

REPORT OF THE

LAND USE ROUNDTABLE

**TO THE
CHESAPEAKE BAY COMMISSION**



Senate Document No. 6

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November 23, 1987

The Honorable W. Tayloe Murphy, Jr.
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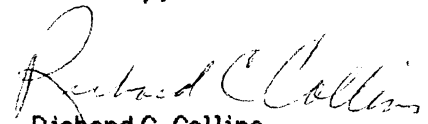
Dear Delegate Murphy:

In March 1986 the General Assembly appropriated funds to support the formation of the Chesapeake Bay Land Use Roundtable under the auspices of the Chesapeake Bay Commission. The Institute for Environmental Negotiation was asked to convene and facilitate the Roundtable and report back to the Commission prior to the 1988 legislative session.

Enclosed is a copy of the consensus statement forged by the Roundtable entitled Land Use Initiatives for Tidewater Virginia: The Next Step in Protecting the Bay. It represents 18 months of intensive study and discussion among individuals representing a broad range of interests and knowledge about the Chesapeake Bay and land use.

We hope you will find the consensus statement one which advances understanding and encourages action with regard to land use planning and management in Tidewater Virginia. As the statement indicates, Roundtable members believe the recommendations are consistent with Virginia's traditions and the Commonwealth's strong commitment to a healthy future for the Chesapeake Bay.

Sincerely,


Richard C. Collins
Director

RCC/bhj

Enclosure

**LAND USE INITIATIVES
FOR TIDEWATER VIRGINIA:
The Next Step in Protecting the Bay**

**The Findings and
Recommendations of
The Chesapeake Bay
Land Use Roundtable**

November 1987

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TABLE OF CONTENTS

	Page
Introduction	1
Findings	4
Who Is Responsible	5
State Leadership Needed	5
Agreements in Principle	7
Land Use Initiatives for Tidewater Virginia	9
Clarification of State Policy and Local Powers	10
Minimum Standards and Requirements	12
State Consistency Review	14
Advisory Comment Process	14
A New Citizen Board	15
Coordination with Existing Agencies	16
Funding	17
Strengthening Existing Programs	18
Wetlands Protection	18
Sand Dune Protection	20
Erosion and Sediment Control and Stormwater Management	21
Management of Agricultural and Forestal Lands	23
Open Space Acquisition and Protection	24
Conclusion	26

INTRODUCTION: The Consensus Building Process

Studies of the Chesapeake Bay completed in the late 1970's concluded that dramatic changes were taking place in the water quality and productivity of the Bay. The survival of the world's most bountiful estuary was threatened. There was an immediate and wide-spread call for action.

In 1983 Virginia, Maryland and Pennsylvania signed an historic agreement to mount a multi-million-dollar regional effort to clean up the Bay. Since then, Virginia and its neighbors have taken important steps to restore the Bay. But there is still concern that until we find ways to address land use issues and their relationship to the health of the Bay we will fall short of our task.

To respond to this concern, the Virginia members of the Chesapeake Bay Commission urged the General Assembly to fund a policy dialogue group to focus on land use issues and the Bay. Commission members were aware of the use of policy dialogues to wrestle with such controversial topics as hazardous waste disposal and groundwater protection and management, and they thought the approach held promise for addressing land use/water quality issues in Virginia. In March 1986 the General Assembly appropriated funds to support the formation of the Chesapeake Bay Land Use Roundtable under the auspices of the Chesapeake Bay Commission.

Roundtable members included legislators, farmers, industrialists, developers, local government officials, environmentalists and citizen activists from all parts of Tidewater Virginia - Fairfax, Norfolk, Virginia Beach, Richmond County, Mathews County, the Eastern Shore and other Tidewater jurisdictions. Members came together with open minds to explore the connection between land use and water quality in the Bay region and to consider steps the State and its localities might take to make land use decisions more sensitive to water quality concerns. We participated not as formal representatives of any particular group or organization but as

individuals representing the interests and perspectives of major constituencies concerned about these issues. We hoped a consensus reached by such a diverse group of individuals could serve as a foundation for more official consideration of policy changes.

We were assisted in our work by a resource group whose expertise and experience informed all of our deliberations and by staff from the Institute for Environmental Negotiation at the University of Virginia. We also invited a number of experts to share their opinions on a range of legal, environmental, and programmatic issues.

