

The 2012

Howard County

Land Preservation & Recreation Plan



Howard County
RECREATION & PARKS

(DRAFT - AUGUST 2012)

The 2012 Howard County Land Preservation and Recreation Plan

**A Cooperative Effort of the Citizens of
Howard County and**

**Howard County Department of Recreation and Parks
Howard County Recreation and Parks Advisory Board
Howard County Department of Planning and Zoning**

and

Urban Research & Development Corporation, Bethlehem, PA

Adopted By:

**The Howard County Council
(Date)**

Funded By:

State of Maryland Program Open Space

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Dear Citizens:

I am pleased to present the 2012 Howard County Land Preservation, Recreation and Parks Plan. This plan is the result of the combined efforts of the Department of Recreation and Parks and the Department of Planning and Zoning, with assistance from Leadership Howard County's Leadership Essentials Class of 2012.

The focus of the 2012 Land Preservation, Recreation and Parks Plan is to update the major recreation and parks components present in the 2005 version of the plan, including inventory, supply and demand analysis, and the 15-year land acquisition and capital improvement priorities for Howard County. The 2012 Plan also addresses the priority recreation and parks' needs and opportunities identified in the 2009 State Plan.

This has helped evaluate the progress Howard County has made since the last Land Preservation, Recreation and Parks Plan in 2005 and chart a course for the future. There remains a sustained cooperative effort between state and local governments to preserve open space, protect local and regional Greenways, and provide facilities for a broad-range of recreation activities.

Public meetings on park master plans, land acquisition initiatives and annual budget hearings will continue to be the venue for public input on recreational and park amenities. I trust that the citizens of Howard County will continue to provide their valuable insights and feedback as we move toward making Howard County an even better place to live, work and play.

Sincerely,

Ken Ulman
County Executive



HOWARD COUNTY DEPARTMENT OF RECREATION & PARKS

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June 11, 2012

Dear Citizens:

The Department of Recreation and Parks is pleased to present the 2012 Land Preservation, Recreation and Parks Plan. Howard County's 2012 Land Preservation, Recreation and Parks Plan describes County policy in three important areas:

- Expanding recreation services
- Preserving more environmental resources
- Sustaining agriculture

As per State law, this Plan allows Howard County to remain eligible for Maryland Program Open Space funds. The Plan also identifies the County's priorities for developing new parks and trails. The Howard County Department of Recreation and Parks prepared this Plan in cooperation with the Howard County Department of Planning and Zoning as they were preparing the County General Plan so that these important documents are closely aligned.

We welcome and thank you for your contributions in both the planning and budgetary processes that are critical to the Plan's success. We also invite you to become an active partner with the Department of Recreation and Parks as we strive to improve the quality of life for all Howard Countians through the pursuit of quality leisure services.

Sincerely,

John R. Byrd
Director

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Chapter 1: Introduction to the Plan



CHAPTER ONE – INTRODUCTION TO THE PLAN

The 2012 Howard County Land Preservation and Recreation Plan describes how Howard County intends to continue developing its recreation-related resources. The Plan also outlines the County’s approach to protecting sensitive natural resources and conserving the region’s farmland. State legislative goals and applicable Howard County plans provide the overall policy framework for all goals, strategies and techniques identified in this Plan.

Purposes of the Plan

The 2012 Howard County Land Preservation, Recreation and Parks Plan is important and timely for several key reasons. Most critically, the County must sustain its pro-active approach to dealing with the pressures that growth exerts on Howard County’s recreation services, natural environment and agricultural heritage. The Howard County Department of Recreation and Parks’ mission is “to responsibly manage natural resources; provide excellent parks, facilities, and recreation opportunities for the community; and ensure the highest quality of life for current and future generations.” The Department’s vision is “to deliver recreation and leisure opportunities that will improve the health and well-being of the community and to serve as a model steward of the environment by managing, protecting and conserving our resources for a sustainable future.” This Plan will help the Department carry out its mission and vision by guiding the Department’s policy decisions and day-to-day operations.

One major goal of this Plan is to:

Comply with the State of Maryland mandate that all local jurisdictions update their land preservation, parks and recreation plans to continue qualifying for Maryland Program Open Space funds.

A second major goal is to:

Guide the development of Recreation and Parks services, and help direct the County’s efforts to conserve and protect its natural environment and farmland.

In accordance with guidelines prepared by the Maryland Department of Planning and the Maryland Department of Natural Resources, the specific objectives of The 2012 Howard County Land Preservation and Recreation Plan are as follows:

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- Review goals and objectives of State and local programs for three principal elements: parks and recreation, agriculture, and natural resources;
- 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 better achieve goals and improve return on public investment;
- Recommend to State and local legislatures, governing bodies and agencies changes needed to overcome shortcomings, achieve goals, and ultimately ensure good return on public investment;
- Identify the outdoor recreation needs and priorities of current and future State and local populations;
- Achieve legislative goals of State and local land preservation programs; and
- Beyond these State-mandated objectives, the following Howard County goals are the basis for this 2012 Land Preservation and Recreation Plan.
- Provide for, ensure, and increase the quality of life for all Howard County residents and preserve the County's unique character in balance with continued economic growth;
- Provide for future passive, active, and lifetime recreational opportunities, ensuring that all land, programming, and recreational facility needs are met;
- Ensure that the County's fresh approach to land and resource conservation as well as programming and recreation in Howard County reflects the County's priorities, character, and economic resources;
- Protect renewable, non-renewable natural, cultural and historic resources;
- Integrate the preservation of the County's agricultural land and agricultural activities with resource protection and recreational goals;
- Make open space preservation a priority to help sustain the future quality of life of Howard County residents; and

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- Protect and enhance the County’s natural resources and quality of life in accordance with the principles of sustainability and stewardship.
- Maryland State Law requires the 23 counties and Baltimore City to prepare local Parks, Recreation, and Land Preservation Plans every five years. The State is required to submit a statewide plan that incorporates the County plans one year after the local plans are due.

Local Agency Preparation of the Plan and Public Participation

The Howard County Department of Recreation and Parks is the lead agency and driving force behind The 2012 Howard County Land Preservation and Recreation Plan. The Department is the Plan coordinator and will have the primary role in implementing much of the Plan, especially recommendations related to recreation and parks services. Other aspects of the Plan, particularly policies that address resource conservation and farmland preservation, will involve an array of State agencies, County entities, local officials, and other active County residents. The Plan is designed to do more than just set policy. The Plan identifies responsible parties and directs them on *how* to go about translating policies into results—results aimed at improving the quality of life for people who live, work and visit in Howard County.

The Howard County Executive has designated the Director of Recreation and Parks to serve as the “County Liaison Officer” to Program Open Space, a state grant program for land acquisition and park development. In this role, the Director is responsible for the development of this Plan, as well as, the administration of Program Open Space grants. The following organizations contributed to the development of this plan:

Chapter One – Introduction to The Plan

- Howard County Department of Recreation and Parks
- Howard County Department of Planning and Zoning
- Urban Research and Development Corporation

Chapter Two – Framework for the Local Plan

- Howard County Department of Recreation and Parks
- Howard County Department of Planning and Zoning
- Urban Research and Development Corporation
- Maryland Department of Planning

Chapter Three – Recreation, Parks and Open Space

- Howard County Department of Recreation and Parks
- Howard County Department of Planning and Zoning
- Urban Research and Development Corporation

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- Maryland Department of Natural Resources
- Maryland Department of Planning
- University of MD Baltimore Co., Maryland Institute for Policy Analysis and Research
- Howard County Department of Education

Chapter Four – Agricultural Land Preservation

- Howard County Department of Planning and Zoning
- Urban Research and Development Corporation
- Maryland Department of Planning

Chapter Five – Natural Resource Conservation

- Howard County Department of Recreation and Parks
- Howard County Department of Planning and Zoning
- Urban Research and Development Corporation
- Maryland Department of Natural Resources
- Maryland Department of Planning

Chapter Six – Summary and Synthesis

- Howard County Department of Recreation and Parks
- Howard County Department of Planning and Zoning
- Urban Research and Development Corporation

In addition to the entities noted above, preparation of the 2012 Howard County Land Preservation, Recreation and Parks Plan involved the citizens of Howard County. The public process involved three methods of outreach. First, in May of 2003, the State of Maryland secured the University of Maryland, Baltimore County, Maryland Institute for Policy Analysis and Research to conduct a statewide survey of households titled, “Participation in Local Park and Recreation Activities in Maryland”. The survey was conducted in seven sub-regions, one being the Suburban Baltimore region, which includes Howard, Anne Arundel, Baltimore, Carroll and Harford counties. The survey provided public participation data for eighty-three different recreation and fitness activities. The participation rates were utilized to calculate the recreation facility needs for Howard County.

A second method of public participation was the public meeting hosted by the Howard County Recreation and Parks Advisory Board. This meeting was advertised in local newspapers and on the Howard County website prior to the event.

In addition to the public meetings above, the Howard County Planning Board hosted a public meeting to receive comments on the Draft Plan. This meeting was also advertised in advance of the meeting.

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The final public meeting opportunity was a public hearing on the Final Draft Plan before the Howard County Council.

The third method of public participation in the Plan process was the use of the Howard County website www.howardcountymd.gov/RAP to post the various draft plan chapters, issue papers and meeting dates. These web postings encouraged the public to attend meetings and/or provide written comments.

The Plan's Relationship to the Comprehensive Planning Process

Howard County is now updating General Plan 2000, its existing comprehensive plan. In April 2012, the Howard County Department of Planning and Zoning issued a preliminary draft of this comprehensive plan update, which is called PlanHoward 2030. A public comment period is underway with public meetings and a formal adoption process to follow.

PlanHoward 2030 is organized to address each of the 12 Maryland State Planning Visions, with chapters devoted to:

- Quality of Life and Sustainability
- Public Participation
- Environmental Protection
- Resource Conservation
- Economic Development
- Growth
- Transportation
- Infrastructure and Services
- Housing
- Community Design
- Implementation
- Stewardship

Howard County adopted its current Land Preservation, Recreation and Parks Plan in 2005. Both that 2005 document and this 2012 Land Preservation and Recreation Plan update were prepared in close consultation with the Howard County Department of Planning and Zoning, particularly regarding Chapter Four – Agricultural Land Preservation and Chapter Five – Natural Resource Conservation. In turn, the Howard County Department of Recreation and Parks provided important information on parkland acreage and related recreation matters for inclusion in PlanHoward 2030. Both plans embrace Maryland's Smart Growth concept, the principles of sustainability and environmental stewardship.

Definitions Used in the Plan

County land preservation and recreation plans in Maryland should classify recreational land by park acreage, service area, and acres per number of residents served. This is the classification system that the State of Maryland utilizes in determining and projecting future recreational and open space needs. The following matrix defines the terms used throughout the 2012 Howard County Land Preservation, Recreation and Parks Plan.

Term	Definition	Appearance	Typical Examples	Goal / Purpose
Active Recreation	Recreational pursuits that are physically challenging such as field sports, court games, playground usage, running, bicycling, etc.	Participants are engaged in physical activity. Facilities include athletic fields, games courts, swim facilities, etc.	Field sports, court games, playgrounds, jogging, and swimming.	Enjoyment of physical activity and exertion; health benefits.
Agriculture	Farming, including cultivating and harvesting for production of food and fiber products; the raising of livestock for food and other purposes; agritourism and related incidental uses.	Crop fields, pastures, orchards, nurseries.	Grain producer, dairy farm, horse breeding operation, horticultural products facility.	Human-managed cultivation of farm products for harvest and sale.
Stream or Wetland Buffer	A natural or established vegetated area on all lands within 50, 75 or 100 feet (measured from the top of the bank) of any perennial and intermittent stream and within 25 feet (measured from the outside perimeter edge) of any nontidal wetland.	Linear lands adjacent to water-related resources.	Gorman Stream Valley Park, Murray Hill Stream Valley Park.	Filter pollutants, provide habitat, and transition or separation of natural areas from development.
Commercial Recreation Centers/Private Recreation	Recreational opportunities that are privately owned and generally operated for profit, usually requiring a membership fee to participate.	Building or outdoor facility signed as “private” and with a reception desk to check memberships and collect fees.	Normandy Lanes (bowling), Supreme Sports Club, Colosseum Gym and Fitness.	Provide additional recreational opportunities that fill a public need and generally make a profit for the company.
Community Park	Lands providing active and passive recreational opportunities for all neighborhoods within a two-mile radius. Can also serve organized sports groups.	Developed and undeveloped recreational lands ranging in size from 20 to 100 acres typically with active recreation facilities and open space.	Alpha Ridge Park, Hammond Branch Park, Waterloo Park, Warfield’s Pond Park, Meadowbrook Park and North Laurel Park.	To serve structured and unstructured, active and passive recreational needs while protecting sensitive natural areas.
Conservation	The systematic protection of natural resources, such as forests and waterways.	Undeveloped land in its natural state.	Open space, natural resource areas and portions of parks that are protected with limited use.	Protection and management of resources.

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Term	Definition	Appearance	Typical Examples	Goal / Purpose
Easement	A non-possessionary interest in land that restricts or allows the use of the land or the management of the land to protect the resource.	Not evident by appearance unless posted.	Agricultural, recreational, and conservation easements.	Open space easements provide access without liability for passage or recreational enjoyment. Agricultural easements conserve productive farmlands. Recreational easements provide for specific recreational uses in accordance with agreement.
Facility	Outdoor recreational structure and/or grounds.	Size and shape varies dependent on intended use.	Ballfields, playgrounds, tennis courts, equestrian rings, including ancillary uses such as parking, restrooms and concession stands.	Provide setting for structured activities.
Green Infrastructure	A network of land maintained in a largely natural state primarily to preserve environmental resources.	Could be “hubs”, which are large ecologically significant properties or “corridors”, which are linear connections between hubs.	Pristine natural areas in the Patuxent River and Patapsco River watersheds.	Protect natural sources, including animal and plant and animal habitats.
Greenways, Recreational	Multi-purpose, publically accessible trails, primarily for active use.	Linear trails with surfaces appropriate for multiple uses.	Little Patuxent Greenway, Middle Patuxent Greenway.	To accommodate walkers, bicyclists and other active trail users.
Historic -Cultural Areas	A major land holding category utilized for County inventory purposes. Sites are owned and managed by Howard County.	Varies depending on the property. May or may not include a structure.	Baldwin Commons, Waverly Mansion, Ellicott City Colored School, Isaac Thomas Log Cabin, The Old Court House, The Firehouse Museum, B & O Railroad Museum, Tiber Historical Park, Patapsco Female Institute.	Protect significant historic -cultural resources and their setting, and provide recreational/educational opportunities for citizens to better understand the past.
Indoor Space	Heated, lighted, enclosed space in which designated activities can be held.	Classroom, large meeting room, auditorium.	School / Recreation Center, Roger Carter Recreation Center, Meadowbrook Athletic Complex and Robinson Nature Center.	Climatized, comfortable space for year-round activities.
Lifetime Recreation	Both passive and active recreational pursuits that are enjoyed from youth through old age. These are typically adaptable to high- and low-impact energy levels and may be modified to address the pace and fitness of the participant.	No definitive land or participant appearance.	Golf, horseback riding, gardening, cycling, walking.	Enjoyment of a leisure activity from youth through old age in order to maintain physical, mental and emotional health.
Natural Resource Areas	A publicly accessible, protected parcel(s) of land with limited development, managed to maintain or enhance the resource and related habitats.	Natural, undeveloped land, rich in resources; may have trails, interpretive signs, maps, nature center.	David Force, Murray Hill, Gorman, Middle Patuxent Environmental Area.	Protection, conservation and management of natural resources providing public access, opportunities for environmental education and appreciation.
Neighborhood Parks	Lands that provide opportunities for passive recreation and may include limited opportunities for active recreation.	1 to 20 acres providing active and passive recreation, typically with limited or no off-street parking.	Atholton Park, Lisbon Park, Martin Road Park.	Provide recreational opportunities to residents near their homes.

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Term	Definition	Appearance	Typical Examples	Goal / Purpose
Nodes	Interim destination points on a linear trail system that can accommodate small groups or individuals.	Small, informal spaces often with benches or grass for sitting, resting.	Elkhorn Lake on the Columbia Pathway System, Turf Valley Overlook.	Visual and physical relief to built environment.
Open Space Areas	Areas providing for the protection of the environment, for recreation or other public use, which can include schools, libraries, parks and trails.	Open areas along streams and rivers of Howard County (wetlands, floodplain and steep slopes). Some open space areas can support limited recreation use to include small playground and open play areas.	Open spaces within developments such as Gwynn Acres / Plum Tree, Turf Valley Overlook, Montgomery Meadows, Grey Rock Farms, Rockburn Township, Dorsey Hall.	Protect the major streams and rivers of Howard County to include wetlands, floodplain and steep slope areas. Efforts are being made to include flat upland areas along the stream valley for pathways consistent with the State's "Greenway" concept.
Park	Publicly accessible land utilized for recreational purposes.	Developed / maintained land with facilities, e.g., picnic tables, playground, ball fields, parking.	Centennial Park, Font Hill Park, Guilford Park.	Destination for active, passive, and lifetime recreation for groups or individuals.
Park Site	Undeveloped land acquired for future development of facilities.	Natural, undeveloped land.	Dunloggin Park Site	Land for future facilities as needed, or as money becomes available.
Passive Recreation	Low-impact pursuits that are done for enjoyment.	No definitive land appearance; participants typically appear calm and relaxed.	Birdwatching, walking, reading, picnicking.	Enjoyment of non-strenuous pursuit.
Planning Area	Five geographical areas of the County determined by zoning, population density, urban/rural character, and census tracts.	No appearance on the land.	Columbia, Ellicott City, Elkridge, Rural West, Southeast.	To help identify facility and conservation needs based on inventory of existing resources and similar populations.
Preservation	To protect, without management or enhancement, a resource in its existing state for the future.	A natural or cultural resource retained in its original undisturbed state.	Howard County Conservancy, Woodstock Park, David Force, Murray Hill, and Gorman natural resource areas.	Protected land that evolves through natural succession over time without human interference. A historic building or other structure protected in its original condition.
Private Recreation	Recreational opportunities that are privately owned, usually requiring a membership or fee to participate.	Building or outdoor facility typically with a reception desk to monitor ingress and egress.	Forest Hills Swim and Tennis, Circle D, Columbia Association facilities.	Provide additional recreational opportunities that fill a public need and make a profit for company.
Programs	Formal scheduled and supervised activities, or operational activity.	Organized group activities.	Youth sports programs, special events, social recreation, aquatic programs, senior adult programs.	Organized recreation activities offering one or more purposes as detailed in Chapter 3.
Regional / County-wide Park	Large, multipurpose park for use by County-wide population, but typically serving residents within a five mile radius. Provides organized and unorganized sports, active and passive recreation and preservation of sensitive natural areas.	A "drive to" park that is staffed, consisting of over 100 acres offering a wide variety of recreational facilities which may include athletic fields, court games, hockey rinks, specialized facilities, indoor facilities and lighted facilities.	Centennial, Schooley Mill, Cedar Lane and Rockburn, Western Regional and Blandair.	Provide variety of indoor and outdoor facilities and programs to County citizens from organized team sports to individual lifetime activities.

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Term	Definition	Appearance	Typical Examples	Goal / Purpose
School Recreation Centers	School facility designed in cooperation with Recreation and Parks to accommodate additional use.	Enlarged school spaces to accommodate use (+5,500 SF); additional playing fields if site area allows.	Forest Ridge Recreation Center, Rockburn Elementary School Recreation Center.	Maximize use of County's resources through cooperative ventures between Board of Education and Recreation and Parks.
Sustainability	Efforts by the Howard County Office of Environmental Sustainability and others to make Howard County a greener, more environmentally-friendly location with a reduced carbon footprint.	Conservation easements, solar demonstration projects, green building policies, LED traffic lights, county-wide recycling bins.	Howard County Gas Inventory & Climate Action Plan, the County-owned Robinson Nature Center.	Conservation, preservation, and restoration of our land, air and water, guided by the principles of science, ingenuity, sustainability and stewardship.

Plan Concepts

Land Conservation

The concept of land conservation, as it applies to The 2012 Howard County Land Preservation and Recreation Plan, focuses primarily on the protection of park and open space land from development, and the conservation of important resources: stream corridors, including floodplains, wetlands, steep slopes, and adjacent buffers; agricultural land; and cultural and historic resources. Land conservation also incorporates conservation of environmental and landscape resources such as woodlands, meadows, soils, viewsheds, and scenic roads.

Stream Valley Protection

Stream valleys transect all portions of Howard County. They range in size from the Patapsco River and Patuxent River valleys to small tributary and intermittent streams. A stream valley often consists of all the following features:

- Stream channel
- One-hundred-year floodplain
- Associated wetlands
- Highly erodible soils
- Rare, threatened, and endangered species, and their habitats (for same)
- Steep slopes
- Woodlands
- Unique geologic areas
- Riparian and wetland buffers

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The primary purpose of protecting stream valleys is to maintain or enhance the quality of the water in the stream channel and protect the streamside environment.

Agricultural Land Preservation

Agricultural lands are particularly susceptible to growth pressure since land that is well suited for agricultural use is most often also well-suited for development. Agricultural preservation in Howard County targets prime land that is suitable for agricultural, horticultural, or silvicultural use and is located in the rural western portion of the County. In addition to providing stability to the agricultural economy and land resource base, agricultural land preservation helps to maintain a rural character, scenic vistas, and habitat, all important components of Howard County's natural environment. The agricultural easements obtained to date do not provide for public access. Subdivision regulations do not require dedication of publicly accessible lands in the Rural West.

Historic Resources

Historic resources are a part of our heritage from which we can learn about and appreciate our progress. Historic resources are items of historical significance including:

- Historic sites (locations of significant structures, events, occupations, or activities; includes settings, landscapes, and gardens)
- Historic buildings (e.g., house, barn, church, or a complex such as a courthouse and jail)
- Historic structures (anything human-constructed that has historical significance; includes buildings and appurtenances)
- Cemeteries (ownership, location, and gravestone inscription inventory)
- Archeological sites

When conserving historic resources, it is also important to consider the "setting". The surrounding area impacts the visitor's impression and experience. In some cases, the setting can dictate the permanence of the resource protection measures.

Rare, Threatened and Endangered Species

Conserving wildlife habitat, particularly for rare, threatened and endangered species, is an important motivation behind Howard County's efforts to preserve open space. In cooperation with state agencies and other entities, Howard County strives to safeguard the stream systems, forested land, farmland, meadows and other natural areas that provide a locational niche for special indigenous flora and fauna.

The Park and Open Space System in Howard County

The park and open space system in Howard County includes the following elements:

- State Lands
- Regional Parks
- Community Parks
- Neighborhood Parks
- School Recreation Centers
- Natural Resource Areas and County Open Spaces
- Historic / Cultural Areas
- Homeowner Association Lands
- Other Permanently Preserved Private Open Spaces

Chapter Three of this 2012 Howard County Land Preservation, Recreation and Parks Plan, entitled *Recreation, Parks and Open Space*, discusses the role of each of these park and open space types in Howard County. Brief definitions are provided below.

State Lands

State Lands in Howard County (two state parks and a wildlife management area) are large land and forest reserves with unique scenic character that provide protection of significant natural resources, protection of the immediate watershed and water quality, and nature-oriented recreational opportunities.

Regional Parks

Regional Parks are large holdings of land, serving and providing recreational opportunities to residents within a five-mile radius, but capable of serving visitors county-wide. A regional park

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is typically developed to provide a wide variety of recreational opportunities for County residents, including passive, active, and lifetime activities as well as organized team sports. Regional parks can include both indoor and outdoor recreation facilities.

Community Parks

Community Parks serve organized and non-organized, active and passive recreational needs. These activities may be provided year-round in both outdoor and indoor environments. Facilities are oriented toward use by a large portion of the population, such as formal playing fields, playgrounds, trails, and court games, but may also serve the needs of a small area by providing specific recreational opportunities, including programmed activities.

Neighborhood Parks

Neighborhood Parks provide both active and passive recreational opportunities oriented toward short-term, spontaneous, close-to-home types of activity. Recreational functions are confined to those activities requiring small amounts of space and oriented to the specific needs of the neighborhood or groups of neighborhoods within a one-mile radius.

School / Recreation Centers

School / Recreation Centers are schools that double for use as recreational centers. These facilities are designed to have larger than normal assembly areas, cafeterias, and gymnasiums to accommodate non-school activities. They typically include an office for recreational staff, outside storage and restroom access, and often include outdoor recreational facilities programmed by the Howard County Department of Recreation and Parks.

Private and Quasi-Public Recreation Facilities

Private and Quasi-Public Recreation Facilities are typically operated for profit and offer specialized recreational opportunities. Private facilities, which may accommodate indoor or outdoor opportunities, include, for example, theme parks, golf courses, stables, health clubs, and spas. Private facilities usually require a membership or a fee. They fill a recreational need not provided by public facilities and parks and are located close to the demand.

Natural Resource Areas and County Open Space

Natural resource areas are large, resource-rich properties Howard County acquired to help conserve the ecological character of the region by protecting wildlife habitat and environmentally sensitive natural features, such as stream valleys and steep slopes. County open spaces are the many smaller parcels developers have dedicated to Howard County as part of new residential subdivisions. The Howard County Department of Recreation and Parks oversees these numerous, dispersed properties.

Historic / Cultural Areas

County-owned Historic / Cultural sites discussed in this Plan include two museums, a bridge, historic schools, and other visible reminders of Howard County's unique heritage. In addition to these stand-alone sites, Howard County oversees several historic buildings that are situated within County-owned parks. These structures include farmhouses, cabins, barns, schoolhouses and other attractions.

Homeowner Association Lands

Typically, a developer dedicates these sites to a homeowner association as a precondition for County approval of a proposed residential subdivision. While they are usually small in size, lands held by homeowner associations are of many different configurations. They feature a range of physical site characteristics and are located throughout Howard County.

Other Permanently Preserved Private Open Spaces

Land in this category is property preserved by the Columbia Association and by the Washington Suburban Sanitary Commission (WSSC). The 10 residential villages within the planned community of Columbia also each include permanent open space tracts. These open spaces encompass both undeveloped lands and properties with recreation facilities such as pools, gyms, neighborhood centers, tennis clubs or similar amenities.

A Note About Private and Quasi-Public Recreation Facilities

While not the subject of this Plan, Private and Quasi-Public Recreation Facilities are important in Howard County. They are typically operated for profit and offer specialized recreational opportunities. Private facilities, which may accommodate indoor or outdoor opportunities, include, for example, theme parks, golf courses, stables, health clubs, and spas. They fill a recreational need not provided by public facilities and parks, and are usually located close to the demand.

Chapter 2: Framework for the Local Plan

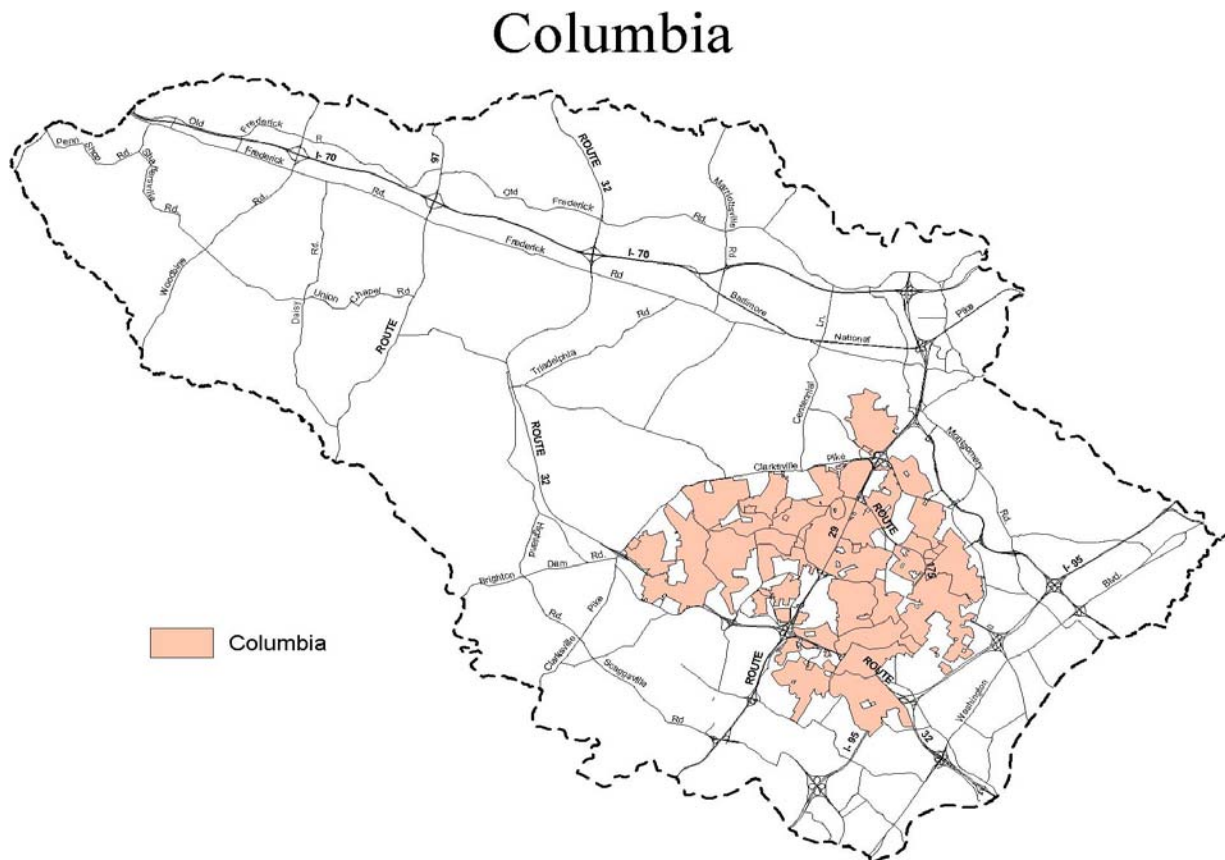


CHAPTER TWO – FRAMEWORK FOR THE LOCAL PLAN

Chapter One explained the major goals of, and specific terminology used in The 2012 Howard County Land Preservation, Recreation and Parks Plan. Chapter Two includes an overview of Howard County's land use and natural environment, and a summary of key demographic trends. Major land conservation and resource protection strategies are also summarized.

County Characteristics

Howard County comprises 252 square miles and is located approximately 15 miles south of the City of Baltimore and 30 miles north of Washington, D.C. Howard County has no incorporated municipalities. Ellicott City and the famous planned community of Columbia are the largest population centers. Together, these two locations contain over 50 percent of the County's residents. Other population centers in Howard County include Elkridge, West Friendship, Clarksville, Cooksville and Laurel.



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Interstate 95, which is the spine of the Baltimore-Washington corridor, traverses the eastern side of the County, and brings extensive daily traffic through Howard County. Howard County directs most of its growth to the eastern portion of the County. The less intensely developed western part of Howard County is part of a rural belt that also encompasses portions of nearby Montgomery, Carroll and Frederick Counties.

Most of Howard County is readily accessible. Drivers can travel from the northern portion of the County to the southern portion (from Ellicott City to North Laurel) in approximately 20 minutes. Travel time from east to west (from Dorsey to Long Corner) is approximately 50 minutes. In addition to Interstate 95, major traffic routes in Howard County include Interstate 70, U.S. Routes 1, 29, and 40, and MD Routes 32 and 100.

Planning Areas

Howard County has delineated the following five planning areas, as shown on the Planning Areas map:

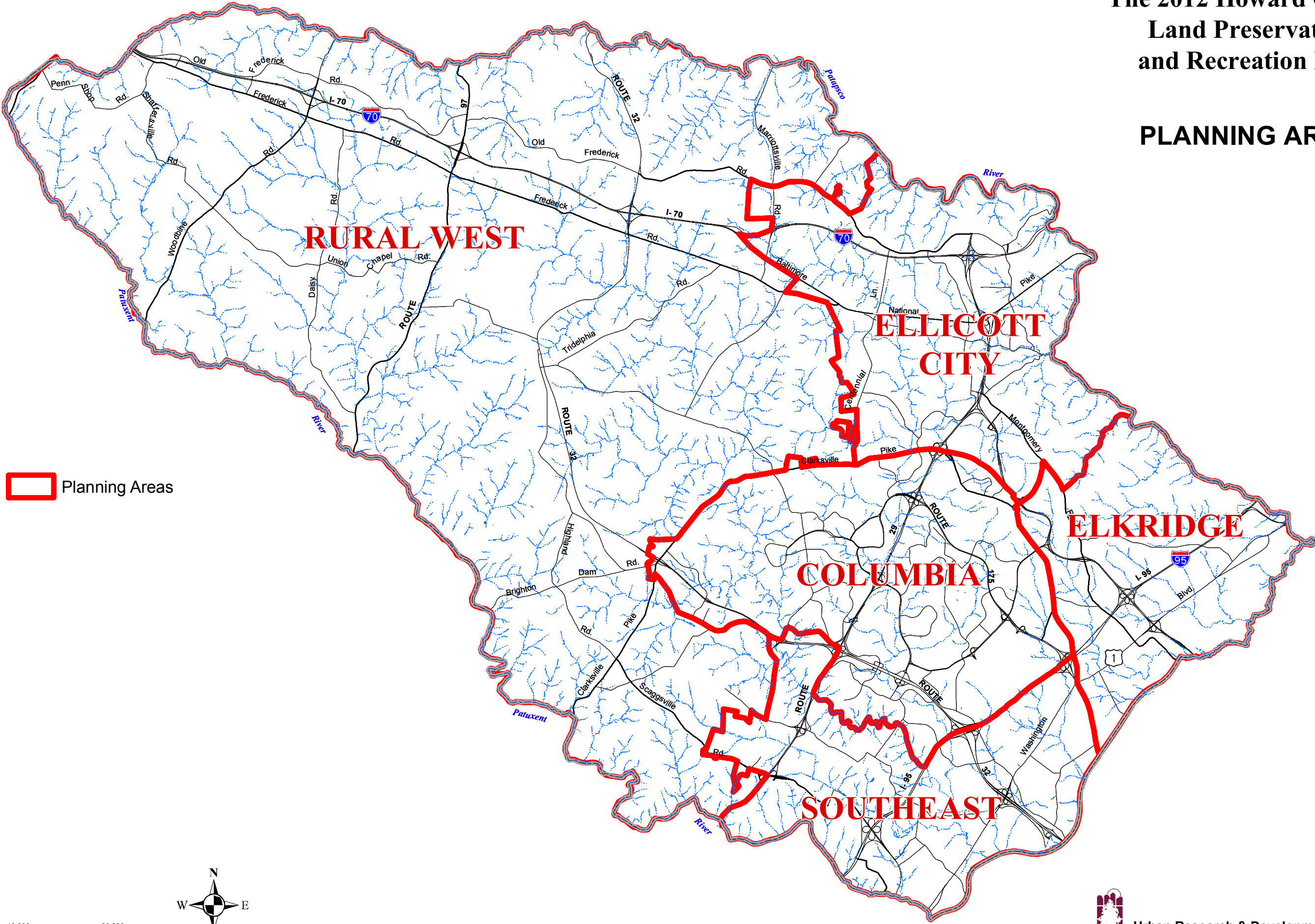
- Columbia
- Ellicott City
- Elkridge
- Rural West
- Southeast

The Department of Planning and Zoning (DPZ) based these planning areas on location, land use intensities, natural features and overall character. DPZ uses planning areas to evaluate needs and formulate plans on a sub-county basis. Statistics and priorities are often analyzed and discussed at the planning area level. In addition, residential and nonresidential land use projections are conducted by planning area. Columbia is the most populous planning area and contains the highest proportion of high density residential, commercial uses, and other business development.

The planning areas of Elkridge and Southeast are along the Interstate 95 corridor, where direct access to Washington and Baltimore has stimulated both residential and nonresidential growth. The Ellicott City planning area contains the historic County seat and a major interchange of Interstate 70. The Rural West contains 60% of the County's land area and has no public water and sewer service. It is the least densely developed of the five planning areas, and is dominated by agriculture and low density residential uses. Farmland easements, dedicated preservation parcels, State parkland, Washington Suburban Sanitary Commission (WSSC) property, and other conservation measures have combined to set aside significant acreage in the Rural West, which is the focus of on-going agricultural and environmental preservation efforts.

