

Our Natural Heritage at Risk

Threats Facing Seven of Maryland's Most Special Places



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Fall 2006

Acknowledgments

The Environment Maryland Research and Policy Center would like to thank the following individuals for providing information for this report: Marcia Verploegen Lewis, Partners for Open Space; Steve Bunker, the Nature Conservancy; Dale Sams, Citizens for Smart Growth in Allegany County; David Wilson, Coastal Bays Program; Mari Beth Moulton, Prettyboy Watershed Alliance; Kate Patton, Lower Shore Land Trust; Glenn Carowan, Blackwater National Wildlife Refuge; Sandy Sweeney, Bay Ridge Trust; Laura Connelly, Department of Parks and Recreation, Maryland National Capital Parks and Planning; and Fred Tutman, Patuxent Riverkeeper. In addition, the authors would like to thank Brad Heavner, Environment Maryland; Dru Schmidt-Perkins, 1000 Friends; Tom Ross, Maryland Recreation and Parks Association; and Terry Cummings and Allan Girard, Chesapeake Bay Foundation for editorial suggestions.

Environment Maryland Research and Policy Center thanks the Keith Campbell Foundation for the Environment, the Abell Foundation, the Town Creek Foundation and the Clayton Baker Trust for their generous support of this report.

The authors alone bear responsibility for any factual errors. The views expressed in this report are those of the Environment Maryland Research and Policy Center and do not necessarily reflect the views of our funders.

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Cover photos: Marshland in the Coastal Bays, courtesy Assateague Coastal Trust; Farmland in the Prettyboy Watershed, courtesy Prettyboy Watershed Alliance; Marshland in the Blackwater National Wildlife Refuge, courtesy NOAA; the South River, Environment Maryland photo; The Patuxent River at Jug Bay, courtesy Patuxent Riverkeeper; the Greenridge State Forest, courtesy Maryland Department of Natural Resources; and Trail in the Greenridge State Forest, courtesy The Nature Conservancy.

Editorial Design: Kathleen Krushas, To the Point Publications

Table of Contents

Executive Summary	4
Introduction	6
Maryland's Commitment to Conservation: Will the Promise Be Kept?	8
Maryland's Conservation Programs	8
Fiscal Crisis and Funding Cuts	10
Special Places at Risk	12
Prettyboy Reservoir Watershed	12
Terrapin Run	14
Assawoman Bay	15
Farmland in Cayots Corner	17
Blackwater National Wildlife Refuge	18
The Annapolis Neck	19
Patuxent River Rural Legacy Area	20
Recommendations	22
Appendix: Total Acres Preserved, Converted, and Developed in Maryland Counties	23
Notes	24

Executive Summary

The failure to fund Maryland's successful land conservation programs over the last few years has scaled back preservation efforts and threatened the state's unspoiled farms and forests and the health of the Chesapeake Bay.

Over the past five years, the Maryland General Assembly has diverted \$400 million from programs that protect Maryland's natural heritage to cover the state's ongoing operational expenses. These cuts affected Program Open Space, which has preserved over 287,000 acres of critical natural and recreational areas in Maryland since its establishment in 1969; the Maryland Agricultural Land Preservation Foundation (MALPF), which has purchased development rights on over 230,000 acres of working farms; and the Rural Legacy Program, which has worked with land trusts to protect more than 40,000 acres of farmland since 1977; and other programs designed to conserve Maryland's natural heritage, protect its quality of life and preserve its cultural heritage in the face of rapid suburban and exurban development.

Cuts in these programs have altered the delicate balance between growth and preservation that Maryland has achieved in the past decades. This report illustrates the potential impacts of continued shortfalls in preservation funding by highlighting how seven important areas embodying elements of Maryland's natural heritage could be affected.

Specifically, continued shortfalls in preservation funding could:

- Allow runoff pollution from poorly planned development and agricultural practices to contaminate the **Prettyboy Reservoir**, part of Baltimore's drinking water supply;
- Increase the pace of forest clearing on **the Annapolis Neck** and other lands that drain to the Chesapeake Bay, contributing to the dead zone that forms in the bay every summer;
- Degrade wildlife habitat in areas like **Assawoman Bay** in Worcester County, one of the richest,

most diverse estuaries on the East Coast, and in marshlands adjacent to the **Blackwater National Wildlife Refuge**, a critical part of the Atlantic Flyway and home to more than 250 species of birds;

- Fragment forests in the Allegheny Mountains, such as the headwaters of **Terrapin Run**, a stream that flows into the neighboring Green Ridge State Forest, the second-largest state forest in Maryland; and
- Slow efforts to preserve farmland in **Cayots Corner**, part of Cecil County's horse country, and in the **Patuxent River Rural Legacy Area**, a farming district of historic and cultural significance in Prince George's County.

These seven places are just some of the many areas in Maryland that could be negatively impacted by reduced preservation funding.

Maryland should recognize that its natural lands are the long-term foundation of a successful economy; these places should not be mortgaged to cover short-term fiscal constraints. Instead, the state should renew its commitment to long-term investment in land conservation by:

- Assuring that all future real estate transfer tax revenue will only fund land conservation programs such as Program Open Space, Rural Legacy, MALPF, and others—and not serve as a back-up for the state general fund;
- Vigorously implementing smarter growth strategies to keep new development out of our most important natural areas.

