Maryland Land Preservation, Parks & Recreation Plan 2009

Volume I

MDP
Maryland Department of Planning

Maryland Land Preservation, Parks & Recreation Plan 2009

Executive Summary

Smart, Green & Growing

Maryland Department of Planning

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Introduction

Maryland is endowed with natural beauty, rich history, abundant sporting opportunities, and a robust cultural life. Its open spaces, parks, and recreation facilities provide enjoyment for citizens, strengthen the state's communities, economy, and environment, and improve public health. Starting with Program Open Space (POS) in 1969, the State has established numerous programs to provide active recreational opportunities, preserve agricultural land, and conserve land that supports natural resources and biological communities both on land and in our waters, foremost among them the Chesapeake Bay.

Since 1969, Maryland has added about 1.5 million people. The impacts of growth and development on resource land have intensified, as has public demand for outdoor recreational opportunities, the preservation of agricultural land, and the conservation of natural resources.

In light of these developments, Maryland has expanded the scope of this ***Land Preservation, Parks, and Recreation Plan*** (LPPRP) beyond its traditional focus on parks and outdoor recreation, to address major challenges in each of three other areas: agricultural land preservation; the conservation of natural lands and resources; and historic preservation.

Work for this plan began with a State/Local Land Preservation and Recreation Planning Study Committee, convened in 2001 to identify and correct shortcomings in the State and local process for land preservation and recreation planning and implementation under POS law. One of the main decisions of the Study Committee, conveyed to the General Assembly's Joint Subcommittee for Program Open Space and the Maryland Agricultural Land Preservation Foundation in a January 2002 report, was for the next State LPPRP to examine the preservation programs established since POS in 1969.

The January 2002 report of the Study Committee also established that, in developing the next State LPPRP, the Department of Planning (MDP) would review program objectives and the geographic areas they affect; determine where programs are complementary or in potential conflict; and evaluate the return on State investment being realized through the combined efforts of related programs. The LPPRP would use this information to identify ways to improve return on state investment and to offer suggestions to the agencies, legislature, and local governments.

In October of 2003, ***Guidelines for State and Local Land Preservation, Parks, and Recreation Planning*** were published to implement the recommendations of the Study Committee's 2002 report. Since then, each of Maryland's twenty-three counties and Baltimore City completed their own LPPRPs. Besides serving the purposes of each jurisdiction, the local plans are important sources of information for this statewide plan.

Purpose, Background, and Overview

The over-arching purpose of this plan is to ensure good long-term return on public investment in parks, outdoor recreation, agricultural land preservation, and the conservation of natural resources. To that end, the following tasks were used in various forms for each element of the plan:

- Review goals and objectives of State and local programs for parks and recreation, agricultural land preservation, and natural resource conservation. Identify where these goals and objectives are essentially the same, where they are complementary or mutually supportive, and where they are simply different;
- Evaluate the ability of implementation programs and funding sources for each element to achieve related goals and objectives;
- Identify desirable improvements to policies, plans, and funding strategies to overcome shortcomings, achieve goals, and ultimately ensure good return on public investment;
- Identify the needs and priorities of current and future state and local populations for outdoor recreation;
- Determine what would be necessary to achieve the goals of State and local land preservation programs; and
- Ensure that public investment in recreation, agricultural land preservation, and natural resource conservation supports and is supported by State planning policy, local comprehensive plans, and associated State and local implementation programs.

Counties were not required to consider historic preservation in their plans. Its inclusion in this plan indicates the important role it plays in Maryland's Smart, Green and Growing initiative and associated resource conservation efforts. Historic preservation helps communities thrive, thereby reducing development pressure in rural areas. Preservation of historic rural sites and landscapes also complements other land preservation and open space initiatives.

Originally, the State LPPRP concerned itself with POS only. POS was the State program originally funded through the real estate transfer tax, which now funds a numerous additional programs, as discussed elsewhere in this plan.

POS was created following the establishment in 1965 of a federal program known as the Land and Water Conservation Fund (LWCF), administered by the National Park Service. This program requires the preparation of state plans (State Comprehensive Outdoor Recreation Plans, or SCORPs) to qualify for LWCF funding from the federal government. In addition to the expanded scope and purpose for this plan beyond its traditional focus on parks and outdoor recreation, this plan is intended to fulfill the purposes and requirements of both POS law and of the National Park Service for Maryland's SCORP.

The 2009 Maryland LPPRP is published in two parts:

- This document, which is ***Volume 1, Recreation and Parks, and Agricultural, Natural and Historic Preservation***; and
- ***Volume 2, the State Comprehensive Outdoor Recreation Plan for DNR Lands***, which addresses lands owned and operated by the Maryland Department of Natural Resources (DNR).

To assure that the limited funds available under POS are focused on the most important public needs, the law requires the State, the twenty-three counties, and Baltimore City to prepare and update LPPRPs every six years. The State LPPRP is prepared by MDP in cooperation with DNR. Given the need to expand the scope of the plan to include the preservation of agricultural land, the Maryland Department of Agriculture (MDA) has also begun to collaborate on development of the plan through significant contributions by staff of the Maryland Agricultural Land Preservation Foundation (MALPF).

Integration of Plan Elements

State and local initiatives in each of the three major elements of this Volume–parks and recreation, agricultural land preservation, and natural resource conservation–have evolved more or less separately over the past twenty years, even though the preservation of land for one of these purposes frequently affects objectives for one or both of the others. This is also true for historic and cultural preservation initiatives, which until now have evolved in even greater isolation from the others.

Practically and fiscally speaking, the geography of population growth and development is the common thread among all of these efforts for several reasons because it determines where, how and how much resource land is converted to development and needed for recreation.

Growth and development are the driving force for conservation efforts in the first place. That is, we have to preserve land to protect resources, the environment, and recreational opportunities from the damaging impacts of development. Where development occurs determines how difficult it is to preserve land and resources, and therefore substantially affects both the cost of and potential for successful conservation. An overriding factor determining where development occurs is the way in which State and local government plan for and manage growth and development. Consequently, the realization of public goals for growth, land and resource conservation, and recreation are interdependent.

For example, where and how residential development is allowed to occur helps determine:

- Where outdoor recreational lands and facilities must be located. If residential development is concentrated in and around existing or planned population, employment, and mixed-use centers, neighborhood and community recreational lands and facilities can be concentrated there as amenities. Haphazard development creates demand for widely dispersed recreational lands and facilities, at greater public cost. These amenities in turn help attract the development market to land outside planned centers, at the expense of agricultural and natural resources.
- How much of the market demand for residential lots is directed to agricultural land instead of planned growth areas. Where demand is high, as in most of Maryland, a most important factor determining this is the amount of development allowed in rural areas. The more development allowed, the stronger the likelihood that market demand for residential lots will drive up the cost of easement acquisition for preservation and the rate at which agricultural land is fragmented by development, and the less likely it is that State and local preservation goals will be achieved given the finite public funds available to purchase preservation easements.
- How much rural natural resource land is developed or compromised by development. In rural areas, this is affected by the same factors as agricultural land, in addition to local ordinances and procedures to protect these lands from the damaging impacts of development.
- How much land must be purchased and at what cost for open space and recreational amenities in planned development areas, where land costs are likely to be the highest. This will be strongly influenced by the amount of land reserved in developments, neighborhoods and communities through zoning, subdivision and development ordinances, and regulations and procedures, at no public cost.

These are some of the ways in which planning and managing land use, development, infrastructure, and community services affect State and local efforts to achieve public objectives for parks and recreation, agricultural land preservation, and the conservation of natural resources.

For these reasons, in the long-term, population geography and the way in which it is managed are as important or more important than the amount of public money spent for preserving land, protecting natural resources, and providing recreation opportunities. This is not to trivialize the importance of funding and spending guidelines, but rather the opposite: as Maryland's population increases, we must focus on the congruence between public spending and the numerous other means through which growth, development, infrastructure, and community services are managed and delivered.

This is a recurring theme throughout this plan, and forms the basis for many of its findings and recommendations.

To achieve preservation, conservation, and recreation objectives cost-effectively, public spending for these purposes must be strategic in relation to the geography of population growth and development. If the latter is poorly managed, effectiveness of conservation/ recreation spending is compromised. ***The Twelve Visions*** (House Bill 294, 2009, effective October 1, 2009) established as part of Maryland's Smart, Green and Growing initiative provide a context for growth and development on the one hand, and land preservation, resource conservation, and parks and recreation planning on the other:

The Twelve Visions

- Quality of life and sustainability: a high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment;
- Public participation: citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals;
- Growth areas: growth is concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers;
- Community design: compact, mixed–use, walkable design consistent with existing community character and located near available or planned transit options is encouraged to ensure efficient use of land and transportation resources and preservation and enhancement of natural systems, open spaces, recreational areas, and historical, cultural, and archeological resources;
- Infrastructure: growth areas have the water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and environmentally sustainable manner;
- Transportation: a well–maintained, multimodal transportation system facilitates the safe, convenient, affordable, and efficient movement of people, goods, and services within and between population and business centers;
- Housing: a range of housing densities, types, and sizes provides residential options for citizens of all ages and incomes;

To be effective, growth management, conservation, and recreation programs must not work at cross purposes. Accordingly, State planning policy, as embodied in the 12 Visions, provides an important framework for their coordination in this plan.

The Twelve Visions Continued:

- Economic development: economic development and natural resource–based businesses that promote employment opportunities for all income levels within the capacity of the state's natural resources, public services, and public facilities are encouraged;
- Environmental protection: land and water resources, including the Chesapeake and coastal bays, are carefully managed to restore and maintain healthy air and water, natural systems, and living resources;
- Resource conservation: waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved;
- Stewardship: government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection; and
- Implementation: strategies, policies, programs, and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, state, and interstate levels to achieve these visions.

Agricultural Land Preservation

The two primary State funding programs for agricultural land preservation are the Maryland Agricultural Land Preservation Foundation (MALPF) and the Rural Legacy program. Most local preservation programs operate in conjunction with one or both of these programs. Both the State and the local programs work within the context of county zoning and land use management plans for farmland.

MALPF has continued to evolve since its inception in the late 1970's, driven by both the experiences of its board of trustees, staff, and local program administrators, and by periodic adjustments to the program by the General Assembly. In 2000, House Bill 740 created the Task Force to Study the Maryland Agricultural Land Preservation Foundation (the Task Force), which the General Assembly reactivated in 2002 to further study and make recommendations on a number of issues unresolved in the 2001 report of the original group. The Task Force published an ***Interim Report for the 2003 Legislative Session*** in January 2003 and its ***Final Report*** in December of 2004, making many recommendations that have been implemented through subsequent actions by MALPF, the counties, and the legislature.

Several of the Task Force's major recommendations have not yet been fully implemented but are particularly germane to ensuring good long-term return on public investment in agricultural land preservation. These recommendations call for concentrating funds in Priority Preservation Areas (not to be confused with Priority *Funding* Areas, where development is concentrated); increasing funding; and revising the easement valuation formula. Specifically, they include:

- Over the 2005-2022 period, approximately double the amount of State funding for MALPF, using a menu of potential revenue sources.
- Concentrate easement acquisition in Priority Preservation Areas, established by counties and certified by the State, in which the long-term goals of the MALPF program can be achieved.
- Change the program's easement valuation system so that farms with good soils and farms in rural areas can better compete for funds, and to eliminate easement acquisition costs that approach the in-fee fair market value of the land

Through the 2009 session of Maryland's General Assembly, a variety of incremental steps have been taken by MALPF, the legislature, and the Agricultural Certification program to begin implementing these recommendations. Many of the recommendations of this plan are concerned with continuing or completing that process, as discussed in further detail in ***Chapter II: Agricultural and Natural Resource Lands.***

Although the Rural Legacy program focuses on the preservation of agricultural land, it is equally concerned with natural resources, and to some degree forestry and cultural/ historic resources in Maryland's rural landscape. By virtue of the focus on rural landscapes, Rural Legacy has a great deal in common with MALPF. By virtue of its focus on natural resource conservation, it is an important tool for achieving State and local natural resource conservation goals, the subject of *Chapter II* of the plan, *Agricultural and Natural Resource Lands*.

Like MALPF, the Rural Legacy program has been evolving toward a more targeted approach to preservation. Unlike MALPF, where funds are annually allocated among counties and properties according to a specific procedure, Rural Legacy funds are allocated among Rural Legacy Area sponsors each year through the deliberations of an advisory committee and the Rural Legacy Board, the latter consisting of the State secretaries of the Departments of Natural Resources, Agriculture, and Planning. The allocation of funds varies widely from one Rural Legacy Area to another; some may receive no funding at all. In 2007, Rural Legacy developed an evaluation and scoring protocol to distinguish among Rural Legacy Areas based on their ability to achieve program goals. This is the first time that funding awards have been so explicitly tied to evaluation criteria.

Public Participation

Public participation for the land preservation, parks, and recreation planning process in Maryland is ongoing and involves participation at the state and local levels.

The *2003 Guidelines* required each county and Baltimore City to develop its own approach to public involvement for parks, recreation, and open space planning. Public participation included posting draft plans on county Web sites, providing paper copies in county planning offices and libraries, and holding public meetings and workshops. Draft plans were in many cases reviewed by county advisory boards whose members represent a variety of public interests. At a minimum, all jurisdictions held public hearings about their plans, which is a legal necessity for their adoption by the local governing body as an element or adjunct of the local comprehensive plan.

Two statewide surveys, described subsequently in this plan, provided some measure of public input at the state level. The Land Preservation and Recreation Planning Study Committee, described above, provided considerable local input in development of the guidelines for the planning process. DNR invited local input on its new targeting protocol for stateside POS, discussed in more detail in *Chapter II: Agricultural and Natural Resource Lands*. The MALPF Task Force, which originated the concept of Priority Preservation Areas advanced in this plan, was composed of individuals representing a wide variety of rural, agricultural, and environmental interests from across Maryland. As the General Assembly considered Priority Preservation Areas as part of the Agricultural Stewardship Act of 2006, public hearings provided the opportunity to testify before the enabling legislation passed and was signed into law.

Considerable public participation took place in the development of Maryland's ***State Comprehensive Outdoor Recreation Plan for DNR Lands***. That process is described in Volume 2 of this plan, published under separate cover.

General Considerations for State and Local LPPRPs

Functional Relationship between State and Local Plans

To achieve desired goals and objectives, State and local plans must be mutually supportive. To this end, the State plan both reflects local plans and provides direction for land preservation and recreation planning at a statewide level, based in part on the information provided by the local plans. Changes in State funding sources and programs will best support local programs if the State clearly understands the goals, strengths, and weaknesses of those programs. On the other hand, the State LPPRP contains information that will be useful to counties seeking to advance their programs.

Required Information

The ***2003 Guidelines*** described the information required for each element in the local plans and how the State intended to incorporate local data and findings into the State plan. The *Guidelines* offered definitions for words commonly used in the plans and called for certain information to be formatted in specific ways (including digital formats). These specifications made it easier to compile the data needed to support statewide analyses and to provide a coherent picture to the legislature and administration.

Local Coordination

Each county's POS liaison served as the primary point of contact for MDP and DNR during the planning process. Where feasible the State, through MDP, DNR, and MDA, worked with local government officials and agencies to facilitate their contributions to the appropriate elements of the local and State plans.

Relationship of County Plans to Local Comprehensive Plans

To ensure that investments in land preservation and outdoor recreation are effective, they must be congruent with the public plans and policies that shape our landscape and communities. Local comprehensive plans and the associated implementation programs and investments are particularly important because they affect the efficacy of preservation and recreation strategies, therefore playing a major role in investment decisions.

Goals established in local comprehensive plans are a driving force behind investment in land preservation and outdoor recreation. Accordingly, the State reviewed local LPPRPs as elements of the local comprehensive planning and implementation process. Formal adoption of local LPPRPs as part of local comprehensive plans is not a pre-requisite for State approval of local LPPRPs but must occur within the year following approval. If adoption occurs after plans are approved by the State, changes to the plans that take place during the interim should be noted when the amended plans are submitted to the State.

All of the local LPPRPs have been adopted by local governments and approved by MDP and DNR.

Needs-based Approach to Outdoor Recreation

MDP and DNR placed a renewed emphasis on a needs-based approach to outdoor recreation planning and investment.

The *Guidelines* described recommended and required elements for demand analysis, inventory of recreational land and facilities, and determination of need for land acquisition, facility development, and facility maintenance and improvements.

The *Guidelines* stressed the importance of up-to-date information. Completed statewide surveys of participation and need in outdoor recreation and of public attitudes about land preservation, were provided to each local government, as was MDP's online inventory system (MEIRS, see below) as a means to compile a consistent statewide inventory of recreational sites, facilities, and opportunities. MEIRS was to be completed by each county and used for these tasks, in conjunction with the results of the state surveys and any additional county-specific information where available.

A needs analysis, performed according to the *Guidelines*, was required from all counties.

Local Goals for Recreational Land and Facilities

Counties may use up to fifty percent of their POS funds for facility development. If they have achieved acreage goals for land acquisition approved by MDP and DNR, they may use up to 100 percent for development. Procedures for establishing local acreage goals have changed, consistent with the renewed emphasis on a needs-based approach. Each jurisdiction was given the option of setting needs-based goals, either by using the State default acreage goal of 30 acres per 1,000 people, or by devising another method approved by MDP and DNR. Needs analysis and needs-based goals are further discussed in ***Chapter III*** of this plan, ***Parks and Recreation***.

Maryland Electronic (Online) Inventory of Recreation Sites (MEIRS)

To provide an up-to-date picture of the supply of recreational land and facilities, each county was required to update inventories of recreational lands and facilities using the State's interactive database, ***MEIRS***. This would ensure statewide compatibility of information; be an integral part of needs analyses (supply of facilities versus demand) among counties; and serve other State and local needs for analysis, reporting, and public dissemination of information about recreation sites and facilities. Guidelines for MEIRS were issued separately from the *2003 Guidelines* by MDP. Training was provided to all counties and remains available upon request to MDP.

Assessments of Agricultural Land Preservation and Natural Resource Conservation Programs

Many State, local and private preservation and conservation programs have been created since POS was established in 1969. To make the most effective use of State support for both land preservation and outdoor recreation, MDP, with cooperation from DNR and MDA, undertook a comprehensive assessment of agricultural land preservation and natural resource conservation programs in preparation for the State plan. The results are reported in *Chapter II: Agricultural and Natural Resource Lands*.

Data Sharing

GIS and other digital data support the ability of the State and local jurisdictions to analyze and plan effective preservation and recreation programs. The State plan assesses the progress of efforts among State agencies and local governments to produce, enhance, update, and share data and analytical tools for these purposes, and recommends steps needed to move forward.

To help local governments prepare their plans, MDP told counties about the analyses and databases it is using for statewide assessments. MDP requested that counties, for their own plans, describe their resources and completed analyses, and note what analyses they would like to complete in the future. All parties must consider new or additional data-sharing opportunities, which are intended to facilitate effective and mutually supportive assessments for State and local plans, establish better procedures and inter-governmental agreements for sharing GIS data, and provide accurate information to support program evaluations, recommendations, and required reporting at State and local levels.

Agricultural and Natural Resource Lands:

Status, Vulnerability, Threat, and Potential for Success

State Goals for Agriculture

Maryland's small size and large population put unremitting development pressure on agricultural and natural resource land. Initially radiating from the metropolitan core of the Baltimore–Washington area, this pressure has now extended over almost the entire state to varying degrees, challenging the ability to achieve State goals for agriculture:

- Permanently preserve agricultural land capable of supporting a diversity of agricultural production.
- Protect natural, forestry, and historic resources and the rural character of the landscape associated with Maryland's farmland.
- To the greatest degree possible, concentrate preserved land in large, relatively contiguous blocks to effectively support long-term protection of resources and resource-based industries.
- Limit the intrusion of development and its impacts on rural resources and resource-based industries.
- Preserve approximately 1,030,000 acres of productive agricultural land by 2020.
- Ensure good return on public investment by concentrating State agricultural land preservation funds in areas where the investment is reasonably well supported by both local investment and land use management programs.
- Work with local governments to:
  - Establish preservation areas, goals, and strategies through local comprehensive planning processes that address and complement State goals;
  - In each area designated for preservation, develop a shared understanding of goals and the strategy to achieve them among rural landowners, the public at large, and State and local government officials;
  - Protect the equity interests of rural landowners in preservation areas by ensuring sufficient public commitment and investment in preservation through easement acquisition and incentive programs;
  - Use local land use management authority effectively to protect public investment in preservation by managing development in rural preservation areas; and
  - Establish effective measures to support profitable agriculture, including assistance in production, marketing, and the practice of stewardship, so that farming remains a desirable way of life for both the farmer and the public.

State Goals for Natural Resource Land

Fragmentation by development can be even more harmful to natural resource land than to agricultural land. Preservation of the lands that sustain natural resources, whether in rural or developing areas, depends on identifying them, recognizing them as public priorities in local plans, protecting them through policies and programs that manage development, and using public funds to preserve them. Many populations of plants and animals, their associated biological communities, hydrologic systems of watersheds, and the environmental, biological, social and economic values of these features are heavily dependent on the geographic connectivity and extent of natural land cover types, and are harmed by development activity, sometimes in surprisingly distant parts of a network of green infrastructure.

Because its watershed comprises most of Maryland as well as Washington, D.C., and parts of Virginia, Pennsylvania, West Virginia, Delaware and New York, the Chesapeake Bay is also affected by land development, even many miles away from its shore.

The States' goals conservation of natural resource lands involve working with its partners and stakeholders—the federal and local governments, citizens, conservation organizations and the private sector—to accomplish the following:

- Identify, protect, and restore lands and waterways in Maryland that support important aquatic and terrestrial natural resources and ecological functions, through combined use of the following techniques:
  - Public land acquisition and stewardship;
  - Private land conservation easements and stewardship practices through purchased or donated easement programs;
  - Local land use management plans and procedures that conserve natural resources and environmentally sensitive areas and minimize impacts to resource lands when development occurs;
  - Public land acquisition and stewardship;
  - Private land conservation easements and stewardship practices through purchased or donated easement programs;

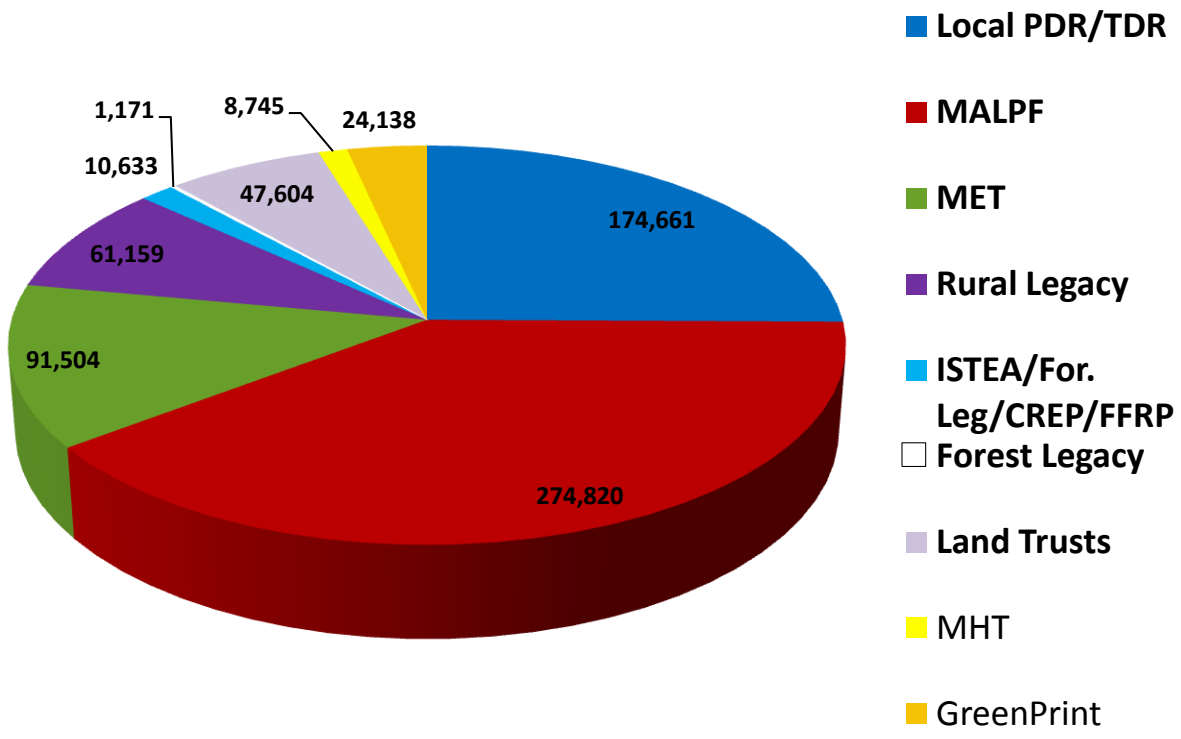
  - Local land use management plans and procedures that conserve natural resources and environmentally sensitive areas and minimize impacts to resource lands when development occurs;
  - Support and incentives for resource-based economies that increase retention of forests, wetlands, or agricultural lands;
  - Avoid and minimize impacts of publicly funded infrastructure development projects on natural resources; and
  - Appropriate mitigation response, commensurate with the value of resource impacted.
- Focus conservation and restoration activities on priority areas, according to a strategic framework such as GreenPrint.
- Conserve and restore species of concern and important habitat types that fall outside the green infrastructure: rock outcrops, karst systems, caves, shale barren communities, grasslands, shoreline beach and dune systems, mud flats, non-forested islands, etc.
- Develop a more comprehensive inventory of natural resource lands and environmentally sensitive areas to assist State and local implementation programs.
- Assess the combined ability of State and local programs to:
  - Expand and connect forests, farmlands, and other natural lands as a network of contiguous green infrastructure.
  - Protect critical terrestrial and aquatic habitats, biological communities, and populations;
  - Manage watersheds in ways that protect, conserve, and restore stream corridors, riparian forest buffers, wetlands, floodplains, and aquifer recharge areas and their associated hydrologic and water quality functions;
  - Adopt coordinated land and watershed management strategies that recognize the critical links between growth management and aquatic biodiversity and fisheries production; and
  - Support a productive forestland base and forest-resource industry, emphasizing the economic viability of privately owned forestland.
- Establish measurable objectives for natural resource conservation and an integrated State/local strategy to achieve them through State and local implementation programs.

State Implementation Programs for Agricultural Land Preservation

Preserving Maryland's agricultural resource lands and achieving State goals is a collaborative effort between the State, counties, and numerous local and regional land trusts. The State component is multifaceted: three programs principally focused on agricultural land preservation (the Maryland Agricultural Land Preservation Foundation, the State Agricultural Certification Program, and the Rural Legacy Program, which are detailed below); the Maryland Environmental Trust, which acquires easements through donation; data collection and policy analysis (such as this Plan); and legislative initiatives to strengthen these programs. It also includes marketing assistance for farmers provided by the Maryland Department of Agriculture, and lower property tax assessments on land in agricultural production.

Local implementation includes county-run purchase of development rights (PDR) and transferable development rights (TDR) programs; county property tax reductions on land in agricultural use or under conservation easement; county/regional marketing efforts; and county plans, policies, zoning ordinances and subdivision regulations designed to limit subdivision and development of agricultural land. A large number of local and national land trusts complement the work of state and regional organizations.

Figure 1 - Total Acres Preserved Easements of All Types: 694,435
Sources: MDP and DNR



Maryland Agricultural Land Preservation Foundation (MALPF)—Celebrating its 30th birthday in 2008, MALPF is the oldest statewide easement purchase program in the nation and the most important farmland preservation program in Maryland. The goals of the MALPF program are to:

- Preserve land as a source for food and fiber for the citizens of Maryland;
- Control the subdivision and development of farmland;
- Curb the spread of urban blight and deterioration; and
- Protect farm and forest land as open space.

MALPF pays landowners to extinguish the right to develop their properties.[1] A preservation easement is placed on the land, but other rights are left intact. To qualify, a property must be at least 50 acres in size (or be adjacent to land already in the program), meet soil criteria, and lie outside the boundaries of a 10-year water and sewer service area.

Counties prioritize their easement applications so that MALPF will acquire easements on farms that the counties consider most important to meeting the goals of their preservation programs.

MALPF easements are purchased in two rounds. In the first round, half the funds are distributed evenly among the 23 counties. The other half are used as matching funds: MALPF will put up $1.50 for every $1.00 contributed by the counties. Funds not spent in round one are used in round two, where easements are not acquired county by county.

Instead, all the easement applications that did not receive an offer in round one are prioritized for the whole state according to one criterion: the discount ratio. When an easement is offered for sale at its full value, it has a discount ratio of one. A landowner who will sell his easement at a 10% discount has a discount ratio of .9. In round two, the easement applications are arranged by discount ratio, from the lowest ratio (i.e., the largest discount) to the highest. MALPF moves down the list making offers until the funding runs out.

MALPF has preserved over 270,000 acres.

The Rural Legacy Program—Created in 1997 as one of Maryland's Smart Growth programs, Rural Legacy provides funds on a competitive basis for counties and private land trusts to acquire preservation easements on resource lands in locally designated Rural Legacy Areas. A few properties have also been acquired through purchase.

The goals of the program are to "enhance natural resource, agricultural, forestry, and environmental protection while maintaining the viability of resource-based land usage and proper management of tillable and wooded areas… for farm production and timber harvests."

The goals of the program are the following:

- ♣ to establish greenbelts of forests and farms around rural communities in order to preserve their cultural heritage and sense of place;
- ♣ to preserve critical habitat for native plant and wildlife species;
- ♣ to support natural resource economies such as farming, forestry, tourism and outdoor recreation; and
- ♣ to protect riparian forest, wetlands, and greenways to buffer the Chesapeake Bay and its tributaries from polluted runoff.

The State allocates funding to Rural Legacy sponsors through a competitive process. The Rural Legacy Advisory Committee, appointed by the Governor and confirmed by the Senate, reviews all applications and makes recommendations to the Rural Legacy Board. The Board then makes recommendations to the Governor, and the Legacy Areas and grants for funding then have to be approved by the Board of Public Works.

Rural Legacy easements extinguish development rights and protect resources such as permanent buffers alongside streams.

Rural Legacy is funded through a combination of Program Open Space dollars, general fund appropriations and general obligation bonds from the State's capital budget. Through FY 2008, Rural Legacy had protected about 59,000 acres in 21 counties.

State Agricultural Certification Program (Certification Program) – The Certification Program was created by the General Assembly in 1991 to let counties keep more locally generated agricultural land transfer tax, leverage more local easement funding, and encourage planning and land use that support conservation investment in easements. Counties with an effective local agricultural land preservation program that wish to be certified apply to both MDP and MALPF. Sixteen of Maryland's twenty-three counties are currently certified (Anne Arundel, Baltimore, Calvert, Carroll, Cecil, Charles, Frederick, Harford, Kent, Montgomery, Queen Anne's, St. Mary's, Talbot, Washington, Wicomico, and Worcester).

The certification program has three goals:

- Maintain contributions of farming to the economy and a quality environment;
- Encourage county programs that complement MALPF to preserve viable land, manage growth, and preserve environmental quality; and
- Ensure that increased county expenditures of agricultural land transfer tax are cost-effective.

Certification allows counties to retain 75% of the locally generated agricultural land transfer tax revenue. Counties that are not certified keep 33% of the agricultural land transfer tax and remit 67% of the funds to the State, for use by MALPF. Certified counties must use funds from other county sources to match the extra 42% of the agricultural land transfer tax that they retain as a result of certification. Certification also represents recognition by the State that a county has developed and is maintaining an effective preservation program, wherein public investment in conservation is being protected by the county's land use management authority.

In addition to providing additional funding, the certification program is designed to achieve its goals by helping counties identify and overcome shortcomings in the ability of their programs to achieve State and county preservation goals. Each time a county is certified and recertified, the State reviews the county's program evaluation and program development strategy, and communicates its understanding of priority steps that are necessary to improve the program during the next certification period. Taking those steps is an important factor for the next certification review: if the county is not correcting shortcomings, recertification can be denied.

The Agricultural Stewardship Act of 2006 requires certified counties to establish Priority Preservation Areas (PPAs) in their comprehensive plans and manage them according to certain criteria. To remain certified, MDP and MALPF must approve a certified county's PPA and their strategy to meet these requirements. The regulations to implement the new requirements give the agencies the discretion to conditionally recertify counties after July 1, 2008 even if they have not met them, as long as the county is following a strategy to do so within a reasonable time.

There are two sets of requirements, relating to conditions in the PPA itself and to the county comprehensive plan.

The PPA must:

- Contain productive agricultural or forest soils, and be capable of supporting profitable agricultural and forestry enterprises;
- Be governed by local policies that stabilize the agricultural and forest land base and provide time for easement acquisition before goals are undermined by development;
- Be large enough to support normal agricultural and/ or forestry activities; and
- Be accompanied by the county's acreage goal for land to be preserved through easements and zoning in the PPA equal to at least 80% of the remaining undeveloped acres of land in the area.

The comprehensive plan must:

- Establish appropriate goals for the amount and types of agricultural resource land to be preserved in a PPA;
- Include maps showing the county PPA;
- Describe the kinds of agricultural production the county intends to support and the amount of development the county intends to allow;
- Describe the way in which preservation goals will be accomplished in the PPA;
- Include an evaluation of the ability of the county's zoning and other land use management practices to limit the impact of subdivision and development; and
- Describe how the county's plan for the PPA will stabilize the land base, allow time for easement purchase, and achieve preservation goals before the agricultural land resource is excessively compromised by development.

The key principle established by the Stewardship Act is that PPAs "be governed by local policies that stabilize the agricultural and forest land base and provide time for easement acquisition before goals are undermined by development."

This requirement puts in practice for the first time a statutory commitment by the State to direct more State funds to areas where the conservation investment is well supported by local zoning and land use management authority.

Agricultural Marketing and Support Programs—Many programs exist at the State and local level to help farmers with the business of agriculture.

Photo Credit: The Sun/Algerina Perna

Among these programs are:

- The Agricultural Marketing Program of the Maryland Cooperative Extension (at the University of Maryland);
- County and regional campaigns to "buy local";

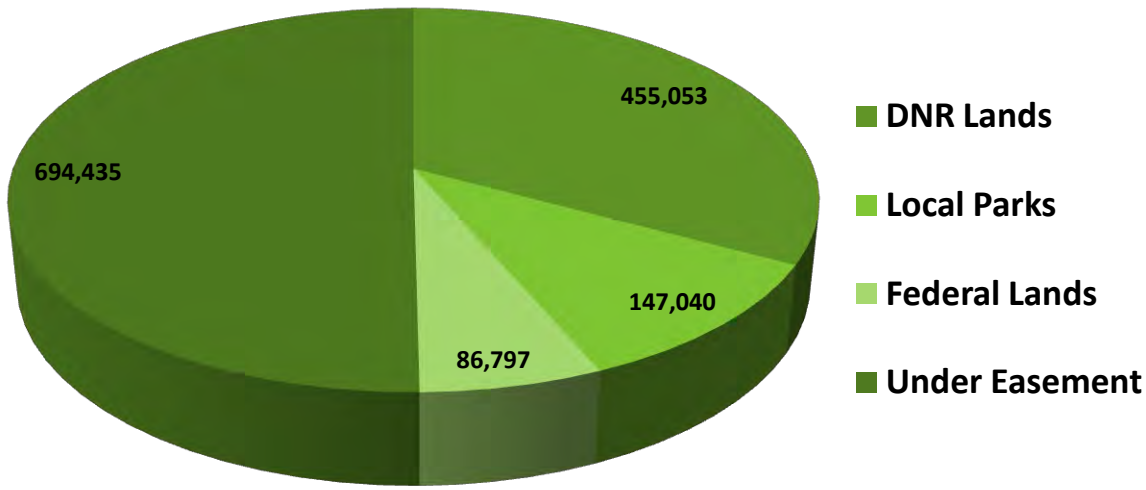
- MDA's establishment of farmers markets in Maryland, international marketing efforts, and national marketing office to help producers sell directly to grocery chains, restaurants, food service businesses, and garden centers;
- The Maryland Agricultural and Resource-Based Industry Development Corporation (MARBIDCO), a publicly supported rural business development organization established by the Maryland General Assembly in 2004 to help agricultural and other rural industries to prosper by developing agricultural industries and markets, supporting appropriate commercialization of agricultural processes and technology, assisting with rural land preservation efforts, and alleviating the shortage of nontraditional capital and credit available at affordable interest rates for investment in agricultural and resource-based businesses.

State Implementation Programs for Natural Resource Conservation

As with farmland preservation, achievement of the State's natural land and resource conservation goals depends on collaboration between State and county efforts. The State component consists of numerous programs, some of which are detailed in text boxes on this and following pages.