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PLANNING AREAS



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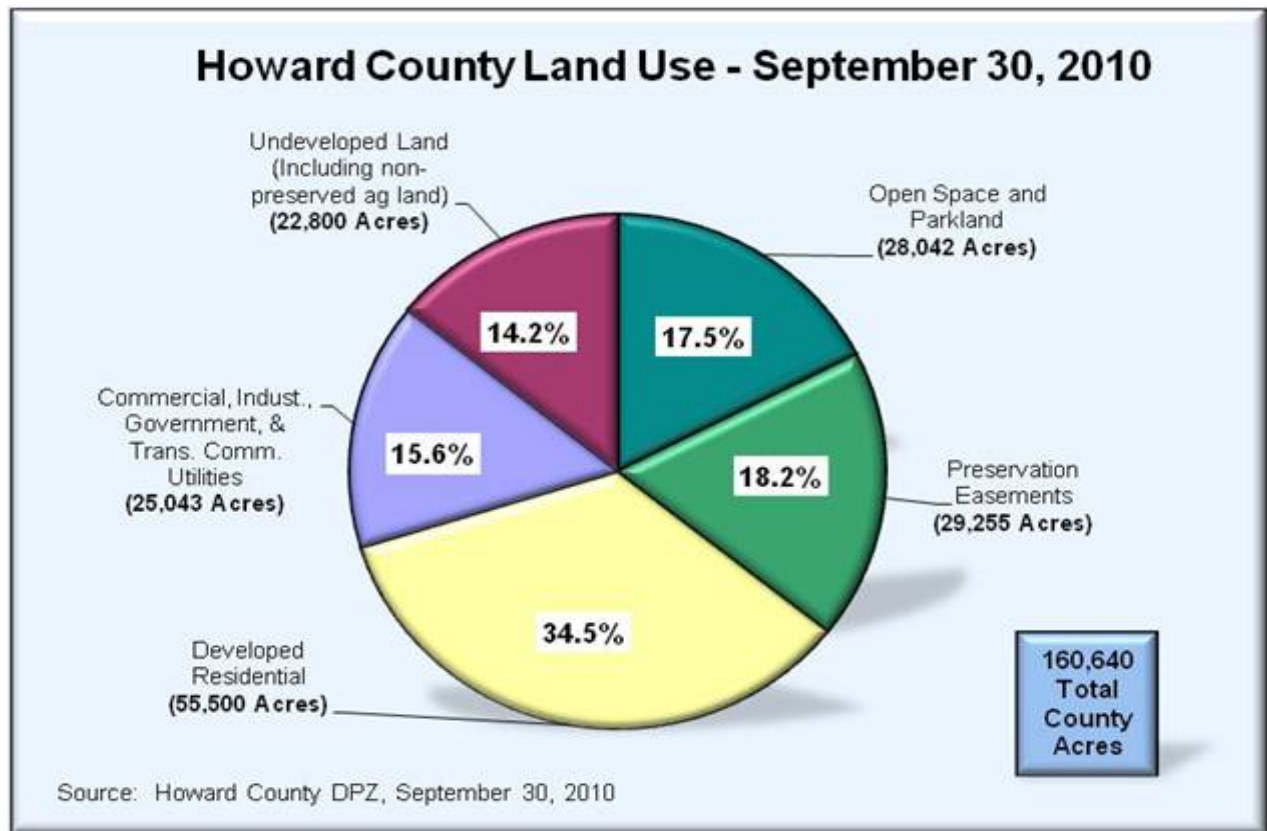
Source: State of Maryland, Howard County, and URDC

Land Use Patterns

Howard County is largely a mix of suburban and rural areas. The accompanying Howard County Existing Land Use graphic shows that, based on data from the Howard County Department of Planning and Zoning, developed residential land encompasses 34.5% of Howard County's land area, the largest land use category. Land in Preservation Easements is the second largest land use category, accounting for 18.2% of the County's land area. The three remaining categories on the graphic include: a) Open Space & Parkland (17.5%); b) Commercial / Industrial / Government / Transportation / Utilities (15.6%); and c) Undeveloped Land (14.2%).

In Howard County, over 137,840 acres (85.8% of all land area) is committed land—land that is either developed, permanently preserved or part of public open space and parkland. The remaining 22,800 acres (14.2% of all land area) is undeveloped land, including farmland and other vacant land that is not permanently preserved. Howard County officials expect continued development pressure in the foreseeable future. The County is a desirable place to live, work, and/or visit for many reasons, including the following:

- Prime location along Interstate-95 corridor
- High-speed, limited access roads that extend both north-south and east-west
- Historic and scenic amenities
- Extensive and responsive government services



Streams, Rivers and Reservoirs

Howard County is bounded on the north by the Patapsco River and on the south by the Patuxent River. These two rivers are major tributaries to Maryland's most important and most vulnerable resource, the Chesapeake Bay. Approximately three-quarters of the County drains to the Patuxent River. The remaining one-quarter of the County drains to the Patapsco River. Therefore, any activity within Howard County can potentially impact the Chesapeake Bay.

The rivers and tributaries are an important resource for the County due to their wildlife habitats and recreational opportunities. The Patuxent River is classified as a Maryland Scenic River. The Patapsco River has been nominated for inclusion in the Maryland Scenic Rivers Program.

Much of the land directly adjacent to these two rivers is protected and in public ownership, although several gaps still remain. The State is actively pursuing acquisition along these two rivers to protect all lands adjacent to the shorelines. It will continue to be important to close these gaps by working with the Maryland Department of Natural Resources or by setting aside land through additional easements, dedications, or fee simple acquisitions.

The Patapsco River and the Patuxent River are each fed by numerous tributaries, perennial and intermittent streams that traverse the County. These streams provide wildlife habitat which supports many species of fish, and offer recreational education opportunities. The lower portion of the Patuxent River, the Middle Patuxent River, the Little Patuxent River, Hammond Branch and Dorsey Run, as well as their tributaries, are classified as Use I-P: Water Contact Recreation and Protection of Aquatic Life and Public Water Supply under Maryland's Designated Use Stream Classification System. The lower portion of the Patapsco River and Deep Run are classified as Use I: Water Contact Recreation and Protection of Aquatic Life. The upper reaches of the Patuxent River and its upper tributaries are classified as Use III-P: Natural Trout Waters and Public Water Supply, which support natural trout propagation. The middle portions of the Patuxent River and Cattail Creek are classified as Use IV-P: Recreational Trout Waters and Public Water Supply, which support trout stocking (protected as recreational trout water in addition to other Use I uses). Upper portions of the Patapsco River are classified as Use III and IV: Natural and Recreational Trout Waters, respectively. As described in Chapter Five, among other measures, Howard County helps protect stream water quality by requiring no new soil disturbance within specific buffer areas along stream corridors.

The Patuxent River in Howard County has two major impounded water supplies owned and managed by the Washington Suburban Sanitary Commission (WSSC): the Triadelphia Reservoir and the Rocky Gorge Reservoir. WSSC, a quasi-public agency, owns over 5,986 acres of land (3,204 acres in Howard County) and 35 miles of shoreline adjacent to these two reservoirs.

Floodplains

Howard County has 10,100 acres of land in 100-year floodplains. Floodplains are adjacent to streams and tributaries, and define the limit of flow during a 100-year flood event. Development within the 100-year floodplain is prohibited for the protection of property and lives, as well as for ecological reasons.

Although not suitable for development or active recreation, floodplains, in conjunction with streamside buffers, provide an extensive green network throughout the County that can be utilized for passive recreation such as walking, hiking, picnicking, and wildlife observation. The County intends to continue extending and linking open spaces within floodplains through the dedication process, easements, and/or fee simple acquisition.

Wetlands

Howard County has approximately 2,986 acres of nontidal wetlands. Most of the wetlands are located in stream valleys associated with the 100-year floodplain. Wetlands are protected under the Federal Nontidal Wetland Act, which is administered by the State of Maryland and by the State's Nontidal Wetland Protection Act. Wetlands are an important resource providing benefits such as scenic value, flood water retention, pollutant filtering, and food source and habitat for wildlife.

Although a wetland may be protected from actual disturbance, many times wetlands are degraded by adjacent activities and land uses. Silt and sediment can smother wetland vegetation. A change in the water runoff patterns can dry a wetland. Pedestrian traffic can damage and kill wetland vegetation. The County continues through the dedication process, easements, or fee simple acquisition to acquire, extend, and link open space lands containing wetlands. As described in Chapter Five, Howard County helps protect wetlands by requiring no new soil disturbance within specific buffer areas around wetlands.

Forest Cover

Approximately 28 percent of Howard County (45,131 acres) is forested. Forest cover provides numerous environmental benefits including flood retention, pollution absorption, wildlife habitat, sediment and erosion control, temperature moderation, scenic value and visual buffering. Much of the County's woodlands are located adjacent to streams, tributaries, and floodplains, and in buffers. Upland woodlands are increasingly threatened as development continues.

In 1991, the State of Maryland began requiring counties and local jurisdictions to develop and approve a Forest Conservation Act. The Howard County Forest Conservation Act became

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effective in 1993. This Act establishes development regulations that are intended to reduce forest clearance, and to require forest planting to mitigate for forest cleared and/or to provide a minimum forest cover on developing sites. As noted on the following table, there are currently 2,739 forest conservation easements in the County that contain approximately 5,293 acres of forest. These easements range in size from less than an acre to 65 acres, with an average size of only 2 acres. The majority of these easements (97%) are 10 acres or less in size, and contain 72% of the total easement acreage.

Table 1
FOREST CONSERVATION EASEMENTS
Howard County – 2012

Total Forest Acres in County	45,131
Number of Easements	2,739
Forest Acres Retained in Easements	5,293

Mineral Resources

Mineral resources include coal, sand, gravel and talc. Conservation of these resources today is important for future generations. The major mineral resources in Howard County are sand and gravel deposits in the Sassafras-Chillum Soil Association. Most of the exposed strata is located in the eastern portion of the County.

Agricultural Lands

Howard County has some of the richest agricultural lands in the State. Agriculture and farming have always been a part of Howard County's heritage. In order to protect the agricultural lands and agricultural heritage of the County, Howard County instituted a highly successful voluntary Agricultural Land Preservation Program. The program involves the purchase of land development rights, removing the possibility of that land being developed. The purchase of these agricultural easements preserves the agrarian use of the land, as well as landscape diversity and the visual rural character of western Howard County. Details on the progress of Howard County's agricultural preservation efforts are included in Chapter Four of this document.

Wildlife Habitat

Howard County is rich in wildlife habitat due to the diversity of land uses and natural features. The Maryland Department of Natural Resources' list of current and historical rare, threatened and endangered species identifies 59 species in Howard County: 13 animals and 46 plants. As

development threatens to encroach on natural stream systems, wetlands, forested land, farmland, and fields, plant and animal habitats are at risk. Howard County, in conjunction with state and quasi-public agencies, has sought to conserve habitat by land acquisition through the dedication process, easements, and fee simple acquisition. Examples of natural resource areas in Howard County include Patapsco and Patuxent State Parks, Rocky Gorge and Triadelphia Reservoirs, and the Middle Patuxent Environment Area.

Steep and Very Steep Slopes

Howard County has between 9,000 and 10,000 acres of steep slopes (15-25% grade) and very steep slopes (over 25% grade). These areas are primarily located along the many stream valleys in the County. They are mostly concentrated along the Patapsco River and its tributaries which penetrate into the northern part of the County. Concentrations of steep slopes are also found along the Middle Patuxent River and the Little Patuxent River in the eastern and central portions of the County, and along the Patuxent River and Cattail Creek in the west.

Current and Projected Demographic and Socioeconomic Characteristics

Total population, age distribution, average household size, income statistics, and related data provide a descriptive profile of Howard County's residents and growth patterns. Recreation planners use this information to help clarify current trends, and to assist in projecting future needs for both recreation facilities and recreation programs. U.S. decennial census data, State demographic projections, and statistics collected and organized by Howard County all contribute to this ongoing analysis.

Current Population Totals and Trends

Howard County's population in 2010 was 287,085 according to the U.S. Census, an increase of 39,243 residents, or 15.8%, since 2000. Howard County is still adding residents but at a significantly slower rate than previous decades. Howard County's population grew by 71% during the 1960s, 92% during the 1970s, 58% during the 1980s and 32% during the 1990s.

Projected Population Totals

The Howard County Department of Planning and Zoning projects that the County's growth rate will continue to moderate. They forecast that the County will add 33,916 residents between 2010

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and 2020 for a total 2020 population of 321,001. This would be an increase of 11.8% over the County's 2010 population. The County's 2020-2030 prediction calls for 20,266 new residents for a total 2030 population of 341,267, which is a 10-year growth rate of 6.3%.

The Maryland Department of Planning expects Howard County's population to rise to 312,200 by 2020 and 328,200 by 2030. These State-forecasted population totals are somewhat lower than Howard County's predictions. However, both sources agree that while Howard County will still add residents in the foreseeable future, growth rates will continue to slow down.

Lower growth rates will continue to affect the Howard County Department of Recreation and Parks directly. Among other repercussions, slower growth will permit the Department to focus more on meeting the variety of needs presented by the County's diverse population, instead of simply responding to the need for more and more parkland to serve ever-growing numbers of new residents.

Age Distribution

Table 2 shows that while Howard County's overall population growth is slowing, different age groups are growing at different rates. Residents over 65 years old will continue to increase as a proportion of all residents. The Howard County Department of Planning and Zoning predicts that the 65 years and older group will constitute 21% of all residents by 2030. In 2010, this group accounted for only 10%. The State projects that the 45 to 64 year old group will shrink to 22% of all residents by 2030. The number of County residents in the 20 to 44 year old group is forecasted to remain steady. The 19 year old and under group is expected to shrink as a percent of total population from 28% in 2010 to 25% in 2030.

In summary, the needs of seniors (65 years and older) will represent a greater share of the demand for recreation facilities and programs in the coming decades. The demand for recreation to serve young adults (20 to 44 years old) and young people (under 19 years old) will stay about the same. The County's response to these shifts will be important. For example, greater efforts will be needed to program activities that sustain good health and maintain social contacts. Conversely, the demand for recreation services that revolve around organized sports may not grow as fast in the future as it has in recent times.

Table 2
AGE DISTRIBUTION IN HOWARD COUNTY
2010 – 2030

AGE GROUP	2010		2020		2030	
	No.	%	No.	%	No.	%
19 and Under	80,723	28	76,243	24	83,997	25
20 to 44	92,861	32	101,081	32	107,784	32
45 to 64	84,356	30	89,430	28	74,921	22
65 and Over	29,045	10	50,897	16	73,646	21
Total	287,085	100	317,651	100	340,348	100

Source: Howard County Department of Planning and Zoning, 2012

Diversity

The 2010 Census shows that the population of Howard County is 59 percent non-Hispanic White, 17 percent non-Hispanic African-American, 14 percent non-Hispanic Asian, and almost 6 percent Hispanic. About 3 percent of the population indicated that they were of more than one race. The remaining 0.5 percent is of another race, including a small number of American Indians and Native Alaskans. Hispanics can be of any race.

Compared to a decade ago, the County has become increasingly diverse. In 2000, the non-Hispanic White population was 73 percent of the total county population. The remaining 27 percent consisted of minority populations. By 2010, the minority populations had increased to 41 percent of the total—a significant increase over a relatively short period of time.

The non-Hispanic Asian population increased the most between 2000 and 2010: more than 22,000 persons, or a 116 percent increase. The non-Hispanic African-American population grew by almost 14,000 residents, representing a 39 percent increase over the decade. Hispanics increased by about 9,200 residents, comprising the largest growth rate of any minority population (123 percent). By comparison, the non-Hispanic White population *decreased* by 10,000 residents, representing a 5.6 percent decline.

The decade from 2000 to 2010 was the first time the non-Hispanic White population has decreased in Howard County between decennial censuses. At the current rate of change, Howard County will likely become a “majority-minority” county sometime in the next five to ten years.

Household Size

Nationwide, average household size has decreased in recent decades because of more divorces, more people who never married, more single-person elderly households, and fewer children per family. In Howard County, average household size shrank from 3.59 persons in 1970 to 2.61 persons in 2010. The Maryland Department of Planning predicts average household size in Howard County will continue to shrink in the decades ahead but not as dramatically. The State calls for Howard County's average household size to be 2.51 persons in 2020 and 2.44 persons in 2030.

When household size decreases, small neighborhood parks tend to serve fewer people. The smaller the service population, the less economical a facility may be, with a decreasing cost / benefit ratio in relation to other services provided by the Department of Recreation and Parks. The Department will continue to monitor this trend in Howard County.

Education and Income

Howard County residents are well educated. Over 94 percent of the County's adult residents (people over 25 years old) graduated from high school. Over 59% of all adult residents are college graduates. Almost 29% have a graduate or professional degree.

The U.S. Census reported that median household income in the County was \$104,055 in 2009, an increase of 40.3% over the 1999 average of \$74,167. Maryland's statewide median household income in 2009 was \$70,477. While recreation planners have to be careful about generalizations, Howard County's education and income profiles suggest County residents are likely to continue to be interested in a wide range of recreation opportunities, including specialized activities.

Travel to Work Data

According to the U.S. Census, 80.9% of Howard County residents drove to work alone in 2010. The mean travel time to work among Howard County residents was 30.5 minutes, up from 30.2 minutes in 2000. Howard County's well-developed network of major roadways, such as I-92, I-70 and Route 1, among others, tends to promote vehicular travel.

Disabilities

As the County's population continues to age, dependency on the automobile may decrease and alternative transportation modes that facilitate mobility for seniors will become more important. The U.S. Census Bureau reported in 2010 that 7.2% of Howard County residents has a physical disability (20,673 persons). As the population ages, the number of people with disabilities is

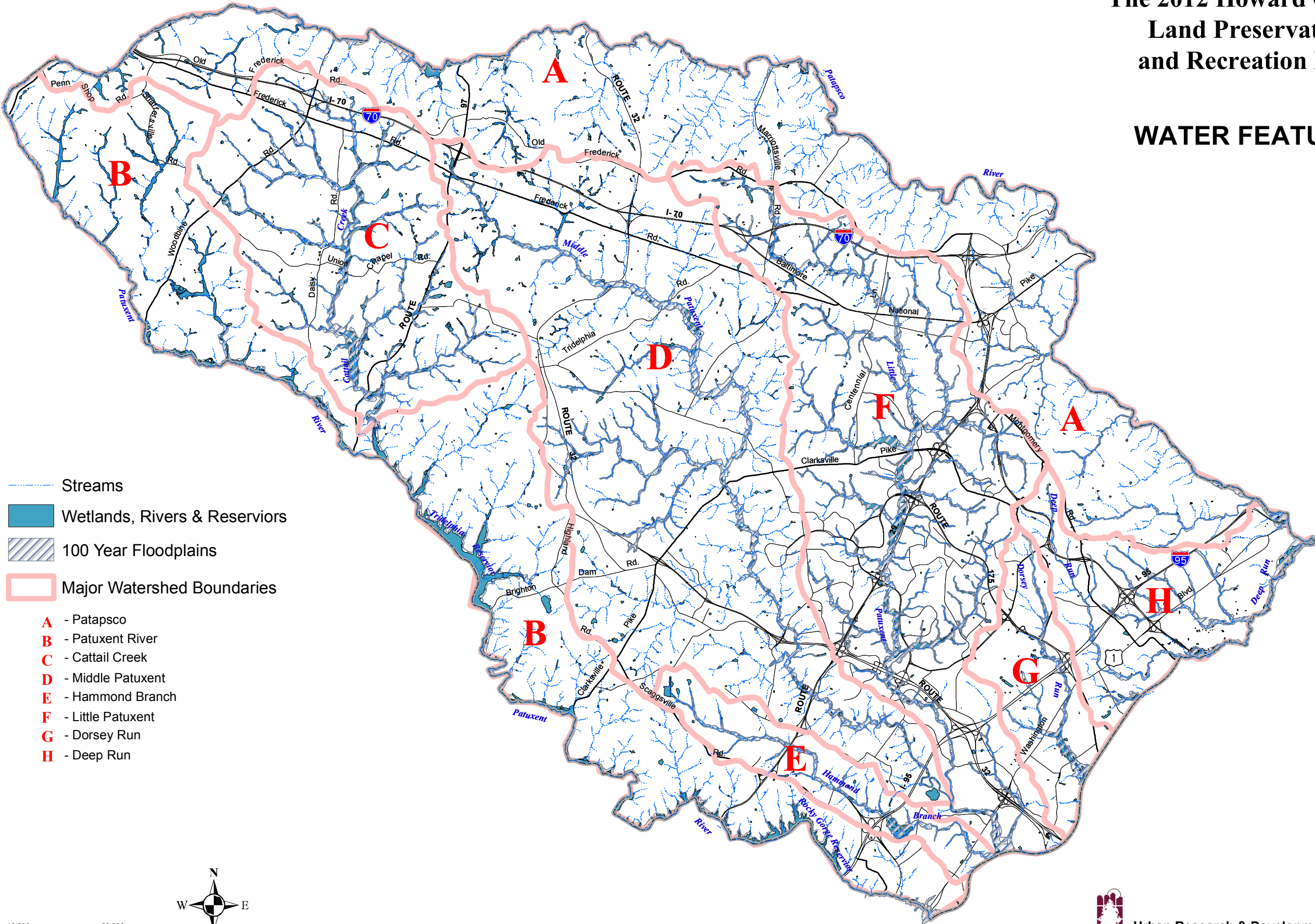
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expected to rise. The Department of Recreation and Parks understands the importance of ensuring all new recreation facilities are designed in full accordance with the federal Americans With Disabilities Act (ADA).

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WATER FEATURES



- Streams
- Wetlands, Rivers & Reservoirs
- 100 Year Floodplains
- Major Watershed Boundaries

- A** - Patapsco
- B** - Patuxent River
- C** - Cattail Creek
- D** - Middle Patuxent
- E** - Hammond Branch
- F** - Little Patuxent
- G** - Dorsey Run
- H** - Deep Run

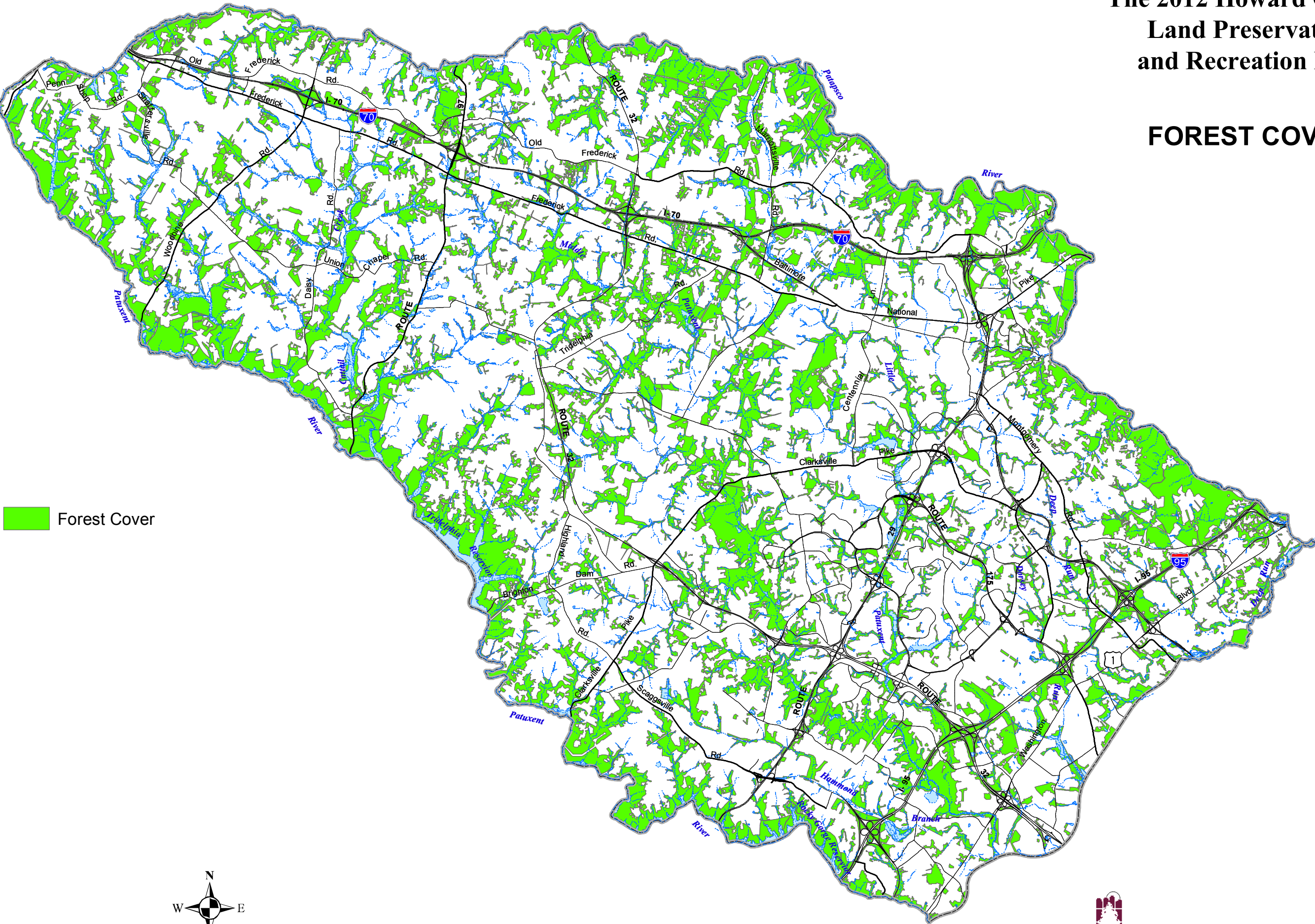
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Source: State of Maryland, Howard County, and URDC

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FOREST COVER



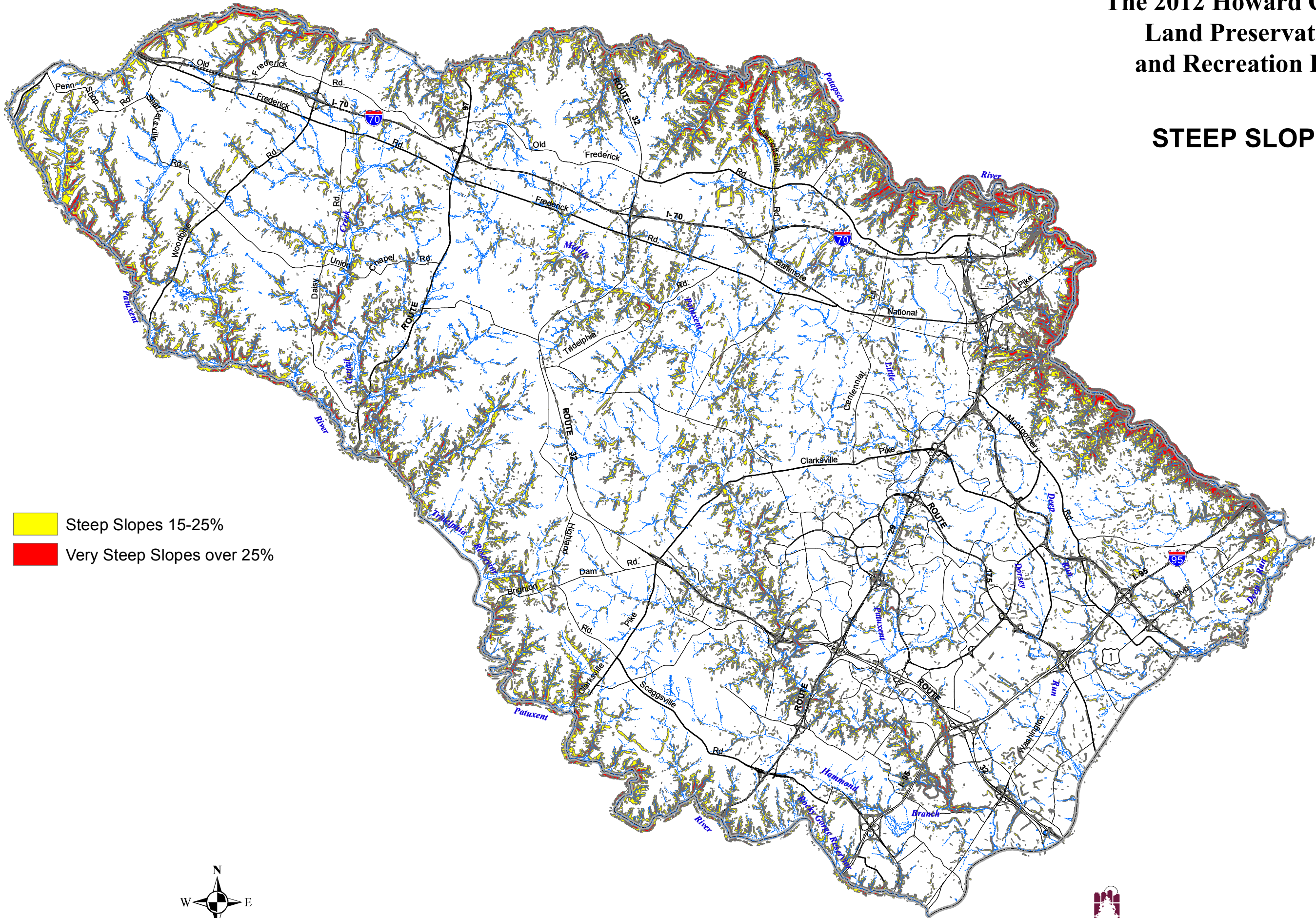
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Source: State of Maryland, Howard County, and URDC

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STEEP SLOPES



- Steep Slopes 15-25%
- Very Steep Slopes over 25%

0 10,000 20,000 Feet



Source: State of Maryland, Howard County, and URDC

Chapter 3: Recreation, Parks & Open Space



CHAPTER THREE - RECREATION, PARKS AND OPEN SPACE

After an overview of relevant goals, Chapter Three describes the parks and recreation facilities available in Howard County. The needs for additional parks and recreation facilities are then identified by comparing what exists now to an estimate of the current and future demands for these services based on standards prepared by the Maryland Department of Natural Resources. Once Howard County's recreation-related needs are identified, this chapter then describes how the County intends to address these needs.

State and County Goals for Recreation, Parks and Open Space

The goals and policies that guide the Howard County Department of Recreation and Parks include goals and policies adopted by the State of Maryland, the County's comprehensive planning goals, and the goals highlighted in Howard County's 2005 Comprehensive Recreation, Parks, and Open Space Plan. These important benchmarks and how they guide County policy are summarized below.

State Goals

Howard County recognizes and supports the State of Maryland's overall goals for recreation, parks and open space preservation. These State goals include the following:

- 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 lands at a rate that equals or exceeds the rate that land is developed at a statewide level.

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Relevant County Comprehensive Planning Goals

Howard County's comprehensive planning goals are based on the concepts of Smart Growth and Sustainable Development, philosophies that emphasize preserving land and targeting population growth to areas served by adequate infrastructure. These underlying themes and the County's comprehensive planning goals overall are strongly compatible with the twelve visions established as Maryland State planning policy.

The County's most recently adopted comprehensive planning policy on recreation is to "Enhance the County park system and recreational facilities". Recommended actions pursuant to this policy include the following:

- Establish specific, realistic goals for acquisition of land.
- Accelerate acquisition of land to meet the County's long-term recreation needs since suitable sites are disappearing rapidly.
- Develop a detailed greenway plan.
- Develop a County-wide plan for locating, constructing and maintaining sustainable trails and pathways.
- Refine County-wide objectives for parkland, open space, recreation programs and recreation facilities by looking for neighborhood-level parks, recreation and open space opportunities.
- Design facilities for active recreation with public input and using design features that mitigate impacts and address safety concerns.
- Preserve and rehabilitate historic structures on County-owned parkland, conditional upon the degree of deterioration.

Howard County augments these goals with additional policies aimed at improving management of park facilities and site features and delivery of recreational services through needs analysis and ongoing partnerships with the Howard County Public School System, Columbia Association, and other public and private recreation providers.

Goals of the 1999 Recreation, Parks and Open Space Plan and 2005 Land Preservation, Recreation and Parks Plan

Howard County's 1999 Comprehensive Recreation, Parks, and Open Space Plan cites the following six "major goals", all of which are compatible with the State's goals and the County comprehensive plan goals noted above. These goals were reiterated in the County's 2005 Land Preservation, Recreation and Parks Plan and remain relevant today.

- Provide for, ensure and increase the quality of life for all Howard County residents and preserve the County's unique character in balance with continued economic growth.

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- Provide for future passive, active and lifetime recreational opportunities, ensuring that all land, programming and recreational facility needs are met.
- Take a fresh approach to land and resource conservation as well as programming and recreation in Howard County in order to reflect the County's priorities, character and economic resources.
- Protect resources, renewable and non-renewable natural resources, cultural and historic.
- Integrate the preservation of the County's agricultural land and agricultural activities with resource protection and recreational goals.
- Make open space a priority equal to its impact on the future quality of life of Howard County residents.

How State and County Goals Underlie County Policy

Howard County's emphasis on improving quality of life by expanding and refining its parks, recreation and open space offerings is consistent with State goals, County comprehensive planning goals, and the goals the Department of Recreation and Parks established for itself in its 2005 Land Preservation, Recreation and Parks Plan. The State and County goals listed above are basically formal statements of the day-to-day priorities that have guided the Howard County Department of Recreation and Parks' ongoing operations.

The Department's recreation programming, land acquisition, and capital improvement initiatives follow systematic needs analysis that is regularly updated, with public input. In addition, the Department has reached out to form recreation-related partnerships with local youth athletic associations, the Howard County Board of Education, the Maryland Historical Trust, the Columbia Association and other private and semi-public entities. Special efforts to serve elderly populations, preserve more passive recreation areas, extend the park system in the western part of the County, consider greenway alternatives, and promote other modes of travel by forming a Bicycle Master Plan Task Force, are among the recent examples of how the Howard County Department of Recreation and Parks has patterned its approach on the State and County goals enumerated above.

Existing Recreational Acreage in Howard County

Howard County residents, workers and visitors have access to an extensive park and open space system that offers many forms of recreation. This park and open space system includes the following components:

- State Lands

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- Regional Parks
- Community Parks
- Neighborhood Parks
- School Recreation Areas
- Natural Resource Areas
- County Open Spaces
- Historic / Cultural Areas
- Homeowner Association Lands
- Other Permanently Preserved Private Open Spaces

Chapter One features specific definitions for each of these park and open space types. The amount of acreage and number of sites included in each category are summarized for Howard County in Table 3. Appendix A provides a complete inventory, with the park type, ownership and acreage listed for each specific site.

Table 3
RECREATIONAL ACREAGE
Howard County
2012

Site Type	Total Acres	Sites
State Lands	9,752.60	3
Regional Parks	2,521.77	10
Community Parks	882.33	21
Neighborhood Parks	285.91	32
School Recreation Areas	1,874.47	68
Natural Resource Areas	1,864.58	8
County Open Spaces	3,505.17	978*
Historic / Cultural Areas	37.58	12
Home Owner Association Lands	1,205.60	**
Other Permanently Preserved Private Open Spaces	6,450.19	11
TOTAL	28,395.00	1,132

* Refers to total parcels.

** The number of individual sites in this category are not tabulated.

Sources: Howard County Department of Recreation and Parks, Maryland Department of Natural Resources, URDC.

State Lands (9,752.60 acres)

The Maryland Department of Natural Resources manages 9,752.60 acres of public open space in Howard County, including two state parks and a wildlife management area. The Patapsco Valley State Park and the Patuxent River State Park each offer fishing, picnicking, hiking, mountain biking, equestrian trails, and playgrounds, among other attractions. The Hugg Thomas Wildlife Management Area features hiking trails, hunting grounds, and preserved wildlife habitat.

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The State's landholdings in Howard County are large, land and forest reserves with unique scenic character that protect natural resources, water quality and nature-oriented recreational opportunities. Because State lands are largely left in their natural state, their main function is to offer recreation to people looking for a natural or wilderness experience. State lands complement, rather than take the place of, regional or locally-oriented parks. In some instances, State lands, particularly trails are accessed from County owned parklands.

Howard County Lands (9,097.34 acres)

The Howard County Department of Recreation and Parks Bureau of Parks and Program Services' manages 9,097.34 acres of parkland, and other preserved areas. The Department is responsible for 3,690.01 acres of active/passive-use parkland, including:

- 10 regional parks (2,521.77 acres);
- 21 community parks (882.33 acres);
- 32 neighborhood parks (285.91 acres).

Howard County designs its regional parks primarily for residents within a five-mile radius, but these parks also serve visitors from throughout the County. Within regional parks, the County balances natural resource conservation with the provision of active recreation facilities for organized team sports and lifetime activities. Regional parks also provide visual relief from development and supply passageways for both wildlife and pedestrians. Some of Howard County's regional parks feature special facilities such as a lake, an equestrian ring, paved pathways and natural surface trails or indoor recreation space. Howard County staffs its regional parks year-round and maintains recreation facilities at these parks for formal team competition. Integrated Natural Resource Management plans are created for each regional park. These management plans describe and inventory natural resource features on each site, provide land and resource management decision guidelines based on best management practices, habitat enhancements, and resource management options to be carried on site. They also provide a framework to implement and monitor activities to ensure goals are achieved.

Howard County's community parks typically serve residents within a two-mile radius by providing athletic fields and courts, playgrounds, and trails. The County maintains these parks to accommodate both formal league play and informal use. Some community parks include preserved natural areas. Others feature special recreational facilities for indoor and/or outdoor activities.

Neighborhood parks provide close-to-home recreation, usually for residential areas within a one-mile radius. Howard County plans its neighborhood parks to be readily accessible, walk-to sites (as opposed to drive-to sites). Recreation facilities at neighborhood parks typically accommodate informal, spontaneous activities and take up only limited space. Some neighborhood parks also help to preserve small natural settings.

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In addition to regional, community and neighborhood parks, the Howard County Department of Recreation and Parks Division of Natural Resources' manages 5,407.33 acres of passive-oriented sites, including:

- 8 natural resource areas (1864.58 acres)
- County open spaces (3505.17 acres)
- 12 historic / cultural areas (37.58 acres)

Natural resource areas are large, resource-rich properties. Howard County acquired these properties to help conserve the ecological character of the region by protecting wildlife habitat and environmentally sensitive natural features, such as stream valleys and steep slopes. Howard County also manages its natural resource areas to provide opportunities for hiking and other types of passive recreation, including nature photography, birding, and plant identification. If any development occurs within natural resource areas, Howard County tries to keep development like nature centers, observational platforms, parking lots, trail heads and related amenities away from ecologically sensitive locations like floodplains, wetlands, and steep slopes. Integrated Natural Resource Management plans are created for each Natural Resource Area as well.

County open spaces are the many smaller parcels developers have dedicated to Howard County as part of new residential subdivisions. The Howard County Department of Recreation and Parks oversees' these numerous and dispersed properties. Many of these properties are too small and fragmented to have recreation value. However, the County is now trying to use these dedications more strategically to fill in missing links along potential greenways and complement or augment other nearby preserved lands.

Also among the County's passive recreation holdings are 12 historic / cultural areas located on a total of 37.58 acres. These sites include two museums, a bridge, historic schools, and other visible reminders of Howard County's unique heritage. In addition to these stand-alone sites, Howard County oversees several historic buildings that are situated within County-owned parks and thus not separately listed in Appendix A. These structures include farmhouses, cabins, barns, schoolhouses and other attractions.

While the prime purpose here is to overview properties included on the inventory in Appendix A, County policy acknowledges that Howard County is also home to widespread historic resources not managed by the County. Both County-owned historic sites and those that are privately owned contribute to the historic identity and sense of roots that exists in Howard County. Among the County's privately-owned historic resources are two locally designated historic districts. Design guidelines, and historic tax credits for property owners who renovate in these locations according to approved standards, are among the techniques used to sustain the historic integrity of these two districts.

