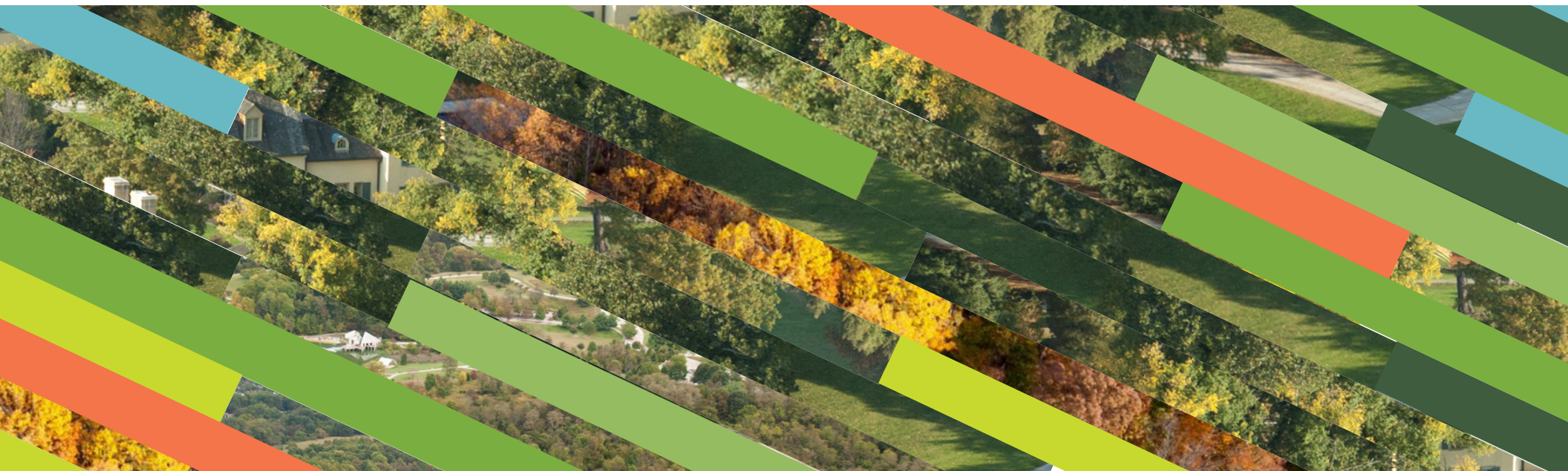




HOWARD COUNTY

Land Preservation, Parks and Recreation Plan
June 2017



LETTER *from the* COUNTY EXECUTIVE

May 15, 2017

Dear Fellow Howard County Residents:

I am pleased to present the 2017 Howard County Land Preservation, Parks and Recreation Plan (LPPRP).

Over the past 15 months the Howard county Recreation and Parks Department has been working with Sasaki Associates to analyze recreational trends, priorities, use patterns, land preservation, challenges and goals, in order to establish a meaningful plan for the future.

Additionally, an analysis of similar service providers was done so that a complete picture of all the options available to our residents could be included. This will insure the most efficient use of our funds so that unnecessary duplication of effort does not happen.

A detailed statistically valid survey was completed asking people what types of services, programs and park opportunities our residents need and want so that we can refine and target our service delivery.

Our County continues to grow and change demographically, plans like this one enable us to keep pace and stay current moving forward. Thank you for your interest and input and I trust that you will continue to provide insight and feedback as we move toward making Howard County an even better place to live, work and play.

Sincerely,



Allan H. Kittleman
Howard County Executive

LETTER *from the* DIRECTOR

May 15, 2017

Dear Howard County Residents,

I am excited to present the 2017 Howard County Recreation and Parks Land Preservation, Parks and Recreation Plan. To be eligible for Program Open space funding from Maryland Department of Natural Resources local jurisdictions prepare these Plans every 5 years. In the Spring of 2016 we partnered with Sasaki Associates to begin the process of creating a relevant plan that will map out the future for parkland acquisition and development and program service delivery to serve future generations of Howard County residents. Using existing information from Plan Howard 2030, The Howard County Bicycle/Pedestrian Plan; Columbia Association studies, Creating an Age-Friendly Community Report, national trend data, as well as using thorough public outreach and a comprehensive statistical survey we believe we have established a plan

that will complement the progression of growth and demographic changes occurring in Howard County. We have an engaged and diverse community who has expressed their priorities through this process, and this Plan will assist in setting budgetary goals and objectives so that we can deliver them. Thank you to everyone who participated in public forums, surveys or on-line testimony to provide us with the necessary input to create a plan that serves you.

Sincerely,



John R. Byrd
Director

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INTRODUCTION

The 2017 Howard County Land Preservation, Parks and Recreation Plan (LPPRP) is the result of a 16-month research, engagement, and planning effort that aims to provide Howard County residents and visitors greater access to programs and amenities, expand and preserve protected agricultural land, and enhance the long-term benefits of natural resources and open space – ensuring that the system will prosper for future generations.

Plan Summary

What is an LPPRP?

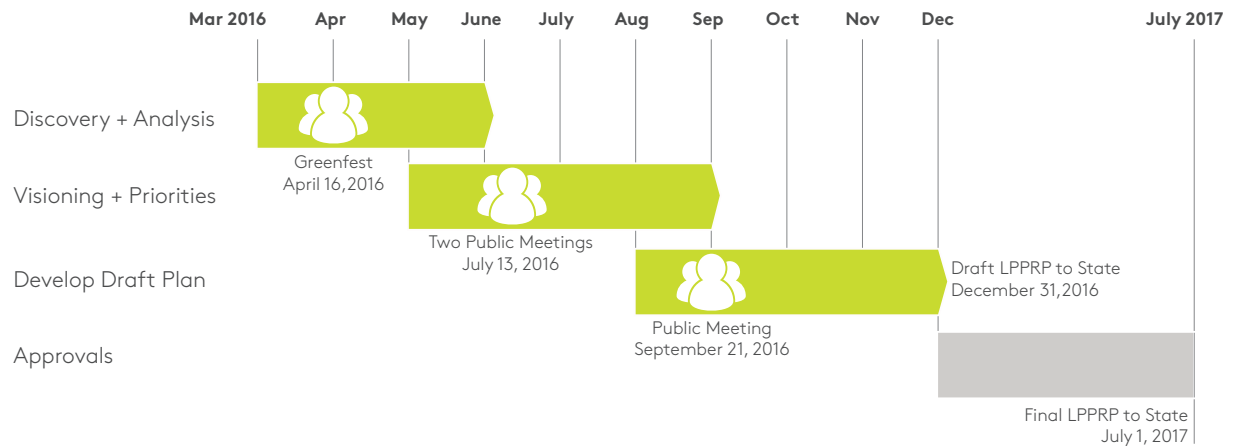
PROJECT TIMELINE

The 2017 Land Preservation, Parks, and Recreation Plan (LPPRP) for Howard County serves as a five-year comprehensive plan for the Department of Recreation and Parks (the Department). As Howard County grows and changes, the plan will guide the Department on key issues, trends, and plans for managing and enhancing the system of preserved public lands, parks, and recreation facilities. The planning process began in February 2016 and concluded in December 2016. The plan was approved by the county in XXXX and adopted by the State of Maryland in XXXX.

The Department led the process with guidance from the Recreation and Parks Advisory Board, input from local partners, and extensive community feedback. Beginning with a comprehensive inventory of park amenities, the process included an in-depth analysis of the county's recreation and park system. In concert with an analysis of the physical and programmatic amenities, the

existing framework of planning documents and current Department operations and policies provided a strong foundation. The Department conducted a statistically valid survey as part of the process to gauge user

satisfaction and desires for the future. The planning effort concluded with a visioning session with Department staff. The results of the visioning session form the final framework for the plan.



LPPRP Timeline



Centennial Park

The LPPRP is a 16-month process evaluated by the Maryland Department of Natural Resources. Funds are allocated for capital improvements and land acquisition for parks and open space.

COMMUNITY ENGAGEMENT PROCESS

To gather support and input for the plan, the Department led a diverse public outreach strategy as part of the LPPRP process. In order to engage the broadest range of constituents, outreach not only included traditional public meetings, but also community events; a statistically valid phone survey; staff, stakeholder, and similar provider interviews and focus groups; and several presentations to the Recreation and Parks Advisory Board.

Public Engagement Events

The LPPRP process included three public engagement events. In April, members of the Department staff and the consulting team attended GreenFest, an annual county festival focusing on sustainability, in order to generate project interest. More than 220 festival attendees completed a survey about their usage of parks and recreation offerings. In July, two public meetings took place at the Roger Carter Community Center and the North Laurel Community Center. Attendees at both locations submitted over 250 comments in the form of group discussions, activities, and one-on-one conversations. The third public engagement event took place in September at the Department headquarters. Approximately 30 community members attended this open-house-style

public meeting, which involved a presentation and small discussion groups around exhibit boards.