Consistent funding for land conservation, coupled with strong growth management tools, will help ensure that future generations of Marylanders will enjoy the same quality of life that citizens enjoy today.

Introduction

Maryland was one of the first states to fully recognize the value of conserving open space. In 1969, a year prior to the first Earth Day, Maryland's leaders established a dedicated funding source for land preservation. They knew that Marylanders cared deeply about protecting lands for recreation, wildlife and scenic beauty amidst rampant suburban development.

For decades, Maryland's leaders maintained their historic bargain, keeping millions of dollars flowing to preserve endangered farms, forests and coastal areas. As a result, Marylanders have access to special places where people can walk along the Chesapeake Bay shoreline (like North Point State Park), go on family camping trips (like Rocky Gap State Park in western Maryland), watch waves roll in off the Atlantic Ocean (like Assateague Island State Park), and hike through forests filled with songbirds and wildflowers (such as along the Lower Susquehanna Heritage Greenways Trail).

The amount of funding collected for Program Open Space is directly tied to real estate sales, ensuring that preservation keeps pace with growth. When more development is happening, more money goes into the program to balance the increased need to protect land. When the cost of real estate is high, stronger revenues in the program can cover the increased cost of land conservation. But this only works if the money collected for Program Open Space is used for its intended purpose.

Despite continued threats to important landscapes across Maryland, in recent years the state's leaders have reneged on Maryland's long-standing commitment to land preservation. In 2002, the state diverted money from Maryland's "dedicated" land preservation funding to cover other unrelated budgetary holes. The cuts to land preservation efforts continued to grow in severity, lasting four straight years. As a result the state, counties, and local governments had to scale back their preservation efforts.

Those cuts will come to an end – at least temporarily – in fiscal year 2007, when full funding will be restored. But the state’s conservation efforts are now well behind where they would have been with full funding over the past five years. This was not the first time that open space funding has been raided, but it was the first time the program suffered cuts of this duration and severity. The precedent is now established for future raids on the supposedly “dedicated” source of land preservation funding. There is no guarantee that conservation funds won’t be seen as a slush fund to be raided during future fiscal crises.

The debate over conservation funding is about more than dollars and cents. It is about the continued existence of natural areas that Marylanders have come to cherish and that play an important role in the state’s interconnected web of ecosystems.

This report singles out seven such natural areas, each of which provides important contributions to Maryland, its citizens and its environment—and each of which faces serious threats. These seven settings represent cultural and natural resources that could be lost to development, or that could be preserved for the benefit of future generations.

The future of these lands is, in many ways, the future of Maryland. By committing the necessary funds to land preservation, and by ensuring the long-term stability of that funding, Maryland’s leaders can preserve important natural and cultural areas, safeguard the Chesapeake Bay, maintain the state’s agricultural economy, and protect the health of the state’s air, water and wildlife.

It is an investment well worth the price.

Maryland's Commitment to Conservation: Will the Promise Be Kept?

Maryland is currently at a crossroads with development. Already the fifth most densely populated state in the nation, the state is expecting another 1.5 million new residents in the next 25 years.¹ Many of those new residents will come within the next five to ten years, as the military base restructuring will bring 40,000 jobs to Aberdeen and Fort Meade.² That influx of population means a shortage of housing – the Baltimore area alone will be facing a shortage of 20,000 homes in the next four years, a shortage that will climb to 100,000 by 2030.³

Currently, nearly two-thirds of Maryland's lands are neither developed nor preserved.⁴ But the state is losing land to development at an alarming rate. From 2003-2004 the counties approved over 90,000 new building permits across the state.⁵ As a result, the state loses almost 14,000 acres to development every year.⁶

Maryland has been on the forefront of land preservation for decades. Recognizing that farmland, wetlands and forests are integral to Maryland's identity and economy, state leaders began to set up dedicated funding sources for land conservation over 30 years ago.

Many of the programs are funded by a real estate transfer tax. At the time of every real estate transaction, half of one percent of the selling price is put into a special fund.⁷ This system allows land preservation in Maryland to adequately keep pace with development. Because of this fund, every real estate transaction contributes to the natural and recreational assets of the region, improving quality of life.

Maryland's Conservation Programs

The real estate transfer tax contributes to a variety of significant and successful

conservation programs in Maryland. Through these programs, the real estate transfer tax protects forests, keeps farmland in farming, preserves historic sites, and creates state and local parks. These programs provide not just environmental benefits, but historic and health benefits as well.

The real estate transfer tax funds a number of programs, through which over 800,000 acres of land have been preserved since 1969.⁸ The three main programs funded by the transfer tax include Program Open Space, the Maryland Agricultural Land Preservation Fund, and Rural Legacy.

Program Open Space

Program Open Space was established in 1969 to aid in the acquisition of land for conservation of natural resources and for recreation. This nationally recognized program delivers a portion of the real estate transfer tax to county governments for purchasing parkland or developing park facilities like ball fields, playgrounds, and trails.

Since its inception, Program Open Space has protected over 287,000 acres of land and helped to establish over 4,000 individual parks and conservation areas across Maryland.⁹ The program is the cornerstone of Maryland's long-term conservation efforts.