Thirty-eight properties in Howard County are on the National Register of Historic Places. Howard County's Historic Sites Inventory is incorporated by reference into this Plan. The County works with the Maryland Historical Trust (MHT) to update and expand its Historic Sites Inventory. As of March 2012, 1,019 properties were on that list. Howard County formally recognizes the need to enhance historic preservation. The County also supports adaptive reuse

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projects that keep historic properties viable by using them for new purposes (bed & breakfast inns are a popular example).

Howard County owns all of the active-oriented and passive-oriented recreational acreage described above except for: a) the private historic properties mentioned; and b) neighborhood park sites the County operates on acreage leased at no cost from the Board of Education and other entities.

School Recreation Areas (1,874.48 acres)

Howard County's 68 public school sites occupy 1,874.48 acres. The Howard County Board of Education administers all of these sites, except for the Howard County Community College, which Howard County owns, and the Maryland School for the Deaf, which the State of Maryland owns. The Howard County Department of Recreation and Parks plans and provides public recreation programs at most public schools in the County. Several of these schools contain public indoor recreation centers developed and administered jointly by the Howard County Recreation and Parks Department and the Howard County Board of Education. Howard County has been very active in implementing the school-park concept, under which schools are constructed or enlarged to accommodate bigger than normal assembly areas, cafeterias, and gymnasiums for community use that occurs in addition to scholastic use. Currently, Howard County Recreation and Parks is one of the many organizations that utilize school facilities.

Homeowner Association Lands (1,205.60 acres)

In Howard County, 1,205.60 acres are permanently preserved by homeowner associations. Typically, a developer dedicates these sites to a homeowner association as a precondition for County approval of a proposed residential subdivision. While they are usually small in size, lands held by homeowner associations are of many different configurations, feature a range of physical site characteristics, and are located throughout Howard County.

Other Permanently Preserved Private Open Spaces (6,450.19 acres)

Land in this category is property preserved by the Columbia Association and by the Washington Suburban Sanitary Commission (WSSC). The 10 residential villages within the planned community of Columbia each include permanent open space tracts. These open spaces encompass both undeveloped lands and properties with recreation facilities such as pools, gyms, neighborhood centers, tennis clubs, or similar amenities. WSSC holdings within Howard County include 3,204.08 acres of undeveloped open space located along the Patuxent River corridor between I-95 and the Triadelphia Reservoir region.

Recreational Acreage in Howard County Compared to State and County Goals

After completing this inventory of recreation land through Howard County, the County compared the amount of its existing recreation land to both State guidelines and locally established goals.

Recreational Acreage and State Goals

The Maryland Departments of Planning and Natural Resources stipulate that Maryland counties must have at least 30 acres of recreational acreage per 1,000 county residents before counties can use more than 50% of their Maryland Program Open Space grant funds for capital improvements at existing parks. Absent special, State-approved justification, counties with less than 30 acres per 1,000 residents must spend at least 50% of their Program Open Space allotment to acquire more land until recreational acreage in that county reaches 30 acres per 1,000 residents.

The State maintains the following rules on what types of recreational acreage counties can count in documenting compliance with the 30 acres per 1,000 residents threshold:

- The only State-owned land that can count is that portion of State-owned land in excess of 60 acres per 1,000 residents.
- Acreage in regional parks, community parks and neighborhood parks is 100% eligible.
- 60% of public school acreage is eligible.
- 33% of natural resource areas or historic site acreage is eligible.
- 33% of permanently preserved private open space is eligible.

Howard County has 9,066.11 acres of recreational land that the State considers eligible towards meeting the 30 acres per 1,000 residents guideline, as shown in Table 4. Howard County's population was 287,085. Comparing the County's recreational acreage to its population, results in an average of 31.58 acres of qualifying recreation land per 1,000 residents. Accordingly, Howard County remains eligible, under State regulations, to spend more than 50% of its Program Open Space funds on capital improvements. Appendix A identifies specific recreation sites by site type and shows how Howard County counts each site's acreage in accordance with State regulations.

Table 4
ELIGIBLE RECREATIONAL ACREAGE
Howard County
2012

Site Type	Total Acres	Percent Eligible By State Guidelines*	Eligible Acres
State Land	9,752.60	0%	0.00
Regional Parks	2,521.77	100%	2,521.77
Community Parks	882.33	100%	882.33
Neighborhood Parks	285.91	100%	285.91
School Recreation Areas	1,874.48	60%	1,124.68
Natural Resource Areas	1,684.58	33%	555.91
County Open Spaces	3,505.17	33%	1,156.70
Historic / Cultural Areas	37.58	33%	12.40
Home Owner Association Lands	1,205.60	33%	397.85
Other Permanently Preserved Open Spaces	6,450.19	33%	2,128.56
TOTAL	28,380.20	—	9,066.11

* Refers to the proportion of site acreage that can be counted, according to State guidelines, towards the State goal for counties of 30 acres of recreation per 1,000 residents.

Sources: Howard County Department of Recreation and Parks, URDC.

Despite being technically eligible to shift Program Open Space spending priorities from land acquisition to capital improvements, Howard County intends to continue acquiring new recreation lands. One major reason Howard County is able to satisfy the State requirement of 30 acres of recreation land per 1,000 residents is the County's extensive natural resource areas and County open spaces (the many small parcels dedicated to Howard County by residential developers). While these holdings have significant ecological value, they present very limited opportunities for active recreation. In the years ahead, Howard County will therefore continue to acquire land for regional, community, and neighborhood parks. These new parklands will provide more space for recreation facilities such as athletic fields, courts, and playgrounds. Active recreation facilities in many areas of Howard County do not meet current or projected demand levels, as shown in the next section of this Plan.

By continuing to acquire new recreation land, Howard County will also be better able to serve future populations. Right now, the County meets the State's 30 acres per 1,000 residents threshold, as explained above. However, without setting aside more recreational land, the County will soon fall short of this State goal, as Howard County continues to add new residents. Based on the County's population forecasts, Howard County will have a shortfall of recreational acreage compared to the State's 30 acres per 1,000 residents goal in 2020 and 2030. As shown on Table 5, this deficit is projected to grow larger in subsequent years unless the County continues to add land to its park system.

Table 5
ELIGIBLE RECREATIONAL ACREAGE COMPARED TO STATE GOALS
Howard County
2010 - 2020

YEAR	PROJECTED POPULATION	EXISTING ELIGIBLE ACRES	ACRES REQUIRED @ 30 AC./1,000	ACREAGE DEFICIT @ 30 AC./1,000
2020	321,001	9,069.20	9,630.03	560.83
2030	341,267	9,069.20	10,238.01	1,168.81

Sources: Howard County Department of Recreation and Parks, URDC.

Recreational Acreage and County Goals

Howard County's own recreational acreage goals are another important reason the County intends to continue acquiring parkland. Today, the County maintains a goal of 35 acres of recreation land for every 1,000 County residents and that goal will continue to guide County policy from 2012 forward.

As noted above, Howard County currently has 31.59 acres of qualifying recreation land for every 1,000 residents. This total surpasses the State goal of 30 acres per 1,000 residents but is less than the County's own goal of 35 acres per 1,000 residents. Table 6 shows this shortfall as of 2012 for the County overall and compares the County's recreational acreage goal to the eligible recreational acreage in each of Howard County's five planning areas. The Southeast Planning Area and the Ellicott City Planning Area have the lowest ratios of parkland to population. While this ratio is somewhat higher in Elkridge and Columbia, these two planning areas also fall short of the County's recreational acreage goal. The Rural West Planning Area is the only planning area to exceed the County's goal, which at 69.31 acres per 1,000 residents, it does by far. These comparisons provide important input into Howard County's decisions about where the Department of Recreation and Parks should acquire more parkland.

Table 6
ELIGIBLE RECREATIONAL ACREAGE BY PLANNING AREA
Howard County
2012

PLANNING AREA	POPULATION	ACRES	ACRES PER 1,000
Columbia	99,476	2,542.03	25.55
Elkridge	40,141	1,106.95	27.57
Ellicott City	65,652	1,625.46	24.75
Southeast	41,063	1,008.96	24.57
Rural West	40,753	2,824.98	69.31

Sources: Howard County Department of Recreation and Parks, URDC.

Existing Recreation Facilities in Howard County

In addition to tabulating park acreage, Howard County's recreation facility inventory catalogs the primary recreation facilities at each recreation site in the County. Table 7 summarizes this information for the County overall by type of recreation facility.

Table 7
RECREATION FACILITIES BY TYPE
Howard County
2012

Facility	Quantity
Baseball / Softball Diamonds	183
Football / Field Hockey / Soccer / Lacrosse Fields	112
Basketball Courts	185
Swimming Pools	27
Tennis Courts	146
Golf Courses	3
Biking / Hiking Trails	183 (miles)
Playgrounds	265

Sources: Howard County Department of Recreation and Parks, URDC.

Recreation Facilities: Supply vs. Demand

Howard County compared its supply and demand for the eight types of recreation facilities listed above. The resulting need or surplus of each type of recreation facility was then determined based on standards prepared by the Maryland Department of Natural Resources. The County completed these calculations for each of its five planning areas in three different time periods: 2010, 2020, and 2030.

Supply of Recreation Facilities

The supply of recreation facilities refers to the capacity of each type of recreation facility that exists at the following categories of park sites in Howard County:

- Regional Parks
- Community Parks
- Neighborhood Parks
- School Recreation Areas
- Private (Columbia Association) Open Spaces

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The 2012 inventory counts the actual number of recreation facilities that exists at each type of recreation site in the County. The inventory included in Howard County's 2005 Land Preservation, Recreation and Parks Plan was based on the average number of recreation facilities found at a typical site to calculate recreation facilities existing at elementary schools, middle schools and high schools.

Major recreation facilities at selected private recreation sites, such as large private golf courses, tennis courts, and swim clubs, are also part of this analysis.

As a starting point, Howard County used the Baltimore Region results included in the May 2002 State survey entitled Participation in Local Park and Recreation Activities in Maryland (the State Survey) to assess the capacity of the recreation facilities in the County. This State data provided frequency rates and other information that allowed the County to calculate how many visits per year can be accommodated at the various types of recreation facilities in Howard County. Before completing this analysis, Howard County reviewed the State parameters carefully and, in the case of length of season, fine-tuned them to more closely reflect local realities.

Demand for Recreation Facilities

On the demand side, the State Survey reports the percentage of people in the Baltimore Region likely to use various recreation facilities each year—and how many times per year. Howard County multiplied these per capita averages by Howard County's 2010 population to estimate the current demand for each type of recreation facility. The County then used its population projections to forecast demand levels for 2020 and 2030.

As with the supply parameters, Howard County adjusted the State's demand assumptions to conform with local facility use trends. In addition, Howard County combined the levels of demand that the State reported for softball and baseball because the County's inventory does not distinguish between ball diamonds used for baseball and those used for softball. In reality, baseball teams and softball teams share many of the same facilities. Similar adjustments were made for multi-purpose fields, those fields that frequently serve football, soccer, field hockey and other clientele simultaneously.

Recreation Facility Needs

Results of the County's facilities needs analysis are reported for Howard County overall and for each of Howard County's five planning areas by three different time periods: 2010, 2020, and 2030. Appendix B includes the detailed supply and demand data that supports the conclusions summarized below.

Table 8 summarizes the County's supply-demand analysis for recreation facilities in Howard County overall. According to the methodology used, the County is currently in need of:

- Baseball/softball fields
- Football/soccer/lacrosse/field hockey fields

- Tennis courts
- Golf courses

Table 8
RECREATION FACILITIES NEEDS BASED ON STATE STANDARDS
Howard County
2010 - 2030

Facility	Surplus / Deficit (minus sign)		
	2010	2020	2030
Baseball / Softball Diamonds	-37	-55	-70
Football / Field Hockey / Soccer / Lacrosse Fields	-68	-84	-98
Basketball Courts	87	79	73
Swimming Pools	4	0	0
Tennis Courts	-29	-44	-89
Golf Courses	-6	-6	-6
Biking / Hiking Trails (in miles)	25	11	1
Playgrounds	130	119	110

Sources: Howard County Department of Recreation and Parks, URDC.

Population in each of the five planning areas and, therefore, in the whole of Howard County, is expected to increase between 2010 and 2030. Therefore, unless the numbers of facilities noted above are increased, the current deficits in the facilities will only be exacerbated.

Furthermore, future population increases will reduce current surpluses in the following facilities:

- Basketball courts
- Swimming pools
- Biking/hiking trails
- Playgrounds

On a countywide basis, the surplus of basketball courts and playgrounds is more than sufficient for the projected demand in 2030. However, by 2030, the current surplus in swimming pools and the mileage of biking/hiking trails will be virtually eliminated.

As described in the next section of this Plan, certain planning areas in the county have demands for some specific recreation facilities even though the total number of that specific facility may appear sufficient on a countywide basis. The following tables show recreation facilities needs for each of Howard County's five planning areas. Overall, the Ellicott City, ElkrIDGE, and Southeast Planning Areas show the greatest recreation facility needs. Columbia is the planning area best served by the recreation facilities considered in this analysis. Service levels in the Rural West Planning Area do not match those found in Columbia but compare favorably to Ellicott City, ElkrIDGE, and Southeast.

Table 9
RECREATION FACILITIES NEEDS BASED ON STATE STANDARDS
Columbia Planning Area
2010 - 2030

Facility	Surplus / Deficit (minus sign)		
	2010	2020	2030
Baseball / Softball Diamonds	-10	-12	-15
Football / Field Hockey / Soccer / Lacrosse Fields	-20	-21	-24
Basketball Courts	41	41	39
Swimming Pools	18	18	18
Tennis Courts	21	20	17
Golf Courses	-1	-1	-1
Biking / Hiking Trails (in miles)	60	59	57
Playgrounds	159	158	156

Sources: Howard County Department of Recreation and Parks, URDC.

Table 10
RECREATION FACILITIES NEEDS BASED ON STATE STANDARDS
Ellicott City Planning Area
2010 - 2030

Facility	Surplus / Deficit (minus sign)		
	2010	2020	2030
Baseball / Softball Diamonds	-13	-16	-19
Football / Field Hockey / Soccer / Lacrosse Fields	-17	-20	-23
Basketball Courts	11	9	8
Swimming Pools	-4	-5	-5
Tennis Courts	-16	-19	-21
Golf Courses	-2	-2	-2
Biking / Hiking Trails (in miles)	-18	-21	-23
Playgrounds	-10	-12	-14

Sources: Howard County Department of Recreation and Parks, URDC.

Table 11
RECREATION FACILITIES NEEDS BASED ON STATE STANDARDS
Elkridge Planning Area
2010 - 2030

Facility	Surplus / Deficit (minus sign)		
	2010	2020	2030
Baseball / Softball Diamonds	-7	-14	-17
Football / Field Hockey / Soccer / Lacrosse Fields	-14	-20	-23
Basketball Courts	10	7	6
Swimming Pools	-3	-4	-4
Tennis Courts	-17	-22	-24
Golf Courses	0	0	0
Biking / Hiking Trails (in miles)	-6	-11	-13
Playgrounds	-7	-11	-12

Sources: Howard County Department of Recreation and Parks, URDC.

Table 12
RECREATION FACILITIES NEEDS BASED ON STATE STANDARDS
Rural West Planning Area
2010 - 2030

Facility	Surplus / Deficit (minus sign)		
	2010	2020	2030
Baseball / Softball Diamonds	6	3	0
Football / Field Hockey / Soccer / Lacrosse Fields	0	-3	-5
Basketball Courts	14	13	12
Swimming Pools	-3	-4	-4
Tennis Courts	-1	-4	-6
Golf Courses	-1	-1	-1
Biking / Hiking Trails (in miles)	7	5	3
Playgrounds	-2	-4	-6

Sources: Howard County Department of Recreation and Parks, URDC.

Table 13
RECREATION FACILITIES NEEDS BASED ON STATE STANDARDS
Southeast Planning Area
2010 - 2030

Facility	Surplus / Deficit (minus sign)		
	2010	2020	2030
Baseball / Softball Diamonds	-13	-16	-19
Football / Field Hockey / Soccer / Lacrosse Fields	-17	-20	-23
Basketball Courts	11	9	8
Swimming Pools	-4	-5	-5
Tennis Courts	-16	-19	-21
Golf Courses	-2	-2	-2
Biking / Hiking Trails (in miles)	-18	-21	-23
Playgrounds	-10	-12	-14

Sources: Howard County Department of Recreation and Parks, URDC.

Recreation Programming in Howard County

The Howard County Department of Recreation and Parks provides recreation programming through the Bureau of Recreation and Administrative Services.¹ There is also some programming done through two divisions of the Bureau of Parks and Programs Services: the Parks Operation Division and the Natural Resources Division. Overall, the County offers 10 basic types of recreation programs:

1. Volunteerism / Service Opportunities (serving on boards, coaching, service learning)
2. Special Events/Social Recreation (parties, large and small special events)
3. Music and Dance (performance, instruction, listening, all types of dancing)
4. Sports and Games (competitive, leagues, individual, team sports)
5. Visual Arts/Arts and Crafts (ceramics, photography, jewelry making, cooking, painting, sculpture,
6. Outdoor Recreation/Nature/Environmental Activities (camping, nature crafts and activities, nature education, team building course)
7. Drama (films, movies, puppets, re-enactments, theater, drama clubs)
8. Self-Improvement/Hobbies/Leisure Education (stress management, how-to classes, collecting, gardening)
9. Cognitive and Literary (creative writing, book clubs, museums)
10. Trips and Tours and Tourism (day trips, field trips, adventure tourism)

The goals of the Bureau of Recreation and Administrative Services are:

¹The Howard County Department of Parks and Recreation consists of three bureaus:

- Bureau of Recreation and Administrative Services
- Bureau of Parks and Program Services
- Bureau of Capital Projects, Park Planning and Construction

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1. To continue providing marketing strategies within all divisions and provide a comprehensive process to that delivery.
2. To continue maintaining and meet the standard of excellence for the Certification of Accreditation of Recreation and Parks Agencies under the National Recreation and Park Association (NRPA).
3. To maintain and address customer service needs to provide 100 percent satisfaction of program and service management and implementation.

The Bureau of Recreation and Administrative Services consists of four divisions, each charged with a specific area of service:

- Administrative Services Division
- Recreation Services Division
- Sports and Adventure Services Division
- Recreational Licensed Childcare and Community Services Division

Administrative Services Division

The Administrative Services Division performs in-house support functions, such as human resource management, accounting and budgeting, warehousing, training and administrative support, and purchasing. The other two divisions are “front line” program providers and professional administrative staff that are discussed in more detail below.

Recreation Services Division

The Recreation Services Division (RSD) is comprised of recreation programs and services related to pre-school, youth, teens, adults, special events, volunteers, and community centers.

Goals for the Division include:

1. To meet the needs and desires of a diverse population;
2. To secure partnerships with local businesses, community groups, and civic groups to support recreation programs for the community;
3. To encourage participation for all residents, especially children and teens, to get involved in quality recreation programs that promote good health and wellness; and
4. To encourage and recruit qualified volunteers to assist with mentoring children and assist at special events and programs.

The various areas of programming within the Recreation Services Division include:

- **Volunteers** – The volunteer program enhances the department services while offering citizens an opportunity to contribute back to the community. The area is led by a full-time Volunteer Coordinator.

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- **Community Centers** – The Gary J. Arthur and North Laurel Community Centers offer a wide variety of programs, drop-in opportunities, fitness center, memberships, and rental opportunities. Both centers are managed by full-time staff Managers and Coordinators.
- **Special Events** – The Special Events area coordinates large festivals, concerts, children's events and dances, performing arts, and community events.
- **Youth Programs** – The Youth program section focuses on programs for pre-school and school age children. Activities include arts, crafts, cooking, music, dance, camps, and partnerships with various community groups and schools. This section is led by a Recreation Manager and Coordinators.
- **Adult Programs** – The Adult program section offers community residents classes in arts, music, cooking, crafts, dance, and personal development in addition to various trips and tours. This section is led by a Recreation Manager and Coordinator.

Sports and Adventure Services Division

The Sports and Adventure Services Division (SASD) facilitates active recreation through sports, fitness and the outdoors. The division, through its sport contacts and athletic facility permitting procedure provides facility and technical assistance to over fifty sport organizations. The division hosts an annual Celebration of Sports through its Sports Alliance efforts to recognize the community's contribution to sports and healthy lifestyles.

The SASD actively participates in many national based programs such as the American Sport Education Coaches, the NRPA's *Good Sports*, NFL Flag, Hershey Track and Field and many other efforts to promote physical activity, sportsmanship and participation.

Goals for the Division include:

1. To continue to provide county leadership in developing comprehensive plans to improve the overall health of the county with respect towards obesity and cardiovascular disease. Current focus is on a State / Get Active Games concept;
2. To continue our efforts with promoting the GoodSports concept. Plans are in place to add the Coaches Registry as the next step in this process; and
3. Continued improvement in fitness offerings; including work on the revamping of aquatics and fitness activities at the Roger Carter Center.

The various areas of activity within the Sports and Adventure Services Division illustrate its dedication to promoting healthy activities.

- **Community Sports** – The department won the prestigious *Sportstown Maryland* award from NRPA and Sports Illustrated. Staff works towards facilitating community sport opportunities regardless of sponsorship.
- **Sports Competitions** – This area of program focuses on countywide organized sport leagues for the more competitive youth and adults. Programs are packaged with

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modifications of national playing rules and game officials from approved National Governing Bodies. Whenever possible, all teams proceed to a post-season event, thus de-emphasizing winning during the majority of the season.

- **Sports / Health Events** – Recognizing the value of weekend events for local residents as well as tourism benefits, the department recently ventured into partnership arrangements to bring to Howard County a vast number of regional tournaments and events to Howard County. Programs are offered so as to not interfere with traditional league play of county residents.
- **Instructional Sports** – Recognizing that the more skill a player has will enhance their playing enjoyment, the department provides a significant number of instructional sport opportunities. These programs are largely youth based and are offered after school, evenings, and weekends and as summer camps. Many of our first sport programs are offered as instructional leagues thus allowing the young child to begin playing some form of the sport at an early stage.
- **Fitness** – Over 100 classes are offered each season including Aerobics, Pilates, Martial Arts, Yoga and personal / group options either to improve fitness for life or sport performance. This area is providing the direction for the County's effort in fighting obesity and cardiovascular disease.
- **Adventure** – The department recognizes that not everyone is looking for a competitive or class program to maintain health. This area of programming provides everything from hiking the Appalachian Trail to Mountain Biking to Whitewater Rafting.
- **Nature** – This area taps the expertise of its contingent leaders to provide seasonal nature programs ranging from nature crafts to exploring aquatic life. Nature Camps are among the division's most popular offerings.

Recreational Licensed Childcare and Community Services Division

Recreational Licensed Childcare and Community Services Division (RLC&CSD) is one of the strongest department offerings, offering 37 programs with a total of seven full-time professionals and 200 part-time staff. All programs are financially self-sustaining, and all programs and staff are licensed through the Maryland Child Care Administration. The RLC&CSD division has eight basic components:

- **Care for Pre-School / Kindergarten Children** – Low-key, structured learning, social and recreation activities with a total current enrollment of 120.
- **Care for Elementary School Children** – Diversified recreational program including arts and crafts, sports and games, fitness, nature and ecology, creative dramatics, homework / study time, community service, special events, and field trips with a total current enrollment of more than 2,294.

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- **New Student Union After School Enrichment Program** – Safe, supervised environment for middle school students that provides an opportunity to learn to get along with others, develop the values and skills needed to become good citizens, and have fun, with a current enrollment of 45.
- **Therapeutic Recreation Extended Care (TREC)** – Aftercare for 24 children, teens and young adults with developmental disabilities, including leisure education, community outings, special events and various social and recreational activities.
- **Therapeutic and Accommodation Services** –
 - a. *Accommodation / Inclusion Services* – provides reasonable accommodations for individuals with disabilities to access and participate in recreation and leisure programs and services. Consistent with the American Disabilities Act, accommodations may be but are not limited to: financial assistance, accessibility, companions, additional training, and interpretive services. Over the past 5 years we have provided accommodation services for 1,200 individuals with disabilities.
 - b. *Therapeutic Recreation Services* – to provide opportunities for individuals with disabilities to develop age-appropriate recreation and leisure skills that improve / maintain functional skills and enhance recreation participation, well-being and quality of life. Programs offered are: bowling leagues, dances, social and community outings, arts, drama and summer camps in a segregated setting. We service approximately 1,000 participants annually.
- **Older Adult Programs** – The mission of the Older Adult Program Section is to enhance the quality of life for the older adult (senior) population by providing active and educational, recreational and leisure pursuits that promote the well-being of each individual. Diverse programs in classes, socials, workshops, trips and tours, and cultural arts are planned seasonally for older adults of various ages, abilities and socio-economic backgrounds. Cooperative ventures with the Office on Aging, Cooperative Extension Service, Howard Community College and senior advocacy groups are included in this section which serves approximately 600 annually. Older adult drop-in programs are also offered at Kiwanis-Wallas Recreation Center, serving approximately 9,000 older adults annually.
- **Trips and Tours Section** – The mission of the Trips and Tours Section is to provide opportunities for leisure exploration of community, state and national destinations in a safe, high-quality, organized manner while providing opportunities for socialization and inter-generational interactions. Trips are categorized into 3 sections: Family, Adults and Adults 55+. Opportunities are provided for all ages. Trips include, but are not limited to, theater and the arts, historical sites, professionally guided tours, restaurants, sports events and holiday events. Inter-generational and multiple-day trips are offered seasonally, serving approximately 3,600 participants annually.
- **Kiwanis-Wallas Recreation Center** – The mission of the Kiwanis-Wallas Recreation Center is to provide a safe, clean environment for interactive, user-friendly and accessible community and recreation programs by promoting community involvement, fitness and recreational opportunities and communication with the public and other user groups. Extensive communication and cooperation with Department-sponsored users including

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senior adult programs, therapeutic recreation programs, fitness classes, and pre-school programs is required. The section actively promotes facilities for rental use by the public and private user groups.

Goals for the RLC&CSD program include:

1. To research the possibility of expanding the New Student Union Program to several schools in Columbia by creating a working partnership with the Columbia Association After School Care Program. Expand to Roger Carter Recreation Center.
2. To research alternative sites for childcare programs outside of the public school system and implement pilot test sites.
3. To continue to research and prepare implementation strategies for MD State Accreditation of Howard County Early Learning Centers in Full-Day Kindergarten Center school spaces (due to Howard County Public School System going with full-day kindergarten).
4. Research and implement updated programming prototypes in all 4 areas of Recreational Licensed Childcare focusing on increased homework / educational tutoring, fitness and healthy lifestyles by support of the department health initiative, and current trends in children.
5. Goals of the Therapeutic and Accommodation Services Section are to provide programs that maintain or improve participants' physical, social and emotional functional abilities (functional intervention focus); to provide opportunities for participation to improve skills necessary for a recreation inclusion experience with neuro-typical peers (functional intervention focus); to provide participants with structures, age-appropriate opportunities for social interactions (social interaction skills focus); to provide programs that assist participants' utilization of current leisure skills and acquisition of new leisure skills (leisure skills focus); to provide opportunities for participants to experience enjoyment by engaging in recreation and leisure activities (recreation participation focus); and to provide opportunities that promote a healthy leisure lifestyle (leisure awareness).
6. Goals of the Older Adult Section are to provide programs that maintain or improve participants' physical, social and emotional functional abilities (functional intervention focus); to provide participants with age-appropriate opportunities for social interaction (social interaction skills focus); to provide programs that assist participant's utilization of current leisure skills and acquisition of new leisure skills (leisure skills focus); to provide opportunities for participants to experience enjoyment by engaging in recreation and leisure activities (recreation participation focus); and to provide opportunities that promote a healthy leisure lifestyle (leisure awareness focus).
7. Goals of Trips and Tours Section are to provide opportunities for social interaction in a stimulating environment (social interaction skills focus); to provide opportunities to enhance leisure resource options (leisure skills focus); to provide leisure opportunities for interaction and exploration with family members and/or younger participants (social skills focus); to provide intellectually stimulating opportunities (functional intervention focus); and to provide opportunities that promote a healthy leisure lifestyle (leisure awareness focus).
8. The goals of the Kiwanis-Wallas Recreation Center are to provide a venue for opportunities for social interaction (social interaction skills focus); to provide a venue

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for opportunities for community events (recreation participation focus); and to provide a venue for department training and meetings (leisure awareness focus).

Bureau of Parks and Program Services

Other programming conducted by the County occurs through the Division of Natural Resources' within the Bureau of Parks and Program Services through the Robinson Nature Center. The mission of the Robinson Nature Center is to facilitate the enjoyment and understanding of our natural resources and to bridge the gap between people and nature. By inspiring sound environmental awareness, we promote responsible stewardship of all our natural resources and strive to connect people of all ages with nature through experience-based education.

Recreation and Parks Community Survey

In January 2012, a group of six individuals from Leadership Howard County's Leadership Essentials class (the "Project Team") partnered with the Howard County Department of Recreation and Parks ("HCRP") to implement the 2012 Howard County Recreation & Parks Community Survey (the "Survey"). The Survey was conducted in the Spring of 2012 in conjunction with the development of this Land Preservation and Recreation Plan. The Project Team was tasked with developing, executing and analyzing a Survey of Howard and surrounding areas to address current and future needs for recreational activities, programs and facilities.

The Survey focused on major program areas provided by HCRP. The project Team implemented the survey online through Survey Monkey in March 2012 with numerous marketing strategies. The survey closed in March 2012 with a total of 3,008 responses, of which 2879 participants completed Surveys, representing a 95.7 percent completion rate. Responses were analyzed in total and by regions, which were divided by zip code. The regions were Columbia, Ellicott City, Western Howard County, Elkridge, Clarksville, and non-Howard County. Columbia and Ellicott City made up two-third of all responses.

Respondents were most interested in program offerings for Special Events (94%), Sports (72%), and Nature, Environment & Outdoor Recreation (69%). Each region was most interested in these three program offerings. Only Columbia and non-Howard County respondents were more interested in Nature, Environment & Outdoor Recreation over Sports. Each region most most interested in Special Events. It is interesting to note that Special Events was the first program offering questioned in the survey. Respondents were least interested in Drama (26%) and Childcare (22%) both in total and by region.

Across program clusters, Adults and Elementary Youth were age groups most often listed to be interested HCRP programs.

For programs that respondents would like to see HCRP offer in the future, swimming programs, pet friendly programs, an indoor pool, more handicapped/special needs programs for adults and children, additional foreign language programs and polocrosse at Schooney Mill were the most common answers. The respondents would like to see future facilities located in Columbia and Ellicott City, which makes sense since two-thirds of the respondents are from Columbia or Ellicott City.

The project Team recommends HCRP allocates the majority of its budget towards Special Events, Sports and Nature, Environment & Outdoor Recreation. Columbia and Ellicott City should be the regions where HCRP focuses its program offerings. HCRP should also look to add more swimming pools and swimming activities to its roster of offerings, since this was heavily mentioned throughout the survey. Likewise, there should be more pet friendly events and possibly another dog park built in the County. Finally, HCRP should look into adding more activities for special needs children and adults.

County Priorities for Acquisition, Development and Rehabilitation

Howard County's priorities for addressing its most significant parkland and recreation facilities needs are reflected in Table 14, the Department of Recreation and Parks' proposed Capital Improvement Program (CIP). Improvements the Department proposes for specific locations are categorized by planning area. Separate line items identify on-going rehabilitation and development activities Howard County hopes to pursue at various locations throughout its park system, as funding and other resources permit. The Howard County Department of Recreation and Parks classifies all improvements on its CIP into one of three time frames:

- Short-Range: 2013 – 2017
- Mid-Range: 2018 - 2023
- Long Range: 2024 - 2028

Rationale Behind the Department's Capital Improvement Priorities

The Department developed the CIP shown on Table 14 by considering the following major factors:

- *Howard County's goals, as described in this plan and the draft PlanHoward 2030, the County's new comprehensive plan.*

These goals stress responding to growth with adequate recreation facilities in appropriate locations. Equal importance is devoted to preserving the County's environmental character. As reflected in the 2006-2020 CIP, these overarching concerns and their quality of life implications are the foundation of the Department's capital budgeting process.

The 2012 Howard County Land Preservation and Recreation Plan

- *The Department's commitment to sustaining its three-tier park system of regional, community and neighborhood parks complemented with resource-based open spaces:*

Across different size catchment areas, this system provides different levels of service on both a drive-to and walk-to basis. Neighborhood park improvements in the CIP will be convenient on foot to adjacent residential areas. Community park improvements will address larger concentrations of population, many of whom will drive to the site. Regional park improvements will serve residents countywide, almost all of whom will arrive by car. The three tier system also provides a different mix of active and passive-oriented recreation opportunities at each type of park thereby providing facilities for organized athletics, individual sports and non-sports oriented lifetime activities. The CIP includes projects to address all three park types, plus environmental and historic preservation.

- *Consideration about where State holdings and private parkland/open spaces exist to complement County holdings:*

State lands are a key part of the County's parkland offerings, and the role of private sector recreation providers is an important and growing one, particularly in golf, tennis and swimming. Several specific CIP line items are designed to complement, rather than duplicate, recreation facilities owned by entities other than Howard County.

- *The path of growth and development in Howard County and related demographic trends:*

The need to better serve emerging demand in the Rural West and more consideration for seniors and non-traditional households are relevant examples of how these factors influence Howard County CIP decisions.

- *Public input the Department has received about changing recreation preferences and specific unmet needs:*

This planning process featured citizen participation at well advertised public meetings as described in Chapter One. In preparing its CIP, Howard County considered input from these meetings in addition to its regular ongoing public input.

- *The demand analysis presented earlier in this chapter on park acreage:*

This analysis shows that land acquisition is warranted in the CIP. Although Howard County is temporarily ahead of the State's 30 acres of parkland per 1,000 residents goal, the County on the whole is deficient with regard to its self-imposed standard of 35 acres per 1,000 residents. Regarding the County's planning areas, only the Rural West exceeds 35 acre per 1,000 residents. However, much of this acreage is due to WSSC land and larger regional parks, some of which have no recreation improvements to date. Thus parkland acquisition is appropriate in the Rural West in addition to acquisition planned for the County's other planning areas.

The 2012 Howard County Land Preservation and Recreation Plan

- *The demand analysis presented earlier in this chapter on recreation facilities:*

Among other conclusions, this analysis shows that all five planning areas in Howard County need the new sports fields and other athletic facilities proposed in the CIP to adequately meet both current and projected needs.

- *The Department's desire to balance traditional, active recreation needs with more focus on greenway trails, environmental conservation, and historic preservation:*

Special CIP line items to address passive-oriented activities respond to the growing interest in these types of recreational offerings in Howard County. As highlighted earlier, Howard County plans to further emphasize preservation of both natural and man-made resources in the future.

- *The experience of the Department's staff in weighing information related to all of the other factors on this list:*

Formal goal statements, public input, and formula-based needs analysis are important ingredients in assessing demand. However, Howard County has found that insight gained from managing the County's park and recreation system on a day-to-day basis is also invaluable in making capital budget decisions.

Capital Funding

The Capital Projects and Park Planning Division of the Department of Recreation and Parks oversees the following:

- Comprehensive planning, such as this document.
- All park and open space acquisition for Howard County, including property dedicated to the County via development regulations.
- The master planning, design and construction of all recreation-related improvements at County park and open space sites. These improvements include athletic fields, playing courts, playgrounds, multi-purpose trails, indoor recreation facilities, environmental education facilities, and the full range of support amenities such as parking lots, roads for internal circulation, pedestrian walkways and trails, restrooms, lighting, benches, and water fountains, among other enhancements.
- Renovations to all County-owned historic properties, including those situated in County parks and those located elsewhere.

The Capital Projects and Park Planning Division's park development process starts with long range planning, budget preparation and the pursuit of grants. Land acquisition is typically next. Then staff members and the public are involved in site design. The process culminates in the development of new recreation facilities for public use.

While the Capital Improvement Program shown on Table 14 proposes a total of \$229.519 million in capital spending needs between 2013 and 2028, the Howard County Department of Recreation and Parks actually budgets and spends only a fraction of this amount each year.

State Program Open Space funds have historically funded approximately 50% of the Department of Recreation and Parks' capital budget. However, in recent years, the State diverted a large portion of its transfer tax revenues to offset shortfalls associated with other revenue sources. As a result, Howard County's Program Open Space funds were significantly reduced by an average of 63% in each of the last three fiscal years. This downward trend in State Program Open Space revenues has constrained Howard County's park development and land acquisition capabilities. Reduced grants leave less dollars to pay for land in Howard County and the increasing cost of park design and construction.

Pay as you go financing options Howard County has used or considered using to help fund capital costs not provided by State grants include the following:

- County taxes (property, income, sales, and excise taxes)
- Special assessments (for projects that benefit a specific target area rather than the community at large)
- User fees (such as park admission or recreation program fees)
- Fees collected from developers in lieu of mandatory land dedication

Debt financing techniques available for the County to consider using include direct borrowing from a bank and bonds. Bank loans are typically short term and often must be repaid with interest in 5 years or less. Longer-term borrowing is usually arranged by selling bonds to raise revenue. These bonds are then retired (paid back) with interest over a long term period, such as 25 years.