During eighteen months of discussion and debate, we exchanged views, found ways to resolve apparent impasses and ultimately reached consensus. When we say we reached consensus it means all Roundtable members agree with the essential features of this statement. It does not mean complete agreement exists on every specific recommendation or on how these might be interpreted or implemented by others. It does mean all members support the outcomes being sought and the overall framework proposed. Reaching consensus was not always easy, but in the end a strong commitment to the unique qualities of the Chesapeake Bay and recognition of the very real threats to its health and survival persuaded those who were initially most skeptical to join in recommending a stronger land-use planning and decision-making process for Tidewater Virginia.

As we concluded our deliberations, a new regional Chesapeake Bay Draft Agreement was developed by Virginia, Maryland, Pennsylvania, the District of Columbia and the Environmental Protection Agency. The new draft is a recommitment to and expansion of the 1983 Agreement. Among other things, it establishes as a major goal: "To Plan For and Manage the Adverse Environmental Effects of Human Population Growth and Development in the Chesapeake Bay System" and it asserts a clear correlation "between population growth and associated development and environmental degradation in the Chesapeake Bay system." The new agreement sets out a number of major objectives that relate to land use and growth management.

We note with satisfaction that many of the findings, goals and objectives contained in the Draft Agreement are compatible with our

conclusions and the recommendations which are set out in this consensus statement. We believe what we recommend is timely, practical, and necessary, and we hope it will receive serious consideration among citizens and decision-makers across the Commonwealth.

FINDINGS

Initial efforts to clean up the Bay concentrated on point source pollution -- pipes or conduits from factories and sewage treatment plants that intentionally discharge into bodies of water. Progress has been made by tightening discharge standards and investing substantial sums to upgrade public and private treatment plants. Problems with compliance and enforcement remain, but the legal and administrative framework to control these sources is in place.

The effects of land use -- or abuse -- on the water quality and health of the Bay have received considerably less public attention and investment than point sources of pollution. The run-off from the parking lots, buildings, agricultural lands, and new construction sites that finds its way into the Bay contains the sediments, nutrients and toxic substances known as non-point source pollution. These pollutants are a significant source of water quality problems in the Bay. The conversion of land from forestry to commercial activity or from a few scattered houses to major developments on a Tidewater creek can alter the type and amount of run-off produced and dramatically affect the functioning of wetlands and other vital habitats that are part of the Bay system.

If we do not deal with issues of land development and management as well as with specific point source discharges we will not be able to achieve our water quality and habitat protection goals for the Chesapeake Bay. Land use control, however, is a highly controversial area of public policy. Tensions exist between the private owners of land and those with public responsibility to protect the environment, among agencies that have responsibilities for different aspects of the common problem, and between the state and local governments. Disagreements about what should be done and who should do it have kept Virginia from delineating a clear and effective set of policies and programs to guide land use planning and development around the Bay. This must change.

Who Is Responsible?

Land is a natural resource as well as an economic one, and Virginia's Constitution clearly establishes the State's responsibility to protect it.

"To the end that the people have clean air, pure water, and the use and enjoyment for recreation of adequate public lands, waters, and other natural resources, it shall be the policy of the Commonwealth to conserve, develop, and utilize its natural resources, its public lands, and its historical sites and buildings. Further, it shall be the Commonwealth's policy to protect its atmosphere, lands, and waters from pollution, impairment, or destruction, for the benefit, enjoyment, and general welfare of the people of the Commonwealth."

Constitution of Virginia, 1971
Article XI, Section 1

Historically, the State delegated responsibility for land use decisions to local governments. The distinction between land, water, and air as separate media in the environment dominated Virginia's legal and organizational responses. Land use decisions were seen as involving only the economic uses of land and the effects of these uses on neighbors. Gradually Virginians have come to realize that land use is also a resource protection issue, and this has altered our view of the State's role in land use decisions.

State Leadership Needed

The intimate connection between land use decisions and resource protection makes it essential that the State take a stronger leadership role in land use planning in Tidewater Virginia. As development pressures increase and the spillover effects from land conversion and poor management become greater, the fortunes of local governments, the character of the region and the State's resource protection interests will be affected significantly. Consider that in 1980 Tidewater Virginia -- the cities and counties east of the fall

line -- covered only 29 percent of Virginia's land area but housed 59 percent of its population. The 1984 report of the Governor's Commission on Virginia's Future estimates that more than half of Virginia's total population growth between now and the year 2000 will be concentrated in an urban crescent from the Washington suburbs through Richmond to Hampton Roads. Yet in 1986, eleven counties in Tidewater Virginia did not have a single county employee whose primary responsibility was land use planning and management.