Statistically Valid Survey

In June 2016, the Department administered a phone survey to 800 households across the county to better understand user satisfaction and community needs. The statistically valid survey captured responses from 3 percent of the county population with a 95 percent confidence level. This high degree of confidence ensured that the survey captured a snapshot of the county's diverse population across geographic area, income, race, and age, among other factors.

Staff Interviews

The consulting team conducted two group interview sessions with employees who have direct contact with customers and leadership staff involved in managing programs and services. Staff shared insight on the Department's overall strengths and areas for improvement.

Focus Groups

The Department held six focus group sessions throughout the course of the LPPRP process, covering the topics of similar providers, seniors, land conservation, athletics and recreation, and youth concerns. These sessions included more than 20 local stakeholders.

Similar Provider Survey

As part of the LPPRP process, the Department sent an online survey to identify providers of similar services and received a total of 48 survey responses from 42 individual agencies.

Online Engagement

Throughout the duration of the LPPRP effort, the Department offered community members the opportunity to submit comments and suggestions through their website. The Department received a total of 195 online comments.

Advisory Board Presentations

The consulting team presented to the eight-member Recreation and Parks Advisory Board on two separate occasions to get feedback and general guidance on the analysis and visioning phases of the LPPRP.

All of the feedback received throughout the process played a significant role in helping to shape the direction and content of the plan. For further discussion of this process and associated feedback, please refer to *Appendix A, Community Engagement Process*.



July Public Events

A total of four public events were held in the county to solicit community input for the plan.



Historic Legacy

How did Howard County develop over time?

Created in 1851, Howard County has a rich history stemming from agricultural prosperity and later from industrial growth. These early periods helped to form the county's identity and physical development, and were followed by a focus on open space preservation and thoughtful and sustainable community development. This legacy has led to a high quality of life in the county today, and parks, open space, and recreation resources are central to this success.

AGRICULTURAL AND INDUSTRIAL HERITAGE

Howard County's agricultural legacy began in the late 1600s with the arrival of some of the first colonial settlers. The rich agricultural lands of the Patapsco Valley began to attract early settlers such as Charles Carroll, one of the original signers of the Declaration of Independence, to purchase large areas of farmland. The growth of farming throughout

the 1700s then led to some of the earliest industrial development in the nation.

In 1772, the Ellicott brothers arrived from Pennsylvania with a vision for the Patapsco Valley. They soon began to convert local farmers to planting wheat as opposed to tobacco, and to use fertilizer to revive the soil. In addition to advancing farming methods, the three brothers invested heavily in transportation infrastructure such as roads and bridges, while also introducing new industrial technology. The newly established road system allowed for better transportation of produce and improved overall agricultural commerce in the mid-Atlantic region, while technology like mechanization allowed for clearing of more farmland. Despite their contributions to agricultural practices and infrastructure, the Ellicott brothers are most often recognized for their development of Ellicott's Mills, which later became one of the most successful manufacturing towns on the east coast.

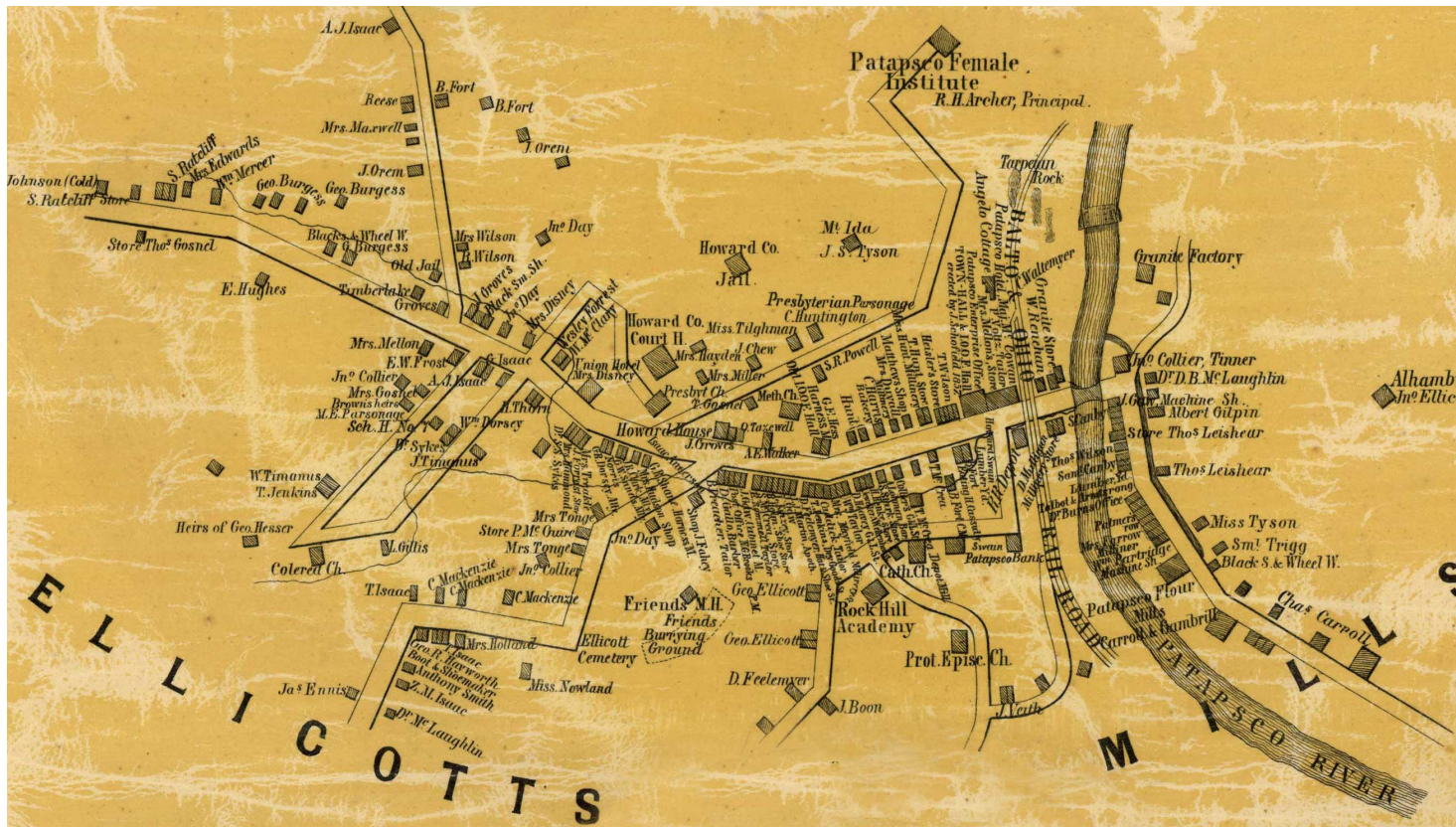
The growth of mills continued to spread to other parts of the county. Savage Mills, one of the most notable mills in the area known for textiles, opened in 1822 along the Little Patuxent River in the southern area of the county. Railroad development followed the surge in manufacturing. In 1830, the Baltimore and Ohio (B&O) line, the nation's first commercial railroad, connected Baltimore with Ellicott's Mills, where the first railroad terminal was built in 1831. As a result of this rail line, development began to expand further inland in Howard County.

The emerging industries in this area continued to grow through the Civil War, up until the Baltimore Flood of 1868. With the Patapsco River rising up to 21.5 feet, this destructive flood swept away homes, mills, and trees. Despite all of the flood damage, this prosperous period in history clearly defined the future identity, culture, and landscape of the county, while establishing the region as a hub of innovation.



Thomas Isaac Log Cabin
 (far left) The cabin is a key part of Howard County's local historic heritage.

Patapsco Female Institute
 (far right) A former girls' boarding school located on Church Road in Ellicott City.



Historic Ellicott City
 Originally known as Ellicott Mills, the Ellicott brothers founded the city on the banks of the Patapsco to support wheat milling.



Plan for the Valleys

(both images) Ian McHarg pioneered regional land planning with the Baltimore regional plan in 1964. The plan restricted development away from highly desirable open valley floors.

ECOLOGICAL STEWARDSHIP

Through the Second World War, Howard County would remain primarily rural. After the war, the nation's economic boom and investment in the highway system spurred suburban growth in areas like Howard County. Between 1940 and 1960, the county's population more than doubled, thus increasing development pressures. In response to the area's sprawling development, there was a growing awareness of the need to preserve ecological corridors throughout the region. In 1964, Ian McHarg, a prominent landscape architect, pioneered the concept of regional ecological planning with the

Plan for the Valleys. Focusing on several valleys in the Greater Baltimore area, this plan restricted development from the highly desirable open valley floors, which were viewed as regional amenities, and allowed only minimal development on the surrounding slopes. Development was reserved for the surrounding plateaus and intended to accommodate intensive growth.