These programs range from easement purchase/easement donation programs to assistance with conservation and restoration plans and projects. The federal government is an important partner in many of these efforts.

Figure 2 - Total Acreage Preserved by Easement and Public Ownership 1,383,325 Acres
Source: MDP and DNR



A fundamental part of preserving natural resources statewide and locally is to know where they and the key habitats that sustain them are located. As technology evolves, DNR (the Maryland Department of Natural Resources) has continued to refine its methods of locating, inventorying, and mapping natural resources.

STATE IMPLEMENTATION PROGRAMS

Program Open Space (POS) - Created in 1969, POS is the leading State program for preserving natural resource land in Maryland. This DNR program is financed through a dedicated revenue stream: the ½-percent real estate transfer tax that is levied on each property sale. If you paid $200,000 for your house, you paid another $1,000 in transfer tax that went to Program Open Space. Some funds come from the National Park Service's **Land and Water Conservation Fund**. Stateside POS acquisitions —as contrasted with local recreation sites acquired with the local share of POS funds—are intended to protect natural resources, even if part of the site is used for passive recreation. As of January 14, 2009, Stateside POS acquisitions totaled 287,138 acres.

Rural Legacy - See section on agricultural land preservation.

Maryland Environmental Trust (MET) - Created in 1967, MET is a statewide land trust governed by a citizen board of trustees. It protects farms, forests, and natural resource land by acquiring easements through donation. Donors, in return, are eligible for a number of tax benefits. As of July 24, 2008, MET had preserved 91,504 acres.

STATE IMPLEMENTATION PROGRAMS

GreenPrint - The GreenPrint program, created in 2001, has now sunsetted. Its focus was different from other programs, beginning with the concept of "green infrastructure": lands that are critical to the long-term ecological health of the state because they support a diverse plant and animal population and enable natural processes, such as the filtering of water and cleaning of air, to take place. Maryland's 2,000,000 acres of green infrastructure land were mapped using sophisticated satellite imaging technology, with the results reviewed by scientists, local government officials, and conservation groups. The process first identified "Green Hubs," which are typically hundreds of acres in size and vital to maintaining the State's unique ecology. The second step connected Green Hubs with "Green Links," which are ribbons of land such as stream valleys and mountain ridgelines. Green Links function as "Habitat Highways." The third step was to save those lands through targeted acquisitions and easements.

GreenPrint preserved 24,138 acres. (Roughly 25% of program funds were used by the MALPF program to acquire easements on farms that contain green infrastructure; the acreage for these easements, however, was attributed to the MALPF program.)

NOTE: The State now uses the term "GreenPrint" to refer to the GIS mapping tool that showcases the progress of State programs in conserving and protecting Maryland's most valuable natural resource lands. For more information, see "GreenPrint and AgPrint—Emerging GIS-Based Implementation Tools for Land Conservation" at the end of this chapter.

Chesapeake Bay Critical Area Program - Created in 1984, a statewide Critical Area Commission oversees the "Critical Area": all land within 1,000 feet of the Mean High Water Line of tidal waters or the landward edge of tidal wetlands and all waters of and lands under the Chesapeake Bay and its tributaries. Lands in the Critical Area are designated as Intensely Developed Areas (IDAs), Limited Development Areas (LDAs), or Resource Conservation Areas (RCAs), depending on the existing level of development. Land in an RCA cannot be developed at a density greater than 1:20 (unless it receives some of the jurisdiction's authorized Growth Allocation).

According to the program's Web site, the "Critical Area Law" requires that each local jurisdiction identify and provide for the establishment, preservation, and maintenance of Habitat Protection Areas. These areas include: a naturally vegetated 100-foot buffer (the Buffer); non-tidal wetlands; the habitats of threatened and endangered species, and species in need of conservation, and their habitat; significant plant and wildlife habitat; and anadromous fish-spawning areas. In 2008, the Critical Area Law was amended to expand the buffer requirements in RCAs from 100 feet to 200 feet.

Conservation Reserve Enhancement Program (DNR/USDA) - CREP is a voluntary program to protect land that is in agricultural production and lies along watercourses. The objectives of the program include: installing forested riparian buffers, grassed filter strips and wetlands; reducing the impacts of sediment and nutrients; protecting highly erodible land and steep slopes; providing ecological benefits for wildlife species that are declining, in part, due to habitat loss; and placing such lands under easement. This program has preserved 4,449 acres through October 9, 2007.

Most recently, DNR completed its most comprehensive inventory of natural resources to date. Beginning with the maps of hubs and corridors comprising Maryland's Green Infrastructure in the late 1990's, DNR supplemented that information by mapping three key additional types of natural resource land:

- Rare Species Areas, encompassing habitat of rare, threatened, and endangered plants and animals, and other important biological communities;
- Aquatic Life Hotspots, comprising the watershed of bodies of water for key aquatic species and species assemblages;
- Forests Important for Water Quality Protection, including forest blocks, streamside forests, steep slopes, wetlands, forests protecting drinking water sources, forests treating high nitrogen-loading areas, and forests protecting important aquatic and interior forest habitats.

DNR is using this comprehensive inventory to target expenditures of Stateside POS funds to maximize their effectiveness. The new data and associated targeting procedures were introduced to State and local partners in December 2007, and are currently being used to prioritize DNR's efforts to protect resource land through stateside POS expenditures. DNR has also identified "blue infrastructure": priority areas for protection and restoration in Maryland's coastal near-shore zone. Resources and habitat include submerged aquatic vegetation, oyster bars, tidal wetlands, fish spawning and nursery areas, shoreline buffers, etc.

STATE IMPLEMENTATION PROGRAMS—Continued

Forest Land Tax Programs—Maryland has two property tax relief programs to help keep land in forest and open space. Forest Conservation Management Agreements require a 15-year commitment and offer lower tax assessments ($125/acre). The Woodland Assessment Program requires only a three-year commitment but does not lower taxes quite as much ($187.50/acre). Other programs can aid landowners in developing a forest stewardship plan required for these property tax programs: The Natural Resources Conservation Service's Environmental Quality Incentive Program

Heritage Conservation Fund (DNR)—Acquires properties specifically for the protection of identified endangered plant or animal species and significant habitats. As of November 14, 2006, this program had preserved 9,204 acres.

Forest Legacy Program (DNR/USDA Forest Service)—This program identifies and protects environmentally important forestland through the use of perpetual conservation easements from willing sellers. Properties greater than 100 acres that have been identified by their vulnerability to development and existing threats to endangered species are eligible. The program is available only in areas identified in Maryland's Forest Legacy Assessment of Need. These areas are located in Anne Arundel, Calvert, Cecil, Charles, Harford, Queen Anne's and Worcester Counties. As of November 13, 2007, this program had preserved 1,171 acres.

These coastal resources, many of which are threatened by sea level rise, provide important wildlife habitats, have regional significance for migratory birds, protect coastal communities from storm surge and erosion, sequester large amounts of carbon, provide sediment and nutrient water quality benefits, and generate economic benefits through farming, forestry, fishing, and passive recreation.

STATE IMPLEMENTATION PROGRAMS, Continued

Other Programs—Transportation Enhancement funding (which can be used for easements and restoration projects); Coastal and Estuarine Land Conservation Fund; Wetland Reserve Program; North America Wetlands Conservation Act; Farm and Ranch Protection Program, and Community Forest and Open Space Program (from the 2008 Federal Farm Bill). Future environmental service markets for things such as carbon offsets could be used to preserve land.

The "POS Targeting System" begins with DNR's natural resource inventory. It then uses an ecological screen to identify "Priority Conservation Areas": areas that score highly for one or more of the four types of resource lands. From the identified Priority Conservation Areas, a programmatic screening process is used to identify "Annual Focus Areas." Finally, a parcel screen is used to assess, score, and prioritize parcels within the focus areas.

A smaller portion of State POS funds will still be used to acquire high priority recreational, cultural, and historic sites outside the confines of the targeting system. These acquisitions will primarily protect key Chesapeake Bay access points, trail connections, and State park in-holdings.

The "Programmatic Screen" of the POS targeting protocol considers the conservation strategies within Maryland's 10 Bay tributaries; geographic balance; available funding; degree of existing protection (protected lands and protective zoning); and consultation with local governments, land trusts, and other partners.

The "Parcel Screen" ranks parcels within annual focus areas based on ecological value, special adjustments for multiple benefits (recreational, historic, or cultural value), habitat maintenance or restoration value (active management to prevent degradation of unique natural resources and opportunities for habitat and water quality restoration), management and operations (designated management identified), and consistency with local land use planning (parcel zoning, and area-wide protection).

Both programmatic and parcel screening processes factor in cost. The objective is to get more land per dollar in less threatened areas, and seek additional value through below value offers and partner contributions. The new POS targeting protocol will adjust weighting factors for evaluation and scoring in coming years, to reflect new insights and methodologies that will likely arise through collaboration with State and local partners.

Chesapeake Bay Regional Agreement for Forest Conservation

In 2006, the Chesapeake Executive Council, consisting of the Governors of Maryland, Pennsylvania, and Virginia, and the Mayor of Washington, D.C., signed Directive 06-01. The Directive recognized that retaining, expanding, and sustainably managing forest lands are essential to restoring a healthy Chesapeake Bay. In December 2007, the Council signed an implementation document that identified specific actions that the four jurisdictions will take to conserve and restore forests in the Chesapeake Bay watershed, quoted in the following text boxes.

Retaining and expanding forests across the watershed is a cost-effective strategy for reducing pollution now and maintaining caps on nutrients in the future. An investment in sustainable forestry will not only help address water quality issues, but other challenges such as climate change, sprawl, and energy independence.

A Call to Action

Previous efforts to conserve forests, though significant, have not been sufficient to keep pace with the primary threat to our forests: conversion and fragmentation due to development. The Chesapeake needs bold policies, incentives and actions to protect, restore, and manage existing forests and to sustain the multiple environmental, economic, and social benefits forests provide. However, neither the Chesapeake Bay Program nor its members have adopted a clear, overarching statement on the importance of forests to guide current and future development decisions.

Therefore, it is our intent to maximize the area of forest by discouraging conversion of the most valuable forests and giving priority to forests in land conservation programs. Further, we recognize the importance of working forests and will ensure that public policies and market-based incentives help families retain and manage these forests sustainably.

On this foundation and in order to protect our most valuable forests and reduce the loss of forests to development, the signatories resolve to facilitate the following, consistent with their respective authorities:

- **By 2020**, permanently protect an additional 695,000 acres of forest from conversion, targeting forests in areas of highest water quality value. As part of this goal, 266,400 acres of forest land under threat of conversion will be protected by 2012.
- **By 2020**, accelerate reforestation and conservation in:
- Urban and suburban areas, by increasing the number of communities with commitments to tree canopy expansion goals to 120.
- Riparian forest buffers, by reaching a restoration rate of 900 miles/year until 70% of all stream miles in watersheds are buffered over the long term.
- **By 2010,** work with local governments, legislative delegations, land trusts, or other stakeholders to create or augment dedicated sources of local funding, such as through ballot initiatives, for the conservation of forests important to water quality. Where possible, we will support these through incentive programs (e.g., matching grants).
- **By 2009**, establish and implement a mechanism to track and assess forest land cover change every five years at the county and township scale, and to deliver this capacity to local governments, watershed groups, and other partners.

In addition, each state and the Federal agencies resolve to implement strategies and actions to address the following key elements, consistent with their respective authorities:

- Policies that discourage conversion of valuable forestlands, revision of policies that contribute to forest loss, and use of mitigation programs to more accurately reflect the full value of services lost when forest land is cleared for development.
- Collaboration with local governments, particularly those with significant areas of valuable and vulnerable forest land, to incorporate forest conservation into their land use plans and ordinances.
- Strong economic incentives for working with forest landowners and working with private and public partners to establish a framework for market-based ecosystem service transactions.
- Policies to reduce or ideally eliminate increased nutrient loads resulting from development, including sufficient incentives to use green infrastructure such as applying stormwater credits for tree canopy and natural area conservation.
- Opportunities for increased support for forest conservation practices and coordination of programs through collaboration between NRCS State Technical Committee partners and state forestry agencies.

State*	Total Forest in Watershed	Forest Already Protected	2012 Protection Goal	2020 Protection Goal
	Acres			
Delaware	175,900	48,400 (28%)	5,000	15,000
Maryland	2,400,000	724,000 (30%)	96,000	250,000
New York	2,400,000	295,000 (12%)	5,800	15,000
Pennsylvania	8,700,000	2,896,000 (33%)	38,500	100,000
Virginia	8,300,000	2,093,000 (25%)	135,000	315,000

* The District of Columbia will focus on a goal to increase urban tree canopy coverage, in lieu of forest protection. The urban tree canopy goal is in addition to implementing goals to facilitate retaining existing trees in priority areas.

For its part, Maryland responded to the Directive with the Sustainable Forestry Act of 2009, which proposes to "…. protect private and public forests for their ever more important environmental benefits, to enhance the ability of landowners to profit from their forests, and to set a standard for the other signatories of the *Chesapeake 2000 Agreement* and the *2007 Forestry Conservation Initiative*." The Task Force to Study No Net Loss of Forest, created by SB 431 in 2008, issued its report in January 2009 (www.dnr.state.md.us/dnrnews/pdfs/ NNLTFFINALREPORT1.pdf)

County Plans and Programs for Agricultural Land Preservation

The Guidelines for State and Local Land Preservation, Parks, and Recreation Planning, October 2003 asked the counties to do each of the following in the agricultural land preservation chapters of their LPPRPs:

- **Goals**: Identify county goals, describe relationship to State goals, and identify an acreage goal or the county's intentions for one.
- **Easement Acquisition Mechanisms**: Describe the preservation tools on which the county relies and how they are used, in addition to MALPF and Rural Legacy.
- **Funding**: Describe the contributions of State and local funds to preservation in designated preservation areas. Describe how much has been provided through other financial incentives. Describe past rates of easement acquisition and what they are likely to be, given foreseeable funding.
- **Zoning and Other Land Use Tools**: Describe how they support preservation investment and goals, including the compatibility of farming with the amount and type of residential development allowed by zoning and subdivision regulations in agricultural zoning districts, and the subdivision provisions that require delineation of preservation remainders before lots are delineated and lot yields determined, using standards to ensure that remainders will retain capacity for agricultural production.
- **Development Market**: Evaluate the effects of past and current zoning and subdivision procedures on development markets, and the potential effects of any changes the county is considering on residential development and markets.
- **Strengths and Weaknesses**: Identify the strengths and weaknesses in the ability of county implementation programs and State and local funding sources to achieve preservation goals.
- **Program Improvements**: Identify improvements the county is pursuing and the expected timeline for implementing the improvements.
- **Land Use Stability:** Evaluate the degree to which combined land use and preservation tools have stabilized the land base enough to provide time for easement acquisition to accomplish preservation goals before the land resource is excessively compromised by development.

In their LPPRPs, many counties cited the low level of State easement funding—compared to need—and the diversion of those funds to balance the State budget, as the two biggest shortcomings of the State's role in agricultural land preservation.

Most of the counties did a good job of evaluating the strengths and weaknesses of their own programs and of discussing needed improvements. The general tone was sober but optimistic: even counties that acknowledged an inability to achieve goals by 2030 or even 2060 reported that program improvements, either imminent or proposed, would put their land preservation programs on a sound footing.

County Plans and Programs for Natural Resource Conservation

Maryland's 2003 Guidelines for State and Local Land Preservation, Parks, and Recreation Planning raised a series of questions about the range of approaches that local jurisdictions were taking to natural resource conservation and asked local governments to address them in their plans. Generalized responses from the local plans are summarized below for each question, and some examples of specific responses are included as well.

Inventory and Assessment: Has the county completed a general or detailed inventory and assessment of natural resource lands and environmentally sensitive areas, independent of or in addition to DNR's green infrastructure survey? If so, are there findings that can be shared with the State on the status of critical terrestrial and aquatic habitats and biological communities and the cultural and economic value of any of the inventoried resources to the county and the State?

Fifteen of the 24 local plans provided detailed summaries of natural resource inventories, and included some level of assessment of the quality of the inventory.

Green Infrastructure Strategy: Does the county have a strategy to map, expand, and better connect forests, farmlands, and other natural lands as a network of contiguous green infrastructure? If so, what is the status of the effort? Is the strategy an adopted part of the comprehensive plan? What implementation tools are being employed?

Contiguity and connectivity are very important to sustain natural resources. For this reason, it is essential that local jurisdictions have a strategy to map, expand, and better connect forests, farmlands, and other natural lands as a network of contiguous green infrastructure. Half of the local plans presented a strategy for connectivity of natural resources. Approximately 41 % indicated that these strategies had been incorporated

into local comprehensive plans. All of the plans that included a strategy identified implementation tools to achieve contiguity and connectivity. A few examples are:

- Develop simple, low-cost easement mechanisms for private properties to allow county forest conservation mitigation funds to be used to establish forest corridor connections between high priority forest patches.
- Designate agricultural preservation and Rural Legacy areas to guide conservation efforts for agricultural, natural, scenic and historical resources.
- Identify and prioritize existing and desired pieces of a countywide contiguous network of all environmentally important areas.
- As part of park development or rehabilitation plans, prepare an environmental evaluation that includes review of local environmental guidelines, identification of stream buffers and floodplains, sensitive species areas, soils with severe limitations for development, contiguous forest habitat, and special fisheries management areas.
- Identify and prioritize land for a countywide contiguous network of all environmentally important areas, including all parks and other local open space. Identify existing gaps in the network.
- Forest Conservation and Management Agreements between landowners and the Maryland Forest Service: landowners with five acres or more in contiguous woodland receive a preferential property tax assessment for agreeing to manage their forested land according to a Forest Stewardship Plan approved by the Maryland Forest Service.

Forest Land and Resource Base: Does the county share the State's objective to support a productive forest land base and forest resource industry, emphasizing the economic viability of privately owned forestland?

Fourteen of 24 local plans indicated that the local government shares the State's objective to support a productive forest land base and industry, with an emphasis on economic viability of privately owned forestland. Nine plans didn't address this objective or provided little information. Counties indicating the same or comparable objectives described implementation tools such as:

- Using regulatory powers to protect and enhance forest resources through the development process, in conjunction with land preservation programs and resource conservation plans to protect forest and riparian buffers.
- Where forestland exists in large enough areas to support a forest resource industry, use zoning ordinances and regulations to allow and support harvesting of timber on private property.

- Encourage private landowners to preserve forested areas through the agricultural and conservation easements through national, regional, State, and local programs and land trusts.
- Develop local regulations to insure that the landscape is preserved in its natural state by minimizing tree and soil removal. The development of a site should maintain maximum natural topography and cover.

Watershed and Water Resource Management: Does the county have a systematic procedure to manage watersheds in ways that protect, conserve, and restore stream corridors, riparian forest buffers, wetlands, floodplains, and aquifer recharge areas and their associated hydrologic and water quality functions? Does the strategy involve the comprehensive planning process, zoning, and subdivision and development procedures on a watershed level?

Eighteen of the 24 local plans indicated that the local government has systematic management procedures to protect, conserve, and restore stream corridors, riparian forest buffers, wetlands, floodplains, and aquifer recharge areas and their associated hydrologic and water quality functions. Some of the strategies are:

- Planning and development review process that uses available State and county inventories of land cover, natural resource lands, protected lands, sensitive species review areas, and other environmental features, integrated into a GIS database.
- Integrated watershed management program that addresses federal pollution control mandates, State of Maryland initiatives for restoration of the Chesapeake Bay, and inter-governmental priorities such as the National Pollutant Discharge Elimination System (NPDES) requirements, Tributary Strategies Partnership Agreements, and water supply management agreements; Maryland Economic Growth, Resource Protection, and Planning Policy; Coastal Non-Point Pollution Control Program; and Total Maximum Daily Load (TMDL) pollutant limits.
- Floodplain and critical area overlay districts, both of which protect riparian areas from the effects of development.

Measurable Natural Resource Conservation Objectives: Has the county established measurable objectives for natural resource conservation that it considers achievable?

Most jurisdictions did not identify countywide or area-specific measurable objectives against which to evaluate growth and development impacts versus conservation success. Many emphasized shortcomings in the State's role. Examples include lack of State funding for the preservation of natural resource lands, the need to streamline the easement acquisition and application process under the Rural Legacy program, and the need for local access to the State's inventory of rare, threatened, and endangered species to flag potential development sites for habitat review.

Other Essential Regulatory and Management Programs: What other regulatory and management programs does the county consider essential in protecting natural resource features of environmentally sensitive land on and around developing and developed parcels?

Twenty of 24 local plans indicated that the jurisdiction has other regulatory and management programs considered essential to protecting natural resource features of environmentally sensitive lands on and around developing and developed parcels. However, few provided details about the roles these programs play. Many counties cited a lack of funding to implement such programs.

Ecotourism and Natural Resource-based Recreation for Economic Development: Does the county have a strategy to use ecotourism and natural resource-based outdoor recreation activities to generate private and public economic activity and support long-term conservation objectives?

Sixteen of 24 plans discussed strategies for ecotourism, but this issue received little emphasis from most of them.

Shortcomings in State / Local Ability to Achieve Natural Resource Goals: What are the shortcomings in the ability of combined State and local programs to achieve county goals for natural resource protection?

Commonly noted needs include the following:

- The county and State should collaborate to review State-owned lands that could serve unmet public needs including water access, hunting, and bird watching, and find ways to make these lands available for appropriate recreational uses.
- The State should continue to provide funding for protection of land with easements and fee simple acquisitions. Some State funding should be available for habitat enhancement and protection.
- As development pressure and population increase, natural resource protection programs must continue to be funded and additional measures implemented to ensure protection of Maryland's forests, tidal wetlands, natural shorelines, and other features for future generations, for ecological and economic reasons.
- More State / local "partnership" acquisitions are needed, combining State and local funds, to acquire lands that might otherwise not be purchased.
- As development pressure in the counties increases, a greater emphasis on managing growth will be required to control the impacts that new development will have on natural resources.
- Without continued coordination and cooperation between the State's growth management mechanisms and land preservation programs, the goals of both the State and counties for conservation and preservation will never be met.

Effectiveness of Local Zoning, Subdivision, and Development Procedures for Environmentally Sensitive Areas: Are zoning, subdivision, and development regulations and procedures effective in their ability to protect environmentally sensitive areas on and around developed parcels?

Most counties mention that they have regulatory tools in place to protect natural resources, but few provided details of how well they are working. It is important to note that some counties with fairly comprehensive conservation planning and land management tools did not emphasize them as an integral part of their natural resource conservation programs.

Evaluation of Strengths and Weaknesses: Finally, the *2003 Guidelines* asked each jurisdiction to include an evaluation of the strengths and weaknesses of combined State/local natural resource conservation efforts, and identify improvements the county will consider to overcome weaknesses.

Fewer than half of the local plans included this evaluation.

Notable weaknesses identified by counties that provided an evaluation were lack of funding for programs and staff; lack of GIS capabilities to inventory, track, and analyze natural resource areas; and failure to focus adequately on preserving more land and on ecotourism opportunities. Several counties emphasized an inability to interest property owners in preservation before they decide to sell their land for development. Few counties recognized land management tools as a serious weakness in the effort to protect natural resources.

Notable strengths ranged from protective zoning districts to efforts to integrate comprehensive and natural resource planning, enhancements of environmental regulations, and excellent GIS mapping and analytical capabilities.

Statewide Analysis of Rural Resource Lands

Background

One objective of this plan is to evaluate the ability of Maryland's preservation programs to achieve the goals for agricultural and natural resource lands. To do so, we built on several assessments performed in recent years by or for these programs. These include the deliberations of the Task Force to Study the Maryland Agricultural Land Preservation Foundation (the Task Force) which led to the establishment of Priority Preservation Areas (PPAs) in the Agricultural Stewardship Act of 2006; a scoring system developed for the Rural Legacy program; and a priority conservation area strategy developed for Stateside POS.

In its January 2004 Final Report, the Task Force to Study the Maryland Agricultural Land Preservation Foundation recognized as a priority "…the need to overcome two major shortcomings in the ability of the Foundation to achieve its statutory goals: lack of adequate support in many areas of the state for preservation goals from local zoning and related land use management tools, and public funding that, in the long-term, is also inadequate to support achievement of those goals.[2]"

The Task Force observed that, as development pressure and demand continue to expand from the metro cores to rural areas, zoning will become increasingly important in determining where the greatest investment per acre is required to preserve agricultural land. They also emphasized that, "…because there is no statewide strategy to achieve Program goals that recognizes the essential role of zoning, there is also no incentive to protect State preservation investment through zoning."[3]

The Task Force concluded that "…it is clear that some combination of more easement money and better zoning is necessary in many areas to control subdivision and development and curb the spread of urban blight and deterioration. Most farmers and supporters of farm industries recognize that more development, directly around a farm and in a farming region, means more conflicts between the interests of farmers and subdivision residents, and more limits on the kinds of production that can take place on the farm."

Given these conditions, the Task Force concluded that it was important to evaluate the return on public investment in agricultural land preservation by answering two questions:

(1)Which goals of the Program are being achieved, and

(2) What changes are necessary to ensure long-term success?

The Task Force also concluded the following:

> Despite the fact that some forms of production continue even in the most heavily subdivided agricultural zones in the state, the range of agricultural products that are likely to be profitable in Maryland will be limited increasingly if development continues to fragment the land and surround farms. In heavily developed areas, some farmland preserved with public funds is likely to become private estates surrounded by residential development. That outcome accomplishes only one goal of the program—to preserve farm and forest land as open space—and is not, in the view of the Task Force, good return on public investment in agricultural easements.[4]

To evaluate the ability of Maryland's preservation programs to achieve goals for agricultural and natural resource lands, we use an analysis based on one used by the Task Force, expanded to include both agricultural and natural resource lands. We also use the degree to which conservation goals are being successfully accomplished as the measure of return on public conservation investment, similar to the concept used by the Task Force.

The resulting maps provide a composite picture of agricultural and natural resource lands from two sources:

- County resource conservation zoning districts; and
- DNR's recently completed inventory of natural resource land[5], developed as a step in the targeting strategy recently adopted by stateside POS.

These two land categories were analyzed together as rural resource lands. Most natural resource lands included in DNR's inventory lie primarily outside Priority Funding Areas[6] (PFAs) in the more rural parts of counties, with a few notable exceptions. These include some relatively narrow corridors and a few larger blocks of land, within PFAs or areas zoned for low density development that is essentially transitional from PFAs to rural zoning districts. The focus of the analysis presented here is on land and resources outside PFAs.

The degree to which land preservation goals are being achieved can be evaluated by measuring the degree to which Maryland's rural landscapes have been and are likely to be fragmented by residential development in the future, while these programs are attempting to preserve them.

Excessive residential development compromises rural ecosystems, diverse, profitable agriculture and the integrity of the land and resources in many ways. Among them:

- Traffic interferes with movement of agricultural machinery, livestock, and product between land used for production, processing, and distribution;
- Polluted runoff and air from development sites, roadways, and traffic compromise both terrestrial and aquatic habitats, especially those that support rare and sensitive species and biological communities. Such habitats have largely already been eliminated in Maryland's intensely developed areas;
- Conflicts between farmers and non-farm occupants of the landscape, including litigation, nuisance, and liability concerns, impact a farmer's costs, constrain farming practices, and affect efficiencies and profitability associated with production and marketing of many agricultural commodities. These effects in turn constrain production options;
- Altered hydrology and habitat degradation diminish the health of aquatic ecosystems, especially in small watersheds supporting low order streams;
- Reduced availability of agricultural production supplies and processors, distributors, and wholesale markets for agricultural products reduces the profitability and feasibility of farming;
- Forested cover that is critical for water quality protection is removed and what remains is often fragmented to accommodate residential lots and access roads; and

- Terrestrial habitat conditions necessary to sustain rural plant and animal populations and communities deteriorate, such as those required for successful reproduction of many migratory forest-interior breeding birds in Maryland.

By the time that subdivision and development in rural landscapes fragment resource lands in the ways described, many goals of Maryland's resource conservation programs have been compromised.

Analysis and Interpretation

In light of these relationships between residential development, rural resource integrity and the long-term success of Maryland's conservation programs, we used four measures to examine the degree to which Maryland's goals for conservation are being achieved or compromised thus far, and to develop a prognosis for likely long-term outcomes. The four measures are called Status, Vulnerability, Threat, and Land Use Stability.

- The **"Status"** of rural resource lands is a measure of the number of residential lots already subdivided on those lands;
- The **"Vulnerability"** of rural resource land is a measure of the number of additional residential lots that can be further subdivided and developed under existing local zoning and land use management tools. Existing public land ownership or conservation easements are subtracted from the calculations, leaving a worst case scenario that shows what an area would be like if everything else that can be developed is developed.
- The **"Threat"** to rural resource land is an estimate of potential future market demand for residential lots, estimated by measuring the amount of residential development that occurred on resource lands during the decade 1997 – 2006, and assuming a similar distribution of county residential growth projected to the year 2030.

The fourth measure, **"Stability of Rural Resource Lands,"** is used here to assess the likelihood that the integrity of the land resource can be sustained into the future, assuming aggressive land preservation efforts by the State and local governments.

It is based on simultaneous consideration of Status, Vulnerability and Threat to provide an indicator of the potential return on conservation investment that might be reasonable to expect in a given area:

- If land is already highly fragmented by development (Status), many more lots are possible (Vulnerability), and continued significant market demand for residential lots appears likely (Threat), the prognosis for land use stability and conservation success is relatively poor.
- If land is largely unfragmented by development, very few additional lots are possible, and market demand for residential lots appears likely to remain insignificant, the prognosis for land use stability and conservation success is relatively good.

The greater the degree of stabilization, the better the land base is protected from development and the more time provided for preservation, before development excessively compromises the land and resources.

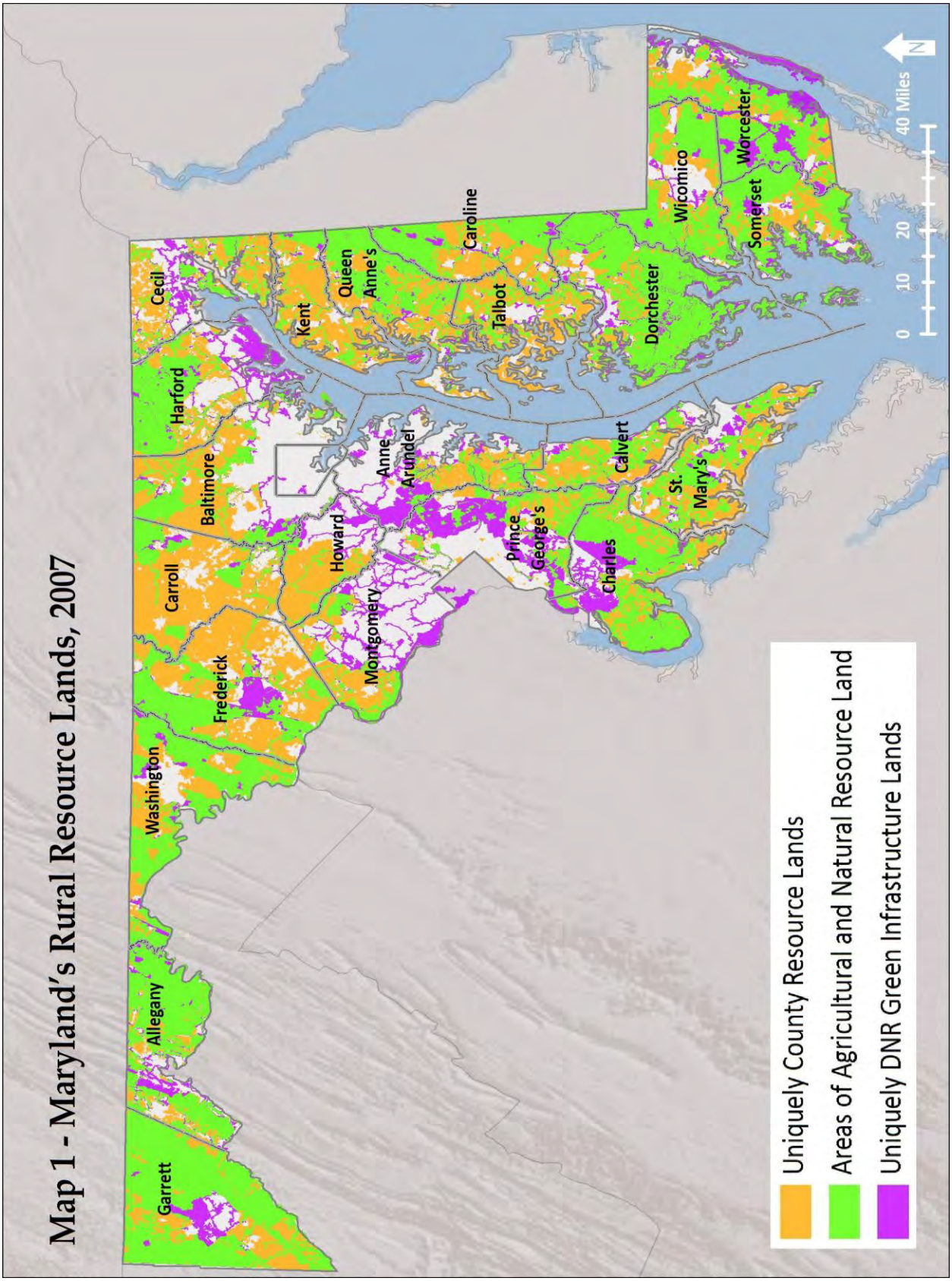
For the Analysis:

- The geography of "rural resource lands" was determined using county resource conservation zoning districts and DNR comprehensive inventory of natural resource lands, outside of Priority Funding Areas.
- This composite geography of "rural resource lands" was divided into a network of 100- acre grid cells.
- Information for each of the four measures used in the analysis was derived for each cell using data from numerous sources.
- The results for each measure were mapped statewide.
- The results for each measure were also tabulated by county and other sub-geographic areas of interest, and summarized statewide graphically for comparison among counties and other areas.

Maryland's Rural Resource Lands, 2007

Map 1 shows all the lands that comprise agricultural and natural resource land in our analysis. They fall into two categories:

- County resource conservation districts, as designated by the counties themselves in their zoning codes; and
- Land containing DNR's natural resource inventory, which consists of Green Infrastructure, rare species habitats, aquatic life hot spot, and forests important for the protection of water quality.


Map 1 - Maryland's Rural Resource Lands, 2007
Garrett
Allegany
Washington
Frederick
Carroll
Baltimore
Harford
Cecil
Kent
Queen Anne's
Caroline
Talbot
Dorchester
Wicomico
Somerset
Worcester
Howard
Montgomery
Anne Arundel
Prince George's
Charles
Calvert
St. Mary's
0 10 20 40 Miles
N
Uniquely County Resource Lands
Areas of Agricultural and Natural Resource Land
Uniquely DNR Green Infrastructure Lands

Status of Rural Resource Lands

Map 2 classifies the ***Status of Maryland's Agricultural and Natural Resource Lands, 2007*** in three categories: 1) largely unfragmented by subdivision and development; 2) moderately fragmented; or 3) highly fragmented. The map's legend provides additional information about these categories. The inset image on the map illustrates the concepts behind these classifications in greater detail.