Development of the Bay region will continue, bringing with it substantial benefits. It is the State's responsibility to ensure that this growth is managed in ways that protect the extraordinary natural resources of the area. The State should take steps now in cooperation with local governments to develop a policy framework and specific guidelines for the development of local plans and ordinances. Resource protection should be the responsibility of both state and local government. While Virginia can be proud of its recent contributions to the health of the Bay, we believe the new policies, institutions, and state-local relationships we recommend are necessary if long-range improvements are to be realized.

AGREEMENTS IN PRINCIPLE

When we began our discussions, we did not know if consensus could be reached among such a diverse group of individuals. We focused initially on fundamental issues that would underlie any specific calls for action. These early discussions led to five agreements in principle which served as a foundation for the recommendations that followed.

Principle #1: Virginia's response to issues related to land use and the Bay should flow from an analysis and understanding of Virginia's laws, institutions, historical context and natural setting.

We agreed that any changes we might recommend should be directly responsive to our particular situation and problems. We were not inclined simply to adopt approaches used in other states. Rather, we agreed to craft a response rooted in Virginia's experience.

Principle #2 Local governments should retain primary responsibility for local land use decisions whenever possible and should be granted the powers necessary to execute that responsibility at the local level.

Principle #3 The State should play a strong leadership role in the protection of public lands, critical resources, and environmental quality. The State would have to work closely with local governments to assure that State policies and goals are met.

All members acknowledged the State's fundamental responsibility to protect the resources of the Commonwealth and the responsibility given to local governments to undertake general planning and land regulation. Members agreed that, given the changes taking place in Tidewater Virginia, current levels of state and local

attention to land use matters are not adequate . The most desirable course is a strengthening of existing state and local roles using a model of state/local cooperation. Direct state involvement should occur only when necessary to protect state resources.

Principle #4: Tensions between public responsibilities to protect natural resources and the environment and private interests in property are inevitable; they must be dealt with as fairly and equitably as possible.

Throughout our discussions we agreed that private property interests must be accorded great respect. Decisions about the use of land should be left to owners unless there are important consequences for the public welfare and safety. For the State and its localities to exercise their resource protection responsibilities, however, certain limits have been placed on the development and use of private property. These limits may have to be adjusted in response to pressures on the Bay and surrounding lands. Whenever possible, these changes should be accompanied by specific incentives so that public responsibilities can be met without placing undue burdens on particular individuals.

Principle #5: Healthy state and local economies and a healthy Chesapeake Bay are integrally related; economic development and resource protection are not and cannot afford to be seen as mutually exclusive.

We agreed we must find ways to protect the Bay that are compatible with orderly development of the Tidewater region. The waters and shores of the Bay will continue to attract people to live and work. State policies need to be adopted to ensure that development occurs in ways that contribute to the economic health of the region without damaging its greatest asset.

Reaching these agreements in principle marked an initial success in the consensus-building process. They lie at the heart of all of our specific recommendations.

LAND USE INITIATIVES FOR TIDEWATER VIRGINIA

Effective control of non-point source pollution requires thoughtful land use planning and decision-making. In our view this should remain primarily the responsibility of local governments, but local decisions should be guided by clear state goals, policies, and standards.

Starting with these two basic assumptions, we propose an expanded framework for land use decision-making in Tidewater Virginia. This framework is designed to preserve local autonomy and flexibility while guaranteeing protection of the water quality, shorelands, tributaries, and habitats of the Chesapeake Bay. While it is currently proposed only for Tidewater localities as defined in section 62.1-13.2 of the Code of Virginia, this model for the state-local relationship in land use planning and decision-making could be extended to other parts of the state as resource protection issues dictate.