Maryland Agricultural Land Preservation Foundation

In 1977, the state created the Maryland Agricultural Land Preservation Foundation (MALPF) to preserve Maryland's most valuable and productive farmland. This program is primarily funded by the real estate transfer tax, an agricultural transfer tax, and general state bond money.

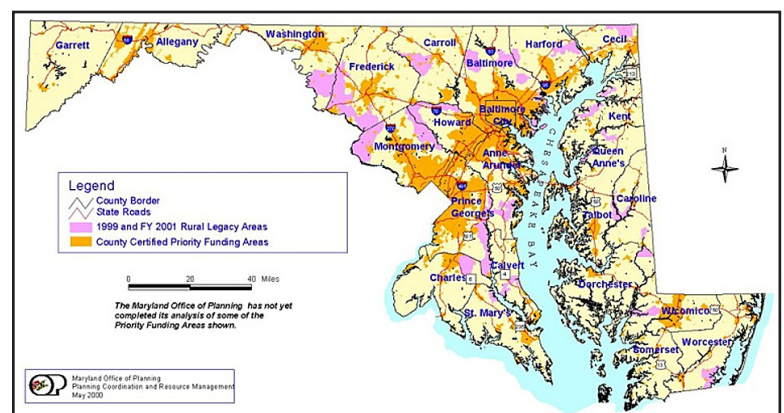
In its first 25 years, MALPF worked with over 3,000 landowners to create Agricultural Preservation Districts totaling about 400,000 acres.¹⁰ As of 2003, the foundation had preserved almost 230,000 acres of agricultural land through conservation easements, delivering almost \$300 million to landowners while curbing exurban development, protecting wildlife habitat and preserving water quality in streams, rivers, wetlands and the Chesapeake Bay.¹¹

Rural Legacy Program

In 1997, Maryland established the Rural Legacy Program to protect large areas of farmland, forestland, or areas of historic and cultural significance. Funded by the real estate transfer tax and general obligation bonds, the program works with local governments, land trusts and individual landowners to establish Rural Legacy Areas where preservation efforts are focused.

By the end of fiscal year 2003, the Rural Legacy Program had protected 40,129 acres of land across 25 Rural Legacy Areas.¹² The goal of the Program is to preserve 200,000 acres by 2011.¹³

Figure 1: Priority Funding Areas and Rural Legacy Areas



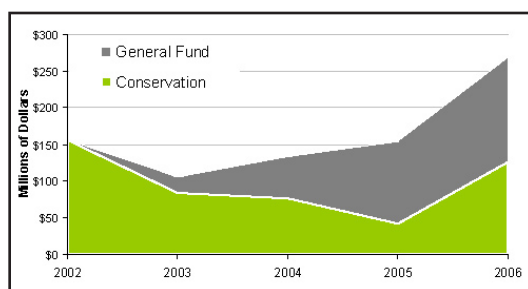
Maryland Department of Natural Resources

Fiscal Crisis and Funding Cuts

From 1995 to 2002, Maryland's open space conservation programs were so effective that preservation actually kept pace with development.¹⁴ However, in 2001, the nation's economy went into recession, causing revenue shortfalls and budget deficits in states across the nation. Maryland was no exception.

To deal with the loss of revenue, Governor Glendening and Governor Ehrlich tapped into funding meant for Maryland's conservation programs, redirecting real estate transfer tax income into the state's general fund. Over the past five years, Maryland's conservation programs lost over \$400 million.¹⁵ In fiscal years 2004 and 2005 over 116 percent of the funding meant for conservation was redirected to unrelated expenses. (See Figure 1.) In fiscal year 2005, over \$100 million was taken from land acquisition. (See Table 1.)

**Figure 2:
Diversion of Real-Estate Transfer
Tax Revenues Away from
Conservation**



Public outcry led the state government to not divert transfer tax funds for fiscal year 2007, beginning in July 2006.¹⁹ However, funding shortfalls over the past five years have had a serious impact on preservation in Maryland. The Partners for Open Space coalition estimates that the cut funding could have preserved 100,000 privately held acres of land.²⁰

The continued challenges faced by Maryland's environment—particularly the challenge posed by encroaching sprawl—suggest that any delay in conservation funding is a dangerous delay. Development pressure does not abate when the state government reallocates conservation funding. By putting off funding for land preservation, the state limits options for local governments to the smallest parcels of land with the lowest price, removing more important areas from local planning. The state also makes it more likely that landowners will choose to sell to developers rather than wait for state funding that may or may not be available. Once these lands are sold and developed, they are rarely reclaimed.

The Maryland Department of Planning estimates that over 60 percent of Maryland's land is undeveloped and unprotected by public ownership or conservation easement.²¹ Only with consistent and measured funding for conservation can Maryland maintain the delicate balance between growth and preservation it aimed to achieve with the establishment of the real estate transfer tax over 30 years ago.