Following the plan, McHarg continued to promote the importance of ecological planning with his publication of *Design with Nature* in 1969. This work identified the faults

with modern development and argued for the design of human environments in concert with existing environmental conditions. McHarg maintained that it was society's responsibility to preserve the region's natural heritage.

This ecological movement profoundly influenced the development of the Howard County region, as well as several aspects of modern planning such as brownfield restoration, environmental impact assessment, and the development of numerous state smart-growth initiatives.



Planned Communities

James Rouse reviews a diorama of the planned development known as Columbia.



Neighborhood Growth

Smart growth policies ensured appropriate and more dense development to create multi-generational communities with a variety of amenities.

COMMUNITY AND NEIGHBORHOOD FOCUS

These ideas of ecological stewardship and environmentally-conscious development soon gave way to new planned communities. In 1963, James Rouse, a commercial developer, purchased 14,000 acres in Howard County for the Columbia development. Planned and designed to be a model of sustainable land use practice, Columbia was developed with the following four goals:

- » To create a fully self-sustaining city, where residents both live and work
- » To respect the land
- » To produce the most accommodating environment for the growth of people
- » To make a profit

Columbia was to be the ideal city, offering places to live and work with a wide range of community amenities. The city was envisioned as a network of towns with nature interspersed throughout, as Rouse's intent was to make natural experiences a part of everyday life for all. He designed the model to foster both personal growth and a sense of community, while also generating a profit for the development company so that the model would be easily replicated. More than 50 years later, Columbia's success is quite apparent. Having reached the planned population of 100,000, the community has received national recognition as a model for sustainable land use planning and continues to grow and evolve into the 21st century.

The impact of Columbia's development model is also evident at the municipal and state policy level. The State of Maryland's Smart Growth and Neighborhood Conservation initiative is the prime example of legislative action advocating for the same core principles of the well-known planned community. Based on several earlier progressive land use measures at the state level, this 1997 initiative addressed the region's constant need to balance future growth and land conservation. The goals of the initiative were to "enhance the state's existing communities and other locally-designated growth areas, identify and protect the state's most valuable farmland and other natural resources, and save taxpayers from the cost of building new infrastructure to support poorly planned development." By selectively financing infrastructure development within designated priority funding areas, the state has been able to carry out this initiative. Efforts like the Smart Growth and Neighborhood Conservation initiative represent the importance this region has placed on promoting sustainable growth and the protection of natural resources, while still retaining local land use control.

Howard County Today

Where are we now and where are we headed?

QUALITY OF LIFE

Located in the Mid-Atlantic region strategically between Washington D.C. and Baltimore, Howard County is one of the most well-educated and affluent counties in the nation today. The county is frequently lauded for its high quality of life and has experienced significant and sustained population growth since the 1950s, with a 2013 population estimate of more than 300,000 people. Many are drawn to the county's well-performing school district, accessible open spaces, diverse recreational amenities, employment centers, historical heritage, and mixture of urban and rural communities. The county's dedication to sound planning for the public realm and natural systems to sustain this high quality of life amid the development pressures of a growing community is evident.

With no incorporated municipalities, Howard County is divided into five planning areas: Ellicott City, Columbia, Southeast, Elkridge

and the Rural West. While the majority of the population is concentrated in Ellicott City and Columbia, new development continues to expand elsewhere. Despite efforts to focus on infill development, the threat of sprawl on undeveloped areas remains present.

Currently, 25 percent of the county is farmland, with agriculture serving as one of the top five industries and generating approximately \$31,883,000 in market value of agricultural products sold in 2012 alone, according to the 2012 USDA Census of Agriculture. Since the 1970s, the amount of farmland throughout the county has decreased by more than 50 percent, while the population has more than tripled in size. This undeveloped land, whether for preservation or agricultural purposes, also contributes to the region's system of natural resources and the corresponding ecosystem services. It is crucial the county preserve these lands to

continue providing the appropriate ecosystem services and to maintain water quality, thus protecting the nearby Chesapeake Bay. The significant growth in population and development, together with active recreation needs, must continue to balance with the needs of preservation to ensure the county's natural resource amenities for future generations.



Planning Areas

The county is divided into five planning areas

 Planning Area



COMMUNITY HEALTH

Despite the wealth of community amenities, Howard County residents face significant health issues as a result of several social factors and elements of the physical environment. Approximately 6.5 percent of residents live near a highway and are negatively affected by the pollution as a result. A large number of residents also suffer from stress-related issues, perhaps stemming from professional demands, leading to a high rate of heart disease. Lack of overall time spent outdoors is another concern, primarily for teenagers. With their mounting academic and extracurricular demands, only 10 percent of US teenagers spend time outside on a daily basis, according to a new nationwide poll from The Nature Conservancy. These health concerns must stay at the forefront of county recreation and park planning, as they can be addressed through the physical, social, and mental benefits of the outdoors and active programming.

A CHANGING POPULATION

The county's population is growing in size, diversity, and age. With these key shifts today, a unique opportunity exists to improve, preserve, and align the future community with the parks and recreation resources that support it.

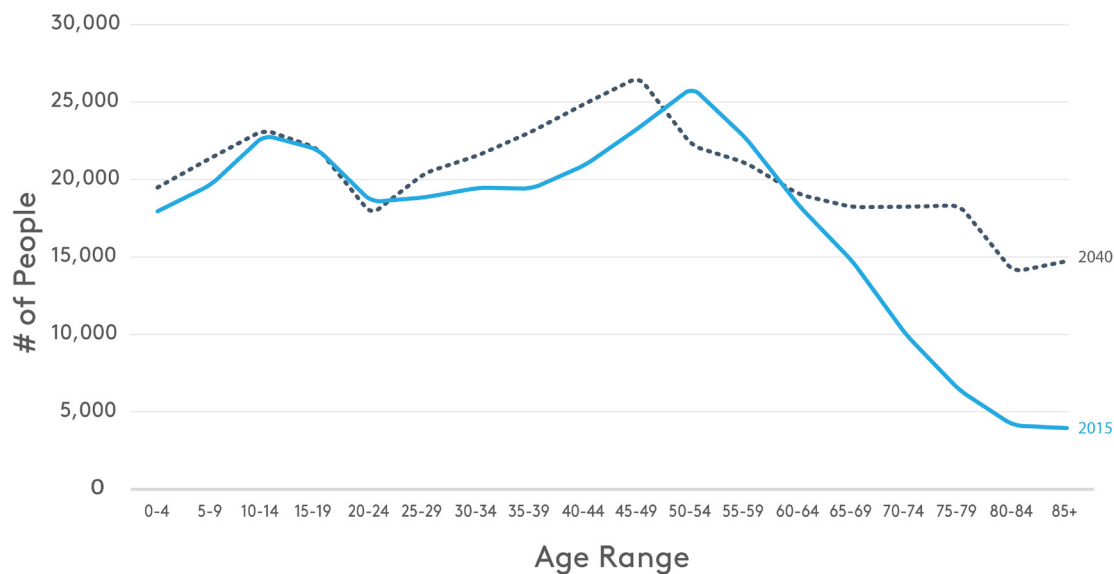
Projected Population Totals

Howard County is one of Maryland's fastest growing regions in terms of population. Although at a slower rate than previous decades, the county's population grew by 16 percent between 2000 and 2010 (an increase of approximately 39,000 residents). The population is projected to grow by 28 percent between 2010 and 2040, reaching over 366,000, as a result of both migration and a natural increase. This population growth will be coupled with a 38 percent growth in households during this same period. In response to these trends, the Department must closely monitor demand for amenities and programs as well as their accessibility, and preservation of natural resources.

Population Demographics

The non-white population will experience the most steady growth. In 2000, the non-Hispanic white population represented 73 percent of the county population with the

remaining 27 percent consisting of minority populations. By 2010, this non-Hispanic white population had decreased to 59 percent of the population while the minority population had increased to 41 percent of the total. Specifically, 59 percent of the county population was non-Hispanic white, 17 percent was non-Hispanic African American, 14 percent was non-Hispanic Asian, 6 percent was Hispanic, and approximately 3.5 percent was of another race or more than one race. In terms of minority population count, the non-Hispanic Asian population increased the most between 2000 and 2010 with a total of 22,000 new residents. The non-Hispanic Asian population was followed by an increase in 14,000 new non-Hispanic African American residents and 9,200 new Hispanic residents. However, the Hispanic population represents the largest growth rate since 2000 at 123 percent. At this rate of change, Howard County can anticipate becoming a majority-minority county sometime in the next five to ten years. An increasingly diverse population will require programming for a wide range of user types and a renewed focus on community outreach to ensure Department amenities and services reach all county residents.



Population Age Shifts

While the total US population grew by approximately 10 percent between 2000 and 2010, the group entering the 45 to 64 year age cohort increased by approximately 32 percent.