The essential elements of the expanded land use decision-making framework we recommend are:

- *a statutory policy setting forth state interests in protecting the Bay*
- *new planning and zoning enabling legislation language that grants localities specific powers to regulate for natural resource protection purposes*
- *minimum state standards for comprehensive plans in Tidewater localities that would pertain to geographic areas of particular concern: shorelands, wetlands, sand dunes and barrier islands*
- *mandatory zoning in Tidewater localities*

- *requirements that zoning and subdivision ordinances within the geographic areas of particular concern be consistent with the goals and policies established in local comprehensive plans*
- *requirements that any changes made in comprehensive plans, zoning ordinances, subdivision ordinances -- plan amendments, zoning ordinance text or map changes, subdivision ordinance revisions -- that involve the geographic areas of particular concern be consistent with state policies and standards*
- *state financial and technical assistance to Tidewater localities to aid in the preparation of local plans and ordinances*
- *advisory state comment on any project proposal in a Tidewater jurisdiction that requires local government action when such comment is requested by a local government; advisory comments should be completed within established time limits*
- *a new state-level citizen board responsible for carrying out these new activities including developing state standards, approving local plans and ordinances once consistency with state standards is achieved, and preparing advisory comments on individual proposals when requested by local government.*

Clarification of State Policy and Local Powers

It should be established in statute that:

"In order for the Commonwealth to protect its atmosphere, lands, and waters from pollution, impairment, or destruction, for the benefit, enjoyment, and general welfare of the people, it must exercise its legislative authority to develop a comprehensive land use policy which recognizes the traditional role of

local government while at the same time fulfills the Commonwealth's constitutional duty to preserve its natural resources, especially the Chesapeake Bay and all other waters of the Commonwealth. The State must share with local government the obligation to protect these waters. The power and authority to manage their lands for this purpose should be delegated to local governing bodies, and they must exercise this additional authority in a manner that is compatible with state regulation and policy and that insures the proper discharge of the public trust responsibilities of the Commonwealth.

The protection of the public interest in the natural environment and the promotion of the general welfare of the people of the Commonwealth requires (1) that the counties, cities and towns of Tidewater Virginia adopt Comprehensive Plans and Land Use Ordinances in accordance with state established guidelines that define and protect those shoreline areas which, if improperly developed, would result in damage to important natural resources, especially the Chesapeake Bay and its tributaries; (2) that the Commonwealth makes its resources available to local governing bodies by providing financial and technical assistance, policy guidance and oversight when requested by local government or required by state law; and (3) that all regulatory agencies of the Commonwealth be required to exercise their delegated authority in a manner consistent with the provisions of local Comprehensive Plans and Land Use Ordinances which have been developed in accordance with state standards."

This policy is needed as a basis for developing state standards for land use planning and decision-making in the Tidewater area. The policy also will provide the rationale for granting local governments specific planning and zoning authority to protect shorelands, wetlands, water quality and other critical environmental resources. Given Virginia's narrow legal interpretation of local powers, local governments will need to be granted additional authority to be able to implement this policy effectively.

Minimum Standards and Requirements

Under current state law, each local government in Virginia is required to have a planning commission, a comprehensive plan, and a subdivision ordinance. Virginia's local planning legislation authorizes local governments in preparing Comprehensive Plans to survey and study:

"Use of land, preservation of agricultural and forestal land, protection of food and fiber, characteristics and conditions of existing development, trends of growth or changes, natural resources, population factors, employment and economic factors, existing public facilities, drainage, flood control and flood damage prevention measures, transportation facilities, the need for housing, and any other matters relating to the subject matter and general purposes of the comprehensive plan." (Va. Code § 15.1-447)

At present there is wide variation in the quality of local land use planning in Tidewater Virginia. This variation is caused by a number of factors including inadequate financial resources and technical capability to develop effective local plans, lack of state standards, and lack of any provisions for state review .

Zoning, which is one of the major tools for implementing planning goals and policies, is authorized in Virginia but is not required. Most Tidewater jurisdictions have some form of zoning in place, but in many cases the zoning ordinance and individual zoning decisions bear no meaningful relationship to the goals and policies of the plan. We have concluded that some fundamental changes are needed to carry out the intent of our current planning and zoning laws to protect the Bay and its environs.

We recommend the State strengthen the comprehensive planning requirement in Tidewater Virginia. Though we do not believe it is necessary to require that all land areas covered by comprehensive plans in this region meet state standards, we do believe the State should establish standards for those areas which critically affect the public trust responsibilities of the State. The purpose of these

standards is to allow the State to execute its responsibility to protect the waters and habitats of the Bay and its tributaries, and the standards must be specific enough to ensure that land conversion, development, and management practices do not threaten these resources. To be most effective, however, the standards should allow a variety of approaches and regulations tailored to local conditions and needs provided state standards are met.