Table 14-A
Howard County Department of Recreation and Parks
CAPITAL IMPROVEMENT PROGRAM
2013 - 2028 (Dollars are in Thousands)

							Estimated Short-Range Cost 2013 - 2017			Estimated Mid-Range Cost 2018 - 2023			Estimated Long-Range Cost 2024 - 2028		
Project	State District	Planning Area	Description of Land Preservation & Recreation Recommendations	Park Class	Estimated Total Cost (In Thousands)	Acres to be Acquired	Acquisition	Capital Development	Rehabilitation	Acquisition	Capital Development	Rehabilitation	Acquisition	Capital Development	Rehabilitation
Fulton South Park	13	Rural West	Acquire and construct a 20-acre community park south of Route 216 near Fulton. A typical community park contains both active and passive recreation activities.	Community Park	\$10,000					\$6,000				\$4,000	
Fulton North Park	13	Rural West	Acquire and construct a 20-acre community park northeast of Fulton. A typical community park contains both active and passive recreation activities.	Community Park	\$5,600	20+				\$1,600				\$4,000	
Manor Woods Park	9A	Rural West	Construct a 40.4-acre community park at Route 144 and Triadelphia Road. A typical community park contains both active and passive recreation activities.	Community Park	\$4,000						\$4,000				
Homewood Park	9A	Rural West	Acquire and construct a 20-acre park between Route 108 and the University of Maryland Central Farm. A typical community park contains both active and passive recreation activities.	Community Park	\$5,000	20+	\$1,000							\$4,000	
South Branch Park	9A	Rural West	Restore historic buildings and construct a 9.6-acre neighborhood park at Route 32 and the Patapsco River.	Neighborhood Park	\$350				\$350						
West Friendship Park	9A	Rural West	Construct a regional park located at Route 32 and Route 144. A typical regional park contains both active and passive recreation activities.	Regional Park	\$15,000						\$7,000			\$8,000	
Western Regional Park	9A	Rural West	Construct restroom/storage facility, picnic pavilions and additional parking.	Regional Park	\$2,900			\$300			\$2,600				
Equestrian Trails and Parking	ALL	ALL	Construct trails on existing County parkland and open space along river corridors. Acquire additional right-of-way as needed using the Acquisition Parkland Fund.	Greenway	\$1,500			\$500			\$500			\$500	
Historic Structure Rehabilitation	ALL	ALL	Rehabilitation of County-owned historic structures.	Historic-Cultural	\$6,500				\$3,500			\$1,500			\$1,500
Howard County Pathway System	ALL	ALL	Improve and enhance the spinal pathway 7 miles along the Little Patuxent River from Gwynn Acres to Alpha Ridge Park. Rehabilitate and expand the existing Spinal Pathway which currently extends from Savage Park through Columbia to Dorsey's Search. Project includes an evaluation and possible improvements to the Rt 29 Pedestrian Bridge and its approaches and connections to the County's borders, and rehabilitation of existing pathway system.	Greenway	\$6,056			\$1,390			\$2,333			\$2,333	
Park Resurfacing Program	ALL	ALL	Resurface roads, parking lots, courts and playgrounds.	All Classes	\$10,650			\$1,000	\$3,650		\$1,000	\$2,000		\$1,000	\$2,000
Parkland Acquisition Program	ALL	ALL	Continue to budget funds annually for new parks and parcels adjacent to existing parks to provide residential buffers and address additional park and open space needs; funds should also be used to acquire critical Natural Resource Areas and address state and local greenway efforts.	All Classes	\$8,400	150	\$1,760			\$3,320			\$3,320		

							Estimated Short-Range Cost 2013 - 2017			Estimated Mid-Range Cost 2018 - 2023			Estimated Long-Range Cost 2024 - 2028		
Project	State District	Planning Area	Description of Land Preservation & Recreation Recommendations	Park Class	Estimated Total Cost (In Thousands)	Acres to be Acquired	Acquisition	Capital Development	Rehabili-tation	Acquisition	Capital Development	Rehabili-tation	Acquisition	Capital Development	Rehabili-tation
Park Systemic Improvements	ALL	ALL	Rehabilitation of existing parks.	All Classes	\$23,350			\$10,000	\$7,350		\$1,000	\$2,000		\$1,000	\$2,000
			TOTALS		\$225,226		\$3,760	\$62,790	\$26,720	\$15,970	\$54,833	\$5,500	\$7,320	\$42,833	\$5,500

Table 14-B State Goals Met by Acquisition and Development Recommendations						
Project	Short-Range	Mid-Range	Long-Range	State Goal(s) Met (1-6)	Local Goal (s) Met (7-onward)	Notes
Centennial Park	✓			N/A	7	This is a project to dredge Centennial Lake which will protect environmental and nautral resources, a local goal.
David Force Park		✓		1-6	7,9,10	By constructing this 36-acre community park, it will accomplish all six State goals, as well as the local goals of meeting the local goals by providing additional acreage to meet the County goal of 35 acres/1000 residents, provide greenway protection and will provide active recreation with public input and using design features that mitigate impacts and address saftey concerns.
Patapsco Female Institute	✓			1-6	10,11	The historic restoration of this site accomplishes all six State Goals, as well as the local goals of providing active recreation with public input and using design features that mitigate impacts and address saftey concerns, a local goal.
Rockburn Branch Park	✓	✓		1-6	10	This project will accomplish all six State goals and meets the local goal of designing facilities for active recreation with public input and using design features that mitigate impacts and address saftey concerns.
Troy Park	✓			1-6	7,10	This project will restore a historic Georgian farmhouse and develop a 100-acre regional park for active and passive recreation. This project meets all six State goals, as well as the local goals of protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
North Laurel Park	✓			1-6	7,10	Constructing an outdoor swimming pool at North Laurel Park will address all six of the State goals, as well as the local goals of protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
Blandair Park	✓	✓		1-6	7,10	This project will rehabilitate many historic buildings located on the 300-acre site and also develop a regional park. This project meets all six State Goals , as well as protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
Elkhorn Park	✓	✓		1-6	10	By constructing fields and a playground on this 12-acre site, it will meet all six State goals, we well as provide for active recreation with public input and using design features that mitigate impacts and address saftey concerns.
Alpha Ridge Park		✓		1-6	10	This is a project to construct low intensity lighting and cover the in-line hockey rink. This project meets all six State goals, as well as the local goal of requiring public input to address any concerns regarding impact mitigation and safety concerns.
Clarksville Park		✓	✓	1-6	7,10	By constructing a 20+ acre community park at this site, it will meet all six State goals, as well as, protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
Haviland Mill Park		✓	✓	1-6	7,10	The acquisition and development of this 40+ acre community park will meet all six State goals, as well as the local goals of protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
Benson Branch Park			✓	1-6	7,10	Construction of this regional park on this 333-acre site will meet all six State goals, as well as the local goals of protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
Woodbine Park			✓	1-6	7,10	Constructing a 20-acre community park as this location will meet all six State goals, as well as the local goals of protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.

Project	Short-Range	Mid-Range	Long-Range	State Goal(s) Met (1-6)	Local Goal (s) Met (7-onward)	Notes
Fulton South Park		✓	✓	1-6	7,10	The acquisition and construction of this 20-acre community park will meet all six State goals, as well as the local goals of protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
Fulton North Park		✓	✓	1-6	7,10	The acquisition and construction of this 20-acre community park will meet all six State goals, as well as the local goals of protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
Manor Woods Park		✓		1-6	7,10	Constructing a 40.4-acre community park as this location will meet all six State goals, as well as the local goals of protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
Homewood Park	✓		✓	1-6	7,10	The acquisition and development of this 20-acre community park will meet all six State goals, as well as the local goals of protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
South Branch Park	✓			1-6	7,10	This restoration of historic buildings and the construction of a 9.6-acre neighborhood park will meet all six State goals, as well as the local goals of protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
West Friendship Park		✓	✓	1-6	7,10	The construction of a regional park on this site will meet all six State goals, as well as the local goals of protecting environmental and natural resources, and will require public input to address any concerns regarding impact mitigation and safety concerns.
Western Regional Park	✓			1-6	10	By constructing a restroom/storage facility, picnic pavilions and providing additional parking will meet all six State goals and will require public input to address any concerns regarding impact mitigation and safety concerns.
Equestrian Trails and Parking	✓	✓	✓	1-6	10	The construction of equestrian trails complete with parking will meet all six State goals and will require public input to address any concerns regarding impact mitigation and safety concerns.
Historic Structure Rehabilitation	✓	✓	✓	1,2,3	11	By restoring County-owned historic structures, they will be made more desirable and accessible for all County citizens and will mutually support the broader goals and objectives of existing master plans at their respective locations. The historic restoration projects will be conditional upon the degree of deterioration thereby meeting a local goal.
Howard County Pathway System	✓	✓	✓	1,2,3,4,5	10	By improving and enhancing the County pathways, five of the six State goals will be met and the local goal of requiring public input to address any concerns regarding impact mitigation and safety concerns will also be met.
Park Resurfacing Program	✓	✓	✓	5	10	Resurfacing the roads, parking lots, courts and playground will meet the State goal by complementing infrastructure in existing communities and areas planned for growth. This project meets the local goal by requiring public input to address any concerns regarding impact mitigation and safety concerns.
Parkland Acquisition Prog.	✓	✓	✓	1-6	7,8,9	By continuing to budget funds annually for new parks and parcels adjacent to existing parks to provide residential buffers, addressing additional park and open space needs, acquiring critical Natural Resource Areas, and parcels within greenway areas, all six State goals will be met, as well as the local goals of protecting environmental and natural resources, assist in meeting the county goal of 35 acres of recreation land for every 1,000 county residents, and requiring public input to address any concerns regarding impact mitigation and safety concerns.

Project	Short-Range	Mid-Range	Long-Range	State Goal(s) Met (1-6)	Local Goal (s) Met (7-onward)	Notes
Park Systemic Improvements	✓	✓	✓	1-6	10	The rehabilitation of existing parks meets all six State goals, as well as the local goal of requiring public input to address any concerns regarding impact mitigation and safety concerns.
State Goals						
1	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					
2	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.					
3	Use State investment in parks, recreation, and open space to complement and mutually support the broader goals and objectives of local comprehensive/master plans.					
4	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.					
5	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.					
6	Continue 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.					
Local Goals						
7	Environmental and natural resource protection.					
8	Additional acquisition to meet the county goal of 35 acres of recreation land for every 1,000 county residents.					
9	Acquisition of property for greenway protection.					
10	Design facilities for active recreation with public input and using design features that mitigate impacts and address safety concerns.					
11	Preserve and rehabilitate historic structures on County-owned parkland, conditional upon the degree of deterioration.					

The 2012 Howard County
Land Preservation
and Recreation Plan

DEVELOPED, UNDEVELOPED
RECREATION LAND and
PRESERVED OPEN SPACE

State Lands

- 1. Hugg Thomas Wildlife Management Area
- 2. Patapsco Valley State Park
- 3. Patuxent River State Park

County Lands

Developed

Regional Parks

- 4. Cedar Lane Park
- 5. Centennial Park
- 6. Centennial Park Access Parkway
- 7. Rockburn Branch Park
- 8. Schooley Mill Park
- 9. Timbers at Troy Golf course
- 10. Western Regional Park

Community Parks

- 11. Alpha Ridge Park
- 12. East Columbia Library
- 13. Font Hill Park
- 14. Hammond Park
- 15. High Ridge Park
- 16. Kiwanas Wallas Park
- 17. Meadowbrook Park
- 18. North Laurel Park
- 19. Route 29 Pedestrian Bridge
- 20. Savage Park
- 21. Sewells Orchard Park
- 22. Warfield Pond Park
- 23. Waterloo Park
- 24. Westside Garden Plots
- 25. Worthington Park

Neighborhood Parks

- 26. Atholton Park
- 27. Cedar Villa Heights
- 28. Cypress Meade Park
- 29. Dayton Park
- 30. Dickinson Park
- 31. Elkhorn Garden Plots
- 32. Ganon Bahl Property
- 33. Governor's Run Playground
- 34. Guilford Park
- 35. Harwood Park
- 36. Hawthorne Park
- 37. Headquarters
- 38. Holiday Hills Park
- 39. Hollifield Station Park
- 40. Hopewell Park
- 41. Howard County Center for the Arts
- 42. Huntington Park
- 43. Lisbon Park
- 44. Long Reach Garden Plots
- 45. Martin Road Park
- 46. Pleasant Chase Playground
- 47. Roger Carter Recreation Center
- 48. Tiber Park
- 49. Willowood Playground
- 50. Wyndemere Playground
- 51. Zirn Property

Historical / Cultural Areas

- 52. Baldwin Commons
- 53. Bollman Truss Bridge
- 54. B&O Railroad Museum
- 55. Colonel Anderson Memorial
- 56. Ellicott City Colored School House
- 57. Ellicott City Firehouse Museum
- 58. Little Courthouse
- 59. Patapsco Female Institute
- 60. Poplar Springs Park
- 61. Pratt Truss Bridge
- 62. Thomas Isaac Log Cabin
- 63. Waverly Mansion

Undeveloped With Development Potential

Regional Parks

- 64. Benson Branch Park
- 65. Blandair Park
- 66. Troy Park
- 67. West Friendship Park

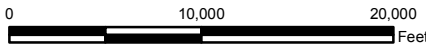
Community Parks

- 68. David Force Park
- 69. Fulton South Area Park
- 70. Houchens Property (Patapsco Greenway)
- 71. Lewis Property (Patapsco Greenway)
- 72. Manorwoods Park
- 73. Woodstock Park

Neighborhood Parks

- 74. Allenford North Farm Park
- 75. Dunloggin Park
- 76. Elkhorn Park
- 77. Heritage Heights Park
- 78. South Branch Recreational Area
- 79. Town & Country Park

- County Natural Resource Areas & Dedicated Open Spaces (No Development Potential)
- School Recreation Areas
- Home Owner Association Lands & Private Open Spaces (Columbia Assn. & WSSC)
- Planning Area Boundary



Chapter 4: Agricultural Land Preservation



CHAPTER FOUR — AGRICULTURAL LAND PRESERVATION

This chapter describes the goals and objectives of Howard County's Agricultural Land Preservation Program (ALPP), focusing primarily on the County's Purchase of Development Rights (PDR) activities and current zoning regulations for the Rural West (the area targeted for agricultural preservation). This chapter also highlights the Agricultural Marketing Program of the County's Economic Development Authority, which supports agriculture as an important economic activity in Howard County.

Introduction and Background

The State of Maryland has long held protecting more than 1 million acres of farmland as one of its highest priorities. Howard County is one of the smallest counties in Maryland (160,640 acres) and is highly urbanized with only some 29,400 acres in active agriculture, according to the federal 2007 Census of Agriculture. This would seem to make agricultural preservation a minor issue locally and of little import when juxtaposed against the Statewide goals.

However, Howard County's rural area occupies a crucial spot in central Maryland because it provides a physical link between the rural areas of Montgomery, Carroll and Frederick counties. Howard County has long recognized that a loss of active agriculture in Western Howard County would add pressure for similar losses in Carroll or Frederick counties and to a lesser degree in Montgomery County. More importantly, Howard County values its agricultural economy and is determined to sustain it.

Based on these concerns and commitments, PlanHoward 2030 identifies agricultural preservation as a critical concern and describes the policies that are the basis of the current County agricultural preservation actions. A brief overview of the history of agricultural preservation over the past three decades, including the relationship of such efforts to important Countywide development trends, is presented here to make it easier to understand how the County has tried to protect its relatively small but valuable agricultural land base.

Howard County's 1982 General Plan confirmed an earlier target of conserving 20,000 acres of agricultural land in the Rural West, about 22% of that region's total land area. As of 1988, some 3,900 acres had been enrolled in the State-sponsored Maryland Agricultural Land Preservation Foundation (MALPF) Program, with the County contributing \$6.8 million to these purchases. During this same time, Howard County spent \$6.2 million to enroll land in its own Purchase of Development Rights Program, which was funded by a levy on real estate and agricultural property transfer taxes.

However, compensation to landowners through both of these programs was low compared to land values on the open market. Because of this reality and due to acute development pressures prevailing at that time, the 1990 General Plan called for new methods to retain viable farmland and upped the farmland preservation goal to 30,000 acres in the Rural West. Additional methods under consideration included cluster zoning, density exchanges, easements and private land trusts, among others. Howard County's General Plan 2000 supported these initiatives and the County's commitments led to the establishment and ongoing fine tuning of three important farmland preservation initiatives:

1. Revision in 1989 of the Purchase of Development Rights program to base it on an installment purchase agreement form of payment to make it more financially competitive with the open market for land purchases by developers;
2. Revision in 1992 of the County's zoning and subdivision regulations to promote developer dedication of sizable preservation parcels through clustering and various forms of intra-Rural West transfer of development rights; and
3. Stepped up support efforts by the County's Economic Development Authority to promote active and diversified agriculture, including innovative "metropolitan" farming enterprises as part of the local economy.

The following sections describe each of these three components in greater detail.

Agriculture Easement Installment Purchase Agreement Program

Howard County's Installment Purchase Agreement (IPA) method of financing its PDR program was groundbreaking when it was introduced in 1989 and in subsequent years has been copied and modeled by other jurisdictions. Until recently, the IPA provided a 30-year term with tax exempt interest on the purchase amount twice yearly and a balloon payment of the principal at the end of this term. In recent application cycles, the length of the term has been shortened and principal payments are now made in equal yearly installments. The County has modified the structure of the IPA to make easements more affordable and encourage more landowners to participate.

This IPA system has many advantages over the original cash payment methods which often confronted property owners with large capital gains obligations based on its single payment arrangement. The IPA offers landowners a reliable income stream and the note is fully transferable, giving the landowner complete liquidity and potential collateral.

The 2012 Howard County Land Preservation and Recreation Plan

The following are the key features of the current agricultural land preservation program.

Eligibility

1. To apply for the program, properties must be outside the Planned Water and Sewer Service areas and at least 50 acres.
2. Exceptions are made for properties between 20 and 50 acres, if they are adjacent to land already enrolled in agricultural preservation; land with environmental easements such as those managed by the Maryland Environmental Trust, adjacent to parkland or to other permanently protected lands (e.g., the reservoir holdings of the Washington Suburban Sanitary Commission) or adjacent to preservation parcels created by cluster subdivision or density sending provisions of the Zoning Ordinance. (See below for details of zoning options affecting agricultural preservation.)
3. Parcels must be capable of further subdivision for residential uses by right (i.e., have development rights) to apply.
4. Owners of contiguous parcels of at least 20 acres each can pool their holdings to create a total aggregate of more than 50 acres and apply as a group for enrollment.
5. At least 50% of the land must be Class I, II or III soils and more than 66% must be Class I, II, III or IV.
6. The land must be subject to a Soil Conservation and Water Quality (SCWQ) plan by the time of easement settlement.
7. All lien and mortgage holders must subordinate their interests to the deed of easement.

Purchase Price and Payment

1. For most of the 2000s, the ALPP was not able to compete with development and attract new applicants to the program. As prices for developable land in western Howard County escalated throughout the first half of the decade, the ceiling on offers to purchase development rights was raised twice in an attempt to keep pace. In 2003 the maximum offer was increased from \$7,200 to \$20,000 per acre, and then again in 2006 to \$40,000 per acre. Subsequent to the most recent increase, two successful application periods secured easements on eleven relatively large and strategically placed farms. The average price offered since the latest increase was \$31,875 per acre.

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2. Actual price is determined by a point system that assesses the qualities of the active agricultural land that will be protected by purchasing the development rights. Currently, the price factor is \$40 per point with a maximum of 1,000 points possible. The qualities that are assessed and awarded points include overall size, soil capability and productivity, and adjacency to land already protected. Other factors which assess the property's desirability for agricultural use, such as percentage of the property actively farmed and the extent to which the Soil Conservation and Water Quality Plan has been implemented are also evaluated.
3. As time has eroded the number of large undeveloped areas and as the County's investment in agricultural easements has grown, the program criteria has been adjusted to be more effective in enrolling smaller parcels adjacent to existing holdings. That said, the average size of the eleven properties in the last two application periods was 134 acres.

Changes in the price formula require a County Council Resolution.

Rights, Benefits and Obligations

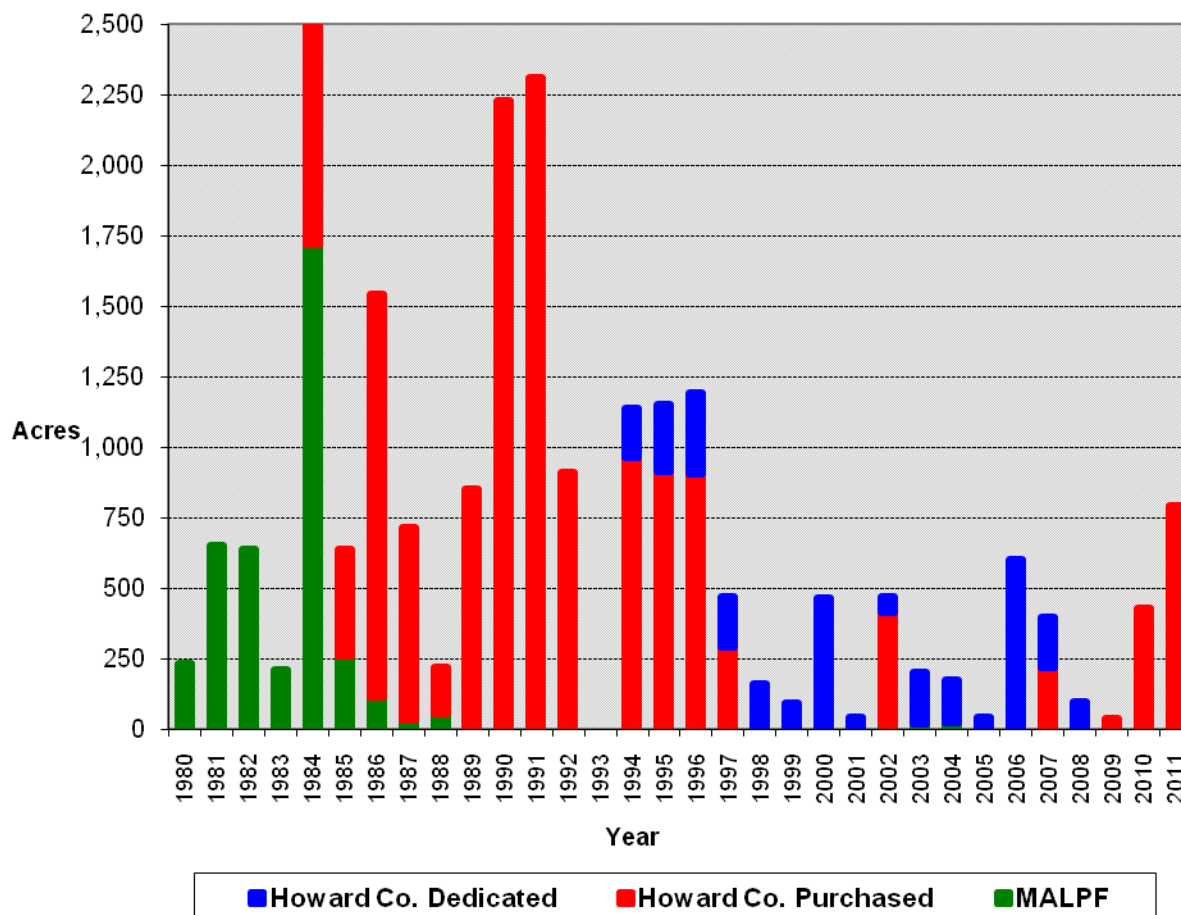
Once enrolled, landowners accrue the following rights, benefits and obligations:

1. Owners of properties successfully enrolled retain the right to a limited number of 1-acre residential lots at a ratio of 1 per 50 acres. The landowner's dwelling unit can remain as an existing principal dwelling that cannot be subdivided from the land except as one of the 1 per 50 by right lots.
2. Owners retain the right to subdivide a parcel of more than 100 acres into 50 acre units.
3. Properties of more than 50 acres can request tenant houses at a rate of 1 unit per 25 acres which must include any tenant houses that existed at the time of the easement purchase.
4. Activities on the easement except for the residential uses cited above must be for agricultural purposes or other specified very limited activities.
5. All restrictions imposed by the deed of easement run with the land in perpetuity and bind all future owners.

Evaluation of the Program

The following graphic illustrates the amount of acres enrolled in the County PDR program, the MALPF program and through dedication by year.

Figure 4-1: Year-To-Year Enrollments in Agricultural Preservation Programs



The chart provides a clear visual history of the relative success of the different preservation techniques over time. The mainstay has been the County's PDR program, although it is apparent that interest in it has varied greatly over its 30-year life span. One significant feature of the chart is the impact that the introduction of the IPA method of payment had on easement acquisition. The IPA was introduced in 1989, and the following decade saw consistently high acreage totals coming into the program.

By being more competitive with the open market, Howard County added nearly 9,000 acres over the next nine years to the 7,400 acres that had been acquired in the preceding seven years through the County and MALPF programs. By May 1997, the County had committed all the available \$55 million of funding and temporarily had to cease accepting applications.

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The fund was allowed to rebuild itself through the influx of new transfer taxes and new applications were authorized once again in 2001 as the County Council, at the request of the County Executive, made \$15 million available for such purchases. Over 400 acres of new easements were purchased subsequent to the 2001 allocation. Also, after years of inactivity, four parcels totaling 78 acres entered the MALPF program between 2002 and 2006.

The real estate boom in the mid-2000s created a situation where preservation was not an economically viable option for most landowners. As Figure 4-1 illustrates, most of the decade saw little, if any, acquisition activity for the County's PDR program. By contrast, the dedication of agricultural easements to the ALPP was very active, with hundreds of acres encumbered by protective easements at no cost to the County. The vast majority of the acreage was preserved through the Density / Cluster Exchange Option (DEO / CEO) program, whereby the development rights were lifted from the "sending" parcel and transferred to the "receiving" parcel. This allows the receiving parcel to be more intensely developed than base density would allow and requires that a perpetual easement be placed on the sending parcel (the details of how the DEO / CEO program works are provided in the next section). Through the DEO / CEO, approximately 1,650 acres were preserved from 2000–2010, the bulk of the transfers occurring between 2005 and 2007.

The DEO / CEO program was so popular during the boom because developers were offering property owners ever increasing amounts of money for their density rights. In fact, the PDR program was competing with the DEO / CEO program for the few farmers committed to preserving their land instead of selling it outright for development. As a result, the maximum per acre amount the PDR program offered was raised significantly during this time period; from \$7,600 to \$20,000 an acre in 2003 and then again to \$40,000 an acre in 2006.

The combined effect of the downturn in the real estate market towards the end of the decade and the dramatic increase in the maximum per acre offer amount set the stage for two very successful application periods, Batch 13 which began in 2006 and Batch 14, which began in 2009. Between these two batches, eleven relatively large, strategically located farms were placed under easement in the County program.

There are 14,633 acres of farmland enrolled in the County's PDR program as of January 1, 2012. This is in addition to the 2,972 easement acres that have been dedicated to the County through the subdivision process and the 3,960 acres that are enrolled in the Maryland Agricultural Land Preservation Foundation program.

Zoning and Subdivision Regulations Used to Protect Farmland

Even with implementation of the Installment Purchase Program, it was apparent by the early 1990s that agricultural easement preservation targets could not be fully realized by outright purchase. In accord with the recommendations of the 1990 General Plan, zoning for western Howard County was amended to better help protect the County's remaining active agricultural activities and farmland. This was initiated through the 1992 Comprehensive Zoning Plan which unlike previous efforts that were Countywide, focused only on the western part of the County to expedite such changes.

The main focus of the 1992 Comprehensive Zoning Plan was to end the former uniform coverage of the residential areas of the Rural West by a 3-acre minimum lot "Rural" (R) zoning district. In place of the old R District, the 1992 Comprehensive Zoning Plan divided most of western Howard County into two residential zones that included clustering and intra-West density transfer provisions designed in large part to better support the County's agricultural preservation goals².

The smaller coverage is the Rural Residential (RR) zone that retained much of the earlier requirements of the previous 3-acre minimum lot "R" zone, but added opportunities for clustering and density receiving as well. Most of the rest of the Rural West became a new Rural Conservation (RC) district that required mandatory clustering on parcels of more than 20 acres and provided for both sending and receiving density transfer. The RC district covered most of the County west of MD Route 32 and a large enclave of still largely undeveloped lands adjacent to Columbia. The RR district generally coincided with a large band of existing or already subdivided 1-acre and 3-acre lots with a few remaining large undeveloped tracts and little active agriculture, largely following the MD Route 216 and MD Route 32 corridors (see map above). Most new development in the RR district has taken advantage of the clustering option.

Establishment of the RC / RR division line mirrored conditions on the ground at the time. It also provided a clear demarcation between land that was a high priority for preservation efforts and the portion of the Rural West where preservation was not a priority. That is not to say that a property zoned RR could not apply to the ALPP and sell an easement to the County. However, as a general rule, RR properties have not been actively pursued. The scoring system used to determine easement value has, over time, reflected the preference for RC zoned land by heavily weighing the awarding of monetary points to RC zoned land. The preference to preserve RC zoned land is also reflected in the cluster subdivision and density exchange regulations, as detailed below.

² Non-residential zoning in western Howard County only accounts for a negligible portion of the Rural West. This is in keeping with the 1990 General Plan decision to make only a few adjustments to the urban service area. Non-residential zoning in western Howard County is therefore largely limited to recognition of traditional centers such as Highland or Lisbon, or to prevent having to treat major long-standing commercial or other employment sites as non-conforming uses, e.g., the W.R. Grace employment campus near MD 32.

The distinctions between the RR and RC zoning categories most germane to Howard County's agricultural preservation goals are as follows³.

1. On RC parcels of more than 20 acres, owners must cluster all new residential lots of approximately 1 acre at a ratio of 1 unit / 4.25 gross acres—the effective yield of the previous "R" zoning district. The remainder of the development site is designated as a preservation parcel or parcels.
2. Parcels between 6-acres and 20-acres can choose to create non-cluster lots or cluster lots with preservation parcels.
3. The Agricultural Land Preservation Program is given the opportunity (right of first refusal) to obtain a dedicated easement on the resulting "preservation parcel." The ALPP accepts dedication of the preservation parcel if it is a large contiguous parcel, buffered from the cluster lots and can meet the guidelines for acceptance into the agricultural preservation program for size, location and capabilities to support agriculture. About 17% of all cluster preservation parcels have been dedicated to the ALPP.
4. Two density exchange programs, the Density Exchange Option and the Cluster Exchange Option, apply to qualifying RC parcels enabling them to transfer their allowed densities to properties more suited to absorb new growth. About 42% of all sending parcels have been enrolled in the ALPP. As with the cluster preservation parcels, the ALPP is given priority for obtaining any density sending preservation parcel that meets the program's criteria. If a proposed dedicated parcel, whether cluster or sending, is not a good fit for the ALPP, it will be recommended to be encumbered by an environmental preservation easement.
5. Density Exchange Option (DEO):
 - a. Qualifying RC sending parcels must be 20 or more acres. Development rights may be transferred to qualifying receiving parcels at a ratio of 1 unit per 3 gross acres.
 - b. Qualifying receiving parcels must be located in the RR zone or be less than 50 acres if in the RC zone. If in the RC zone, the receiving parcel must be adjacent to lots of 10 acres or less on 60% of its perimeter—i.e., adjacent to those areas already converted to residential use and thus less suited for active agriculture. Maximum receiving densities are 1 unit per 2 net acres.
 - c. The sending parcel must be encumbered by an easement at the time such transfers are made.

³ Full details of the requirements for creating RC preservation parcels and the allowed uses on them are found in Section 104.F. of the Howard County Zoning Regulations. Section 106 outlines the requirements for the Density Exchange Option (DEO) Overlay District and the Cluster Exchange Option (CEO).

6. Cluster Exchange Option (CEO):

- a. This option allows sending development rights from a qualifying RC parcel to another RC parcel that does not meet the criteria described in 5.b. above, but at a lower sending ratio of 1 unit per 4.25 gross acres. Maximum receiving densities are still 1 unit per 2 net acres.
- b. The sending parcel must be encumbered by an easement at the time such transfers are made.

Evaluation of Agricultural Preservation, Zoning and Subdivision Regulations

Since 1992, a total of 2,972 acres of agricultural preservation easements have been dedicated by developers through the cluster and density exchange options described above. This represents 30% of all dedicated preservation parcels. Although this total may not seem overwhelming, the dedicated acreage represents 14% of the land under agricultural easement, and has been achieved at no cost to the County. This allows the Installment Purchase Program to target other properties whose owners would rather extinguish their density rights than transfer them.

Since their first institution in 1992, the regulations controlling the RC cluster requirements, and the DEO and the CEO mechanisms have been revised to improve the quality of the preservation parcels created. Nevertheless, almost twenty years of experience with the Rural Conservation (RC) and Rural Residential (RR) Zoning Districts shows that preservation parcels within cluster subdivisions have been more effective in preserving environmentally sensitive lands and buffers between housing and farms than in preserving good farmland. This is why within the last ten years or so, the vast majority of cluster subdivision residue parcels were not accepted into the ALPP and recommended for encumbrance by an environmental easement instead.

Parcels preserved through the density exchange options have proven much more fruitful at meeting farmland preservation goals than parcels preserved through cluster zoning. In many instances density exchange options have preserved entire farms. Since 2000, the average size density sending parcel is 42 acres. The majority (67%) of the County's dedicated agricultural preservation easements are density sending parcels. However, during the real estate boom years in the mid-2000s, some of the best remaining RC-zoned farms became density receiving parcels as opposed to density sending parcels. One of the shortcomings of the County's density exchange program is the ability for RC zoned properties to receive development potential. Attempts to amend the program to end this practice or to at least reduce its impacts have been unsuccessful. As a result, the amount of density receiving in the RC District greatly increased over the years and to a certain extent, has undermined the County's agricultural land preservation goals. The limits of this method of creating permanently protected agricultural land may be in sight, however, as qualifying large sending tracts become fewer, as do undeveloped areas sufficiently large to absorb the transferred development rights. In addition, the real estate bust of the last several years has significantly reduced the demand for density sending rights.

Current Status of All Agricultural Preservation Efforts

As of January 1, 2012, the total of agricultural preservation easements in Howard County acquired through all the State and County options cited above was 21,646 acres. Table 15 shows the distribution of this acreage among the several ways it has been obtained.

Table 15
AGRICULTURAL EASEMENTS BY ACQUISITION METHOD
(As of January 1, 2012)

Program	Type	Number of Properties	Acres Protected
Purchased Agricultural Easements			
County ALPP	Pre-IPA Program, 1984-1988	29	3,497
County ALPP	IPA Program, 1989-1997	94	9,263
County ALPP	IPA Program, 2001-present	19	1,873
MALPF	1979-present	35	3,960
State Rural Legacy	2001-present	4	81
<i>Subtotal Purchased Agricultural Easements</i>		181	18,674
Dedicated Agricultural Easements			
County ALPP	Density Exchange Sending Preservation Parcel	40	1,855
County ALPP	Cluster Subdivision Preservation Parcel	27	865
County ALPP	Sending / Cluster Combination Preservation Parcel	7	252
<i>Subtotal Dedicated Agricultural Easements</i>		74	2,972
TOTAL AGRICULTURAL EASEMENTS		255	21,646

The total acreage protected through all of the programs identified above means the County has achieved its original goal of 20,000 acres of farmland under agricultural preservation easement. However, that acreage goal has been a moving target over the years. Based on early acquisition successes, the 1990 General Plan and the General Plan 2000 increased the target of both agricultural preservation easements and also other types of protected land (county and state environmental easements). The 1990 General Plan set a goal of 30,000 acres permanently preserved in western Howard County through the addition of these other forms of easements, but still with the focus on protecting more farmland. At the time of General Plan 2000, there was a total of 17,760 acres of land protected by some type of agricultural easement. Based on the success of the IPA during the 1990s, the goal was revised to 25,000 acres. An analysis of past trends suggested that for the goal to be met, the County would need to purchase easements on an

additional 5,000 acres of farmland, and continue to obtain dedicated easements through the development process.

The revised goals of General Plan 2000 were ambitious. But by mid-decade, with the real estate market booming and preservation efforts at a standstill, it became clear that 25,000 acres enrolled within the ALPP was unlikely. The 2005 General Plan Monitoring Report revised the goal downward to 21,000-22,000 acres. As Table 15 illustrates, the current goal has been met. After acquisition dry spell during the 2000s, attaining this goal was largely the result of the most recent application period, known as Batch 14. Due to the depressed real estate market, a renewed interest in land preservation resulted in the protection of eight large, strategically placed farms, adding 1,220 acres to the easement acreage totals.

At the conclusion of Batch 14, the County's Department of Finance analyzed the ALPP budget and determined that funding is committed through the end of this decade to pay off the IPAs already acquired. There will most likely not be additional batches in the foreseeable future. Any farmers interested in preserving their land will still have the option of participating in the MALPF or the DEO / CEO programs.

When the 2005 LPRP was written, the County was trying to reduce development in the RC zoning district. However, there was very limited public support for restrictive measures, and the initiative failed. As is mentioned elsewhere in this chapter, there are only about 8,000 acres in the RC that aren't already committed to preservation or development, so the impact of any zoning changes would have been relatively minimal had we been successful. The preservation of 1,472 acres in the last two ALPP batches arguably did more to relieve development pressure in the RC than the proposed changes to the Zoning Regulations. Since the 2005 Plan, the County was successful in reducing the number of housing unit allocations in the Rural West from 250 to 150 per year. PlanHoward 2030 calls for an additional reduction to 100 units.

Additional Preservation Efforts in the Rural West

Howard County farmland is not only preserved through agricultural preservation programs. For several decades, easement programs administered by the Maryland Environmental Trust (MET), the Maryland Historical Trust, and the Howard County Conservancy protected farmland from future development. Also, various preservation parcels set aside through rural cluster zoning regulations continue to be used for agricultural operations while not being officially enrolled in the agricultural preservation program. Table 16 prepared by the Department of Planning and Zoning shows the amount of land—almost 7,800 acres protected through these programs.