Age Distribution

One of the most distinctive trends in the county, and at the national level, is the rapid aging of the population as result of the Baby Boomer generation. While the total US population grew by approximately 10 percent between 2000 and 2010, the group entering the 45 to 64 year age cohort increased by approximately 32 percent. The 65 and older age cohort has also increased. Between 2000 and 2010, Howard County experienced an

increase in more than 10,000 residents age 65 or older (an approximately 57 percent increase). The growth of this age cohort is anticipated to significantly increase from 29,045 residents in 2010 to 83,565 residents in 2040. This would amount to an increase of 188 percent over the course of a 30-year timeframe. Clearly, the growth of the 65 or older age cohort will represent a greater share of the demand for recreation facilities and programs in the coming decades.

Past Planning Efforts

In addition to building off the efforts of the 2012 Land Preservation, Recreation, and Parks Plan (LPRP) update, the 2017 LPRP effort closely consulted the following previous county planning efforts:

PlanHoward 2030: Adopted in 2012, this comprehensive plan update similarly embraces the principles of smart growth, sustainability, and environmental stewardship.

Bike Howard 2015: This master plan emphasizes the importance of a connected bike network to promote sustainable transportation options and overall physical activity for all county residents.

Creating an Age-Friendly Community: Developed by the Department of Citizen Services, this report identifies best practices for aging communities and potential implications for future senior programs and services.

Existing System

What does the recreation and parks system look like?

Howard County boasts a comprehensive system of park and recreation facilities, natural resources, and preserved agricultural land.

RECREATION, PARKS, AND OPEN SPACE

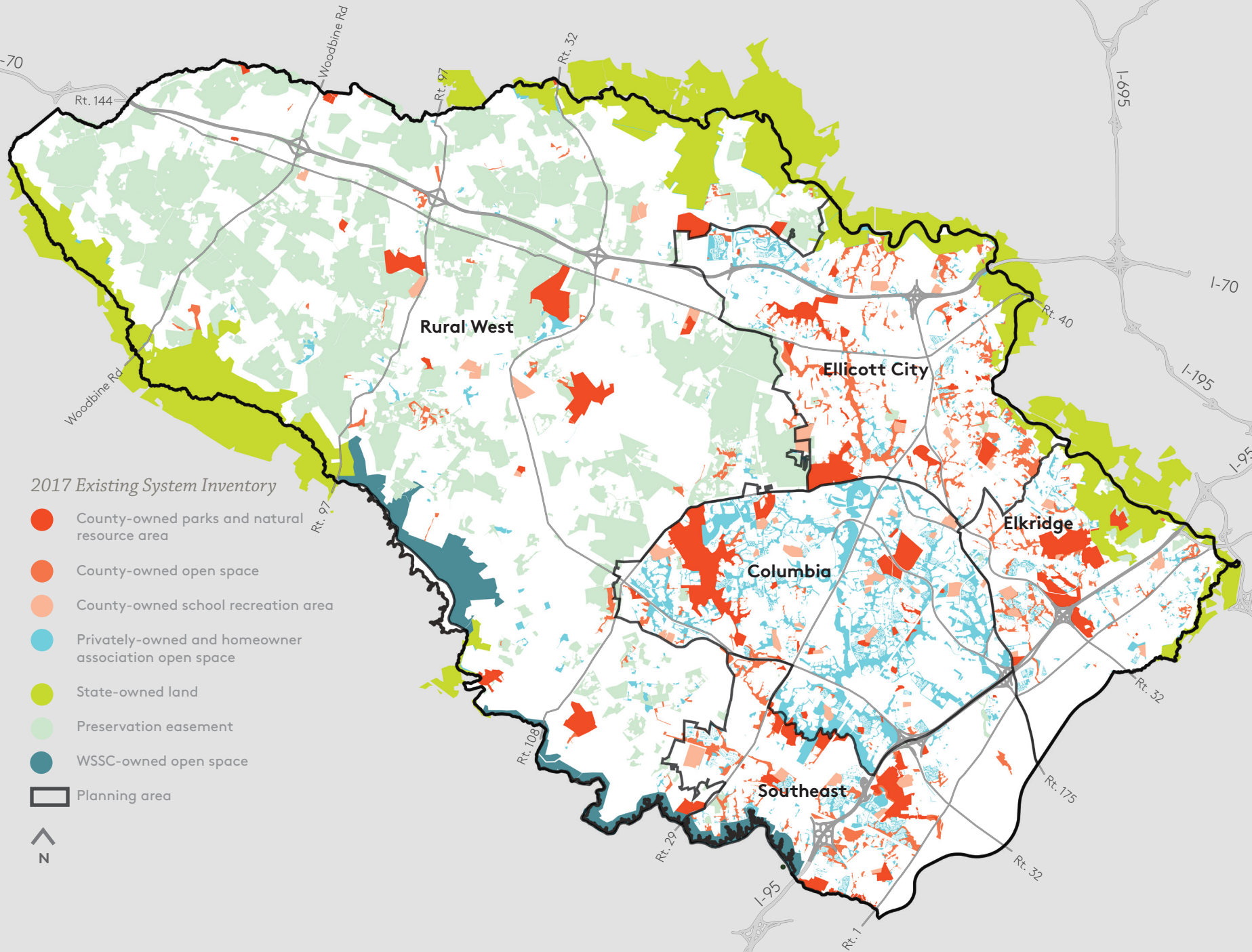
Howard County, the State of Maryland, and homeowner associations make up the majority of the county's open space structure.

- » County parks and facilities (community centers, athletic centers, nature centers, multipurpose rooms, and halls)
- » State lands
- » School-permitted program and activity spaces
- » Historic/cultural areas
- » Homeowner association lands
- » Other permanently preserved private open spaces

While the park and recreation system may consist of all of the elements previously listed, the county owns 9,378 acres of land, 5,750 acres of which is considered programmable park space and 3,628 acres of which is undeveloped open space. In addition to parks, this land also includes 25 historic sites and seven facilities for recreation or educational purposes. For more information about Howard County's recreation, parks, and open space, please refer to chapter three, *Maintaining Excellence and Driving Innovation* and a spatial breakdown by space type in *Appendix I, Community Inventory*.

2017 Existing System Inventory

- County-owned parks and natural resource area
- County-owned open space
- County-owned school recreation area
- Privately-owned and homeowner association open space
- State-owned land
- Preservation easement
- WSSC-owned open space
- ▭ Planning area



NATURAL RESOURCES

Defined by the Patapsco River to the north and the Patuxent River to the south, Howard County plays a significant role in the region's natural resource system. These two rivers serve as major tributaries to Maryland's most important and vulnerable resource, the Chesapeake Bay. Approximately three quarters of the county drains to the Patuxent River, while the remaining one quarter drains to the Patapsco River. Therefore, any activity within Howard County can impact the Chesapeake Bay.

The county's rich and diverse natural resource system consists of stream valleys, forested land, wetlands, farmland, wildlife habitats, mineral resources, and several other elements. Many of these open space lands are located adjacent to the Patuxent and Patapsco Rivers and are owned by the State of Maryland. The system generates valuable ecosystem services crucial to the sustainability and well-being of the county. The Department acknowledges the significant role of natural resources within the county and leads several programs and initiatives working to preserve the environment and its resources for future generations.

AGRICULTURAL LAND

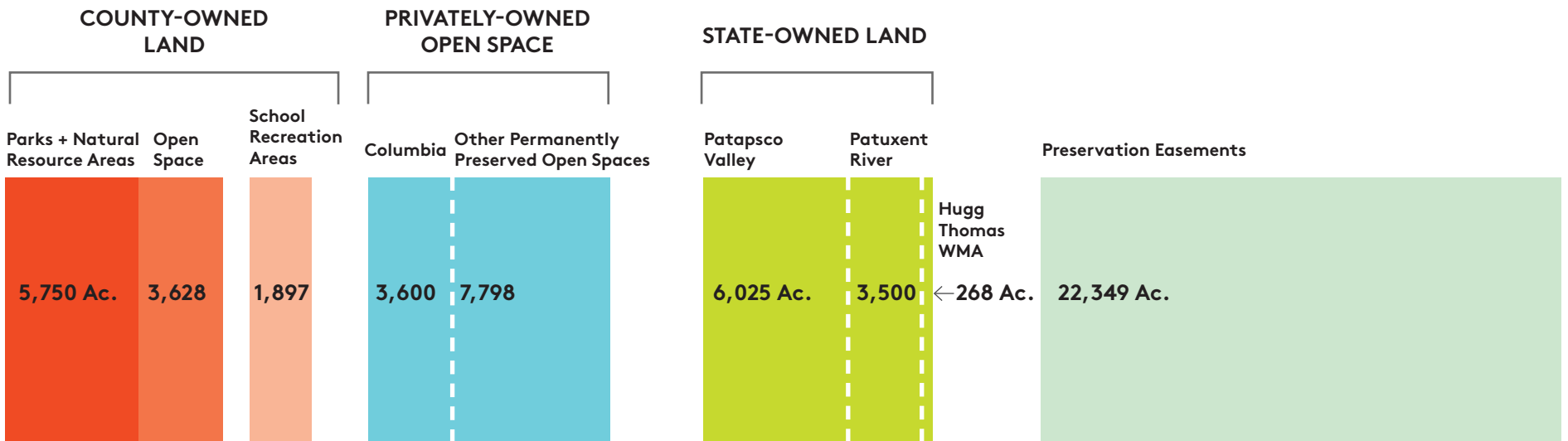
Tied to the county's history, farmland serves as one of the top industries within the county and represents 25 percent of all land. Similarly at the state level, agriculture serves as the single largest land use, representing 32 percent of all land (over 2 million acres). This industry employs approximately 350,000 individuals across the state, making it the largest commercial industry in Maryland.