In our view the land areas which should be governed by state standards include at a minimum the following geographic areas of particular concern:

- shorelands along tributaries and the Bay
- wetlands
- coastal sand dunes
- barrier islands.

These are areas of particular concern identified in Virginia's Coastal Resources Management Program. In some cases these areas have not been defined clearly in terms of boundaries, size, or geographic reach. Defining these areas should be one of the first responsibilities of the new citizen board. There are other geographic areas that are important to local and state interests such as drinking water supply areas that arguably should be guided by state standards, but in our view the areas listed above are the ones that are essential to the protection of the Bay.

In addition, we recommend the State make zoning mandatory in all Tidewater localities. Zoning should not be an optional tool; it is an essential feature of any serious effort to implement comprehensive plans. Zoning laws should be required to be consistent with the objectives of the local comprehensive plan. Plans are official documents that set out the goals, and policies of the community. Accompanied by supporting data, maps, and other illustrative and descriptive material they provide a valuable foundation for the day-to-day decisions faced by citizens and local government officials. But plans are not laws. Zoning is needed to specify the uses of land. In evaluating zoning decisions against charges that the local government has acted arbitrarily, state courts have placed increasing emphasis on comparing the zoning action to the goals articulated in the

comprehensive plan. The evidence of a common thread between rezonings and planning policies and goals has the double advantage of encouraging public accountability and providing greater clarity and predictability to private parties interested in land development.

State Consistency Review

Initially, each jurisdiction will need to develop or demonstrate that it already has a set of plans and ordinances designed to protect the natural resources of the Bay and its environs. These local plans and ordinances must be reviewed and approved at the state level to ensure consistency with all appropriate state requirements. Subsequent revisions to a comprehensive plan or changes in a zoning ordinance that involve the geographic areas of particular concern that are subject to state standards would have to receive approval from the State to ensure that consistency with state standards is maintained. Throughout this process, the State must provide localities with the financial and technical assistance they need to do this job well.

Advisory Comment Process

While we believe the state standards and financial and technical assistance we have recommended will improve local governments' capacity to develop plans and ordinances consistent with local goals and state policies, an additional type of state assistance may be needed. We recommend the State, either directly or through the Planning District Commissions, be prepared to provide advisory comments on individual project proposals at the request of local governments in the Tidewater area when such proposals call for local government action of some kind. This would give local governments the option of having additional information on the local and regional impacts of any proposed development within their jurisdiction before making a decision.

A New Citizen Board

We have recommended a strengthening of the existing state-local relationship for land use planning. We are also recommending a number of new activities at the state level.

Once we agreed that certain new state functions would be needed, we sought a suitable home for these in one or more existing state agencies. We were reluctant to propose a new entity in state government unless it was truly necessary, and we closely examined the mandates and responsibilities of existing agencies. We also considered the need for these tasks to be undertaken by a body set up to make decisions that are both politically difficult and technically complex. In the end we concluded that a new citizen board was the only way to develop and administer an effective program sensitive to the wide range of interests and concerns that are involved. We believe the kinds of tasks and decisions we are recommending should be undertaken by a body that is politically accountable and is not burdened by previous commitments and responsibilities.

We propose that a new citizen board with its own executive director and staff be established under the Secretary of Natural Resources to carry out these tasks. The board should be appointed by the Governor and should represent the full range of interests in Tidewater, including local government and the business, development, agricultural and environmental communities.

The initial responsibilities of the board would be:

- *to develop standards for local comprehensive plans in Tidewater Virginia that pertain to the geographic areas of particular concern*
- *to provide financial and technical assistance to these localities while they are preparing local plans and ordinances*
- *to approve local plans and ordinances once consistency with state policy and standards is achieved*

- *to receive notice of proposed amendments to approved plans and ordinances that relate to the geographic areas of particular concern and to review these proposed changes for consistency with state policy and standards*
- *to conduct advisory reviews of individual projects within established time limits when such reviews are requested by a local government.*

This program will require close cooperation between the new board and local governments in the Tidewater area. From the outset the citizen board and its executive director and staff should establish effective working relationships with local governments. The board should seek the advice of local governments and others in developing state standards for the geographic areas of particular concern. We believe the processes of analysis, discussion, and negotiation that go into the development of the local plans will contribute significantly to the understanding and quality of land use decisions in this region.