**Table 1. Allocation of Real Estate Transfer Tax Revenue
(Millions of Dollars)¹⁶**

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Program Open Space - State	19.1	12.2	19.2	9.4	5.1
Program Open Space - Local	44	18.8	20.6	16.5	17.2
Rural Legacy	29.7	21.4	5	2	14.9
MALPF	19.5	8	21.2	5	8
Heritage Conservation	3	1.9	2.2	1	1.8
Community Parks and Preservation	5.5	5.5	5	5	5
Green Print	35	16	3	3	0
Total Spent for Open Space	155.9	83.8	76.2	41.9	52.5¹⁷
Transfer Tax Monies Reallocated to General Fund	-- ¹⁸	22	57.1	112.3	142.3

Special Places at Risk

While Maryland is a leader in land conservation, the state is also facing increasing development pressures. If the state continues to grow at its projected rate it will lose at least another 300,000 acres of land – an area six times the size of Baltimore City.²² Without consistent funding for land conservation, important parts of Maryland’s natural and cultural heritage will be at risk from development.

This report illustrates the potential impacts of continued shortfalls in conservation funding by highlighting how seven areas that represent elements of Maryland’s natural heritage could be affected. These are not necessarily the seven most important natural areas in Maryland, nor the seven most imperiled. But they are representative of the threats facing many natural areas across the state that provide Marylanders with clean drinking water, diverse wildlife habitat, outdoor recreation opportunities, and a connection to our state’s cultural heritage.

Prettyboy Reservoir Watershed

Watershed lands—like those surrounding the Prettyboy Reservoir in northern Baltimore County—help to maintain clean drinking water for people across Maryland. Along with the Liberty and Loch Raven reservoirs, Prettyboy Reservoir supplies drinking water to the Baltimore region, serving 1.8 million people.²³

Natural areas in a watershed help to maintain a clean and plentiful water supply. Natural areas filter pollutants out of runoff and keep drinking water sources clean.²⁴ Targeted investments in land preservation can also save money that would otherwise be necessary for water treatment later on. (See “Land Preservation: An Investment in Water Quality” on page 14.)

Pollution problems grow with increased urbanization, decreased forest cover and decreased size of vegetative buffers between development and rivers and streams.²⁵ Runoff from developed land contains a variety of pollutants. Soil, fertilizer, and pesticides can be found in

runoff from farmland, lawns, and construction sites. Fragments of tires, shreds of brake lining, salt, and oil contaminate runoff from roads. Even pollution from industry smokestacks and car and truck exhaust pipes falls back to the ground through snow and rain.²⁶ Leaky septic systems can discharge sewage into waterways as well. Much of this pollution can end up in drinking water sources if they are not protected.

The Prettyboy watershed has one of the lowest percentages of forest cover of drinking water sources along the East Coast.²⁷ This makes the reservoir vulnerable to runoff pollution caused by poorly managed development and agriculture.²⁸ Baltimore City officials studied the area and found that drainages with less than 30 percent forest had higher levels of phosphorus pollution than more densely forested parts of the state.²⁹

According to the Maryland Department of the Environment, half of the drainages that feed the Prettyboy Reservoir fail to meet water quality standards.³⁰ The reservoir suffers from excess nutrient pollution from fertilizers, animal waste and leaking septic systems.³¹ Additionally, salt levels in the reservoir have been rising, likely as a result of road de-icing in the winter; and the reservoir holds 7.5 percent less water today than in 1933, because of sedimentation.³²

Preserving and restoring buffers around streams in the watersheds draining to the Prettyboy Reservoir could help reduce these problems and protect Baltimore's water supply. Currently, half of the Prettyboy Watershed is used for agriculture.³³ Greater levels of funding for the Maryland Agricultural Land Preservation Fund (MALPF) could encourage farmers to manage their lands to reduce runoff into rivers and streams that drain into the reservoir.

Increased conservation funding could also mitigate problems with runoff pollution caused by development encroaching into areas formerly covered by forests or farms. Conservation of undeveloped buffers around streams feeding into the reservoir is especially critical.

By 2020, another 2,700 homes will likely be constructed in Baltimore County outside of Priority Funding Areas.³⁴ Adequate funding for open space preservation programs will help protect the woodlands that are so important to maintaining a clean drinking water supply for nearly two million of the state's residents.



Above: Prettyboy Reservoir in September. Below: Farmland in the Prettyboy Reservoir watershed.

Photos: Prettyboy Watershed Alliance



Land Preservation: An Investment in Water Quality

Land preservation can be an investment in water quality. Natural areas filter pollutants out of runoff and keep drinking water sources clean, for far less cost than man-made water treatment plants.³⁵

For example, New York City officials were searching for ways to maintain the quality of the city's water supply as sewage and runoff pollution from development began to spread in the Catskill Mountains in the mid-1990s. Officials determined that building a filtration plant to clean polluted water would have cost between \$6 billion and \$8 billion, with \$300 million in yearly operating costs. In contrast, protecting and restoring watershed lands with open space purchases and subsidies for septic system improvements could achieve the same goal for \$1 billion. Seeing a clear choice, citizens voted to approve an environmental bond for land conservation, cost-effectively protecting their drinking water supplies.³⁶

With adequate funding, Maryland could also use a land conservation program to invest in water quality for the future of communities across the state.

Terrapin Run

Maryland's Allegheny Mountains—characterized by rows of parallel valleys separated by steep-sloped ridges—provide some of Maryland's best habitat for wildlife and a variety of outdoor recreation opportunities.