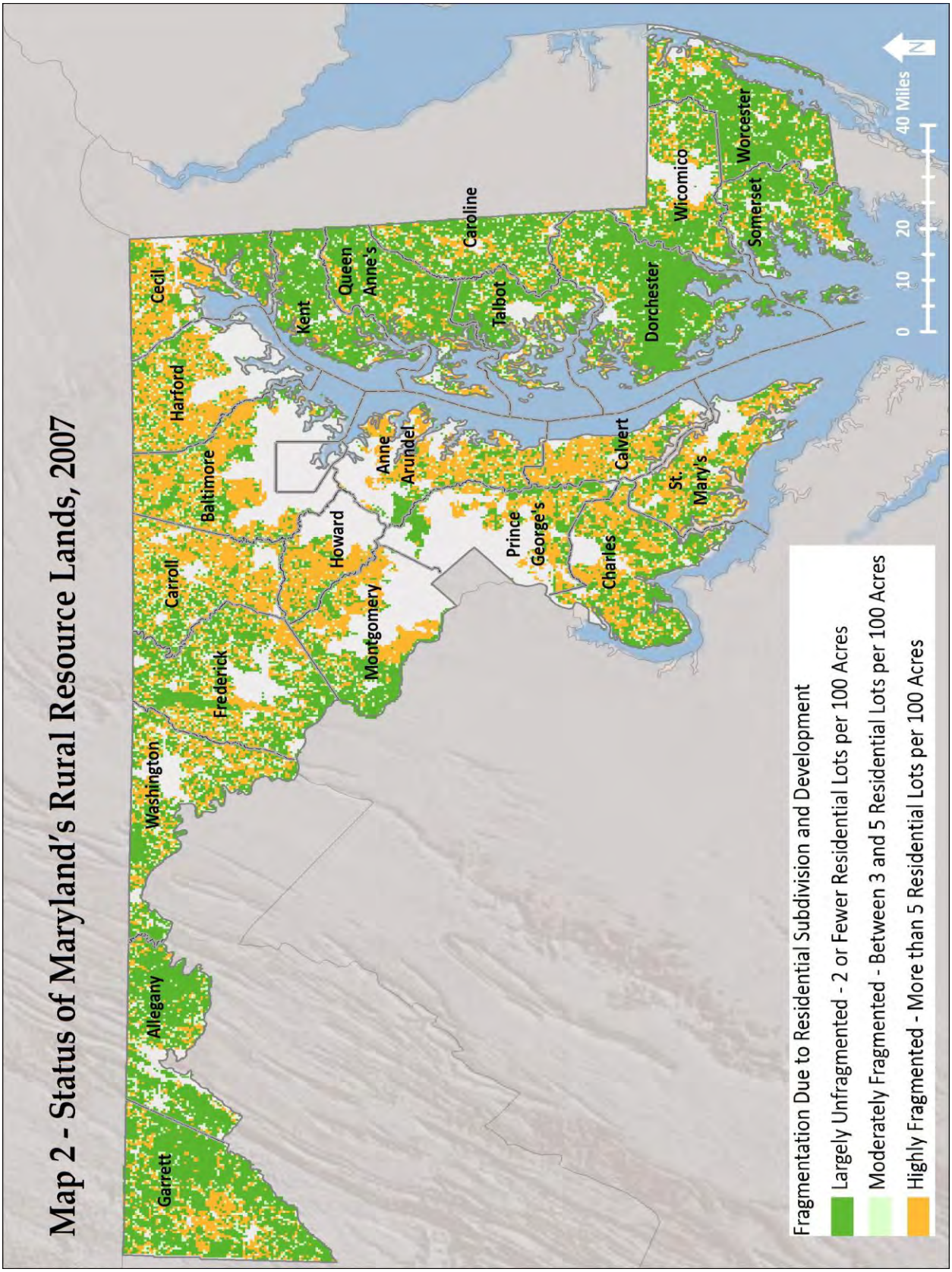
The implications of **Map 2** can be interpreted if you think of Maryland as comprising three groups of counties. We classified counties as most rural (Garrett, Allegany, Kent, Queen Anne's, Caroline, Talbot, Dorchester, Wicomico, Somerset, and Worcester), core metropolitan (Montgomery, Baltimore, and Howard), and transitional metropolitan counties (in transition from rural status toward conditions more like metropolitan counties – Prince George's, Anne Arundel, Washington, Frederick, Carroll, Calvert, Charles, St. Mary's, Harford, and Cecil).

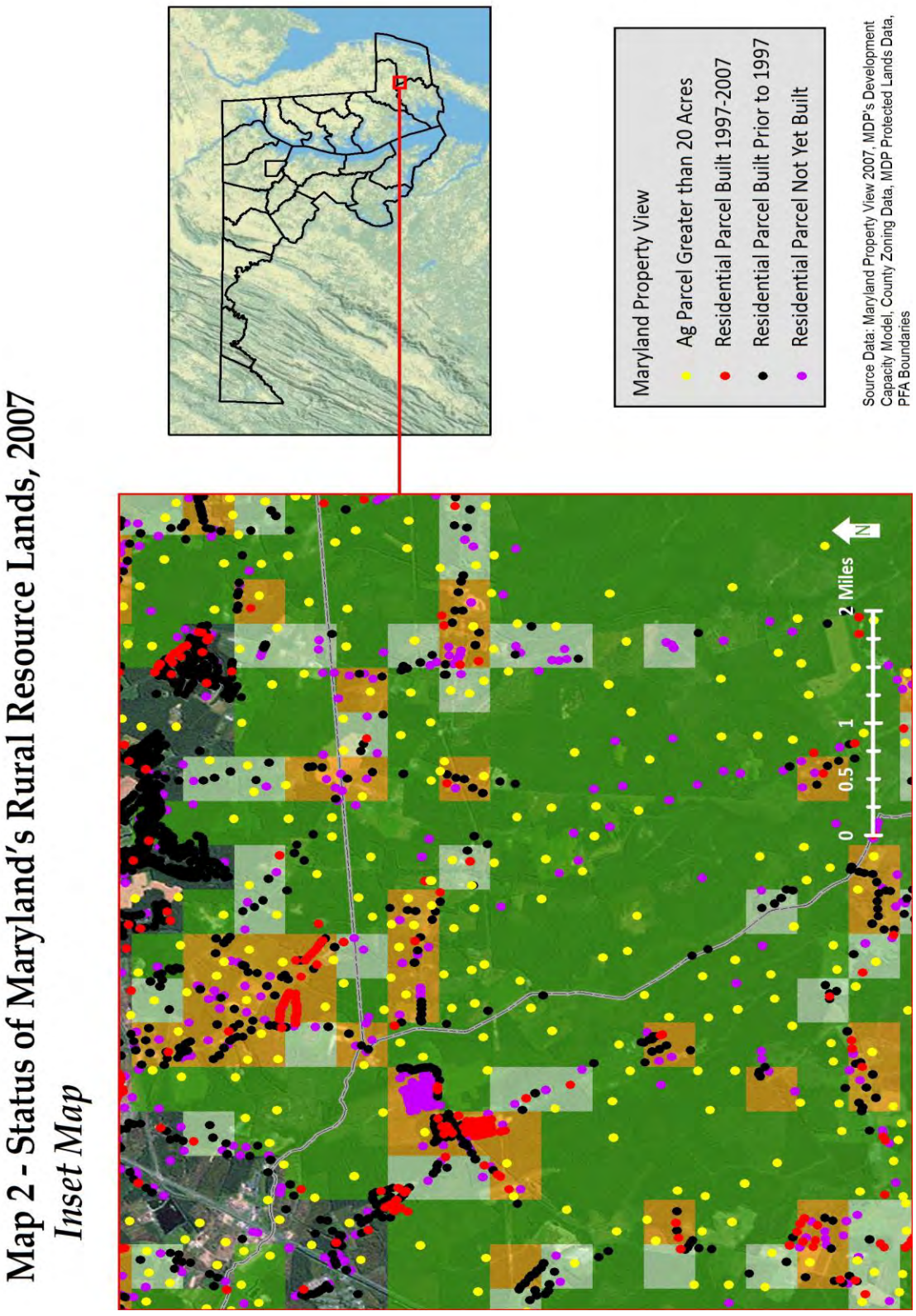
The most rural parts of the state furthest from the metropolitan core–Garrett and Allegany Counties in the west, and much of the Eastern Shore–are largely unfragmented at present (mostly dark green with relatively little light green and orange). The map also shows that many of the "transitional" counties outside the metropolitan core are in fact transitioning, indicated by much higher incidences of light green and orange than most rural counties: Washington, Frederick, northern Cecil, Calvert, Charles, and St. Mary's.

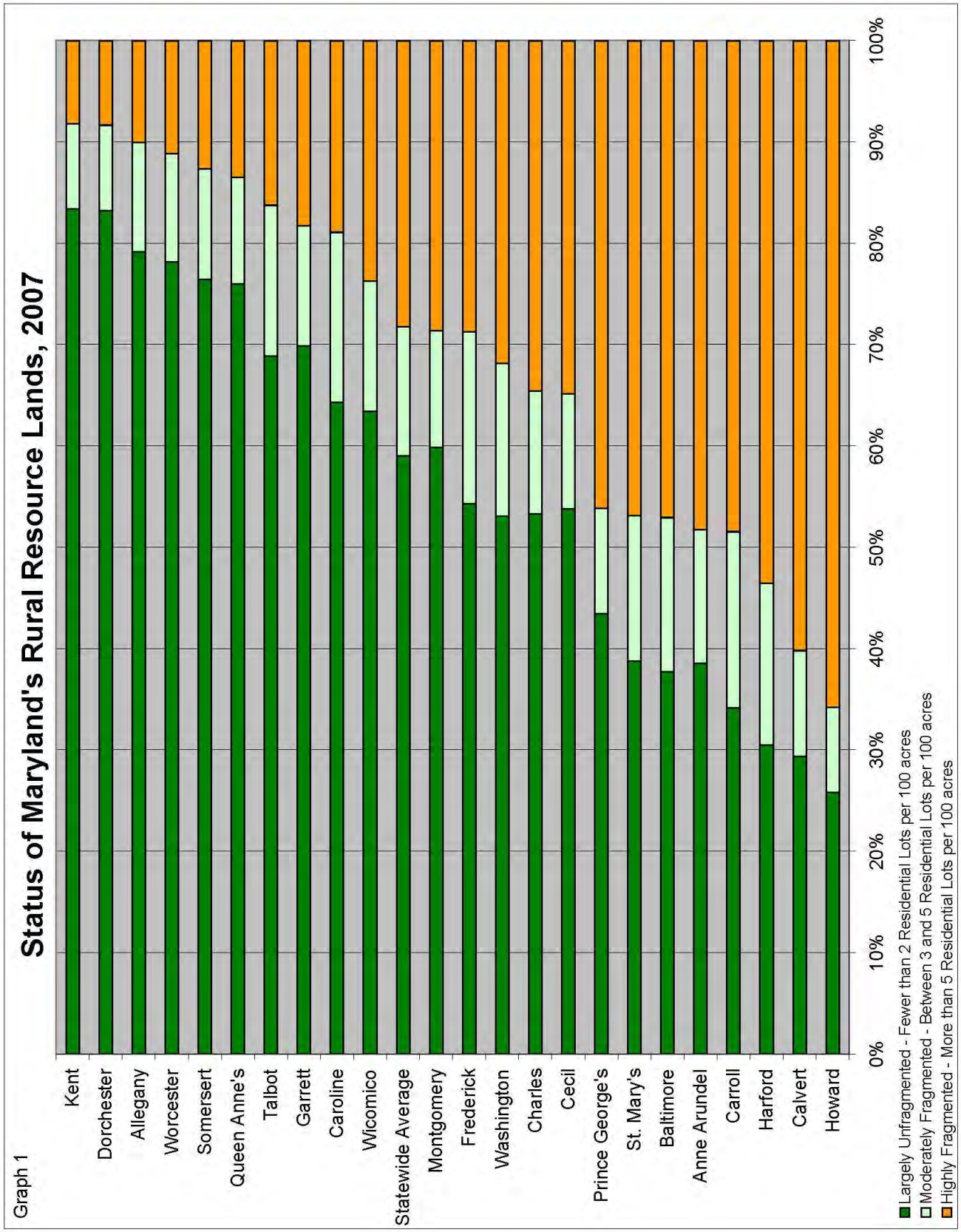
As one might expect, counties we classified as "rural" occupy all top 10 positions on **Graph 1*: Current Status of Agricultural and Natural Resource Lands by County***. The higher a county's position, the greater the percentage of its rural resource lands that is "largely unfragmented" or only "moderately fragmented" by subdivision and development. Montgomery, the most populous county in Maryland, occupies the 11th position and has a greater percentage of "largely unfragmented" rural resource land than almost all of the "transitional" counties.

Rural resource lands in the core metropolitan counties of Baltimore, Howard, and Montgomery counties have been subject to the most intense development pressure in the state for the longest period of time. All three counties have had aggressive easement acquisition programs that have preserved much land, helping to constrain fragmentation by residential subdivision more than would otherwise be the case. About 60%, 38%, and 26% of rural resource land in Montgomery, Baltimore, and Howard counties, respectively, remain "largely unfragmented" as represented on **Map 2** and **Graph 1**.

Montgomery County has preserved more farmland than almost any county in the nation, primarily through its transferable development rights program.


Map 2 - Status of Maryland's Rural Resource Lands, 2007
Allegany
Garrett
Washington
Frederick
Carroll
Baltimore
Harford
Cecil
Kent
Queen Anne's
Caroline
Talbot
Dorchester
Wicomico
Somerset
Worcester
Howard
Montgomery
Anne Arundel
Prince George's
Charles
Calvert
St. Mary's
0 10 20 40 Miles
N
Fragmentation Due to Residential Subdivision and Development
Largely Unfragmented - 2 or Fewer Residential Lots per 100 Acres
Moderately Fragmented - Between 3 and 5 Residential Lots per 100 Acres
Highly Fragmented - More than 5 Residential Lots per 100 Acres


Map 2 - Status of Maryland's Rural Resource Lands, 2007
Inset Map
Maryland Property View
Ag Parcel Greater than 20 Acres
Residential Parcel Built 1997-2007
Residential Parcel Built Prior to 1997
Residential Parcel Not Yet Built
Source Data: Maryland Property View 2007, MDP's Development Capacity Model, County Zoning Data, MDP Protected Lands Data, PFA Boundaries
N
0
0.5
1
2 Miles


Graph 1
Status of Maryland's Rural Resource Lands, 2007
Kent
Dorchester
Allegany
Worcester
Somersert
Queen Anne's
Talbot
Garrett
Caroline
Wicomico
Statewide Average
Montgomery
Frederick
Washington
Charles
Cecil
Prince George's
St. Mary's
Baltimore
Anne Arundel
Carroll
Harford
Calvert
Howard
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Largely Unfragmented - Fewer than 2 Residential Lots per 100 acres
Moderately Fragmented - Between 3 and 5 Residential Lots per 100 acres
Highly Fragmented - More than 5 Residential Lots per 100 acres

The ability to accomplish this is primarily due to the county's agricultural zoning, which is among the most restrictive in the state: it allows only one on-site residential development right per 25 acres.

Baltimore County, somewhat below Montgomery on the graph, is the 3rd most populous jurisdiction in the state. County resource conservation zoning districts range from one lot per five acres to one lot per 50, with the bulk of the land allowing one or fewer lots per 25 acres. Roughly 53% of Baltimore County's rural resource land is either largely or moderately unfragmented. This percentage is equal to or higher than those of five transitional counties subject to smaller markets for shorter periods of time, including Saint Mary's, Anne Arundel, Carroll, Harford, and Calvert counties.

In the third core metro county, Howard, permissive zoning allows one lot per 4.25 acres. In the metropolitan area's intense market for rural residential lots, this zoning has produced the most highly fragmented rural resource land in the state, despite Howard County's pioneering efforts in land preservation, including easement acquisition through installment purchase agreements and a large investment of county funds in preservation.

Of the transitional counties, Carroll, Harford, and Calvert counties have had aggressive easement acquisition programs for some of the time during which they have experienced high development pressure. Their relatively high levels of fragmentation are largely a function of more permissive zoning in effect during much of that time, notwithstanding the fact that Calvert has substantially strengthened its zoning protection in recent years, and Carroll is working to do so.

Taken by itself, the most important conclusion from the Status analysis is that in the long-term, zoning and related land use tools are as important or more important than easement acquisition. If zoning and land use tools do not stabilize the land base adequately—i.e., relative to the level of market demand for residential lots—land resources will be excessively compromised by development before preservation goals can be achieved.

Vulnerability to Additional Development

Map 3 classifies the ***Vulnerability of Maryland's Agricultural and Natural Resource Lands, 2007*** into three categories: 1) limited vulnerability to further subdivision and development; 2) moderate vulnerability to further subdivision and development; and 3) high vulnerability to further subdivision and development. Classifications are explained further by the legend and the graphic image on the map.

The largest contiguous blocks of dark and light green land on this map reflect either limited amounts of development allowed by county zoning and related land use management tools, relatively large concentrations of preserved or otherwise protected lands, or combinations of the two.

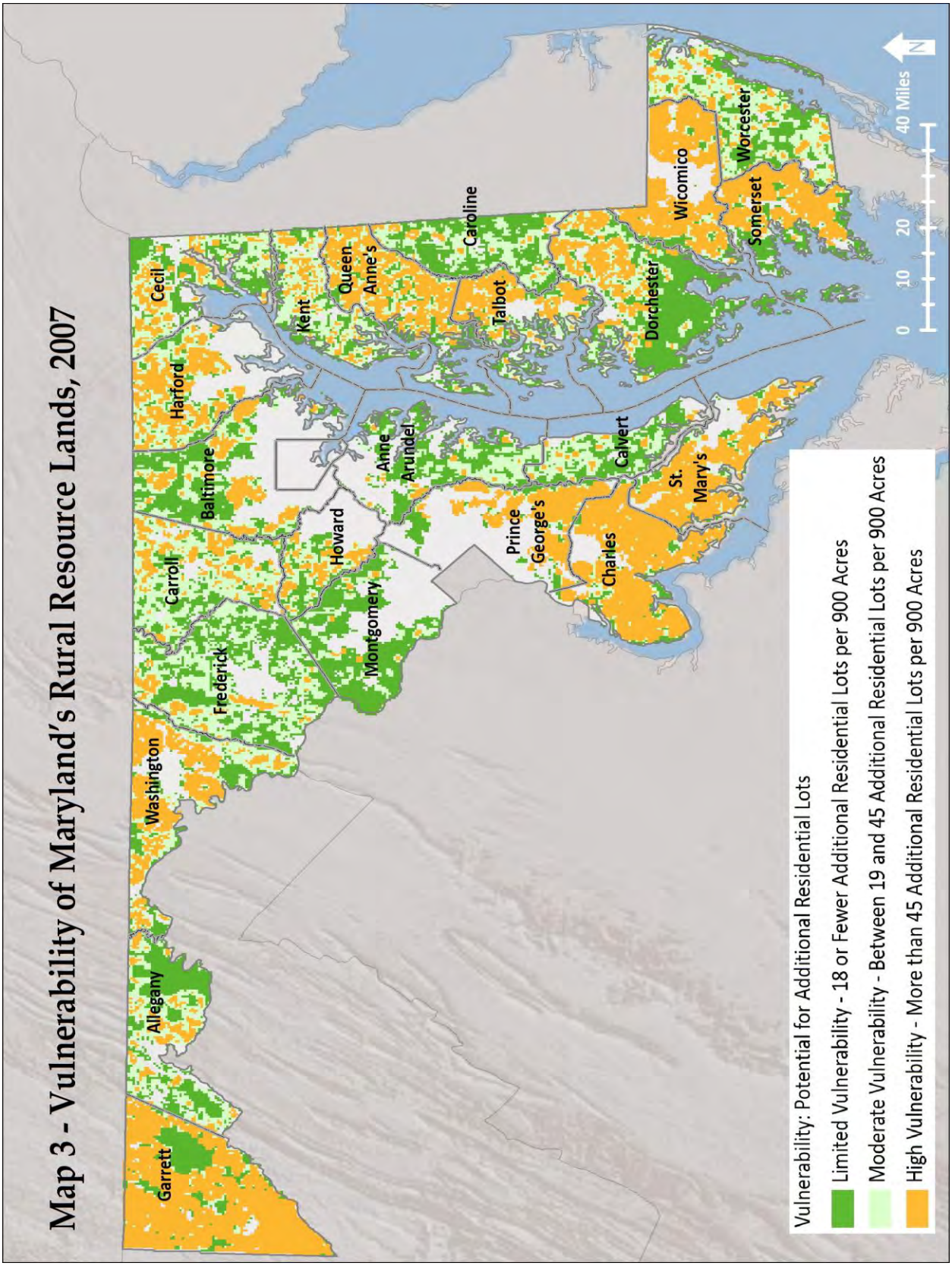
The largest blocks of orange land suggest that the integrity of resource land, including the preserved / protected lands within those blocks, is at considerable risk from on-site or surrounding subdivision and development (see the graphic and explanatory narrative on the map).

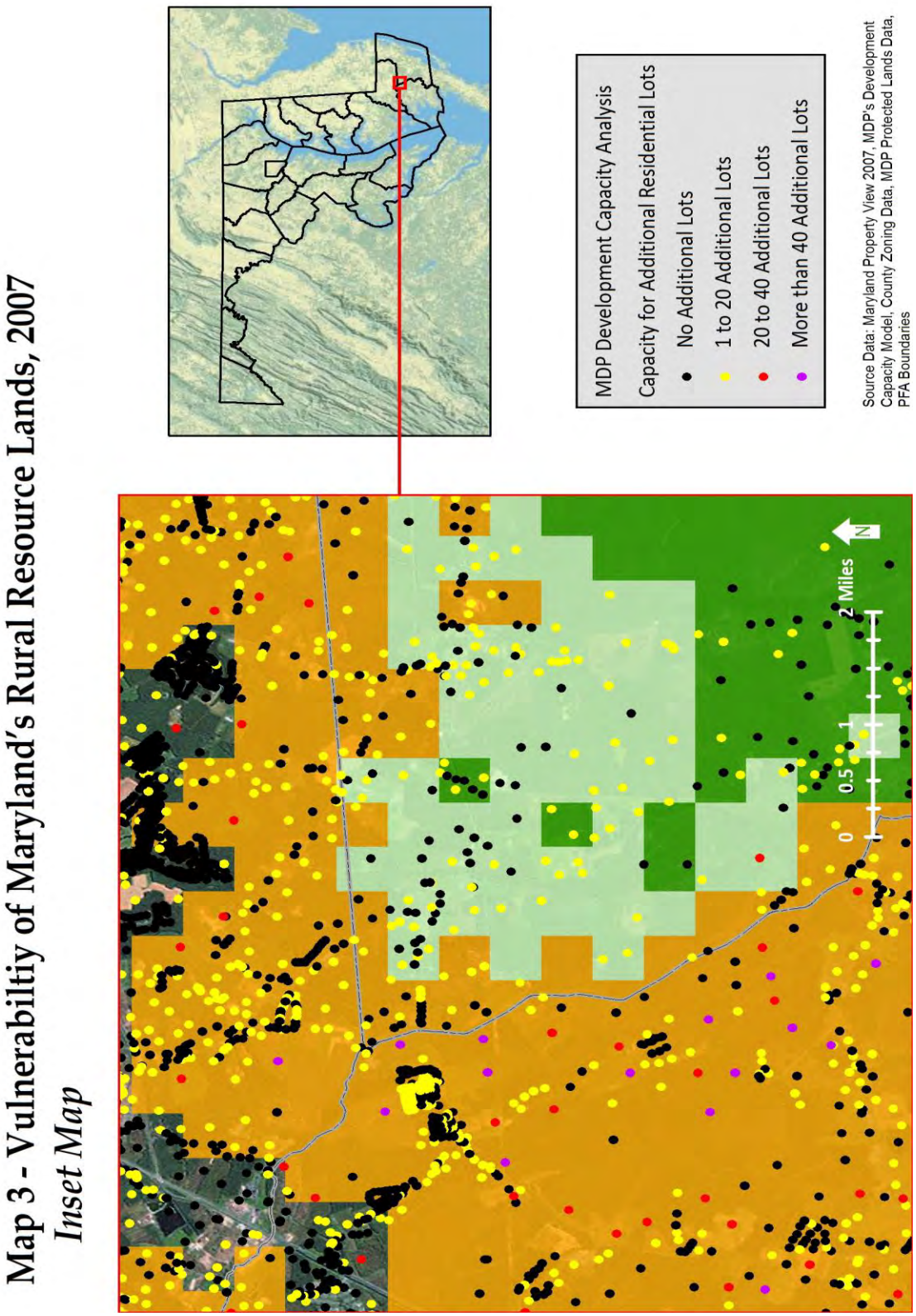
Vulnerability is most extensive in much of southern Maryland (including Prince George's County), Wicomico, Garrett, Somerset, and Queen Anne's Counties—60% or more of the land is highly vulnerable (**Map 3** and **Graph 2).** [Note: This analysis did not include the large, permanently preserved cluster remainders in Queen Anne's County on which agriculture still flourishes, nor did it include recent adjustments to St. Mary's zoning that may reduce lot yields. Once the data from these counties are received and incorporated into MDP's model, the two counties should look better on future calculations of vulnerability, and for land use stability as well (see **Map 5** and **Graph 5**).]

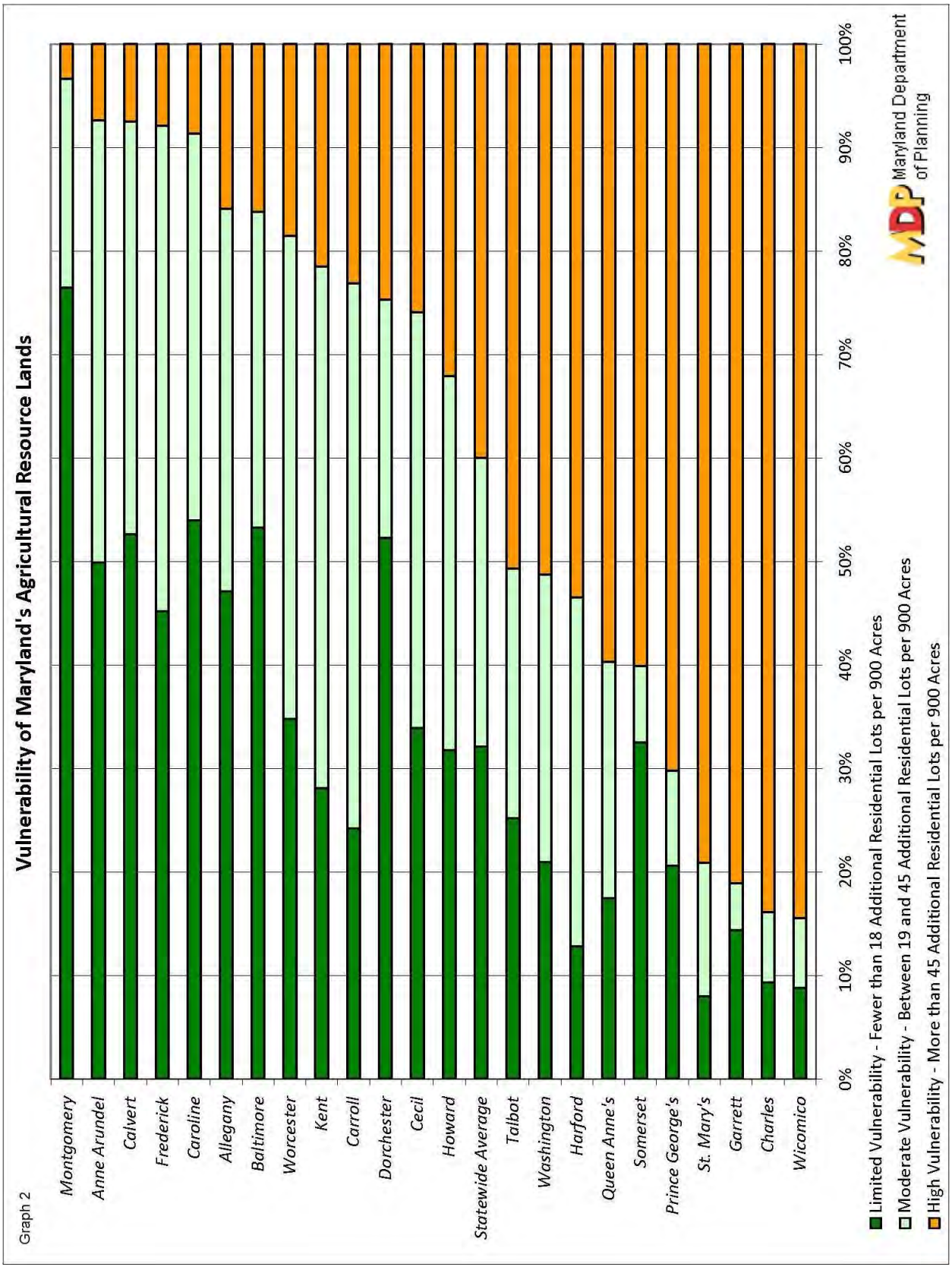
Graph 2, ***Vulnerability of Maryland's Rural Resource Lands***, summarizes the percentage of rural resource land in each county subject to limited, moderate, and high levels of vulnerability as defined here. The higher each county's position on the graph, the less vulnerable its rural resource lands are to additional subdivision and development. Each county's position on the graph is based on the combined percentage of land in dark and light green categories (limited and moderate vulnerability, respectively).

Counties' positions on **Graph 2** are, with some exceptions noted below, largely a function of zoning and the extent of preserved land.

Of the rural counties, Allegany, Worcester, Dorchester, Kent, and Caroline are among the least vulnerable in the state (toward the top of **Graph 2**, above the Statewide Average). Dorchester and Allegany's positions are primarily due to the extent of land that is protected by public ownership. Worcester, Kent, and Caroline counties' positions are due primarily to their protective zoning, but all three also have considerable land preserved under easement.


Map 3 - Vulnerability of Maryland's Rural Resource Lands, 2007
Garrett
Allegany
Washington
Frederick
Carroll
Baltimore
Harford
Cecil
Howard
Montgomery
Anne Arundel
Prince George's
Charles
Calvert
St. Mary's
Kent
Queen Anne's
Caroline
Talbot
Dorchester
Wicomico
Somerset
Worcester
0 10 20 40 Miles
N
Vulnerability: Potential for Additional Residential Lots
Limited Vulnerability - 18 or Fewer Additional Residential Lots per 900 Acres
Moderate Vulnerability - Between 19 and 45 Additional Residential Lots per 900 Acres
High Vulnerability - More than 45 Additional Residential Lots per 900 Acres


Map 3 - Vulnerabiltiy of Maryland's Rural Resource Lands, 2007
Inset Map
MDP Development Capacity Analysis
Capacity for Additional Residential Lots
No Additional Lots
1 to 20 Additional Lots
20 to 40 Additional Lots
More than 40 Additional Lots
Source Data: Maryland Property View 2007, MDP's Development Capacity Model, County Zoning Data, MDP Protected Lands Data, PFA Boundaries
N
0 0.5 1 2 Miles


Graph 2
Vulnerability of Maryland's Agricultural Resource Lands
Montgomery
Anne Arundel
Calvert
Frederick
Caroline
Allegany
Baltimore
Worcester
Kent
Carroll
Dorchester
Cecil
Howard
Statewide Average
Talbot
Washington
Harford
Queen Anne's
Somerset
Prince George's
St. Mary's
Garrett
Charles
Wicomico
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Limited Vulnerability - Fewer than 18 Additional Residential Lots per 900 Acres
Moderate Vulnerability - Between 19 and 45 Additional Residential Lots per 900 Acres
High Vulnerability - More than 45 Additional Residential Lots per 900 Acres
MDP Maryland Department of Planning

Of the rural counties below the Statewide Average in **Graph 2**, over 47,000 acres in Somerset are under public ownership or have other environmental constraints (e.g., Chesapeake Bay Critical Area). Wicomico, Garrett, and unprotected land in Somerset are among the most vulnerable lands in the state and are subject to relatively permissive zoning and/or other land use management tools. Talbot County, just below the Statewide Average, has zoning that is intermediate in the degree to which it protects conservation investment—less so than Worcester, Kent, and Caroline and more so than Somerset, Garrett, and Wicomico.

At one lot per twenty acres, Queen Anne's County's rural zones appear moderately protective, but numerous development options make the land resource the third most vulnerable among rural counties. These development options include the commonly used clustering option, which allows one lot per eight acres clustered on 15% of the land, with the remainder in open space; bonus lots for large parcels; and the ability to transfer development rights between non-contiguous parcels. When non-contiguous transfer is used, rights that cannot be developed on sending parcels can be transferred to the receiving parcel and clustered on 50% of the land, at whatever density well, septic, and environmental restrictions allow.

Of the core metropolitan counties, rural resource lands in Baltimore and Montgomery are the second and third least vulnerable to future development in the state, respectively (top of **Graph 2**). Howard County's are considerably more vulnerable, just below the Statewide Average. Howard's greater vulnerability is a function of much less protective zoning (see the *Status* discussion, above). Between 1996 and 2004, Baltimore County downzoned 69,000 acres of resource land previously zoned for greater density in the reservoir watersheds to 1:50 or 1:25.

Among the 10 transitional counties—Prince George's, Anne Arundel, Washington, Frederick, Carroll, Calvert, Charles, St. Mary's, Harford, and Cecil—Anne Arundel has the highest percentage of resource land that shows limited or moderate vulnerability. This is in significant part due to the elimination by the county in 2005 of liberal family lot provisions in their agriculture zone. These provisions had allowed lot yields substantially higher than suggested by their 1:20 zoning.

Calvert—a small county—has 1:20 zoning and almost 30,000 acres under easement. Frederick has protective zoning of three units per parcel, plus 1:50, plus one for the remainder, from an original parcel as of August 18, 1976. Carroll's zoning is moderately protective (one unit for the first six through twenty acres, then 1:20 (or portion), plus three off-conveyances from the original parcel), and the county has almost 50,000 acres under easement. Cecil County reduced the vulnerability of its southern agricultural area by downzoning it to allow only 1 lot per 20 acres (it had allowed 1:8), but the northern area remains highly vulnerable (1:10).

The remaining five transitional counties have among the most vulnerable rural resource land in the state. Although the "Status" of substantial portions of their rural resource lands is "largely uncompromised" or "moderately fragmented" on **Graph 1**, without exception, well over 50% of that land is highly vulnerable to further subdivision and development (**Graph 2**).

The most vulnerable in this group—Saint Mary's and Charles—have zoning that is quite permissive, as indicated by the extensive orange areas shown on **Map 3**.

Prince George's County has a fairly small resource conservation zoning district with permissive zoning. Counted among its resource lands in this analysis is a variety of publicly owned lands of considerable acreage. The county has designated large percentages of several subregion plans to be included in a proposed PPA. Other areas of the Rural Tier near the northern and eastern parts of the county are expected to be added, bringing the total land area in the proposed PPA close to 80% of the General-Plan-designated Rural Tier.

Harford County's rural zoning is 1:10, but the actual yield is considerably higher. This is largely due to provisions for family lots in addition to the lots allowed by density: one lot is allowed on *each separately deeded parcel* for father, mother, brothers, sisters, sons, and daughters. (The potential for family lots will diminish over time because they can be conveyed only by owners of land prior to February 8, 1977.) Areas of less vulnerability, as shown on **Map 3**, generally result from extensive acreage under easement or public ownership. Unpreserved adjacent land is still vulnerable to impacts from subdivision and development.

Washington County's rural resource land was subject to very permissive rural zoning until recently, when the County enacted more restrictive zoning, including 1:20 and 1:30 on some private land, in different parts of their rural landscape. However, considerably more development is possible in both areas, due to provisions for additional lots beyond those permitted by base zoning. The more restrictive zoning—1:30 in the Rural Legacy Area and 1:20 in the Environmental Conservation zone—occurs in the southeastern and northwestern portions, respectively, as is apparent on **Map 3**; the permissive 1:5 zoning occurs in the large area directly to the north, comprising most of the upper eastern part of the county.

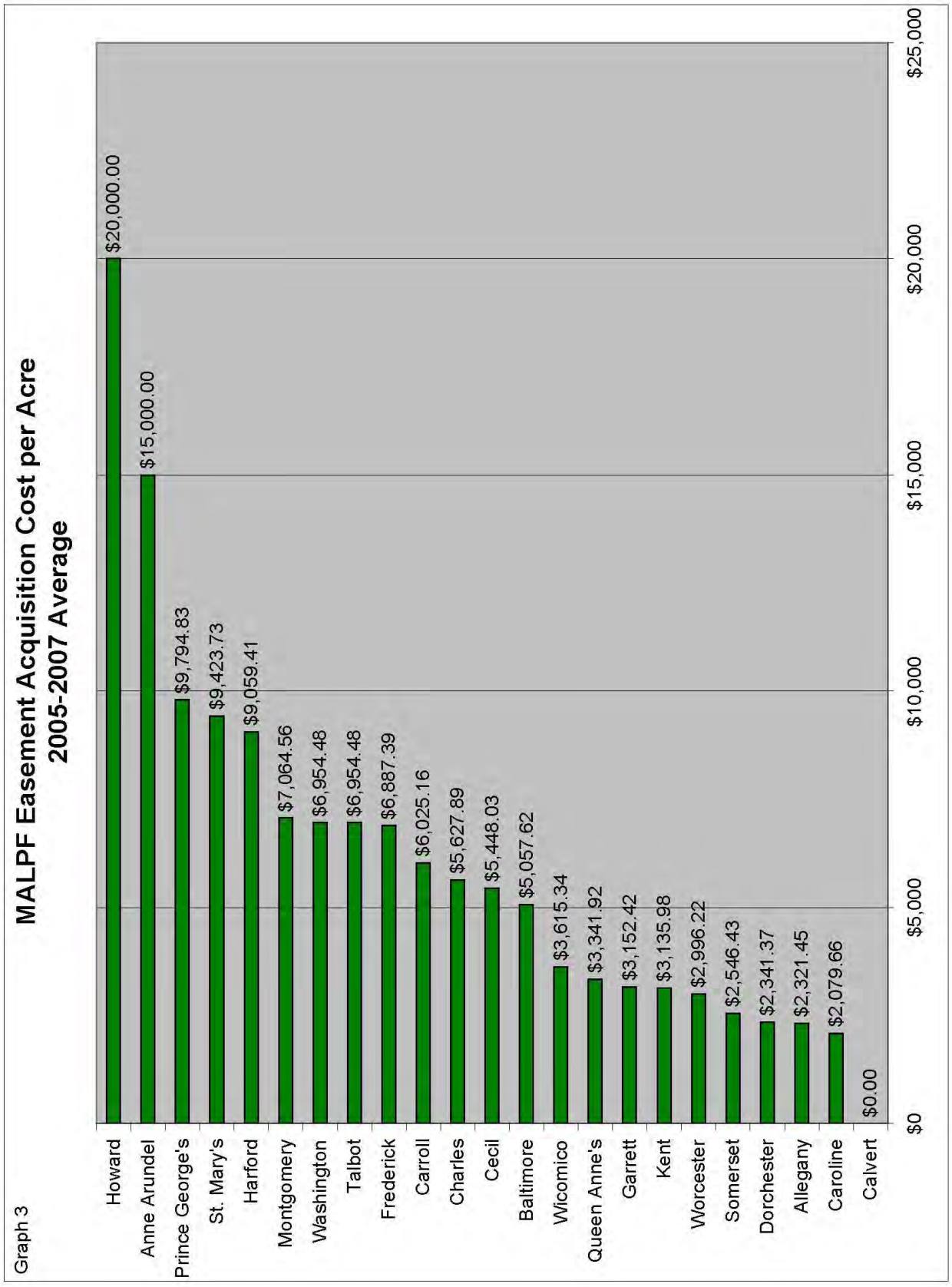
Considered together, the Status and Vulnerability analyses indicate that relatively little of Maryland's rural resource land has been adequately stabilized by zoning and related land use management tools to achieve Maryland's land preservation and resource conservation goals. In light of the reality that preservation funds are and are likely to remain limited, much of the state's rural resource land base is likely to be substantially further compromised by development before preservation goals can be achieved.

