure a brighter future for the Chesapeake Bay.