For example, Green Ridge State Forest and the neighboring Billmeyer Wildlife Management Area in eastern Allegany County are home to deer, turkey, black bears, squirrels, ruffed grouse, woodcock, rabbits and trout. Outdoor enthusiasts enjoy mountain biking, fishing, boating, canoeing, backpacking, hunting and nature walks in the region. Green Ridge State Forest is the second-largest state forest in Maryland, with 44,000 acres of oak and hickory trees and pockets of shale barrens (desert-like habitats made possible by the region's extremely low average annual precipitation).³⁷

However, Maryland's Allegheny Mountains are also attracting sprawling development. Developer PDC Inc. of Columbia is planning to build a new community called Terrapin Run right next to Green Ridge State Forest and the Billmeyer Wildlife Management Area. PDC named the project after a small creek whose headwaters the development would replace. The plans for the Terrapin Run development call for 4,300 new homes, a shopping center and an equestrian center on 900 acres near Flintstone.³⁸ Eventually, more than 10,000 residents could move in, requiring a sewage treatment plant that would discharge up to 900,000 gallons of treated waste into the creek daily.³⁹ The development could also face serious problems with water shortages, as groundwater in the region is low and the area streams are inadequate to meet summertime demand.⁴⁰

If built, the Terrapin Run project would damage critical wildlife habitat. Terrapin Run is the headwaters for 15 Mile Creek, one of only 10 locations in the U.S. where the federally endangered *Harperella* wildflower germinates.⁴¹ 15 Mile Creek runs through Green Ridge State Forest and hosts a healthy population of trout. In addition to treated sewage discharge, the development would

contribute to the pollution of the creek with stormwater runoff from new roads. The development will also have serious water supply issues, as groundwater levels in that area are unreliable for a development of that size and the local streams are inadequate to meet demand in the summer, when the streams dry out and barely flow.⁴²

The impacts of the project would be aggravated because it is located 30 miles from the nearest population center. As a result, the proposed development site currently is not served by existing public infrastructure. There are no hospitals, fire departments, police stations, libraries, post offices, schools or large employment centers close to Terrapin Run. The nearest elementary school is 15 miles away in Flintstone and the nearest high school is 30 miles away in Cumberland.

The county would have to widen many roads to accommodate the additional traffic generated by residents commuting to work in Frederick or northern Montgomery County—plus an estimated increase in local traffic of 31,000 trips per day.⁴³

Both the state and the Nature Conservancy attempted to acquire the land before PDC, but were unable to secure a deal. Despite the fact that the county land use plan encouraged rural use and conservation of the Terrapin Run area, the county zoning board granted a request to rezone the area from agricultural use to accommodate the development. A coalition of area residents and preservation advocates filed an appeal in court.⁴⁴ In May, the court ruled that the project did not meet the County's growth plan and forced the developer to go back and redraft the project.⁴⁵ But the fight to protect Terrapin Run is far from over.

Developments like Terrapin Run could become more common if landowners do not have the option to sell their land to a local land trust or to the state for a reason-



The Terrapin Run development would have included a sewage treatment plant that would dump close to 1 million gallons of treated waste into this creek (also called Terrapin Run) every day.

Bob Hughes, Citizens for Smart Growth in Allegany County

able price. Allowed to go forward, such developments would drastically change the rural character of the Allegheny Mountain region of Maryland and damage the area's rich natural resources.

Assawoman Bay

Maryland's coastal bays – like Assawoman Bay in Worcester County – represent some of the richest, most diverse estuaries on the East Coast. More than 300 species of migratory waterfowl, songbirds, and birds of prey shelter in the state's shallow bays. Rare plant and animal species like the piping plover, bald eagle, and loggerhead turtle join the blue crabs, flounder and clams in calling this estuary home.⁴⁶



Assawoman Bay shoreline in Worcester County. Cathy Kunst

But Maryland's coastal bays and their surrounding watersheds are increasingly threatened by poorly managed development. Assawoman Bay on the Maryland-Delaware border is no exception.

The Assawoman Bay watershed faces tremendous development pressure with little protection. Worcester County as a whole saw a 33% increase in development between 1990 and 2000, the second highest of any Maryland county.⁴⁷ And only 2% of the land in the 690,000-acre Assawoman Bay watershed is protected for conservation, compared to 19% of the land area of Maryland as a whole.⁴⁸

The stakes for the bay and its surrounding area are high. Currently, water quality in Assawoman Bay is ranked only as "fair."⁴⁹ Rising real estate prices provide a strong temptation for local land-owners to sell out to development – a prospect that could lead to increased runoff into the bay and degradation of the broader ecosystem.

Southwest of Assawoman Bay, on the banks of Turville Creek, is an example

of what lies in the future for the area's natural lands and cherished cultural landmarks when preservation efforts fail.

Glen Riddle farm in Berlin was a 972-acre horse farm that was once owned by Sam Riddle and was the one-time training grounds of Man O' War, named "Horse of the Century" by the National Museum of Racing and Hall of Fame.⁵⁰ In its heyday, the farm was not only a renowned training facility for race horses, but was the site of an opulent mansion. Following Riddle's death in 1951, the farm began a long decline. In 1969 the mansion burned down and by the 1990s, the farm had mostly reverted to its natural state, with only a few decaying buildings and cracked roads left to indicate what had come before.⁵¹

Local preservationists argued strenuously for preserving Glen Riddle farm, both for its cultural significance and the importance it came to play in the region's ecosystem. The farm's forests and coastal wetlands had come to be the home of rare birds and amphibian species.⁵² But the efforts of preservationists were to no avail. The property was sold to developers and is now being developed as a gated, 600-unit resort community with two golf courses and an on-site marina. Single family homes are being sold for \$600,000 and up.⁵³

Time is short to protect important natural areas in the Assawoman Bay watershed and the lands surrounding other coastal bays. With development pressures in the area increasing, additional conservation funding now could enable landowners to preserve their lands before they are pushed to sell out to development.