Counties that spend large amounts of local funds for easement acquisition may be able to expand some of their larger areas of preserved land, despite a lack of zoning and land use tools to protect the investment. However, this outcome is by no means guaranteed. First, spending more money for easement acquisition is unlikely to protect large contiguous areas if land use tools have not stabilized the land base and development pressure is increasing. Otherwise, the green/ light green areas on **Map 2** would be larger and more extensive in counties like Howard, Harford, and Saint Mary's, all of which have aggressively funded easement acquisition.

Perhaps more important, escalating development pressure increases easement acquisition costs much more in areas with permissive zoning for residential lots than in areas with restrictive zoning. This is made evident by comparing average easement costs among counties whose resource lands are accessible to large markets for rural residential lots.

For example, recent MALPF acquisition costs are notably higher in Howard and Harford than in Baltimore and Montgomery Counties (**Graph 3**–***MALPF Easement Acquisition Cost per Acre, 2005-2007 Average***). Major employment centers and jobs are highly accessible from rural areas in all of these counties, and residential lots are very expensive. However, rural land in Howard and Harford Counties can generally be subdivided into many more residential lots than in Baltimore and Montgomery Counties, making it far more attractive to prospective developers of major residential subdivisions.

It is very difficult for preservation programs to compete with this market. Higher easement costs mean less land preserved per public dollar and increasing difficulty competing with developers for land. As market demand for residential lots increases and the amount of remaining rural land shrinks, the price that must be paid to secure easements becomes prohibitively high, at least from a statewide standpoint. As represented by **Graph 3**, the situation is most extreme in Howard County, but numerous other counties may be headed toward a similar problem.


Graph 3
MALPF Easement Acquisition Cost per Acre
2005-2007 Average
Howard $20,000.00
Anne Arundel $15,000.00
Prince George's $9,794.83
St. Mary's $9,423.73
Harford $9,059.41
Montgomery $7,064.56
Washington $6,954.48
Talbot $6,954.48
Frederick $6,887.39
Carroll $6,025.16
Charles $5,627.89
Cecil $5,448.03
Baltimore $5,057.62
Wicomico $3,615.34
Queen Anne's $3,341.92
Garrett $3,152.42
Kent $3,135.98
Worcester $2,996.22
Somerset $2,546.43
Dorchester $2,341.37
Allegany $2,321.45
Caroline $2,079.66
Calvert $0.00
$0
$5,000
$10,000
$15,000
$20,000
$25,000

Threat: Development Pressure

Map 4*: **Threat to Maryland's Agricultural and Natural Resource Lands, 2007***, estimates future demand for residential lots based on two assumptions:

- The market share of new residential development occurring in rural resource areas for the next 20 years in each county will be roughly equivalent to the share observed from 1997–2006; and
- The geographic distribution of demand for residential lots in rural resource areas during the next 20 years will roughly correspond to the geographic pattern of residential development that occurred from 1997–2006.

The degree to which development will occur in these relative amounts and patterns will obviously vary from place to place. The ***Threat*** analysis is designed to show what those patterns would be in each county; provide an estimate of how much land is likely to be threatened to accommodate the residential market for rural residential lots; and indicate how widespread and intense that threat would be within each county.

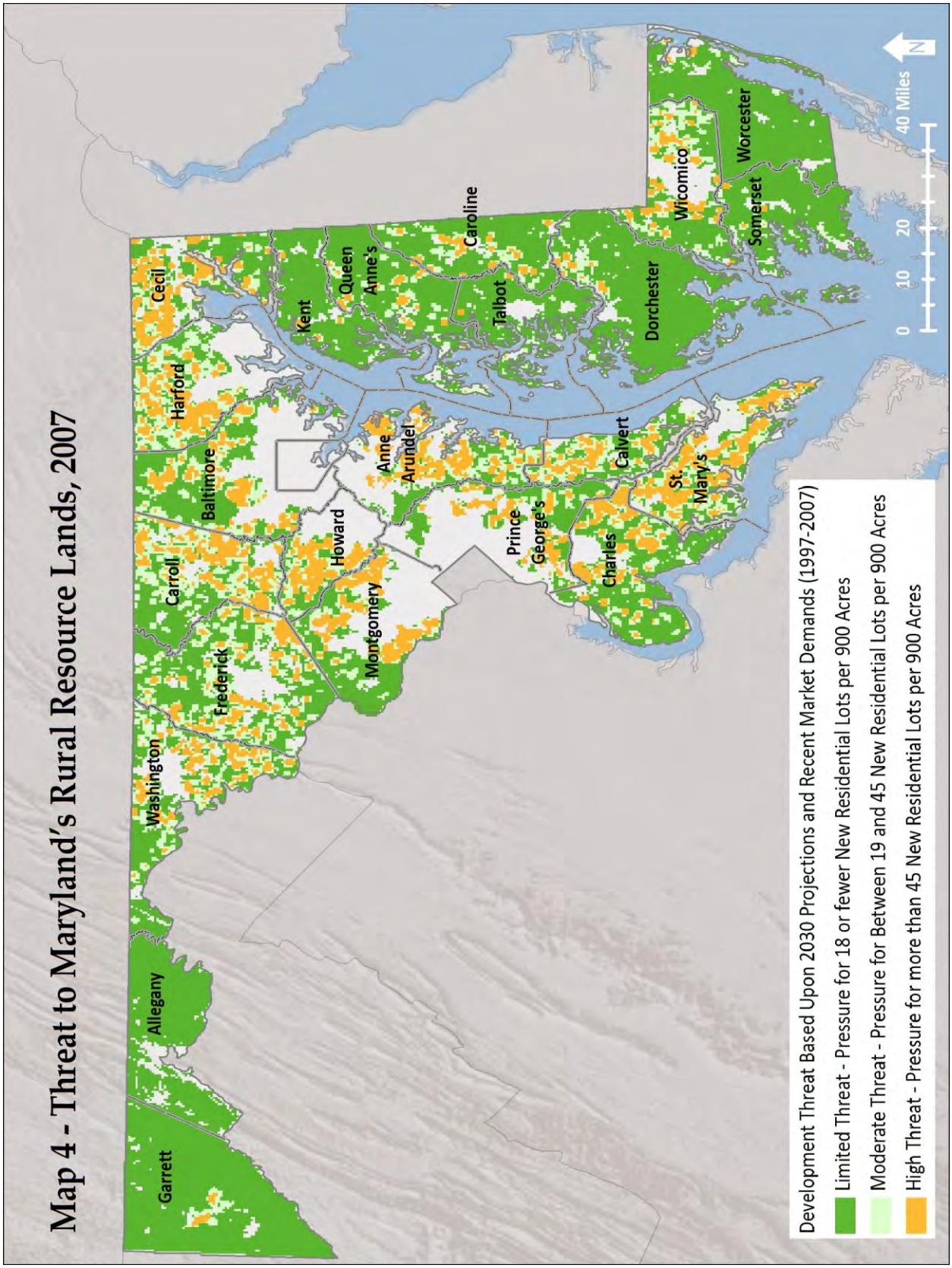
At the scale of the individual county, the more intense and widespread the threat, the greater and more contiguous the area colored orange on the map. As summarized by county in **Graph 4,** the ***Threat to Maryland's Rural Resource Lands*** will be most intense and widespread in Howard and Saint Mary's counties, where well over 40% of the land will be exposed to the highest level of threat. From 20% to 35% of the land will be similarly threatened in all of the counties between Harford and Washington (inclusive) on the Graph, and in Prince George's County as well.

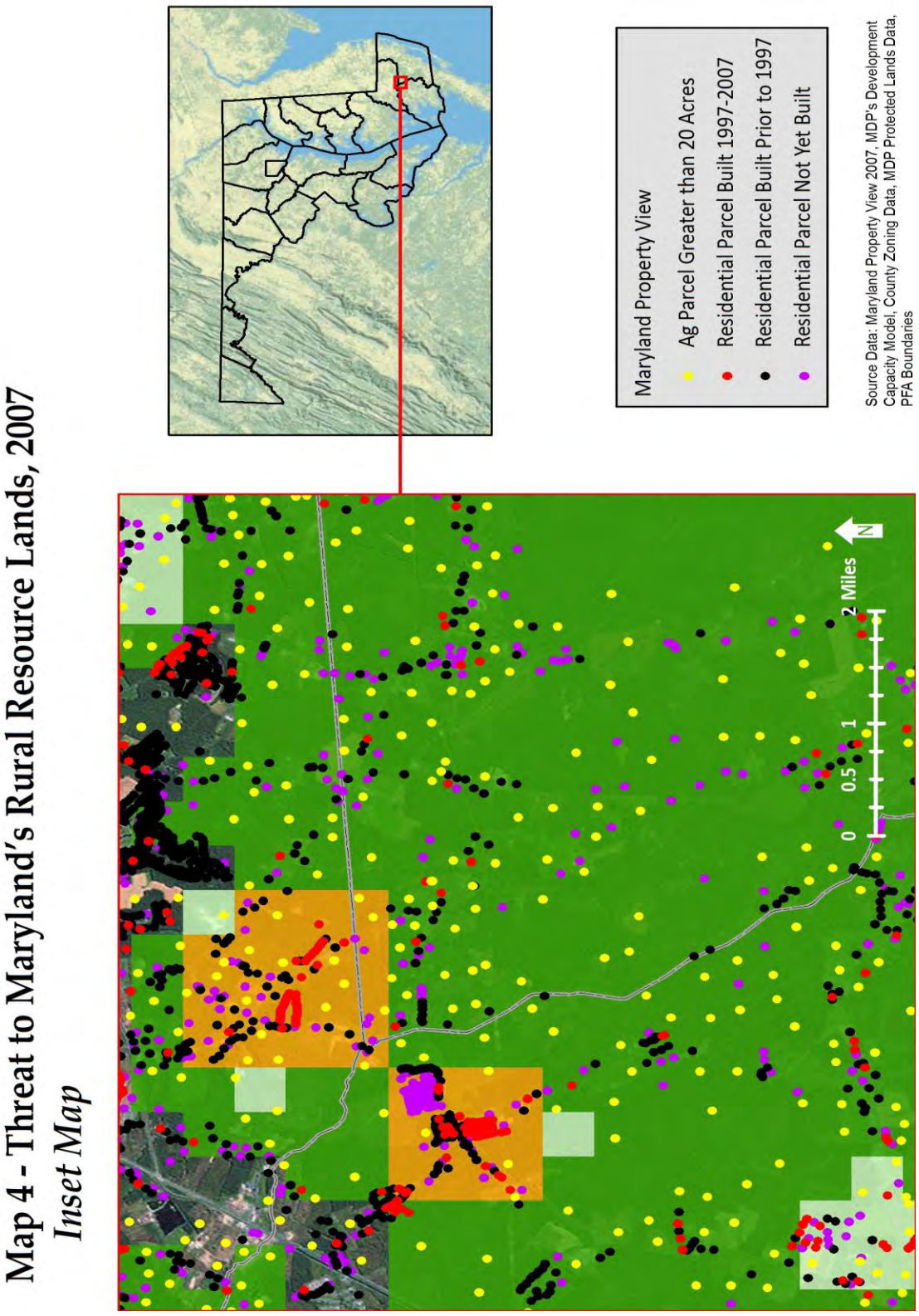
By contrast, over 90% of the land resource is expected to experience low development pressure between now and 2030 in Allegany, Garrett, Worcester, Kent, Talbot, Somerset, and Dorchester Counties. Of the ten counties at the bottom of the Graph—those subject to the greatest threat—all are transitional counties with the exception of Wicomico (rural) and Howard (metropolitan).

Land Use Stability

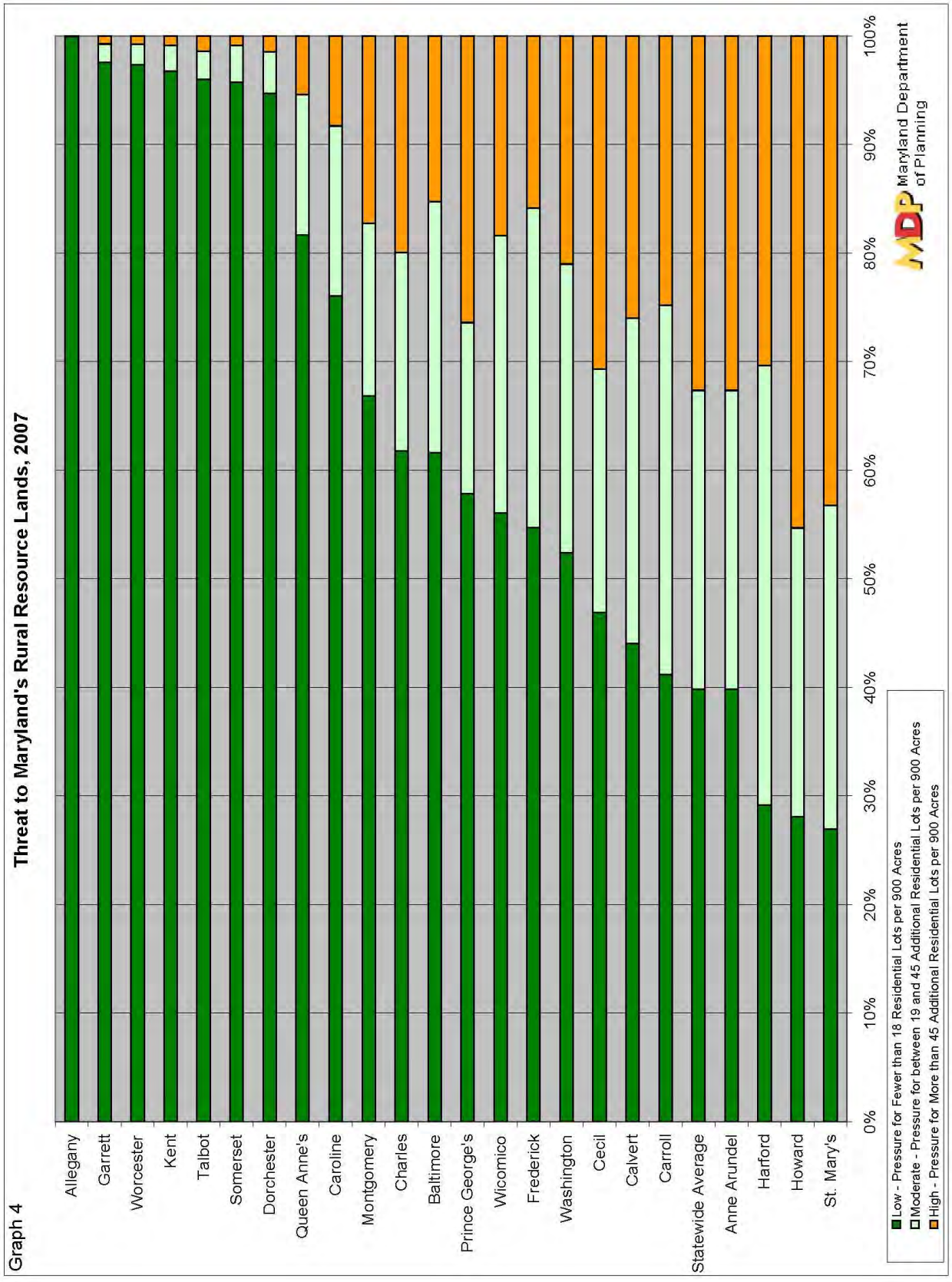
Map 5*: **Land Use Stability of Maryland's Agricultural and Natural Resource Lands, 2007***, in tandem with **Graph 5**, addresses a fundamental question posed earlier in this chapter: to what degree has land in different areas been stabilized, commensurate with development pressure, to provide time for easement acquisition to achieve conservation goals before the land resource is excessively compromised by development?

As described in more detail at the beginning of the chapter, the map combines information for each of the other measures considered individually thus far: current status shown on **Map 2**, future vulnerability from **Map 3**, and relative potential for threat from **Map 4**.


Map 4 - Threat to Maryland's Rural Resource Lands, 2007
Garrett
Allegany
Washington
Frederick
Carroll
Baltimore
Harford
Cecil
Kent
Queen Anne's
Caroline
Talbot
Dorchester
Wicomico
Somerset
Worcester
Howard
Montgomery
Anne Arundel
Prince George's
Charles
Calvert
St. Mary's
0 10 20 40 Miles
N
Development Threat Based Upon 2030 Projections and Recent Market Demands (1997-2007)
Limited Threat - Pressure for 18 or fewer New Residential Lots per 900 Acres
Moderate Threat - Pressure for Between 19 and 45 New Residential Lots per 900 Acres
High Threat - Pressure for more than 45 New Residential Lots per 900 Acres



Map 4 - Threat to Maryland's Rural Resource Lands, 2007
Inset Map

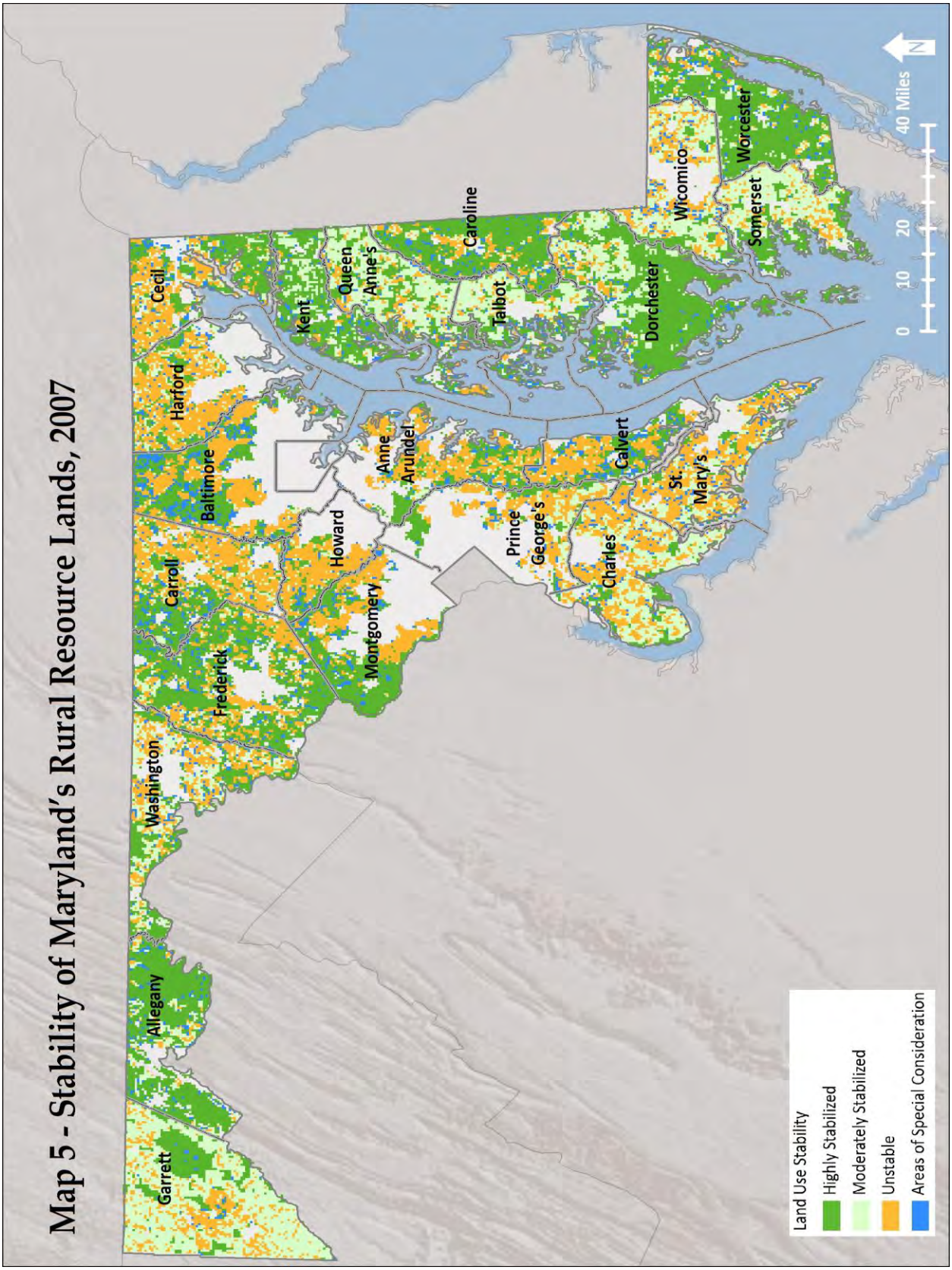

Graph 4
Threat to Maryland's Rural Resource Lands, 2007
Allegany
Garrett
Worcester
Kent
Talbot
Somerset
Dorchester
Queen Anne's
Caroline
Montgomery
Charles
Baltimore
Prince George's
Wicomico
Frederick
Washington
Cecil
Calvert
Carroll
Statewide Average
Anne Arundel
Harford
Howard
St. Mary's
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
MDP Maryland Department of Planning
Low - Pressure for Fewer than 18 Residential Lots per 900 Acres
Moderate - Pressure for between 19 and 45 Additional Residential Lots per 900 Acres
High - Pressure for More than 45 Additional Residential Lots per 900 Acres

Since an area can score most, moderate, or least for each measure shown on the preceding three maps, it can fall into one of 27 combinations when information from the three maps is combined. These 27 possibilities were consolidated into four levels of land use stabilization, as shown in the following **Table 1**.

Table 1 - Assessment of Land Use Stability

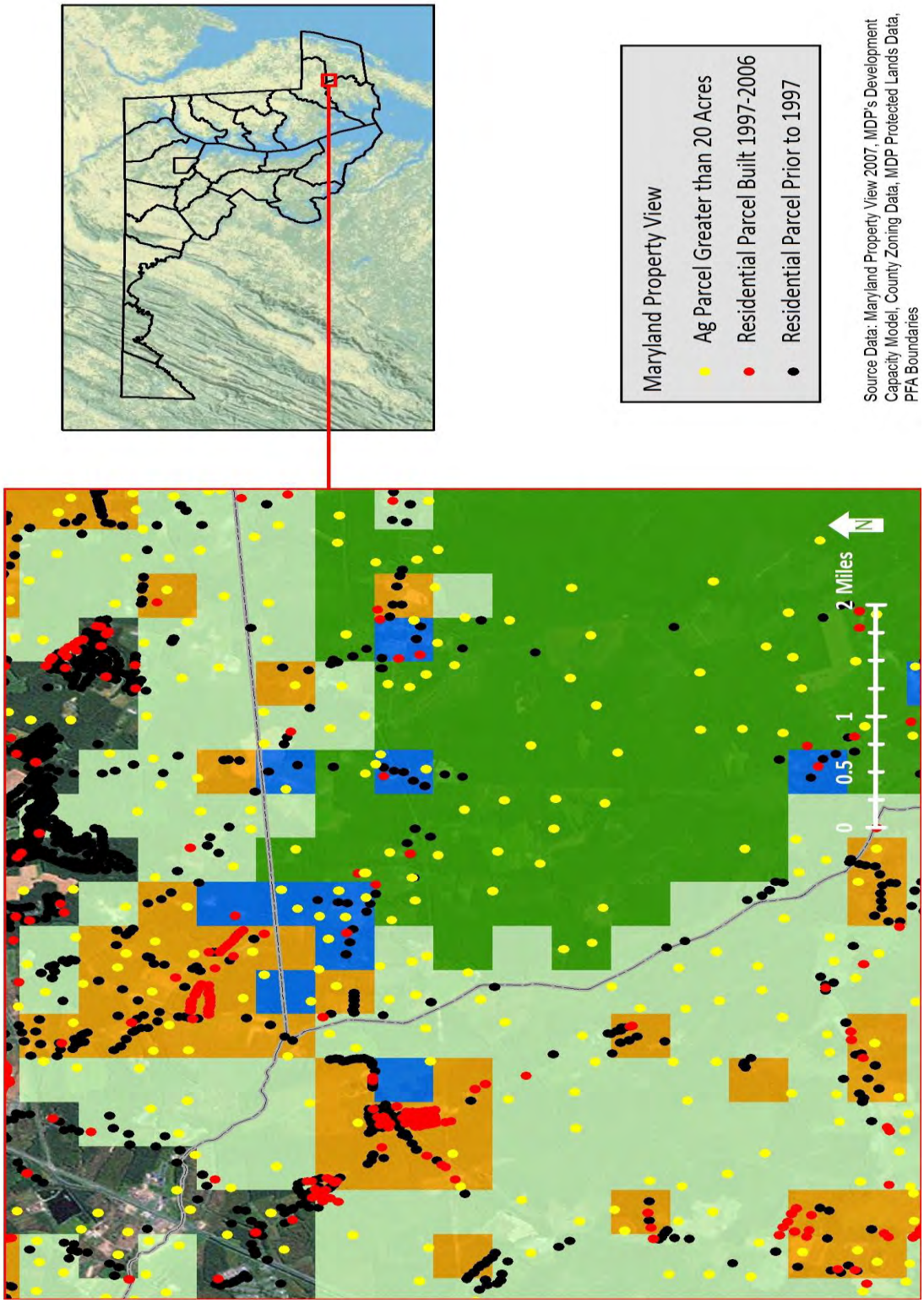
Rating	Current Status	Vulnerability	Development Threat
Highly	Somewhat	Limited	Medium
Highly	Somewhat	Limited	High
Highly	Somewhat	Moderate	Low
Highly	Somewhat	Limited	Low
Highly	Unfragmented	Limited	Low
Highly	Unfragmented	Limited	Medium
Highly	Unfragmented	Limited	High
Highly	Unfragmented	Moderate	Low
Highly	Unfragmented	Moderate	Medium
Moderately	Somewhat	Moderate	Medium
Moderately	Somewhat	Moderate	High
Moderately	Somewhat	High	Low
Moderately	Unfragmented	Moderate	High
Moderately	Unfragmented	High	Low
Moderately	Unfragmented	High	Medium
Unstable	Highly	Limited	Medium
Unstable	Highly	Limited	High
Unstable	Highly	Moderate	Medium
Unstable	Highly	Moderate	High
Unstable	Highly	High	Low
Unstable	Highly	High	Medium
Unstable	Highly	High	High
Unstable	Somewhat	High	Medium
Unstable	Somewhat	High	High
Special	Highly	Limited	Low
Special	Highly	Moderate	Low
Special	Unfragmented	High	High

"Special" lands (the blue grid cells), as classified here, comprise two types: land that is already subdivided and developed (highly fragmented Status), but has limited or moderate Vulnerability and low Threat; and land that is currently free from intrusive development but is both fairly vulnerable to further nearby development and subject to high levels of Threat.


Map 5 - Stability of Maryland's Rural Resource Lands, 2007
Garrett
Allegany
Washington
Frederick
Carroll
Montgomery
Howard
Baltimore
Harford
Cecil
Kent
Queen Anne's
Caroline
Talbot
Anne Arundel
Prince George's
Charles
Calvert
St. Mary's
Dorchester
Wicomico
Somerset
Worcester
0 10 20 40 Miles
N
Land Use Stability
Highly Stabilized
Moderately Stabilized
Unstable
Areas of Special Consideration

Map 5 - Stability of Maryland's Rural Resource Lands, 2007

Inset Map



Our view of these "Special" areas is that they could go either way: potential stabilization depends on the broader prognosis for surrounding lands; thus, their classification as requiring "special consideration."

In summary, in the larger central Maryland region extending north and south of the Baltimore-Washington corridor, including all of Southern Maryland and other counties west to Frederick and east to Cecil County, good opportunities to achieve rural land and resource conservation goals in large, substantial blocks are limited to those parts of counties that have benefitted from combinations of moderately or highly restrictive rural zoning and aggressive State/ local easement acquisition efforts.

In those terms, the "best" opportunity in this extended central Maryland region is in Montgomery and Baltimore counties, followed by Carroll (northwest), Anne Arundel (south), and Calvert (several areas) counties. Additional opportunities for conservation of relatively large and contiguous areas exist on extensive acreage in Frederick County. Harford and Howard counties offer the least opportunity.

As development pressure extends and intensifies on the Eastern Shore and Maryland's westernmost counties, the best conservation opportunities are in the parts of counties protected by more restrictive resource conservation zoning: southern Cecil, Kent, Caroline, and Worcester counties, followed by the remaining counties to varying degrees.

Discussion and Conclusions

The Priority Preservation Area Concept

In its interim (2003) and final (2004) reports, the Task Force to Study the Maryland Agricultural Land Preservation Foundation introduced the concept of a "Priority Preservation Area": an area rich in rural / agricultural resources, large enough to sustain resource-based industries, where land use is stabilized by zoning and land use tools, providing time for easement acquisition to achieve conservation goals before resource land is excessively compromised by development. The concept was established in law by the Agricultural Stewardship Act of 2006 (House Bill 2), and is currently being applied through the State Agricultural Certification Program.
The analysis of potential return presented here incorporates many of the considerations to be used in designating a Priority Preservation Area (PPA) as defined by the Task Force and the Agricultural Stewardship Act.

Application of the Priority Preservation Area Concept to Date

This analysis suggests that the conclusions of the Task Force to Study the Maryland Agricultural Land Preservation Foundation apply to the broader conservation objectives of the State for rural resource lands, including conservation of important natural resource lands. The Task Force determined that, in the case of agricultural

resource lands, some combination of more easement money and better zoning was necessary in many areas to control subdivision and development, curb their impacts on resources and resource lands, and achieve the State's conservation goals. Their specific findings and recommendations were the following:

> Where development pressure is high and agricultural zoning is permissive, agricultural land is being heavily subdivided and developed. In such areas, program goals are being compromised, and easement funds are not sufficient to compete effectively with development. The State and counties should identify priority preservation areas, make additional easement funds available in these areas, and use protective zoning to complement the purchase of easements in maintaining the agricultural base.

The requirements created by the Agricultural Stewardship Act of 2006 require certified counties to establish PPAs where the land resource is stabilized by local zoning and land use tools, providing time for easement acquisition to achieve State goals before the land is excessively compromised by development. Because these requirements apply only to certified counties, they directly affect only a small fraction of State spending for agricultural and natural resource conservation: retention of an extra 42% of agricultural land transfer tax revenues collected in certified counties.

The majority of State preservation funds come from the real estate transfer tax. Expenditures take place through the MALPF Program itself, independently of the certification process; the Rural Legacy Program; and through stateside POS and a few other programs funded by DNR's share of the real estate transfer tax administered through POS.

Broader application of the investment principles established by the Agricultural Stewardship Act for PPAs would improve return on the State's investment through all of its rural land and resource conservation programs, particularly when successful conservation of the resources in question depends upon the fate of the lands around those to be preserved by easement or public acquisition. These concepts are already at work to varying degrees in the MALPF program, the Rural Legacy program, and in the new targeting procedures being used by stateside POS. (This is not to say that the State should stop all land preservation investment in areas that appear as "unstable" in our analysis. The State should pursue acquisition or easement purchase where valuable resources and important agricultural or ecological features can be preserved in their entirety through the preservation of just a few parcels, regardless of development that has occurred in the surrounding areas.)

Land Preservation and Resource Conservation Funding

The MALPF Task Force in its Final Report noted that projected revenues from State funding sources dedicated to land preservation through 2022, in conjunction with expected funding from counties, would fall about $800 million short of the amount needed to achieve the State's agricultural land preservation acreage goal of 1,030,000

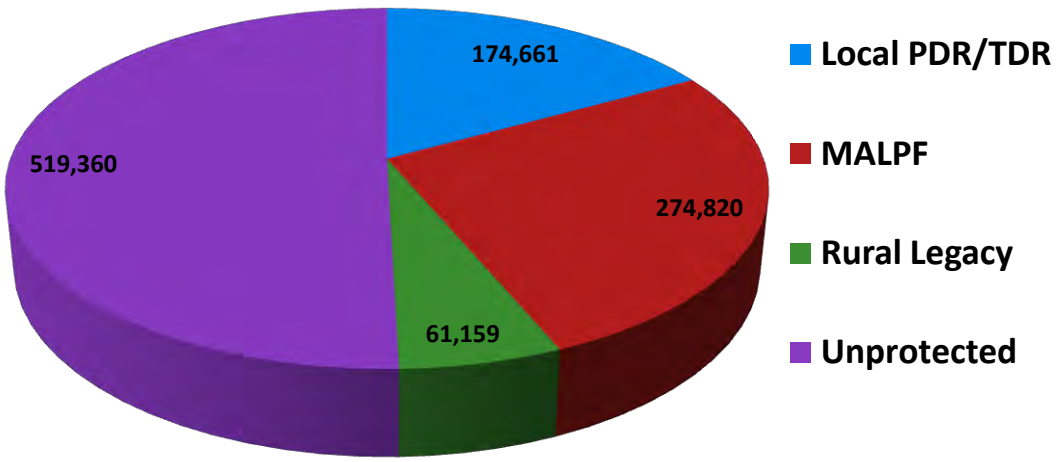
acres by 2022 through MALPF (See Figure 3), Rural Legacy, and local PDR/TDR programs. They also noted that other factors would make the goal difficult to achieve, while development continues to fragment more rural land and the quality of our rural resources continues to decline.

The Task Force recommended that the legislature and the Governor supplement existing land preservation revenue sources by increasing taxes on real estate and real estate transactions involving non-agriculturally assessed property outside Priority Funding Areas (PFAs).[7] One piece of legislation has been passed to increase agricultural land preservation revenues: Senate Bill 662 in 2008, Agricultural Land Transfer Tax – Rates and Distribution. SB662 increases the agricultural land transfer tax by 25% through a surcharge.

The legislation does little to increase the revenue stream for farmland preservation by $800 million and target those funds to PPAs. In some fiscal years it will decrease the amount of funding available to MALPF by disbursing those funds to the Maryland Agricultural and Resource-Based Industry Development Corporation (MARBIDCO). Those funds will be used to support the new Next Generation Farmland Acquisition Program and the Critical Farms Program, both of which were also recommended by the Task Force.

Figure 3 - Progress Toward Meeting Maryland's Land Preservation Goal of 1,030,000 Acres through MALPF, Rural Legacy, and Local PDR/TDR

Source: DNR and MDP



The effects of SB 662 notwithstanding, it is unlikely that the State will authorize and appropriate new revenues approaching $800 million or more by 2022 to fund preservation in certified PPAs, as recommended by the Task Force. In the five years since the Task Force recommended increased preservation funding and new revenue sources, the political and economic conditions that would support new revenue sources have remained poor. There is no reason to think this will change in the near future.

The status of Maryland's efforts to achieve its land preservation and resource conservation goals can be summarized by two facts:

- In many cases, State conservation expenditures of existing revenues are not being strategically concentrated in areas stabilized by local land use management tools, where goals are most likely to be achieved; and
- Additional funding that could be so concentrated, in amounts capable of winning the race with development pressure, is not likely to materialize in time to achieve Maryland's goals in more than a few areas.

