



# Focal Points

CHESAPEAKE BAY COMMISSION · ANNUAL REPORT 2006



CHESAPEAKE BAY COMMISSION  
*Policy for the Bay*

# Focal Points

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**T**HE CHESAPEAKE BAY COMMISSION IS ONE OF SIX signatories to the Chesapeake Bay Agreement and a member of the Chesapeake Executive Council. The Commission represents the General Assemblies of Maryland, Virginia and Pennsylvania, and promotes Baywide laws, policies and programs at the state and Federal levels.

Twenty-one members define the Commission's identity, strategic focus and issues. Fifteen are legislators — five from each state — who represent both political parties and the full range of urban, suburban and rural life found in the watershed. Each of the three governors is a Commission member, represented by the cabinet secretary who is directly responsible for managing their state's natural resources. Three citizen representatives round out the Commission's membership, one from each state.

As a leader in the regional Chesapeake Bay Program, the Commission must address a broad range of issues and policies that reflect countless pollution sources, land uses and human impacts in

a 64,000-square-mile watershed spanning six states with 180,000 miles of rivers, creeks and coastline.

The Commission seeks to address these issues in a manner that ensures that societal, ecological and economic concerns are considered — and balanced — in the crafting of each new policy. Adding to the enormity of the challenge, Commission members and staff are also deeply engaged in the effort to secure new and expanded sources of funding for the full Bay restoration. This year, 2006, brought a renewed sense of urgency to this mission, and a recognition that the multi-billion dollar price tag will only increase over time unless actions are taken in the next few years to minimize the impacts of growth in our watershed.

Neither the Commission nor its partners in the Bay Program — the states and Federal agencies — have the financial resources or critical capacity to address the full range of activities and issues affecting the Bay. While the states have

made significant progress in developing new sources of funding in recent years, in the short run our success depends on focusing strategic attention on those policies and actions that will deliver the greatest restoration results for the least cost.

What pollution controls, what land use strategies and what geographic locations represent the best opportunities for progress at the least cost? What strategies can be pursued that will attract financial partners, magnify environmental gains, value education, or trigger sequel restoration actions? Where can our policy-making activities have the greatest impact? These are the questions that drive us to focus our attention each year on a select group of issues. If successfully addressed, they can be catalysts for the improved health and understanding of the Bay as a whole.

The pages that follow report on the progress made on the *Focal Points* selected in 2006, and the steps taken to secure more progress in 2007 and the years ahead.

## Members and Staff of the Commission

<b>The Hon. Emmett W. Hanger, Jr., Chairman *</b>	Senate of Virginia
<b>The Hon. Michael L. Waugh, Vice-Chairman *</b>	Senate of Pennsylvania
<b>The Hon. John F. Wood, Jr., Vice-Chairman *</b>	Maryland House of Delegates
<b>The Hon. L. Preston Bryant, Jr.</b>	Secretary of Natural Resources, Virginia (beginning May 2006)
<b>The Hon. John A. Cosgrove *</b>	Virginia House of Delegates
<b>The Hon. Russell H. Fairchild</b>	Pennsylvania House of Representatives
<b>The Hon. Bernie Fowler *</b>	Maryland Citizen Representative
<b>The Hon. C. Ronald Franks</b>	Secretary of Natural Resources, Maryland
<b>The Hon. Brian E. Frosh</b>	Maryland State Senate
<b>The Hon. Arthur D. Hershey</b>	Pennsylvania House of Representatives
<b>The Hon. Irvine B. Hill</b>	Virginia Citizen Representative
<b>The Hon. James W. Hubbard</b>	Maryland House of Delegates
<b>The Hon. Lynwood W. Lewis, Jr.</b>	Virginia House of Delegates (beginning May 2006)
<b>The Hon. L. Scott Lingamfelter</b>	Virginia House of Delegates
<b>The Hon. Kathleen A. McGinty</b>	Secretary of Environmental Protection, Pennsylvania
<b>The Hon. W. Tayloe Murphy, Jr.</b>	Secretary of Natural Resources, Virginia (through Jan. 2006)
<b>The Hon. Albert C. Pollard, Jr.</b>	Virginia House of Delegates (through Jan. 2006)
<b>The Hon. Nick Rerras</b>	Senate of Virginia
<b>The Hon. J. Lowell Stoltzfus</b>	Maryland State Senate
<b>The Hon. Michael H. Weir, Jr.</b>	Maryland House of Delegates
<b>The Hon. Noah W. Wenger</b>	Senate of Pennsylvania
<b>The Hon. George B. Wolff</b>	Pennsylvania Citizen Representative
<b>The Hon. Peter J. Zug *</b>	Pennsylvania House of Representatives
<b>Rear Admiral Frederic R. Ruehe</b>	Naval Liaison

\* Members of the Executive Committee

### Staff

<b>Ann Pesiri Swanson</b>	Executive Director
<b>Patricia G. Stuntz</b>	Assistant Director/Maryland Director
<b>Suzan Bulbulkaya</b>	Virginia Director
<b>Marel A. Raub</b>	Pennsylvania Director
<b>Paula W. Hose</b>	Administrative Officer







IN 2006, THE CHESAPEAKE BAY COMMISSION CONTINUED ITS strong focus on improving water quality via nutrient and sediment pollution reduction. Our work to develop regional recommendations for Farm Bill reform and to provide guidance to the states in their creation of nutrient trading programs has large implications for future funding for agricultural conservation measures.

This year, the Commission also increased its focus on nitrogen deposition from the atmosphere, a key contributor to the Bay's pollution load. Commission staff began the process of developing Bay state solutions, with particular emphasis on the important role of the Chesapeake's forests in assimilating nutrient pollution from the air.

Our efforts to secure Congressional approval of the Captain John Smith Chesapeake National Historic Trail proved fruitful by year's end, with a Presidential signing on December 19th — 400 years to the day that the Jamestown settlers departed England. This welcome victory will create a vast, new effort to build public support though

water-based experiential learning about the history and beauty of the Bay, and the quality of its waters.

The Commission's last meeting of 2006 served as a reminder that our work throughout the watershed to meet water quality standards can be strengthened by the growing public awareness of the values of the Bay ecosystem, not just as a source of food, but as a healthy and vital estuary providing multiple benefits to society.

## ADMINISTRATION

Each calendar year, the chairmanship of the Commission rotates among the states. Outgoing Chairman Senator Mike Waugh of Pennsylvania turned the gavel over to Virginia Senator Emmett Hanger at the January 2006 meeting. In 2007, the chairmanship will rotate to Maryland.

The Commission met four times in 2006, with individual state delegations meeting more frequently throughout the year. (Agendas and other materials related to the Commission's quarterly meetings are available from our website: *www.chesbay.state.va.us*.) The Commission's six-member Executive Committee held a special day-long meeting in order to more strategically focus the Commission's policy work. Executive Committee members are noted in the Roster of Members on Page 5.

The Commission maintains its headquarters in Annapolis, Maryland, with additional staff located in Harrisburg, Pennsylvania and Richmond, Virginia. Financial support is provided via the general funds of each member state and through grant support for special projects.

## STATE LEGISLATIVE ACTIVITIES

The Commission serves as the legislative leader of the Chesapeake Bay Program partnership, working to ensure that goals and policies adopted by the Program have the complement of Federal and state laws, regulations, budgets and policies to support them. Highlights of the legislative activities in each state during 2006 are provided below.

### Maryland

Given the Bay Commission's priority involvement in agricultural conservation issues over the past several years, the Maryland delegation supported legislation to implement the recommendations of the General Assembly's Agricultural Stewardship Commission. HB 2 established the intent of the General Assembly for the Governor to increase funding for certain state programs supporting agricultural best management practices (BMPs). The recommended funding levels represent an increase of \$37.6–\$71.8 million over fiscal years 2007–2011, compared to fiscal year 2006 appropriations. The fiscal 2007 budget included only \$3.5 million of that increase. The bill also called for a mandatory increase in fiscal 2007 of \$0.5 million for county Soil Conservation Districts.

Priority preservation areas will be added to county agricultural land preservation programs to target key resource lands. A task force is to be established to recommend improvements to the tax structure related to farmers.

Legislation was enacted to address emissions of the four major air pollutants that come from power plants. The Healthy Air Act will require emission reductions of 75 percent for nitrogen

## 2006 MARYLAND DELEGATION



DAVE HARP

**LEFT TO RIGHT:** Acting Assistant Secretary Frank Dawson (representing Secretary Ron Franks); Delegate John Wood, Jr.; Delegate Mike Weir, Jr.; Assistant Director/Maryland Director Pat Stuntz; Senator Lowell Stoltzfus.  
**NOT PICTURED:** Senator Brian Frosh; Delegate Jim Hubbard; Citizen Representative Bernie Fowler.



