
Foreword

Science and Watershed Management: A View from the Chesapeake Bay Program

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Science and public policy concerning watershed management are inextricably linked. The Chesapeake Bay watershed is one model example of the important role science plays to craft and implement sound public policy. Policy makers need answers: Is the scientific nature of the problem and its resolution fully understood? Are the best programs and projects being implemented to both solve problems and sustain successes? Is public funding being spent in the most cost effective manner? Science is the foundation upon which these answers rest.

The Chesapeake Bay Program is a unique regional partnership that has led and directed the restoration of the Chesapeake Bay since 1983. Governments have since dedicated substantial public resources to study and understand its bountiful and diverse ecosystem, develop water quality standards necessary to support it, and model nutrient and sediment flux throughout its vast watershed. These scientific endeavors and resulting management tools actively guide public policy. Yet, because scientific understandings evolve relatively quickly, how will public policy keep pace?

One step is for policy makers to recognize that current science and resulting tools are never absolutely complete. Population growth, accelerated climate change, and alternative energy production are but a few examples of ever-present changing circumstances and new challenges. Only by crafting adaptable public policy will it effectively respond to such changing conditions. Likewise, the fate of nitrogen in soil and river systems, sediment transport and the

role of atmospheric deposition are examples of areas further scientific study will benefit. Only by continuing support for scientific inquiry will such necessary advances in understanding take place and more innovative management tools be discovered.

A large watershed and its associated river system and various inhabitants is an inherently complex and dynamic system. And public expectations and needs vary widely. Yes, waterbodies clearly have inherent ecological value, but also are sources of public water supply, food, recreation, irrigation, and flooding. To manage effectively is to balance effectively. The New York State Tributary Strategy, developed in close partnership with the Upper Susquehanna Coalition, purports to achieve this balance. A scientific support group was empaneled to assist in its development and it is designed to be adaptable as new and better information is obtained.

In the Chesapeake Bay watershed, everyone has a role to play, from individual households to large waste water treatment plants, from farms to factories and everything in between. With science and public policy working together, great things will continue to be accomplished. It is not just the Chesapeake Bay restoration effort that will benefit; efforts to protect and conserve water in streams, rivers, and lakes throughout its watershed also will benefit.

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Conservation's Division of Water. He is a graduate of Brown University and began his DEC career in 1989 as a water quality engineering technician. Peter was principally involved in watershed protection activities associated with New York City's water supply reservoirs and in assisting municipalities with floodplain management throughout the region. In 2004, Peter became the Chesapeake Bay Program Coordinator. He can be contacted at: pbfreeha@gw.dec.state.ny.us.