Findings and Conclusions: A Summary

- A minority of Maryland's rural resource land has been adequately stabilized by zoning and related land use management tools to effectively support achievement of Maryland's land preservation and conservation goals for agricultural and natural resources.
- In the long-term over which rural resource conservation goals must be achieved, zoning and related land use tools are as important or more important than easement acquisition. Under any realistic funding scenario, if those tools are not used effectively to stabilize the land base, commensurate with the market for residential lots, land and resources are likely to be excessively compromised by development before preservation goals can be achieved.
- Consequently, the choice by a local government to protect conservation investment through zoning and related land use management tools is the most important factor determining if land and easement acquisition efforts can protect large blocks of land consistent with State goals. Easement purchase alone cannot preserve large blocks of land in the face of significant development pressure; there simply is not enough money.
- In many cases, State conservation expenditures are not being strategically concentrated in areas stabilized by local land use management tools, where goals are most likely to be achieved.
- Additional public funding that could be concentrated in these areas is not likely to become available in amounts and timeframes necessary to achieve Maryland's goals in more than a relatively few areas before development compromises the resources.

- There are two actions that could change this outcome. One is that counties improve the ability of zoning and land use management tools to limit subdivision and development, commensurate with State land and resource conservation goals. The second is that the State concentrate expenditure of its land and resource conservation funds where the investment is protected by local zoning and land use management authority, and that this encourage more counties to better protect conservation investment. Clearly, both actions are essential and interdependent if the State is going to realize good return on its investment of public funds for conservation.
- To advance both of those actions, the State should apply the investment principles established by the Agricultural Stewardship Act of 2006 through all of its programs for which successful conservation of resources depends upon protection of large aggregations of land.
- In some instances, protection of certain resources can be accomplished by strategic easement acquisition even if the land use in the wider geographical area around them is not stabilized.

Recommendations:

To improve return on the State's investment of public funds for land and resource conservation and better achieve State goals, Maryland has begun to change the way it invests in land preservation through programs for which successful conservation of resources depends upon protection of large aggregations of land. These include MALPF, Rural Legacy, in some cases stateside POS, and perhaps other natural resource conservation programs. Specific recommendations:

- The State should establish an over-arching policy to maximize return on conservation investment toward State goals, by investing public funds strategically where they are supported by local goals and land use practices. Two parallel and mutually supportive courses of action are suggested: changes by individual programs and advice to the Board of Public Works.
- Administrative and statutory changes should be made where necessary to allow programs to invest the majority of State funds in areas that have the potential to yield good return on the investment, that is, areas which are:
  - Rich in the resources of interest;
  - Of sufficient size and configuration to sustain targeted resources, if enough of the land is protected from development; and
  - Stabilized by zoning and land use management tools, to provide time for easement or in-fee acquisition programs to achieve conservation goals before the land is excessively compromised by development.

- Where supportive local land use management is essential to successful conservation, the State should invest more cautiously if the former is absent. Small amounts should be invested to preserve individual properties or small aggregates of properties if that will accomplish specific conservation objectives, even if the properties are ultimately likely to be surrounded by development. Investment of small sums should also be used to encourage local adoption of more supportive land use policies and procedures, in areas where State goals might still be achieved if more effective zoning and related land use tools were established.
- The State should use this investment policy as a framework to establish effective conservation strategies with local governments. Shared commitments to steps that ensure better return should be an over-arching consideration for State designation of priority preservation areas for both agricultural and natural resources.
- When properties are presented to the Board of Public Works for purchase or easement acquisition, the Board should be advised about the importance of land use management around the site to achieving the intended conservation purpose. The Board should also be informed of the degree to which surrounding land is being protected by local zoning and land use management authority.
- The preceding recommendations are designed to make it possible for State and local conservation programs to win the race with development in more places, and should in some senses be pre-requisite to increasing State funding sources. Even if this occurs, State funding sources must be maintained and increased to achieve State goals, and to provide sufficient incentives for local government to do the hard work of protecting resources with their zoning and land use management authority. To these ends, we offer the following recommendation:
- The Governor and the legislature should consider statutory changes to implement the funding recommendations made by the MALPF Task Force in its 2004 Final Report. Those recommendations would increase funding for all Maryland State programs funded by the real estate transfer tax, including those focused on agriculture, natural resources, and recreation.
- It is important to note that State funding is needed not only to protect more land, but also to prepare and disseminate better inventories of critical resources (before they are lost), and to provide better outreach and education for our citizens on the importance of agricultural and natural resource protection.

GreenPrint and AgPrint - Emerging GIS-Based Implementation Tools for Land Conservation

Introduction to MD iMap and GIS-based land conservation tools

The vision of land conservation can be translated and implemented through effective mapping tools. Identifying conservation goals geographically, prioritizing where the most important lands occur, and understanding where land has already been protected and by what program are key elements for achieving Maryland's land conservation vision. In other realms of government, geographic information is equally important for planning, implementing, and tracking programs and policies. In recognition of the values that Geographic Information Systems (GIS) have for effective governance, Governor Martin O'Malley initiated the MD iMap project and the GreenPrint planning tool.

MD iMap is an internet portal that provides an authoritative base map of Maryland and other theme-based map data. It allows government and citizens to assess information about State, local, and municipal performance. GreenPrint is a planning tool designed to help government staff, conservation organizations, and individual citizens make good decisions about land conservation and growth. GreenPrint is accessible through MD iMap and was the first of many MD iMap applications, having been launched for public use in December 2008.

The underlying GIS technology requires the adoption of common standards, policies, and procedures necessary for map data from different entities to work together. The standards include things like data quality, scale of the data (does the data represent an exact point on the ground or an area?) and file formats. The policies and procedures define how map data is collected, how it is used and by whom, who is responsible for maintaining and updating the data and other related factors. Since there are many players in the land conservation arena, clearly communicating what these standards, policies, and procedures are enables the sharing and leveraging of resources among and between these players.

GreenPrint - A Land Conservation Tool

GreenPrint is the State's newest mapping tool to show how Maryland's land conservation programs are meeting their goals (or "strategic targets") and to show how these programs are working together to meet shared goals for ecologically important land conservation.

www.greenprint.maryland.gov

The revised Program Open Space targeting protocol, described in the Natural Resource Lands section, outlines how "Targeted Ecological Areas" were selected and how Program Open Space uses ecological and other criteria to determine funding decisions. GreenPrint provides interactive mapping and performance measures to show users where Targeted Ecological Areas can be found, to what degree they are protected and how other criteria, particularly outdoor recreational opportunities, were considered as part of the decision framework. In addition to providing transparency and accountability for State funded land conservation efforts, the objective of this mapping tool is also intended to coordinate the efforts of partners in land conservation, including the public, private land owners, local governments, State and federal agencies, land trusts, and other natural resource interest groups.

How GreenPrint works?

GreenPrint provides several options for users to understand where Maryland's ecologically important conservation targets are and how the State is achieving its vision.

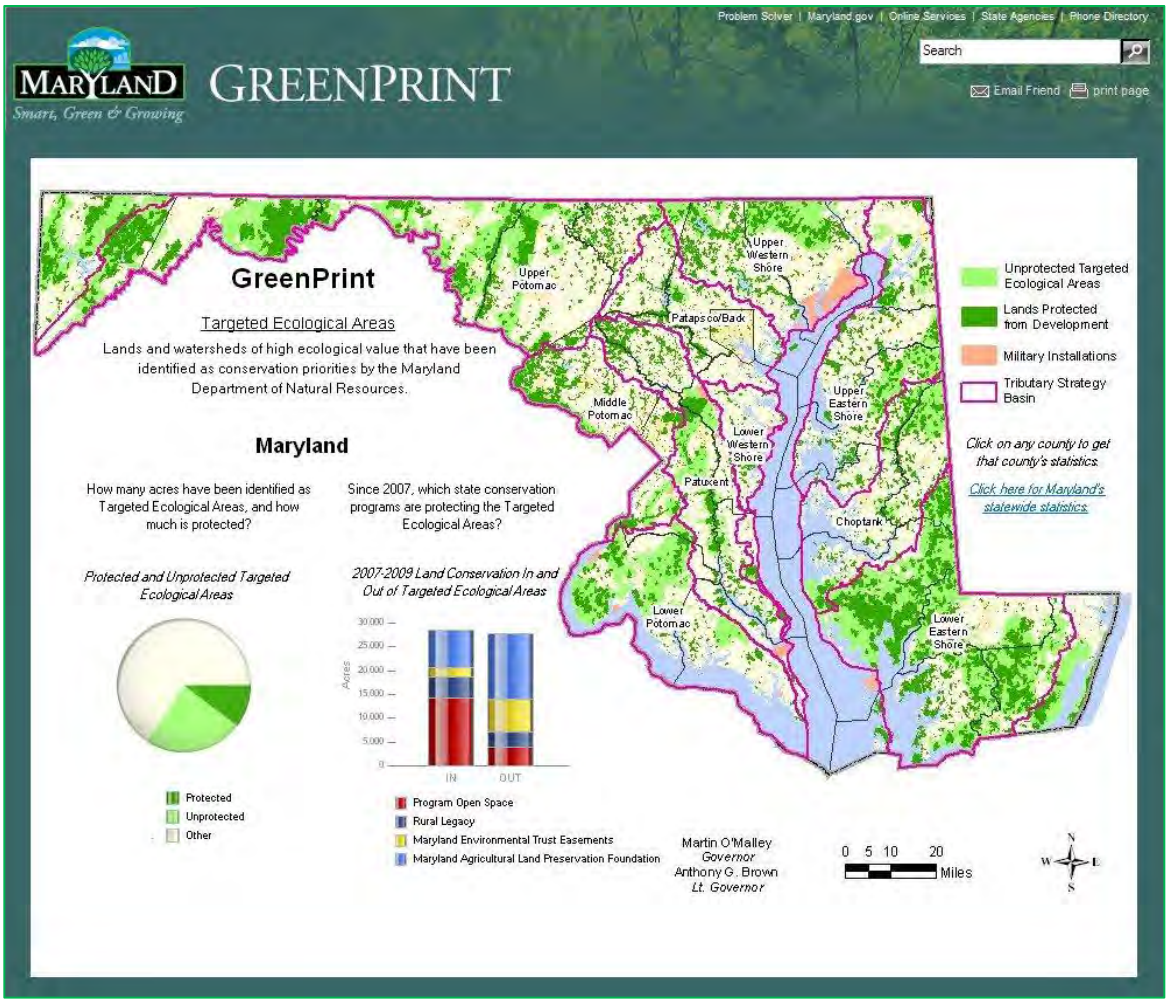
One of the underlying principles behind GreenPrint is the common adage, *"What gets measured, gets managed…what is not measured, is often ignored."*

GreenPrint displays the location of Targeted Ecological Areas (TEAs). TEAs are lands that DNR has identified as being the most ecologically important areas in the state. These are the forests, wetlands, streams and farmland that protect the water quality of the Chesapeake and Coastal Bays, keep our air clean, provide valuable habitat, and ensure ecological health and quality of life for today's citizens, our children's families, and for future generations. These are also the lands that provide many of the passive

outdoor recreational opportunities that Marylanders and visitors enjoy: hiking, fishing, hunting, and wildlife watching.

GreenPrint provides several options to chart out where and how the State is achieving its vision. Pie charts and bar graphs show progress and demonstrate how the State's land conservation programs are achieving multiple objectives. POS directly seeks to conserve "Targeted Ecological Areas." The State's other land conservation programs complement these goals, resulting in conserved landscapes stitched together by the work of many different partners.

Users of the website can also explore the map in a variety of ways. Track where Maryland's land conservation programs have recently protected lands. Zoom in by address location, view property boundaries, and identify where nearby land conservation targets are and how they are protected. View the most up-to-date satellite imagery the State has collected to see what kind of resources, built and natural, are "on-the-ground."



www.greenprint.maryland.gov

Using and Improving GreenPrint

The website was launched in December 2008 and continues to be updated on a regular basis as additional land is protected through the State's land conservation programs (Program Open Space, Rural Legacy Program, Maryland Agricultural Land Preservation Foundation, and Maryland Environmental Trust). Other updates are also occurring on a regular basis as new information is collected from the State's private and public land conservation partners.

Additional interactive mapping products will soon be available to complement GreenPrint. Next to be launched, AgPrint will display where and how the State is protecting contiguous agriculture. Following AgPrint, GrowthPrint will define the State's priorities for Smart Growth and provide a vision for green, healthy, and more livable communities. Together, these visions will map out a pathway for a more sustainable future.

GreenPrint is the first of its kind throughout the nation because it has combined state-of-the-art mapping technology with science-led decision support and results-driven performance measures. Maryland's land conservation community is using the tool for landowner outreach, conserving the properties that the Department of Natural Resources values the most. The public are using the tool to understand the value of land conservation, how their lands fit into the bigger picture, and what effects their individual actions and those of their governments have.

AgPrint as a GIS-based analytical instrument to permit the highest return on investment in the preservation of Maryland's agricultural and open space resources

The AgPrint Initiative brings improved analytical tools to Maryland's efforts to preserve agricultural land and helps the State to target its preservation dollars more effectively. The goals of AgPrint are as follows:

- **Preserve 1,030,000 acres by 2022 through MALPF, Rural Legacy, and local PDR/TDR programs;**
- **Produce food and fiber for Maryland residents;**
- **Protect natural resources, forestry, historic resources, and rural character;**
- **Preserve large contiguous blocks, limit intrusion of development/ impacts on resources and industries;**
- **Ensure good return on public investment by concentrating money where goals are attainable; and**
- **Work with local governments to these ends.**

How does AgPrint work?

The AgPrint effort begins with an analysis of Maryland's Resource Lands, which consist of natural resource lands and other resource conservation lands outside of targeted development areas (Priority Funding Areas). *www.agprint.maryland.gov*

Natural resource lands were defined by the Maryland Department of Natural Resources as areas containing the following ecological resources:

- **Green Infrastructure**
- **Rare Species Habitats**
- **Aquatic Life Hot Spots**
- **Forests Important for Water Quality Protection**

Other resource conservation lands were defined by counties through their zoning classifications, specifically lands that each county has designated for resource conservation and/or agricultural preservation in its zoning language.

The following datasets were used to conduct the analyses:

- **Maryland Property View 2006**
- **MDP's Development Capacity Model**
- **County Zoning and Sewer Service Data**
- **Priority Funding Area Boundaries**
- **MDP's Protected Lands Data**

Analysis Parameters

The defined geographies were converted to a 100-acre grid cell network in order to aggregate residential parcel information. Statistics were calculated within each cell and also for adjacent or surrounding cells (for some parameters). Areas inside Priority Funding Areas or otherwise outside the boundaries of combined "natural resource" and "other resource conservation" lands were excluded from the analysis.

Next, the land was assessed for the degree to which Maryland's goals for conservation are being achieved or compromised thus far, and the prognosis for likely long-term outcomes. The four measures of the assessment are called Status, Vulnerability, Threat, and Land Use Stability. These measures look at Maryland as a collection of 100-acre squares or "grid cells."

- The **"Status"** of rural resource lands is a measure of the number of residential lots already subdivided on agricultural or natural resource land:

  - **Highly Fragmented – More than 5 Residential Lots per 100 Acres**
  - **Moderately Fragmented – Between 3 and 5 Residential Lots per 100 Acres**
  - **Largely Un-fragmented – 2 or Fewer Lots per 100 Acres**

- The **"Vulnerability"** of rural resource land is a measure of the number of additional residential lots that can be further subdivided and developed under existing local zoning and land use management tools. Existing public land ownership or conservation easements are subtracted from the calculations, leaving a worst case scenario that shows what an area would be like if everything else that can be developed is developed. For each 100 acre grid cell, the analysis of vulnerability starts with the development capacities of all parcels in the 100-cell and also considers the 8 surrounding grid cells, where potential development can put the center cell under greater development pressure:

- **High Vulnerability – More than 45 Residential Lots per 900 Acres**
- **Moderate Vulnerability – Between 19 and 45 Residential Lots per 900 Acres**
- **Limited Vulnerability – Fewer than 18 Residential Lots per 900 Acres**

- The **"Threat"** to rural resource land is an estimate of potential future market demand for residential lots, estimated by measuring the amount of residential development that occurred on resource lands during the decade 1997 – 2006, and assuming a similar distribution of county residential growth projected to the year 2030. Residential parcels subdivided or improved between 1997 and 2006 were counted in each 100-acre grid cell. 2030 household projections were then distributed to grid cells in proportion to their share of subdivision and improvement activity from 1997 to 2006. As with the vulnerability analysis, an 8 cell neighborhood grid around each cell was used to represent development pressure in a more generalized way, i.e., in a 900-acre area centered on each cell.

- **High Threat – Pressure for more than 45 Residential Lots per 900 Acres**
- **Moderate Threat – Pressure for 18 - 45 Residential Lots per 900 Acres**
- **Low Threat – Pressure for fewer than 18 Residential Lots per 900 Acres**

- The fourth measure, **"Stability of Rural Resource Lands,"** assesses the likelihood that the integrity of the land resource can be sustained into the future, assuming aggressive land preservation efforts by the State and local governments. Land Use Stabilization scores result from unique combinations of the first three analyses (Status, Vulnerability, and Threat). Areas of high assessment appear to have a fairly stabilized land base and can support conservation goals, in light of status, vulnerability and threat. Areas of low assessment appear to have limited prospects to support conservation goals in light of these measures. Moderately assessed lands are somewhere in between, and may be somewhat stabilized or simply not yet subject to much pressure. Prospects for areas of special assessment must depend on what is happening to land around them.

  - If land is already highly fragmented by development (Status), many more lots are possible (Vulnerability), and continued significant market demand for residential lots appears likely (Threat), the prognosis for land use stability and conservation success is relatively poor.

- If land is largely unfragmented by development, very few additional lots are possible, and market demand for residential lots appears likely to remain insignificant, the prognosis for land use stability and conservation success is relatively good.
- The greater the degree of stabilization, the better the land base is protected from development and the more time provided for preservation, before development excessively compromises the land and resources.

From there, AgPrint targets certain areas for preservation and sets priorities among them, based on the following criteria:

Targeted Agricultural Areas:

- Parcels that are priorities A, B and C (described below)
- Certified Priority Preservation Areas
- Conditionally Certified Priority Preservation Areas
- Rural Legacy Areas

Priority A, Most Stable (Color: Light Brown):

- Relatively unfragmented by development
- Low vulnerability under zoning
- Low to high market demand
- Time to achieve goals before resource is compromised
- Maximum potential return on public investment

Priority B, Moderately Stable (Color: Beige):

- Somewhat fragmented
- Moderate to high vulnerability
- Low to high market demand
- Less time to achieve goals before resource is compromised
- Moderate potential return on public investment

Priority C, Compromised or At-Risk (Color: Yellow):

- Highly to somewhat fragmented
- Moderate to high vulnerability
- Moderate to high market demand
- Little or no time for goals to be achieved before resource is compromised
- Least potential return on public investment

How do we measure success?

Until the last decade or so, success in land preservation was measured almost solely by the number of acres preserved, sometimes in comparison to the number of acres developed outside of growth areas. Eventually it became clear that there would never be enough money to preserve land just by buying it or acquiring easements. It also became clear that excessive development was fragmenting agricultural and natural resource land, threatening the viability of farming in the first instance and eliminating vital environmental benefits in the latter. As a result, the land preservation programs started to pay attention to the amount of development occurring in preservation areas, the ability to create large, contiguous blocks of preserved land, and the best ways to maximize the return on investment of taxpayer dollars in preservation.

MALPF succeeded in getting legislation passed to limit the number of lots that could be subdivided for owners and children. Rural Legacy, when deciding on how to award its funds, now considers the land use tools at work in Rural Legacy Areas and the ability of local governments to limit development there. The Agricultural Certification Program was recently updated to require the designation of Priority Preservation Areas in which development can be limited. POS now evaluates the effect of development and potential development in places where it is considering the acquisition of land. GreenPrint and AgPrint are both designed to analyze the land use context for unpreserved land in an attempt to target taxpayer dollars where agricultural and natural resource land are least disturbed by existing or potential development.

What is AgPrint's Significance to Bay Stat?

Forests provide incomparable benefits to air and water quality by absorbing carbon dioxide and other pollutants, filtering and storing water, preventing erosion, etc. Agriculture does add nitrogen, pesticide, and other chemicals to the Bay, but the effects of development—contaminated stormwater from roads and parking lots, erosion, effluent from septic systems—are worse.

Endnotes

[1] MALPF easements acquired since October 1, 2004, have been in perpetuity. For easements acquired prior to that, landowners can request termination of the easement after 25 years. The steps for termination, found in §2-514 of the Agriculture Article, are steep: an inquiry by the MALPF board to determine the feasibility of profitable farming on the subject land, including an on-site inspection of the subject land and a public hearing conducted by the board within the county containing the subject land; approval by the county governing body after receiving the recommendation of the county agricultural preservation advisory board; approval by MALPF, the Secretary of Agriculture, and the State Treasurer.

[2] Final Report, 2004. The Task Force to Study the Maryland Agricultural Land Preservation Foundation. December 2004.

[3] Interim Report for the 2003 Legislative Session, January 2003. Task Force to Study the Maryland Agricultural Land Preservation Foundation.

[4] Interim Report for the 2003 Legislative Session, January 2003. Task Force to Study the Maryland Agricultural Land Preservation Foundation.

[5] DNR's comprehensive Natural Resources Inventory consists of four separate types of land: Green Infrastructure (hubs and corridors), Rare Species Habitat (RTE species, ecologically significant areas and biological communities), Aquatic Life Hotspots (stronghold watersheds), and key Forest Lands for Water Quality Protection.

[6] Priority Funding Areas are areas in which growth and development are to be concentrated. They are defined in the State Finance and Procurement Article and are designated by counties according to State law.

[7] Final Report, 2004. The Task Force to Study the Maryland Agricultural Land Preservation Foundation. December 2004.

Recreation and Parks

Background

This chapter provides an overview of the guidelines for the Recreation and Parks elements of this and the local Land Preservation, Parks and Recreation Plans (LPPRPs), and summarizes the resulting findings, conclusions and recommendations for Maryland's parks and recreation program. The Chapter is organized in the following sections:

- Background;
- Overview;
- Goals and Implementation Program;
- Statewide Needs for Parklands and Facilities;
- Assessment of the Implementation Program; and
- Discussion, Conclusions, and Recommendations.

Maryland's principal source of funding for its parks, recreation, agricultural preservation and natural resource conservation programs is revenue raised through the real estate transfer tax, which is assessed when real property is sold. Commonly referred to as "Program Open Space (POS)" funds, the real estate transfer tax supports not only POS but also substantial portions of State funding for the Maryland Agricultural Land Preservation Foundation (MALPF), the Rural Legacy Program and numerous other conservation programs. The diagram on the next page illustrates how this transfer tax revenue is distributed.

The last three boxes at the bottom of this diagram are most relevant to parks and recreation as discussed here. Until recently, 50% of "Residual POS dollars" (the box above those three) was allocated to DNR for recreation and open space (often called stateside POS) and the Historic Saint Mary's City Commission; the other 50% went to DNR for grants to local government, often called local side POS. During the Special Session of Maryland's General Assembly in 2007, the law was amended to change this distribution of the residual POS dollars. Fifty percent still goes to DNR for recreation and open space and the Historic St. Mary's City Commission. Twenty percent or $21 million, whichever is larger, goes to DNR for State forests and parks operations. The balance – 30% or less – goes to DNR for grants to local government. Figure 1 reflects this new distribution of funds.

According to Maryland's "Analysis of the FY2010 Maryland Executive Budget, 2009," only 17% of transfer tax funding went to local side POS in FY'09, and only 8.1% is proposed for local side POS in FY'10. These funding levels represent a drastic change from the initial intent and funding scenario of the transfer tax and POS. The resulting erosion of local side POS funding has challenged the ability of local parks and recreation agencies to achieve their goals and fulfill their missions.

Stateside POS funds are used for a variety of purposes, including acquisition of land for State parks, development of State parks and protection of natural resource lands. Local side POS funds are the principal State funding source for land acquisition, facility development, and rehabilitation for many local parks and recreation programs.

In 2001, MDP and DNR, with the assistance of the Parks and Recreation Affiliate of the Maryland Association of Counties, formed a Land Preservation and Recreation Planning Study Committee. The Study Committee discussed the 2001 Maryland Land Preservation and Recreation Plan, identified shortcomings in the State/local process, and developed recommendations to correct them. In January of 2002, MDP provided the General Assembly's Joint Subcommittee on Program Open Space and MALPF a report summarizing the Committee's recommendations and the intentions of MDP and DNR to fulfill them.

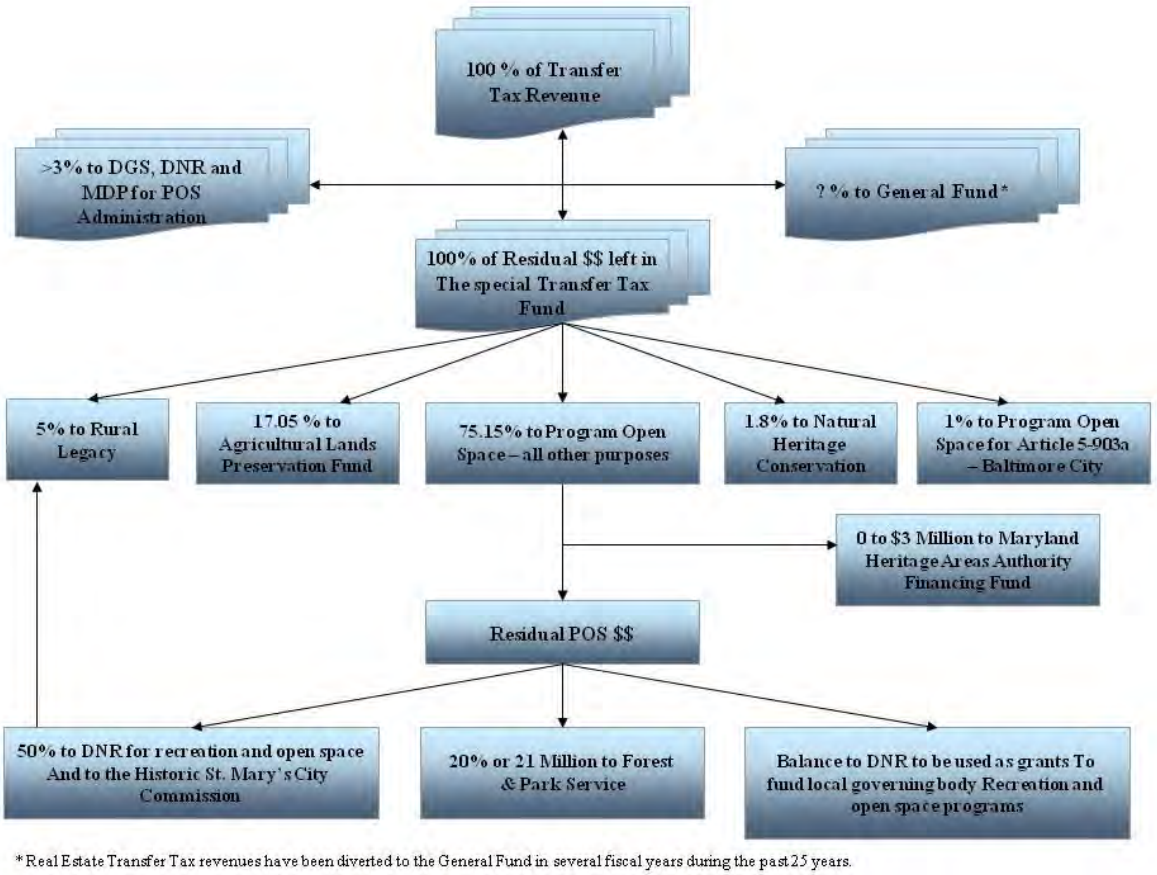


Figure 4 - How Property Transfer Tax Dollars are Spent

For purposes of parks and recreation, paramount among those recommendations and intentions were the following:

- Revise the purpose, content, and responsibilities for the State LPPRP, to reflect the expanded set of State and local programs established since the statutory guidelines for land preservation and recreation planning were established under POS law in 1969. This means distinguishing the goals and funding, planning, implementation, and evaluation mechanisms for parks and recreation from those relevant to agricultural and natural resource land conservation, which comprise the other two principle elements of this plan.
- Place a renewed emphasis on the use of a needs-based approach to determining spending priorities in the parks and recreation element of State / local planning and implementation process.
- Conduct a statewide survey to assist in the determination of demands for recreational opportunities and distribute the results to the jurisdictions.
- Allow local jurisdictions to use the results of a recreation needs analysis, based on the statewide needs survey and supplementary local information, to determine local acquisition (acreage) goals for recreation and parks, as an alternative to the current standard of 30 acres per 1,000 residents.
- Require jurisdictions to update local inventories of recreational lands and facilities on Maryland's Electronic Inventory of Recreational Sites (MEIRS), MDP's on-line, interactive recreational facilities inventory, to ensure statewide compatibility of information and to support needs analyses (the supply of facilities versus demand) at state and local levels.
- Require jurisdictions to provide a complete picture of fiscal needs to meet demand for land acquisition (number of sites, acreage, and costs), facility development (number of sites, scope of improvements, and costs), and facility rehabilitation (number of sites, scope of improvements, and costs). This will serve as the basis for jurisdiction-specific needs-based goals.
- Provide training and assistance to local governments for use of MEIRS.
- Combine, enhance, update, and share GIS data on land preserved by State and local agencies and private entities, and identify ways to develop, maintain, and share data bases to support State, local, and legislative objectives.

To implement these and other recommendations, MDP and DNR continued to work with local members of the State/ Local Study Committee to revise the guidelines for the State /local planning process. The new guidelines were published in October of 2003.

The *2003 Guidelines* established the over-arching purpose of the parks and recreation chapter to be the following:

- Review goals and objectives of State and local parks and recreation programs. Identify where they are essentially the same, where they are complementary or mutually supportive, and where they are simply different.

- Evaluate the ability of implementation programs and funding sources to achieve State and local goals and objectives.
- Identify and recommend to State and local governing bodies changes needed to overcome shortcomings, achieve goals, and ultimately ensure good return on Maryland's investment in parks and recreation.

More specifically, the *Guidelines* asked local governments to do the following in the parks and recreation chapters of their LPPRPs:

1. Describe how local parks and recreation programs and procedures are used to support State and local goals, specifically:

- How does the county invest POS funds in parks, recreation, and open space to complement and support the broader goals and objectives of local comprehensive / master plans, including the Eight Visions of State planning policy?
- How does the county attempt to ensure that recreational land and facilities for local populations are conveniently located relative to population centers; help to protect natural open spaces and resources; and complement community design and infrastructure?
- How does the county set priorities for recreational land acquisition and facility development to make existing communities and planned growth areas more desirable, thereby encouraging private investment in those areas commensurate with the priorities of the comprehensive plan?
- How does the county seek to ensure that a variety of quality recreational environments and opportunities are readily accessible to all of its citizens?

2. Complete a needs analysis to identify local priorities for land acquisition, facility development, and facility rehabilitation.

3. Identify needs-based priorities for land acquisition, facility development, and facility rehabilitation, along with estimated costs, for each of three planning time frames: short- (2006-2010), mid- (2010-2015) and long-range (2016-2020).

4. Provide, if possible, estimates of the amounts of funds expected from established revenue sources, including POS and others, to fulfill these priorities.

5. Summarize their needs-based priorities for each planning time frame in fourteen categories:

- ♣ Field sports (athletic fields, multipurpose fields, football/soccer fields);
- ♣ Baseball/Softball;
- ♣ Basketball;
- ♣ Tennis; and
- ♣ The top ten needs as identified by the county beyond these four.

Overview

In this Chapter, we provide the following:

- A summary of State goals and implementation programs for parks and recreation;
- A Statewide Needs Analysis: A summary of our findings about the need for continued use of State revenues to support land acquisition and facility development for parks and recreation;
- An Assessment of the Implementation Program: The results of our evaluation of the degree to which Maryland's parks, recreation, and associated open space goals are being achieved; and
- Conclusions and Recommendations: Key improvements to Maryland's parks and recreation process we believe will make it more effective.

Goals & Implementation Programs

Maryland's primary goals for recreation, parks and associated open space are:

- Make a variety of quality recreational environments and opportunities readily accessible to all of its citizens, and thereby contribute to their physical and mental well-being.
- Recognize and strategically use parks and recreation facilities as amenities to make communities, counties, and the State more desirable places to live, work and visit.
- Use State investment in parks, recreation, and open space to complement and mutually support the broader goals and objectives of local comprehensive / master plans.
- To the greatest degree feasible, ensure that recreational land and facilities for local populations are conveniently located relative to population centers, are accessible without reliance on the automobile, and help to protect natural open spaces and resources.
- Complement infrastructure and other public investments and priorities in existing communities and areas planned for growth through investment in neighborhood and community parks and facilities.
- Continue to protect recreational open space and resource land at a rate that equals or exceeds the rate at which land is developed at a statewide level.

These goals represent a synthesis of the statutory intent of Program Open Space law; federal and local goals; State Planning Policy (i.e. the Eight Visions of the Planning Act of 1992); and State Smart Growth Policy. Chapter I explained that this integration is necessary at both State and local levels because recreational open space is intended for public use and forms an important part of the fabric of communities; the planning and location of recreational open space play important roles in achieving public goals for both community and conservation.

Community and conservation objectives are often interdependent. For example, if residential development is concentrated in and around planned population, employment, and mixed-use centers, then neighborhood and community parklands and facilities can be concentrated there as amenities. Development that is haphazardly dispersed creates demand for more facilities spread over larger geographic areas, and can make it difficult for local parks and recreation agencies to serve citizens that reside in such areas. It may also help to attract more development outside planned centers, at the expense of agricultural and natural resource land. It is important to note, however, that even within rural districts and areas of low density, there are resident populations that require recreational amenities. Therefore, it is recognized that land purchases and facility development for parks and recreation cannot always be restricted to the Priority Funding Areas within each jurisdiction. Further, parks that focus upon an existing natural resource or feature are created where those resources exist.

As with farmland preservation and natural resource conservation, achievement of the State's recreation and parks goals depends on collaboration between State and county. The State component consists of numerous programs, some of which are detailed in text boxes on the following pages. The federal government is an important partner in many of these efforts.

Maryland is committed to better meet the outdoor recreation needs of all its citizens, regardless of physical ability, race, ethnic background, or income. To that end, DNR has prepared Americans with Disabilities Act Site Compliance Plans for a number of its sites, identified needed accommodations, and made improvements to facilities, structures, and programs at a number of DNR sites.

STATE IMPLEMENTATION PROGRAMS

Program Open Space (POS) acquires recreation and open space areas for public use. The Program administers funds made available to local communities for open and recreational space through the State real estate transfer tax and from federal programs, such as the Land and Water Conservation Fund of the National Park Service, U.S. Department of the Interior. The Program coordinates the acquisition of lands for the use of all units of DNR.

Stateside POS funds are allocated to purchase land for state parks, forests, and wildlife habitat, and for natural, scenic, and cultural resources for public use. Almost all of the land purchased by DNR in Maryland in the last 40 years was funded at least in part through POS. A portion of stateside funds are also dedicated to capital improvements, critical maintenance, and operations in state parks. Stateside POS acquisitions are now being guided by a new targeting system, which uses the best scientific information available to focus the program's limited funds.

The local side of POS makes funds available to local government to help them buy land and build and rehabilitate park facilities that will help them meet their specific goals of land conservation and recreation for their citizens. To date over 5,600 local grants projects have either acquired land or built and rehabilitated facilities for Maryland's conservation and recreation needs. Local-side POS funding is often supplemented by funding from the local jurisdictions.

Land and Water Conservation Fund

Created by Congress in 1964, the ***Land and Water Conservation Fund*** (LWCF) provides money to federal, state and local governments to purchase land, water, and wetlands for the benefit of all Americans. Lands and waters purchased through the LWCF are used to:

- **Provide recreational opportunities;**
- **Provide clean water;**
- **Preserve wildlife habitat;**
- **Enhance scenic vistas;**
- **Protect archaeological and historical sites; and**
- **Maintain the pristine nature of wilderness areas.**

Land is bought from landowners at fair market value (unless the owner chooses to offer the land as a donation or at a bargain price). The Fund receives money mostly from fees paid by companies drilling offshore for oil and gas. Other funding sources include the sale of surplus federal real estate and taxes on motorboat fuel.