Table 16
OTHER EASEMENTS IN RURAL WEST
(As of January 1, 2012)

Type of Easement	Acres
Environmental Preservation Parcels	6,832
Permanent Historic Easements	102
MET / HC Conservancy	846
Total	7,780

Source: Howard County Department of Planning and Zoning

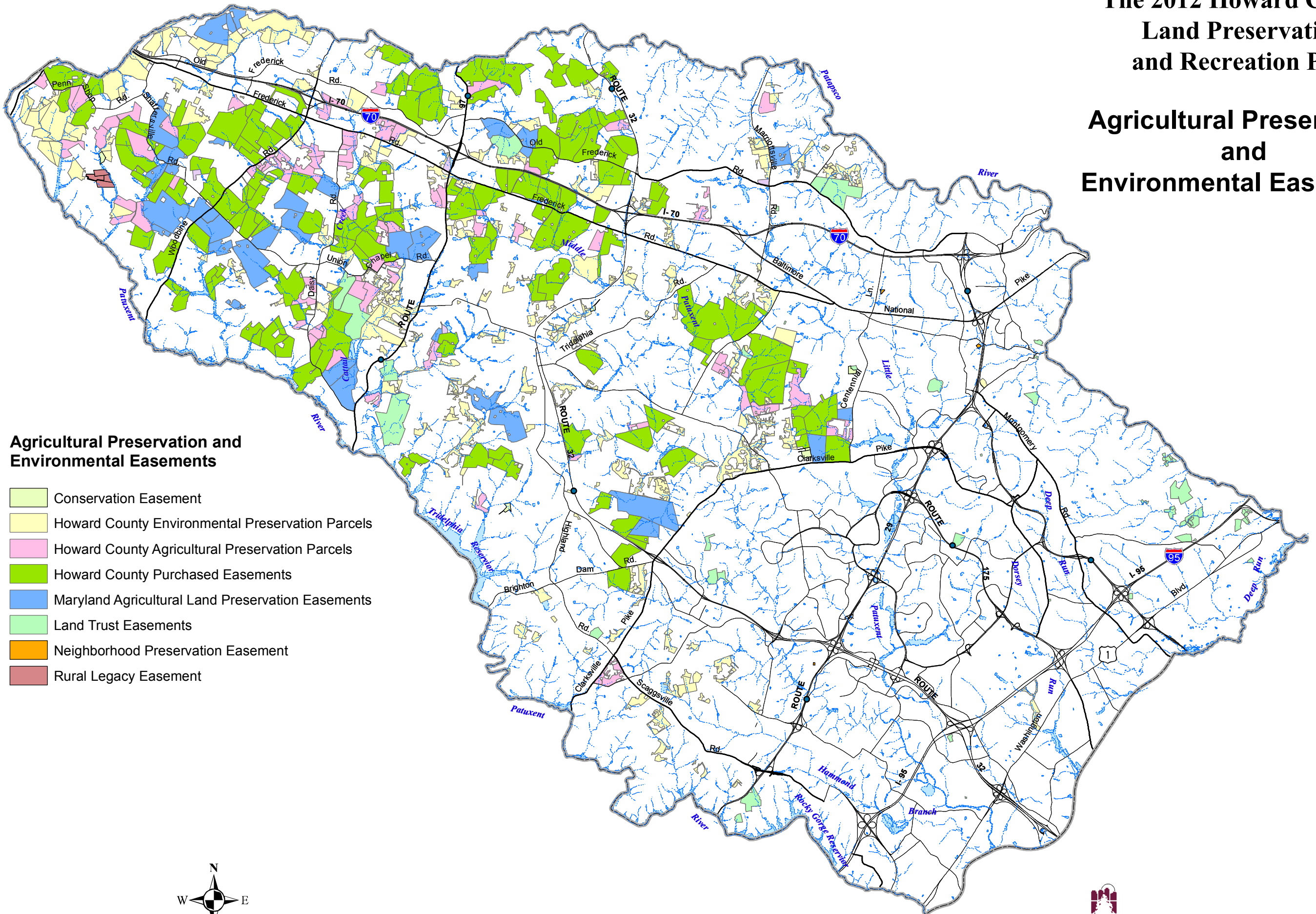
When added together, there are 29,426 acres under protective easement in western Howard County, the vast majority of it located in the RC, as detailed in Table 17 below. This figure is right in line with expectations for overall easement acreage, and will gradually increase as additional properties are preserved. It is worth noting that the amount of uncommitted land (that which is not already preserved or developed, and referred to as "remaining potential" in Table 17) in the Rural West is dwindling, with approximately 14,000 acres left until "build out". Of that total, only 8,000 acres are in the RC zoning district, where preservation efforts have always been focused.

Table 17
PRESERVED AND DEVELOPED LAND BY ZONING DISTRICT
(As of January 1, 2012)

	RC	RR	Total
Easements (Purchased and Dedicated)	26,884	2,542	29,426
Agricultural Easements	20,599	1,047	21,646
Other Rural Easements	6,285	1,495	7,780
Parks / Recreation / WSSC	7,055	4,318	11,373
SUBTOTAL PROTECTED	33,939	6,860	40,799
Residential	23,344	23,509	46,853
Existing	15,331	17,596	32,927
Remaining Potential	8,013	5,913	13,926
Other Developed	4,600	1,961	6,561
SUBTOTAL DEVELOPED	27,944	25,470	53,414
TOTAL ACREAGE IN RURAL WEST	61,883	32,330	94,213

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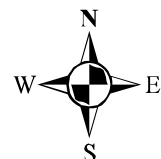
Agricultural Preservation and Environmental Easements



Agricultural Preservation and Environmental Easements

- Conservation Easement
- Howard County Environmental Preservation Parcels
- Howard County Agricultural Preservation Parcels
- Howard County Purchased Easements
- Maryland Agricultural Land Preservation Easements
- Land Trust Easements
- Neighborhood Preservation Easement
- Rural Legacy Easement

0 10,000 20,000
Feet



Source: State of Maryland, Howard County, and URDC



Urban Research & Development Corporation
28 West Broad Street Bethlehem, Pennsylvania 18018 610-865-0701

The combined effect of a decreasing supply of available land and a scarcity of preservation funding necessitates a shift in the ALPP's priorities away from acquisition and toward monitoring and stewardship. There are over 250 properties under a perpetual agricultural easement. As the original easement grantors retire and their farms transfer, there will be an increasing need for assistance to future owners who may not be familiar with the implications of easement encumbered land. In the future, the role of the ALPP in helping farmers to navigate the County's regulatory framework will become more important. The County has succeeded in preserving a significant land base to keep agriculture a viable industry. The focus now shifts to keeping the farmers farming all of that preserved land.

Agricultural Marketing Program

Protecting agricultural land from future development is only a means toward the real priorities of Howard County's agricultural preservation efforts—keeping active agriculture alive and well as a significant part of the County's overall local economy, particularly in the RC zoning district. Recognizing that agriculture is a business that must evolve and adjust like any other, in 1996 the County Economic Development Authority established an Agricultural Marketing Program to promote and support a more diversified and economically healthy agricultural base. Over the years there have been many positive signs of success, including a growing number of next generation farmers transitioning their family farms to higher value products and a significant increase in direct marketing activities as the demand for locally grown food has exploded.

Staffed by a full-time agricultural marketing specialist, this program has supported local farmers through such direct farm to consumer activities as establishing five local farmers markets and assisting in the development of several Community Supported Agriculture (CSA) operations on local farms. Another successful effort has been the "Restaurant-Grower" program, which facilitates local sourcing of produce by restaurant owners and chefs, and was the impetus behind the creation of the "Farm-2-Table" Restaurant Weeks event within the County. Because of the relative affluence and education of County residents, such direct marketing features many high value items such as specialized niche products (e.g., cheese, goat, ethnic vegetables), horticultural products (e.g., ornamental, flowers, Christmas trees), and organic food.

County zoning regulations for the Rural West have been amended over time to greatly expand the ability of farm operators, in particular those with agricultural easements, to engage in activities such as pick-your-own operations, agritourism and value-added processing, in addition to emerging businesses such as wineries. It is anticipated that the upcoming Comprehensive Rezoning process will provide further flexibility to the County's farmers.

A significant function of the Agricultural Marketing Program is education, not only to serve the farming community but also agriculture's urban neighbors. The farming community needs to be educated on the potential benefits of new forms of metropolitan agriculture. Traditional farming

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operations such as dairy and row crops are dwindling in this region while opportunities abound for innovative practices seeking to satisfy the demand for locally grown food. This includes CSA's, ethnic vegetables, free-range meat and produce that is organically or naturally grown. In addition, non-food crops such as nursery plants, horticultural products and landscaping materials comprise a growing green industry that can take advantage of the County's productive soils and proximity to urban areas. Equine industry activities including breeding, recreational riding and horse rescue have continued to be strong within the County. The agricultural community needs technical assistance and training to be able to diversify and profit from these opportunities.

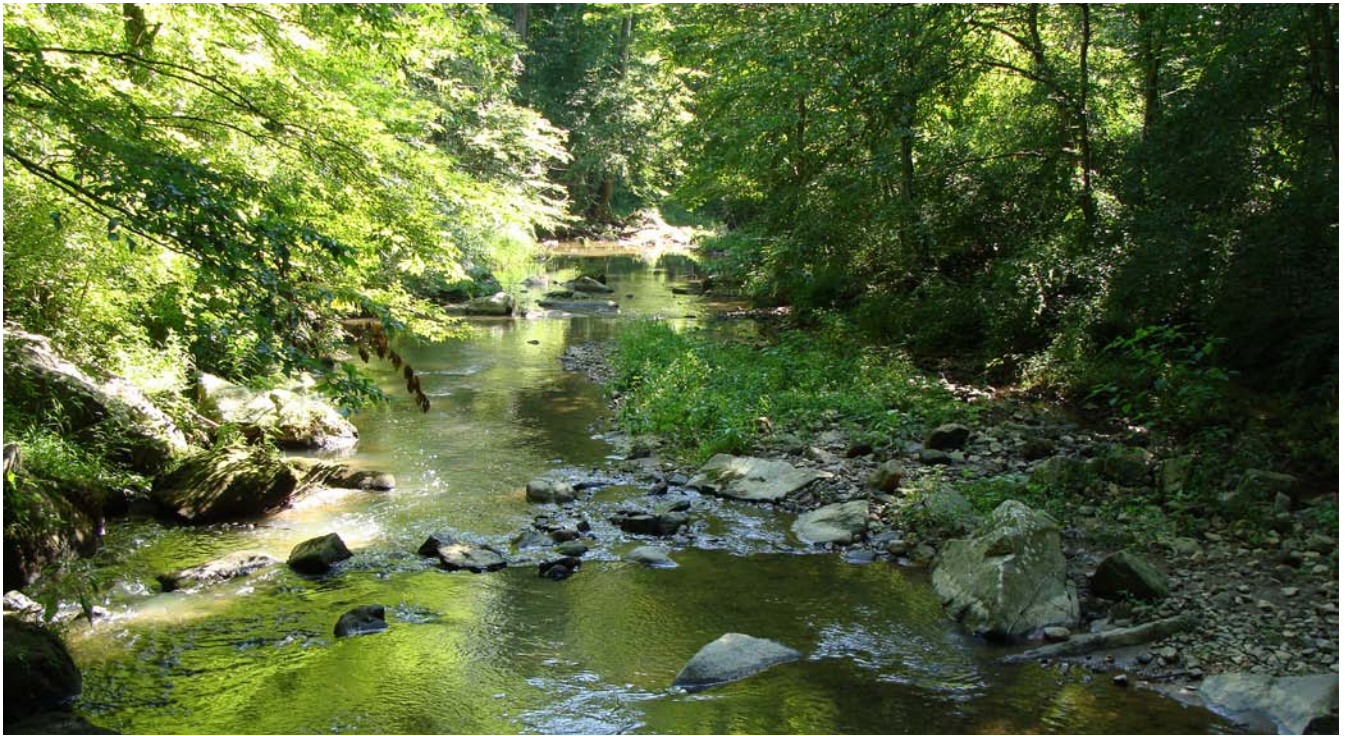
Howard County farms benefit from their close proximity to suburban neighbors. However, that proximity also presents many challenges for farmers and residents alike. Education is a critical component in an attempt to inform the public about the significance of local agriculture to their health, the environment and the local economy. Program events such as the annual Farm City Celebration, Farm-2-Table Restaurant Weeks and Film Festival all highlight the connection between local producers and consumers. The Film Festival began in 2010 and was an immediate success. Held at an agricultural preservation farm, the event features sampling from area restaurants that source locally, a farmers market and several short, sustainable agriculture themed films available for viewing throughout the evening. In addition, the Agricultural Marketing Program partners with Howard County Public Schools to expose students to the contributions of local farmers. Programs like "Days of Taste" and "Our Environment in Our Hands" teach 4th graders the benefits of eating locally and the importance of nurturing our soil and water resources.

The breadth and scope of the Agricultural Marketing Program continues to grow as the community it serves evolves and transitions to remain viable.

Summary

The Agricultural Land Preservation Program is at a transition point. For thirty years, the ALPP has been intensely focused on acquiring new easement properties and racing to preserve large, contiguous blocks of farmland in the Rural West. Despite the absence of a rural "hinterland" and the lack of agricultural zoning, the ALPP has been incredibly successful in protecting the County's farmland. Despite the fragmentation of the land that exists, the County enjoys a very vibrant and innovative agricultural community. At this point in time, as the Rural West approaches build-out, new preservation funding is limited and the original agricultural easement grantors retire, the ALPP will be concentrating more on assisting preservation farm families to transition ownership to the next generation and enabling the new crop of farmers to succeed.

Chapter 5: Natural Resource Conservation



CHAPTER FIVE — NATURAL RESOURCE CONSERVATION

Chapter Five identifies State goals and Howard County's goals for conserving natural resources. The programs and techniques Howard County uses to attain its natural resource conservation goals are then identified and evaluated. Where appropriate, recommendations are included on how to protect more of Howard County's unique natural environment.

State Goals for Natural Resource Conservation

Howard County endorses and works locally to implement the State of Maryland's vision and goals for conserving natural resources. These visions are identified below.

Maryland's Vision for 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.

Maryland's Vision for Natural Resource Conservation:: Waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved.

Related State goals, according to the Maryland Departments of Planning and Natural Resources, including the following:

1. Identify, protect, and restore lands and waterways in Maryland that support important natural resources and ecological functions, through combined use of the following techniques:
 - Public land acquisition and stewardship;
 - Preservation and stewardship on private lands through easements and assistance; and
 - Local land use management plans and procedures that conserve natural resources and environmentally sensitive areas and minimize impacts to resource lands when development occurs.
2. Focus conservation and restoration activities on priority areas within the statewide green infrastructure.
3. Develop a more comprehensive inventory of natural resource lands and environmentally sensitive areas to assist State and local implementation programs. Accomplish this by synthesizing local inventories with the Maryland Department of Natural Resources' inventory of green infrastructure in each county.

4. 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.
 - Support a productive forest land base and forest resource industry, emphasizing economic viability of privately owned forest land.
5. Establish measurable objectives for natural resource conservation and an integrated State and local strategy to achieve them through State and local implementation programs.
6. Preserve the cultural and economic value of natural resource lands.
7. Encourage private and public economic activities, such as eco-tourism and natural resource-based outdoor recreation, to support long-term conservation objectives.

Howard County's Goals for Natural Resource Conservation

Howard County's goals for protecting the environment and conserving natural resources are spelled out in PlanHoward 2030. These goals are listed below:

- Protect natural resources
- Restore natural resources
- Connect protected natural areas in a comprehensive green infrastructure network
- Encourage resource conservation

In PlanHoward 2030, these goals are augmented with many recommended policies and actions pertaining to environmental stewardship, stream and wetland protection, steep slope and erodible soils conservation, reservoir protection, stream valley restoration, and woodland conservation. Related topics include enhancing wildlife habitat, preserving more open space, improving subdivision design, and conservation of energy and mineral resources.

Howard County is also committed to working with the State of Maryland to help carry out State goals for preservation of green infrastructure. Howard County's land acquisition strategies help further the green infrastructure concept by setting aside land along major preservation corridors,

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including large regional waterways where State-endorsed greenways are planned. The County is working on its own Green Infrastructure Network Plan to set priorities for resource conservation. The County system is well-aligned with the State system but there are some areas where the two systems do not fully align because development has eliminated or degraded specific natural areas.

The 2012 Land Preservation, Recreation and Parks Plan endorses the environmental protection and resource conservation goals identified in the PlanHoward 2030, combined with the additional goals stated below:

- Encourage individual environmental stewardship.
- Ensure the environmental integrity of rivers, streams and wetlands.
- Safeguard the environmental integrity of the Patuxent reservoirs.
- Restore and protect stream valley environments.
- Improve stormwater management at park sites with alternative control measures such as bio-retention, water gardens, pervious parking surfaces, etc.
- Create, protect and restore woodlands, meadows and other native plant communities.
- Enhance protection of rare, threatened and endangered species.
- Meet County-wide green space needs.
- Secure better protection of environmental and landscape resources within new developments.
- Promote the use of energy conscious planning and design, and secure the environmental benefits of energy conservation, including a reduction in air pollution.
- Incorporate environmentally sensitive site development and property management practices into County activities.
- Balance mineral extraction with other land uses.
- Increase public awareness (children and adults) and understanding of our natural resources.
- Increase public awareness and understanding of responsible conservation.
- Utilize the Robinson Nature Center as a base for environmental education in the County.

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- Examine the feasibility of an overnight environmental education facility in cooperation with the Department of Education, possibly at the Robinson Nature Center.
- Work with County Department of Public Works to incorporate the design and development of wildlife tunnels on County road and bridge projects.
- Promote sound natural resource stewardship through nature center programs and activities and increased participation in our environmental education programs.
- Continue to research, evaluate and expand our Geographic Information Systems (GIS) capabilities (mapping and data management) which improves the Department's ability to analyze and manage its operations, and enhances productivity.
- Remain committed to the Green Infrastructure concept as an important way to help conserve natural resources.

Comparing State and County Goals

Howard County's goals for natural resource conservation complement and are consistent with the State's goals in this same area of focus. Among other similarities, both levels of government recognize that: a) effective approaches must encompass both stronger regulations and more land acquisition; b) conservation needs extend across a range of environmentally sensitive physiographic features; and c) cooperation between state government and county government will continue to be important. The importance of comprehensive resource inventories in support of conservation activities is also noted in both the State's goals and the County's goals.

Implicitly, both the State's goals and the County's goals also recognize that individual natural resources are ecologically interconnected. For example, avoiding the clear cutting of trees on steeply sloped land not only protects scenic resources and wildlife habitat, but also helps to minimize soil erosion and subsequent siltation of nearby waterways.

Natural Resource Conservation In Howard County – Organizational Background

Efforts to conserve natural resources in the County are the responsibility of several County agencies, primarily the Departments of Planning and Zoning, Recreation and Parks, Public Works, the Office of Environmental Sustainability and the Howard Soil Conservation District.

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Relevant zoning regulations, subdivision and land development regulations, and comprehensive planning initiatives (including those related to the State's Sensitive Areas requirements) originate at the Department of Planning and Zoning. Within the Department of Planning and Zoning, the Resource Conservation Division focuses on formulating and implementing plans that foster conservation of natural resources. The Land Development Division focuses on enforcing development regulations designed to protect sensitive resources and protect open space.

The Natural Resources Division of the Department of Recreation and Parks oversees environmental conservation activities within the County parks and other County land holdings identified in Chapter Three of this Plan. The mission of the Natural Resource Division is to manage these areas in a way that conserves their ecological integrity while still making them available to the public for recreational and educational use. The Natural Resource Division is comprised of four management areas:

- Natural Resource Management – provides technical assistance and planning in the areas of resource conservation, habitat protection, trails, and land acquisition.
- Natural Resource Operations – implements conservation and natural resource management policies and programs including: regulation enforcement, forest conservation and open space dedication inspections, land acceptance and forest conservation planting programs including: Private Forest Conservation Establishment, Public Property Planting, Stream Re-leaf and Plant It Green programs. The section also conducts public outreach programs related to Parkland and Natural Resources Rules and Regulations, Open Space Management and Conservation efforts.
- Middle Patuxent Environmental Area – manages the County's largest environmental area in conjunction with the Middle Patuxent Environmental Foundation.
- Deer Management – manages the White-tailed Deer population on County lands and provides technical assistance and education on deer management countywide.

The Department of Public Works, Stormwater Management Division (SWM), is responsible for inspecting and maintaining the County's stormwater management system. The SWM Division implements stormwater management facility retrofits to improve water quality treatment, develops watershed management plans, conducts stream corridor assessments and biological water quality monitoring, implements stream channel and riparian buffer restoration projects, and conducts public outreach and education to increase individual stewardship. These activities are done as part of the NPDES permit requirements to improve the quality of water discharging from the SWM system. The Department of Public Works Construction Inspection Division is responsible for sediment and erosion control inspection during the construction process.

For planning purposes, the County has good mapped information for streams, floodplains, forests, soils and steep slopes, although there is minimal information available on forest type and

quality. The County does not have mapped wetlands information but uses the State information for the County. Information on these resources is generated on a parcel-by-parcel basis through the development review process for regulatory protection, but is not incorporated into countywide mapping. The State information provided on threatened and endangered species is very general and not useful for site-level planning or protection purposes, so questions on these species are directed to DNR. The County also has information on the development potential of parcels to help guide its decision making on greenways, green infrastructure and other initiatives.

The Howard Soil Conservation District helps landowners make wise land use decisions by promoting conservation practices that control erosion and improve water quality. The Howard Soil Conservation District is solely authorized to review sediment and erosion control plans and small pond designs for all proposed developments. They also participate on Howard County's weekly subdivision Review Committee with other state and county agencies.

The Soil Conservation District provides direct one-on-one assistance to homeowners, community associations and county departments with natural resource problems and questions.

The newest County entity concerned with environmental stewardship and sustainability is the Office of Environmental Sustainability. The Office coordinates with the Environmental Sustainability Board, which is a citizen advisory board formed in 2007. The Board assists in the implementation of the County's environmental agenda, providing both advice and review. Board members include experts in energy, air / water quality, environmental governance, community outreach and education, transit, green building, and environmental health.

Howard County's Implementation Programs For Natural Resource Conservation

Howard County's natural resource conservation activities focus primarily on trying to protect and restore the following natural features:

- Streams, wetlands, and 100-year floodplains
- Stream corridors, stream valleys and Patuxent River Reservoirs
- Steep slopes and erodible soils
- Woodlands and native plant/animal communities
- Rare, threatened and endangered species

This list includes most of the ecological resources targeted for protection under Sensitive Areas requirements associated with Maryland's 1992 Planning Act, as amended, including streams, wetlands and their buffers, 100-year floodplains, steep slopes, habitat for rare, threatened, and

endangered species, and forest lands intended for resource protection or conservation. An additional resource in the Sensitive Areas requirements, agricultural lands intended for resource protection or conservation, is discussed in the previous chapter.

More generally, Howard County uses environmental education and other forms of public outreach to heighten local awareness about environmental issues and foster a greater sense of environmental responsibility in the County.

The following information provides an overview of the programs and techniques Howard County uses to help conserve the types of natural features identified above. For each type of natural feature, comments are then provided on the strengths and weaknesses of the County's approach to date. Lastly, program development strategies are identified. These strategies have a two-fold purpose: a) to note how Howard County intends to carry its conservation efforts forward; and b) to recommend, where warranted, how Howard County can refine and enhance its conservation initiatives. This format mirrors the State Local Land Preservation, Parks and Recreation Plan Guidelines, which call for: a) identifying the counties' conservation programs; b) evaluating these programs; and c) describing the steps the counties are taking to build on strengths and overcome weaknesses in their approach to conservation. In the concluding sections of this chapter, Howard County's recreational greenway planning and green infrastructure initiatives are examined in the same manner.

Streams, Wetlands, and 100-Year Floodplains

The County's Approach

Howard County adopted regulations in 1988 that mandate undisturbed streamside buffers 75 feet wide along perennial streams within residential zoning districts. In 1992, the County added regulations to require undisturbed streamside buffers 50 feet wide along intermittent streams and along perennial streams in non-residential zoning districts.

Howard County's subdivision and land development ordinance currently requires 100-foot buffers for Use III and Use IV streams (as classified by the State). The State considers the upper reaches of the Patapsco River and the Patuxent River and their upper tributaries as Use III waters, which are waters that support natural trout propagation. Other upper portions of the Patuxent River and the Patapsco River's main stem are designated as Use IV, which are waters protected for recreational trout stocking. Related County amendments prohibit the inclusion of streams and stream buffers within residential lots of less than 10 acres. Howard County's Water Resource Element (a part of the County's comprehensive plan) calls for strengthening these buffer requirements.

Howard County requires a 25-foot undisturbed buffer around non-tidal wetlands. In addition, no wetlands or wetland buffers can be part of residential lots of less than 10 acres.

Most of these wetlands also have a measure of additional protection because they are located within 100-year floodplains. Howard County prohibits development within 100-year floodplains and prohibits the inclusion of 100-year floodplain area on residential lots of less than 10 acres. The various resources that cannot be included on individual lots less than 10 acres – stream buffers, wetlands, wetland buffers, and floodplains – must be located within open space or on preservation parcels.

Evaluation and Program Development Strategies

While Howard County has strong streamside and wetland buffer regulations, Howard County's Water Resources Element (a part of the County comprehensive plan) calls for making these safeguards even stronger. As noted above, floodplain protection measures have long been in place. However, work remains to be done on sustaining water quality in streams and on restoring the health of streams whose water quality has been degraded. Specific initiatives are discussed in the next section, which addresses the problem more comprehensively by identifying actions needed on a watershed basis. While streamside and wetland buffers are in place, Howard County needs to continue its watershed-level planning (and related restoration activities) to make more progress on maintaining and improving stream water quality.

Stream Valleys and Patuxent River Reservoirs

The County's Approach

Planning at the watershed level recognizes that the use of land and the habitat conditions in areas that drain into a waterway affect the health of that waterway. The multi-state effort to restore the Chesapeake Bay and its tributaries continues to stimulate watershed planning in Howard County. All land in Howard County drains to either the Patuxent River or the Patapsco River, both of which flow into the Chesapeake Bay. The County is a member of the Patuxent River Commission that is working to coordinate Phase II Water Improvement Program planning efforts in the Patuxent River watershed.

Howard County has made significant progress in preparing watershed plans for priority watersheds:

- Major watershed studies were completed for the Little Patuxent River in 2002 and the North Branch Patapsco River in 2006.

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- For more detailed watershed planning efforts, the County has been divided into sixty-two subwatersheds. In 2001, these subwatersheds were originally analyzed and ranked to identify the priority subwatersheds for future study and restoration, as part of compliance with the County's National Pollutant Discharge Elimination System stormwater discharge permit.
- Plans for two of the subwatersheds, Wilde Lake and Centennial Lake (within the Little Patuxent River watershed), were completed in September 2005. Subwatershed studies for Rockburn Branch and Sucker Branch were completed in 2006, as part of the Lower Patapsco River watershed study. An additional study in 2009 evaluated the five subwatersheds in the headwaters area of the Little Patuxent River.
- In addition, the Columbia Association has developed watershed plans for the portions of Columbia in the Little Patuxent Watershed.

Several restoration projects completed by Howard County include:

- West Durham Road (1999)
- Kingscup Court Stream Restoration (2002 / 2003)
- Yellowbell Lane Slope Stabilization (2004)
- The Bowl Pond (2004)
- Columbia Gateway Pond Retrofit (2004)
- St. Johns Woods Pond Retrofit (2005)
- Danmark Drive Pond Retrofit (2006)
- Wilde Lake Stream Restoration – Reach D (2006)
- Ducks Foot Lane Stream Restoration (2006)
- Autumn Harvest Stream Restoration (2006)
- Willowwood Way Slope Stabilization (2006)
- Cherry Creek Stream Restoration – Phase 1 (2006)
- Fulton / Haddaway Channel Stabilization (2006 / 2007)
- Farewell Road Stream Restoration (2007)
- Oakland Executive Park Pond Retrofit (2007)
- Rockburn Township Pond Retrofit (2007)
- Brightwood Court Stream Restoration (2008)
- Brookmede Stream Restoration (2008)
- Green Clover Stream Restoration (2008)
- Wilde Lake Middle School Bioretention (2008)
- Burleigh Manor Middle School Bioretention (2008)
- Centennial High School Bioretention (2008)
- Board of Education Headquarters Pond Retrofit (2008)
- Centennial Park Sand Filter (2008)
- ARL Site Channel Retrofit (2009)

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- Howard County Center for the Arts Water Quality Project (2009)
- Wesleigh Drive Stream Restoration (2009)
- Tiller Drive Stream Restoration (2009)
- Tall Maple Stream Restoration (2009)
- Brampton Hills Pond Retrofit (2010)
- Cherry Creek Stream Restoration – Phase 2 (2010)
- Baltimore–Washington Industrial Park Stormwater Retrofit (2010)
- Paul Mill Road Stream Restoration (2010)
- Cedar Lane Park – North Entrance Water Quality Retrofit (2010)
- Dorsey Building Parking Lot Water Quality Retrofit (2010)
- Red Hill Branch Rain Garden Program (2010)
- River Hill Shallow Marsh Restoration (2010)
- West Zone Repair Center Pond Retrofit (2010)
- Farmington Court Water Quality Swale (2010)
- Saint John’ Green Pond Retrofit (2011)
- Wilde Lake Stream Restoration – Reach C (2011) “CA”
- Red Hill Way Stream Restoration (2011)
- Old Willow Way Stream Restoration (2011)
- Atholton Park Water Quality Retrofit (2011)
- Stratford Downs Stormwater Retrofit (2011)
- Great Drum Circle Restoration (2011)
- Great Oaks Way Stormwater Retrofit (2011)
- Faulkner Ridge Circle Stream Stabilization (2011)
- LPPSI Stream Mitigation Project – Site A (2011)
- Savage Park Water Quality Enhancement Project (2011)
- Autumn Harvest – Phase 2 Stream Restoration (2011)
- Waverly Woods Stormwater Retrofit (2011)
- Hickory Ridge Village Center Pond Outfall Restoration (2011)
- Mount Hebron High School Stormwater Retrofit (2011)
- High Tech Road Stream Restoration Project (2012)
- Bramhope Lane Stream Restoration Project (2012)
- Meadowbrook Park Stream Restoration (2012)
- Salterforth Place Pond #1 Retrofit (2012)
- Threshfield Court Stream Restoration (2012)

A Stream Re-Leaf Program, begun in 2003, to encourage property owners in the Little Patuxent River watershed to plant trees within stream buffers located on their property has continued and been expanded to a countywide effort.

Stormwater management is another key technique Howard County uses to mitigate the environmental impacts of new development and redevelopment on waterbodies. Since the 1970s, Howard County has required stormwater management to help control runoff, in order to minimize flooding and reduce stream channel erosion. Additional requirements were added in

the 1980s to help control the amount of pollutants flowing into waterbodies. In 2001, Howard County became the first county to adopt the Maryland Stormwater Management Regulations that promoted the use of low impact development or environmental site design (ESD). These regulations placed an emphasis on using site design to minimize the generation of stormwater runoff, and treating runoff with a number of smaller facilities to promote stream channel protection and maintain groundwater recharge through infiltration. In 2007, Maryland adopted new stormwater management regulations to require the use of ESD to the maximum extent practicable and to increase stormwater management requirements for redeveloping sites. Howard County adopted these regulations in 2010.

Howard County is a signatory to the 1996 inter-jurisdictional Patuxent Reservoirs Watershed Protection Agreement, along with Prince George's and Montgomery counties, the Washington Suburban Sanitary Commission, the Howard and Montgomery Soil Conservation District, and the Maryland-National Capital Park and Planning Commission. This agreement established a Policy Board and Technical Advisory Committee (TAC) to work together to protect the health of the Patuxent Reservoirs watershed. The Patuxent Reservoirs include the Rocky Gorge Reservoir and the Triadelphia Reservoir, both of which are on the Patuxent River along Howard County's southern boundary. Approximately half of the watershed for these two public water-supply reservoirs lies within Howard County.

The TAC identified six priority resources for protection and restoration within the watershed: the reservoirs and drinking water supply; terrestrial habitat; stream systems; aquatic biota; rural character and landscape; and public awareness and stewardship. The TAC identified the resource protection issue for each resource, and measures, goals and implementation items to address the issue, along with a time line and responsible partners to accomplish the implementation items.

Evaluation and Program Development Strategy

As described above, Howard County is active in watershed-level planning and in carrying out related restoration measures. The County intends in the immediate future to: a) continue completing watershed plans for its priority watersheds; and b) implementing the recommendations identified in these plans through more stream restoration and related projects. Longer-term goals are to complete watershed plans for all County watersheds and to update these plans regularly.

Howard County currently has inadequate funding for watershed planning and restoration efforts needed to meet Chesapeake Bay cleanup goals specified for nutrients and sediment in the Chesapeake Bay Total Maximum Daily Loads and related watershed implementation plans. Options for future funding should include consideration of a special fund dedicated to watershed management initiatives, as proposed in the County's Water Resources Element.

Howard County will continue to participate in inter-jurisdictional efforts to protect the Patuxent River reservoirs. As called for in the Water Resources Element, future actions to further safeguard these waterbodies should include increasing funding and support for implementation of the Patuxent Reservoirs Priority Resource Protection Program.

Steep Slopes and Erodible Soils

The County's Approach

Howard County contains between 9,000 and 10,000 acres of steeply sloped topography. For planning purposes, these areas are often classified as steep slopes (15% to 25% grade) and very steep slopes (over 25% grade). The soils that cover steep grades are very susceptible to erosion when they are disturbed. Building roads, constructing buildings or clear cutting trees on slopes removes the plant roots that help hold hillside soils in place and result in accelerated levels of soil erosion. These practices can be particularly harmful in stream valleys, where stormwater flows carry eroded soil into nearby waterways. These effects are exacerbated on steeply sloped lands that have highly erodible soils, as defined by the federal Natural Resource Conservation Service.

Since 1989, Howard County has prohibited the disturbance of larger areas of very steep slopes, which are defined as contiguous areas greater than 20,000 square feet, with a slope of 25% or more. In addition to minimizing erosion, these regulations are designed to help protect the diverse, unique habitats for plant and animal species that steep slopes often provide. Howard County also addresses steep slope and erodible soil protection via its Forest Conservation Manual. This manual identifies areas in excess of 25% grade as priority retention areas, and identifies these areas as well as areas of 15% to 25% grade with highly erodible soils, as priority locations for reforestation and afforestation (the planting of new woodlands).

Evaluation and Program Development Strategy

Howard County recognizes that additional protective measures for steep slopes and erodible soils are desirable. The County is endeavoring to include new measures in its Forest Conservation Manual, which is now being updated. Ideally, the updated manual would add lands of 15% to 25% slope that also have highly erodible soils to the list of areas identified as high priority locations for forest retention.

Woodlands and Native Plant Communities

The County's Approach

Approximately 28% of Howard County (45,464 acres) is in forest cover. In what was a major boost to woodland preservation, the Howard County Forest Conservation Act became effective in 1993. This act established regulations intended to: a) mitigate for forest cleared during development; and b) provide a minimum forest cover on developing sites. The Howard County Department of Planning and Zoning reports a loss of approximately 2,483 acres of forest resulting from land developed between November 1999 and June 2010. To mitigate this loss, approximately 1,051 acres of trees have been planted. In compliance with the Forest Conservation Act, 3,133 acres have been placed under the protection of Forest Conservation Easements. Acreage covered by these easements includes forest retained, forest planted on developing sites and forest planted off-site in connection with development activities.

Through agreements with the Howard County Department of Planning and Zoning, the Howard County Department of Recreation and Parks assumed full responsibility for the enforcement of existing forest conservation easements and the inspection of all post-development forest conservation projects. To date, more than 100 enforcement actions have been taken against violators of the Howard County Forest Conservation Act and nearly 1,300 inspections of post-development forest conservation projects for regulation compliance have been performed to determine compliance with project requirements and development regulations. Initial project compliance since July 2006 has been 47.8% of projects. County regulations require developers to undertake supplemental forest conservation activities and pay additional inspection fees until projects are determined to be in complete compliance with approved forest conservation plans and agreements.

Since adopting its Forest Conservation Act, Howard County has allowed landowners who cannot accommodate forest mitigation on their developing sites the option of paying a fee to the Department of Planning and Zoning. The Department of Planning and Zoning transfers this fee to the Department of Recreation and Parks to perform the required mitigation. These fees are used to plant trees in areas the County deems most appropriate. The County's first priority is to plant and enhance streamside forest buffers. The Department of Recreation and Parks planted and has managed over 308 acres of forest conservation easements between 1996 and 2011 on public lands. This acreage also provided a forested buffer for over 15 miles of streams. This planting augmented the 59.24 acres of trees that the Department planted prior to the Forest Conservation Act between 1988 and 1995.

Howard County, through the Department of Planning and Zoning and the Department of Recreation and Parks, has created the Private Forest Conservation Establishment (PFCE) program. The PFCE program is designed to create forest conservation easements on private properties. Funding for the program is provided by the Forest Conservation Act.

To be considered for the PFCE program, properties must be ten acres or larger and forest conservation planting sites on these properties must be one acre or larger. Areas under federal or state programs that provide funds for similar tasks are not eligible for this program. Planting on properties that are encumbered by another preservation easement must comply with policy for forest planting on such easements.

Since the first planting in November of 2008, over 35 acres of forest conservation easements have been established under the Private Forest Conservation Program to date, buffering 15,377 feet of stream which will be protected in perpetuity. An additional 36 acres of forest conservation are being incorporated into the program over the next two years.

Howard County's Subdivision and Land Development Regulations prohibit the inclusion of forest conservation easements on private residential lots of less than 10 acres. Consequently these areas must be on permanent open space or preservation parcels that are dedicated to the County, a homeowners association or some other third party.

Evaluation and Program Development Strategy

Howard County's accomplishments in the area of woodland preservation reflect the spirit and intent of the 1991 State legislation that required counties to develop and carry out forest conservation initiatives. To further strengthen and improve the program, Howard County's Forest Conservation Manual, which contains the policies and guidelines for implementing the County's Forest Conservation Act, is being updated. A revised manual and corresponding changes to the Forest Conservation Act are forthcoming.

The revised Forest Conservation Manual will also focus more attention on the need to retain more forest on-site, to conduct better site preparation and to improve management of newly planted areas, especially regarding the control of invasive exotic plant species.