- **Agricultural conservation and funding**
- **Power plant emission reductions**
- **Alternatives to mercury thermostats**

oxides, 85 percent for sulfur dioxide, 90 percent for mercury and 10 percent for carbon dioxide from seven coal-fired power plants. HB 189 requires major sources of mercury emissions to install best available technology and demonstrate compliance through direct monitoring. It also requires Maryland to participate in a regional global warming agreement with seven other East Coast states. Carbon dioxide reductions can be met through efficiency improvements, fuel switching and carbon sequestration offsets such as forest buffers.

The issue of how local jurisdictions plan for and manage growth and development was a major topic of interest in 2006. Under HB 1141, counties and cities

are now required to revise their comprehensive plans to include projections of future growth, including the land area and public services required to sustain growth, and the impact on sensitive areas. Comprehensive plans must also include city annexations of county land, as well as water quality and quantity elements. Zoning changes are prohibited unless the developer can demonstrate that adequate water exists to serve proposed new development.

Other significant legislation impacting the Bay addressed labeling of fertilizer for private use (HB 222) and a ban on the sale, and requirements for proper disposal, of thermostats containing mercury (HB 1041).



## Pennsylvania

Four Commission members led the way for Pennsylvania to create landmark legislation that will, when passed, provide tax credits for both the farm community and local businesses who wish to enhance agricultural stewardship in their communities. Senators Mike Waugh and Noah Wenger, and Representatives Art Hershey and Russ Fairchild sponsored SB 1286 and HB 2878, which would create the Resource Enhancement and Protection Program (REAP). The bills provide for a transferable tax credit for farmers who implement certain best management practices. The Commission testified that this inventive idea will encourage private-sector investment in agricultural stewardship programs at levels never before possible. REAP was first presented to the General Assembly in 2006, and is expected to be more comprehensively reviewed in 2007.

A number of bills were introduced which address land conservation. Representative Russ Fairchild was instrumental in House passage of HB 1895, which calls for an amendment to the state constitution to provide for a tax credit for those landowners who preserve agricultural, forest, or other open space lands. House passage was an important first step in the multi-year process for approving constitutional amendments.

Legislation receiving the Governor's signature included Act 46, which provides for a maximum of \$200,000 to be transferred to land trusts as reimbursement for expenses associated with farmland preservation, and would allow the state to jointly purchase conservation easements with local governments and eligible non-profit organizations. Act 154 allows local

government units to incorporate local land trusts to acquire real estate interests for the purpose of open space preservation. In addition, Act 110, also led by Delegation members, streamlines the funding process for Conservation Districts in the state by creating a single fund to receive monies.

The Delegation was also instrumental in securing continued funding for the Chesapeake Bay Watershed Education Program, and advocated for funding to implement a fish passage at the dam near Shikellamy State Park.

Commission members supported bicameral resolutions calling for a nine-month moratorium on the Department of Environmental Protection's (DEP's) implementation of the Commonwealth's Chesapeake Bay Tributary Strategy. The resolutions responded to public concern that carrying out the strategy would result in significant costs to local communities for sewage plant upgrades. In response, DEP reactivated the Chesapeake Bay Tributary Strategy Steering Committee and created five subcommittees to address trading, agriculture, stormwater and development, point sources, and legacy sediment. These activities, particularly trading, are described in detail in Chapter 2.

Throughout the year, state director Marel Raub provided briefings on the Tributary Strategies to legislative staff and interested groups such as the Susquehanna Valley Regional Chamber of Commerce and the Pennsylvania Bar Institute, among others.

## Virginia

Rivers are a defining feature of the Virginia landscape. Thus, in addition to the Chesapeake Bay itself, the Commonwealth's Bay restoration program focuses

## 2006 PENNSYLVANIA DELEGATION



DAVE HARP

**FRONT ROW FROM LEFT:** Pat Buckley and Deputy Secretary Cathy Curran Myers (representing Secretary Kathleen McGinty); Pennsylvania Director Marel Raub. **BACK ROW FROM LEFT:** Senator Mike Waugh; Senator Noah Wenger; Representative Art Hershey; Representative Russ Fairchild; Citizen Representative George Wolff. **NOT PICTURED:** Representative Peter Zug



- **Agricultural conservation and funding**
- **Market-based nutrient trading**
- **Point source discharge allocations**

on improving water quality in its thousands of miles of rivers, streams and lakes statewide. Commission member Delegate Scott Lingamfelter successfully patroned The Chesapeake Bay and Virginia Waters Clean-up and Oversight Act, which will substantially enhance the strategic decision making of this effort. The new law requires the Virginia Secretary of Natural Resources to develop a clean-up plan which will include measurable objectives, a description of how the individual strategies will meet the plan's objectives, time frames for accomplishing the objectives, and a plan for disbursing funds for point and nonpoint source pollution projects. The Secretary will also provide an analysis of alternative funding mechanisms in the

plan, which is to be submitted by January 2007 with progress reports to follow semiannually.

The General Assembly was unable to reach a consensus on establishing a permanent source of funding for the Water Quality Improvement Fund, but a record \$200 million was appropriated for the Fund to upgrade nutrient removal technology at wastewater treatment plants.

Commission Chairman Senator Emmett Hanger, along with member Delegate Lynwood Lewis, patroned a resolution establishing a joint subcommittee to study long-term funding sources and programmatic options for purchase of development rights to preserve open-space

land and farmland in Virginia. The joint subcommittee met three times in 2006 and agreed to continue their efforts through 2007. The Virginia Delegation is expected to consider their recommendations for legislative action.

For almost ten years, Virginia has had an income tax credit for qualified farmers who use best management practices to reduce nonpoint source pollutants. In 2006, the General Assembly broadened the tax credit to include owners of horses. A farmer can earn a credit of 25 percent of the first \$70,000 expended for agricultural best management practices, with a cap of \$17,500. This tax credit may prove to be an important incentive for reducing nonpoint source pollution in Virginia, as Loudoun and Fauquier counties rank in the top 14 counties in the nation for horses and ponies.

A noteworthy debate during the 2006 session involved the management of the menhaden fishery. Delegate John Cosgrove introduced legislation to implement the Atlantic States Marine Fisheries Commission's annual cap on the menhaden fishery. The bill failed to pass in 2006, but the debate set the stage for further consideration in the 2007 Session.

## **U.S. CONGRESS**

### **Abandoned Mine Reclamation Fund**

Passage of the Abandoned Mine Lands Reclamation Fund (AML) represented a significant victory for the Chesapeake Bay Commission and the Bay region in 2006. After 3 1/2 years of work, and despite great odds against passage during the lame duck session of Congress, the AML Program was reauthorized in the waning hours of the 109th session.

Our efforts began in January 2006 when the Pennsylvania General Assembly adopted a joint resolution requesting the Congress to reauthorize the AML, in order to address water pollution discharges from abandoned mines in the state. Before its reauthorization, the Fund was primarily targeted to active mining states, leaving the legacy of past coal mining impacts without Federal restoration support.

With the most abandoned mine land acreage in the nation (250,000 acres) and 4,600 miles of streams and rivers reported as biologically dead, Pennsylvania has had the most at stake in this long debate. "Dead" streams are unable to assimilate nitrogen, allowing both nutrient and toxic-filled waters to tumble downstream. The Pennsylvania DEP has estimated the total state costs for AML clean-up at \$15 billion. Passage of AML will provide most of these needed restoration funds.

### **2007 Farm Bill Recommendations**

Every five years Congress produces the nation's flagship legislation on farm policy. It is no small undertaking. The Farm Bill contains something on just about every topic — nutrition, research, energy, rural development and, of course, agriculture. It is a big-ticket item for both the nation and the Chesapeake Bay. The last bill, passed in 2002, had a five-year price tag of nearly \$250 billion, of which \$100 billion constituted payments of one kind or another to farmers.

With the 2002 bill set to expire in September 2007, the reauthorization of the Farm Bill is the Commission's top Congressional priority. The Farm Bill provides more money toward nonpoint source pollution control than any other program in the world.



## 2006 VIRGINIA DELEGATION



ANN SWANSON

**FROM LEFT:** Senator Nick Rerras; Delegate John Cosgrove; Citizen Representative Irv Hill; Delegate Lynwood Lewis, Jr.; Senator Emmett Hanger; Delegate Scott Lingamfelter; Rear Admiral Frederic Ruehe; Assistant Secretary Jeff Corbin (representing Secretary Preston Bryant, Jr.); Virginia Director Suzan Bulbulkaya.



- **Agricultural conservation and funding**
- **Bay clean-up and funding plan**
- **Menhaden fishery**

There are 87,000 farms in the Bay watershed that contribute 42 percent of the nitrogen, 49 percent of the phosphorus and 63 percent of the sediment loads entering the Chesapeake Bay. This makes agriculture the single largest source of both nutrients and sediment to the Chesapeake and also makes agriculture the key to water quality improvement in the Bay.