To be sure this program lives up to its intent, deadlines for completing the various initial tasks should be set and the citizen board and its activities should be subject to the same legislative oversight process that exists for all programs including a regular program review and evaluation by the Joint Legislative Audit and Review Commission.

Coordination With Existing Agencies

In all instances we favor using existing structures and agencies when this can be done without in any way sacrificing the intent and effectiveness of the initiative. While we believe a new citizen board with its own staff is crucial to the success of these new initiatives, it must work closely with staff in existing agencies that have ongoing land use programs to take advantage of their expertise and maximize coordination. The Secretary of Natural Resources serves as a coordinator for the state's resource protection programs. Placing the new board under the Secretary establishes it as an important

component in the Commonwealth's overall resource protection program.

A number of Planning District Commissions in the Tidewater area are already providing technical assistance to local governments. We suggest that, when appropriate, both the new citizen board and local governments make use of the Planning District Commissions to help develop consistent local plans and ordinances. The Planning District Commissions are already familiar with local conditions and can, in many instances, provide a useful bridge between the state and local level.

Funding

We recognize that the General Assembly will have to provide specific appropriations if this new Tidewater land use program is to be executed effectively. Establishing and staffing a new citizen board and providing financial and technical assistance to local governments will require new funds. While the new citizen board will work closely with existing agencies, it must be adequately staffed to meet its responsibilities without placing additional demands on these agencies. We anticipate that for the next few years federal coastal zone money could be used to finance some of these activities, but these funds will not be sufficient and are not permanent. To initiate and maintain an effective program, new state funding will have to be provided.

STRENGTHENING EXISTING PROGRAMS

As the resource protection aspects of land use decisions have become clearer, the State has initiated a number of programs designed to protect sensitive areas and manage certain land use activities. These programs represent key elements in state-local cooperation to protect the Bay. They have many attractive features and in some cases have served as models for other states, but we believe that:

- *Clearer state guidelines and financial and technical assistance for localities are needed if existing state land use and resource protection programs are to be effectively and consistently implemented at the local level.*
- *Both state agencies and local governments should be provided with the necessary powers and personnel to guarantee compliance with state laws.*

In our view, implementing these two fundamental recommendations and strengthening individual programs in the ways suggested below are essential to our long-term efforts to protect the Bay. Along with the new land use planning initiatives we have proposed, they provide the necessary features of an effective state-local program to protect the Bay and its environs.

Wetlands Protection

Wetlands perform a number of important natural functions and are acknowledged to be a critical factor in a healthy Bay ecosystem. They store water during flood times and protect water bodies from sediments, nutrients and other pollutants. Wetlands are necessary fish and wildlife habitats, and coastal wetlands provide important breeding and feeding grounds for finfish and shellfish.

Virginia's current wetlands law requires a permit for any construction or alteration in tidal wetlands and establishes state

guidelines for granting permits. Local governments can implement this program if they choose by establishing a local wetlands board to review and grant permits in accordance with state standards. If a local government chooses not to administer the program, the state administers it directly. Local decisions can be appealed to the Virginia Marine Resources Commission on procedural grounds only.

While the law provides an effective framework for protecting tidal wetlands in Virginia, certain shortcomings need to be addressed:

- lack of adequate training and financial and technical assistance for local wetlands boards
- lack of guidance on how local boards should take cumulative and upland impacts into account
- inadequate monitoring and enforcement efforts.

For this program to live up to its potential, Virginia needs to take the following steps.

- *Provide mandatory training and financial and technical assistance for local boards, including preparing a procedural and technical manual for granting permits, and providing training in each locality.*
- *Strengthen monitoring and enforcement of wetlands permits by adding enforcement staff at the state and local level and making the Virginia Marine Resources Commission decision-making process subject to requirements set out in the Administrative Procedures Act.*
- *Expand state permitting guidelines to address cumulative impacts, impacts of upland activities on wetlands and a review of all practicable on-site and viable off-site alternatives.*
- *Allow permit fees to reflect more closely the true cost of reviewing the individual permit request.*

- *Develop a permit program for state and local government projects.*

In addition, current law provides no state protection for Virginia's thousands of acres of non-tidal wetlands. The largest portion of these are found in the Chesapeake Bay drainage basin.