The County recognizes that despite its Forest Conservation Act, woodlands are still being lost to development. In addition, remaining forests are often fragmented into small disconnected areas, which reduces their value as wildlife habitat. The County's Water Resources Element cites the need to establish and achieve measurable goals for forest cover and riparian forest buffers in all County watersheds. Howard County has completed an aerial photo inventory of forest cover. Related policy initiatives for the County to consider in the future should include the following:

- Initiate a program to establish and protect scrub-shrub and grassland habitat.
- Implement a program to establish and protect wildlife corridors that include forest interior habitat.
- Encourage more use of native species for landscaping in residential and non-residential development.

A natural landscape using native trees and shrubs, and less turf grass, offers environmental benefits over traditional formal landscapes (see U.S. Fish and Wildlife Service BayScapes website at: <http://chesapeakebay.fws.gov/>).

Rare, Threatened, and Endangered Species

The County's Approach

The 2010 Maryland Department of Natural Resources (DNR) list of current and historical rare, threatened and endangered species identifies 59 species within Howard County. Of these 59 species, 13 are animals and 46 are plants. In addition to zoning and development regulations that protect natural features, open space acquisition, and agricultural preservation, all of the following Howard County initiatives help protect habitat for native plants and animals:

- Mandatory streamside buffers, wetland buffers and floodplain restrictions help conserve riparian habitat.
- Stormwater management and watershed conservation activities sustain and restore water quality and maintain habitat for amphibious species, fishes, and other aquatic life.
- Forest conservation strategies conserve habitat for both riparian and upland wildlife.
- The Howard County Department of Recreation and Parks preserves wildlife habitat by acquiring both small and large land parcels for environmental protection and then managing these lands with a conservation-based approach.

The Department of Recreation and Parks is the main environmental steward for all County land holdings. The Department oversees a wide range of activities designed to protect, restore and enhance natural ecosystems on lands under County control. Virtually all of the Department's planning, education, implementation and maintenance activities influence ecosystem quality in some manner. The following is a sampling of the Department of Recreation and Parks initiatives that directly affect plant and animal life "in the field", which, depending on location, includes habitat for officially designated Rare, Threatened and Endangered Species. In addition to enhancing conservation, these activities provide public outreach and education on important environmental conservation issues. These initiatives focus on a variety of wildlife habitat areas, not just those concerned with rare, threatened and endangered species.

- Stream and pond clean-up
- Forest mitigation / reforestation
- The Frog Watch USA program
- Canada Goose population control

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- White-tailed Deer population control
- Trout in the Classroom / trout stocking
- Purple Loosestrife monitoring and biological control utilizing predatory beetles
- Beaver population control
- Creation of wildlife clearings / grasslands
- Nestbox monitoring

Beyond these specific programs and activities, the Department of Recreation and Parks enforces regulations designed to protect County land under Title 19, Subtitle 2 of the Howard County Code. The County enacted these regulations in 1992 and revised them most recently in 2004. They are designed to help prevent dumping, illegal structures, illegal signs, and other illegal activities on County park property. The regulations apply to all land the County owns, leases, or otherwise manages for public recreation purposes, including easements. They help prevent man-made degradation of wildlife habitat and biological communities in addition to protecting scenic open space.

Evaluation and Program Development Strategy

Howard County's efforts at preserving rare, threatened, and endangered species currently focus on preventing habitat destruction. By minimizing the loss of wetlands, riparian corridors, steep slopes and forests, the County helps protect the plants and animals that exist in these areas. The County continues to refine its review process and associated regulations to ensure proposed developments are screened for potential habitat of sensitive species. The County has maps of Sensitive Species Project Review Areas in the County and will screen all projects for potential impacts. The Forest Conservation Program requires that critical habitats of rare, threatened or endangered species be delineated. The County's updated Forest Conservation Manual will require the applicant to submit a comment review letter from DNR if a project site is located wholly or partially within a Sensitive Species Project Review Area.

Greenways and Green Infrastructure

The County's Approach

Howard County has designated both recreational greenways and a Green Infrastructure network. Recreational greenways are envisioned to include multi-purpose trails that are publically accessible either by public fee simple ownership or through easements. In contrast, the County's Green Infrastructure network will feature a system of natural hubs and corridors preserved primarily for their ecological attributes. Public ownership and public access to these lands will not be a baseline requirement for inclusion in Howard County's Green Infrastructure network. The recreational greenways and Green Infrastructure network will overlap in many areas.

Recreational Greenways

The following is a summary of Howard County designated recreational greenways. The underlying vision is that regional greenways will be established along the Patapsco River and the Patuxent River. These regional greenways will be the arteries of the greenway system, to which other greenways will connect. At this time, the individual components of the greenway network are in different stages of planning and development. Some are partially completed while others are in the conceptual stage. (See map titled “Recreational Greenways & Protected Lands”.)

Deep Run

Deep Run is a partially established greenway in the eastern section of the County. The portion of Deep Run from where it meets the Patapsco River, west to the Dorsey area, is contained within the Patapsco Valley State Park. The County owns some areas and will seek opportunities for open space dedication through the subdivision process.

Hammond Branch Greenway

Hammond Branch Greenway is a partially established greenway running along Hammond Branch from the Little Patuxent River at the County line. The corridor runs within a mile of Savage Park and continues northwest, passing the Maryland-Virginia Milk Producer Co-Op and Hammond Park. It will be important to connect this greenway to Savage Park and Hammond Park.

Little Patuxent Greenway

Little Patuxent Greenway is a partially established greenway along the Little Patuxent River. The river valley extends in a northerly direction from its junction with the Middle Patuxent. Five County-owned parks exist along this corridor: Savage Park, David W. Force Park, Gwynn Acres, Centennial park, and Alpha Ridge Park. The Department of Recreation and Parks is currently working to establish a connection between the Alpha Ridge Park and the Patapsco Regional Greenway. Additional areas are protected within Columbia’s open space, including the Lake Kittamaquundi Area, and within the privately-owned Turf Valley Country Club. The County is acquiring more sections through the subdivision process. A pedestrian pathway, including boardwalks, has been constructed along a half-mile of the river at Gwynn Acres, and a 4.5-mile pathway is planned for the segment from Lake Elkhorn to Savage Park.

Middle Patuxent Greenway

Middle Patuxent Greenway is a partially established 19-mile greenway extending diagonally through the center of the County from Savage to Cooksville. The 1,000-acre Middle Patuxent Environmental Area as well as County-owned parks (including Savage, Gorman, and West

Friendship) and Columbia's open space network comprise portions of this greenway. This corridor also includes the University of Maryland's Central Farm. The Department should pursue a gift, donation, and/or use easement with the University to form this connection through the Central Farm parcel. In addition, smaller portions are being acquired through the subdivision process. The County's Mill Trail parallels the river in Savage Park. The Columbia Association has also provided numerous trails.

This greenway is a natural link between the more densely developed eastern portion of the County and the rural western portion of the County.

Patapsco Regional Greenway

Patapsco Regional Greenway is a partially established, multi-jurisdictional greenway along the Patapsco River. The Patapsco Valley State Park serves as the spine for the greenway and provides over 14,000 acres of protected land in Anne Arundel, Baltimore, Carroll, and Howard counties. The state park has five separate recreation areas that are heavily used by residents of the surrounding urban area.

Much of the protected land in Howard County is within Patapsco State Park and Hugg-Thomas Wildlife Management Area (WMA). The County has been acquiring land along the South Branch to connect Hugg-Thomas WMA to Patapsco Valley State Park. Unfortunately, at present, the state park is not continuous around Ellicott City. If the greenway were to connect to this historic town, access to Baltimore County's #9 Trolley and Caton / Loudoun trails would also be made possible, allowing a scenic and cultural route to downtown Baltimore.

West of Sykesville, the river corridor known as the South Branch of the Patapsco remains unprotected. Howard County is interested in working with Carroll County to protect the corridor west to Mt. Airy. The Department of Recreation and Parks is also investigating the possibility of connecting greenways along the Middle Patuxent River and Little Patuxent River.

Patuxent Regional Greenway

Patuxent Regional Greenway is a partially established regional greenway that includes seven jurisdictions extending from central Maryland through southern Maryland. In Howard County, the corridor is about 30 miles long and forms the boundary between Howard, Montgomery, and Prince George's counties. The greenway includes the five-mile-long Triadelphia Reservoir and the seven-mile-long Rocky Gorge Reservoir. The majority of the stream valley is in the State Park or owned by the Washington Suburban Sanitary Commission (WSSC). The County owns approximately 2.5 miles of stream valley, including High Ridge Park. Currently, there are some trails located on the WSSC property.

The Patuxent River stream valley is of major significance because it is a natural area located between the major population centers of Baltimore and Washington. In addition, it naturally

connects to the lower portions of the river valley between Prince George's, Anne Arundel, and Calvert counties, giving it the potential as a long-distance recreational greenway of almost 100 miles.

Green Infrastructure

Howard County's draft Green Infrastructure network encompasses interconnected waterways, wetlands, woodlands, wildlife habitats, parks, open space and other conservation lands. Working farms and forests are also included. The Green Infrastructure network will support native species, maintain natural ecological processes, sustain air and water resources, and contribute to the health and quality of life for communities and people.

The basic building blocks of the Green Infrastructure network are hubs and corridors. Hubs, which will anchor the Green Infrastructure network, are large, ecologically significant natural areas that provide habitat for native plants and wildlife. They may include protected areas, such as State and County parks that are managed for natural values, and private lands where natural features and ecological processes are protected and/or restored. Hubs include large contiguous blocks of interior forest and large wetland complexes as an essential component of the network.

Corridors are the linear features that tie the hubs together and serve as biological conduits for native plants and wildlife. Corridors should be located along the best ecological or natural routes. Where feasible, they should also provide habitat similar to the hubs being connected (forest to forest, aquatic to aquatic, etc.). Most corridors will be centered on waterways, but they will also include upland areas that serve as cross-watershed connections.

Howard County's Green Infrastructure Network Plan (GI Plan) is a separate plan the County will finalize in 2012. When completed, it will allow the County to consider important natural resources when implementing PlanHoward 2030, the 2012 Land Preservation and Recreation Plan, transportation plans, watershed plans and other related initiatives. The new GI Plan will also help in making decisions about zoning and development proposals, acquiring land for parks and public facilities, and obtaining easements to protect farmland, environmentally sensitive properties and other lands. The GI Plan will offer a comprehensive approach to land and water conservation that also takes into account the County's development plans.

Howard County's GI Plan will refine and expand on efforts by the Maryland Department of Natural Resources (DNR) by adapting the State's methodology to County-scale analysis and priorities. The 2000 Maryland Atlas of Greenways, Water Trails and Green Infrastructure (a document now being updated) recommended that the following greenways should be established in Howard County:

- Cabin Branch Greenway

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- Cattail Creek
- Deep Run
- Hammond Branch Greenway
- Little Patuxent Greenway
- Long Corner Connector (along an unnamed tributary in the northwestern part of the County to connect the Patapsco River and the Patuxent River)
- Middle Patuxent Greenway
- Patapsco Regional Greenway
- Patuxent Regional Greenway

The list of corridors to be assessed in Howard County's upcoming GI Plan will overlap the State list identified above. However, in certain cases, more detailed investigations at the County level have revealed that certain preservation corridors are no longer viable in some of the areas noted above because of development that has occurred there since this State list was first produced.

Evaluation and Program Development Strategy

Recreational Greenways

As noted above, Howard County's recreational greenway system is evolving. To date, progress is tangible along some corridors, while other recreational greenway corridors are in the concept stage. This is consistent with the County's view of this greenway network as a long term undertaking to be implemented in phases only as right-of-way opportunities, funding, stewardship partners and other resources become available. Areas under development pressures, particularly in the eastern part of the County will continue to be a priority for inclusion into the County's recreational greenway network.

In the future, Howard County intends to continue planning and developing its recreational greenway network incrementally. As a longer range planning tool, Howard County is examining the possibility of preparing a greenway master plan. This master plan would:

- Identify and place priorities on specific lands and features to be included in the County's recreational greenway system.
- Suggest trailhead locations where parking, informational kiosks and public convenience facilities could be provided.
- Provide design guidelines for constructing various types of trail sections and safe trail/road intersections.
- Identify volunteer groups that are available to help maintain the trails.

- Outline a strategy for educating the public about the trail network and promoting public support.

Green Infrastructure

Howard County's Green Infrastructure Network Plan (GI Plan) will enable planners to consider important natural resources when preparing transportation plans, watershed plans and community plans. It will also aid in making decisions about zoning and development proposals, acquiring land for parks and public facilities, obtaining agricultural, and land preservation easements. The GI Plan will offer a comprehensive approach to land and water conservation that also takes into account the County's future development trends. The GI Plan will set priorities for natural resource protection in the County and also be a resource in establishing priorities. The County is currently identifying uncommitted parcels (parcels with development potential) in the network and prioritizing them for future protection.

Other Related Programs

Other funding opportunities that Howard County would like to use more intensively to preserve open space include the following:

- Greenprint – Howard County will continue to apply for Greenprint, but is not as competitive as other counties due to its higher land prices.
- Federal TEA 21 monies (Transportation Enhancement Act for the 21st Century).
- Maryland Environmental Trust easements.
- Maryland Program Open Space – as described earlier, Howard County's annual allotments under Program Open Space are much less than they were at one time. In addition to curtailing development of recreational areas, these reductions have made less funding available for acquiring land for preservation purposes.
- Rural Legacy Program – Howard County's designated Rural Legacy Area is the Upper Patuxent Headwaters Watershed. In FY 2001, Howard County was allocated \$400,000 in Rural Legacy Program funding for easement purchases in the Upper Patuxent Watershed Rural Legacy Area. The County purchased four conservation easements, held by the County's Agricultural Land Preservation Program, preserving 81 acres. No further Rural Legacy acquisitions are anticipated. High land prices and the limited number of remaining undeveloped properties make it difficult for the County to compete for limited State funding. Howard County will continue to monitor land use activities in the Upper Patuxent Rural

Legacy Area and use the density sending and cluster development provisions of the Zoning Regulations to pursue protection with dedicated preservation easements.

Fee Simple Acquisition and Easement Acquisition As Natural Resource Protection Tools

The County depends heavily on its Zoning Regulations and Subdivision and Land Development Regulations to protect the natural features discussed in this chapter. These regulations also provide for dedicated open space, preservation parcels, and forest conservation easements. Although the protective measures provided through the zoning and subdivision processes are effective, fee simple land acquisition is often the most appropriate course of action. Accordingly, land acquisition activities are a key part of the County's natural resource protection strategy. Due to the high cost of land in Howard County, and the limited availability of local and state funds, the County focuses its land acquisition efforts on major initiatives endorsed by the State, such as greenways and green infrastructure networks.

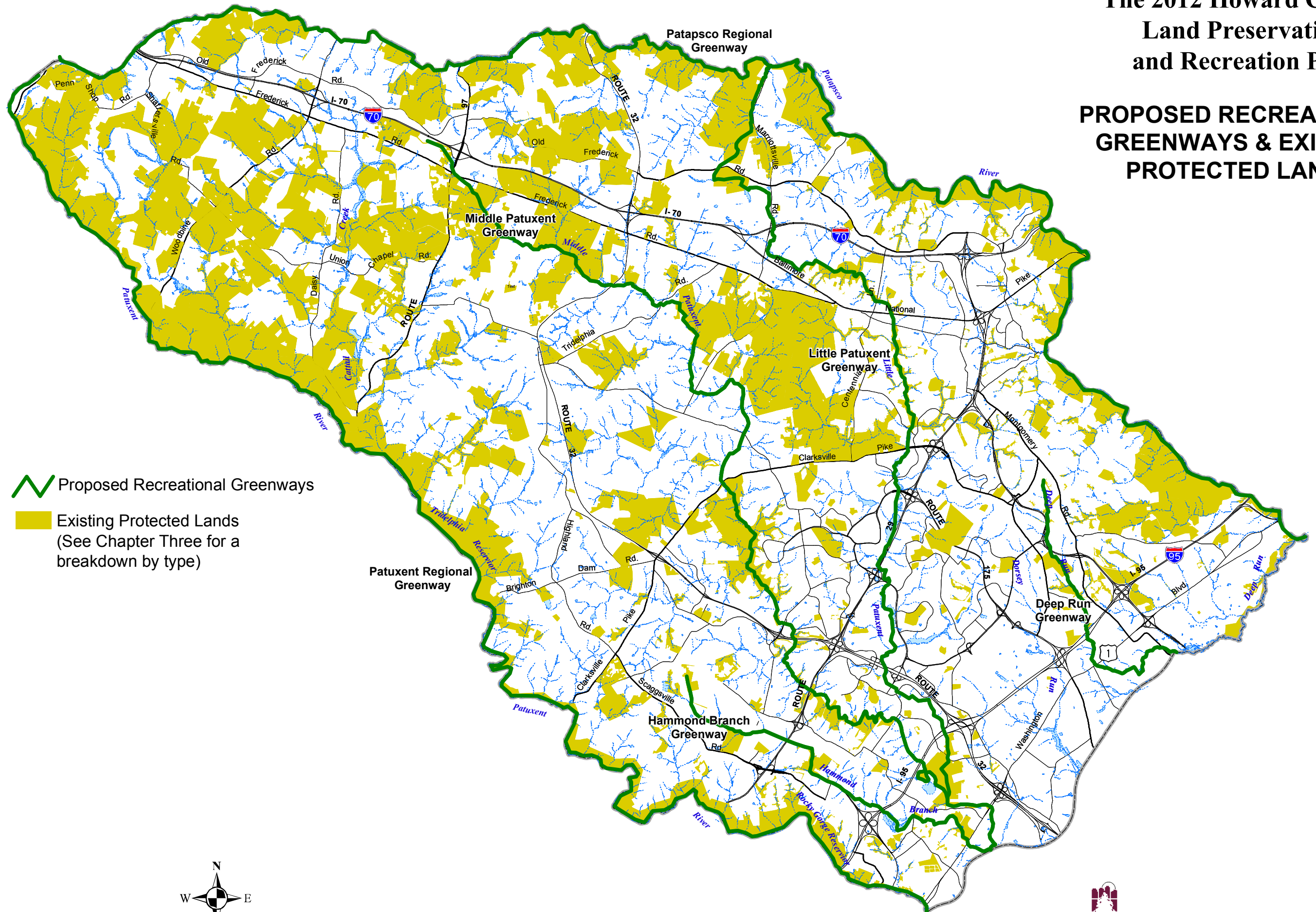
The County is cooperating with the State to complete land acquisition efforts along the Patapsco and Patuxent Greenways. In addition, the County has established local priorities that include the expansion of existing parks, the acquisition of additional parks and open space, and the acquisition of land or easements for the future GI network. Like acquiring land in fee simple, acquiring easements will continue to be an important natural resource protection tool in Howard County.



The County utilizes the following strategy in protecting critical natural resources:

- Identify sensitive natural resources using the State's Green Infrastructure database and the County's Geographic Information Systems database.
- Monitor activity on these lands through the subdivision and land development processes.
- If zoning and land use patterns indicate future residential subdivision and development, then monitor and accept sensitive natural areas as dedicated Open Space or establish Preservation Parcels where applicable (West Planning Area).
- If there are sensitive areas not protected by environmental regulations, and if the acquisition of these areas through the subdivision process is not likely to happen, the County will continue to consider the acquisition of a conservation easement, or buying the property in fee simple.

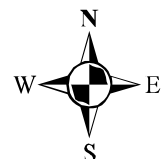
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PROPOSED RECREATIONAL GREENWAYS & EXISTING PROTECTED LANDS



-  Proposed Recreational Greenways
-  Existing Protected Lands
(See Chapter Three for a breakdown by type)

0 10,000 20,000
Feet



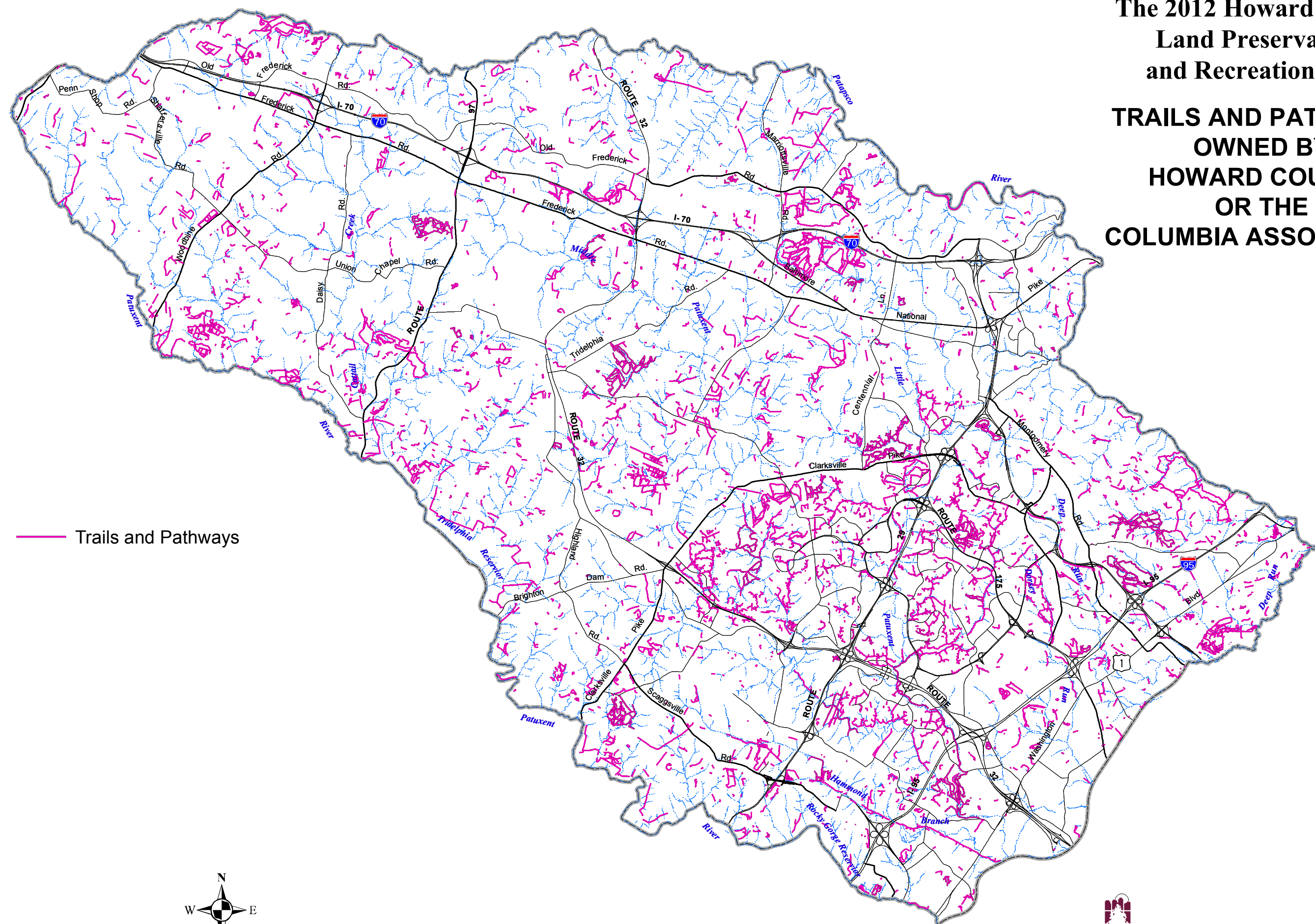
Source: State of Maryland, Howard County, and URDC



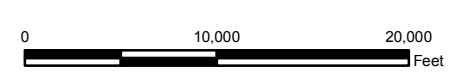
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TRAILS AND PATHWAYS OWNED BY HOWARD COUNTY OR THE COLUMBIA ASSOCIATION



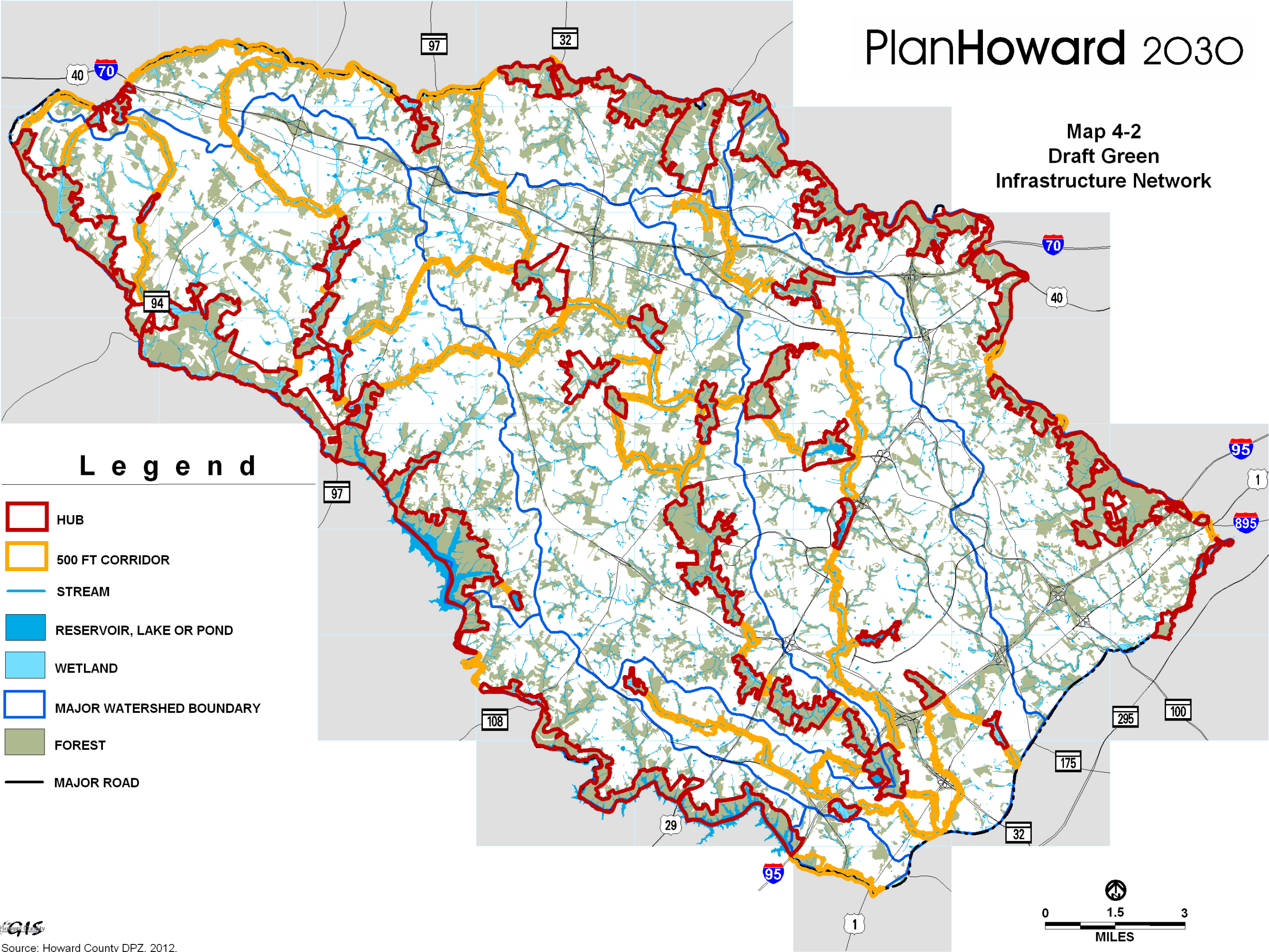
— Trails and Pathways



Source: Howard County and URDC

PlanHoward 2030

Map 4-2
Draft Green
Infrastructure Network



Legend

- HUB
- 500 FT CORRIDOR
- STREAM
- RESERVOIR, LAKE OR POND
- WETLAND
- MAJOR WATERSHED BOUNDARY
- FOREST
- MAJOR ROAD

- In the case of recreational greenways where public trails or pathways are envisioned, ownership in fee simple is most desirable. Fee simple ownership will not be as crucial in establishing the GI network.

Summary Overview of Natural Resource Protection

While several different types of natural resources contribute to the environmental character of Howard County, the County uses a common set of strategies and techniques to help preserve these resources. In summary, Howard County relies primarily on the following inter-related approaches to safeguard its natural environment:

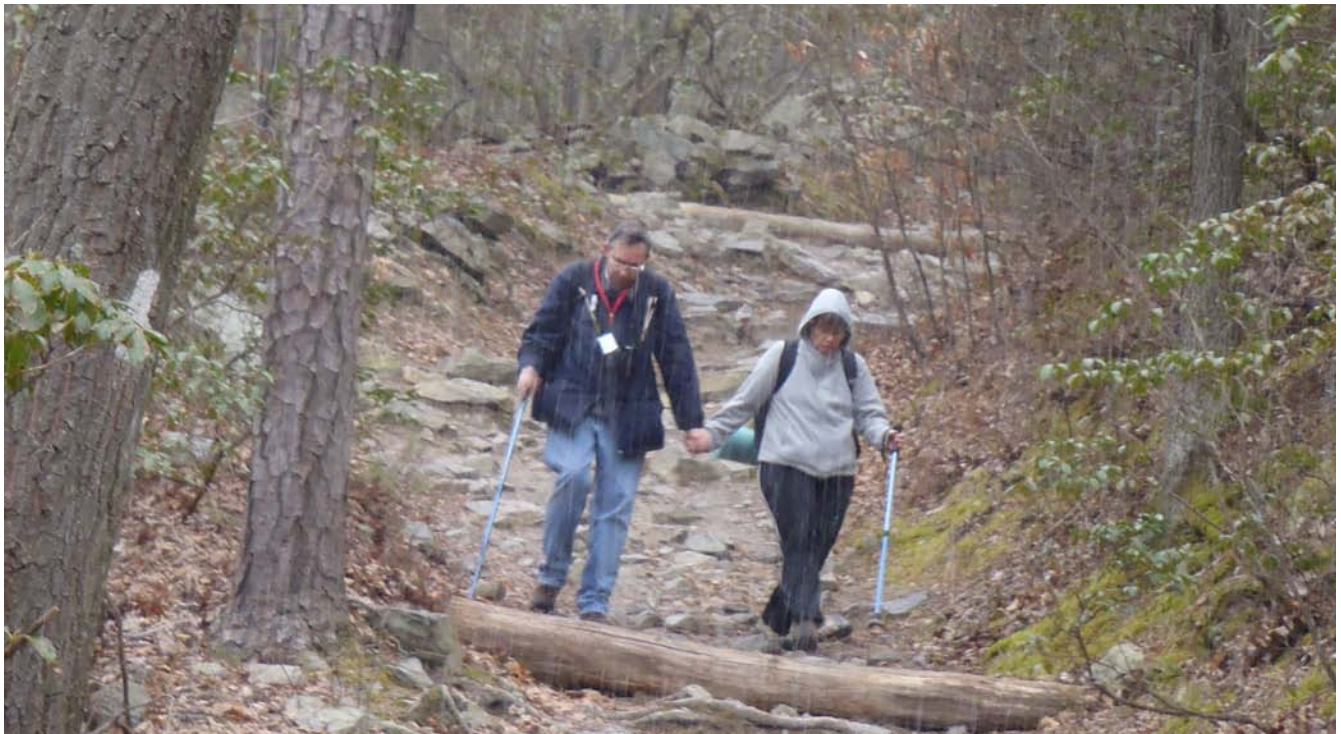
- Zoning regulations that establish maximum density levels, minimum setbacks and other requirements based on location and the character of the land being developed.
- Zoning and subdivision regulations that minimize the impacts of land development on sensitive natural features.
- Land acquisition in fee simple (or the use of easements) to permanently set aside properties of special environmental importance or properties at key locations.
- Watershed planning as the basis for prioritized restoration activities.
- Stormwater management to maintain and improve stormwater detention and retention facilities.
- Forest conservation activities that include the planting of trees on- and off-site to mitigate the impact of trees cleared for new construction.
- Outreach and education regarding private landowner stewardship.

The use of fee simple acquisition and various types of conservation easements to permanently set aside certain lands are approaches that Howard County uses for a variety of different preservation-related purposes. In addition to securing land for green infrastructure and recreational greenway corridors, the County uses fee simple acquisition and conservation easements to:

- Conserve farmland,
- Preserve individual natural resource areas,
- Preserve historic properties, and
- Set aside land for future park sites.

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Chapter 6: Summary & Synthesis



CHAPTER SIX — SUMMARY AND SYNTHESIS

Chapter Six brings together important highlights of this Plan's three major elements. These elements include: Recreation, Parks and Open Space (Chapter Three); Agricultural Land Preservation (Chapter Four); and Natural Resource Conservation (Chapter Five). Together, the initiatives identified in these three chapters form an interrelated approach to addressing land preservation, parks and recreation goals held by both Howard County and the State.

The Maryland General Assembly adopted 12 Visions to provide growth management guidance to local governments. These Visions are key principles underlying the policies and direction identified in this Plan. They include the following:

1. **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.
2. **Public Participation:** Citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals.
3. **Growth Areas:** Growth is concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers.
4. **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.
5. **Infrastructure:** Growth areas have the water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and environmentally sustainable manner.
6. **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.
7. **Housing:** A range of housing densities, types, and sizes provides residential options for citizens of all ages and incomes.
8. **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.
9. **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.
10. **Resource Conservation:** Waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved.
11. **Stewardship:** Government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection.

12. **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.

The Land Preservation, Recreation and Parks Plan Map

The accompanying Land Preservation, Recreation and Parks Plan map illustrates many of the policies and projects Howard County is now pursuing, and will pursue in the future, to: a) continue expanding recreation and park services; and b) further conserve undeveloped land. In particular, this map depicts the following elements:

Preserved Lands Owned in Fee Simple

These are park sites, school recreation areas and other preserved open spaces that now exist in Howard County. Site owners include the State, Howard County, the Board of Education, home owners associations, and other private entities, such as the Columbia Association and the Washington Suburban Sanitary Commission. The sites shown provide active and passive recreation opportunities to different size service areas, ranging from the neighborhood level to the county-wide level.

Chapter Three – Recreation Parks and Open Space describes the sites in more detail and features the Howard County Department of Recreation and Parks 2013 – 2028 Capital Improvement Program (CIP). Among other initiatives, the CIP lists the physical improvements that Howard County envisions making at the County-owned parks, greenways and historic/cultural sites shown on this map.

Lands Preserved By Easement

Howard County strongly endorses the purchase of easements where fee simple acquisition is not a feasible or desirable way to secure permanent open space. The accompanying map shows the agricultural easements now in place in Howard County and these easements are described in Chapter Four - Agricultural Land Preservation. The map depicts easements held by land trusts and other conservation groups. Easements held by the Maryland Historic Trust to protect historic/cultural resources are also illustrated.

Rural Legacy Areas

As noted in Chapter Five - Natural Resource Conservation, Howard County has established a Rural Legacy Area in the watershed of the Upper Patuxent. High land prices have made it difficult for Howard County to compete for the State funds available to buy easements under this program. However, the Rural Legacy Area is shown on the accompanying map as an indication of Howard County's on-going interest in this conservation initiative.

Greenways and Green Infrastructure

Howard County is committed to devoting more resources to recreational greenways, for constructing multi-use trails (shown on the accompanying map) and to a system of hubs (large natural resource areas) and connecting corridors known as the Green Infrastructure network (not shown on the accompanying map). The accompanying map outlines the five greenways described in Chapter Five- Natural Resource Conservation. As highlighted in Chapter Five, the Patapsco Regional Greenway and the Patuxent Regional Greenway are envisioned in the longer run as the twin arterials of a greenway system to which other local greenways will eventually connect.

Greenway Expansion Areas

Greenways expansion areas are unprotected regions along the Patapsco River and the Patuxent River that Howard County hopes to preserve in the future in cooperation with the State and neighboring counties. In addition to preserving the environmental amenities along these corridors, the purpose is to use these infill lands to connect lands already preserved, with the aim of furthering the two regional greenways noted above.

Community Park Study Areas

The Howard County Department of Recreation and Parks is continually monitoring demographic and land use trends in Howard County to ensure new parks are built where they are needed most. Chapter Two - Framework For the Local Plan includes an overview of current growth and development patterns in Howard County. Chapter Three - Recreation, Parks and Open Space provides extensive detail on the location of current parks in Howard County and the recreation facilities at those parks.

The Community Park Study Areas featured on the accompanying Land Preservation, Recreation and Parks Plan map derive directly from the analysis featured in Chapter Two and Chapter Three. The Community Park Study Areas (shown as concentric circles with one-mile radii and two-mile diameters) are the areas Howard County is targeting for new community parks.

Additional Policies and Recommendations

The accompanying Land Preservation, Recreation and Parks Plan map, together with the Capital Improvements Program (CIP) included in Chapter Three, provide an overview of important policies and recommendations in this Plan. However, there are aspects of Howard County's approach to land preservation, recreation and parks not readily apparent on the map or the CIP. This is the case for all three of the Plan's major elements: Recreation, Parks and Open Space (Chapter Three); Agricultural Land Preservation (Chapter Four); and Natural Resource Conservation (Chapter Five).

Recreation, Parks and Open Space

In addition to recreation lands, greenways, recreation facilities and preserved open space, Howard County will remain committed to providing a comprehensive range of recreation programming services. Chapter Three - Recreation, Parks and Open Space features a brief summary overview of the County's recreation programming function, which is recognized by the CAPRA Accreditation through the National Recreation and Parks Association (NRPA) as meeting the standards of excellence required for NRPA accreditation. A listing of recreation program types offered by the Department is provided in Appendix B. Through its Bureau of Administrative Services, the Howard County Department of Recreation and Parks is dedicated to 100% customer satisfaction in all aspects of its recreation programming including the following:

- Fitness and martial arts
- Volunteers
- Services to senior adults.
- Heritage and historic sites programming.
- Environmental education.
- Therapeutic recreation and inclusionary programming for individuals with disabilities.
- Special events, such as community events, fine arts events, holiday programming, day trips, and overnight trips, among others.
- Dance, visual arts, crafts, summer camp programs, personal improvement and other enrichment activities for children and youth.
- After school care partnerships with schools, police and other community organizations.
- High adventure trips and skills.
- Recreational licensed child care.
- Aquatics programming.
- Sports for youths and adults, including both competitive and instructional sports.
- Special initiatives for health and fitness, wellness, and fighting obesity in youth.