The Farm Bill represents this region's best opportunity to substantially amplify agricultural conservation activities through increased financial support and technical assistance. During 2006, Commission members and staff met with their Congressional counterparts, offered testimony in both the state General Assemblies and the Congress, worked

with the region's governors to adopt and distribute a Baywide resolution, and built state and national coalitions to support a reauthorized Farm Bill that would, at a minimum, double conservation spending.

### Captain John Smith Chesapeake National Historic Trail

In the Chesapeake region, ecology and history are deeply intertwined. In December 2006, the U.S. Congress passed and the President signed legislation establishing the Captain John Smith Chesapeake National Historic Trail. The trail's designation comes just as the nation begins to celebrate the 400th anniversary of the settlement of Jamestown and the remarkable journeys of Captain Smith (from

# *Reducing Pounds to Restore Water Quality*

In 2006, the Chesapeake Bay Commission focused on initiatives that would result in reducing pounds of nutrients and sediments entering the rivers of the Bay. Here are examples:



## **FEDERAL FARM BILL**

***Baywide Potential: 55 M pounds per year nitrogen reduced***

Under the leadership of the Chesapeake Bay Commission, the governors of Maryland, Pennsylvania and Virginia adopted a resolution calling for the Congress to adopt strong conservation provisions in the 2007 Federal Farm Bill. As the single largest Federal source of funds for nonpoint best management practices, a Farm Bill tailored to the needs of farmers in the Bay watershed is crucial to achieving nutrient and sediment reductions from agriculture – the largest source of impairments to the Bay and the most cost-effective opportunity for improvement.



## **CHESAPEAKE FORESTS PROTECTION**

***Baywide Potential: 29 M pounds per year nitrogen reduced***

A U.S. Forest Service and Conservation Fund report on the state of the Chesapeake's forests attracted widespread attention to the possible future loss of up to 5.5 million acres of prime forestlands that are most important to preserving water quality. The Commission worked with the authors and the Bay Program to translate these findings into a 2006 Forest Protection Directive that commits the states of Virginia, Maryland and Pennsylvania to develop a forest conservation goal by the 2007 Chesapeake Executive Council meeting.



## **BLUE PLAINS WASTEWATER TREATMENT PLANT**

***Baywide Potential: 3.7 M pounds per year nitrogen reduced***

Given the magnitude of its flow into the Potomac River, the Blue Plains Wastewater Treatment Plant, which is the largest sewage treatment plant in the watershed, warrants significant attention. Despite major environmental upgrades in the 1990s, the plant must continue to ratchet down its discharge of nitrogen and phosphorus in order to meet new EPA permit limits. However, without adequate funding, these nutrient reductions could be many years away. To ensure action, the Commission urged the Congress, the Office of Management and Budget and the jurisdictions involved to put the necessary funding in place.



## **HOME LAWN CARE INITIATIVE**

***Baywide Potential: 0.3 M pounds per year phosphorus reduced***

With the cooperation of Scotts Miracle-Gro Company and its colleagues in the do-it-yourself fertilizer industry, the Chesapeake Bay Commission and its partners in the Bay Program, seized an important nutrient reduction opportunity in 2006: runoff from residential fertilizer applied to lawns. In December, the Program's Executive Council signed an agreement with the Lawn Care Products Manufacturing Industry to achieve a 50 percent reduction in pounds of phosphorus applied to residential lawns by 2009. Next year the partnership will address opportunities to reduce nitrogen runoff from lawns.

1607 to 1609) that ensured the fragile settlement's success.

The Commission also worked with the Congress to provide funding for interpretive “talking” buoys along the trail and, with National Geographic Society, to develop a complementary interpretive program and trail map for school-age children. The details of the trail are summarized in Chapter 4.

### Chesapeake Bay Program Reauthorization and Reform

During 2006, the Commission served as an expert advisor on two Congressional bills intended to ramp up the success and accountability of the Federally funded Chesapeake Bay Program.

Both the Senate version, The Chesapeake Bay Program Reauthorization and Environmental Accountability Act (S.1490), and the House's Chesapeake Bay Restoration Enhancement Act (H.R. 4126), would require the EPA Administrator to develop an implementation plan for reaching the goals of the *Chesapeake 2000* agreement.

Timelines, measures of progress and improved involvement of local governments are all themes of the legislation. The bills would also require the Administrator to publish annual “tributary report cards” that describe the progress made in achieving the nutrient and sediment reduction goals for each tributary in the Bay watershed. The Commission was instrumental in developing the “report card” concept, to improve communication to watershed residents of the progress made toward restoring their rivers and the Bay.

If passed, the bills will allocate \$50 million annually to the Chesapeake Bay Program, which provides support and coordination for the Federal, state, and

local partners in developing strategies and action plans as part of the overall restoration effort.

### Congressional Visits and Briefings

By law, the Commission serves as the region's principal liaison to Congress. Congressional members and staff rely on the Commission for information, policy and drafting advice. Congressional activities in 2006 demanded much of the Commission's time and attention.

As is tradition, the Commission traveled to Washington, D.C. in May 2006, to meet with 20 members of its Congressional delegation. Discussions focused primarily on the reauthorization of the Federal Farm Bill and Abandoned Mine Lands Reclamation Fund, upgrading of the Blue Plains Wastewater Treatment Plant for enhanced nutrient removal, and the establishment of the Captain John Smith Chesapeake National Historic Trail. Throughout the year, staff provided testimony to the committees and attended meetings with members and staff to further the consideration of each of these issues.

### Chesapeake Bay Program Leadership

As one of six leaders in the Federally funded Chesapeake Bay Program, the Commission is involved in all aspects of its policy development and restoration activities. The Commission is the only representative of the legislative branch, which makes its perspective both unique and powerful.

The Commission led negotiations on all three of the Chesapeake Executive Council's 2006 directives, which addressed the Federal Farm Bill, forest conservation and reducing the nutrient content in home lawn-care products.

### The Commission's Work in 2006



In 2006, Commission staff was asked to participate in a number of highly publicized reviews of the Chesapeake Bay Program conducted by the U.S. Government Accountability Office, the Inspector General and the National Academy of Public Administration. This represented a major commitment on the part of the staff, who were able to provide an inter-jurisdictional and legislative perspective to the proceedings.

## PARTNERSHIPS/ KEY ISSUES

### Blue Plains Wastewater Treatment Plant

For many years, the Blue Plains Wastewater Treatment Plant (Blue Plains) has served as a prime example of what is at stake if we fail to upgrade our region's largest point source facilities. The Chesapeake Bay Commission has long understood this challenge and has worked to support efforts to install state-of-the-art nutrient reduction technology at Blue Plains. As the largest wastewater treatment plant in the Bay watershed, even small reductions in nutrient concentrations achieved at the facility will be amplified many times over. The Commission continues to push for reduced nitrogen discharges in the plant's effluent.

In December 2006, EPA issued a draft permit goal of 4.2 mg/l, ratcheting nitrogen concentrations down from 7.5 mg/liter. The estimated costs to complete the upgrades to achieve the proposed new permit levels of nitrogen removal are almost \$1 billion. Both Maryland and Virginia have funding mechanisms in place to provide their share of the cost of the nitrogen removal upgrade, but D.C. does not and is facing other significant

financial challenges related to its antiquated combined sewer systems.

Increased Federal funding for upgrading Blue Plains was a focal point of the Commission's work in 2006. Commission members met with D.C. Water and Sewer Authority staff and members of Congress throughout the year in an effort to assist the District in securing Federal funding. A letter was sent to the Office of Management and Budget requesting that funding for Blue Plains be included in the President's FY '08 Budget. The Commission will continue to focus on Blue Plains until the job is done.

### Blue Crabs

During the summer of 2006, the Chesapeake Bay Commission released its report, *Blue Crab 2005: Status of the Chesapeake Population and Its Fisheries*. Based on the findings and advice of the Commission's Bi-State Blue Crab Technical Advisory Committee (BBTAC), the report concluded that the 2005 crabbing season represented a slightly above average year in nearly a decade of low abundance. However, the BBTAC scientists cautioned that the preliminary findings of the winter dredge survey of 2005–2006 showed another dip in the blue crab population, warranting a call for continued cautious management of the blue crab and restoration of healthy crab habitat.

An important highlight of the assessment was that in 2005, for the first time, harvest pressure on the blue crab met the target set in 2001, and actually fell below it. The target sets crab harvesting rates at a point that will conserve 20 percent of the spawning stock, which is a key goal of the suite of regulations passed between 2001 and 2003 by Virginia, Maryland and the Potomac River Fisheries Commission.