- *The importance of non-tidal wetlands needs to be recognized and a legislative initiative developed to preserve them, recognizing that agricultural, forestal, and other economic interests as well as environmental concerns have to be considered in developing such a program.*

Sand Dune Protection

It is the policy of the Commonwealth to protect its primary sand dunes from being damaged or destroyed by human activity. Under the Coastal Primary Sand Dune Act any construction activity affecting these dunes requires a permit from a local wetlands board or from the state if no local board exists.

The controversy that has surrounded dune protection in Virginia in recent years points up the difficulty involved in protecting the resource while accommodating "necessary" economic development whenever possible. Lack of consistency in applying permit guidelines and the legislature's willingness to grant exemptions from the law in some cases have led to confusion and criticism of this program.

- *The State should re-assert its commitment to shoreline protection. It should require consistent application of guidelines in granting permits. The legislative language of the sand dune law should be reviewed along with guidance to the VMRC to be sure that dune-disturbing activity is allowed only when it can be done without damaging the resource. Also, the definition of "reach" should be expanded to include the Atlantic Ocean side of the Eastern Shore.*

As with wetlands protection, this program will benefit from a stronger monitoring and enforcement capacity in local wetlands boards and at the state level.

Erosion and Sediment Control and Stormwater Management

Run-off from construction sites and urban areas contributes nutrients, toxic substances, and sediment to the Chesapeake Bay and its tributaries. The share of non-point source pollution coming from these sources increases as urbanization and land conversion increase.

In 1973 Virginia passed the Erosion and Sediment Control Law designed to minimize soil erosion and run-off during construction activities. The law requires the State to set minimum standards for local erosion and sediment control programs; each locality must, in conjunction with local soil and water conservation districts, establish a program with standards at least as strict as those established by the State. Before engaging in any land disturbing activity, a property owner must file an erosion and sediment control plan that meets these local requirements. The law currently applies to all land-disturbing activities except construction of rail and utility lines, farming and forestry activities, single family dwellings not in a subdivision, construction on federal land, surface mining, and oil and gas exploration.

While a number of jurisdictions and individual projects demonstrate exemplary erosion control practices, this program is implemented and enforced unevenly statewide. A shortage of personnel at the state and local levels adds to the problems of effective implementation. In addition, Virginia lacks an adequate stormwater management program to protect water quality once construction is complete.

Virginia's stormwater management activities, developed as part of the Erosion and Sediment Control Law, have been in place since 1980. The stormwater program was designed to deal with erosion and flooding concerns related to urban run-off and does not address water quality. According to a 1984 Attorney General's opinion, the existing

law does not provide the authority to address water quality concerns except for sedimentation.

A number of steps need to be taken to provide Virginia with an effective program to protect the waters of the Bay from the contaminants and sediment produced by land development activities and continuing urban uses.

- *The Division of Soil and Water Conservation should be granted authority and directed to carry out a stronger oversight role and should be provided the necessary staff to do this.*
- *Statutory authority should be expanded to allow the stormwater management program to address water quality concerns including establishing performance criteria and requiring erosion and sediment control plans to address post-completion run-off.*
- *The legal status of state guidance in these programs should be clarified to indicate which requirements are mandatory and which are advisory.*
- *The law should be strictly applied to all state and local government projects, and current exemptions for utilities and surface and deep mines should be reconsidered.*
- *Participation in training sessions should be mandatory for any person who prepares or certifies erosion and sediment control plans; these sessions should be offered in each locality.*
- *The State should examine the adequacy of fees being charged to review individual erosion and sediment control plans.*
- *Long-term, the State should consider making erosion and sediment control requirements part of the state building code to improve consistency in implementation and enforcement.*

Management of Agricultural and Forestal Lands

The sediments, fertilizers, and pesticides carried in agricultural run-off contribute significantly to the water quality problems in the Chesapeake Bay. The impact of any particular agricultural and silvacultural activity varies widely depending on the kind of activity and the extent to which best management practices are employed.