Waterway Improvement Fund and other Water Resources Rivers, streams, lakes, and ponds are closely tied to many forms of outdoor recreation, directly as a setting for outdoor activities such as boating and fishing or as a backdrop to other activities such as picnicking and camping. The Waterway Improvement Fund, created in 1966, is funded mostly by the one-time 5% State excise tax on boats purchased and titled in the State. The Fund provides grants and/or loans to local governments, DNR, and federal agencies for a variety of capital projects and services for the boating public such as marking channels and harbors and establishing aids to navigation; clearing debris and obstructions from navigable waters of the state; dredging channels and harbors, and constructing jetties and breakwaters; constructing/maintaining public marine facilities; improving, reconstructing, or removing bridges, drawbridges or similar structures over or across water if those structures delay, impede, or obstruct; installing marine sewage pump-out stations; etc.

Statewide Needs for Recreation and Parks

There are numerous ways to evaluate the need for parks and recreational opportunities at statewide and local levels. We summarize the results of several efforts to do so:

- A statewide survey of public participation in recreational activities;
- Another, two-part statewide survey of satisfaction with Maryland's parks and natural resources areas, and of public attitudes about land resource conservation and the management of growth and development;
- Analyses of needs-based priorities by all 24 of Maryland's local jurisdictions; and
- A statewide assessment of land available for recreation versus population.

After that, we draw some general conclusions about statewide needs.

Statewide Needs: Participation in Recreation Activities

One source of insights about recreational needs was a telephone survey of 400 households conducted for MDP and DNR by the Maryland Institute for Policy Analysis and Research, University of Maryland, Baltimore County, in 2003. The results of this survey were complied into a report "Participation in Local Park and Recreation Activities in Maryland – A Survey of Households in Maryland and Seven Sub-State Regions,"[1] hereafter referred to as the "local participation survey." While the purpose was "to provide information about participation in local parks and recreation activities to assist local park agencies in updating their master plans for parks, recreation and open space," (specifically estimates of participation rates and frequencies for various recreational activities), the survey did not differentiate between whether the activities took place in state or local parks, or in other venues.

The researchers collected information about the size, income, age distribution, and location of the households surveyed; the age, education, disability status, marital status and ethnicity of the householder being interviewed; information about how householders participated in each of 83 different park and recreation activities during the preceding year; and selected information about the interviewee's satisfaction with various types of recreational opportunities in the householder's county.

The results were presented for the entire state and then summarized into seven geographic regions. Individual county results were not included in the report, since the sample size at the county scale was not large enough to insure reliable conclusions[2]. The researchers determined that the survey had a margin of error of ± 5 % at the regional level.

The survey found that most households were "frequent users of local parks and recreation facilities."[3] It documented those activities that attracted the largest percentages of individuals (fairs and festivals) and those that captured the highest return business (walking and swimming). Its data reflect the differing physiography and recreational preferences throughout the state, reporting that boating was more popular in Southern Maryland while hunting made the top ten lists in Western Maryland and the Upper Eastern Shore.

Much of the report's survey findings consisted of tables which displayed the percentage of households where one or more members participated in each of 83 types of recreational activity (the "participation rate"), and other tables which display the number of times a year that householders engaged in specific activities (the "frequency rate"). Using these data, one can multiply the number of householders in a jurisdiction by the participation rate and the frequency rate and produce a baseline 2002 estimate of the number of times each recreation activity occurred in a year[4]. The report clearly states that this information "… is not a forecast of need or demand, although it provides data that can help in making estimates, within broad limits."[5] The survey findings "provide information that is most effective when used to complement local census and

administrative data and the experience-based judgments of park professionals and community participants."[6]

The survey also included some measures of satisfaction. Survey participants were asked if they thought there were adequate supplies of eleven general types of recreational facilities. **Graph 6** displays the percent of all householders who thought there were 'enough' and 'more than enough recreational facilities' (by type of facility or activity) and the percentage who felt that there were 'not enough' facilities. Of the respondents, 54% responded that there were not enough bike lanes, 42% said there were not enough indoor recreation facilities, 39% said the same about swimming pools, 38% cited a lack of natural resource areas, and 35% said there were not enough trails and pathways.

With the exception of golf courses, fewer than 7% of respondents felt there was more than enough of any facility. These findings suggest areas where additional acquisition, capital development, and rehabilitation of resources might productively be directed statewide. The graph does not include respondents who either didn't know how to answer or had no opinion.

Graph 6 - Adequacy of Supply by Type of Recreational Facility Statewide

Based on Households Survey

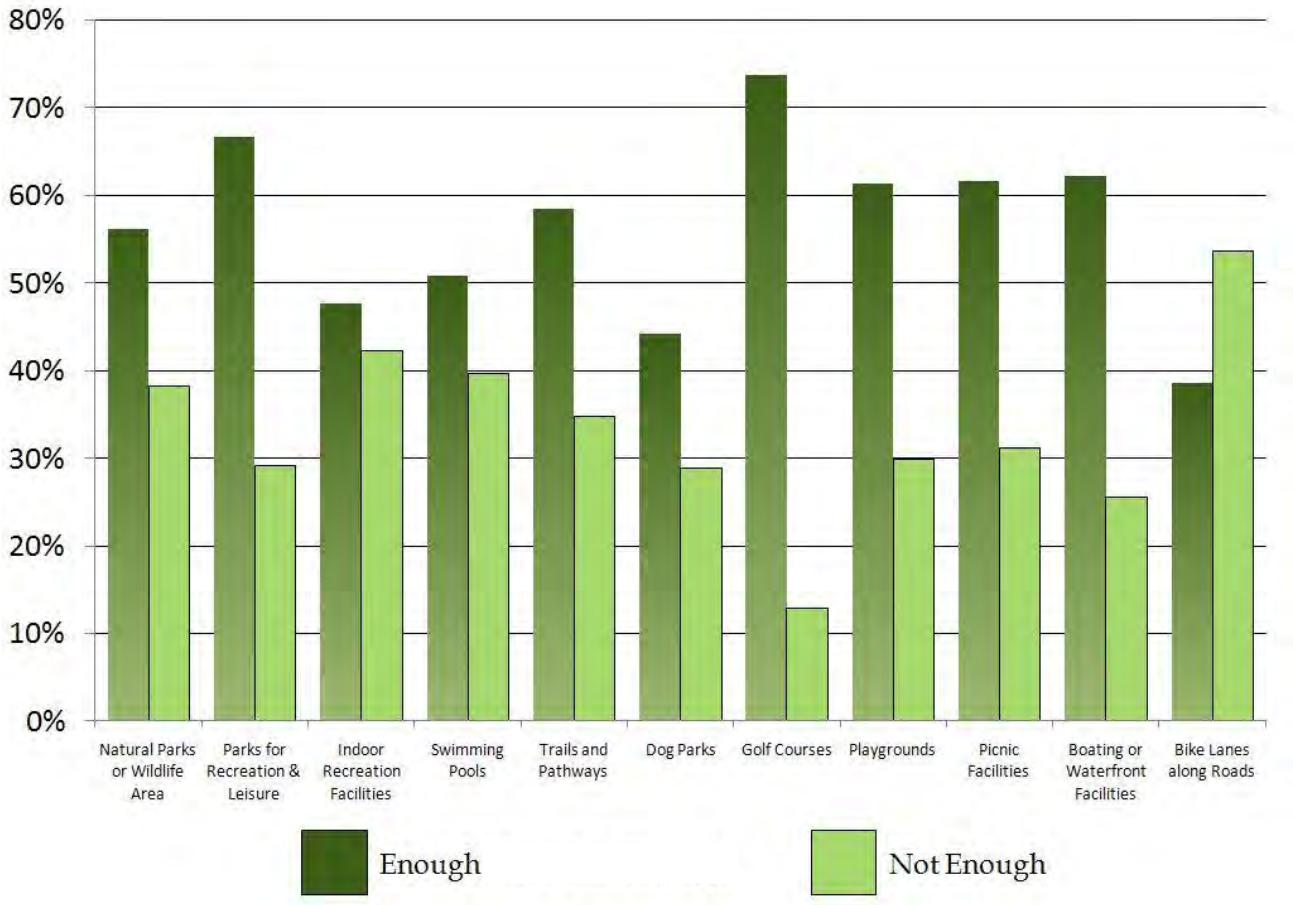


Table 2 indicates the percentage range by region with a response of "not enough" according to the local parks and recreation activities survey. In Western Maryland, just 7 % of the respondents indicated there are not enough golf courses, while 64% said there are not enough bike lanes along roads. Additionally, indoor recreation facilities and swimming pools have a high percentage of "not enough" responses. On average, 32% of Western Maryland Region respondents indicated there are not enough of all facilities or opportunities available.

There are some significant percentage ranges throughout Maryland by region. For example, a range of 30% to 62% of respondents felt there are not enough swimming pools (30% of the Suburban Washington Region, while the Southern Maryland Region indicated a significantly higher percentage of 62%). In addition, 26% of Western Maryland respondents said there are not enough playgrounds, while 45% of Baltimore City indicated deficits in playgrounds.

Needs are considered in more detail in the "Local Needs-based Priorities for Acquisition and Development" section of this Chapter.

Table 2 – Local Parks Survey "Not Enough" Recreation Facilities or Opportunities, Responses by Region

Maryland Regions	Natural Parks or Wildlife Areas	Parks for Recreation & Leisure	Indoor Recreation Facilities	Swimming Pools	Trails and Pathways	Dog Parks	Golf Courses	Playgrounds	Picnic Facilities	Boating or Waterfront Facilities	Bike Lanes along Roads
Western MD	31%	26%	44%	43%	30%	35%	7%	26%	23%	26%	64%
Suburban Baltimore	45%	34%	43%	44%	36%	32%	13%	28%	32%	25%	60%
Baltimore City	41%	37%	46%	46%	39%	36%	16%	45%	44%	32%	54%
Suburban Washington	34%	25%	38%	30%	34%	22%	15%	28%	31%	31%	50%
Southern MD	35%	33%	53%	62%	38%	36%	16%	30%	33%	17%	63%
Upper Eastern Shore	36%	28%	54%	51%	34%	32%	14%	30%	31%	19%	55%
Lower Eastern Shore	33%	32%	50%	55%	36%	37%	10%	31%	30%	16%	54%

Statewide Needs: State Lands & Public Attitudes about Conservation

In 2003 the University of Maryland, Baltimore County also conducted a survey for MDP and DNR to assess residents' views about state parks and natural resource areas in Maryland, and to ascertain public attitudes about conservation and growth management.

The survey[7] was completed in two parts. First, 800 Maryland households in four regions (i.e., Western, Central, Southern, and Eastern) were surveyed about household visits to state parks and natural resource areas, the activities they engaged in during those visits, their favorite activities, and their experiences with the facilities, features, and amenities that they found in state parks and natural resource areas. Next, the respondents were asked to characterize their attitudes about various government actions concerning the protection of land for recreation and natural resources and the management of growth to protect open space and the environment.

User Satisfaction with Maryland's Parks and Natural Resource Areas

A significant percentage of Maryland residents, nearly two-thirds, use the State's parks and natural resources each year. They engage in a wide variety of activities, with the most popular being family outings, picnicking, nature appreciation, hiking, fishing, bicycling, and nature center activities. The residents rated their experiences at state parks and natural resource areas, as well as the facilities, features, and amenities, as mostly excellent or good.

Public Attitudes about Conservation

When asked how they felt about the importance of various actions State and local governments could take to protect more land for recreation, farming, and natural resources in their counties, respondents answered in the following ways:

Table 3 - Public Attitudes about Conservation

Importance of governmental actions to protect more land for conservation. (Percent)						
Governmental Action	Very Important	Somewhat Important	Not too Important	Not at all Important	Not Sure	Total
Acquire parkland for active recreation	52.3	38.5	6.5	2.6	0.1	100.0
Protect lands for protection of wildlife, water quality and a healthy environment	83.6	13.5	2.6	0.0	0.3	100.0
Preserve farmland	65.6	26.3	4.8	3.0	0.4	100.0
Provide public access to the bay or rivers	49.8	38.8	9.9	0.5	1.1	100.0
Support for governmental actions to manage development and protect resource lands (Percent)						
GOVERNMENT SHOULD	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Not Sure	Total
Limit growth and development through planning and land use regulation	44.4	39.6	10.5	2.9	2.6	100.0
Buy more land for parks and resource protection	40.9	38.0	12.6	6.8	1.8	100.0
Require developers to preserve more natural areas and open space	64.5	27.4	6.8	0.6	0.8	100.0
Provide economic incentives to land owners for conservation and resource protection	47.0	40.9	6.4	4.0	1.8	100.0

Marylanders strongly support a variety of specific governmental actions to conserve land and manage growth and development. These questions addressed government actions ranging from regulatory ("land use regulation" and "conservation requirements for developers") to in-fee public acquisition ("buy more land for parks") to easement acquisition ("economic incentives to landowners for conservation").

Based on these results, it would seem that Marylanders support a multi-faceted governmental approach that includes this full range of actions. For all questions, 80% to 92% of respondents agreed strongly or somewhat that governments should take the subject action.

Statewide Needs: Local Priorities for Acquisition and Development

The Recreation and Parks section of the *2003 Guidelines* asked the counties and the City of Baltimore to define their parks and recreation programs; conduct a needs analysis and determine their priorities for land acquisition, facilities development, and rehabilitation; demonstrate that they meet an acreage goal if they wish to spend more than 50% of their POS allocation for development projects; and document the public participation process they used to develop the recreation component of their LPPRPs.

The ***2003 Guidelines*** for needs analysis and priorities included four steps:

1. Develop an accurate inventory of existing facilities;
2. Perform an assessment of current and future demand;
3. Determine if the existing inventory of land and facilities will meet demand; and
4. Develop plans for acquisitions and capital improvements accordingly.

To facilitate the development of an accurate, common framework to inventory parklands and facilities statewide, MDP produced a Web-enabled program called Maryland Electronic Inventory of Recreation Sites (MEIRS). MEIRS is a secure database application that allows each local jurisdiction and DNR to log in and enter information about recreational land and facilities, both public and private, which serve the public in their jurisdictions. MEIRS is intended to be "the official reporting mechanism for county and State inventories of the supply of recreational land for the 2005-2006 planning cycle,"[8] as noted in the ***2003 Guidelines***.

However, implementation problems occurred, as much at the State as at the local level; MEIRS has not been well populated with information, making it difficult to evaluate local needs-based inventories of supply, and how well those inventories are fulfilling Maryland's goals. The ***2003 Guidelines*** proposed to compare the MEIRS inventory of supply to estimated future needs, to determine if surpluses and deficits in land and recreational facilities exist for three time periods: short-term (2005-2010), mid-term (2010-2015) and long-term (2015-2020).

The resulting comparison of inventory and demand was to be used to identify needs for acquisition, recreation facility development, and facility rehabilitation.

Given that MEIRS cannot be used for uniform statewide needs analysis as anticipated, we rely here solely on the consolidation of the local needs-based analyses and priorities to compose a statewide picture. The information currently available in the MEIRS database is considered subsequently in the ***Assessment of Implementation Programs*** section of this Chapter.

All of the local jurisdictions used a version of the participation methodology provided in the *2003 Guidelines* to estimate the need for recreation facilities. The current population and future population estimates were multiplied by an individual participation rate and an individual frequency rate for a given recreation activity to produce an annual forecast of user-occurrences for that recreation activity. This "demand" for recreation was converted into an estimate of facilities needed by dividing the annual user occurrences by the annual capacity of specific recreation facilities. Capacity was determined by multiplying the number of days in the year or season(s) on which the facility could be used times the number of daily users or occurrences each facility could accommodate (daily user capacity). The resulting forecast of the number of facilities required was then compared to the existing inventory of facilities, as reported by the local jurisdiction.

Table 4 shows the participation rates and frequency rates reported in the county plans. Not all local jurisdictions performed all calculations or developed rates for all recreational activities. We illustrate the data for the three most complete datasets: those for baseball, basketball, and tennis.

Most jurisdictions used participation and frequency rates taken directly, or with slight modification, from the ***local participation survey*** discussed previously. There are differences in these rates among regions, reflecting regional variation in the survey data and slight adjustment of these values based on local knowledge in some cases. The exception was baseball, where new values were developed in almost all cases. In many counties baseball and softball are played on the same fields, with the pitcher's mound and base paths adjusted to accommodate baseball, softball, and various age groups. For this reason, many counties combined the

participation values for baseball and softball into one value rather than two to determine the need for additional baseball/softball diamonds.

Table 4 - Participation Rates and Frequency Rates for Selected Sports Reported by Counties in their 2006 LPPRPs

	Individual Participation Rate			Individual Frequency		
Local Jurisdiction	Baseball	Basketball	Tennis	Baseball	Basketball	Tennis
Allegany County	0.084	0.124	0.096	22.28	21.84	17.05
Anne Arundel County	0.405	0.113	0.103	12	19.6	13.11
Baltimore City	0.077	0.186	0.06	16.09	23.58	16.35
Baltimore County	0.071	0.113	0.103	18.11	19.6	13.11
Calvert County	not shown	0.105	0.07	not shown	17.54	8.89
Caroline County	0.182	0.102	0.07	23.73	21.52	13.21
Carroll County	0.065	0.113	0.103	31.96	30.38	13.11
Cecil County	0.182	0.102	0.07	23.73	25.12	13.21
Charles County	0.144	0.105	0.07	23.2	17.54	8.89
Dorchester County	0.087	0.119	0.058	23.1	22.09	12.97
Frederick County	0.13	0.24	0.21	21.3	16.3	12
Garrett County	0.084	0.124	0.096	22.28	21.84	17.05
Harford County	0.068	0.113	0.103	27.07	19.6	13.11
Howard County	0.134	0.113	0.103	19.64	19.6	13.11
Kent County	0.103	0.102	0.07	19.85	21.52	13.21
Montgomery County	0.163	0.109	0.036	29	27	30
Prince George's County	0.085	0.18	0.121	20.6	23.58	11.9
Queen Anne's County	0.171	0.2	0.1	21.1	21.52	13.21
Somerset County	0.049	0.119	0.058	28.42	22.09	12.97
St. Mary's County	0.144	0.105	0.07	24.8	17.54	8.89
Talbot County	0.04	0.04	0.02	1+	1+	1+
Washington County	0.085	0.124	0.096	22.3	21.8	17.05
Wicomico County	0.087	0.119	0.1	17	22.09	20
Worcester County	0.087	0.119	0.058	23.13	22.09	12.97

Reported by local PRPs

There are no "industry-wide" accepted standards for estimating recreational facility needs. It was understood during the development of the *Guidelines* that each jurisdiction could adjust the supply and demand model values based on local climate conditions, facility management policies, facility design and layout, and program participation trends to better reflect the estimated supply/demand and associated facility needs.

Table 5 displays selected results from the analysis of needed recreation facilities completed by the local jurisdictions. As in the other tables, we illustrate the outcome of the needs analysis using three types of recreation facilities: baseball fields, basketball courts, and tennis courts.

Table 5 - Need for New Baseball, Basketball and Tennis Facilities in 2005, 2010 and 2020, As Reported in 2006 Local LPPRPs

Local Jurisdiction	2005			2010			2020		
	Baseball	Basketball	Tennis	Baseball	Basketball	Tennis	Baseball	Basketball	Tennis
Allegany County	0	0	0	0	0	0	0	0	0
Anne Arundel County	2	45	90	-9	43	86	-27	39	80
Baltimore City	-34	-7	-71	-34	-7	-70	-34	-7	-70
Baltimore County	-7	0	7	-30	-9	-2	-48	-15	-10
Calvert County	-16	-9	0	-18	-10	-1	-20	-11	-1
Caroline County	-2	8	13	-5	8	12	-16	7	9
Carroll County	1	-5	-18	-11	-14	-25	-21	-23	-31
Cecil County	-16	-17	29	-19	-20	27	-26	-25	25
Charles County	-6	-10	28	-11	-13	24	-26	-22	9
Dorchester County	0	0	0	0	0	0	0	0	0
Frederick County	-8	38	1	-12	36	-6	-19	31	-19
Garrett County	-14	-14	-7	-14	-13	-7	-13	-13	-6
Harford County	8	67	14	-7	61	7	-23	54	1
Howard County	-3	32	-8	-7	30	-12	-15	27	-18
Kent County	0	0	0	0	0	0	0	0	0
Montgomery County	-12	-7	0	-16	-9	0	-20	-12	-4
Prince George's County	-113	-137	115	-122	-156	104	-130	-177	92
Queen Anne's County	-4	-25	1	-7	-28	0	-12	-33	-2
Somerset County	21	6	12	21	10	12	21	5	11
St. Mary's County	-9	-1	28	-14	-3	27	-24	-7	24
Talbot County	2	1	4	2	1	2	2	1	2
Washington County	0	0	0	0	0	0	Data not provided		
Wicomico County	0	4	3	-2	2	-1	-4	-2	-5
Worcester County	0	0	0	0	0	0	0	0	0
Total Deficit	-210	-31		-315	-91		-455	-183	
Total Surplus			241			177			87

Note: negative values represent deficits in the number of existing facilities

The local jurisdictions identified significant shortages of baseball and basketball facilities for each of the three planning periods (i.e. 2005, 2010, and 2020). As indicated in the table, these deficits continue to increase for each subsequent planning period. At the same time, a surplus of tennis facilities was reported, though the surplus decreases for each subsequent planning period.

Table 6 summarizes the local jurisdictions' priorities for recreational land acquisition, capital development, and rehabilitation between 2005 and 2020. Clearly, local governments are predicting substantial needs in all three categories; total needs are estimated at $2.3 billion:

- **Land Acquisition: $564 million**
- **Facility Development: $1.180 billion**
- **Rehabilitation: $557 million**

The greatest need identified by far is for facility development. Needs for land acquisition and rehabilitation are approximately equal to each other, each just less than half of the estimated amount of funds needed for development of new facilities. Local governments' estimated needs for land acquisition ($564 million), facility development ($1.180 billion) and facility rehabilitation ($557 million) total $2.3 billion for the period 2005 – 2020. It is clear that demand for State funds to fulfill local recreational needs will remain considerable into the foreseeable future, as the population continues to grow and facilities continue to age and deteriorate.

To help estimate the gulf between estimated needs and available funding, local governments were asked in the *2003 Guidelines* to provide estimates of funding expected from both POS and other revenue sources. Although some provided this information for prior years, few did so for the future**.** Consequently, it is difficult to estimate the deficit in available public funding relative to need and the degree to which local governments are relying on POS grants. However, we do know that most local governments rely on POS for a great deal of their capital funds for acquisition, development, and major rehabilitation of recreation land and facilities. A comparison of the potential local side POS share to the total estimated need for the planning period until 2020 should be one of the first orders of business undertaken by the State during the next planning cycle. If we assume 100% reliance, we can compare the potential local side POS share to the total estimated need for the planning period until 2020.

Table 6 - Needs-Based Priorities for Recreation and Parks by Jurisdiction, 2006

			Estimated Short-Range (2005-2010) Cost			Estimated Mid-Range (2011-2015) Cost			Estimated Long-Range (2016-2020) Cost		
Local Jurisdiction	**Estimated Total Cost (1,000's)**	**Acres to be Acquired**	**Acquisition (1,000's)**	**Capital Development (1,000's)**	**Rehabilitation (1,000's)**	**Acquisition (1,000's)**	**Capital Development (1,000's)**	**Rehabilitation (1,000's)**	**Acquisition (1,000's)**	**Capital Development (1,000's)**	**Rehabilitation (1,000's)**
Allegany[1]	-	-	-	-	-	-	-	-	-	-	-
Anne Arundel	$216,771	2836	$15,384	$33,125	$21,730	$17,791	$65,510	$20,100	$11,341	$15,040	$16,750
Baltimore County	$785,300	1920	$22,900	$55,250	$46,400	$50,300	$100,360	$74,740	$85,100	$197,450	$152,800
Calvert[2]	$78,511	667	-	$26,517	-	$9,780	$214	-	-	$42,000	-
Caroline	$26,892	334	$1,888	$2,232	$3,213	$1,345	$8,054	$1,005	-	$8,555	$600
Carroll[3]	$27,480	-	-	$15,717	$838	$1,360	$3,645	-	$1,840	$4,020	$60
Cecil	$45,889	251-413	$3,090	$14,420	$333	$7,575	$9,700	-	$600	$10,171	-
Charles	$35,863	1172	$6,460	$7,775	$1,895	$1,600	$7,409	$1,440	$1,000	$6,844	$1,440
Dorchester[4]	$884	-	-	$412	$472	-	-	-	-	-	-
Frederick[7]	$37,128	3536	$19,530	-	-	-	-	-	-	-	-
Garrett	$2,067	-	-	$1,497	-	-	$520	-	-	$50	-
Harford	$202,445	1213	$10,725	$40,587	$7,923	$14,500	$51,450	$6,350	$15,000	$48,860	$7,050
Howard[6]	$211,700	645	$24,200	$49,400	-	$14,200	$51,900		$9,000	$63,000	-
Kent[1]	-	-	-	-	-	-	-	-	-	-	-
Montgomery[7]	$177,183	5855	$36,505	-	-	$77,028	-	-	$63,650	-	-
Prince George's	$171,450	-	$23,979	$67,846	$41,514	$0	$18,413	$19,698	-	-	-
Queen Anne's	$34,181	750	$3,000	$7,912	$1,760	$3,000	$13,788	$1,425	$3,000	$196	$100
St. Mary's	$46,275	144-196	$700	$5,434	$1,751	$2,050	$19,965	$2,500	$750	$12,125	$1,000
Somerset	$2,840	12	$150	$1,015	$1,675	$0	$0	$0	-	-	-
Talbot[1]	-	-	-	-	-	-	-	-	-	-	-
Washington	$6,478	40	$1,009	$3,799	$1,460	$0	$210	$0	$0	$0	$0
Wicomico	$19,770	127	$870	$1,425	$1,468	$1,300	$7,635	$1,880	$0	$2,280	$2,912
Worcester[1]	$0	-	-	-	-	-	-	-	-	-	-
Baltimore City	$189,954	-	$0	$8,880	$10,844	$50	$30,360	$32,070	$500	$37,150	$70,100
	$2,319,060	**19,107**	**$170,390**	**$343,243**	**$143,275**	**$201,879**	**$389,133**	**$161,208**	**$191,781**	**$447,741**	**$252,812**

Total Funds Estimated for Recreation and Open Space by Local Jurisdictions (1000's)	
Acquisition	**$564,050**
Capital Development	**$1,180,117**
Rehabilitation	**$557,295**

[1] County Needs Based Priorities Matrix not provided

[2] County Needs-Based Priorities Matrix May have significant errors in the amount of more $40,000,000

[3] County Needs-Based Priorities Matrix incomplete data and calculations

[4] County Needs-Based Priorities Matrix Incomplete (no acreage, no figures for 2015 or 2020 planning periods)

[5] County Needs-Based Priorities Matrix does not break out cost figures into the three planning periods

[6] County Needs-Based Priorities Matrix did not address Rehabilitation

[7] County Needs-Based Priorities Matrix did not address Captital Development or Rehabilitation

Note: Harford's total for capital projects includes funding from non-POS sources

Statewide Needs: Parkland versus Population

One way the State has traditionally evaluated availability of recreational opportunities at the local level is through the use of a population-based standard. Prior to this planning cycle, acreage goals for parkland acquisition were estimated by comparing the number of acres of land preserved for parks and recreation to the population in each jurisdiction. The standard, also called the default acreage goal, is 30 acres per 1,000 people of population. Counties that meet or exceed this acreage goal can use more than the 50% of their POS grant for facility development, the maximum to which they are otherwise constrained. This condition was set by the General Assembly to ensure continued acquisition of land for parks and recreation purposes, given that land is a limited commodity and values generally increase over time.

(Note: for this planning cycle, counties were given two other options for their acreage goals: they could calculate a needs-based land acquisition goal (based on the needs analysis), or they could alter their acreage goal according to a method and rationale approved by DNR and MDP.)

All locally owned and maintained parks and recreation lands can count toward the goal. However, only 60% of public school recreation center property counts (to avoid crediting space for buildings, parking etc). So too can State and federal parks, forests, and education/ recreation areas be counted, up to 15 acres per 1,000 people, but only if the total State and federal acreage within the jurisdiction is in excess of 60 acres per thousand. For example, if a county has 72 acres of these types of State and federal lands per 1,000 people, they can count 12 acres per 1,000 toward the goal. Local jurisdictions can also include one third of the locally owned "Natural Resource" acreage toward their local parkland acreage goal.

Using this approach, we compared the current amount of recreational acreage reported in each local plan to the 30 acres per 1,000 people standard for each planning period in **Table 7**, based on state population estimates for 2005, 2010 and 2020. Cells in the far right of the table shaded light green indicate that the local inventory of recreational lands equals or exceeds the standard; cells shaded dark green indicate that fewer than 30 acres of recreational land per 1,000 people are available (2005) or will be available in 2010 and 2020, based on population projections.

Table 7 – Population-Based Default Acreage Standard (30 acres/ 1,000 persons) Compared to Local Inventories of Creditable Parkland Acreage Reported in the 2006 Local Plans

COUNTY/REGION	Default Acreage Standard, 30 acres per 1,000 persons			Creditable Parkland Acreage	Does Inventory meet Standard?		
BALTIMORE REGION	2005	2010	2020		2005	2010	2020
Anne Arundel County	15,360	15,804	16,530	9,310			
Baltimore County	23,721	24,590	25,256	15,038			
Carroll County	5,070	5,391	5,796	5,856			
Harford County	7,163	7,641	8,715	6,508			
Howard County	8,106	8,826	9,398	8,621			
Baltimore City	19,080	19,370	19,475	24,458			
WASHINGTON SUBURBAN REGION							
Frederick County	6,656	7,296	10,191	3,662			
Montgomery County	27,915	30,000	34,674	26,363			
Prince George's County	25,515	26,178	29,793	24,458			
SOUTHERN MARYLAND REGION							
Calvert County	2,556	2,733	2,883	1,889			
Charles County	4,161	4,568	6,182	2,884			
St. Mary's County	2,897	3,245	4,565	1,861			
WESTERN MARYLAND REGION							
Allegany County	2,217	2,223	2,202	3,279			
Garrett County	905	932	1,008	2,155			
Washington County	4,232	4,524	5,694	2,200			
UPPER EASTERN SHORE REGION							
Caroline County	939	1,016	1,427	10,462			
Cecil County	2,919	3,275	4,800	2,532			
Kent County	590	614	696	7,945			
Queen Anne's County	1,379	1,497	1,899	1,654			
Talbot County	1,058	1,103	1,254	661			
LOWER EASTERN SHORE REGION							
Dorchester County	939	995	1,197	10,310			
Somerset County	780	824	911	859			
Wicomico County	2,687	2,843	3,512	19,144			
Worcester County	1,482	1,574	1,880	10,102			
STATE TOTALS	144,606	152,472	174,682	187,173			

Meets Standard
Below Standard

Judging by this measure, current land inventories can meet current and future land acquisition needs in about half of the jurisdictions. Statewide, the total number of acres of land available for county parks and resource lands–187,173 acres will exceed the default standard throughout the planning period.

Table 8 lists each jurisdiction along with the method they chose for calculating an acreage goal. It then indicates, as noted in Table 5, if the jurisdiction is expected to meet the default State acreage standard for all or most of the planning period, and provides the county's own estimate of the funds needed for land acquisition between 2005 and 2020. The table indicates that:

- Only Caroline County has chosen to use acreage standards that are needs-based. The acreage available for outdoor recreation already exceeds the default standard. Caroline estimates the need for about $3.2 million for land acquisition during the planning period.
- Of the remaining jurisdictions, ten expect to exceed the default standard for all or most of the planning period. Of these, three estimated no need for land acquisition funds (Allegany, Garrett, and Dorchester counties), and one did not provide data for needs-based priorities (Worcester County). In the rest of this group, estimated funding needed for land acquisition totals about $15 million for the planning period, with the highest need—$9 million–anticipated in Queen Anne's County.
- In the other remaining thirteen jurisdictions, acreage is expected to fall short of the default standard for all or most of the planning period. One did not provide information on needs-based priorities (Talbot County). Of the twelve remaining, estimated funding needed for land acquisition totals about $559 million for the planning period, ranging from about $1 million in Washington County to about $177 million in Montgomery County.

Table 8 - Acreage Goals & Land Acquisition Priorities, by Jurisdiction

COUNTY/REGION	METHOD USED TO CALCULATE ACREAGE GOALS[1]	MEETS DEFAULT STANDARD	ESTIMATED NEED FOR 2005-2020 ACQUISITIONS ($1,000's)
BALTIMORE REGION			
Anne Arundel County	State Default		44,516
Baltimore County	State Default		158,300
Carroll County	State Default		3,200
Harford County	State Default		40,225
Howard County	35 acres per 1000		43,400
Baltimore City	State Default		550

COUNTY/REGION	METHOD USED TO CALCULATE ACREAGE GOALS[1]	MEETS DEFAULT STANDARD	ESTIMATED NEED FOR 2005-2020 ACQUISITIONS ($1,000's)
SUBURBAN WASHINGTON REGION			
Frederick County	25 acres per 1000[2]		37,128
Montgomery County	State Default		177,183
Prince George's County	35 acres per 1000		23,979
SOUTHERN MARYLAND REGION			
Calvert County	State Default		9,780
Charles County	State Default		9,060
St. Mary's County	State Default		3,500
WESTERN MARYLAND REGION			
Allegany County	State Default		not provided
Garrett County	State Default		not provided
Washington County	15 acres per 1000		1,009
UPPER EASTERN SHORE REGION			
Caroline County	Needs		3,233
Cecil County	State Default		11,265
Kent County	State Default		not provided
Queen Anne's County	State Default		9,000
Talbot County	State Default		not provided
LOWER EASTERN SHORE REGION			
Dorchester County	20 acres per 1000		not provided
Somerset County	State Default		150
Wicomico County	State Default		2,170
Worcester County	State Default		not provided

[1] "State Default" is 30 acres of local parkland per thousand population

[2] (Excluding State and Federal parks)

	Yes	No
State Default Standard		
Needs Based/Other		

Most of the funds needed for land acquisition are concentrated in jurisdictions where public land holdings for parks and recreation fall short of the State standard: the Baltimore-Washington metropolitan counties, along with four counties that are in the process of transitioning from more rural to metropolitan: Calvert, Charles, and Saint Mary's Counties in Southern Maryland, and Cecil County on the Upper Eastern Shore.

Statewide Needs for Recreation and Parks: Conclusions

We considered several ways to assess the need for additional lands and facilities for recreation and parks:

- Two statewide surveys, examining the public's participation in recreation activities at the regional level, the public's use of state parks and lands, and public attitudes about conservation;
- Priorities for land acquisition and facility development compiled by local governments, based on existing and anticipated supplies of land and facilities compared to current and anticipated demand; and
- Comparisons of population-based standards for the amount of recreational land needed to the amount of recreational land available, statewide and by jurisdiction.

Results indicate substantial and continuing needs for additional parklands and facilities. In summary, these measures collectively suggest that:

- There is extensive public participation in recreation activities and use of both State and local lands and facilities;
- Need varies substantially among jurisdictions, based on both their own individual assessments and the more uniform statewide measures of need we used; and
- The amount of money needed to meet needs for land acquisition and facility development and rehabilitation over the next 11 years far exceeds the amount that will available through the local share of POS funds.

To see if further insights might be gained from these different sources, we compared results from the local recreation participation survey to individual jurisdictions' determinations about the adequacy of recreation facilities. Those results are summarized here.

In the recreation survey, respondents were asked to indicate if their county had "more than enough," "enough," or "not enough" of recreation facilities in 11 categories: parks or wildlife areas left in their natural state; parks for recreation and leisure activities; indoor recreation facilities; swimming pools; trails and pathways; dog parks; golf courses; playgrounds; picnic facilities; boating or waterfront facilities; and bike lanes along roads. Results were compiled by region and originally presented in **Table 2**.

To complete their individual needs analyses, each jurisdiction had to determine if there were deficits or surpluses of land and facilities to support a variety of recreation activities, in relation to measured or estimated demand. Results are specific to individual counties and Baltimore City.

Three of the four Western Maryland counties (Allegany, Garrett, Frederick, and Washington) reported deficits in recreation facilities corresponding to the activity

categories for which 40% or more of survey respondents said "not enough" facilities are available within their counties. One county did not complete a needs analysis.

Suburban Baltimore Region Counties (Anne Arundel, Baltimore, Carroll, Harford, Howard) indicate in their plans that this region has the most deficits for recreation facilities of all regions. More than 35% of respondents to the regional survey indicated that there are "not enough" recreation facilities for 10 of the 11 activity categories, with the exception of golf courses. Most determinations made by counties through their needs analyses were consistent with survey results.

Consistent with the survey results, Baltimore City identified deficits in indoor recreation facilities, playgrounds, and picnic facilities, but a surplus of swimming pools. Natural parks and wildlife areas were not addressed.