This good news is tempered by the fact that, when crab stocks are low, crabbers end up harvesting a larger proportion of the total number of crabs in the Bay. The BBTAC scientists will continue to assess the impact of low oxygen conditions and the loss of habitats, such as underwater grass beds and oyster reefs, on the crab population. The Chesapeake Bay Commission will also continue its efforts to develop scientific consensus in order to assist policy makers and managers in protecting the Chesapeake Bay blue crab.

## NON-PROFIT ADVISORY COMMITTEES

### Chesapeake Bay Targeted Watersheds Grant Program

To assist the states in meeting their nutrient reduction targets by 2010, the Commission worked closely with Senators Paul Sarbanes (D-MD) and John Warner (R-VA) to establish the Chesapeake Bay Targeted Watersheds Grants Program. By appropriating more than \$13 million through the EPA, the grants have supported the investigation and demonstration of the most innovative, sustainable and cost-effective strategies (including market-based approaches) for reducing excess nutrient loads within specific tributaries to the Chesapeake Bay.

The program awards grants of up to \$1 million on a competitive basis to projects that target the diverse conditions and sources of nutrients that exist throughout the Chesapeake watershed.

Grants awarded in 2006 address a range of pollution sources, demonstrate innovative agricultural best management

practices and explore market-based incentives for widespread BMP implementation. Executive Director Ann Swanson has served on the grant selection committee for the past two years and will serve again as a judge in 2007.

### Chesapeake Bay Funders' Network

Shortly after signing the *Chesapeake 2000* agreement, the Commission began investigating both the costs of a clean Bay as well as potential sources of new money for Bay restoration. To complement state and federal appropriations, the Commission turned to the region's philanthropic organizations for help. In assisting with the establishment of the Chesapeake Bay Funders' Network, the Commission worked to identify funders in the region, introduce them to one another, and coordinate with the Chesapeake Bay Trust and the Keith Campbell Foundation to launch them as an independent collaborative grant-making group. Established in July 2003, the Network initiated two new programs in 2006 designed to build organizational capacity among watershed organizations and to further reduce nutrient pollution coming from manure and other agricultural activities. The Commission continues to serve as an active advisor to the Network.

Executive Director Ann Swanson attended the W.K. Kellogg Foundation's Sixth Annual Food and Society Networking Meeting in the spring of 2006 as part of the Network's agricultural initiatives. As an invited expert, Swanson worked with Kellogg to develop an agricultural partnership with the Bay Funders in our region.

### The Commission's Work in 2006

## Commissioners at Work

**BELOW:** Maryland Delegate John Wood listens intently as scientists describe the mounting problem of derelict crab pots, or "Ghost Pots," fishing the Bay's bottom long after they have been lost or abandoned.



DAVE HARP



DAVE HARP



DAVE HARP

**TOP:** At every opportunity, Pennsylvania members Senator Noah Wenger and Citizen Representative George Wolff look for ways to promote agricultural innovation and sustainability.

**ABOVE:** Virginia Delegate John Cosgrove carefully examines a draft of a proposed Commission policy.



DAVE HARP

**ABOVE:** Pennsylvania Representative Art Hershey (right) discusses potential collaboration between suburbanizing communities and agriculture with Kenneth Gainer of Mount Joy Borough Authority.



DAVE HARP

**ABOVE:** Delegate Mike Weir, Jr. of Baltimore, Maryland enjoys the contrast between the meandering rivers of his region and the broad reaches of Virginia's southern Bay.





DAVE HARP

**LEFT:** From apples to horses to corn and soybeans, the diversity of agriculture presents challenges when crafting farm policy. The members discuss issues confronting vineyards at the Nissley Estates in Lancaster County, Pennsylvania.

**BELOW:** Pennsylvania Senator Mike Waugh, Chairman of the Senate Agriculture and Rural Affairs Committee, also serves as Chairman of the Commission's Pennsylvania delegation.



DAVE HARP



U.S. NAVY

**ABOVE:** Former U.S. Naval Reserve Officer Delegate John Cosgrove joins Rear Admiral Fredric Ruehe in pointing out the U.S. Navy's shoreline restoration activities.



DAVE HARP

**ABOVE:** Chairman Virginia Senator Emmett Hanger and Pennsylvania Citizen Representative George Wolff consider troubling new findings that air deposition contributes as much as one third of the total nitrogen loadings to the Bay.



## Commissioners at Work



MARYLAND GOVERNOR'S OFFICE

**ABOVE:** 2006 Chesapeake Executive Council leadership: Roy Kienitz (representing Pennsylvania Governor Edward Rendell), D.C. Mayor Anthony Williams, CBC Chairman Senator Emmett Hanger, EPA Administrator Steve Johnson, Virginia Governor Tim Kaine and Maryland Governor Bob Ehrlich



**ABOVE:** Over three million acres, including 936 miles of shoreline, Maryland-owned properties in the southern Bay to identify new habitat restoration opportunities.



DAVE HARP

**ABOVE:** All of the Commission members, including 2006 Chairman Virginia Senator Emmett Hanger, serve voluntarily, having to juggle their legislative and work schedules with the quarterly business meetings of the Commission.



DAVE HARP

**ABOVE:** Maryland Senator and farmer Lowell Stoltzfus observes conservation measures implemented on the Brubaker Farm in Mount Joy, Pa.



MARYLAND GOVERNOR'S OFFICE

**ABOVE:** Governor Ehrlich shares an idea with Chairman Emmett Hanger, Executive Director Ann Swanson and Virginia Secretary of Agriculture and Forestry Bob Bloxom at a Bay leadership breakfast.





NICK RERRAS

is federally owned. In November, the Commission examined Navy-  
ation opportunities.



CHESAPEAKE BAY FOUNDATION

**ABOVE:** Pennsylvania Representative Russ Fairchild recognizes the efforts of Selinsgrove High School environmental science teacher Bill Bechtel with a 2006 Pennsylvania General Assembly Resolution.



DAVE HARP



DAVE HARP

**TOP:** Maryland Senator Brian Frosh always favors the conservation-minded approach.

**ABOVE:** Virginia Citizen representative Irv Hill and Maryland Senator Lowell Stoltzfus compare facts.

**BELOW:** As a chief architect of the Pennsylvania Nutrient Trading Program, Deputy Secretary Cathy Curran Myers listens to her Virginia colleagues describe their newly established trading program.



DAVE HARP



NELLIE FREEMAN

**ABOVE:** In May, retired Maryland Senator Bernie Fowler recognized Charlie Stek, legislative aide to U. S. Senator Paul Sarbanes, for his extraordinary staff support to the Congress on Chesapeake Bay issues.





**W**ITH THE 2010 WATER QUALITY DEADLINE FAST approaching and the imminent application of new Chesapeake Bay water quality standards to upstream point source permits, funding for wastewater treatment upgrades was a key focal point of the Commission's work in 2006. As usual, the approach was unique in each of the three states.

Maryland expanded implementation of its "flush fee"

system, approved in 2004, to support \$500 million in revenue bonds for point source and nonpoint source reductions. While Virginia and Pennsylvania each provided an additional \$250 million and \$150 million, respectively, for existing point source upgrades, the levels were, admittedly, less than the funds needed to upgrade all facilities to meet the new permit limits. The resulting costs to communities led





both of these states to consider a market-based program to lower the total cost of compliance: nutrient trading.

Modeled after the Federal air quality trading program that has been established for several years, water quality trading can occur when one permitted discharger reduces its nutrient loads below its permitted limits. The difference between the permitted load and the actual load can then generate nutrient “credits.” These credits can be sold to a second permitted discharger who is facing difficulty in meeting its permitted limits.

Trading is designed to take advantage of the varying costs of individual dischargers to make upgrades. For example, point source A is able to reduce its annual nitrogen loads by 4,000 pounds beyond its permitted level at a price of \$5 per pound. Point source B would have to pay \$15 per pound of nitrogen for upgrades needed just to reach its permitted level. Therefore, it would be beneficial for B to instead purchase 4,000 pounds worth of nitrogen credits from A at \$5 instead of paying \$15 by making upgrades on its own. Cost differences between plants are often the result of economies of scale, existing capacity, site limitations, and availability of low-cost financing, among others.

Of course, an actual trade is much more complicated, involving not just the two permitted dischargers, but also regulatory agencies and other interested parties such as nonpoint sources, financial markets, environmental organizations and the community at large. With this complexity came the involvement of the Pennsylvania and Virginia General Assemblies.

In Virginia, the concept of trading was presented as legislation and adopted in 2005. The Act created the Virginia Nutri-

ent Credit Exchange Association and established an initial program of point source-to-point source trading only, with nonpoint sources to be included in the future to accommodate only new and expanding point sources. Patroned in 2005 by Delegate Preston Bryant, now Secretary of Natural Resources, the bill was co-patroned by Commission members Delegates Scott Lingamfelter and Albert Pollard.

