Chesapeake Executive Council

Chesapeake Bay Wetlands Policy

Chesapeake Bay Program

Agreement Commitment Report

December 1988

May 28, 1992

AMENDMENTS TO:

Chesapeake Bay Commission
ISSUES AND ACTIONS

Non-Tidal Wetlands Protection Programs
for the Chesapeake Bay Region:
A Review and Comparison

and

MATRIX
CHESAPEAKE BAY NON-TIDAL WETLANDS PROTECTION PROGRAMS
An Analysis and Recommendations
Status of Programs as of June 3, 1992

GENERAL DISCUSSION

Page -6- In Pennsylvania, dams, water obstructions, and encroachments located in watercourses, ponds, lakes, reservoirs, floodways, and wetlands are regulated under the authority of the Dam Safety and Encroachments Act of 1978. In 1991, the Commonwealth adopted revised rules and regulations, Title 25 Pa Code Chapter 105, which clarify the goals and objectives of the program as well as strengthen the Commonwealth's ability to protect wetlands resources.

MATRIX

Block 1 Wetlands are defined as a regulated Body of Water within the Dam Safety and Encroachments Act of 1978.

Block 2 Provide for the comprehensive regulation and supervision of dams, reservoirs, water obstructions and encroachments in the Commonwealth in order to protect the health, safety, welfare, and property of the people. Protect the natural resources, environmental rights and values secured by the Pa. Constitution Article I section 27 and conserve and protect the water quality, natural regime and carrying capacity of watercourses.

Block 3 Statewide

Block 4 Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas.

Block 5 The program has been in place since the 1980 adoption of Chapter 105 Rules and Regulations. The program was strengthened and clarified with the 1991 revisions to the regulations.

Block 6 National Wetlands Inventory Maps available for entire state.

Block 7 State Program with limited delegation to cooperating County Conservation Districts

Block 8 Bureau of Dams and Waterways Management, Department of Environmental Resources

Block 9 No Buffers within Chapter 105. Various buffers are provided through other regulatory programs, i.e. Solid Waste, Water Quality, Oil and Gas Management, Surface Mining, etc.

Block 10 Plowing, cultivation, seeding and harvesting for the production of food fiber and forest products is not regulated. The maintenance of drainage tiles and ditches is waived. Several General Permits have been developed for minor stream crossings, agricultural ramps, and practices relating to soil, erosion, and nutrient management facilities.

Block 11 Plowing, cultivation, seeding and harvesting for the production of food fiber and forest products is not regulated. General Permits are also available for temporary and minor road crossings.

Block 12 A small amount of tidal wetlands are located in the lower Delaware River Basin and are regulation under the same program as non-tidal wetlands.

Block 13 Wetland protection is integrated within all state regulatory programs. A Joint Permit Application is utilized for processing Federal and State (404/105) permits. The State is not pursuing 404 delegation but is pursuing a 404 Statewide General Permit for certain activities. Initial discussions were held with the USCOE in early 1992.

Block 14 Unless specifically waived all activities in wetlands are required to undergo an environmental assessment before approval.

Block 15 A fee schedule is authorized by the Act and has been developed. Fees range from $100.00 for small projects which do not impact wetlands, to $3000.00 for large dams.

Block 16 The Act provides limited exemptions for farming and silviculture (see blocks 10 and 11 above). Additionally 16 waivers are provided in the regulations for minor activities which have no adverse environmental impacts.

Block 17 Normal mitigation sequencing is required which includes replacement of all wetland acreages and functions which are adversely impacted.

Block 18 Criminal: up to $1,000 per day of violation and/or 60 days imprisonment for the first offense. Second offence increases fine to a maximum of $5,000 per day of violation.

Civil: up to $10,000 for willful violations, plus $500 per day of violation.

Block 19 All permit applications are advertised in the Pennsylvania Bulletin for public comment. Permit applicants are required to notify county and local municipalities of their intent to apply for a permit.

Block 20 All decisions are appealable within 30 days of the Department's decision to the Environmental Hearing Board.

Block 21 Under the proposed Department reorganization plan additional staff will be assigned to the Department's 6 Regional Offices for permit processing and enforcement actions. Currently there are 4 staffpersons assigned to the enforcement, 5 to permitting and 3 to education and technical assistance.