For all activity categories, fewer than 40% of survey respondents in the Suburban Washington Region thought there were "not enough" facilities available. However, Montgomery County's needs analysis revealed deficits in facilities supporting field sports in all three planning periods (2005-2010, 2011-2015, and 2016-2020). Prince George's County completed a more thorough analysis and concluded that they have deficits in all recreation categories except softball, tennis, playgrounds, and picnic facilities.

In Southern Maryland (Charles, St. Mary's, Calvert) more than 40% of local respondents felt there were "not enough" indoor recreation facilities and swimming pools. The counties recognized deficits in indoor recreation facilities, but indicated a surplus of swimming pools.

Three of the five Upper Eastern Shore counties (Cecil, Caroline, Kent, Queen Anne's, and Talbot) found deficits in indoor recreation facilities and swimming pools, of which 40% or more of regional survey respondents felt there were "not enough." Two counties indicated either no deficits or they did not address these recreation categories.

On the Lower Eastern Shore (Dorchester, Somerset, Wicomico, and Worcester), 40% or more of survey respondents indicated that there were "not enough" indoor recreation facilities and swimming pools, but all five counties reported no deficits in these categories.

Most of the local needs analyses reported deficits in outdoor facilities for field sports, tennis, and skating. This corresponded with survey results showing that, on average, 31% of respondents statewide feel there are "not enough" parks for recreation and leisure.

This comparison suggests that the results of survey findings and needs analyses are congruent in some cases and that there are variations in other cases. It must be noted that the survey results are only statistically significant by region (in contrast to the needs analyses, which were done by county/city), and the activity categories used in the survey were more general than the activity-specific needs analyses performed by some counties.

Nonetheless, the variations may suggest the need for further scrutiny—keeping in mind the lack of a standard assessment methodology—and should be considered in evaluating needs in the next round of recreation and parks planning.

Assessment of Implementation Programs for Parks and Recreation

In the *2003 Guidelines* for State and Local Plans, we raised four basic questions to assess the degree to which State goals for recreation and parks are being achieved:

- Are local side POS investments in parks, recreation, and open space being used effectively to complement and support the broader goals and objectives of local comprehensive / master plans, including the eight visions of State Planning Policy?
- Are local side POS investments ensuring that recreational land and facilities for local populations are conveniently located near population centers; help to protect open spaces and natural resources; and complement community design and infrastructure?
- Do county priorities for recreational land acquisition and facility development make existing communities and planned growth areas more desirable places to live, thereby encouraging private investment in those areas commensurate with the priorities of the local comprehensive plan?
- Are a variety of quality recreational environments and opportunities readily accessible to all of Maryland's citizens?

Here, we consider two sources of answers to those questions: the local plans themselves, and the analysis of locally reported data in the MEIRS database.

Achieving State Goals: Responses of Local Plans

Jurisdictions were asked to respond to a series of questions or requests relating to the ways in which their recreation and parks efforts support State goals. Those questions/ requests are reiterated here, followed in each case by general summaries of local responses.

First, jurisdictions were asked to characterize how their local parks and recreation programs and procedures support State and local goals in four specific ways.

1. How does the county or city invest POS funds in parks, recreation and open space to complement and support the broader goals and objectives of local comprehensive / master plans, including the Eight Visions of State Planning Policy?

Most counties indicated that they share with the State the goal that POS funds complement and support goals and objectives of comprehensive plans and the Visions of State Planning Policy. Many emphasized their use of POS funds to acquire or develop parklands and facilities in areas easily accessible to locally designated growth areas and in rural areas near population centers.

For example, 88 percent of the land to be acquired for recreation during the 2005-2020 planning period by Anne Arundel County will be in the northern part of the county, the area with the greatest demand and need for additional recreational open space. Cecil County intends to use POS funding in close concert with the broader goals and objectives of their comprehensive plan, but their LPPRP did not provide a listing of specific proposed projects. A few counties that already exceed the State default standard for recreation land indicated that they would continue to focus POS funding for acquisition in ways that will optimize recreational opportunities for projected future populations.

2. How does the county/ city attempt to ensure that recreational land and facilities for local populations are conveniently located relative to population centers; help to protect natural open spaces and resources; and complement community design and infrastructure?

All of Maryland's local governments share these goals and described to varying degrees the ways in which they attempt to accomplish them. Allegany County, for example, has a policy to provide at least one public recreation area containing 10+ acres in all communities having a population of 500 or more people. Baltimore County plans to promote a greater appreciation for the natural environment through interpretation and hands-on experiences for their population, expand efforts to protect sensitive environmental areas within the county's parklands, and acquire a variety of park and recreation sites to achieve the State goal of providing thirty acres of parkland per thousand citizens within the county. Achievement of these goals can significantly benefit community conservation.

3. How does the county set priorities for recreational land acquisition and facility development to make existing communities and planned growth areas more desirable, thereby encouraging private investment in those areas commensurate with the priorities of the comprehensive plan?

The majority of jurisdictions included descriptions of how they set their priorities, which in almost all cases are based on needs analysis and input from citizens, incorporated towns, and park and recreation organizations. A few counties did not provide any information on this subject. Most did not address the objective of enhancing existing communities and planned growth areas to encourage private investment commensurate with the priorities of the comprehensive plan, while a few noted that their most recent comprehensive plans do not include specific goals for recreation.

4. How does the county seek to ensure that a variety of quality recreational environments and opportunities are readily accessible to all of its citizens?

All jurisdictions provided some information on how they plan to ensure that a variety of quality recreation environments and opportunities are readily accessible to all of their citizens. Harford County, for example, plans to provide recreational opportunities in all parts of the county and design all new facilities to meet the standards of the Americans with Disabilities Act (ADA).

Allegany County emphasized a countywide recreation area on the location of the Cumberland Fairgrounds, and plans to work with DNR to further develop the trail network in Allegany County so that greenways can connect urban areas to open spaces.

Each jurisdiction was to complete a needs analysis to identify local priorities for land acquisition, facility development, and facility rehabilitation, along with estimated costs for each of three planning time frames: short- (2006-2010), mid- (2010-2015) and long-range (2015-2020).

All of the jurisdictions performed local needs-based analyses, and identified to varying degree priorities for acquisition, development, and rehabilitation. The results are described in some detail in a preceding section of this Chapter, *Statewide Needs: Local Needs-based Priorities for Acquisition and Development*. Four counties did not provide a land acquisition, development, and rehabilitation matrix as required in the 2003 LPPRP *Guidelines*, while others did not include estimated costs for the three planning periods specified or for facility development or rehabilitation.

Local governments were to provide, if possible, estimates of the amounts of funds expected from established revenue sources, including and other than POS, to fulfill these priorities.

Although some jurisdictions provided this information for prior years, few provided estimates for the future. This lack of information was discussed in context of the *Statewide Needs: Local Needs-based Priorities for Acquisition and Development* section of this Chapter. It is important to recognize that economic fluctuations and continued capital funding reductions for local parks and recreation, particularly from POS, have made it difficult for local parks and recreation agencies to project future funding allocations.

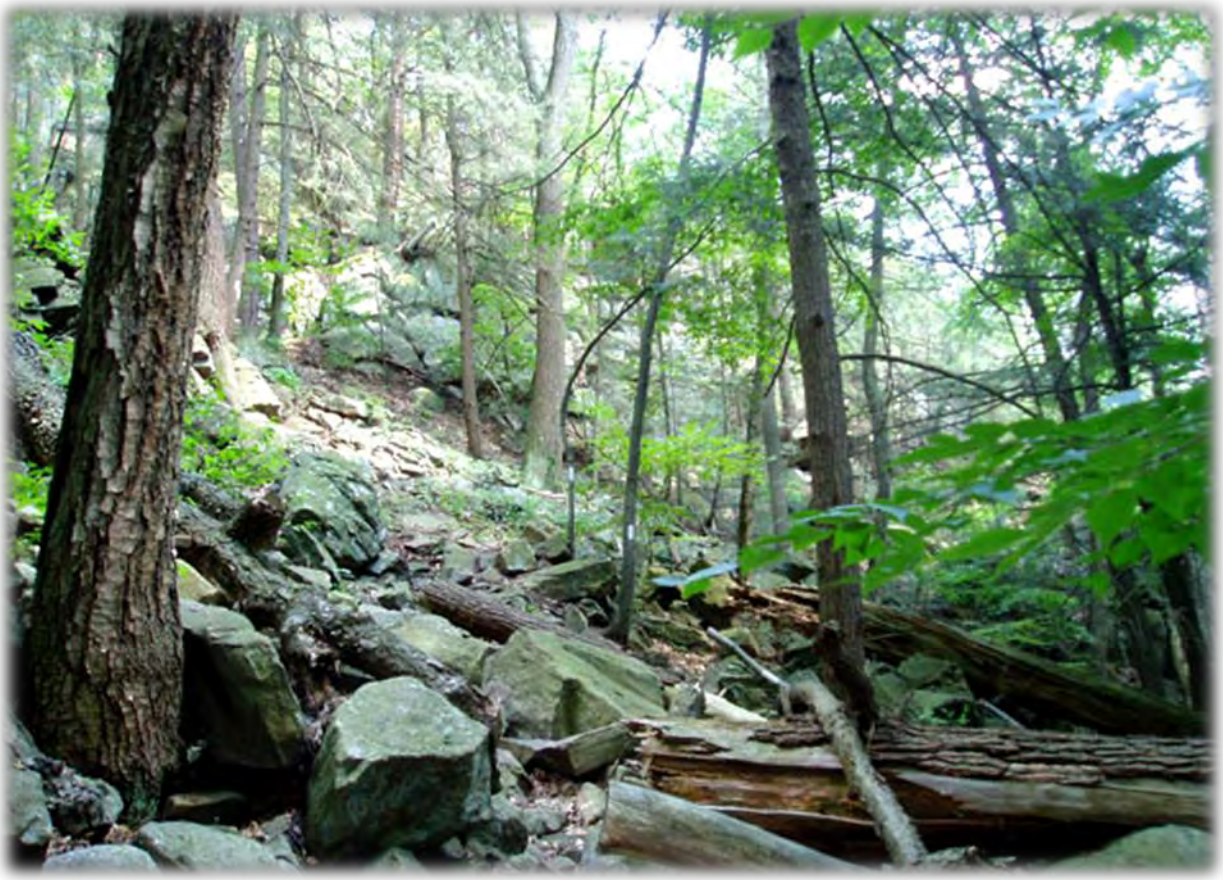
Local governments were asked to summarize their needs-based priorities for each planning time frame in fourteen categories:

- **Field sports (athletic fields, multipurpose fields, football/soccer fields);**
- **Baseball/Softball;**
- **Basketball;**
- **Tennis; and**
- **The top ten needs as identified by the county beyond these four.**

All of the local governments provided this information for some activities. The results for baseball fields, basketball and tennis courts were summarized in **Table 4** previously in this Chapter.

One State goal to which all local governments contribute is the ability to protect recreational open space and resource lands at a rate that equals or exceeds the rate that land is developed at a statewide level.

For a sense of the ratio of protected versus developed land, **Table 9** lists statistics for Maryland's counties, based on MDP's land use and protected lands databases and other data available to MDP. Individual jurisdictions may have different data, particularly for protected lands. Where this is the case, MDP will update its databases when more recent information is provided by local governments. Currently, the ratio of protected to developed land for the State is about 1.09:1.



Although Maryland as a whole has protected a number of acres of land that is roughly equal to the number that have been developed, the protected-to-developed acreage ratio varies widely among jurisdictions. All counties with ratios above 2 are rural, and generally have large State/ federal land holdings, have preserved considerable amounts of land, have restrictive rural zoning, or have some combination of all of these factors. Metropolitan and the majority of transitional counties, subject to higher levels of development pressure for more time, all have ratios less than one.

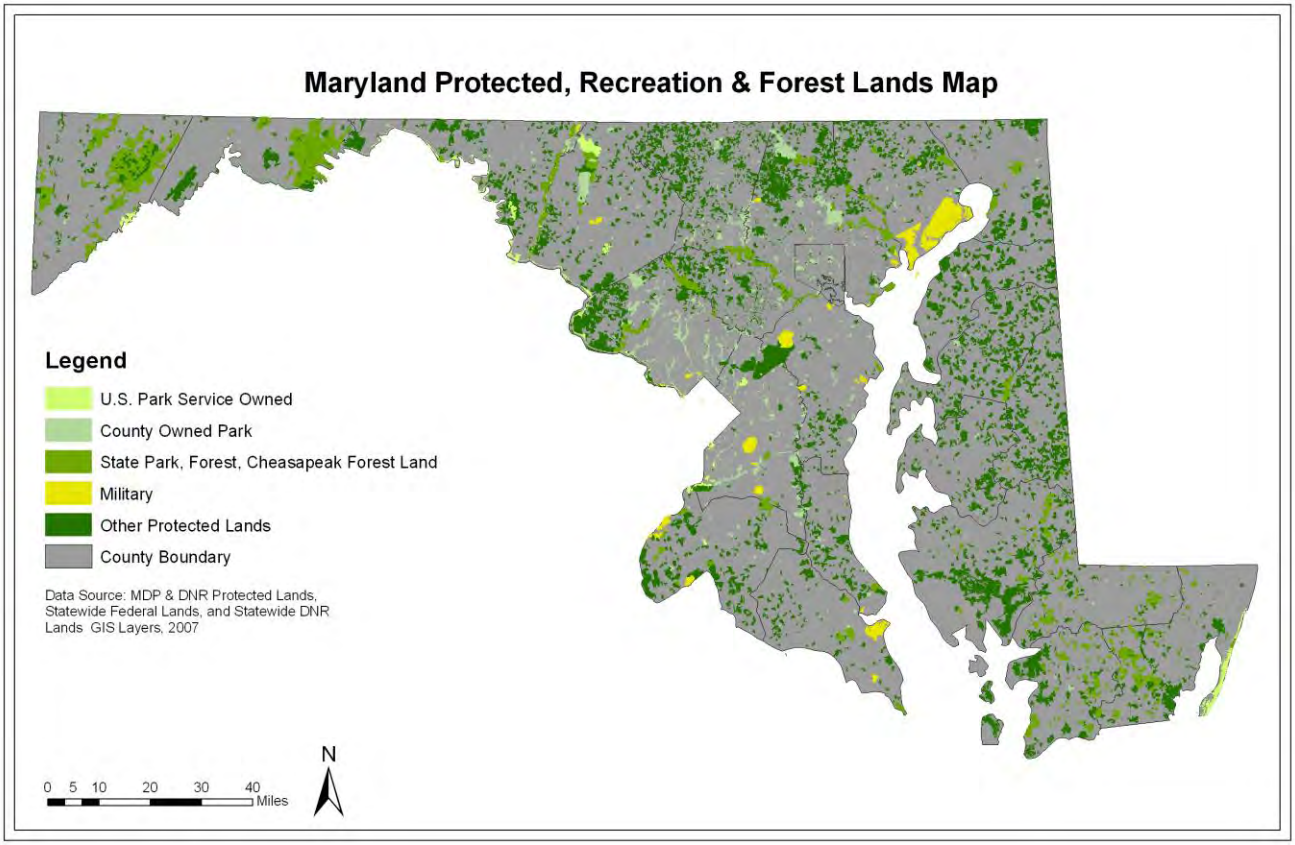
The total in the table does not include the considerable amounts of federal land on military installations, about 71,000 acres statewide. In some cases, substantial portions of that land serve recreational and/ or resource conservation purposes. The map below shows all protected lands, color-coded by use or purpose.

Table 9 – Comparison of Developed and Protected Land

County	Developed Acres	Acres Under Easement	Publicly Owned Land (Local, State, & Federal)	Total Preserved Land	Percent Developed	Percent Preserved	Ratio of Preserved to Developed Land
Allegany	27,875	1,839	70,947	72,786	10.4%	27.3%	2.61
Anne Arundel	111,765	15,612	23,041	38,653	42.1%	14.6%	0.35
Baltimore	151,700	46,512	30,162	76,674	39.4%	19.9%	0.51
Calvert	36,817	28,905	6,906	35,811	26.8%	26.1%	0.97
Caroline	16,388	41,711	7,654	49,365	8.0%	24.1%	3.01
Carroll	60,756	53,071	10,524	63,594	21.2%	22.2%	1.05
Cecil	35,961	24,356	16,654	41,010	16.1%	18.4%	1.14
Charles	50,659	26,964	20,241	47,205	17.2%	16.0%	0.93
Dorchester	17,307	30,212	65,061	95,273	4.9%	26.8%	5.50
Frederick	69,698	47,748	32,331	80,079	16.4%	18.9%	1.15
Garrett	35,973	8,617	90,736	99,353	8.6%	23.7%	2.76
Harford	74,203	45,114	13,343	58,457	26.4%	20.8%	0.79
Howard	64,802	19,273	19,791	39,064	40.3%	24.3%	0.60
Kent	10,794	34,033	7,958	41,991	6.0%	23.5%	3.89
Montgomery	145,788	76,672	49,498	126,170	46.0%	39.8%	0.87
Prince George's	129,060	4,522	52,928	57,451	41.7%	18.6%	0.45
Queen Anne's	20,532	48,806	7,900	56,705	8.6%	23.9%	2.76
St. Mary's	48,241	14,504	8,609	23,113	20.9%	10.0%	0.48
Somerset	12,169	14,840	51,970	66,810	5.9%	32.3%	5.49
Talbot	22,106	28,221	899	29,121	12.9%	17.0%	1.32
Washington	52,431	24,586	34,577	59,163	17.9%	20.2%	1.13
Wicomico	34,287	13,400	24,037	37,437	14.3%	15.6%	1.09
Worcester	21,558	20,904	48,977	69,881	7.1%	23.2%	3.24
TOTAL (Counties only)	1,250,870	670,421	694,743	1,365,165	20.2%	22.1%	1.09

Counties shaded blue have a ratio of Protected to Developed Land > 1[ix]

(Note: Some county-by-county statistics for some programs differ from statewide totals used in Chapter II.)



Achieving State Goals: MEIRS Analysis

The intention for this plan was to use the MEIRS (Maryland's Electronic Inventory of Recreational Sites) database to help evaluate the degree to which State goals are being achieved through combined State and local parks and recreation programs. The analysis was to focus on how local side POS funds had been and were being used to support those goals, supplementing the evaluations provided in the local plans and summarized in the preceding section of this plan.

As a precursor to the analysis, we evaluated the inventories of recreational land and facilities reported by jurisdictions in MEIRS, by comparing them to the information reported in local plans for the required needs analyses. With the exception of a few counties, there is substantial disagreement between the amount of land reported in MEIRS and that used in the local plans to calculate needs for acquisition and capital improvements. No pattern to this discrepancy was observed; statistics in MEIRS were not consistently higher or lower than statistics from the local plans. The reasons for the discrepancies are unknown.

This state of affairs precludes the use of MEIRS as an objective source of information to evaluate the degree to which State recreation and parks goals are being achieved. Neither can the database be used, as intended, as a statewide, on-line inventory of recreational opportunities that will enable anyone to obtain information about

recreational sites and facilities throughout the state and also to pull up maps along with informational data.

The viability and utility of MEIRS will be considered by the State/local workgroup that will meet after the publication of this plan to discuss the *Guidelines* for the next round of LPPRPs. A more effective, user-friendly, geographically-integrated system should be designed and implemented.

Findings and Conclusions

Clearly, local side POS funds have achieved and are helping to achieve many of the State's goals. This conclusion is supported by numerous facts and findings discussed earlier, including the extensive levels of participation of Marylanders in recreational activities; their sentiments about accessibility to parklands and facilities; the extensive inventories of land and facilities available to Marylanders; and the generally favorable comparisons of the amount of land available relative to population in many jurisdictions and at a statewide level.

At the same time, a few concerns are raised by other findings. These include the significant numbers of Marylanders who feel that access to some types of facilities is inadequate; the very large number who feel that more is needed from government to manage development and protect resource lands and parklands through both regulatory and fiscal means; projected shortfalls in available parklands in the majority of metropolitan and transitional counties, which also identified fiscal needs for facility development and rehabilitation that exceed those for acquisition; and inadequate information to evaluate the accessibility that different communities and populations have to recreational opportunities.

Since its inception, the State/ local parks and recreation planning process has been driven largely by the concept of using acreage goals for land acquisition as a threshold for the amount of POS funds that local governments could spend on facility development versus acquisition. Acquisition remains important because more acreage is needed to meet the needs of a growing population.

However, it is clear that simple counts of public recreational acreage relative to population by jurisdiction are inadequate for measuring the need for land acquisition and facility development and rehabilitation, especially when one considers the issue of land/ facility location, populations served, accessibility, public safety, and quality of facilities.

Needs-based analyses, as emphasized for this planning cycle, are perhaps a better way to focus on these issues. In addition to the statewide survey of local participation in recreational activities, each jurisdiction has its own means of gauging demand, needs, and accessibility. However, there are pros and cons to a strict needs-based approach, particularly if tied to the existing facility needs methodology (without refinement or

qualitative analysis). Basing acreage needs solely on facility needs ignores the importance of resource conservation and general preservation of green space, an essential role of local parks and recreation agencies.

Two things are particularly difficult to ascertain from the combined results of the statewide survey of parklands and the information reported in local LPPRPs. The first is accessibility to recreational opportunities for all of Maryland's population, especially at the neighborhood and community scales where access does not have to depend on automobiles. The second is determining if investment in parklands and facilities is being used effectively to locate recreational lands and facilities in and near existing and planned development, thereby complementing and supporting the broader goals and objectives of local comprehensive plans and State planning policy.

Unequal accessibility among communities may be reflected in the significant percentage of respondents to the statewide survey of participation in recreational activities who reported "not enough" access to natural parks or wildlife areas, parks for recreation, indoor recreational facilities, swimming pools, trails, dog parks, playgrounds, picnic facilities, and boating or waterfront activities. We do not have information on which communities have access to which opportunities.

MDP intended to do a geographic analysis of the distribution of parklands and facilities relative to existing and planned population centers, but such an analysis was not required in the local plans, and a lack of data in MEIRS precluded such an effort. The analysis may have helped to answer questions that relate to location, but more comprehensive and complete data are needed. The design and implementation of a quality, geographically-based parkland inventory system will allow this analysis to be accommodated in the future.

The implications of the emphasis on facility development and rehabilitation over land acquisition, as reported in the needs-based priorities of local LPPRPs, are also unclear. Of the total needs of $2.3 billion estimated for the 2005–2020 period, the funds needed for facility development were more than double those for land acquisition, while the need for rehabilitation almost equals the need for land acquisition. Part of this disparity in anticipated funding needs reflects the relatively high costs of facility development and rehabilitation. Additionally, it may also be a sign that good acquisition opportunities are becoming scarce in some communities—which sometimes leads counties to provide required parks and facilities on a regional instead of a community basis.

As noted previously, the needs among jurisdictions were generally consistent with the acreage-based assessment of publicly available parklands: most of the acquisition needs were in jurisdictions likely to fall short of the default State acreage standard for all or most of the 2005-2020 planning period. However, the discussion of acreage goals in the local LPPRPs were not required to factor in the location of community and population centers, the location of planned growth areas, accessibility of future land acquisitions, or how well such acquisitions would support other public investments.

These various observations suggest that it may be time to reassess and possibly revise the ways in which the State attempts to ensure that local expenditures of POS funds address State goals. Acreage acquisition goals as thresholds for the amounts of money spent on facility development versus acquisition are one guideline. Statutory requirements to revise local land preservation, parks, and recreation plans periodically, and ensure that all POS-funded projects are consistent with the priorities identified in this plan, provide additional guidelines.

In addition, the changes made during the 2007 special session of the General Assembly to the formula governing distribution of POS funds to the State and local governments will affect the relative importance of State funding in the larger scheme of each jurisdiction's recreation and parks program. Without further adjustments to the POS funding formula to better support the local side of POS, many counties and municipalities will be hard pressed to meet the parks and recreation needs of their citizens. State restrictions and requirements for local spending should be re-examined in light of this significant change in funding.

Priorities and Guidelines

Based on the findings and conclusions discussed above, the need for clearer focus on goals at the State level is crucial. Population-based acreage targets for acquisition, needs analyses based on measures of supply and demand, and the consolidation of uniform statistics statewide are helpful. But by themselves, these measures are limited in their ability to tell us if we are making recreational opportunities accessible to all populations and achieving the other established State goals for recreation and parks.

This plan reaffirms the goals for recreation and parks that are found in *2003 Guidelines for State and Local Preservation*, *Parks and recreation Plans* promulgated by MDP for the next round of local land preservation, parks and recreation plans. Those goals are to:

- Make a variety of quality recreational opportunities accessible to all of Maryland's citizens, and thereby contribute to their physical and mental well-being.
- Use parks and recreation facilities as amenities to make communities, counties, and the State more desirable places to live, work, and visit.
- Use State investment in parks, recreation, and open space to complement and mutually support the broader goals and objectives of local comprehensive plans.
- To the greatest degree feasible, ensure that recreational land and facilities for local populations are conveniently located near population centers, are accessible without reliance on the automobile, and help to protect natural open spaces and resources.

- In existing communities and in areas planned for growth, complement infrastructure and other public investments through investment in neighborhood and community parks and facilities.
- Continue to protect parkland and resource land at a rate that equals or exceeds the rate at which land is developed at a statewide level.

The over-arching need for the next round of local land preservation, parks, and recreation plans is to focus more on how well these goals are being achieved and less on the mechanisms used to achieve them. Accordingly, each local plan should show how it will achieve these goals through its spending priorities for acquisition, facility development, and rehabilitation. Specifically, plans and projects should demonstrate the following principles:

- Plans should be oriented to population centers, communities, and neighborhoods designated for growth and development in comprehensive plans. Parkland and recreational needs, accessibility of populations to recreational opportunities, and spending priorities should be evaluated and determined for those specific areas.
- Spending priorities should emphasize locations accessible to residents in population centers, communities, and neighborhoods, and the use of State funds to make them more desirable places to live, work, and visit.
- Parks and recreation facilities that support highly desirable activities that are most appropriate at community and neighborhood scales should not generally be located in areas designated in comprehensive plans for conservation of agricultural and/ or natural resource land. There may be exceptions in cases where sufficient population exists to merit such parks and facilities, or when such facilities are coupled with parks that preserve significant natural resources.

For the next round of planning, updated priorities for acquisition, facility development, and rehabilitation should be completed by July 1, 2011. However, due to the delayed publication of this State plan, the deadline can be extended for any jurisdiction that provides a work plan that justifies the need.

Those priorities should be based on the aforementioned goals and principles. Until additional *Guidelines* are published, local governments should refer to the *Guidelines for State & Local Land Preservation and Recreation Planning* published by the Department of Planning in October, 2003. Additional *Guidelines* for the next round of plans will result from the work of a State/ local work group that will convene during the summer of 2009. As indicated in the Recommendations section below, the work group will address some of the specific findings and issues discussed earlier in this Chapter.

Local governments seeking clarification on specific issues or work plans for the planning process should consult with the Maryland Department of Planning.

Recommendations

The findings and conclusions of this Plan indicate the possible need for substantial changes in State guidelines for local expenditures of POS funds. The plan principles summarized above begin to address those needs. Accordingly, the over-arching recommendation of this plan is that the Department of Planning should form a State/ local work group with the Department of Natural Resources and local recreation and parks representatives to:

- Review the findings, conclusions, priorities, and guidelines of this plan;
- In light of those findings and other issues identified by local governments, evaluate existing State rules, requirements, and procedures governing local expenditures of POS funds and the preparation of local land preservation, parks, and recreation plans; and
- Make recommendations to the General Assembly about ways in which the State/ local process could more effectively achieve the goals of the State plan and local programs, including needs for expanded capital funding for parks and recreation.

Based on the results of the workgroup's deliberations, the Department should:

- Establish by October 2010 any revised *Guidelines* for the planning and implementation process; and
- Propose changes to the General Assembly in the restrictions and requirements governing local use of POS funds for the 2011 legislative session.

Issues to be Addressed by the Work Group

The State/ local work group should address, at a minimum, the following issues:

1. Resolve the apparent discrepancy between the needs-based priorities of many jurisdictions (indicating greater needs for facility development) and information on recreational acreage and population by jurisdiction (indicating substantial needs for acquisition).
2. Determine how the State can most effectively guide and monitor local use of POS funds to achieve State and local goals, while minimizing burdensome restrictions and requirements for spending, data compilation, and reporting.
3. Visit the inconsistencies among jurisdictions' estimates of season length and facility capacity for a number of recreational activities. Decide if this is a problem or merely the natural result of differing circumstances among the counties.
4. Develop and implement a statewide parklands data base that is useful to local governments, is compatible with State and local GIS data, and provides the State

with the data necessary to support uniform, complete, and accurate statewide reports to the General Assembly on parklands and facilities. MEIRS (Maryland's Electronic Inventory of Recreational Sites) was created for this purpose, but has shortcomings and has not been sufficiently embraced and populated by all necessary State and local partners.

5. Determine what types of statewide surveys and facility and community audits would best support useful needs analyses for future rounds of recreation and parks planning under POS law. Explore with local governments the potential value of a statewide survey of recreational activities similar to one performed by MDP and DNR in 2003; a facility audit that local governments could use to evaluate maintenance and safety needs and deficiencies; and a community audit that local governments could use to evaluate perceived safety, accessibility, and adequacy of existing lands and facilities.
6. Determine how to fund and perform the surveys and audits needed.
7. Evaluate the use of available standards to gauge demand for specific parks and recreational facilities at neighborhood and community scales as a means to help local governments to identify needs and spending priorities.

[1] Norris, Donald F, and Royce Hanson. Participation in Local Park and Recreation Activities in Maryland. UMBC, Maryland Institute for Policy Analysis and Research, May 2003.

[2] However, county-specific results were offered to local jurisdictions who requested them.

[3] Norris and Hanson, page viii.

[4] It should be noted that not all persons who live in a county are householders. Householders do not include people living in group house, such as soldiers in army barracks, college students in dorms, prisoners or persons in elders care or other long-term medical facilities. The homeless also are not included. However, in the LPPRPs, it was assumed that the total population was householders, thereby resulting in a slight over-estimation of recreation use.

[5] Norris and Hanson, page x.

[6] Norris and Hanson, page x.

[7] Norris, Donald F, and Royce Hanson. State Parks and Natural Resource Areas in Maryland: A Survey of Public Opinion. UMBC, Maryland Institute for Policy Analysis and Research, May 2003.

[8] Maryland Department of Planning. Guidelines: State and Local Land Preservation, Parks and Recreation Planning. October 2003, page 13.

[ix] Sources of data in table 7: Publicly Owned: an aggregation of DNR Owned, Federal, and Local Government Lands. Military base acreage is not included. From MDP's protected land GIS data. Preserved: sum of acres under easement and publicly owned. County PDR/TDR: From most recent certification reports, except for Montgomery (through 6/30/08, County Web site), Worcester (MDP GIS database April, 2001). Howard's acreage includes TDRs but not cluster remainders < 50 acres. Queen Anne's from 2009, incl. TDR and noncontiguous open space but not cluster remainders. Anne Arundel PDR acreage reported in Draft PPA element, 2009. Calvert from Feb. 2007 Newsletter. Developed (and County acreage used for %): from MDP's 2002 Land Use/Land Cover Statistics. MALPF: Annual Report FY 2007, plus BPW through 2/18/09. MET, Private Conservation Easements: From MDP GIS preserved land coverages, June 2007, plus BPW for 4/20/08, 8/06/08, 9/10/08, 10/1/08, 11/19/08, 12/17/08, 2/18/09, 3/4/09. Charles MET includes Conservancy for Charles County (2008 certification report). Private Cons. Orgs.--Charles is just for The Nature Conservancy (2008 certification report); Cecil from 2009 recertification appl.: ESLC, Cecil Land Trust, and other. Rural Legacy--reported by Rural Legacy program in June 2007 plus BPW through 4/15/09. GreenPrint: from DNR as of 4/30/03. Acreage of MALPF districts preserved with GreenPrint funds are in MALPF column

Historic Preservation

Background

Today's historic preservation movement had its genesis in the 1960s. It was born at the same time – and as a reaction to many of the same things– as the environmental movement. In fact, much of the momentum that culminated with the enactment of the National Historic Preservation Act of 1966 was generated at the White House Conference on Natural Beauty, held in 1965. The conference called for the creation of a special committee on historic preservation, representing the public and private sectors, to develop recommendations for the creation of a federal historic preservation program to combat the widespread demolition of historic urban neighborhoods and growth pressure in less developed areas that was prevalent after World War II.

Much of the development in the decades between the war and the White House conference was due in large part to federal programs and initiatives that promoted highway building, suburban expansion, clearance of urban centers and blighted areas, and natural resource exploration. The special committee on historic preservation, led by the United States Conference of Mayors in concert with the National Trust for Historic Preservation and state officials, published ***With Heritage So Rich***. The book was a call to arms to reverse the detrimental effects of these federal policies by supporting the creation of a formal, comprehensive, popular system to protect the nation's historic fabric.

Congress responded with the passage of the National Historic Preservation Act of 1966 (NHPA). Previously, the federal government's historic preservation efforts had focused exclusively on historic resources that were nationally significant and antiquities on federal lands. NHPA expanded federal efforts by recognizing resources of local or statewide significance as worthy of protection. In the enactment clause of the National Historic Preservation Act of 1966, the bill's authors declare:

> …That the spirit and direction of the Nation are founded upon and reflected in its historic past; that the historical and cultural foundations of the Nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people; that, in the face of ever-increasing extensions of urban centers, highways, and residential, commercial, and industrial developments, the present governmental and nongovernmental historic preservation programs and activities are inadequate to insure future generations a genuine opportunity to appreciate and enjoy the rich heritage of our Nation; and that … it is necessary and appropriate for the Federal Government to accelerate its historic preservation programs and activities … and to assist State and local governments … to expand and accelerate their historic preservation programs and activities.

With the passage of NHPA, historic resources with local or statewide significance were made eligible for listing in the National Register of Historic Places along with resources of national significance. Additionally, NHPA included both state and local governments as partners and established a federal grant program (today known as the Historic Preservation Fund) to support the survey of historic resources, preparation of nominations to the National Register of Historic Places, the acquisition and preservation of historic resources, and preservation planning activities.

Upon NHPA's enactment the Secretary of the Department of the Interior, which administers NHPA through the National Park Service, asked each state's governor to appoint a representative to oversee NHPA responsibilities at the state and local levels. These representatives came to be known as State Historic Preservation Officers.

State Goals

The State of Maryland was in the vanguard of the historic preservation movement, establishing a State-level historic preservation program prior to NHPA's adoption. The Maryland Historical Trust, which became the State Historic Preservation Office, was formed in 1961 to assist the people of Maryland in identifying, studying, evaluating, preserving, protecting, and interpreting the state's significant prehistoric and historic districts, sites, structures, cultural landscapes, heritage areas, cultural objects, and artifacts, as well as less tangible human and community traditions.

1884 B&O Railroad Station, Oakland

The State of Maryland has formally recognized the public benefit of preserving the state's historic resources, establishing in law that "[i]t is a public purpose in this State to preserve sites, structures, and districts of historical, archeological, or architectural significance and their appurtenances and environmental settings" (Article 66B §8.01(b)(1)). The enabling statute authorizes local governments to enact a local historic-area zoning ordinance to protect historic resources, stating that local jurisdictions may create such an ordinance to:

> Safeguard the heritage of the local jurisdiction by preserving sites, structures, or districts which reflect elements of cultural, social, economic, political, archeological, or architectural history; [s]tabilize and improve the property values of those sites, structures, or districts; [f]oster civic beauty; [s]trengthen the local economy; and [p]romote the preservation and appreciation of those sites, structures, and districts for the education and welfare of the residents of each local jurisdiction. [Art. 66B §8.01(b)(1)]

The authors of the State authorizing statute recognized that historic preservation has an inherent public purpose. They recognized that historic preservation is good for both the economy and for property values. For example, a 2009 study of Maryland's heritage rehabilitation tax credit program (*The Abell Report: March 2009*) found that rehabilitation projects generate an average of $8.53 in direct and indirect economic activity for every $1.00 in State tax credits. Further, the report found that since the program's inception, the 407 completed commercial projects alone had generated a total economic impact on the Maryland economy of more than $1.74 billion. A 1999 study (*The Economic and Fiscal Impact of Local Historic Districts in Maryland*, published by the Maryland Association of Historic District Commissions) found that property values in locally-designated historic districts appreciated on average 28.9% percent faster than similar properties outside historic districts. A 2003 study of heritage tourism (*Investing in Our Communities: Maryland's Heritage Areas Program*, published by the Maryland Heritage Area Preservation and Tourism Program) determined that every dollar the State invests in the Maryland Heritage Area program generates $4.61 in State and local tax revenues. The Maryland Department of Tourism found that in 2001 heritage tourism in Maryland was a $2.5 billion industry.