The Howard County Department of Recreation and Parks carries out on-going evaluation and marketing of its program offerings. The goal is to ensure that its recreation program services

keep pace with the growing and changing leisure time needs of people of all ages, both genders and a wide spectrum of interests.

Agricultural Land Preservation

The agricultural easements and Rural Legacy Area shown on the map accompanying this chapter and on the map in Chapter Four- Agricultural Land Preservation are important parts of Howard County's farmland conservation efforts. From a broader perspective, the County will continue to refine and rely on the following three main techniques to protect agricultural land. Together these techniques and related tools are aimed at preserving 21,000 to 22,000 acres in the Rural West, an area of Howard County where public water and public sewer services will not be provided.

- The Agricultural Preservation Easements – As of January 1, 2012, agricultural easements acquired through all State and County programs in Howard County totaled 21,646 acres, thereby meeting the goal of preserving 21,000 to 22,000 farmland acres which the County established in 2005. At this time, Howard County does not anticipate budgeting County funds in the foreseeable future to acquire new agricultural easements. However, any additional farmers interested in preserving their land still have the option of participating in Maryland's State-funded agricultural easement programs or in the County's Density Exchange / Cluster Exchange zoning options.
- County Zoning and Subdivision Regulations – While some refinements may still be needed, these regulations are a major tool for agricultural preservation because of their role in setting aside sizeable parcels of preserved land through clustering and various forms of transfer of development permitted within the boundaries of Howard County's Rural West region.
- The Howard County Economic Development Authority's Agricultural Marketing Program – The Agricultural Marketing Program promotes more diversified forms of agriculture, including metropolitan farming enterprises, such as horticulture, turf farms, organic food growers, horse breeding, pick-your-own farms and other alternatives to staple crop farming. This effort will continue to grow as a major agricultural preservation tool, especially now that Howard County's current farmland acreage preservation goals are met.

As a byproduct of efforts to sustain and adapt the agriculture industry in Howard County to changing times, agritourism is becoming a growing leisure time activity. Efforts such as farm heritage celebrations, visits to working farms, educational programs on farming, and petting zoos are adding a new dimension to the County's recreation opportunities.

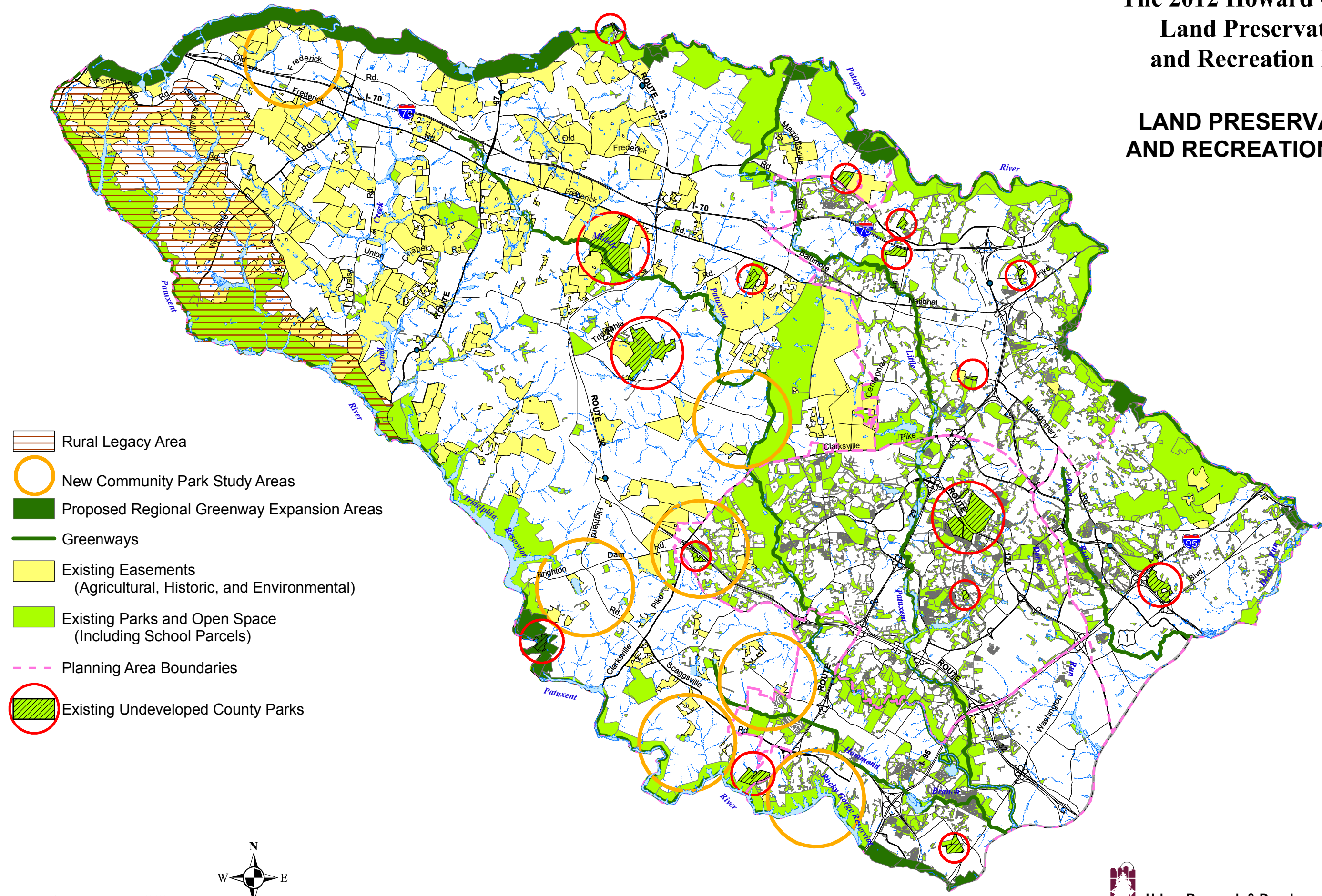
Natural Resource Conservation









Among the elements illustrated on the accompanying Land Preservation and Recreation Plan map are County-owned lands, environmental easements and properties preserved by other entities. Also shown on the accompanying maps are Greenways, Rural Legacy Areas, Greenway Expansion Areas, and Community Park Study Areas which are relevant to future land preservation and resource conservation efforts. The following are important initiatives Howard County will continue relying on to help conserve natural resources that are not apparent from the map:

- Subdivision Regulations – County regulations that help protect the natural environment are a major aspect of Howard County’s conservation approach. These include, for example, mandatory buffers along streams and around wetlands within which no disturbance is permitted. Other examples are: (1) requiring sensitive resources to be located in open space or within preservation parcels, or within residential lots of 10 acres or more; and (2) prohibition of development within 100-year floodplains and on very steep slopes. The County is striving to strengthen these regulations where appropriate.
- Watershed Planning – Howard County continues to prepare watershed plans for priority watersheds and sub-watersheds. These plans provide guidance on needed protection and restoration measures, and have led to several stream restoration projects now complete or underway. Adopted County policy calls for preparing a plan for all watersheds in Howard County.
- Stormwater Management – Federal Clean Water Act legislation requires Howard County to remain deeply involved in maintaining and improving stormwater management facilities. Among other obligations, the County will continue to be responsible for enforcing stormwater requirements in new developments and providing stormwater facilities to older developed areas that do not now have these facilities.
- Forest Conservation Act – Howard County’s Forest Conservation Act requires a minimum amount of forest cover at all new developments. Where this minimum is impossible to either retain or establish, developers must plant the necessary trees or pay to have the County do it off-site. Some of the environmental easements on the accompanying map result from this process. Changes are expected to the Forest Conservation Act as a companion to changes now underway to the Forest Conservation Manual.

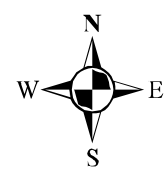
The 2012 Howard County
Land Preservation
and Recreation Plan

LAND PRESERVATION
AND RECREATION PLAN



-  Rural Legacy Area
-  New Community Park Study Areas
-  Proposed Regional Greenway Expansion Areas
-  Greenways
-  Existing Easements
(Agricultural, Historic, and Environmental)
-  Existing Parks and Open Space
(Including School Parcels)
-  Planning Area Boundaries
-  Existing Undeveloped County Parks

0 10,000 20,000
Feet



Source: State of Maryland, Howard County, and URDC

The 2012 Howard County Land Preservation and Recreation Plan

LAND PRESERVATION AND RECREATION PLAN COLUMBIA PLANNING AREA



- Rural Legacy Area
- New Community Park Study Areas
- Proposed Regional Greenway Expansion Areas
- Greenways
- Existing Easements
(Agricultural, Historic, and Environmental)
- Existing Parks and Open Space
(Including School Parcels)
- Planning Area Boundaries
- Existing Undeveloped County Parks

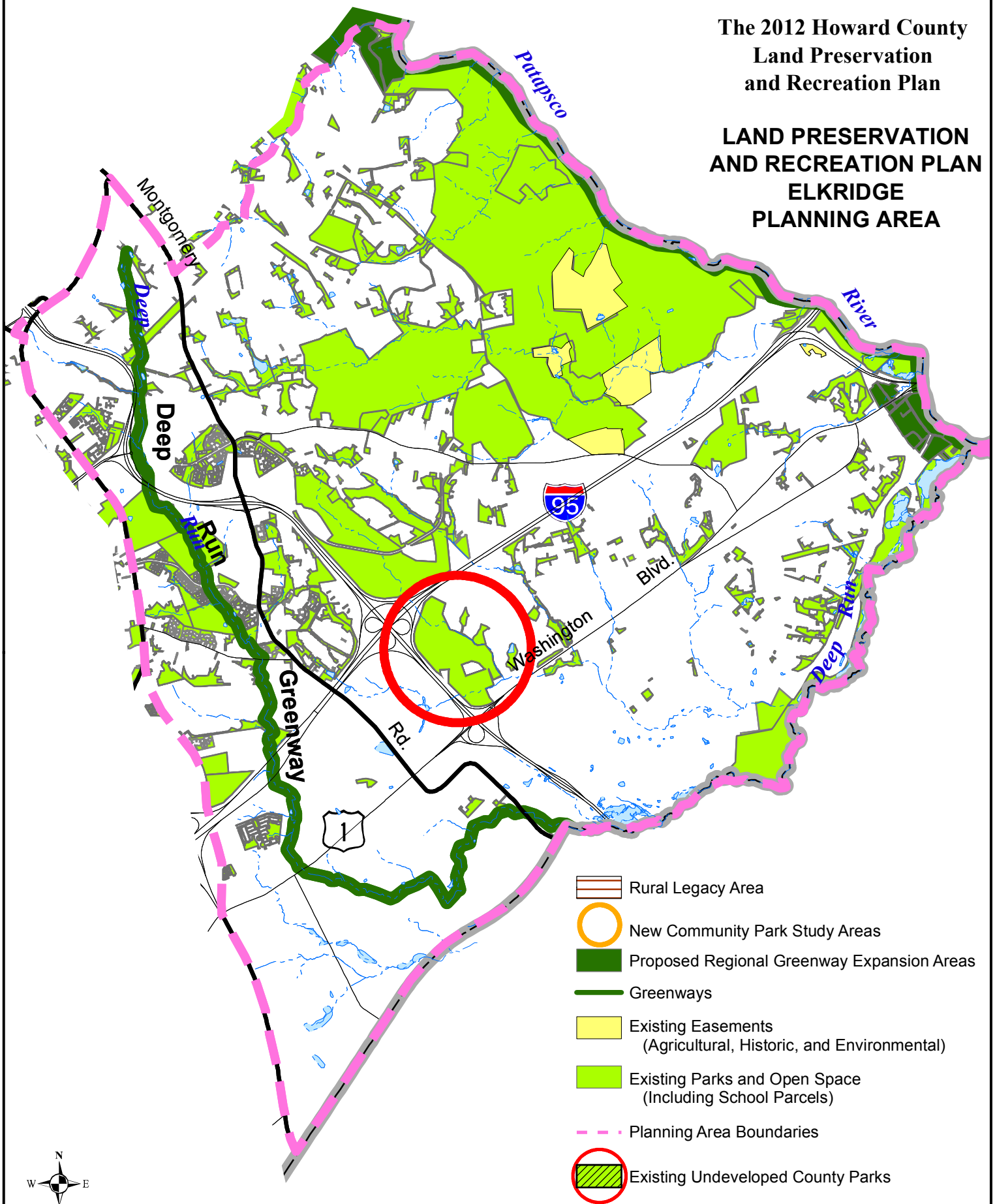
Source: State of Maryland, Howard County, and URDC



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The 2012 Howard County
Land Preservation
and Recreation Plan

LAND PRESERVATION
AND RECREATION PLAN
ELKRIDGE
PLANNING AREA



0 4,000 8,000
Feet









Source: State of Maryland, Howard County, and URDC



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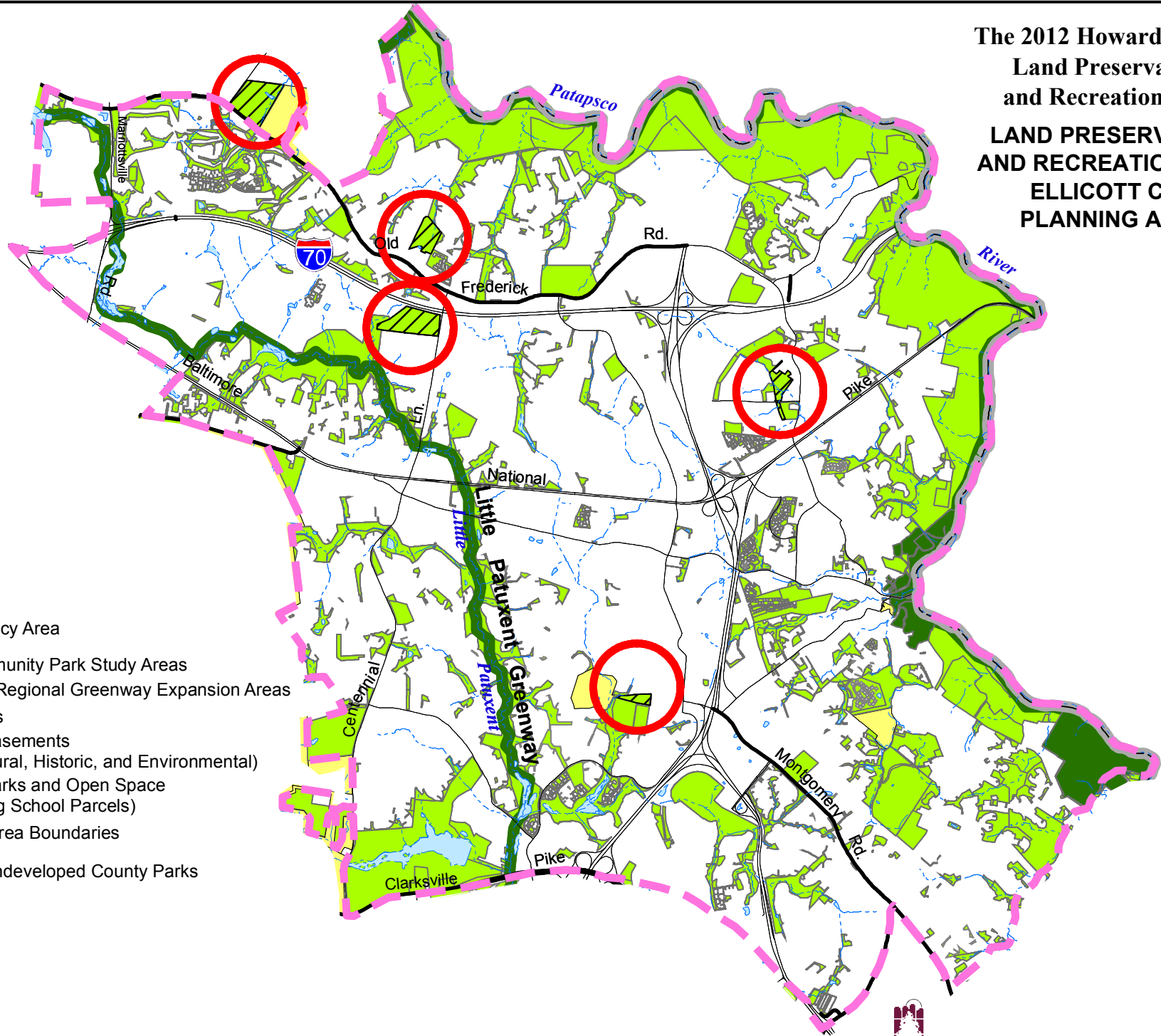
**The 2012 Howard County
Land Preservation
and Recreation Plan**

**LAND PRESERVATION
AND RECREATION PLAN
ELLICOTT CITY
PLANNING AREA**

-  Rural Legacy Area
-  New Community Park Study Areas
-  Proposed Regional Greenway Expansion Areas
-  Greenways
-  Existing Easements
(Agricultural, Historic, and Environmental)
-  Existing Parks and Open Space
(Including School Parcels)
-  Planning Area Boundaries
-  Existing Undeveloped County Parks



0 5,000 10,000
Feet











Source: State of Maryland, Howard County, and URDC



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**The 2012 Howard County
Land Preservation
and Recreation Plan**

**LAND PRESERVATION
AND RECREATION PLAN
RURAL WEST
PLANNING AREA**

-  Rural Legacy Area
-  New Community Park Study Areas
-  Proposed Regional Greenway Expansion Areas
-  Greenways
-  Existing Easements
(Agricultural, Historic, and Environmental)
-  Existing Parks and Open Space
(Including School Parcels)
-  Planning Area Boundaries
-  Existing Undeveloped County Parks



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Feet









Source: State of Maryland, Howard County, and URDC

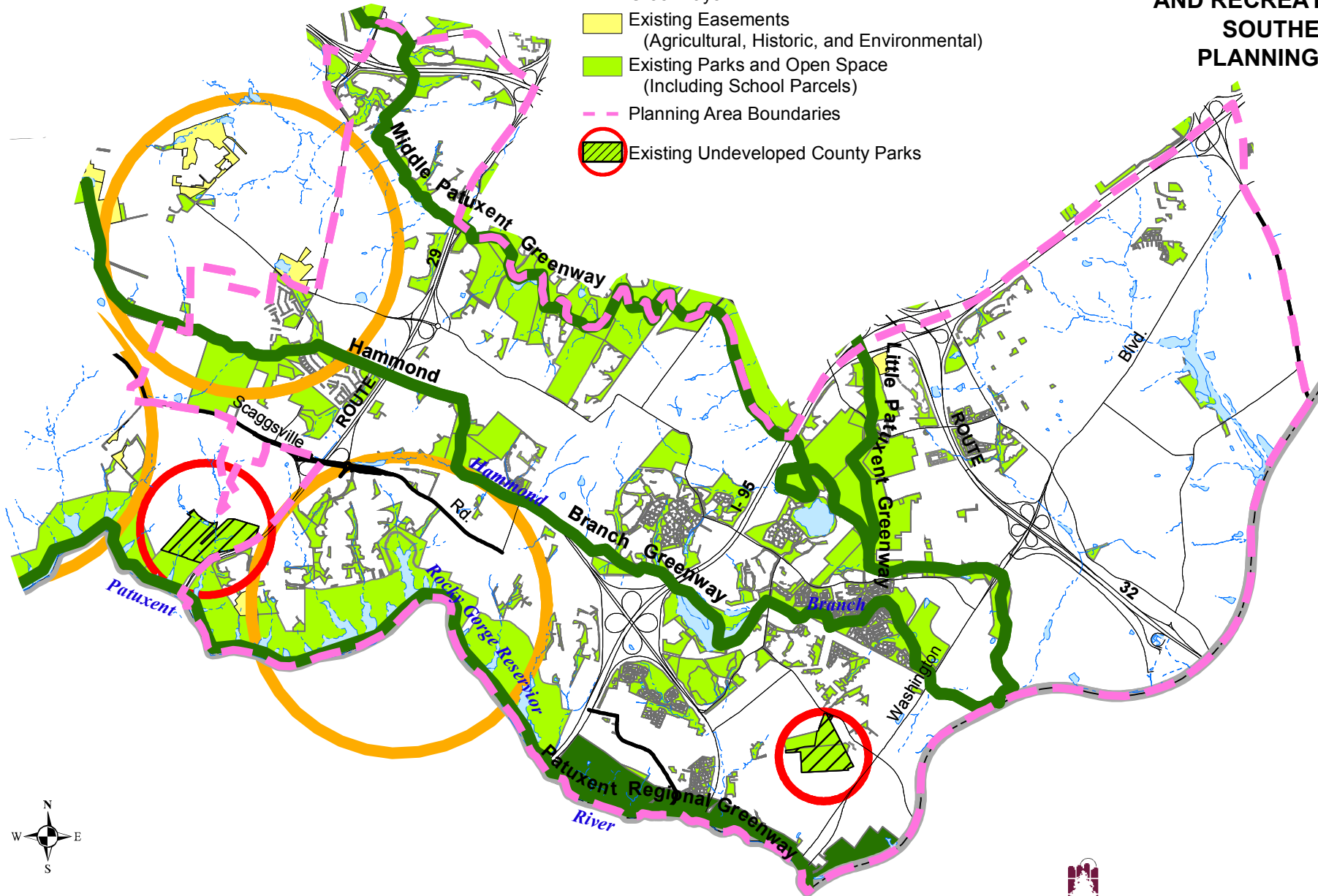


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The 2012 Howard County Land Preservation and Recreation Plan

LAND PRESERVATION AND RECREATION PLAN SOUTHEAST PLANNING AREA

-  Rural Legacy Area
-  New Community Park Study Areas
-  Proposed Regional Greenway Expansion Areas
-  Greenways
-  Existing Easements
(Agricultural, Historic, and Environmental)
-  Existing Parks and Open Space
(Including School Parcels)
-  Planning Area Boundaries
-  Existing Undeveloped County Parks



Source: State of Maryland, Howard County, and URDC



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Appendix A - Howard County Eligible Recreational Acreage



	APPENDIX A					
HOWARD COUNTY						
ELIGIBLE RECREATIONAL ACREAGE						
	March 2012					
	Site Name	Site Ownership	Total Acres	Eligible Acres (Per State Guidelines)		
State Lands						
Eligibility:	Hugg Thomas WMA	State	251.00	0.00		
0%	Patapsco Valley State Park	State	5618.00	0.00		
	Patuxent State Park	State	3883.60	0.00		
			9752.60	0.00		
Regional Parks						
Eligibility:	Benson Branch Park	Co.	340.63	340.63		
100%	Blandair Park	Co.	298.08	298.08		
	Cedar Lane Park	Co.	93.21	93.21		
	Centennial Park	Co.	339.44	339.44		
	Rockburn Branch Park	Co.	415.08	415.08		
	Schooley Mill Park	Co.	192.07	192.07		
	Timbers at Troy Golf Course	Co.	201.98	201.98		
	Troy Park	Co.	100.95	100.95		
	West Friendship Park	Co.	350.68	350.68		
	Western Regional Park	Co.	189.65	189.65		
			2521.77	2521.77		
Community Parks						
Eligibility:	Alpha Ridge Park	Co.	72.00	72.00		
100%	David Force Park	Co.	36.94	36.94		
	East Columbia Library Park	Co.	16.59	16.59		
	Font Hill Park	Co.	26.18	26.18		
	Fulton South Area Park	Co.	71.66	71.66		
	Hammond Park	Co.	43.17	43.17		
	High Ridge Park	Co.	88.41	88.41		
	Houchens Property (Patapsco Greenway)	Co.	37.67	37.67		
	Kiwanis Wallas Park	Co.	25.17	25.17		
	Lewis Property (Patapsco Greenway)	Co.	6.07	6.07		
	Manor Woods Park	Co.	40.51	40.51		
	Meadowbrook Park	Co.	84.15	84.15		
	North Laurel Park	Co.	40.29	40.29		
	Route 29 Pedestrian Bridge	Co.	0.40	0.40		
	Savage Park	Co.	87.47	87.47		
	Sewells Orchard Park	Co.	25.31	25.31		
	Warfields Pond Park	Co.	19.85	19.85		
	Waterloo Park	Co.	21.62	21.62		
	Westside Garden Plots	Co.	9.96	9.96		
	Woodstock Park	Co.	45.13	45.13		
	Worthington Park	Co.	83.78	83.78		
			882.33	882.33		
Neighborhood Parks						
Eligibility:	Allenford - North Farm Park	Co.	18.75	18.75		
100%	Atholton Park	Co.	9.54	9.54		
	Cedar Villa Heights Park	Co.	3.03	3.03		
	Cypressmeade Park	Co.	20.80	20.80		
	Dayton Park	Co.	12.68	12.68		
	Dickinson Park	Co.	10.70	10.70		
	Dunloggin Park	Co.	7.18	7.18		
	Elkhorn Garden Plots	Co.	10.17	10.17		
	Elkhorn Park	Co.	10.08	10.08		

	Ganon Bahl Property	Co.	3.21	3.21		
	Governor's Run Playground	Co.	0.15	0.15		
	Guilford Park	Co.	11.24	11.24		
	Harwood Park	Co.	1.79	1.79		
	Hawthorne Park	Priv.	9.99	9.99		
	Headquarters	Co.	7.95	7.95		
	Heritage Heights Park	Co.	19.62	19.62		
	Holiday Hills Park	Co.	6.55	6.55		
	Hollifield Station Park	Co.	4.38	4.38		
	Hopewell Park	Priv.	9.96	9.96		
	Howard Co. Center for the Arts	Co.	12.65	12.65		
	Huntington Park	Priv.	11.00	11.00		
	Lisbon Park	BoEd.	9.25	9.25		
	Long Reach Garden Plots	Co.	4.41	4.41		
	Martin Road Park	Co.	6.01	6.01		
	Pleasant Chase Playground	Priv.	0.55	0.55		
	Roger Carter Rec Center	Co.	2.43	2.43		
	South Branch Park	Co.	10.49	10.49		
	Tiber Park	Co.	0.08	0.08		
	Town and Country Park	Co.	12.97	12.97		
	Willowood Playground	Co.	0.11	0.11		
	Wyndemere Playground	Co.	0.13	0.13		
	Zirn Property	Co.	38.06	38.06		
			285.91	285.91		
School Recreation Areas						
Eligibility:	Applications Research Lab & Homewood School	BoEd.	45.48	27.29		
60%	Atholton Elementary School	BoEd.	12.31	7.39		
	Atholton High School	BoEd.	36.28	21.77		
	Bellow Springs Elementary School	BoEd.	40.00	24.00		
	Bollman Bridge Elementary School	BoEd.	16.95	10.17		
	Bryant Woods Elementary School	BoEd.	9.25	5.55		
	Burleigh Manor Middle School & Centennial High School	BoEd.	70.00	42.00		
	Bushy Park Elementary School	BoEd.	19.20	11.52		
	Cedar Lane Special	BoEd.	99.00	59.40		
	Centennial Lane Elementary School	BoEd.	11.23	6.74		
	Clarksville Elementary School	BoEd.	10.69	6.41		
	Clarksville Middle School	BoEd.	20.43	12.26		
	Clemens Crossing Elementary School	BoEd.	10.80	6.48		
	Cradlerock Elementary and Lake Elkhorn Middle School	BoEd.	33.16	19.90		
	Dayton Oaks Elementary School	BoEd.	22.74	13.64		
	Deep Run Elementary School	BoEd.	11.67	7.00		
	Dunloggin Middle School	BoEd.	20.00	12.00		
	Elkridge Elementary School and Elkridge Landing Middle School	BoEd.	48.58	29.15		
	Ellicott Mills Middle School	BoEd.	16.22	9.73		
	Faulkner Ridge Center	BoEd.	9.01	5.41		
	Forset Ridge Elementary School	BoEd.	20.85	12.51		
	Fulton Elementary School and Lime Kiln Middle School and Reservoir High School	BoEd.	99.00	59.40		
	Glenelg High School	BoEd.	40.94	24.56		
	Glenwood Middle School	BoEd.	30.00	18.00		
	Gorman Crossing Elementary School	BoEd.	15.00	9.00		
	Guilford Elementary School	BoEd.	11.00	6.60		
	Hammond Elementary and Middle Schools	BoEd.	35.00	21.00		
	Hammond High School	BoEd.	33.14	19.88		
	Harper's Choice Middle School	BoEd.	19.67	11.80		
	Hollifield Station Elementary School	BoEd.	14.50	8.70		
	Howard County Community College	Co.	117.84	70.71		
	Howard Senior High School	BoEd.	41.00	24.60		
	Ilchester Elementary School and Bonnie Branch Middle School	BoEd.	27.22	16.33		
	Jeffers Hill Elementary School	BoEd.	10.00	6.00		
	Laurel Woods Elementary School	BoEd.	27.00	16.20		
	Lisbon Elementary School	BoEd.	22.55	13.53		
	Long Reach High School	BoEd.	50.00	30.00		

	Longfellow Elementary School	BoEd.	9.50	5.70		
	Manor Woods Elementary School	BoEd.	43.23	25.94		
	Mamotts Ridge High School	BoEd.	42.40	25.44		
	Maryland School for the Deaf	State	54.03	32.42		
	Mayfield Woods Middle School	BoEd.	2.00	1.20		
	Mount Hebron Senior High School	BoEd.	40.05	24.03		
	Mount View Middle School	BoEd.	35.75	21.45		
	Murray Hill Middle School	BoEd.	25.00	15.00		
	Northfield Elementary School	BoEd.	10.10	6.06		
	Oakland Mills Middle School	BoEd.	20.00	12.00		
	Oakland Mills High School	BoEd.	28.60	17.16		
	Patapsco Middle School	BoEd.	21.13	12.68		
	Patuxent Valley Middle School	BoEd.	30.00	18.00		
	Phelps Luck Elementary School	BoEd.	10.00	6.00		
	Pointers Run Elementary School	BoEd.	13.69	8.21		
	River Hill High School	BoEd.	64.20	38.52		
	Rockburn Elementary School	BoEd.	8.74	5.24		
	Running Brook Elementary School	BoEd.	9.00	5.40		
	St. John's Lane Elementary School	BoEd.	10.00	6.00		
	Stevens Forest Elementary School	BoEd.	10.00	6.00		
	Swansfield Elementary School	BoEd.	10.00	6.00		
	Talbot Springs Elementary School	BoEd.	10.00	6.00		
	Thunder Hill Elementary School	BoEd.	14.93	8.96		
	Triadelphia Ridge Elementary School	BoEd.	39.47	23.68		
	Veterans Elementary School	BoEd.	23.66	14.20		
	Waterloo Elementary School	BoEd.	10.00	6.00		
	Waverly Elementary School	BoEd.	11.49	6.89		
	West Friendship Elementary School	BoEd.	17.85	10.71		
	Wilde Lake Middle School	BoEd.	21.00	12.60		
	Wilde Lake High School	BoEd.	31.25	18.75		
	Worthington Elementary School	BoEd.	19.69	11.81		
			1874.47	1124.68		
Natural Resource Areas						
Eligibility 33%						
	Carrs Mill NRA	Co.	20.10	6.63		
	Chaconas Property NRA	Co.	19.09	6.30		
	David Force Stream Valley NRA	Co.	221.33	73.04		
	Gorman Stream Valley Park NRA	Co.	227.70	75.14		
	Gwynn Acres NRA	Co.	10.34	3.41		
	Middle Patuxent Environmental Area & Robinson Nature Center - NRA	Co.	1039.41	343.01		
	Patuxent Basin & Teeter Property NRA	Co.	37.93	12.52		
	Wincopin Trails, Lash & Collins Property - NRA	Co.	288.68	95.26		
			1864.58	615.31		
County Open Space						
Eligibility: 33%						
	A.H. Smith	Co.	11.18320	3.69		
	Abbeyfield Estates	Co.	3.47800	1.15		
	ALTA at Regency Crest	Co.	0.68900	0.23		
	Amber Meadow	Co.	2.13000	0.70		
	Amberwoods	Co.	13.00900	4.29		
	Amylynne Dorsey	Co.	0.97000	0.32		
	Angela Valley	Co.	1.85300	0.61		
	Annapolis Station	Co.	0.42100	0.14		
	Arborwoods	Co.	7.01300	2.31		
	Arrowhead	Co.	1.27900	0.42		
	Ashleigh Green	Co.	2.51400	0.83		
	Aspen Woods	Co.	1.51100	0.50		
	Autumn Manor	Co.	10.63700	3.51		
	Autumn River	Co.	20.35530	6.72		
	Autumn View	Co.	120.45000	39.75		
	Autumn Woods	Co.	4.20600	1.39		
	Bageant Property	Co.	1.57200	0.52		
	Bedford Square	Co.	2.11400	0.70		
	Beech Creek	Co.	5.98300	1.97		
	Beechcrest Apartments	Co.	0.04400			

	Belmont Station	Co.	6.46300	2.13		
	Benson Branch Estates	Co.	12.24700	4.04		
	Bethany Brook	Co.	1.20900	0.40		
	Bethany Woods	Co.	4.84900	1.60		
	Bishop Property 1	Co.	0.43500	0.14		
	Bishop Property 2	Co.	0.41100	0.14		
	Blaugh Property	Co.	0.68300	0.23		
	Bluffs at Ellicott Mills	Co.	4.44500	1.47		
	Bluffs at Pine Orchard	Co.	4.07100	1.34		
	Bock Property	Co.	1.01300	0.33		
	Bonnie Brae	Co.	1.90300	0.63		
	Bonnie Branch Overlook	Co.	5.88000	1.94		
	Bonnie Branch Point	Co.	3.62000	1.19		
	Bonnie Branch Woods	Co.	3.19000	1.05		
	Boone Farm	Co.	6.33400	2.09		
	Boone Subdivision	Co.	0.16100	0.05		
	Bounty Vista	Co.	0.87000	0.29		
	Bowling Brook Farm	Co.	33.79200	11.15		
	Brae Brooke	Co.	1.23700	0.41		
	Brampton Hills	Co.	34.63600	11.43		
	Brampton Hills West	Co.	2.81300	0.93		
	Bridge Water	Co.	9.86200	3.25		
	Brightfield	Co.	16.94890	5.59		
	Brinkleigh	Co.	6.11700	2.02		
	Brittany Manor	Co.	8.71500	2.88		
	Brook View Estates	Co.	1.77800	0.59		
	Brookfield	Co.	1.40600	0.46		
	Bryant Square	Co.	0.25900	0.09		
	Bryce Overlook 2	Co.	1.26000	0.42		
	Burleigh Manor	Co.	79.13800	26.12		
	Cabin Branch Farm	Co.	32.86600	10.85		
	Cahill Overlook	Co.	0.34320	0.11		
	Calvert Ridge	Co.	5.12680	1.69		
	Caplan Property	Co.	14.23700	4.70		
	Cardinal Forest	Co.	3.25100	1.07		
	Carlee Manor	Co.	0.08100	0.03		
	Caroline Estates	Co.	2.26100	0.75		
	Carriage Hill	Co.	3.01700	1.00		
	Carriage Mill Farm	Co.	26.61000	8.78		
	Carter's Crossing	Co.	1.08200	0.36		
	Cascade Overlook	Co.	14.51000	4.79		
	Catterton Property	Co.	0.55000	0.18		
	Cedar Acres	Co.	6.21770	2.05		
	Cedar Manor	Co.	1.01500	0.33		
	Cedar Ridge	Co.	0.18800	0.06		
	Centennial Lake	Co.	4.24900	1.40		
	Centennial Manor	Co.	35.29000	11.65		
	Chaconas Property	Co.	19.08600	6.30		
	Cherry Creek	Co.	4.85300	1.60		
	Cherry Creek Overlook	Co.	4.91500	1.62		
	Cherry Tree Farm	Co.	32.02600	10.57		
	Cherry Tree Park	Co.	4.74950	1.57		
	Cherrytree View	Co.	0.18880	0.06		
	Chestnut Ridge	Co.	0.95200	0.31		
	Chestnut Crest	Co.	1.72700	0.57		
	Chestnut Farm	Co.	5.98700	1.98		
	Child's Property	Co.	0.71080	0.23		
	Claremont Overlook	Co.	24.04920	7.94		
	Clarks Glen	Co.	19.98300	6.59		
	Clark's Glen North	Co.	4.18100	1.38		
	Clark's Meadow	Co.	7.06000	2.33		
	Clemen's Square	Co.	3.18000	1.05		
	College Farm	Co.	3.27000	1.08		
	Columbia Hills	Co.	1.98000	0.65		
	Columbia Open Space	Co.	5.59400	1.85		
	Columbia Woodlands	Co.	2.13890	0.71		
	Cornell Property	Co.	0.94000	0.31		
	Costel Property	Co.	1.66800	0.55		