Farmland in Cayots Corner

Maryland's farmland is the heart of the state's largest single industry—and preserves an important part of the state's cultural heritage. However, agricultural fields—like those around Cayots Corner in Cecil County—are being replaced by new housing developments at a rapid pace.

Cecil County, located in northeastern Maryland atop the Chesapeake Bay, lost over 9,000 acres of farmland between 1997 and 2002. The county lost farmland at a rate more than twice as fast as the state as a whole.⁵⁴ At the same time, the number of farms in the county dropped by 8 percent and population increased by 11 percent.⁵⁵

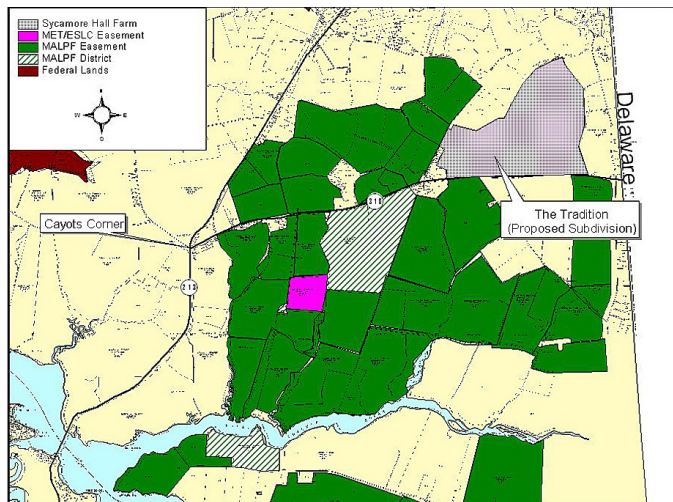
Several features of Cecil County farmland are attractive to developers. Agricultural zoning in Cecil County allows more housing than comparable zoning rules in other counties. Cecil County allows one house for every five acres of farmland, while in comparison Kent County only allows one for every 30 acres.^{56,57} In addition, Cecil County has easy access to I-95 and a convenient location halfway between Baltimore and Philadelphia. Across the entire county, developers have proposed 103 new major subdivisions since 2005, many outside of the priority growth areas designated in the county master plan.⁵⁸

The Maryland Agricultural Land Preservation Foundation (MALPF) has been working to preserve targeted areas of agricultural land in a place called Cayots Corner, located in the middle of Cecil County's horse country, just south of Chesapeake City. This area is one of the largest agricultural preservation districts on the eastern seaboard, composed of over 4,000 acres of land protected by conservation easements, much of it donated by the DuPont and Thompson families in the 1980s and 1990s.⁵⁹

Expanding the agricultural preservation district has been hampered by a lack of adequate funding. For example, the owners of the Sycamore Hill Farm—an expansive horse farm located right next to the existing preservation district—are likely to sell their land because of financial pressure and timing. A developer has proposed to use the land for a subdivision called “The Tradition.”

Developers are often able to promise specific amounts of money up front, without the bureaucratic hurdles inherent in the easement process. And when the easement process relies upon uncertain and unstable sources of funding, developers have an even greater advantage. Local governments sometimes have to wait a few years to allow adequate levels of funding to accumulate before initiating an easement, which can be hard for

Figure 3: Location of the Proposed Development Near Cayots Corner



The Tradition is a proposed development on a horse farm just adjacent to the Cayots Corner agricultural preservation district—outside the growth areas designated in Cecil County's master plan.

Eastern Shore Land Conservancy

families to endure, especially when they are paying for kids in college, or unexpected health care costs, or other major expenses.

Stable funding for land conservation, coupled with other planning and growth management tools, can help ensure that places like Cayots Corner retain their rural character and growth is directed toward areas designated for development in local government master plans.

Blackwater National Wildlife Refuge

Expansive marshlands along the shore of the Chesapeake Bay—like those found in the Blackwater National Wildlife Refuge—are a vital habitat for hundreds of species of birds that migrate along the Atlantic Coast.

The Blackwater National Wildlife Refuge is a major stop on the Atlantic Flyway and provides an ideal habitat for over 250 species of nesting and migratory birds, including great blue herons, snowy egrets, peregrine falcons and Canada geese.⁶⁰ The refuge is also one of the largest sites of nesting bald eagles in the eastern U.S. Located about 10 miles south of Cambridge in Dorchester County, the refuge includes more than 27,000 acres of tidal marshes, freshwater ponds, mixed evergreen and deciduous forests, and small amounts of croplands which are seasonally flooded for waterfowl habitat.⁶¹

The Blackwater National Wildlife Refuge and other marshland ecosystems in Maryland face threats on two fronts. First, global warming is reducing the capacity of the marshlands to host wildlife. As sea levels rise, suitable marsh habitat is shrinking. The refuge can now shelter less than half the number of Canada geese as when it was created in the 1930s.