Despite their contribution to the state's economy, 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 of which are important components of Howard County's natural environment. The Department's role in agricultural land preservation includes land ownership, educational programs, and agricultural easements with landowners. In recent years, the Department has made great strides in acquiring easements in the western portion of the county.

DEPARTMENT ROLE

The Howard County Department of Recreation and Parks is a highly-regarded department at the local, regional, and national level. The Department currently has approximately 940 employees in payroll. In fiscal year 2016, the Department had an average of approximately 225 full-time, 96 part-time benefited, and about 455 contingent employees, many of whom have advanced professional degrees such as CPRP, CTRS, CPSI, and sports administrator certifications. Between June 2015 and July 2016, 3,845 volunteers logged over 23,760 hours.

The Department has proved its leadership in the field of recreation and parks planning through numerous awards, high customer satisfaction, and other forms of recognition. It is clear to many that the Department's variety of high quality program and amenity offerings and its well-utilized park system contribute significantly to the county's high quality of life. The Department must continue to build on their success and continually evaluate the county's evolving needs for recreation and parks, natural and historic resources, and agriculture preservation.



2017 Existing System Inventory

According to the map on page 21 and the above bar graph, Howard County has 32,466 acres of publicly accessible land. This number includes county, state, and privately-owned, publicly accessible open space. Preservation easements contribute to sustained agriculture and forest conservation and account for approximately 22,349 acres. For a property by property breakdown of the space types identified above, refer to Appendix I - Community Inventory.

County Owned Lands

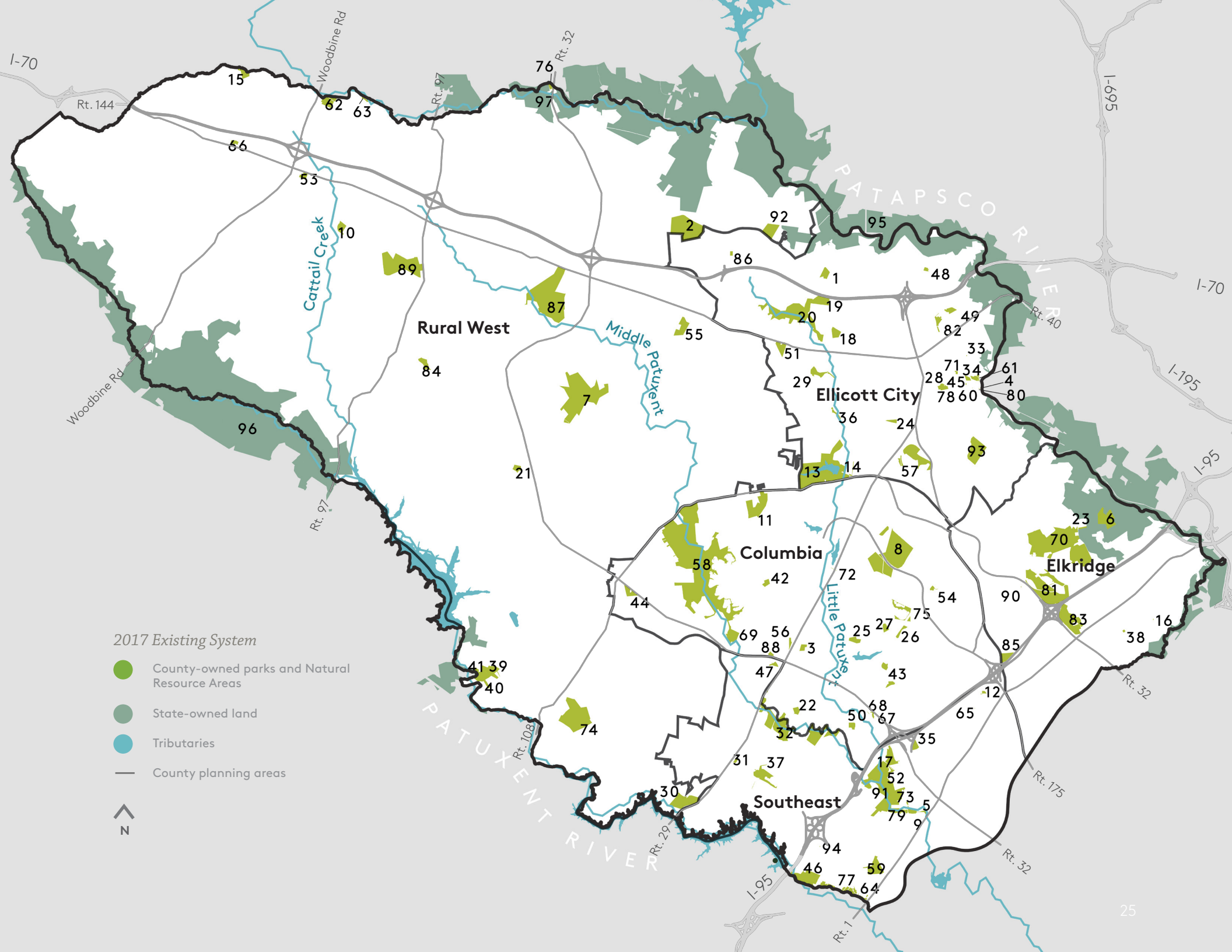
1	Allenford/North Farm Park	45	Heritage Orientation Center (Little Court House)*
2	Alpha Ridge Park		
3	Atholton Park	46	High Ridge Park
4	B & O Railroad Museum*	47	Holiday Hills Park
5	Baldwin Commons Park	48	Hollifield Station Park
6	Belmont Manor and Historic Park*	49	Howard County Center for the Arts/ Rockland Arts Center
7	Benson Branch Park		
8	Blandair Regional Park* (Historic Farm)	50	Huntington Park
9	Bollman Truss Bridge*	51	Kiwanis Wallas Hall and Park
10	Carrs Mill NRA	52	Lash Property
11	Cedar Lane Park	53	Lisbon Park
12	Cedar Villa Heights Park	54	Long Reach Garden Plots
13	Centennial Park	55	Manor Woods Park
14	Centennial Park Access Pathway	56	Martin Road Park
15	Chaconas Property	57	Meadowbrook Park
16	Col. Anderson Memorial* Lt. Col. Ephraim Anderson Grave Site	58	Middle Patuxent Environmental Area
17	Collins Property	59	North Laurel Park and Community Center
18	Cypressmede Park	60	Old Firehouse Museum*
19	David Force Community Park	61	Patapsco Female Institute Historic Institute*
20	David Force Stream Valley NRA	62	Patapsco Greenway (Houchens)
21	Dayton Park	63	Patapsco Greenway (Lewis)
22	Dickinson Park	64	Patuxent Basin NRA
23	Drell Property	65	Pleasant Chase Playground
24	Dunloggin Park	66	Poplar Springs Park*
25	East Columbia Library Park	67	Pratt Truss Bridge Historic Site*
26	Elkhorn Garden Plots	68	Pratt Truss Bridge/Murray Hill Stream Valley
27	Elkhorn Park	69	Robinson Nature Center Simpsonville Mill Ruins
28	Ellicott City Colored School House, Restored* Ryan Property Historic Well*	70	Rockburn Branch Park Clover Hill Farm House* Doyle Spring House* McKenzie Barn* Pfeiffer's Corner Schoolhouse*
29	Font Hill Park		
30	South Fulton Area Park		
31	Ganon-Bahl Property		
32	Gorman Stream Valley Park NRA	71	Roger Carter Community Center
33	Governors Run Playground	72	Rt. 29 Pedestrian Bridge
34	Granite Mansion (Heine Property)*	73	Savage Park
35	Guilford Park	74	Schooley Mill Park* James Marlow House
36	Gwynn Acres NRA		
37	Hammond Park	75	Sewells Orchard Park
38	Harwood Park	76	South Branch Park James Sykes House*
39	Haviland Mill Park (Masback Property)		
40	Haviland Mill Park (Salas Property)	77	Teeter Property
41	Haviland Mill Park (Zirn/Collins Property)	78	Thomas Isaac Log Cabin*
42	Hawthorn Park	79	Thompson Property
43	Headquarters	80	Tiber Park
44	Heritage Heights Park/Clarks Glen Playground	81	Timbers At Troy Golf Course

82	Town and Country Park
83	Troy Park (Troy Park at Elkridge) Troy House*
84	Warfields Pond Park
85	Waterloo Park
86	Waverly Mansion*
87	West Friendship Park Hebb House*
88	West Side Garden Plots
89	Western Regional Park
90	Willowood Playground
91	Wincopin Trails/Murray Hillstream Valley
92	Woodstock Park
93	Worthington Dog Park
94	Wyndermere Playground

State Owned Lands

95	Patapsco Valley State Park
96	Patuxent River State Park
97	Hugg Thomas Wildlife Management Area

*Heritage Program Historic Site



2017 Existing System

- County-owned parks and Natural Resource Areas
- State-owned land
- Tributaries
- County planning areas



One HOWARD



One Howard: Vision

The vision for Howard County's recreation and parks system is predicated on the achievements of the system in providing the best programs and services for the community which allow the county to focus on creating a vibrant future.