	Cricket Creek	Co.	3.48000	1.15		
	Crystal Springs	Co.	4.51300	1.49		
	Curry Property	Co.	0.50700	0.17		
	Cypress Springs	Co.	9.92560	3.28		
	Daniel Mills Overlook	Co.	69.48400	22.93		
	Deep Run	Co.	2.07400	0.68		
	Dennis Preserve	Co.	8.99400	2.97		
	Dorsey Hall	Co.	172.98700	57.09		
	Dorsey Woods	Co.	31.81800	10.50		
	Dublin Property	Co.	6.16000	2.03		
	Duggan Property	Co.	1.63580	0.54		
	Dunloggin Square	Co.	0.10300	0.03		
	Dunteachin Farm	Co.	10.60700	3.50		
	Eagles Point Landing	Co.	0.93200	0.31		
	Eastern View	Co.	4.41700	1.46		
	Eckers Hollow	Co.	2.16700	0.72		
	Edgewood Farm	Co.	40.84000	13.48		
	Elkhill	Co.	8.95000	2.95		
	Elkridge Town Center	Co.	7.37000	2.43		
	Ema's Manor	Co.	0.07840	0.03		
	Emmerson	Co.	189.11200	62.41		
	Enchanted Forest Estates	Co.	21.92400	7.23		
	Faad	Co.	4.58500	1.51		
	Fairways	Co.	11.76800	3.88		
	Feaga Property	Co.	3.39500	1.12		
	Fels Lane Open Space	Co.	0.50900	0.17		
	Fincham Property	Co.	0.99900	0.33		
	First Ridge	Co.	11.94800	3.94		
	Fisher Property	Co.	3.23100	1.07		
	Forest Creek	Co.	0.85000	0.28		
	Forest, The	Co.	5.72900	1.89		
	Fox Chase Estates	Co.	7.70000	2.54		
	Free State	Co.	14.03900	4.63		
	Fulton Manor	Co.	9.70100	3.20		
	Furnace Ave	Co.	0.21900	0.07		
	G Roscoe Property	Co.	0.77800	0.26		
	Garber Property	Co.	0.26900	0.09		
	German Property	Co.	3.65200	1.21		
	Gibson Property	Co.	1.02060	0.34		
	Gill Property	Co.	0.26340	0.09		
	Glen Brook	Co.	7.96000	2.63		
	Glenmar	Co.	3.91500	1.29		
	Glynchester Farm	Co.	6.66300	2.20		
	Gorman Woods	Co.	1.75400	0.58		
	Governors Run	Co.	54.60500	18.02		
	Gray Rock Farm	Co.	50.75990	16.75		
	Grayloch Woods	Co.	0.44400	0.15		
	Green Briar Manor	Co.	0.24600	0.08		
	Green Hill Manor	Co.	1.35700	0.45		
	Grovermont	Co.	11.20000	3.70		
	GTWs Waverly Woods	Co.	19.39600	6.40		
	Guilford Rd & Sanner Rd Prop	Co.	5.26000	1.74		
	Gwynn Acres Open Space	Co.	10.34000	3.41		
	Hammond Hills	Co.	12.76900	4.21		
	Hammond Overlook	Co.	25.26600	8.34		
	Hammond Park	Co.	3.81600	1.26		
	Hammond Village	Co.	8.25100	2.72		
	Hammond's Promise	Co.	1.49200	0.49		
	Hammond's View	Co.	0.42410	0.14		
	Harding Woods	Co.	6.25000	2.06		
	Harry Holliday Property	Co.	0.36800	0.12		
	Harwood	Co.	1.08900	0.36		
	Hawk's Watch	Co.	0.69300	0.23		
	Heyn Property	Co.	4.02000	1.33		
	Hidden Valley	Co.	2.98700	0.99		
	Hogg Property	Co.	9.86400	3.26		
	Holiday Hills	Co.	0.09100	0.03		
	Hollifield Estates	Co.	5.90980	1.95		

	Hollifield Estates 1	Co.	6.48000	2.14		
	Hollifield Estates 2	Co.	1.73000	0.57		
	Hollifield Hills	Co.	5.65700	1.87		
	Hunt Country Estates	Co.	5.28600	1.74		
	Hunterbrook	Co.	9.66100	3.19		
	Hunter's Creek Farm	Co.	14.34000	4.73		
	Hunter's Ridge	Co.	7.80900	2.58		
	Huntington South	Co.	3.48900	1.15		
	Ilchester Heights	Co.	1.92800	0.64		
	Ilchester Hills	Co.	2.55000	0.84		
	Ilchester Oaks	Co.	3.66000	1.21		
	Ilchester Oaks 2	Co.	0.72000	0.24		
	Ilchester Woods	Co.	4.28700	1.41		
	Jamestown Landing	Co.	3.43000	1.13		
	Journey's End	Co.	0.82700	0.27		
	Kalmia Farms	Co.	8.69000	2.87		
	King's Arms	Co.	2.41000	0.80		
	Kindler Overlook 2	Co.	1.65000	0.54		
	King's Meade	Co.	3.99600	1.32		
	King's Woods	Co.	18.82400	6.21		
	Laisla	Co.	0.98400	0.32		
	Lakeview	Co.	3.59000	1.18		
	Larenas Property	Co.	0.15070	0.05		
	Leishear Knolls	Co.	2.01300	0.66		
	Lilly Property 2	Co.	0.20300	0.07		
	Lilly's Addition to Lakeview	Co.	3.11200	1.03		
	Lime Kiln Valley	Co.	9.77726	3.23		
	Linwood	Co.	0.07500	0.02		
	Lisbon Manor	Co.	2.13900	0.71		
	Little Patuxent Ridge	Co.	49.79700	16.43		
	Longgate / Wheatfield	Co.	16.74900	5.53		
	Lynwood Manor	Co.	4.99950	1.65		
	Lyons Hill	Co.	1.05300	0.35		
	Maisel Tract	Co.	1.19300	0.39		
	Makowski Property	Co.	0.85700	0.28		
	Malcolm Property	Co.	2.09100	0.69		
	Manors of Oakwood	Co.	1.35300	0.45		
	Maple Lawn Farms	Co.	74.71830	24.66		
	Maple Lawn Farms (westside)	Co.	17.49830	5.77		
	Maple Side	Co.	10.83090	3.57		
	Marble Hill Development	Co.	1.00000	0.33		
	Marbuck Estates	Co.	0.78000	0.26		
	Marshalee Woods	Co.	17.98440	5.93		
	Martin Meadows	Co.	2.06900	0.68		
	Mary Oaks	Co.	2.36700	0.78		
	Mayfield Manor	Co.	16.76100	5.53		
	McKendree View	Co.	7.21000	2.38		
	McKenzie Discovery	Co.	15.11500	4.99		
	McKenzie Meadows	Co.	12.08800	3.99		
	Meadowbrook	Co.	0.94124	0.31		
	Meadowland	Co.	2.40300	0.79		
	Milltowne Overlook	Co.	2.67000	0.88		
	Mongomery Estates	Co.	4.41100	1.46		
	Mongomery Knolls	Co.	0.35100	0.12		
	Mongomery Meadows	Co.	34.31020	11.32		
	Montpelier Research Park	Co.	20.84700	6.88		
	Moon Shine Hollow	Co.	0.05900	0.02		
	Moorestfield	Co.	9.57712	3.16		
	Morgans Landing	Co.	1.21270	0.40		
	Mount Hebron	Co.	84.30040	27.82		
	Mount Joy Farm	Co.	19.15689	6.32		
	Murray Hill Subdivision	Co.	8.09400	2.67		
	North Gate Woods	Co.	1.22100	0.40		
	North Ridge	Co.	3.22800	1.07		
	Nottingham Village	Co.	14.61160	4.82		
	Nottingham Way Acres	Co.	4.54100	1.50		
	Oakwest	Co.	11.66400	3.85		
	Old Mill	Co.	1.27300	0.42		

	Old Mill Overlook	Co.	2.80730	0.93		
	Orchard Hill	Co.	4.22900	1.40		
	Overlook at Blue Stream	Co.	12.74570	4.21		
	Owen Brown East	Co.	0.50700	0.17		
	Owen Brown Estates	Co.	4.45500	1.47		
	Owen Brown Woods	Co.	5.70870	1.88		
	Owens Property	Co.	9.81500	3.24		
	Paddocks East, The	Co.	25.78000	8.51		
	Palmer Hill 2	Co.	1.79480	0.59		
	Palmer Hill Property	Co.	1.03500	0.34		
	Papillon	Co.	9.68400	3.20		
	Park Estates	Co.	1.64000	0.54		
	Patapsco Ridge	Co.	10.87870	3.59		
	Patuxent Heights	Co.	4.35800	1.44		
	Patuxent Ridge	Co.	3.04000	1.00		
	Patuxent Run	Co.	25.92500	8.56		
	Patuxent Springs	Co.	5.42600	1.79		
	Patuxent Valley Overlook	Co.	1.99100	0.66		
	Pindell Chase	Co.	3.34900	1.11		
	Pindell Crossing	Co.	2.93800	0.97		
	Pine Ridge	Co.	2.43200	0.80		
	Prince Property	Co.	1.62300	0.54		
	R. Taylor Property	Co.	2.75550	0.91		
	Rausch Property	Co.	2.58000	0.85		
	Rebecca Dorsey	Co.	0.43610	0.14		
	Red Fox Estates	Co.	2.12000	0.70		
	Red Hill Branch Overlook	Co.	2.87800	0.95		
	Reservoir Overlook	Co.	15.96000	5.27		
	Rettger Property	Co.	10.31300	3.40		
	Revitz Property	Co.	31.03300	10.24		
	Rich Glow Acres	Co.	3.21500	1.06		
	River Walk at Patapsco Park	Co.	14.39000	4.75		
	Riverside	Co.	11.37200	3.75		
	Riverside Estates	Co.	17.09950	5.64		
	Riverside Overlook	Co.	17.79300	5.87		
	Riverwalk	Co.	1.11350	0.37		
	Riverwood	Co.	57.60000	19.01		
	Rockburn Manor	Co.	1.30300	0.43		
	Rockburn Township	Co.	22.61800	7.46		
	Rockburn View	Co.	7.96400	2.63		
	Rockland at Rogers	Co.	24.50000	8.09		
	Rockland Square	Co.	2.15700	0.71		
	Roxbury	Co.	28.16300	9.29		
	Ruppert Property	Co.	3.60700	1.19		
	Saddle Ridge	Co.	1.28600	0.42		
	Saddlebrook Farms	Co.	5.30200	1.75		
	Saglimbeni Properties LLC	Co.	4.00000	1.32		
	Scott Acres	Co.	4.80700	1.59		
	Semon Property	Co.	0.53640	0.18		
	Settlers Landing	Co.	2.17700	0.72		
	Sewells Orchard	Co.	0.24400	0.08		
	Sewells Property	Co.	0.23900	0.08		
	Shady Lane Crossing	Co.	2.03985	0.67		
	Shank Property	Co.	1.12900	0.37		
	Sherwood Crossing	Co.	4.65700	1.54		
	Shipley Meadows	Co.	4.64300	1.53		
	South View RD. Pindell Crossing	Co.	0.57730	0.19		
	Spring Lake Garden	Co.	1.24920	0.41		
	St. John's Green	Co.	3.70000	1.22		
	Steven Curran Property	Co.	0.77000	0.25		
	Stone Lake	Co.	21.14540	6.98		
	Stone Manor	Co.	21.53350	7.11		
	Stonefield 2	Co.	0.35000	0.12		

	Storch Woods	Co.	6.04000	1.99		
	Stratford Downs	Co.	1.08900	0.36		
	Strawberry Fields	Co.	11.43700	3.77		
	Stricker Property	Co.	0.46000	0.15		
	Summer Haven	Co.	4.22500	1.39		
	Sunnyfield Estates	Co.	7.27600	2.40		
	Talbots Woods	Co.	2.39600	0.79		
	Talbots Woods 2	Co.	4.04500	1.33		
	Taylor Farm	Co.	5.81000	1.92		
	Taylor Property	Co.	1.97400	0.65		
	The Bluffs at Whitetail Woods	Co.	0.29000	0.10		
	The Boarman Estates	Co.	1.76100	0.58		
	The Chase	Co.	16.29000	5.38		
	The Chase 2	Co.	2.50500	0.83		
	The Hillside at Rocky Gorge	Co.	1.76000	0.58		
	The Hillside at Rocky Gorge 2	Co.	0.98430	0.32		
	The Hillside at Rocky Gorge 3	Co.	0.41000	0.14		
	The Hillside at Rocky Gorge 4	Co.	1.37300	0.45		
	The Hillside at Rocky Gorge 6	Co.	0.94000	0.31		
	The Over Look at Centennial Park	Co.	2.15100	0.71		
	The Preserve at Clarksville	Co.	42.44000	14.01		
	The Woods at Park Place	Co.	6.68990	2.21		
	Thomas Purchase	Co.	0.02900	0.01		
	Thompson's Purchase	Co.	9.77300	3.23		
	Tiber Ridge	Co.	1.36202	0.45		
	Tiber Woods	Co.	0.13600	0.04		
	Toliver Property	Co.	0.92400	0.30		
	Tollhouse	Co.	21.44800	7.08		
	Towers Property	Co.	1.36490	0.45		
	Townhomes of Timberland	Co.	23.86200	7.87		
	Travis Landing	Co.	0.40600	0.13		
	Treyburn	Co.	15.41000	5.09		
	Triadelphia Crossing	Co.	12.30000	4.06		
	Trotter Crossing	Co.	0.83160	0.27		
	Trotter Hill	Co.	1.25800	0.42		
	Trotter Ridge	Co.	2.08000	0.69		
	Trotter Woods	Co.	5.01000	1.65		
	Trotters Run	Co.	1.02000	0.34		
	Turf Valley Overlook	Co.	34.15600	11.27		
	Twin Oaks	Co.	5.48300	1.81		
	U.S. 1 Joint Venture	Co.	1.39000	0.46		
	U.S. Route 29	Co.	2.35510	0.78		
	Valley Meade	Co.	12.34600	4.07		
	Vetick Property	Co.	0.16600	0.05		
	Village of Ceder Ridge	Co.	46.75000	15.43		
	Village of Hickory Ridge	Co.	18.88300	6.23		
	Village of Kings Contrivance	Co.	9.22700	3.04		
	Village of Montgomery Run	Co.	3.46700	1.14		
	Village of River Hill	Co.	2.58480	0.85		
	Vinyards at Cattail Creek	Co.	3.96000	1.31		
	Walter & Laverne Brown Property	Co.	0.50000	0.17		
	Warfields Range 2	Co.	1.20700	0.40		
	Warfields Range	Co.	1.05920	0.35		
	Waverly Overlook	Co.	2.14400	0.71		
	Waverly Woods	Co.	1.24000	0.41		
	Wellington	Co.	7.09400	2.34		
	West Cliffe Manor	Co.	2.40500	0.79		
	West Gate Woods	Co.	1.53000	0.50		
	Westmount	Co.	36.00000	11.88		
	Whitetail Woods	Co.	0.81000	0.27		
	Willow Pond	Co.	4.78800	1.58		
	Willows of Rocky Gorge	Co.	5.99900	1.98		
	Willows, The	Co.	10.28000	3.39		
	Willowood	Co.	34.36390	11.34		
	Windy Knolls	Co.	12.99000	4.29		
	Winterbrook	Co.	12.93500	4.27		
	Winteroak	Co.	3.04400	1.00		
	Wood Brook	Co.	7.50000	2.48		

	Woodberry	Co.	3.00500	0.99		
	Woodcrest	Co.	5.35200	1.77		
	Woodcrest 2	Co.	0.29500	0.10		
	Woodfords Grant	Co.	18.56700	6.13		
	Woodland Park	Co.	10.58700	3.49		
	Woodland Village	Co.	7.36800	2.43		
	Woodlot	Co.	26.87900	8.87		
	Woods of Tiber Branch	Co.	5.49440	1.81		
	Woods of Tiber Branch 2	Co.	15.49561	5.11		
	Worthington Addition	Co.	1.31000	0.43		
	Worthington Fields	Co.	34.98383	11.54		
	Worthington Reserve	Co.	23.22700	7.66		
	Wyndemere	Co.	25.73900	8.49		
	Zanti Property	Co.	3.06000	1.01		
			3505.17	1156.69		

Historic Cultural Areas						
Eligibility:	B&O Railroad Museum	Co.	0.64	0.21		
33%	Baldwin Commons Park	Co.	1.22	0.40		
	Bollman Truss Bridge	Co.	0.50	0.17		
	Colonel Anderson Memorial	Co.	0.15	0.05		
	Ellicott City Colored School	Co.	13.76	4.54		
	Little Court House	Co.	0.03	0.01		
	Old Firehouse Museum	Co.	0.02	0.01		
	Patapsco Female Institute	Co.	9.82	3.24		
	Poplar Springs Park	Co.	7.07	2.33		
	Pratt Truss Bridge	Co.	0.42	0.14		
	Thomas Isaac Log Cabin	Co.	0.51	0.17		
	Waverly Mansion	Co.	3.44	1.14		
			37.58	12.40		
Home Owner Association Lands						
Eligibility:	Home Owner Association Lands	Priv.	1205.60	397.85		
33%						
Other Permanently Preserved Private Open Spaces (Columbia Assn. & WSSC)						
Eligibility:	Dorsey Search Village Open Space	Priv.	228.20	75.31		
33%	Harper's Choice Village Open Space	Priv.	439.46	145.02		
	Hickory Ridge Village Open Space	Priv.	255.52	84.32		
	Kings Contrivance Village Open Space	Priv.	639.78	211.13		
	Long Reach Village Open Space	Priv.	341.54	112.71		
	Oakland Mills Village Open Space	Priv.	253.42	83.63		
	Owen Brown Village Open Space	Priv.	396.78	130.94		
	River Hill Village Open Space	Priv.	367.16	121.16		
	Towncenter Village Open Space	Priv.	215.36	71.07		
	Washington Suburban Sanitation Commission (WSSC)	Priv.	3204.08	1057.35		
	Wild Lake Village Open Space	Priv.	108.89	35.93		
			6450.19	2128.56		
	Total Acres	28380.20				
	Total Eligible Acres	9066.11				
	Howard County Population in 2010 =	287,085				
	Total Eligible Acres Divided by Howard County 2010 Population in Thousands	9066.11/ 287.085 =	31.58	Acres Per Thousand Population		
Source: Howard County Department of Recreation and Parks, URDC						

Appendix B - Howard County Recreation and Parks Programs/Activities



Howard County Recreation & Parks Nature of Program Services Matrix

Programs/Activities by Age	Programs with general or little supervision	Programs with Structured Leadership	Fee (\$) Free (F) or Both (B)	Scope/Level: Basic (B) Interm (I) Expert (E)	Types of Participation: Physical (P) Intellectual (I) Social (S) Creative (C)	Types of Participation: Individual (I) Small Group (S) Groups (G)
Teenage:	6.2.1	6.2.2	6.2.4	6.5	6.6	6.7
After School Education/Recreation	X	X	B	B,I	P,I,S,C	I,S,G
After School Care (Student Union)		X	\$	B	P,I,S,C	I,S,G
Instructional Sports		X	\$	B,I,E	P,I,S	I,S,G
Competitive Sports	X		\$	B,I,E	P,S	I,S,G
Recreational Sports	X		\$	B	P,S	I,S,G
Swim Lessons/Aquatics		X	\$	B,I,E	P	I,S
Therapeutic Recreation		X	\$	B,I	P,I,S,C	I,S,G
TR Extended Care (after School)		X	\$	B	P,I,S,C	I,S,G
Dance Classes		X	\$	B,I	P,S,C	I,S,G
Fitness/Health Classes		X	\$	B,I	P,I,S	I,S,G
Visual Arts/Crafts Classes		X	\$	B,I	C,I	I
Art Classes (TR)		X	\$	B,I	C,I	I
Social Events (TR)		X	\$	B	S	S,G
Music Classes		X	\$	B,I	C,I	I,S
Summer Camps		X	\$	B,I,E	P,I,S,C	I,S,G
High Adventure Skills Classes		X	\$	B,I,E	P,I,S,C	I,S
High Adventure Trips		X	\$	B,I,E	P,I,S,C	I,S,G
Parks-pathways, green spaces, natural areas	X	X	F	B,I,E	P,I	I,S,G
Lakes & Streams - Boating, Fishing, Kayaking	X	X	B	B,I,E	P,I	I,S,G

Howard County Recreation & Parks Nature of Program Services Matrix

Programs/Activities by Age	Programs with general or little supervision	Programs with Structured Leadership	Fee (\$) Free (F) or Both (B)	Scope/Level: Basic (B) Interm (I) Expert (E)	Types of Participation: Physical (P) Intellectual (I) Social (S) Creative ©	Types of Participation: Individual (I) Small Group (S) Groups (G)
Adult:	6.1.3	6.1.4	6.1.6	6.5	6.6	6.7
Fitness/Health Classes		X	\$	B,I,E	P,I,S	I,S,G
Therapeutic Fitness Classes		X	\$	B,I	P,I,S	I,S,G
Visual Arts/Crafts Classes		X	\$	B,I	C,I	I,S
Music Classes		X	\$	B,I	C,I	I,S,G
Personal Development Classes		X	\$	B,I	I	I
Day Trips	X		\$	B	S,I	I,S,G
Recreational Sports	X		B	B,I	P,S	I,S,G
Competitive Sports	X		\$	B,I	P,I,S,C	I,S,G
Instructional Sports		X	\$	B,I,E	P,I,S,C	I,S,G
Special Events for ages 18-Up	X		B	B	S	S,G
Social Events (TR)		X	\$	B	S	S,G
Outdoor Recreation	X		B	B,I,E	P,I,S,C	I,S
Parks-Pathways, Green Spaces, Natural Areas	X		F	B,I,E	I,P	I,S

Howard County Recreation & Parks Nature of Program Services Matrix

Programs/Activities by Age	Programs with general or little supervision	Programs with Structured Leadership	Fee (\$) Free (F) or Both (B)	Scope/Level: Basic (B) Interm (I) Expert (E)	Types of Participation: Physical (P) Intellectual (I) Social (S) Creative ©	Types of Participation: Individual (I) Small Group (S) Groups (G)
Elementary Age:	6.2.1	6.2.2	6.2.4	6.5	6.6	6.7
Licensed Child Care 38 Programs		X	\$	B,I	P,I,S,C	S,G
Special Events	X		B	B	S	G
After School Education/Recreation	X	X	B	B,I,E	P,I,S,C	I,S,G
Fitness/Health Classes		X	\$	B,I	P,S	S,G
Dance Classes		X	\$	B,I	P	S,G
Visual Arts/Crafts Classes		X	\$	B,I	I,C,S	I,S,G
Instructional Sports		X	\$	B,I,E	P,S,I	S,G
Competitive Sports		X	\$	B,I	P,S	I,S,G
Swim Lessons/Aquatics		X	\$	B,I,E	P,S	I,S,G
Summer Camps		X	\$	B,I,E	P,I,S,C	S,G
High Adventure Skills Classes		X	\$	B,I	P,I,S,C	I,S,G
High Adventure Trips	X		\$	B,I,E	P,I,S,C	I,S,G
Playgrounds (equipment)		X	F	B	P,S	I,S
Parks-Pathways, green spaces, natural areas	X	X	F	B,I	I,P	I,S,G
Lakes streams-Fishing, boating	X	X	B	B,I,E	I,P	I,S

Howard County Recreation & Parks Nature of Program Services Matrix

Programs/Activities by Age	Programs with general or little supervision	Programs with Structured Leadership	Fee (\$) Free (F) or Both (B)	Scope/Level: Basic (B) Interm (I) Expert (E)	Types of Participation: Physical (P) Intellectual (I) Social (S) Creative (C)	Types of Participation: Individual (I) Small Group (S) Groups (G)
Over 55:	6.2.1	6.2.2	6.2.4	6.5	6.6	6.7
Day Trips	X		\$	B	S	S,G
Overnight Trips	X		\$	B	S	S,G
Themed Social		X	\$	B	S	G
Special Events	X		B	B	S	S,G
Card Clubs	X		F	B,I,E	S,I	I,S,G
Fitness/Health Classes		X	\$	B,I	P,I,S	I,S,G
Music Classes		X	\$	B,I,E	C,I	I,S
Visual Arts/Crafts Classes		X	\$	B,I,E	C,I	I,S
Enrichment Programs		X	\$	B,I,E	I,P,S,C	I,S,G
Dance Classes		X	\$	B,I,E	P,S	I,S,G
Recreational Sports	X		B	B,I,E	P,S	I,S,G
Competitive Sports	X	X	\$	B,I	P,S	I,S,G
Outdoor Recreation	X	X	B	B,I	P,I,S,C	I,S,G

Howard County Recreation & Parks Nature of Program Services Matrix						
Programs/Activities by Age	Programs with general or little supervision	Programs with Structured Leadership	Fee (\$) Free (F) or Both (B)	Scope/Level: Basic (B) Interm (I) Expert (E)	Types of Participation: Physical (P) Intellectual (I) Social (S) Creative (C)	Types of Participation: Individual (I) Small Group (S) Groups (G)
Pre-School:	6.2.1	6.2.2	6.2.4	6.5	6.6	6.7
Early Learning Center		X	\$	B	P,I,S,C	S,G
Dance Classes		X	\$	B,I	P,C	S,G
Drama		X	\$	B	C	S,G
Parent & Child Classes and Programs		X	\$	B	S	S,G
Music Classes		X	\$	B	C	S,G
Visual Arts/Craft Classes		X	\$	B	C,I	S,G
Themed Special Events		X	B	B	S	G
Swim Lessons/ Aquatics		X	\$	B,I	P	S,G
Fitness/Health Classes		X	\$	B	P,S,I	ALL
Instructional Sports		X	\$	B,I	P,S	ALL
Summer Programs		X	\$	B,I,E	P,I,S,C	S,G
Playgrounds (equipment)	X		F	B	P,I,S	I,S
Parks-pathways, green space, natural	X		B	B	P,I,S	S
Lake-Fishing, boating	X		B	B,I,E	P,I,S	S

Appendix C - Recreational Facility Needs Analysis



Columbia Planning Area

Demand

Activity	Participation Rates (Percent of Total Population)	Frequency Rates (Occurrences per User per Year)	Demand (User Occurrences Per Year)		
			Current: 2010 Population 99,476	2020 Population 101,946	2030 Population 106,425
Baseball / Softball	13.4%	19.64	261,797	268,297	280,085
Football/Soccer/Field Hockey/Lacrosse	28.2%	20.97	588,255	602,862	629,348
Basketball	11.3%	19.6	220,319	225,790	235,710
Swimming	49.6%	11.57	570,865	585,040	610,743
Tennis	10.3%	13.11	134,325	137,661	143,709
Golf	17.2%	12.25	209,596	214,800	224,237
Bike / Hike Trails	46.0%	17.85	816,797	837,079	873,856
Playgrounds	52.4%	9.06	472,256	483,983	505,246

Supply

Activity	Facility Type	Number of Sites	Season Length	Daily Supply Per Facility	Annual Supply Per Facility	Total Annual Supply
Baseball / Softball	Diamonds	63	90	40	3,600	226,800
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	43	180	52	9,360	402,480
Basketball	Courts	72	180	40	7,200	518,400
Swimming	Pools	26	90	800	72,000	1,872,000
Tennis	Courts	77	150	16	2,400	184,800
Golf	Courses	2	210	360	75,600	151,200
Bike / Hike Trails	Miles	110.31	240	68	16,320	1,800,259
Playgrounds	Playgrounds	203	180	60	10,800	2,192,400

Columbia Planning Area

Needs

Activity	Facility Type	2010		2020	
		Surplus/ (User Occurrences)	Deficit Facilities	Surplus/ (User Occurrences)	Deficit Facilities
Baseball / Softball	Diamonds	-34,997	-10	-41,497	-12
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	-185,775	-20	-200,382	-21
Basketball	Courts	298,081	41	292,610	41
Swimming	Pools	1,301,135	18	1,286,960	18
Tennis	Courts	50,475	21	47,139	20
Golf	Courses	-58,396	-1	-63,600	-1
Bike / Hike Trails	Miles	983,462	60	963,181	59
Playgrounds	Playgrounds	1,720,144	159	1,708,417	158

Activity	Facility Type	2030	
		Surplus/ (User Occurrences)	Deficit Facilities
Baseball / Softball	Diamonds	-53,285	-15
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	-226,868	-24
Basketball	Courts	282,690	39
Swimming	Pools	1,261,257	18
Tennis	Courts	41,091	17
Golf	Courses	-73,037	-1
Bike / Hike Trails	Miles	926,404	57
Playgrounds	Playgrounds	1,687,154	156

Elkridge Planning Area

Demand

Activity	Participation Rates (Percent of Total Population)	Frequency Rates (Occurrences per User per Year)	Demand (User Occurrences Per Year)		
			Current: 2010 Population 40,141	2020 Population 49,752	2030 Population 53,431
Baseball / Softball	13.4%	19.64	105,641	130,935	140,618
Football/Soccer/Field Hockey/Lacrosse	28.2%	20.97	237,375	294,210	315,966
Basketball	11.3%	19.6	88,904	110,191	118,339
Swimming	49.6%	11.57	230,358	285,513	306,626
Tennis	10.3%	13.11	54,204	67,182	72,149
Golf	17.2%	12.25	84,577	104,827	112,579
Bike / Hike Trails	46.0%	17.85	329,598	408,514	438,722
Playgrounds	52.4%	9.06	190,567	236,195	253,660

Supply

Activity	Facility Type	Number of Sites	Season Length	Daily Supply Per Facility	Annual Supply Per Facility	Total Annual Supply
Baseball / Softball	Diamonds	22	90	40	3,600	79,200
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	11	180	52	9,360	102,960
Basketball	Courts	22	180	40	7,200	158,400
Swimming	Pools	0	90	800	72,000	0
Tennis	Courts	6	150	16	2,400	14,400
Golf	Courses	1	210	360	75,600	75,600
Bike / Hike Trails	Miles	14.21	240	68	16,320	231,907
Playgrounds	Playgrounds	11	180	60	10,800	118,800

Elkridge Planning Area

Needs

Date

Activity	Facility Type	2010		2020	
		Surplus/ Deficit (User Occurrences)	Facilities	Surplus/ Deficit (User Occurrences)	Facilities
Baseball / Softball	Diamonds	-26,441	-7	-51,735	-14
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	-134,415	-14	-191,250	-20
Basketball	Courts	69,496	10	48,209	7
Swimming	Pools	-230,358	-3	-285,513	-4
Tennis	Courts	-39,804	-17	-52,782	-22
Golf	Courses	-8,977	0	-29,227	0
Bike / Hike Trails	Miles	-97,691	-6	-176,606	-11
Playgrounds	Playgrounds	-71,767	-7	-117,395	-11

Activity	Facility Type	2030	
		Surplus/ Deficit (User Occurrences)	Facilities
Baseball / Softball	Diamonds	-61,418	-17
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	-213,006	-23
Basketball	Courts	40,061	6
Swimming	Pools	-306,626	-4
Tennis	Courts	-57,749	-24
Golf	Courses	-36,979	0
Bike / Hike Trails	Miles	-206,815	-13
Playgrounds	Playgrounds	-134,860	-12

Ellicott City Planning Area

Demand

Activity	Participation Rates (Percent of Total Population)	Frequency Rates (Occurrences per User per Year)	Demand (User Occurrences Per Year)		
			Current: 2010 Population 65,652	2020 Population 70,339	2030 Population 74,508
Baseball / Softball	13.4%	19.64	172,780	185,115	196,087
Football/Soccer/Field Hockey/Lacrosse	28.2%	20.97	388,236	415,952	440,606
Basketball	11.3%	19.6	145,406	155,787	165,020
Swimming	49.6%	11.57	376,758	403,656	427,581
Tennis	10.3%	13.11	88,652	94,981	100,610
Golf	17.2%	12.25	138,329	148,204	156,988
Bike / Hike Trails	46.0%	17.85	539,069	577,554	611,785
Playgrounds	52.4%	9.06	311,679	333,930	353,722

Supply

Activity	Facility Type	Number of Sites	Season Length	Daily Supply Per Facility	Annual Supply Per Facility	Total Annual Supply
Baseball / Softball	Diamonds	35	90	40	3,600	126,000
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	24	180	52	9,360	224,640
Basketball	Courts	31	180	40	7,200	223,200
Swimming	Pools	1	90	800	72,000	72,000
Tennis	Courts	21	150	16	2,400	50,400
Golf	Courses	0	210	360	75,600	0
Bike / Hike Trails	Miles	14.74	240	68	16,320	240,557
Playgrounds	Playgrounds	19	180	60	10,800	205,200

Ellicott City Planning Area

Needs

Date

Activity	Facility Type	2010		2020	
		Surplus/ (User Occurrences)	Deficit Facilities	Surplus/ (User Occurrences)	Deficit Facilities
Baseball / Softball	Diamonds	-46,780	-13	-59,115	-16
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	-163,596	-17	-191,312	-20
Basketball	Courts	77,794	11	67,413	9
Swimming	Pools	-304,758	-4	-331,656	-5
Tennis	Courts	-38,252	-16	-44,581	-19
Golf	Courses	-138,329	-2	-148,204	-2
Bike / Hike Trails	Miles	-298,512	-18	-336,997	-21
Playgrounds	Playgrounds	-106,479	-10	-128,730	-12

Activity	Facility Type	2030	
		Surplus/ (User Occurrences)	Deficit Facilities
Baseball / Softball	Diamonds	-70,087	-19
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	-215,966	-23
Basketball	Courts	58,180	8
Swimming	Pools	-355,581	-5
Tennis	Courts	-50,210	-21
Golf	Courses	-156,988	-2
Bike / Hike Trails	Miles	-371,228	-23
Playgrounds	Playgrounds	-148,522	-14

Rural West Planning Area

Demand

Activity	Participation Rates (Percent of Total Population)	Frequency Rates (Occurrences per User per Year)	Demand (User Occurrences Per Year)		
			Current: 2010 Population 40,753	2020 Population 45,494	2030 Population 49,844
Baseball / Softball	13.4%	19.64	107,252	119,729	131,177
Football/Soccer/Field Hockey/Lacrosse	28.2%	20.97	240,994	269,031	294,754
Basketball	11.3%	19.6	90,260	100,760	110,394
Swimming	49.6%	11.57	233,870	261,077	286,041
Tennis	10.3%	13.11	55,030	61,432	67,306
Golf	17.2%	12.25	85,867	95,856	105,021
Bike / Hike Trails	46.0%	17.85	334,623	373,551	409,269
Playgrounds	52.4%	9.06	193,472	215,980	236,631

Supply

Activity	Facility Type	Number of Sites	Season Length	Daily Supply Per Facility	Annual Supply Per Facility	Total Annual Supply
Baseball / Softball	Diamonds	36	90	40	3,600	129,600
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	26	180	52	9,360	243,360
Basketball	Courts	27	180	40	7,200	194,400
Swimming	Pools	0	90	800	72,000	0
Tennis	Courts	22	150	16	2,400	52,800
Golf	Courses	0	210	360	75,600	0
Bike / Hike Trails	Miles	27.99	240	68	16,320	456,797
Playgrounds	Playgrounds	16	180	60	10,800	172,800

Rural West Planning Area

Needs

Date

Activity	Facility Type	2010		2020	
		Surplus/ Deficit (User Occurrences)	Facilities	Surplus/ Deficit (User Occurrences)	Facilities
Baseball / Softball	Diamonds	22,348	6	9,871	3
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	2,366	0	-25,671	-3
Basketball	Courts	104,140	14	93,640	13
Swimming	Pools	-233,870	-3	-261,077	-4
Tennis	Courts	-2,230	-1	-8,632	-4
Golf	Courses	-85,867	-1	-95,856	-1
Bike / Hike Trails	Miles	122,174	7	83,246	5
Playgrounds	Playgrounds	-20,672	-2	-43,180	-4

Activity	Facility Type	2030	
		Surplus/ Deficit (User Occurrences)	Facilities
Baseball / Softball	Diamonds	-1,577	0
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	-51,394	-5
Basketball	Courts	84,006	12
Swimming	Pools	-286,041	-4
Tennis	Courts	-14,506	-6
Golf	Courses	-105,021	-1
Bike / Hike Trails	Miles	47,528	3
Playgrounds	Playgrounds	-63,831	-6

Southeast Planning Area

Demand

Activity	Participation Rates (Percent of Total Population)	Frequency Rates (Occurrences per User per Year)	Demand (User Occurrences Per Year)		
			Current: 2010 Population 41,063	2020 Population 50,128	2030 Population 56,172
Baseball / Softball	13.4%	19.64	108,068	131,925	147,831
Football/Soccer/Field Hockey/Lacrosse	28.2%	20.97	242,828	296,434	332,175
Basketball	11.3%	19.6	90,946	111,023	124,410
Swimming	49.6%	11.57	235,649	287,671	322,355
Tennis	10.3%	13.11	55,449	67,689	75,851
Golf	17.2%	12.25	86,520	105,620	118,354
Bike / Hike Trails	46.0%	17.85	337,168	411,601	461,228
Playgrounds	52.4%	9.06	194,944	237,980	266,673

Supply

Activity	Facility Type	Number of Sites	Season Length	Daily Supply Per Facility	Annual Supply Per Facility	Total Annual Supply
Baseball / Softball	Diamonds	27	90	40	3,600	97,200
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	8	180	52	9,360	74,880
Basketball	Courts	33	180	40	7,200	237,600
Swimming	Pools	0	90	800	72,000	0
Tennis	Courts	20	150	16	2,400	48,000
Golf	Courses	0	210	360	75,600	0
Bike / Hike Trails	Miles	15.05	240	68	16,320	245,616
Playgrounds	Playgrounds	16	180	60	10,800	172,800

Southeast Planning Area

Needs

Date

Activity	Facility Type	2010		2020	
		Surplus/ (User Occurrences)	Deficit Facilities	Surplus/ (User Occurrences)	Deficit Facilities
Baseball / Softball	Diamonds	-10,868	-3	-34,725	-10
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	-167,948	-18	-221,554	-24
Basketball	Courts	146,654	20	126,577	18
Swimming	Pools	-235,649	-3	-287,671	-4
Tennis	Courts	-7,449	-3	-19,689	-8
Golf	Courses	-86,520	-1	-105,620	-1
Bike / Hike Trails	Miles	-91,552	-6	-165,985	-10
Playgrounds	Playgrounds	-22,144	-2	-65,180	-6

Activity	Facility Type	2030	
		Surplus/ (User Occurrences)	Deficit Facilities
Baseball / Softball	Diamonds	-50,631	-14
Football/Soccer/Field Hockey/Lacrosse	Athletic Fields	-257,295	-27
Basketball	Courts	113,190	16
Swimming	Pools	-322,355	-4
Tennis	Courts	-27,851	-12
Golf	Courses	-118,354	-2
Bike / Hike Trails	Miles	-215,612	-13
Playgrounds	Playgrounds	-93,873	-9