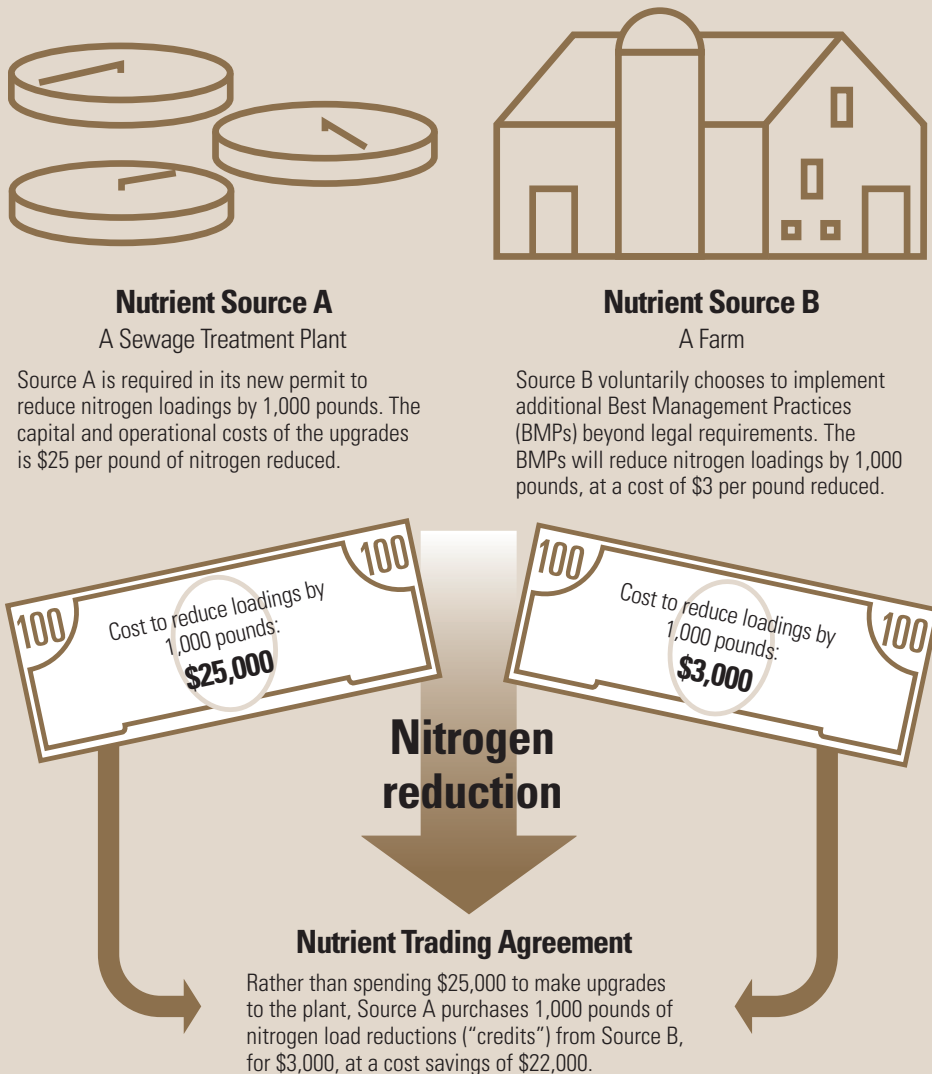
By contrast, Pennsylvania’s program was developed internally within the Department of Environmental Protection (DEP), and emerged as a policy in late 2005. Additionally, Pennsylvania chose to include nonpoint sources in its trading program from the outset (see example on Page 25), while also establishing a zero net discharge for all new point sources in the state.

This decision triggered discomfort among the regulated community and its ratepayers, as well as questions from the legislature regarding trading and the Commonwealth’s Chesapeake Bay Tributary Strategy, leading to resolutions in the House and Senate establishing a nine-month moratorium on implementation of the Strategy. All five legislative members of the Commission’s Pennsylvania Delegation were sponsors of the resolutions.

During the moratorium period, a large group of stakeholders was reconvened by DEP to review the Strategy, including its reliance on nutrient trading. Members of the Commission’s Pennsylvania Delegation and staff participated in this Tributary Strategy Steering Committee as well as the subcommittees formed to discuss those sources of nutrients included in the Strategy and potentially eligible for a trade: wastewater treatment plants,



## How Nutrient Trading Works



Marketing  
Water Quality

agriculture, development and legacy sediments.

In Virginia, where the scope of the program was initially limited to point sources, and new development was given a discharge allocation, trading devel-

oped through the traditional regulatory process with input from a Technical Advisory Committee comprised of various stakeholders. The result was a new general permit regulation to be effective January 1, 2007. Included in the permit

## Chapter 2

are load limits, a schedule of and plan for compliance, monitoring and reporting requirements, and the method of achieving compliance with annual load limits, including purchased credits. In cases where a source is not able to either meet load limits on its own or purchase credits, the source may make a payment to the Water Quality Improvement Fund, at a predetermined price.

In addition to the factors weighed in Virginia, Pennsylvania also tackled issues that resulted from inclusion of nonpoint sources, which are without discharge permits that provide an easily measurable level of compliance. It was the nonpoint provisions that prompted comments of concern from the Chesapeake Bay Program's Scientific and Technical Advisory Committee (STAC). In a letter to the Commission and other members of the Chesapeake Executive Council, STAC cited "numerous reasons to be concerned about the evolving programs," including the fact that "not all nutrient reductions are ecologically equivalent."

However, Pennsylvania was unwavering in its decision to include nonpoint sources, due to the relative low cost of agricultural practices to control nutrients compared to point sources. After significant debate, DEP addressed the lack of nonpoint permits by establishing a "baseline" of legal compliance with all applicable statutes and regulations. DEP also established a minimum "threshold" of best management practice (BMP) implementation beyond the baseline. This threshold must be met before credits can be generated. Additionally, DEP has calculated the theoretical maximum amount of credits that can be generated by nonpoint sources, above Tributary Strategy implementation levels.

Questions regarding the development of two very different trading programs led the Commission to devote time at both its May and September quarterly meetings to the issue. In May, the Commission asked EPA Region 3 to share its views on trading in general and its role in developing and monitoring implementation of the state programs. EPA oversees the National Pollutant Discharge Elimination System (NPDES) permit program. Any permitted entities that engage in a trade will be required to account for that trade in their permit. Consequently, EPA has been keenly interested in ensuring success of the Virginia and Pennsylvania programs and has provided input throughout their development. Also in May, Virginia presented its program, followed by a briefing on Pennsylvania's later in the year.

To implement their trading programs, both Virginia and Pennsylvania have adopted a system of "watershed permitting." This system allows for the aggregation of loading within a major tributary watershed (e.g. Susquehanna, Potomac, Rappahannock, etc.), and the trading of nutrient loads between individual sources within those watersheds, with delivery factors applied based on the proximity of the source to the Bay. Although this limits trading partners to certain geographic areas, it still provides for large and diverse areas in which to trade.

In September, the Commission heard first-hand from a township and a local farmer who are looking at ways to use nutrient trading for mutual benefit. In the case of the community, it will be able to avoid the high costs associated with upgrading its wastewater treatment facility by paying for more cost-effective agricultural practices. Additionally, the

community sees a direct benefit to the sustainability of its agricultural neighbors, thus preserving the region's rural character. For the farmer, he will be provided a source of funds to implement additional BMPs on his farm.

The source of funds for agricultural BMPs continues to be a focus of debate. Specifically, should BMPs paid for with public funds (such as through USDA or state cost-share programs), also generate nutrient credits that may or may not be subsidized by the state? In Pennsylvania, DEP has left that answer up to the provider of the funds. In Virginia, the answer is no. The concern with allowing such payment is that the farmer receives and the public makes, in effect, a double payment for the practice. On the other hand, proponents of allowing publicly funded projects to generate marketable credits argue that, regardless of the origi-

nal funding source, the farmer owns all benefits that an installed BMP may generate (i.e. eligibility for a nutrient trade).

Another question also arises: If payment for nonpoint practices is credited as point source reductions, will agricultural nonpoint sources, the largest source of excess nutrients, ever be able to meet their own reduction goals? As time goes by, the implementation of the states' programs are bound to raise even more concerns and opportunities.

The Commission will remain engaged in the review and development of these evolving programs, and looks forward to information that becomes available as trades take place. Additionally, Commission members and staff will continue to look for additional sources of funds to implement the upgrades and BMPs necessary to achieve full compliance with the Tributary Strategies.