Recreation and parks, natural resources, and agriculture are integral to the county's history and legacy, recent successes within the system, and future opportunities for innovation and growth. The vision is a holistic approach to achieving these goals; it maintains the dense, neighborhood features of the eastern communities and seeks to preserve undeveloped lands in the west, but encourages synergies between the urban and rural to create One Howard.

With more than 58 total facilities including offices, maintenance facilities, and historic buildings, and 92 parks in the system, the LPPRP celebrates unique places to interact with the natural environment, recreation programs, the county's rich historic legacy, and farming. Fostering many of the goals and objectives developed by PlanHoward 2030, the most recent county general plan, the LPPRP imagines a sustainable system that celebrates the diverse needs of a growing and evolving community.

GUIDING PRINCIPLES

The LPPRP identifies three guiding principles which incorporate both County and State goals and underline recommendations for future potential capital improvements that align with those goals. Per state guidelines, the three guiding principles

also respond to the three themes of the LPPRP; parks and recreation, natural resource conservation and agricultural land preservation. These principles are as follows:

- » Maintaining excellence and driving innovation to enhance placemaking and strive for equity in existing and future recreation and parks amenities and programs
- » Enhancing the health, wellness, and resilience of natural and human systems and cultural heritage to promote resilience and environmental health along ecological and riparian corridors
- » Serving as land stewards to facilitate enhanced connections between agricultural and historic heritage, natural systems, and the Howard County community

The three National Recreation and Parks Association (NRPA) pillars — social equity, health and wellness, and conservation — are woven throughout these themes. The pillars expressly benefit the programs, classes, camps, and services provided by the Department to residents and visitors.

Within the LPPRP, the three principles are presented as individual chapters that identify state and county goals that are both aspirational and forward thinking. Those goals are supported by six recommendations that are grounded in both opportunities for the county system and individual sites; recreation, ecology, placemaking, connectivity, education, and communication are woven throughout the remainder of the LPPRP.



RECREATION



ECOLOGY



PLACEMAKING



CONNECTIVITY



EDUCATION



COMMUNICATION



MAINTAINING EXCELLENCE & DRIVING INNOVATION

Existing Conditions

What does the Recreation and Parks system look like?

The Howard County Department of Recreation and Parks is recognized for their high quality parks and open spaces and diverse recreation amenities that attract both residents and visitors. The Department strives to constantly align programs and services with community need, while also adapting the system to future trends. In addition to this challenging balance, the Department is committed to driving innovation internally and within the greater industry of recreation and parks.

COUNTY RECREATION AND PARKS SYSTEM

Howard County's robust recreation and park system includes the following elements described in greater detail below:

- » County lands and facilities
- » State lands
- » School-allocated activity and program spaces
- » Homeowner association lands
- » Other permanently preserved private open spaces

County-owned Lands and Facilities

Parks

Ranging in scale and amenities, the Department maintains a diversity of parks. While the Department owns over 9,378 acres,

only 5,750 acres are programmed open spaces and parks. Park sizes and uses range from large multi-purpose parks intended for use by the entire county population, to smaller neighborhood parks that serve a more localized need. Several parks within the system are very popular among both county residents and visitors, such as Centennial Park, Rockburn Branch Park, and Cedar Lane Park and serve as memorable icons for the system. Although unique in their own ways, these signature parks share similar engaging qualities and amenities that attract a wide range of user groups. Some of these qualities and amenities include the following:

- » A wide variety of amenities that cater to all ages and abilities
- » An approachable way to access nature
- » Presence/amplification of a natural resource
- » Communal gathering space
- » Opportunities for social engagement and exercise

Natural Resource Areas

Natural resource areas represent a significant portion of the county's park and recreation system. These publicly accessible, protected areas allow for limited development and are managed to enhance the resource and related habitats. Of the Department's programmable park and open space, 1,887 acres (25 percent) are considered natural resource areas.

For more detailed information on the county's natural resource system, please refer to chapter four, *Enhancing Health and Resilience of Human and Natural Systems*.

County Open Spaces

As Howard County maintains an open space requirement for new residential development, about 1,035 open space parcels throughout the county are under the purview of the Department. While many of these parcels are too small to generate any recreational value, an effort exists to ensure future dedicated parcels strategically link open space corridors and tie into the overall park and open space system.



Parks
(above) Meadowbrook Park hosts many activities throughout the day.

Natural Resource Areas
(left) Hikers walking along the Patapsco River tributary.

Historic/Cultural Areas

With a rich historical legacy, Howard County has many well-preserved heritage sites, some of which are owned and maintained by the Department. The Department owns and operates a total of 25 historic sites, all of which are either stand-alone sites or structures located within county-owned parks. For a more detailed discussion of the county's historic sites and the heritage program, please refer to Chapter__ Enhancing Health and Resilience of Human and Natural Systems.

Recreation Facilities

The Department also owns and operates the following recreation and education facilities:

- » Gary J. Arthur Community Center
- » Kiwanis Wallas Hall
- » Meadowbrook Athletic Complex
- » North Laurel Community Center
- » Robinson Nature Center
- » Roger Carter Community Center
- » Belmont Manor and Historic Park

Department-owned facilities operated by an outside party include the following:

- » Waverly Mansion
- » Timbers at Troy Golf Course



Belmont Manor & Historic Park

After reopening in 2015, this property has served as a venue for both public and private events.



Roger Carter Community Center

This community center offers a range of amenities including a pool, indoor track, and climbing wall.

The three community centers — Gary J. Arthur, North Laurel, and Roger Carter — are dispersed across the county and offer a wide range of amenities and programs.

The Gary J. Arthur Community Center is located in the Rural West within Western Regional Park and is shared by the Department of Recreation and Parks, the Department of Community Resources and Services, and the Health Department. The facility includes a double gymnasium, fitness room, commercial kitchen, and flexible space for classrooms. The center also hosts several community events for all ages such as the signature Holiday Mart held annually in December, as well as the Fall Flea Market and Spring Egg Hunt.

The North Laurel Community Center is located in the southeastern region of the county and within North Laurel Park. This facility is also shared by several departments including the Department of Recreation and Parks, the Health Department, the Police Department, and the Department of Community Resources and Services, and offers similar amenities to those at the Gary J. Arthur Community Center.

Roger Carter Community Center is the county's third and most recently constructed center. Located in Ellicott City, this facility serves the northern communities with several unique recreation amenities including an indoor/outdoor swimming pool, splash

pad, single gym, and indoor climbing wall. Its location was planned to be adjacent previously developed multi-family housing development, supporting easy access to the recreation resource.

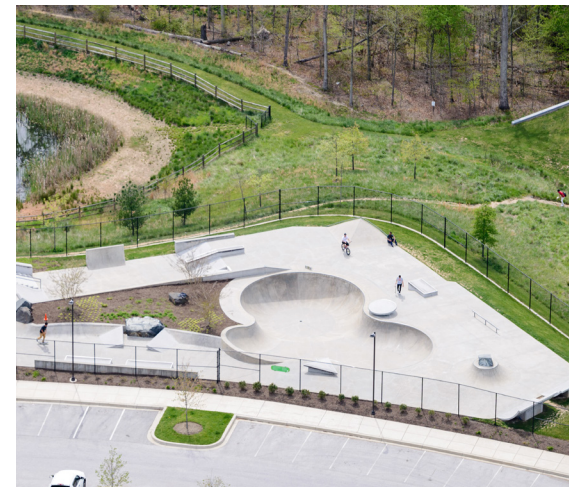
In addition to the community centers, the Department also owns and operates the Meadowbrook Athletic Complex. This large, unobstructed gymnasium space serves as a recreation destination for the entire county with space for indoor basketball, volleyball, field hockey, badminton, and others. The large space can house four basketball courts or up to six volleyball courts.

The Department's Robinson Nature Center, located adjacent to the Middle Patuxent Environmental Area, serves as an amenity for both county residents and visitors. Since opening in 2011, the center has offered a unique nature education experience for all ages. The center aims to facilitate the enjoyment and understanding of natural resources through interactive exhibits, outdoor trails, and nature-focused programming. The facility is LEED Platinum certified and incorporates water management best practices including pervious surfaces, native landscaping, rain water collection, and roof gardens.