Marshlands also exist outside of the protective boundaries of the wildlife refuge, where development pressures are changing the landscape and reducing the capacity of the area to host wildlife.

For example, a developer recently attempted to build 3,200 homes plus shops and golf courses on more than 1,000 acres of forest and farmland close to the Blackwater Refuge. The planned development zone would have protruded into 313 acres designated as “critical area” buffer land for the refuge. Over 200 homes were scheduled to be built within 1,000 feet of the Little Blackwater River, which flows directly into the refuge and then the Chesapeake Bay.⁶² The Critical Area Commission struck down the developer’s proposal, and the state has since announced its intention to use Program Open Space funds to purchase about two-thirds of the property at stake. But the developer will still be able to build more than 600 homes on the remaining 326 acres of farmland near the refuge.⁶³

The Blackwater proposal is a classic example of poorly managed development threatening our most valuable natural resources. Although the Blackwater National Wildlife Refuge is not interested in purchasing the Blackwater Resort property, they are acting to counter these trends and ensure that the area continues to support large populations of migratory birds by expanding the refuge. If successfully established, the Nanticoke Division of the refuge would protect 17,500 acres of exceptional wetlands along the Nanticoke River east of the current refuge boundary.⁶⁴ Some land owners have expressed their willingness to sell their land to create a wildlife refuge, but acquisitions must await completion of the ongoing planning process and funding approvals.

Funding will come from state, federal, and private sources. State Rural Legacy funds will provide the majority of funding through the purchase of easements on adjacent farmland. The federal Land and Water Conservation Fund, and a fund that preserves habitat for migratory birds, will provide additional resources for the project. The Nature Conservancy and the Conservation Fund are also providing assistance.⁶⁵

Many more important marshland ecosystems exist along the shores of the Chesapeake Bay, and not all of them can benefit from designation as a wildlife refuge. With solid funding commitment to Maryland's Program Open Space and other conservation programs, the state can help to ensure the integrity of the Atlantic Flyway. In the absence of such a commitment, the state increases the risk that development will expand into ecologically critical and irreplaceable areas.

The Annapolis Neck

Natural areas in areas that drain into the Chesapeake Bay—like undeveloped properties on the Annapolis Neck—are critical to maintaining the health of this vital resource.

One of the largest undeveloped tracts on the Annapolis Neck can be found within the Crystal Spring and Masque farms. The farms include 180 acres of open meadows and forest south of Annapolis.⁶⁶ The land is not under active cultivation and the primary use of the property is as an equestrian center.

Crab Creek, a tributary of the South River, exits the property to the south, while the north edge of the farms is bordered by Forest Drive, which connects areas of intense development to the east and west. This has created development pressure on the property, and in Novem-



The Great Marsh at Blackwater National Wildlife Refuge.

U.S. Fish and Wildlife Service

ber 2005 the city of Annapolis annexed the property.⁶⁷ Working with a developer, the landowner intends to build homes on much of the property. This will mean the loss of forest and open space that is important to the health of the bay.

According to the city's annexation agreement, approximately 75 acres of the property will be placed into an easement, though some of that land may continue to be used as an equestrian center.⁶⁸ The property owner has expressed interest in expanding the amount of protected forest and meadow through additional easements.⁶⁹ Such protection will not be possible, however, without adequate funding.

Many communities near the bay are growing rapidly, with homes and businesses replacing meadows and forests along the water. Development in Annapolis and Anne Arundel County are typical of this growth. The county's population in 1980 was 371,000 and grew 38 percent to 511,000 people in 2005.⁷⁰

Facing this type of growth, local governments must make critical choices on where and how development occurs, and the health of the bay should be an important consideration. Development in the



The South River at sunset. South River Federation

bay's watershed and on the edge of the bay contributes to phosphorus, nitrogen, sediment and other contaminants that impair water quality. Clearing an acre of forest for development causes 240 to 420 pounds of sediment to run off into the bay, as well as eliminating the filtering function that the forest provided.⁷¹ These types of changes contribute to the existence of a "dead zone" in the bay, where no fish or shellfish are able to survive because of low oxygen levels.⁷² In recent summers, one quarter of the bay has been a dead zone.⁷³

Stable and sufficient funding for land conservation in targeted areas, coupled with other growth management tools, can help local governments contribute to a healthy and vital Chesapeake Bay ecosystem.

Patuxent River Rural Legacy Area

Maryland's Rural Legacy Program focuses conservation efforts on areas of historic and cultural significance – like the Patuxent River Rural Legacy Area in Prince George's County.

The Patuxent River Rural Legacy Area consists of 35,000 acres west of the Patuxent River between Route 50 and Hughesville in rural Prince George's County. The area includes farms, forests, Patuxent River Park and the Merkle Wildlife Management Area.⁷⁴ Maintaining open space in Prince George's County is an important element of region-wide efforts to protect the Patuxent River and the Chesapeake Bay.

The Rural Legacy designation enables access to additional financial resources for land preservation for areas with habitat, open space and natural resources at risk of development.⁷⁵ By identifying large areas that are priorities for conservation, the Rural Legacy program can help create broad tracts of protected land and connect existing parks and open space—but only when adequate funding is available.