## **Marketing Water Quality**







**T**HE VALUE THAT SOCIETY PLACES ON A HEALTHY AND PRODUCTIVE Chesapeake Bay directly influences public support for Bay restoration efforts. Our enjoyment of the Bay, whether feasting on crabs, sailing its rivers or simply cooling off on a hot summer day, defines our sense of place and reinforces our commitment to protecting it. The Chesapeake Bay Commission recognizes that policies and laws alone will not achieve water quality goals; behavioral changes on the part of all of the watershed's residents, willingness to pay for needed cleanup actions, and political leadership to minimize the impacts of growth are the cornerstones of success.

While many of the Bay's recreational and commercial values are self-evident, its ecological values are more difficult to understand and



yet are among the most important benefits to quantify and to communicate to the public.

The Chesapeake Bay Commission continues to place high priority on assessing the economic values and costs of restoring the Bay. As a leader in the development of policy watershed-wide, the Commission incorporates economic considerations as it designs comprehensive strategies for restoring water quality and managing fisheries and other living resources. This focus on environmental economics reflects a growing national trend to assign values to the societal benefits of protecting both species and ecosystems.

As part of this effort, the Commission hosted a two-day meeting in November 2006 with noted ecologists and resource economists who discussed recent developments in the management of fisheries and the ecosystems on which they depend, including the values of broader ecosystem services. One of the panelists, University of Maryland economist Doug Lipton, Ph.D., shared his insights into the changing values that society places on the Bay and its fisheries, and the ramifications for the Commission as it considers future policy solutions.

### Changing Values of Fisheries and Ramifications for New Policy

The values we place on the Chesapeake Bay and its abundant resources change over time. Historically, the Bay was valued almost exclusively as a major provider of seafood; an “immense protein factory” is the familiar reference to the Chesapeake Bay from Baltimore author H. L. Mencken. His characterization was accurate. By the time of Mencken’s death in 1956, the Chesapeake was producing 67

percent of the value of the U.S. production of oysters and 58 percent of the nation’s blue crabs.

For most of the public, excepting those who were fortunate enough to live or vacation near the Bay’s shores, this seafood connection was probably their strongest tie to the Bay. Crab feasts, fish fries and holiday turkeys side-dressed with oyster stuffing were hallmarks of the region. Even today our restoration policies for the Bay focus on returning seafood productivity to that of an earlier era. However, current evidence suggests that the way the public values the Bay is shifting and this has important implications for how we articulate the need for strong Bay protection policies.

For example, the 1987 Chesapeake Bay Agreement recognized the multiple values to society provided by the Bay’s living resources:

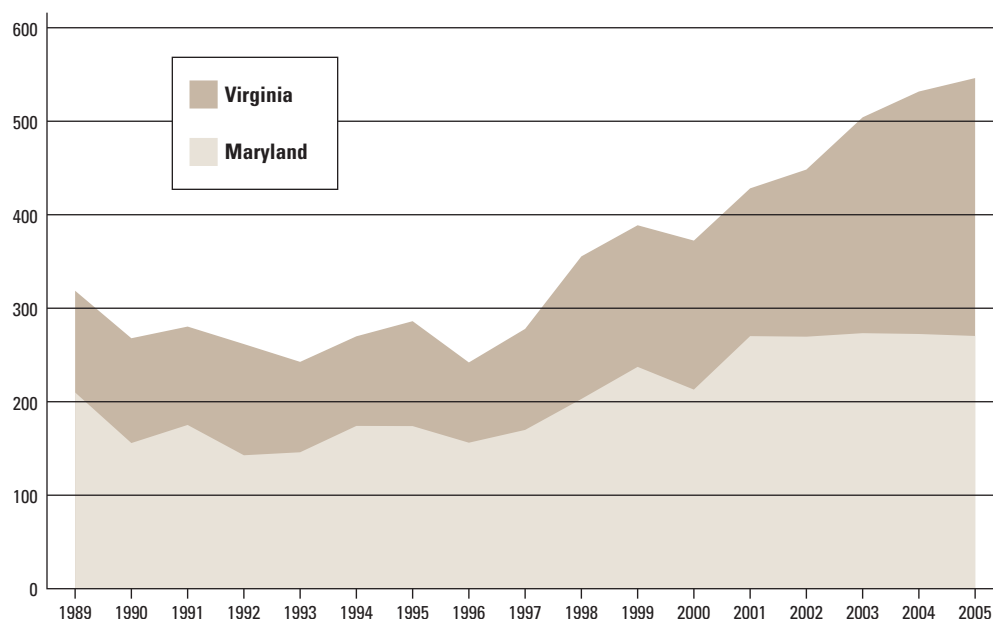
*“Some species of shellfish and finfish are of immense commercial and recreational value to man. Others are valuable because they are part of the vast array of plant and animal life that make up the Chesapeake Bay ecosystem on which all species depend.”*

These three values — commercial, recreational and ecological — represent a broader set of services provided by the Bay than had been recognized in the past. Each is valued differently by Bay region residents, depending upon location, culture and circumstance. Importantly, as the value of the Bay as a major commercial fishery has declined, the relative value of recreation and ecological services has increased.

In his presentation to the Commission, Dr. Lipton observed that a number of Bay species destined for seafood markets

**FIGURE 1** Seafood imports to Baltimore, Md., Norfolk and Hampton Roads, Va., 1989-2005

Millions of dollars (2005 dollars)



SOURCE: U.S. CENSUS BUREAU, FOREIGN TRADE DIVISION

**The Changing Values  
of an Ecosystem**

have seen marked price declines in the past 55 years. For example, the aggregate prices for spot, croaker, eel, white perch and catfish declined an average of 4.2 percent per year, as compared to an annual 1.0 percent increase in prices that consumers paid for seafood across the entire U.S. This decline in Bay seafood prices occurred despite the decline in Bay harvests due to reduced abundance, which normally would cause prices to increase.

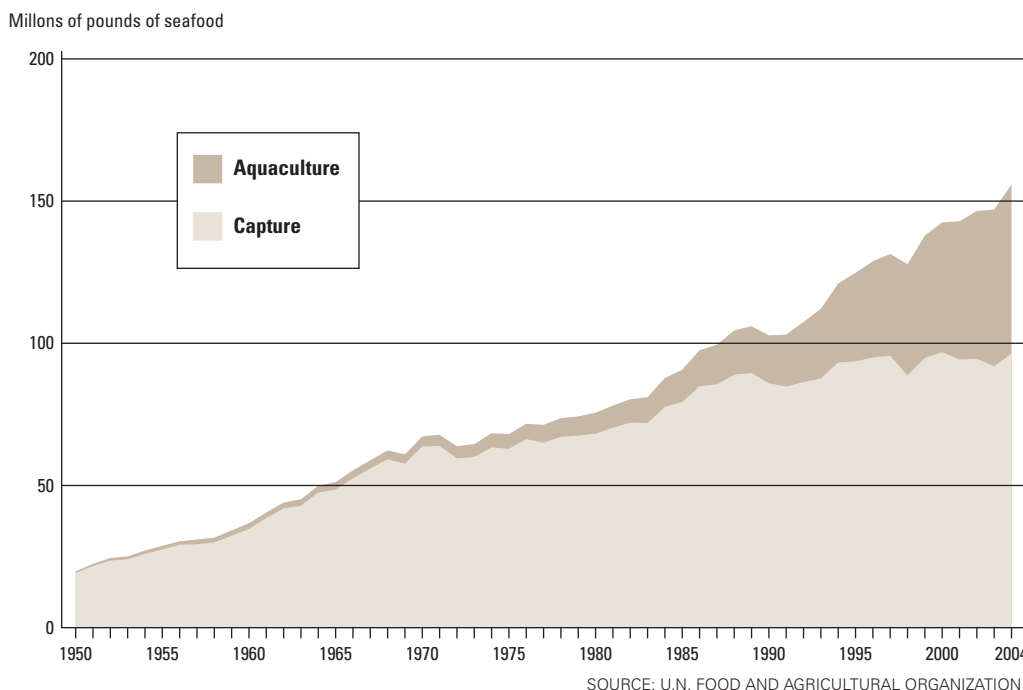
The three major seafood species from Chesapeake Bay — blue crab, oysters and striped bass — fared nominally better, with annual price increases over the same time period of 1.2, 0.7 and 1.8 percent, respectively. The below-average increase in price for oysters and the sharp decline in price for the other finfish from Chesapeake Bay could possibly reflect a decrease in the Bay's importance as a source of

seafood. The availability of a wide array of low-cost seafood products from all over the globe has clearly contributed to the local diminution in value of the Bay as a seafood producer.

Ironically, the Bay has, via container shipping, become a conveyor for seafood products whose abundance and value far exceeds what we produce from the Bay itself. In 1989, \$319 million worth of seafood products came to the U.S. through the ports of Baltimore, Norfolk and Hampton Roads (Figure 1). By 2005, imports had increased 80 percent to \$545 million. A large percentage of import growth since 1995 has come in the form of pasteurized crabmeat, augmenting the crabmeat historically produced in the Chesapeake region.