ADOPTION STATEMENT

We, the undersigned, adopt the **Chesapeake Bay Wetlands Policy,** in fulfillment of Living Resources Commitment Number 5 of the 1987 Chesapeake Bay Agreement:

> *"...by December 1988, to develop a Bay-wide policy for the protection of tidal and non-tidal wetlands."*

The Policy establishes an immediate goal of no net loss with a long-term goal of a "net resource gain". The gain of wetland acreage and function over present day conditions serves as a means of recovering the values of wetlands already lost over years of inadequate protection. These values include not only traditional habitat values for breeding, spawning, nesting and wintering of living resources but also benefits in water quality, flood protection, and the regional economy.

The Policy addresses the protection and restoration of both tidal and non-tidal wetlands through several elements, each with attendant policy goals and specific action items. The elements comprise a comprehensive wetland protection strategy addressing regulatory and other management mechanisms required to improve current practices. These elements address policies for managing direct and indirect wetland impacts through education and training activities, monitoring, research, private sector incentives, land acquisition, regulatory improvements, and mitigation practices.

We recognize the values that wetlands provide to the overall health of the Bay and the quality of life afforded to the citizens of the area and therefore support the Policy goals outlined in this document. Further, we agree to commit the necessary funding and resources to carry out the implementation of the Policy.

We direct the Living Resources Subcommittee to prepare an annual report on the status of these implementation programs and the effectiveness of the Policy goals in achieving protection and restoration of Chesapeake Bay wetlands.

Date January 5, 1989

For the Commonwealth of Virginia Gerald L. Baliles

For the State of Maryland William Donald Schaefer

For the Commonwealth of Pennsylvania Robert P. Casey

For the United States of America

For the District of Columbia M. Barry

For the Chesapeake Bay Commission W. Taylor Reveley

Chesapeake Bay Wetlands Policy

An Agreement Commitment Report from the
Chesapeake Executive Council

Annapolis, Maryland
December, 1988

CHESAPEAKE BAY WETLANDS POLICY

Preamble

Wetlands within the Chesapeake Bay watershed lie within the transition areas between better drained, rarely flooded uplands and permanently flooded deep waters of streams, rivers, ponds, lakes and coastal embayments. Two basic wetland types, coastal and inland, occupy about three percent of the Chesapeake Bay drainage area or approximately 1.2 million acres. Over 80 percent of these wetlands are inland and the remainder are coastal wetlands. Coastal wetlands consist largely of tidal marshes and mud flats found along the margins of tidal rivers and saltwater embayments. These areas are periodically flooded by salt or brackish water. Inland wetlands within the region are predominantly forested wetlands, followed by shrub and emergent wetlands, most of which are nontidal or not affected by ocean-driven tides.

Wetlands are of importance to the protection and maintenance of living resources associated with the Chesapeake Bay e osystem as they provide essential breeding, spawning, nesting and wintering habitats for a major portion of the region's fish and wildlife, including migratory birds, endangered species and commercially and recreationally important wildlife.

Wetlands are an important part of the cultural, ecological and economic heritage of the Chesapeake Bay region. Wetlands play a vital and significant role in maintaining the quality of life through material contributions to: the water quality of the region; the regional economy; food supply and fish and wildlife resources.

Wetlands protect the quality of surface waters through retarding the erosive forces of moving water, trapping waterborne sediment and associated pollutants. Wetlands also protect regional water supplies by facilitating the purification of surface and groundwater resources. Wetlands play a crucial role in maintaining critical base flow to surface waters through the gradual release of stored flood waters and groundwater, particularly during periods of drought. Wetlands provide a natural means of flood control and storm damage protection through the absorption and storage of water during high runoff periods and through the reduction of flood crests, thereby protecting against the loss of life and property.

Chesapeake Bay Wetlands are recognized as some of the most important wetland areas in the United States and have received worldwide recognition as "Wetlands of International Importance Especially as Waterfowl Habitat" under the 45 nation Ramsar Convention treaty.

The Chesapeake Bay watershed experienced substantial losses of wetlands between the mid-1950's and late 1970's. Annual losses averaged over 2,800 acres. Tidal marshes declined by about nine percent, whereas nontidal vegetated wetlands fell by six percent. Wetland losses continue to occur as a result of anthropogenic impacts and natural causes.

WETLANDS PROTECTION AND MANAGEMENT POLICIES

It is the intent of the Chesapeake Executive Council to set forth policies in this document to guide the development and implementation of a comprehensive strategy for the protection and management of all wetlands within the Chesapeake Bay watershed.

The goal of the wetland protection and management strategy is to achieve a net resource gain in wetland acreage and function over present conditions by:

(1) protecting existing wetlands; and

(2) rehabilitating degraded wetlands, restoring former wetlands, and creating artificial wetlands.