The authors of Maryland's historic preservation statute, as well as the drafters of the National Historic Preservation Act of 1966, recognized that historic preservation also has social and cultural value. The social and cultural value of historic preservation, although more difficult to quantify than preservation's economic benefit, is no less significant.

Noted community planner and historic preservationist Robert E. Stipe, Emeritus Professor in the Department of Landscape Architecture at the North Carolina State University, posits that historic preservation has importance because:

- it helps communities retain their links with the past;
- the historic places where we live, work, and visit are a part of us and give us meaning;
- historic resources are an expression of community identity and a mechanism to maintain individuality among places in an age of increasing cultural homogeneity;
- preservation of resources associated with historical events or personages is done not simply because of a desire to honor the past, but importantly, also because doing so fuels our creativity and imagination; and
- many historic resources are works of art and communities have an inalienable right to be beautiful and livable.

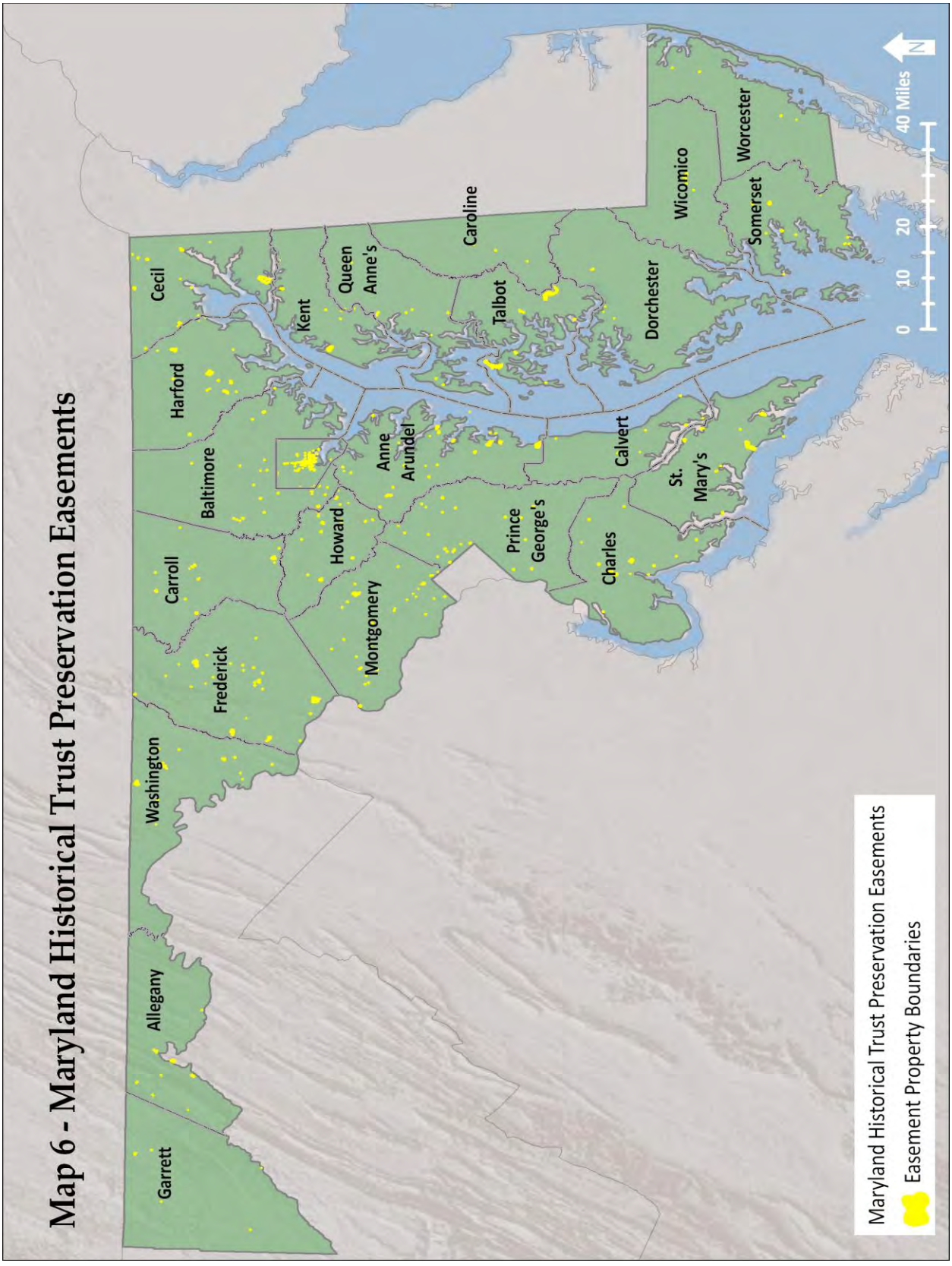
Stipe's concepts are embodied in the State's historic area zoning authorization statute, as well as in each of Maryland's forty-seven local historic preservation ordinances.

Other historic preservation goals for the State include effectively managing growth by encouraging neighborhood revitalization, stimulating economic development through heritage tourism, and securing the technological, financial, and legal tools sufficient to preserve Maryland's heritage resources.

State Implementation Program

To date, forty-eight Maryland jurisdictions (26%) have enacted a local historic area zoning ordinance. These thirty-three municipalities (21% of the 157 municipalities) and fifteen counties (65% of 23 counties) have identified and designated individual historic landmarks and historic districts and established local programs to safeguard those resources they deem valuable and worthy of protection for the economic and social well-being of their communities.

Historic preservation easements have been used widely in Maryland to protect historic properties. The Maryland Historical Trust holds easements on more than 600 significant architectural or archaeological properties on about 11,000 acres. Historic designation, either via listing in the National Register for Historic Places or by a local government, can also afford protection to historic landscapes.


Map 6 - Maryland Historical Trust Preservation Easements
Garrett
Allegany
Washington
Frederick
Carroll
Montgomery
Howard
Baltimore
Harford
Cecil
Kent
Queen Anne's
Caroline
Talbot
Anne Arundel
Prince George's
Charles
Calvert
St. Mary's
Dorchester
Wicomico
Somerset
Worcester
0 10 20 40 Miles
N
Maryland Historical Trust Preservation Easements
Easement Property Boundaries

National-Register-listed resources receive certain protections from the adverse effects of projects, such as highways, that are sponsored or funded by the State or federal government, while local historic designation provides stronger protection from inappropriate development, including that which is privately undertaken. The State and many local jurisdictions own numerous historic resources that promote recreation and education. Many State parks are home to significant historic resources that draw visitors and enhance the visitors' experience on public lands.

MHT has supported the State's 220 history and cultural museums with grants and technical assistance. A 2000 assessment of the State's history museums found that visiting a historic site was favored by 31 percent of cultural travelers (the most popular cultural activity among travelers) and 24 percent visited museums. In 1998, 11.7 percent of the 19 million people who visited Maryland toured historic sites and museums, making heritage tourism the third most popular reason to visit the State, trailing only shopping and beach going. Tourism generated 101,000 jobs, according to the study, and generated $271.4 million in sales and property tax revenue for municipal governments.

As of 2000, the American Association of Museums has bestowed its accreditation, in recognition of an organization's meeting the highest standards for professional practices and public accountability, on seven of Maryland's history museums and organizations, and many of the State's history museums have received national awards and honors in the past decade.

Banneker Douglas Museum, Annapolis

STATE HISTORIC PRESERVATION PROGRAMS

Maryland Inventory of Historic Properties (MIHP)— The Maryland State Legislature created the MIHP and charged the Maryland Historical Trust (MHT) with developing and administering the inventory as an archive of information that would further the public's understanding of the state's architectural, archeological, and cultural resources. The MIHP is a research and documentation – not a regulatory – instrument.

The inventory may include a narrative description of a resource's physical and/or historical characteristics, maps, photographs, measured drawings, and other descriptive materials. Listing in the MIHP has no regulatory impact on that resource. However, the documentation included in the MIHP, as a repository of descriptive materials on architectural and archeological sites, structures, objects, and districts, may provide a basis for separate evaluative decisions. In this respect local officials may use the MIHP as a tool for local planning.

To date, the MIHP comprises nearly 90,000 resources, with approximately 900 new or updated entries submitted in 2008. Every county is represented. Through a partnership among the Trust, the Maryland State Archives, and the Maryland State Highway Administration, MIHP forms for all standing structures inventoried through 2004 (except those in Baltimore City) have been digitized and are available on the internet, accessible through

http://www.mht.maryland.gov/Survey_MIHP_Search.html

Maryland State Historic Preservation Plan - The Maryland Historical Trust is required to review and revise the State Plan every five years as a condition for receiving a grant from the federal Historic Preservation Fund. The State Plan was most recently updated in 2005. The goals and objectives outlined in the State Plan provide a common framework for preservation action in Maryland, underscoring the State's preservation planning priorities. In addition to guiding preservation policy development at the State and local level, the Maryland Preservation Plan is designed to outline heritage conservation tools, activities, and partnerships that may be used to achieve the stated goals.

The National Register of Historic Places—The authority of the Secretary of the Interior to survey and record historic and archeological sites was created under the Historic Sites Act of 1935 and expanded in 1966 under the National Historic Preservation Act. The National Register of Historic Places, authorized by the same act, is a federal list of districts, structures, objects, and sites recognized for their significance in American history, archeology, architecture, engineering, or culture. Unlike the MIHP listing process, which does not require the evaluation of a resource's significance prior to its listing, designation in the National Register requires that resources meet the National Register Criteria for Evaluation prior to being listed (see www.cr.nps.gov/nr/listing.htm). The National Register, unlike the MIHP, provides certain protections for historic resources. NHPA and Maryland statutes require that federal or State undertakings–that is, projects with federal or State funding, permits, or licenses–must take into account their potential impact on historic resources listed in, or eligible for listing in, the National Register and appropriate steps must be taken to avoid, reduce, or mitigate any adverse effects.

STATE HISTORIC PRESERVATION PROGRAMS—Continued

The National Register of Historic Places—The National Register currently comprises over 1,300 listings in Maryland, including some 200 historic districts. Every county is represented. A searchable database and capsule summaries of National Register resources is available at http://www.mht.maryland.gov/nationalregister.html. For a comparison of the MIHP, National Register, and local historic designation, see:

http://www.mht.maryland.gov/documents/PDF/Survey_PresBulletin1_MIHP.pdf.

The Heritage Structure Rehabilitation Tax Credit Program—Administered by the Maryland Historical Trust, this program provides Maryland income tax credits equal to 20% of the qualified capital costs expended in the rehabilitation of a ~~"c~~certified heritage structure." A certified heritage structure can include structures:

- ndividually listed in the National Register of Historic Places;
- designated as a historic property under local law and determined by the Director of MHT to be eligible for listing in the National Register of Historic Places;
- located in a historic district listed in the National Register of Historic Places or in a local historic district that the Director of MHT determines is eligible for listing in the National Register of Historic Places and certified by the Director as contributing to the significance of the district; or
- located in a certified heritage area and certified by the Maryland Heritage Areas Authority as contributing to the significance of the certified heritage area.

The credit is available for owner-occupied residential property as well as income-producing property. The rehabilitation expenditure in a 24-month period must exceed $5,000 for owner-occupied residential property, and the greater of the adjusted basis of the structure (generally the purchase price, minus the value of the land, minus any depreciation taken) or $5,000 for all other property. The rehabilitation must conform to the Secretary of the Interior's *Standards for Rehabilitation* and must be certified by MHT. If the credit exceeds the taxpayer's tax liability, a refund may be claimed in the amount of the excess. Additionally, organizations exempt from taxation under Section 501(c)(3) of the Internal Revenue Code are eligible for a refund.

Historic Preservation Capital Grants—Funds are available from MHT to non-profit organizations, local jurisdictions, businesses, and individual citizens to assist their efforts to acquire, rehabilitate, or restore eligible projects, i.e., properties listed in, or eligible for listing in, the National Register of Historic Places. Grant awards are limited to $50,000 per year, per project. There is, however, no limit on the number of times application may be made. A dollar-for-dollar match is required. Projects are evaluated competitively, based on the Trust's ~~"O~~pen Project Selection Criteria," and awards are made on an annual cycle. Successful applicants must convey to the Trust a perpetual historic preservation easement on the assisted property prior to their receipt of funds.

STATE HISTORIC PRESERVATION PROGRAMS—Continued

The Non-Capital Historic Preservation Grant Program—MHT's Non-Capital grants support research, survey, planning, and educational activities involving architectural, archeological, or cultural resources. Eligible activities may include preservation plans, architectural, archeological, or cultural resource surveys, educational outreach programs, and National Register nominations.

Non-profit organizations and local jurisdictions are eligible to apply for Non-Capital grants. Local jurisdictions must provide a dollar-for-dollar match. This match may consist of cash, an equivalent value of in-kind contributions, or a combination of both. Non-profit organizations are exempt from matching requirements, but a match is recommended to enhance the competitiveness of the application. Individual Non-Capital grants generally range from $5,000 to $50,000, with the average award in FY 2009 being approximately $30,000.

Maryland Heritage and Tourism Areas—This program, established in 1996, stimulates economic development through heritage tourism focused on historic and natural resources. Heritage Areas first must gain recognition status to receive certain benefits. Recognized Heritage Areas may then take steps to become certified. Certified Heritage Areas receive additional benefits. The Maryland Heritage Areas Authority has certified eleven heritage areas and recognized two others. The heritage areas encompass all or parts of every Maryland county and 101 municipalities.

(See http://www.mht.maryland.gov/heritageareas_program.html.)

Heritage area grants must be matched dollar-for-dollar. A 2003 study of the heritage area program's economic benefits found that the State's investment in the program had a strong multiplier effect, generating a fourfold increase in local and State tax revenues within heritage areas. President Bush recognized Maryland's heritage area program with a 2006 Preserve America Presidential Award, one of four awarded that year and one of two awarded to a governmental entity.

Local Historic Preservation Ordinances—To counties and municipalities that exercise their planning and zoning authority, the State has passed enabling legislation to enact historic preservation ordinances. The designation of local historic districts and landmarks, based on criteria for determining local significance, achieves many public purposes: safeguarding the heritage of the jurisdiction through the preservation of significant sites, structures, or districts; stabilizing and improving property values; fostering civic beauty; improving local economies; and promoting the preservation and appreciation of historic resources for the public good. Article 66B §8.01-8.17 authorizes non-charter counties and all municipalities except Baltimore City to promulgate historic preservation ordinances. Baltimore City is authorized by Article 66B §2.12. Article 25A §BB gives authority to all charter counties except Montgomery and Prince George's, which receive their authorization from Article 28 §101(c).

Thirty-three municipalities and fifteen counties have historic area zoning ordinances (see http://www.mht.maryland.gov/local_preservation.html). Eighteen have been designated as Certified Local Governments, meaning their historic preservation programs meet certain federal and State standards.

STATE HISTORIC PRESERVATION PROGRAMS—Continued

Preserve America—This Presidential initiative, created in 2003, encourages and supports local communities in the preservation of the Nation's cultural and natural resources. The initiative recognizes communities that protect and promote their historical and cultural resources, use these resources as a basis for community and economic development, and promote heritage education and tourism. Designated Preserve America communities are eligible for Preserve America grants, which support heritage tourism strategies, economic development programs, and educational activities.

As of 2007, Maryland has fifteen designated Preserve America communities: Annapolis, Baltimore City, Calvert County, Charles County, College Park, Cumberland, Dorchester County, Easton, Frederick City, Oakland, Rockville, Salisbury, Snow Hill, St. Mary's County, and Worcester County.

Museum Advancement Program—Historical and Cultural Museum Grants are administered through MHT's Museum Advancement Program. They are available to museums, operated by nonprofit organizations or local jurisdictions, which have been open to the public on a regular basis for three years. The grants' main purpose is to identify and reward excellence in museum practice and to use State funds to leverage non-state support for historical and cultural museums. Museum Planning and Assessment Grants assist museums, historical societies, and historic sites in creating organizational plans and participating in outside professional assessments to guide their programming and institutional development. Project Challenge Grants, designed to encourage excellence in museum practices, support a wide range of projects from public interpretation to collections management. Museum Enhancement Grants support operations and programming of the state's flagship museums that represent significant historical collections and offer quality public programs to large audiences.

MHT Historic Preservation Easement Program—Similar to conservation easements, historic preservation easements typically grant rights to a historic preservation organization to enforce restrictions regarding the alteration or development of an historic property. In Maryland, there are examples of both local governments and non-profit organizations that hold historic preservation easements. The agency that manages the largest number of historic preservation easements in the state is the Maryland Historical Trust, which acquires easements through donations and as a condition of Trust grants, loans, and State bond funds. The Trust also accepts gift easements on properties listed on, or eligible for, the National Register of Historic Places or located within a locally certified or Register-listed historic district.

The Department of Natural Resource's Resident Curatorship Program establishes a public/private partnership that protects and restores historic structures on public land. Curators pledge to restore the historic properties, using their own funds and labor, and maintain them in good condition in exchange for a lifetime lease.

Evaluation of County Plans

A discussion of historic resources was not required in the local LPPRP and almost no counties included one. However, most municipal and county comprehensive plans include a section on historic preservation. In general, they are strong in noting the cultural importance embodied in our historical sites and landscapes, but many do not recognize the role of historic preservation in revitalizing neighborhoods and Main Streets. Generally speaking, there is a tendency in local comprehensive plans to view historic preservation as a secondary component of good planning, rather than recognizing that historic preservation *is* economic development, and essential to the creation of good places as well.

The description of the State's historic preservation program, contained in the text boxes above, can serve as a resource for local residents and officials.

Evaluation of the Historic Preservation Implementation Program

Weaknesses and Suggested Program Improvements

While the State of Maryland is fortunate to have a solid set of tools available for historic preservation activities, there are opportunities to improve and strengthen programs, policies, and initiatives. There are currently four areas of concern regarding State historic preservation activity.

Promote Coordination Among State Agencies Regarding the Preservation of Historic Properties

1. Coordination Among State Agencies

A myriad of State agency programs exist that may be employed to support or complement the State's historic preservation goals. Recognition of opportunities to integrate historic preservation activities into community revitalization, transportation, and economic development projects is highly desirable. Successful coordination among State agencies is already occurring as part of the State's Transportation Enhancements, Main Street, Heritage Areas, Scenic Byways, Arts and Entertainment District, and other programs. As the State increasingly targets its resources to priority funding areas, where historic resources are typically concentrated, opportunities to support local government preservation efforts and incentivize private sector support for preservation are expected to grow.

2. Maryland Historical Trust Act of 1985

The Maryland General Assembly enacted the Maryland Historical Trust Act of 1985 (Act) to acknowledge that historic properties are significant to the state's heritage, are being increasingly threatened and lost, and are a vital part of our community life and

development. The Act establishes that it is in the public interest to preserve Maryland's heritage and affirms that encouraging historic preservation will assist in the economic and cultural growth of the state. The Act identifies the following purposes of the Maryland Historical Trust (Trust): to preserve, protect, and enhance the state's historic properties; to encourage others to do the same; and to promote interest and study in its cultural resources. The Trust also serves as the State Historic Preservation Office for Maryland, as established under federal law, the National Historic Preservation Act of 1966.

Sections 5A-324 through 5A-326 of the Act address the protection and use of historic properties through the actions of State agencies ("State 106" process). These sections require consultation between State agencies and the Trust to consider the effects of State funded, assisted, or permitted actions on historic properties and to implement measures to avoid, satisfactorily reduce, or mitigate any adverse effects on significant historic properties. The consultation requirements parallel the federal process established under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and its implementing regulations, 36 CFR Part 800. Although the Act specifies that the Trust shall adopt regulations that establish procedures, standards, and guidelines for the State 106 process, the Trust has not been successful in promulgating those regulations to date. In practice, the Trust follows the federal Section 106 procedures in its implementation of the State 106 process.

In order to ensure consistency between the federal and State historic preservation review procedures, it is necessary to update provisions of the Act and implement the State Section 106 regulations. These measures will formally establish compatibility between the two processes, provide clear guidance and procedures to State agencies to assist them in fulfilling their responsibilities, afford enforceability with State requirements, and bring Maryland up-to-date with best practices in other states. Since many undertakings entail not only State, but also federal involvement of some sort, affording consistency between federal and State processes is essential.

3. Maryland Heritage Areas Program

Two elements of the Heritage Areas statute that address the need for cooperation between State Units and certified heritage areas (CHAs) have yet to be fully implemented. The statute requires the preparation of "state agency program statements" which detail actions in the areas of planning, development, use, assistance, and regulation that support and assist the establishment and management of certified heritage areas by the Departments of Housing and Community Development, Business and Economic Development, Natural Resources, Transportation, General Services, and the Commission on Higher Education. Development of program statements by the affected State Units is a priority for the Heritage Areas Program.

Burnside Bridge, Antietam National Battlefield, Sharpsburg

In addition, the heritage areas statute provides CHA management entities formal opportunities to consult, cooperate, and coordinate with State Units to facilitate and ensure the consistency of State sponsored or supported activities with the approved management plan for a given CHA. In addition, the statute provides additional opportunities for CHA management entities to participate as consulting parties in the State historic preservation review process established under the Maryland Historical Trust Act of 1985, Section 5A-324 through 326 of the Maryland Annotated Code, when State Units are conducting or sponsoring activities within CHAs. The processes outlined in the heritage areas statute encourage, but do not mandate, preservation of a heritage area's historical, cultural, and natural resources and consistency with approved heritage area management plans. Sometimes there is no way for a needed project to proceed without some effect on a heritage area management plan or heritage area resources. Such effects may be either beneficial or adverse. The review does, however, ensure that a heritage area's goals and strategies are factored into State Unit's planning and decision making processes. While the Maryland Heritage Areas Authority has provided general guidance regarding mechanisms for CHA management entities and State Units to fulfill their respective responsibilities under the heritage areas statute, and to coordinate those responsibilities with the consultation process required by the Maryland Historical Trust Act of 1985, when applicable, the Maryland Heritage Areas Authority encourages CHA management entities and State Units to develop more detailed procedures for cooperation, coordination, and consultation relevant to their particular areas of interest and program goals and objectives.

4. Maryland Maritime Archaeology Program

In Maryland, underwater archaeological resources are protected under the current COMAR Statute and implementing regulations. However, looting of significant archaeological sites remains a problem because, in its present form, the penalty section is difficult for enforcement agencies to implement except in the most flagrant situations. In addition, existing penalties are not sufficient to deter looters. Statutory authority is needed to expand penalties for violation of the Maryland Maritime Archaeology Program statute and regulations. The structure of penalties should be altered and an increase in violation fines should be enacted to ensure the preservation of these fragile resources.

Ensure Appropriate Stewardship of State-Owned Historic Properties

1. State Agency Stewardship Responsibilities

The State of Maryland owns more heritage resources in the state than any other single entity. The Department of General Services, for example, manages more than 1,800 pre-1960 structures for State agencies. The Department of Natural Resources owns almost 800 known archaeological sites, and much of DNR land has yet to undergo any level of archaeological investigation. The Maryland Historical Trust Act of 1985 outlines agency responsibilities for those historic properties entrusted to the State's care.

While the performance of State agencies in carrying out their historic preservation responsibilities varies, some provide significant leadership in the area of historic resource stewardship. The Maryland State Highway Administration, for example, received the 2007 "Partnerships with a Public Entity Award" from the National Conference of State Historic Preservation Officers in recognition of the partnership between the Trust and SHA, which has advanced preservation efforts throughout Maryland. State agencies should be encouraged to follow the example set by SHA in complying with the spirit, intent, and provisions of the Maryland Historical Trust Act of 1985.

Documentation of State-Owned Buildings

State-owned historic resources include not only the historic sites that draw visitors from around the nation, but also the many historic buildings that provide workspace to State employees and services to the public. While State agencies are required by law to preserve these resources, many do not have sufficient information about the location, condition, and significance of those properties under their care. Efforts to identify and assess these resources are needed in order to assist State agencies in carrying out their stewardship responsibilities.

2. Acquisition of Historic Properties

At the time that a State agency acquires parcels which contain historic properties, the agency should plan for the preservation and utilization of that property, identifying the required financial resources for the maintenance and appropriate reuse of the property. State agencies should avoid acquisition when their appropriate stewardship cannot be assured.

3. Heritage First Policy

State agencies should lead by example when it comes to housing their operations within historic buildings. State agencies should be required to use or rehabilitate available existing historic buildings for their operations, where practicable and feasible, before acquiring, constructing, or leasing a building to carry out its responsibilities. New construction should be allowed only after a State agency demonstrates that the reuse of

an existing historic building can no longer meet its needs and has consulted with the Trust and complied with State 106 requirements.

4. Curatorship Program

The Department of Natural Resources' "Maryland Resident Curatorship Program" secures private funding and labor for the restoration and maintenance of historic properties owned by DNR. Curators contract to restore the historic property and maintain it in good condition in exchange for a lifetime lease. Resident curatorships provide a method for ensuring the long-term preservation of historic buildings at no cost to the State of Maryland. The Department of Natural Resources pioneered this program in 1982, and currently has about 43 curatorships in operation. DNR's well-developed procedures have provided a model for initiating similar programs in other states and could serve as a model for other State agencies. To date, curators have contributed over $8 million worth of improvements to these publicly-owned historic structures.

5. Disposal of State-Owned Historic Properties

The Maryland Historical Trust recognizes that it is not always in the best interests of the state for historic properties to remain under State agency ownership. However, State agencies should always consult with the Trust prior to the disposal of State properties to ensure that the transfer provides for the long-term preservation of the property, through a perpetual easement or other protective measure.

Out-parceling of historic properties within State holdings on which the State has placed an historic preservation easement is one way for State agencies that lack the necessary resources to care for an historic property to ensure its preservation in the long term. This strategy should be of particular interest to those agencies, such as DNR, that tend to acquire and hold large tracts of resource lands.

Encourage Sensitive Rehabilitation of Historic Buildings

1. Heritage Structure Rehabilitation Tax Credit Program

The Maryland Heritage Structure Rehabilitation Tax Credit Program is one of the State's most powerful smart growth tools and is the primary financial incentive that Maryland has available to encourage historic preservation capital activity by for-profit businesses and private individuals. The State Tax Credit Program, complemented by the Federal Rehabilitation Tax Credit Program, directs investment into existing communities. In some cases, neighborhoods have been revived from near abandonment to become safe, vital centers of modest commerce and residences as a result of the rehabilitation work undertaken by property owners and developers using the tax credit.

Created in 1996, the Heritage Structure Rehabilitation Tax Credit Program has a demonstrated track record of revenue generation and job creation. For commercial projects alone, conservative analyses have found that for every tax dollar paid out by the State, $1.02 was returned in the first year and $3.31 the fifth year after the project's completion. In addition, projects assisted by the tax credit provide jobs during and after the construction period. These jobs contribute to the tax base of the affected communities and to the State.

A variety of conditions have compromised the effectiveness of the Heritage Structure Rehabilitation Tax Credit over the past few years. Recent legislative changes to the program have discouraged individuals from participating because of the lack of certainty of outcome, the cost of preparing a competitive application that may nevertheless be unsuccessful, and the difficulty of keeping financing commitments in place during the evaluation process. To solve these problems and insert greater predictability into the program, legislation is needed to remove the aggregate cap on the program and restore it to a true "tax credit." This can be done by 1.) repealing the "refundable" provision and return to a "tax credit" (i.e., users would only receive a credit against actual income tax liability. If they do not have sufficient liability to fully utilize their credit, they can carry it forward for up to ten tax years.); 2.) removing the aggregate cap on the program; and 3.) considering removing the per-project cap (currently $3 million).

High Performance Buildings

During the 2008 legislative session, legislation passed that required new construction or major renovation of a building that is 7,500 square feet or greater and that is funded solely with State funds to meet high performance building standards (with certain exceptions). "High Performance Building" is defined as a building that meets or exceeds the U.S. Green Building Council's LEED silver rating or a comparable numeric rating according to a nationally recognized sustainable development rating system approved by the Secretaries of the Department of Budget and Management and the Department of General Services. The bill also required that, to the extent practicable, the State employ green building technologies when constructing or renovating buildings less than 7,500 square feet that do not meet the "major renovation" definition.

The capital project types defined in this bill are all projects subject to review under the Maryland Historical Trust Act of 1985, for their effects on historic properties. If renovations were proposed for a building that is significant and eligible for the Maryland Register of Historic Properties, the responsible State agency would need to consult with the Trust and consider alternatives that would avoid or reduce any potential adverse effects on that historic property as a result of the renovations. The appropriate treatment of historic properties should be a critical factor that is considered in requiring high performance building standards and in working to ensure that those standards are appropriate, compatible, and sensitive to historic buildings and their original materials. Historic buildings are well suited for LEED certification. Coordination between the Trust and the responsible State agency is necessary to ensure that requirements of both the Secretary of the Interior's Standards for Rehabilitation and LEED may be addressed.

2. Historic Preservation as a Green Building Practice

Both green building and historic preservation communities share a common goal: defining strategies to sustain the existing building stock. Neither green building nor preservation professionals can achieve success alone. Preservation has developed protocols for assessing the value of existing resources, with attention given to both their material and cultural value. Green building is retooling industrial and construction technology to reduce environmental impacts and to improve building performance so that material and energy resources are expended responsibly.

There is a pressing need for green building and preservation practitioners both within and outside of State government to intensify their interaction, collaboration, and common agenda. MHT has observed that capital grant applicants, developers of historic tax credit projects and owners of historic preservation easement properties are increasingly interested in pursuing "green" solutions to historic rehabilitation problems. LEED certification is often mentioned by project sponsors as a desirable outcome of projects the Trust supports through grant funding, rehabilitation tax credits, compliance review, or technical assistance.

Green building and preservation advocates must work together to take advantage of the potential synergy between these building techniques in order to foster the development of projects that both meet the Secretary of the Interior's Standards for Rehabilitation and promote sustainability.

Improve Preservation Planning Tools

1. Survey of Heritage Resources

Today, the majority of heritage resource surveys in Maryland are conducted by consultants who are on contract with local, State, and federal agencies as a result of State or federal Section 106 reviews, or who are hired by nonprofit organizations or

local governments with funding assistance from the Trust. The Trust has also funded surveys of historic resources owned by State agencies, through the State Owned Cultural Resources Assessment Program.

There is an increasing need for heritage resource surveys in Maryland as the continued existence of more and more standing structures and archaeological sites is threatened by population growth and resulting new development. Other threats include abandonment due to urban disinvestment and out migration, demolition due to insensitive development techniques in both established communities and in rural areas, and damage due to certain types of agricultural practices. As lifestyles change, cultural traditions are threatened too. Changes in the tobacco and oyster industries, for example, have led to the subdivision of family farmsteads, the sale of artifacts, and the disappearance of traditional crafts and folkways. Historic and cultural resource survey activities must be recognized as a priority activity in order to provide data needed to inform local and statewide planning decisions and assist developers and project planners to more easily comply with federal, State, and local laws.

2. Synthesis of Maryland's Archaeological Data

Since enactment of the National Historic Preservation Act of 1966, archaeological resource management studies have proliferated in Maryland. Consideration and treatment of archaeological resources have become increasingly sophisticated, and voluminous data on the archaeological record has been amassed. Unfortunately, this data is usually trapped in an archaic paper-based format, restricted geographically to a single State archive. All too often the data is brought to light only to be "reburied" in the SHPO's library where it may be largely inaccessible to researchers scattered throughout the country. MHT, however, is taking the lead with a unique effort to synthesize Maryland's most important archaeological information into digestible synopsis reports, linked to a searchable database, and made available to State agency partners, academics, and others. Efforts along these lines should continue, the result being that researchers (and the public) in Maryland will have a comparatively clearer picture of our state's prehistoric and historic resources.

3. Web-Accessible Inventory of Historic Properties

The Maryland Inventory of Historic Properties (MIHP) is a broad-based repository of information on districts, sites, buildings, structures, and objects of known or potential value to the prehistory, history, upland, and underwater archaeology, architecture, engineering, or culture of Maryland. The inventory was created shortly after MHT was founded in 1961 and now includes data on more than 12,000 archaeological sites and 80,000 historic and architectural resources. Resources included in the inventory may also be listed on the National Register or locally designated, but this is not a requirement of inclusion on the inventory.

Creation of a web-accessible version of the Maryland Inventory of Historic Properties is long overdue. Currently, the only way to access MIHP data is to visit the Trust's library in Crownsville. By making the MIHP web-accessible, the Trust would save time and money for external users (State and federal agencies and private sector businesses) engaged in review and compliance undertakings by streamlining research and data submittal processes. A web-accessible database would also simplify the data maintenance process and increase data accuracy by providing users with up-to-the-minute information.

4. Local Comprehensive Plans

Article 66B Section 3.05 (a)(6) identifies eight elements that may be added by a local jurisdiction to a comprehensive plan. While this section of law does not call out "Historical and Cultural Resource Preservation" as a potential element of a local comprehensive plan, it too should be considered by local governments as they craft these planning documents – either as a stand-alone chapter, as part of the sensitive areas element of a plan, or integrated throughout the plan where appropriate. Development of a guidance document for local jurisdictions that suggests how to integrate historic preservation into local comprehensive plans should be prepared and disseminated by the Trust and MDP.

Recommended Reorientation of State Programs and Procedures

Promote Coordination among State Agencies Regarding the Preservation of Historic Properties

1. Integrate historic preservation into planning, transportation, school facility construction, and heritage tourism efforts statewide to increase scenic byway development, community revitalization, and economic development in distressed, urban/PFA communities.

2. Encourage greater coordination among State agencies regarding financial incentives and community development tools available to county and local governments (e.g., Main Street Maryland, Community Legacy, Transportation Enhancements) as they relate to historic properties, and incentivize new and existing programs to encourage preservation and adaptive use of existing buildings. Consider amending existing funding guidelines to prioritize historic communities in the selection process.

3. Update provisions of the Maryland Historical Trust Act of 1985 (State 106) that afford consideration to historic properties from adverse effects resulting from State actions to assure that the best practices developed as part of the federal Section 106 review process continue to be implemented at the State level.

4. Implement regulations for the State 106 process.

5. Establish State agency program statements and a consultative process between heritage areas and State agencies as required in MHAA statute and regulations.

6. Expand penalties for violation of the Maryland Maritime Archaeology Program statute and regulations to deter looting of significant archaeological sites and improve the ability of enforcement agencies to protect such resources.

Ensure Appropriate Stewardship of State-Owned Historic Properties

1. Ensure that all State agencies comply with the spirit, intent, and provisions of State 106 requirements, in consultation with the Maryland Historical Trust (Trust).

2. Ensure that properties owned by State agencies are adequately and appropriately maintained.

3. Provide adequate documentation of all State-owned historic property through the completion of Maryland Inventory of Historic Property forms.

4. Require State agencies to plan for the preservation and utilization of historic properties that are acquired individually or as part of a larger land acquisition project, including identifying the required financial resources for the maintenance and appropriate reuse of the historic properties, and avoiding acquisition when appropriate.

5. Institute a "heritage first" policy regarding the use, lease, and acquisition of State property (similar to the federal 1976 Public Buildings Cooperative Use Act).

6. Encourage the development of curatorship programs to help maintain unused State property.

7. Require State agencies to consult with the Trust prior to the acquisition and/or disposal of all State properties in compliance with State 106 legislation, to ensure the appropriate stewardship and treatment of any historic properties that may be affected by acquisition or disposal actions.

8. Require State agencies proposing to dispose of State-owned historic properties to ensure that the transfer provides for the preservation or enhancement of the historic property, through a perpetual easement or other protective measure.

9. Allow exemptions for the disposal of historic properties within State holdings, with a perpetual easement or other protective measure, where such transfer will ensure the appropriate stewardship of the historic property.

Encourage the Sensitive Rehabilitation of Historic Buildings

1. Reauthorize the Heritage Structure Rehabilitation Tax Credit Program, returning the commercial side of the Program to a real "tax credit" program that provides predictability for users.

2. Consult with the Trust when hiring consultants and/or work with the Trust to develop a list of appropriate contractors/consultants for work on State-owned historic property.

3. Incorporate green building principles without compromising historic fabric when undertaking capital projects on State-owned historic structure. The integrity of State-owned historic structures should not be compromised in an effort to meet LEED standards.

4. Develop guidance documents demonstrating how historic preservation principles and green building guidelines may be integrated.

Improve Preservation Planning Tools

1. Identify historic and cultural resource survey activities as a priority activity in order to provide data needed to inform local and statewide planning decisions and assist developers and project planners to more easily comply with federal, State, and local laws.

2. Synthesize Maryland's archaeological data and make it available in the form of a searchable database.

3. Launch a web-accessible comprehensive statewide inventory of historic properties that provides up-to-the-minute data on historical and cultural resource documentation.

4. Provide better guidance to local jurisdictions about including historic preservation in the comprehensive planning process and encourage active involvement by the Trust during the draft process.

Smart, Green & Growing

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