In an attempt to address this portion of the non-point source pollution problem, one of Virginia's first Chesapeake Bay Initiatives was an education and cost share Best Management Practice program (BMP) for farmers. The BMP program is not a regulatory program. It is a voluntary incentive-based program. While some 1,500 farmers have participated to date keeping thousands of tons of potential pollutants out of the Bay, they are only a small portion of the 24,000 eligible farmers in the Virginia portion of the Chesapeake Bay basin.

There are recent federal initiatives that attempt to coordinate agricultural production goals with environmental goals. The Food Security Act of 1985 (also known as the 1985 "farm bill") offers a series of incentives and penalties designed to take highly erodible land out of production. One major provision of the law allows farmers to remove their eligible acreage from production for ten years in return for annual rental payments and some technical and financial conservation assistance. At present, Virginia farmers are not signing up in large numbers and less than 3 percent of eligible acreage is enrolled in the program because current incentives are not adequate to offset the losses incurred when the land is taken out of production.

Careful management of Virginia's agricultural and forestal lands is essential to the long-term health of the Bay. Well managed farms and forests pose less threat than urban uses and can in fact make a positive contribution to water quality by stabilizing soils, protecting wetlands and reducing run-off. Poorly managed farms and forest operations, on the other hand, pose major threats to water quality.

In our view it should be state policy to actively encourage agriculture and forestry on land in the Bay basin and to increase the amount of farm and forestry acreage under best management practices. We recognize the precarious financial condition of many Virginia farming operations and the need to provide incentives and compensation in exchange for requiring farmers to take certain lands out of production. To fulfill the State's resource protection responsibilities without discouraging farming and forestry activity, we recommend the following:

- *The State's use value taxation law should be amended to require a farm or forest management plan as part of eligibility; the State should provide technical assistance in preparing these plans when individual farmers or foresters request it.*
- *The State should support current efforts to increase the levels of payment available to Bay area farmers under the 1985 farm bill for taking highly erodible lands out of production and if necessary supplement those funds.*
- *Additional education/outreach efforts should be funded by the State to make eligible farmers aware that if they have not put their highly erodible soils into a reserve program by 1990, they must implement best management practices on them or lose federal financial support on all the land they farm.*
- *The State should require the use of best management practices on shoreline farm land; farmers should work with the Division of Soil and Water Conservation to select the most appropriate practices and the State should pay the cost of establishing the BMP's with farmers assuming all maintenance costs.*

Open Space Acquisition and Protection

Under the Open Space Land Act the State is authorized to acquire park land for open space and recreational use. In recent years,

however, no funds have been appropriated for this purpose. The State also has a program whereby it can receive conservation easements to preserve open space. These programs should be expanded and new avenues explored for public/private cooperation in preserving environmentally sensitive areas.

In some cases, regulation will not be the most appropriate way to protect environmentally sensitive lands. In those instances outright purchase or purchase of easements or development rights should be considered. An aggressive open space acquisition and conservation program is needed to make this aspect of Bay protection a reality.

- *The State should establish an open space acquisition fund for purchasing land, development rights, or easements for particularly valuable areas that cannot be protected in other ways and provide a reliable source of funds to finance this; if a Real Estate Transfer tax is adopted, consideration should be given to allocating a portion of such a tax to an open space acquisition fund.*
- *The State should expand its easement program, actively seeking donation of easements and in particular encouraging landowners/developers to grant conservation easements along shorelines and in other critical areas.*
- *The State should encourage the use of private partnerships to limit development intensity on environmentally sensitive lands by providing technical assistance and tax abatements.*

CONCLUSION

The Chesapeake Bay ecosystem cannot be protected without altering the patterns of land use and development that have contributed to its deterioration. Changes must be made in the way we approach land use decisions. Private stewardship and community planning efforts must be strengthened.

If these recommendations are implemented, private landowners, developers, and citizens will have a clearer sense of where development is being encouraged and where special approvals and mitigation measures will be required. A land use planning, zoning, and management process that moves in the directions we recommend offers the benefits of greater certainty at the same time that it provides more effective protection of our land and water resources.

We developed these recommendations in response to the State's constitutional responsibility to protect the natural environment, but they also provide ways for local governments in Tidewater Virginia to protect their communities and shape their economies. We believe that if these initiatives are adopted, Virginia will have an exemplary program that can serve as a model for state-local cooperation to protect a vital resource and enhance the communities that surround it.