The policies set forth in this document are organized into four major focus areas, each of which must be incorporated within a comprehensive strategy if that strategy is to result in definitive progress toward the net resource gain goal.

Within each of the four focus areas, specific policy statements have been made to guide the development of the comprehensive strategy. Specific actions, associated with a policy (or group of policies), are considered fundamental to successful achievement of the goal. The signatories are committed to seeking the necessary authority and funding to carry out these actions, including the enactment and improvement, in all jurisdictions, of laws and regulations to protect nontidal wetlands.

As a first step, implementation plans for each of the four focus areas will be adopted by June 30, 1990. These four implementation plans, taken as an integrated whole, will form the comprehensive strategy for wetland protection and management.

DEFINING THE RESOURCE: INVENTORY AND MAPPING ACTIVITIES

Tracking progress toward the net resource gain goal requires the establishment of an effective means of monitoring wetland distribution by type, acreage, and function. Furthermore, effective resource protection and management is predicated both on the availability of information regarding wetland status and trends and the ability to identify and monitor specific wetland areas. This information base is critical to monitor the overall program, direct and target resource protection and management actions, and support essential research and education efforts.

For the purposes of measuring the progress toward a net resource gain in wetland acreage, and to develop a meaningful inventory to guide wetland management, a comprehensive description of the resource is required. For such purposes, identification should encompass the variety of conditions that typify wetland ecosystems. This inventory should be consistent with the identification approach used by the U. S. Fish & Wildlife Service, which has begun extensive wetland identification.

Consequently, for the purpose of developing a Bay-wide inventory, identification should be based on this description:

> Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year.

Policy:

- The signatories shall collectively design and institute a wetland resource monitoring strategy which will provide for a continuing quantitative evaluation of wetland distribution and functional characteristics.

Action:

Formulate and begin execution of a comprehensive inventory, mapping, and monitoring plan which, at a minimum, includes:

- A cooperative, comprehensive mapping of all wetland areas at a time interval of not less than every ten years.

- A statistically valid status and trends analysis every five years.

- A continuing cumulative impact assessment.
- A monitoring program for existing wetlands sites of various types within selected physiographic regions to quantify functions and values and document changes occurring over time within these systems.
- A monitoring program for invasive or exotic species and appropriate control methods.
- A regional data base of permitted activities.

HOLDING THE LINE: PROTECTING EXISTING WETLANDS

Central to a strategy to achieve a net resource gain in wetland acreage and function must be strong programs to hold the line by protecting existing functioning wetlands. The underlying principle behind this wetland protection is the need to control direct, indirect and cumulative impacts which result in losses of wetland acreage or function. Guided by this principle, various tools, including, but not limited to, regulation and protection standards, incentives, and land acquisition, should be used to protect wetlands.

Impacts may result from direct and indirect alterations to a wetland, cumulative alterations within the wetland, or from natural causes. Controlling the type, extent, intensity and duration of impacts which alter wetlands will further other efforts to reduce nutrients in the Chesapeake Bay and restore and protect its living resources.

Policies:

- The signatories to this agreement will use existing programs and develop new programs to limit permanent and irreversible, direct and indirect impacts to wetlands. Only in rare instances will losses of wetland acreage or function be allowed or considered justifiable.

- The signatories to this agreement will minimize indirect alterations within the watershed which have the potential to adversely impact wetlands.

- The signatories will implement management practices designed to reduce cumulative wetland losses.

Actions:

- The signatories agree to incorporate the principle of wetlands protection and the management of other sensitive Chesapeake Bay living resource habitats into the various strategies, policies and guidelines which will result from the Population Growth and Development Commitments of the 1987 Bay Agreement.

- To eliminate or minimize indirect impacts to wetlands, the signatories will coordinate permitting and management programs and the use of protective buffers and other techniques which serve to maintain important functional characteristics of wetlands.

- The signatories agree to develop a Bay-wide planning process for wetlands with the goal of protecting wetlands and associated resources through innovative land use controls.

Regulatory and Protection Standards

Existing regulatory standards and other programs at the federal and state level do not adequately protect existing wetlands from individual and cumulative losses in acreage and function.

This is particularly the situation for nontidal wetlands. Some of these areas may be difficult to identify, as surface water or saturated soils may not be evident throughout the growing season. The following characteristics reflect the features of vegetated nontidal wetlands:

- Areas that are inundated or saturated by surface or groundwater.
- Areas where a prevalence of vegetation typically adapted for life in saturated soil conditions exists.
- Areas where hydric soils are present as defined by the National Technical Committee for Hydric Soils.