Lastly, the Department owns and operates Timbers at Troy, the only county-owned public golf course, located in the eastern portion of county. In addition to its beautiful landscape,

Timbers at Troy has made considerable efforts in the form of environmental stewardship by striving toward best management practices in environmental planning, wildlife and habitat management, chemical use reduction and safety, water management, and education.

For the comprehensive community inventory of all parks and recreation facilities located within Howard County, please refer to *Appendix I, Community Inventory*.



North Laurel Park & Community Center

Located between the community center and the Laurel Woods Elementary School, the new skate park attracts a wide range of users.

State Lands

Within Howard County, two state parks and one wildlife management area are managed by the Maryland Department of Natural Resources: the Patapsco Valley State Park, the Patuxent River State Park, and the Hugg Thomas Wildlife Management Area. Together these three state-owned public open spaces represent 9,793 acres within the county. While the two parks offer primarily outdoor recreation activities such as fishing, hiking, and mountain biking, the wildlife management area features hiking trails, hunting grounds, and preserved wildlife habitat.

School Recreation Areas

Howard County has 73 public school sites reaching a total of 1,874 acres. Almost all school sites are administered by the Howard County Public School System (HCPSS), with the exception of Howard County Community College which is administered by Howard County and the Maryland School for the Deaf which is administered by the State of Maryland. Rockburn Elementary School and Dayton Oaks Elementary School represent a unique relationship with HCPSS, as outdoor spaces surrounding those schools are owned by the Department. The Department provides programming on many of these sites, from indoor facilities to artificial turf fields, and has jointly developed some of the facilities with

the HCPSS. The Department of Recreation and Parks and the HCPSS both have high demands for program uses of these shared facilities.

Homeowner Association Land

Homeowner associations have permanently preserved 1,205 acres within Howard County. These lands range in size and configuration depending on their associated residential subdivision.

Other Permanently Preserved Private Open Spaces

Together, the Columbia Association (CA) and the Washington Suburban Sanitary Commission (WSSC) own a total of 6,450 acres of preserved private open space within Howard County. Within each of the 10 planned villages of Columbia, a certain amount of land has been reserved for permanent open space, which includes both undeveloped land and recreation facilities. The WSSC owns undeveloped open space along the Patuxent River between I-95 and the Triadelphia Reservoir region.

RECREATIONAL PROGRAMS

Howard County is an active and well-educated community with robust recreation program offerings for all ages and abilities. The Recreation Bureau includes the following three divisions that are involved in recreation programming:

Recreation Services is composed of recreation programs and services that relate to arts, crafts, dance, special events of all sizes, and children and adult leisure classes, camps, and programs. Moreover, recreation services oversee volunteer, preschool, and community center management.

Sports and Adventure Services promote active lifestyles through instructional programs and community partnerships. It offers programs such as sports instruction and leagues, hikes, astronomy, camping and campfires, fishing, kayaking and canoeing, skiing and tubing, boating classes, nature programs, and rock climbing.

Recreational Licensed Childcare and Community Services Division provides programs for youth from ages two and a half through middle school, offering a wide variety of child care programs, from campus to therapeutic recreation, all licensed through the Maryland State Department of Education Office of Child Care.

Of the 10,340+ programs currently provided annually, several core programs are generally offered every year and form the foundation of program offerings. The following 10 program areas capture all core programs:

For more detailed information about the strengths and weaknesses of the recreation programs and opportunities for future program direction, please refer to *Appendix H, Recreation Program Assessment*.

1	Volunteerism and Service Opportunities	Serving on boards, participating in service learning, or serving as coaches, docents and program volunteers
2	Special Events and Social Recreation	Including parties, dances, large and small special events
3	Music and Dance	Through performance, instruction, and attendance of all types of music/dance
4	Sports, Fitness and Games, Health and Wellness	Through competitions, in leagues, individually, and in team sports, from martial arts to fitness classes and room use
5	Visual Arts and Arts and Crafts	-
6	Outdoor Recreation, Adventure, Nature, and Environmental Activities	Including camping, nature crafts and activities, environmental education, teambuilding courses, boating, rock climbing and skateboarding
7	Drama	Experienced through film viewings, puppet shows, reenactments, and drama clubs
8	Self-Improvement, Hobbies and Leisure Education	Including stress management, how-to classes, collecting, and gardening tutorials
9	Cognitive, Literary, STEM and Computer gaming	Through game creative writing, book clubs, museum visits, and computerized game programs
10	Trips and Tours, local Tourism and Sport, Eco, Heritage and Tourism	Via day trips, field trips, adventure tourism and sports tourism activities, ghost tours, and heritage programs

ACCOMPLISHMENTS SINCE PREVIOUS PLAN

Since 2012, the Department has received attention for several notable accomplishments ranging from new park designs to popular community events. Several of these accomplishments, which support the goals of Maintaining Excellence and Driving Innovation and Enhancing Health and Resilience of Human and Natural Systems are outlined below, and serve as models for future investments and programming.

Facilities

Belmont Manor and Historic Park: Since purchasing the historic property in 2012, the Department has restored the manor, which opened in April 2015 and now serves as a popular rental space for a variety of events. This year, the Belmont Manor and Historic Park hosted 48 events and 12 programs, from movie events to croquet tournaments and badminton games. The site occupies 68 acres of rolling hills which include a cottage house, carriage house, barn, caretaker house, pond, trails, cemetery, and large gardens. The restoration and current management of the site serve as a model of historic reuse.

North Laurel Community Center: Shared by the Department of Recreation and Parks, the Health Department, and the Police Department in addition to the Office on Aging, the North Laurel Community Center serves the southeastern portion of the county. Over the year, the center has also partnered with the HCPSS and Community Action Council to host events such as the back to school clothing drive, as well as hosting its own events and programs throughout the year. The North Laurel Community Center celebrated its 4th year in 2015.

Robinson Nature Center: The nature education facility on 18 acres of land is adjacent to the Middle Patuxent Environmental Area. As one of three LEED Platinum certified buildings in Maryland, the center has geothermal heating and air-conditioning, porous paving, solar panels, water conservation methods, and other eco-friendly features. This year, the Robinson staff led 426 programs, engaging nearly 17,000 participants. To promote environmental stewardship, the center worked with the National Aquarium, hosted events, collaborated with scientists, engineers, and educators from local astronomy organizations, and facilitated field trips. The center constructed an outdoor nature place for exploration and discovery, opened in September 2015.

Roger Carter Community Center: This state-of-the-art community center opened in 2013 in Ellicott City in tandem with the development of the mixed-income community Burgess Mill Station. The center has swimming and diving pools, basketball and volleyball courts, classrooms, fitness and exercise rooms, and a climbing wall. The past year's successful events ranged from dance parties to a Martin Luther King Jr. Day celebration, from a pool egg hunt to an Earth Day celebration, and even a feature on ABC2's Spotlight on Women program.

Department of Recreation and Parks Headquarters: The recently renovated lobby at the Department of Recreation and Parks headquarters has made the space more inviting to community members and better secured for staff members. In addition to the building, the Department's marketing staff has placed greater emphasis on using social media platforms to promote Howard County's programs. Facebook, Twitter, and Flickr were the most frequently visited online platforms, likely contributing to the increased registration numbers seen this year.

Schooley Mill Park: The Department recently renovated Schooley Mill Park which included the development of a cricket pitch and field.

Robinson Nature Center
The center provides indoor and outdoor educational experiences for all ages and abilities.



Parks

In total, Howard County has nearly 5,750 acres of programmed park land. Recent accomplishments include infrastructural additions and stormwater management tactics. A few examples are described in detail below:

Atholton Park: A new playground and swing area was installed to replace old equipment. The pathway was renovated and new concrete has been laid for the restroom courtyard area. A new playground was erected at Cedar Villa Heights Park, with repaired accompanying pathways.

South Branch Park: The first phase of the park has opened, including two age-specific playgrounds, a picnic pavilion, a skate park and an ADA-compliant parking lot with path.

Troy Park: The first phase of the park at Elkridge has opened, unveiling the two lighted synthetic multipurpose fields and bleachers, parking areas with bio-retention islands, and a children's playground. The second phase is currently under construction and will be completed in September, 2017. When all work is completed, Troy Park will include several multipurpose fields for large events, play space, a community center, an indoor athletic complex, and a renovated historic Troy Mansion.

Blandair Park: With the first phase completed, Blandair Park is on its way to becoming a world-class regional park with spaces and amenities for all. The six phases of the park plan will cover a total of 300 acres, crossing both sides of the heavily trafficked Route 175, and include a mixture of both active and passive recreation spaces, including multipurpose fields, an athletic complex, environmental education area, and festival lawn. The second phase of Blandair Park is currently underway.