There is another factor eroding the Bay's place as a world seafood capital:



**FIGURE 2** Increasing share of aquaculture contributing to world fisheries production, 1950-2004

aquaculture. In 2005, about one-third of the world's fisheries production came from aquaculture (Figure 2). Aquaculture has enabled world seafood supply to increase even though natural production from capture fisheries is probably near or at its maximum potential. Except through imports that make their way via seafood restaurants or retail stores, this expansion in world aquaculture production is not being seen in the Chesapeake Bay, yet it's still having an impact by lowering prices for the Bay's seafood products.


This issue raises very real questions that have influenced the current policy debate. What is the future role of the Bay as a commercial source of seafood? How should the aquaculture industry be defined in the Bay region? Acknowledging the realities associated with diminished oyster and clam stocks, several scientists

at the November Commission meeting expressed their belief that shellfish aquaculture is the only way to create a sustainable harvest in the Bay. Despite long-standing differences in the political and cultural acceptance of aquaculture in Maryland and Virginia, legislative action in each state is expected to play a key role in the ultimate viability of an aquaculture industry in the Bay.

While the importance of the Bay as a seafood producer has declined, its value as a place for recreational fishing has increased greatly. Today's society is wealthier than ever before, and as our wealth has grown how we spend our leisure time has changed. More people are living closer to the Bay and spending more time on the water. In fact, fishing data collected since 1981 shows an increasing trend in recreational fishing trips in

**FIGURE 3** The economic value of an oyster

DIRECT	INDIRECT
■ Food for Human Consumption	■ Seafood for Human Consumption
■ Livelihood for Watermen	Habitat for oysters to be harvested in the future
■ Processor Employment	Habitat for other seafood species (e.g., blue crab) to be harvested
■ Seafood Industry Profits	■ Recreational Fishing
■ Restaurants and Retailers	Habitat for recreational species and their prey
	Preferred fishing grounds for anglers
	■ Recreation (Other)
	Boating and swimming (improved water quality)
	■ Aesthetics
	Waterfront property value (improved water quality)
	Waterfront park or other shoreline visited by public (improved water quality)
	■ Non-Use Value
	General public willingness to pay for healthy functioning ecosystem



**The Changing Values  
of an Ecosystem**

Maryland and Virginia. The average number of trips taken has increased each year by more than 150,000 trips over the period.

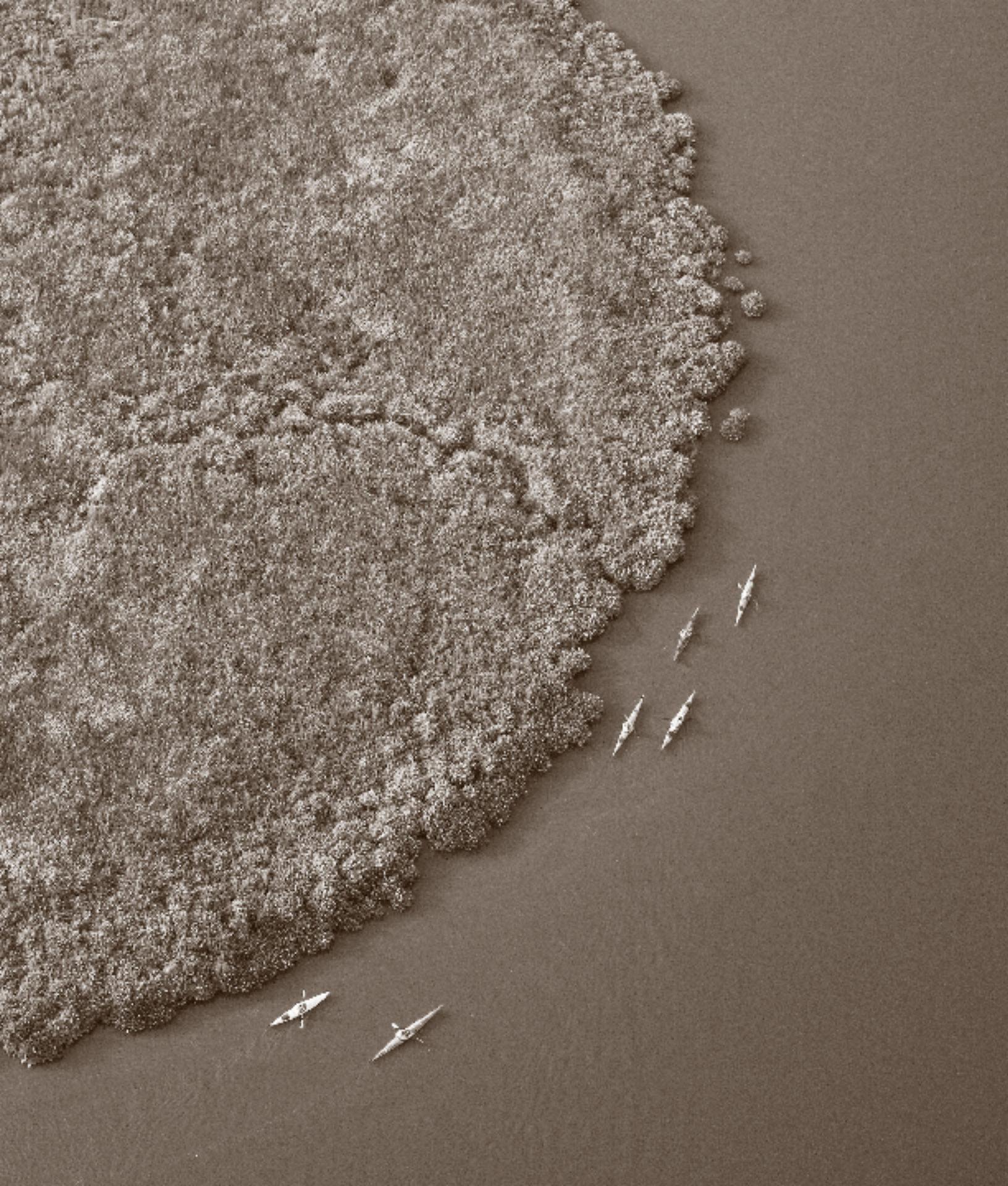
The ecological values of the Chesapeake Bay are the least understood and most poorly quantified. Oysters, for example, are valued as seafood, but we also value them for their immense ability to filter water and for the important habitat they provide for small fish, benthic species, and even oyster spat (Figure 3). Menhaden, a filter-feeding finfish, is also recognized for its water-filtering role in the ecosystem.

Some ecological values accrue directly to certain Bay residents, such as waterfront property owners. Other ecological values are more subtle and harder to define, such as the value of a healthy ecosystem to all of us or the Bay ecosystem’s ability to nurture vast numbers of aquatic plants, invertebrates and small vertebrates.

The Commission and its partners have developed a greater appreciation for the multiple societal values we now place on the Bay’s resources. Current commitments to develop ecosystem-based fisheries management plans for key Bay species will help delineate complex interactions between a healthy watershed and sustainable fish populations. These plans will also highlight the trade-offs that occur when oysters or fish are either removed from the water for commercial and recreational purposes, or left there to perform their ecological functions.

The Commission will continue to support efforts to better understand the relative value that society places on broader ecological services beyond the traditional focus on commercial fisheries. Only then will we be able to achieve the maximum commercial and recreational profit from those resources, while also realizing the greatest ecological benefit possible.







**T**HE FINAL WEEKS OF 2006 PROVIDED A WELCOME VICTORY for all Bay partners to celebrate: passage of the Captain John Smith Chesapeake National Historic Trail. In the waning days of December, national legislation was enacted to establish America's first all-water National Historic Trail.

The trail will trace Smith's exploratory routes throughout the Chesapeake region from 1607–1609. Using maps, guidebooks and even “talking” buoys, the trail will provide opportunities for the public to learn about the Chesapeake Bay's natural resources, Native American history and early English settlement. The trail will help spur efforts to protect and restore the region's historical and environmental assets. The legislation capped a two-year effort by the Chesapeake Bay Commission and its partners to establish the trail in time for the 400th anniversary of Jamestown — our nation's first



## *Birth of a Water Trail*

- **January 2005** The Conservation Fund first broaches the idea of the Captain John Smith Water Trail to the Chesapeake Bay Commission.
- **May and July 2005** The Pennsylvania House and Senate pass resolutions supporting Congressional approval for a feasibility study.
- **July 2005** Congress passes bipartisan legislation authorizing the National Park Service (NPS) to study the feasibility of establishing the trail.
- **March 2006** The National Landmarks Committee and the National Park System Advisory Board finds Smith's voyages meet the test of national significance.
- **August 2006** NPS completes the feasibility study and environmental assessment for the trail in record time, recognizing the "exceptionally high" public interest and support for the trail.
- **April 2006** Senator Paul Sarbanes (D-Md.), joined by 3 co-sponsors, introduces bipartisan legislation, S. 2568, to establish the water trail.
- **May 2006** Representative Jo Ann Davis (R-Va.), joined by 24 co-sponsors, introduces companion, H.R. 5466, to establish the trail.
- **December 2006** Congress passes H.R. 5466.
- **December 19, 2006** 400 years to the day that the Jamestown settlers departed England, President Bush signs into law the establishment of the Captain John Smith Chesapeake National Historic Trail.

permanent English settlement — in May 2007.