Policy:

The signatories will, at a minimum, implement protection standards for those areas and activities not adequately protected under federal law and programs. These protection standards will address, but not be limited to: enforcement, buffers, protection of basic wetland functions, "best management practices," alternative actions, and water-dependent uses.

Actions:

- Review the effectiveness of existing regulatory programs and recommend corrective actions to honor the policy commitment and monitor and revise such programs as necessary over time.
- Where not otherwise in place, develop a projected implementation schedule by June 1990 to establish protection standards which honor the policy commitment.

- o Cooperatively develop a process to identify and protect wetland areas of special concern, and consider, where appropriate, the institution of procedures under Section 404(c) of the Clean Water Act.

- o Work toward the development of a single Bay-wide field manual for the delineation of vegetated nontidal wetlands.

- o Develop a guidance document for the regulatory and protection standards.

Incentives

The Chesapeake Executive Council recognizes that regulatory programs alone cannot be relied upon to achieve comprehensive protection of wetlands. Hence, incentives aimed at the private sector will be developed to complement and reinforce these regulatory programs. In addition, programmatic inconsistencies or incentives within the state and federal government which directly or indirectly contribute to wetland losses will be eliminated or reduced.

Policies:

- o The signatories will collectively develop and execute a range of private sector incentive programs which support wetland protection.

- o Government sanctioned programs which are counterproductive to wetland protection will be eliminated whenever possible.

Action:

Formulate and begin execution of an incentive policy implementation plan which, at a minimum, includes:

- o Identifying state and federal programs or policies which result in wetland losses and correcting program deficiencies.

- o Enhancing existing incentive programs to encourage wetland protection.

- o Creating new incentive programs to encourage wetland protection.

- o Investigating the use of penalties or other disincentives to reduce wetland losses.

Land Acquisition

The Chesapeake Executive Council recognizes the important role that acquisition can play in a comprehensive wetlands protection program. The council also recognizes that limited funding requires a strategy for targeting the acquisition of wetlands for the purpose of preserving the public's use and enjoyment of wetland resources. Acquisition may be necessary to protect significant educational, scientific, or ecologic values, or where wetlands provide some broader public use including maintaining open space and providing recreation opportunities.

Policies:

- The signatories will identify priority areas for wetland preservation.
- The signatories will provide for acquisition of lands for the purpose of protecting significant wetland values or the public's right to use and enjoy wetlands where such lands are a part of acquisition programs administered by public agencies.

Action:

- Develop a strategic plan for land acquisition which includes wetlands and appropriate adjacent uplands and aquatic areas as a part of new or ongoing public acquisition programs.

BUILDING THE BASE: REHABILITATING, RESTORING, AND CREATING WETLANDS

The signatories will not attain a net resource gain in wetland acreage and function by protecting existing wetlands alone. Efforts must be made to build the base by rehabilitating degraded wetlands, restoring former wetlands, and creating productive new artificial wetlands. While mitigation will play a large role here, incentives and land acquisition are important and useful tools for building the base of functioning wetlands.

Mitigation

Mitigation is the sequential process of avoiding, minimizing, rectifying, reducing over time, or compensating for wetlands losses. The sequence in which mitigation procedures are considered and applied in practice is crucial to realizing the signatories' protection and management strategy. The Chesapeake Executive Council recognizes that compensatory mitigation (generally involving construction of replacement wetlands) must not substitute for efforts to avoid or minimize losses or prejudice an agency determination affecting wetlands.

Policies:

- Mitigation will be included for any project conducted by or subject to review or approval by the signatories.

- Compensatory mitigation shall proceed from the presumption that "in-kind, on-site" is the preferred solution. Other solutions, including off-site and out-of-kind mitigation, will only be allowed when acceptable to public/government agencies and performed in the context of watershed management planning or other specific objectives.

- The Signatories shall require that compensatory mitigation projects, incorporate public or private arrangements for long-term management.

- Compensation projects will generally be designed and evaluated cooperatively among project sponsors, the signatories, and appropriate public and private entities.

- Monitoring and evaluation of the success of compensatory mitigation replacement projects shall be incorporated by the signatories as a fundamental part of the mitigation process.

Action:

- o The federal signatory, in consultation with appropriate governmental agencies, will develop updated standards and criteria in compliance with the overall wetland protection goals and specific mitigation policies incorporating state-of-the-art technological, ecological and biological applications.