In the Patuxent River Rural Legacy Area, roughly 2,000 acres have been protected through purchases by local governments.⁷⁶ However, a lack of funding has hindered efforts to protect farms and wildlife habitat on much of the remaining land. County-wide, the stakes are clear. From 1987 to 2002, the number of farms in Prince George's County dropped 34 percent.⁷⁷

Areas of particular concern in the Patuxent River Rural Legacy Area include the northern end, where several parcels of 100 to 300 acres are in the line of development from rapidly growing Bowie and Upper Marlboro. The City of Bowie has seen its population increase by a third between 1990 and 2000.⁷⁸ It now has a population of over 55,000, with only 8% of the city's land left undeveloped.⁷⁹ More telling, however, is the population growth in Prince George's County outside of city limits. While the cities grew in population by only 1.6% from 1990 to 2000, the rest of the county grew by 13.3%.⁸⁰

Protecting the farmland in the Patuxent Greenway with easements would shelter the Patuxent River from the runoff and sewage pollution that further development could bring. However, lack of funding in recent years has made discussions with the landowners pointless.⁸¹

Local government received less than \$7 million from Program Open Space this year. Next year, when the program is returned to full funding, \$26 million will be allocated.⁸²

With a commitment to consistent funding, the state can ensure that the Rural Legacy Program remains an effective tool for county and local governments to live up to the vision of their land use plans, protecting Maryland's cultural heritage and natural resources. Local government planners, with confidence in the availability of funds to pursue conservation opportunities, will be better able to implement the vision contained in their comprehensive plans.



Top: The Patuxent River at Jug Bay
Bottom: A heron takes off over the Patuxent

Photos: Patuxent Riverkeeper

Recommendations

The seven places highlighted in this report are just some of the many valuable landscapes across Maryland that could suffer without the assistance of stable, fully funded conservation programs.

Maryland cannot afford to let short-term fiscal constraints result in the long-term degradation of its natural lands. Instead, the state should:

- Guarantee that all future real estate transfer tax revenue will only fund land conservation programs such as Program Open Space, Rural Legacy, MALPF, and others—and not serve as a general slush fund;
- Vigorously implement smarter growth strategies to keep new development out of our most important natural areas.

Maryland has demonstrated that a long-term commitment to invest in land conservation can produce real results that preserve and improve Marylander's

quality of life. Maryland's leaders should now work to ensure that the commitment to conservation persists even in times of fiscal pressure.

The state must also prepare for the coming population growth by acting now to plan for and accommodate that new development. Much of the development in Maryland over the past 50 years has been poorly planned. Development is too often characterized by the conversion of natural or agricultural land to low-density subdivision and strip malls, barely accessible except by car. Maryland needs aggressive policies to direct growth into existing population centers and to provide mass transit in all regions of the state.

Maryland needs a renewed commitment to open space. By aggressively funding land preservation and directing new growth away from natural areas, we can ensure that Maryland's farms, forests, clean water and coastal bays benefit many generations to come.

Appendix

Total Acres Preserved, Converted, and Developed in Maryland Counties

	Total Acres of Land				% of County Land	
	Under Easement	Publicly Owned	Preserved	Developed	Preserved	Developed
Allegany	1,446	66,160	67,606	26,502	25.3%	9.9%
Anne Arundel	15,475	21,357	36,832	106,122	13.9%	40.0%
Baltimore	42,221	44,947	87,168	141,311	22.7%	36.7%
Calvert	26,499	6,355	32,855	35,535	24.0%	25.9%
Caroline	33,598	7,341	40,940	15,977	20.0%	7.8%
Carroll	46,076	11,669	57,745	57,742	20.1%	20.1%
Cecil	18,550	14,921	33,471	32,732	15.0%	14.7%
Charles	19,524	18,027	37,551	48,012	12.8%	16.3%
Dorchester	24,746	59,481	84,227	16,735	23.7%	4.7%
Frederick	34,133	30,888	65,022	66,352	15.3%	15.6%
Garrett	7,634	88,526	96,160	29,732	22.9%	7.1%
Harford	38,921	8,911	47,832	69,510	17.0%	24.8%
Howard	18,986	13,366	32,353	58,665	20.1%	36.5%
Kent	26,735	7,656	34,391	10,804	19.3%	6.1%
Montgomery	64,270	50,105	114,376	143,133	36.1%	45.2%
Prince George's	3,902	46,270	50,172	138,514	16.2%	44.8%
Queen Anne's	36,646	6,058	42,704	19,767	18.0%	8.3%
St. Mary's	11,859	7,143	19,003	39,372	8.2%	17.1%
Somerset	15,418	50,534	65,952	12,099	31.9%	5.8%
Talbot	24,560	659	25,218	21,554	14.7%	12.6%
Washington	16,447	35,983	52,430	51,583	17.9%	17.6%
Wicomico	11,738	22,671	34,409	31,754	14.3%	13.2%
Worcester	18,533	43,494	62,027	21,583	20.6%	7.2%
Total * mathematically	557,917	662,522	1,220,444	1,195,090		
Total * by sheet	557,919	662,524	1,220,442	119,086	19.7%	19.3%

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