On December 19, 1606, the Virginia Company of London launched three ships, the *Susan Constant*, *Godspeed* and *Discovery*, on an entrepreneurial expedition from England to the Chesapeake Bay. In addition to 105 passengers on board, the ships also carried a small exploratory vessel called a "shallop." Shortly after establishing the Jamestown settlement, Captain Smith and his crew of a dozen men traveled thousands of miles, explor-

ing Chesapeake Bay coastlines, tributaries and Native American communities. Smith's discoveries led to his famous 1612 map, which opened the door to European settlement of the Chesapeake region.

With these important historical events in mind, the Chesapeake Bay Commission joined The Conservation Fund and their partners to launch the water trail initiative to provide national recognition for this Chesapeake story.

The Commission's involvement was sparked at its January 2005 meeting by

Patrick Noonan, Chairman Emeritus of The Conservation Fund (TCF), who raised the idea of a national water trail to memorialize John Smith. As Chairman Emmett Hanger remarked: “The concept of the trail is magical. It combines the very best of our region: rich American history, extraordinary natural resources, and the deep cultural connection of the region’s people to both.”

The following month the Commission convinced its partners on the Chesapeake Executive Council (EC) to call upon U.S. Senators Paul Sarbanes (D- Md.) and John Warner (R-Va.) to sponsor legislation authorizing the National Park Service (NPS) to study the feasibility of establishing the trail.

The Commission, state legislators, county commissioners, mayors, businesses, tourism agencies and non-profit organizations including the National Geographic Society (NGS) and the Chesapeake Bay Foundation then worked aggressively to build public support for the trail.

At their annual meeting, the EC formally adopted a resolution urging the NPS to expedite the study, so that Congress would have time to establish the trail before the 400th anniversary. The Pennsylvania Delegation to the Commission provided initial seed money, recognizing the important role the Susquehannock Indians played in providing information, supplies and food to Smith. In total, the Commission collected \$75,000 from Maryland, Virginia, Pennsylvania and the District of Columbia to hasten the study.

The approval process for new parks or trails takes 12 years on average to complete. With the help of the Commission and its partners, the trail was established in just under 22 months.

On a parallel track, the Commission worked closely with Congress to appropriate \$500,000 for the National Oceanic and Atmospheric Administration (NOAA) to develop prototype electronic information buoys, referred to as “smart” or “talking” buoys, to mark and interpret the trail for canoeists, kayakers and boaters. NOAA plans to place the first buoy in the James River near Jamestown in time for the May 2007 Jamestown celebration.

Over time, trail organizers hope to place these electronic information buoys throughout the Bay to collect and deliver meteorological, physical, chemical and biological observations. The buoy data will be delivered to the public via cellular technology and the Internet thanks to an innovative partnership between Verizon Wireless, the Commission, NGS, TCF and others.

On May 12th, 2007, a full-scale replica of the 28-foot shallop, built by Sultana Projects of Chestertown, Maryland, will depart Jamestown and retrace some of Smith’s route. Sultana’s reenactment will bring the trail to life. An educational exhibit accompanying the shallop will introduce hundreds of thousands of people to this incredible episode in America’s history. For more information see [www.JohnSmith400.org](http://www.JohnSmith400.org).



ENDNOTE: *The establishment of the John Smith Chesapeake National Historic Trail represents the Commission’s comprehensive approach to Bay restoration, balancing water quality and habitat protection with culture, education and access. Without the leadership of The Conservation Fund, particularly Pat Noonan, the establishment of this water trail would simply have not been possible.*

### Memorializing John Smith's Explorations



## A Tribute

### *Noah W. Wenger: Statesman, Gentleman, Barnraiser*

**K**NOWING SENATOR NOAH WENGER, HE IS SURELY AS PLEASED with that last characterization as the first two, which his colleagues readily acknowledge as he begins his retirement after serving 30 years in the Pennsylvania Legislature and 22 on the Chesapeake Bay Commission.

Senator Wenger's calm and thoughtful manner belies his many achievements as a persuasive legislator. For 18 years he headed the Senate Republican Caucus. He was Chairman of the Senate Appropriations Committee, and Vice Chairman of the Senate Agriculture and Rural Affairs Committee, among other important committee assignments. Additionally, his wise political leadership has resulted in several significant successes for the Chesapeake Bay and its watershed.

Hailing from Lancaster County, where his ancestor Christian Wenger arrived from Switzerland in 1727 and established a family farm, agriculture has been first and foremost in the Senator's personal and professional life. Today, he and his wife raise 135 head of beef cattle and 12,000 laying hens, in addition to corn, soybeans, wheat

and hay. “I had planned to be a farmer all my life,” he says, “But it was my participation in local and state agricultural organizations that gave me the exposure and the confidence to run for the House when our local representative stepped down, and my wife Barbara asked: “Why not give it a try?” Thirty years later, in



2006, the Pennsylvania Farm Bureau honored Senator Wenger with its Barn-raiser Award for his service to agriculture in the Keystone State. The title is a direct reflection of his roots in a place where the Amish tradition of building a barn in a day is still valued as a symbol of mutual support in a tight-knit, neighborly community.

Being a good neighbor has been central to Senator Wenger’s dedication to the Bay, for which he has earned the gratitude of his Commission colleagues working to reduce nutrients downstream. He was the chief architect of the nation’s most successful agricultural land preservation program, which so far has saved 2,979 farms and 337,611 acres in Pennsylvania, and continues to grow. “We want to protect agriculture and keep it growing,” he says, “but not at the expense of the Chesapeake Bay.”

As interested in agriculture’s 21st century as he is in preserving the best of its traditions, he has been an outspoken supporter of innovation, whether it’s building a case for the use of nutrient-reducing feed additives like phytase, or seeking new ways to give farmers the financial boost they need to pay for

conservation measures. “In the beginning you naturally do the easier or at least the more comprehensive things that reduce nutrients, such as removing phosphates from detergents. But we’re at the point now where we have to make bolder strides and try new ideas. Nutrient trading, tax credits — that’s where we’re headed.”

In 2005, Sen. Wenger introduced, with fellow Commission members Senator Mike Waugh and Representative Art Hershey, a package of legislation called the *Farmers First Agenda*, which addresses the economic challenges faced by farmers that often lead to farmland conversion. Then in 2006, Wenger alongside Waugh and Hershey, introduced legislation to establish “REAP,” the Resource Enhancement and Protection Program. Although not adopted before Senator Wenger’s retirement, those who follow in his footsteps on the Commission have committed themselves to ensure the bill’s passage. The program would provide a transferable tax credit to farmers who implement certain best management practices that improve water quality, and is designed to bring new, non-farm, private partners into agriculture’s Bay restoration effort. If adopted, it will create a state-wide program of neighbor-helping-neighbor that befits a barnraiser indeed.

### **Tribute to a Retiring Member**



DAVE HARP

**CHESAPEAKE BAY COMMISSION STAFF:** From left: Executive Director Ann Swanson; Pennsylvania Director Marel Raub; Assistant Director/Maryland Director Pat Stuntz; Virginia Director Suzan Bulbulkaya; Administrative Officer Paula Hose.

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*Focal Points*, the 2006 Annual Report of the Chesapeake Bay Commission, was prepared by Commission staff with the editorial assistance of Pat Herold Nielsen. In addition, Doug Lipton, Jack Greer, Joel Dunn and David Burke all contributed to the writing of this report. Many thanks to each of them for the invaluable support they have provided.

**Photography:** With few exceptions, the photographs in this report were taken by Dave Harp. Harp, the most well known of Bay photographers, has been capturing the Bay on film for nearly half a century and has produced a wide array of books showcasing his craft.

**Design:** Peter M. Gentile, PeterMichael Associates (mail@petermichael.net)

**Cover Photo:** Lapstrake Hull © David Harp



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The Commission maintains offices in Maryland, Virginia and Pennsylvania. Commission staff are available to assist any member of the general assembly of any signatory state on matters pertaining to the Chesapeake Bay and the Chesapeake Bay Program.

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