Incentives

Since mitigation arises from the unavoidable loss of wetlands, it alone can not be relied upon to build the base of functioning wetlands. Incentives aimed at the private sector should be developed to encourage rehabilitation, restoration, and creation of wetlands.

Policy:

The signatories will collectively develop and execute a range of private sector incentive programs which encourage rehabilitation, restoration, and creation of wetlands.

Action:

Formulate and begin execution of an incentive policy implementation plan which, at a minimum, includes:

- o Enhancing existing incentive programs to encourage the rehabilitation, restoration and creation of wetlands.

- o Creating new incentive programs to encourage rehabilitation, restoration, and creation of wetlands.

Land Acquisition

To further increase the net resource base beyond that achieved through compensatory mitigation requirements, the signatories will develop acquisition plans which support wetlands rehabilitation, restoration and creation.

Policy:

- o The signatories will facilitate acquisition of lands for wetland rehabilitation, restoration, and creation projects beyond that achieved through compensatory mitigation.

Action:

- Develop criteria for the identification of areas where rehabilitation, restoration and creation projects can be undertaken.

- Develop a plan for the acquisition of land and property interests in areas where wetlands, rehabilitation, restoration and creation projects will be undertaken.

EXTENDING THE VISION: EDUCATION AND RESEARCH

The ultimate success of the comprehensive strategy for wetlands protection and management will depend on the depth and breadth of our vision. Research is essential if we are to refine our knowledge of wetland values and improve our ability to protect and manage these resources. Education builds the necessary public support for resource protection as well as ensuring the efficient implementation of wetland protection practices.

Education

The Chesapeake Executive Council recognizes that wetland protection depends upon public awareness of wetland values and management needs and upon landowner support for protection policies. Furthermore, appropriate technical training must be made available to resource managers and to private sector interests who are charged with implementing specific wetland protection practices.

Policy:

The signatories will develop and maintain on-going education and training programs, technical assistance services, and wetland data base systems to improve our understanding of wetland values, functions, management techniques, status, and trends.

Action:

Formulate and begin execution of an education plan which, at a minimum, includes:

- A current information program available to the public on the values of and need to protect wetlands.
- Development of a Bay-wide library system and data base for wetland information.
- Technical training programs for government representatives, consultants, land developers and interested parties in the areas of wetland identification, delineation, functional assessment, and mitigation practices.

- o Development of technical assistance programs to support local government protection efforts, including mapping, management programs, model ordinances, etc.

- o Development of wetland curricula for academic institutions.

Scientific Research

The Chesapeake Executive Council is aware of the role which scientific research plays in determining the effectiveness of current management practices as well as the potential for using research findings to improve management techniques and the general need for better understanding of how natural changes to wetlands may necessitate appropriate management responses.

Policies:

- o The signatories to this agreement will, to the extent possible, facilitate the undertaking of research projects which have the potential to improve wetland management.

- o The signatories will evaluate and adjust their wetland management practices and regulatory standards such that they reflect principles validated through scientific research.

Action:

The signatories will collectively update a prioritized listing and description of those research projects which offer significant opportunities for improving wetland management practices. At a minimum, the research plan shall consider the following:

- o Continued research of basic wetland structure and function.

- o Research to quantify the relationship between upland, wetland, and aquatic natural processes including chemical, ecological, geomorphological and hydrological processes in various watersheds.

- Evaluation of the potential individual and cumulative effects the following factors have upon wetlands including:
  - Current "best management practices" designed to reduce nutrient and sediment loads to wetlands.
  - Alteration of the land/water interface.
  - Increased boating activity.
  - Shallow water dredging impacts on biologic and hydrologic functions of wetlands.
  - Structural shore erosion practices.
  - Stormwater management practices.
- Evaluation of the design, effectiveness and success of artificial wetlands including those developed for:
  - Compensatory mitigation.
  - Wildlife and waterfowl improvement projects.
  - Non-structural shore erosion control.
  - Stormwater management.
  - Acid mine drainage reduction.
  - Wastewater treatment.
- Comparison of natural and artificial wetlands.
- Research on the potential mitigative measures which could be used to counteract wetland losses due to acid rain, sediment starvation, sea level rise, and invasion of exotic species.
- Studies investigating the feasibility and effects of wetlands created for stormwater management upon other wetland functions, particularly with regard to fish and wildlife habitat and trophic structure and support.