Haviland Mill Park: The Department acquired 80 acres at this site for future park development. In addition, a small parking lot was constructed to enable water access for fisherman.

South Fulton Park: The Department also acquired approximately 80 acres at this site for the future development of a community park.

West Friendship Park: Through a new partnership with the Living Farm Heritage Museum, the Department developed an interpretive center on the county's agricultural history at West Friendship Park.

Western Regional Park: Since 2012, the Department has constructed multiple restrooms, a storage facility, five picnic pavilions and additional parking at this popular destination park.



Atholton Park
A new playground and swing area were recently installed at this popular park.

Natural Resource Protection

The Department hosts a number of programs that help protect the region's natural resources. These include the Stream Releaf Program, the Emerald Ash Borer Project, the Parkland, Open Space and Natural Resources Regulation Enforcement, Agricultural Leased Lands, Frogwatch USA, the Weed Warriors, Howard County GreenFest, and Trout Stocking. Additionally, the Middle Patuxent Environmental Area (MPEA), Howard County's largest park, was assessed to update the Trail Management Plan with mapping and descriptions of trail improvement and maintenance projects.

Horticulture and Land Management

In conjunction with the natural resource protection projects, horticultural and land management has occurred throughout Howard County. Staff and volunteers scheduled turf areas for soil percolation, five sites have had debris removed, nine sites have had turf repaired via seeding, stumps have been removed, sink holes were repaired, invasive species were removed, water pipe leaks were fixed, streams were cleaned up and rain gardens were planted.



Blandair Park

The second phase of this planned 300-acre park is currently underway.

Heritage Sites

This year, the 25 heritage sites managed by the Department successfully hosted a variety of educational programs, special events, and museum and park tours for all ages. The Santa at the Thomas Isaac Log Cabin and the Historic Ships in Baltimore traveling exhibit were particularly popular, and the Heritage Orientation Center was recognized by the National Park Service's

Network to Freedom trail for the period 1840-1842. The Shakespeare in the Ruins ran a successful 10 weeks for 3500 patrons, while summer internship projects produced exhibition materials for the Firehouse Museum and Patapsco Female Institute. The Department also made the following physical improvements and developed design plans for several heritage sites:

Patapsco Female Institute: The Department began initial design development for site enhancements, which will include added amenities such as restrooms, lighting, and interpretive signage, among others.

McKenzie Barn: Since 2012, the Department finalized design and completed restoration of the historic farm house located in Rockburn Branch Park.

Belmont Manor: In 2015, the Department successfully restored Belmont Manor and reopened it for both public and private events.

Recreation Programs

The 2014/2015 recreational season was extremely successful, with increases in programs, enrollment, participation, and revenue. Starting in summer 2015, kids programs ranged from a robotic programming camp to stand-up-comedy to bike maintenance. The fall and winter seasons saw continued success, particularly since the latter added longer and expanded programs, contributing to an 11 percent increase in adult participants.

Sports and Adventure Services: The division offered instructional programs and community partnerships, organizing hikes, astronomy programs, camping, boating, rock climbing, and other extensive outdoor activity opportunities.

Cricket: In response to the county's increasingly diverse population, the Department added cricket to their list of program offerings. The program has been very successful and as a result, and is offered through camps and leagues for both youth and adults between the spring and fall.

Wrestling: Howard County's first tournament and final travel tournament was hosted at the Gary J. Arthur Community Center.

Therapeutic Recreation and Recreation Inclusion: This program area offers a sustaining and wide range of recreational and leisure opportunities for individuals with disabilities. Some of these opportunities include fitness, creative arts, community outings, and summer camp programs. The Department has been recognized for its diverse offerings in this field and in December 2015 received the Learning Resources Network Best Programming Award for its Sensory-Friendly Nature Explorers Mini-camp, which was created to help youth with sensory issues.

In addition to providing specific opportunities for those with disabilities, the Department strives to make all programs available to individuals with disabilities by providing several forms of support. Inclusion services encompasses financial assistance, accessibility, companions, additional training, medical services, and interpretive services for the deaf or hearing impaired.

Home School Programs: The Department began offering home school programs for early childhood aged residents this past fall, to a variety of student ages, in response to the successful home-school programs offered at the Robinson Nature Center.

Special Programs: The Department provides licensed child care for over 3000 children a year, from preschool through to middle school. The Judy Center at Cradlerock Elementary School named the Department an Outstanding Partner in May 2015. Additionally, the Department hosts Prism programs for adults with Alzheimer's as well as a service program through Coach's Registry of Sports Volunteers.

Special Events

Kids' Fest: Hosted at the Meadowbrook Athletic Complex, Kids' Fest is geared towards children ages 2 through 12 and their families. The second annual festival saw a 100 percent increase in total attendance from the previous year, and has been a successful addition to the county's special events since it was added in 2012. The Department hosted its third annual Kids' Fest in March 2016.

The Department has also expanded special events programming focused around heritage programs and historic sites, including Crafts with a Past at the Thomas Isaac Log Cabin and the Rockburn Open Car Show complete with flea market and car sale. Special events



Cricket

In response to diversifying recreation needs, the Department has actively introduced new programs and fields including cricket.



Ellicott City Colored School, Restored

(left) The Department is a steward of Heritage sites like this one in Ellicott City and the unique history of the county.



Butterfly Gala

(right) This annual event draws residents with disabilities and their families from all over the county to participate.

such as the Butterfly Gala, for children and adults with special needs, and Camp Day, which serves hundreds of kids, were extremely popular. Some of the Department's most recent major gathering events represent the diversity of the events roster. These include the 4th of July annual Festival and Fireworks at Lake Kittamaquidi, the National Night Out neighborhood party organized by the Department of Recreation and Parks together with the Police and Fire Departments, the Holiday Mart with over 100 artisans, and Wine in the Woods, a two-day event that most recently greeted over 20,000 attendees.

RECREATION AND PARK BENEFITS

The numerous benefits of recreation and parks have been well-documented by research institutions, municipalities, industry leaders, and the like. Today, more data is available on how park systems perform and impact their surrounding communities, therefore strengthening the case for greater investment from nontraditional sources and encouraging innovative partnerships. While the impact of recreation and park systems spans many fields, research has primarily focused on the associated environmental, economic, and public health benefits.

Environmental Benefits

As part of the greater ecological system, parks can play a significant role in promoting biodiversity and mitigating the negative impacts of climate, air, and water pollution. Parks serve as areas that can encourage biodiversity — a crucial element to the overall health, sustainability, and resilience of our ecosystems. With their vegetation and tree canopy, parks also help lower average temperatures that are rising due to heat island effect. Trees remove pollutants from the air, serving as a form of filter, while open spaces absorb and clean stormwater runoff from impervious surfaces before reaching nearby water bodies.

Economic Benefits

A strong recreation and park system is an investment that generates numerous economic benefits. Studies have shown that parks have the ability to increase property value, catalyze development, and promote tourism, while also serving as direct revenue generators themselves. The power of Howard County's parks is cited in many rankings about the county's high quality of life.

Property Value: Great parks can raise neighboring property values by an estimated 15 percent, increasing city property tax revenue.

New Development: Parks can increase new private development. Specifically, trail connections can encourage new development by providing a strong framework for private investment across a trail region.

Tourism: Both parks and recreation facilities can serve as destinations for visitors. Tourism can increase revenue through specific facility or park fees and services, and through indirect retail spending.

Direct Use: Parks can generate revenue directly through several methods, including lease payments from concessions and amusements, venue rentals, and parking and permit fees.

Health Benefits

The numerous health benefits of recreation and park systems are apparent, as they provide opportunities for physical activity, contact with nature, and social interaction.

Physical Well-being: Recreation and park systems provide environments that encourage fitness and work to reduce the rate of obesity, a national epidemic with several related health conditions. Certain park conditions can lead to increased physical activity, such as good maintenance, accessibility, design and lighting, and proximity to other amenities and the community. Physical well-being is also directly tied to human contact with nature, which is proven to lower stress, blood pressure, and cholesterol, while strengthening the overall immune system.

Western Regional Park

Parks and open spaces provide numerous mental and physical health benefits to people of all ages and abilities.

Mental Well-being: The psychological benefits of parks stem from both physical and mental exercise and the opportunities created for social interaction. Physical exercise has been proven to reduce anxiety and depression, while other open space activities, such as gardening, yoga, and tai chi, positively engage both the mind and body. Parks, similar to other institutions such as schools and churches, also encourage social interaction and thus serve as places that foster human relationships. These relationships result in stronger, more cohesive communities.

EXAMPLES OF SYSTEM CHALLENGES

Space Needs

The Department faces a significant need for indoor recreation space, primarily due to the county's growing population and overcrowded schools. With the lack of available school and community center space, the Department is focusing on the feasibility of new community centers and other programmed facilities.

Staffing Needs

As the Department plans to provide more services in response to growing program demand and increasing population, staffing considerations will need to be made for facilities and services to the community.



Connected Trail System

While Howard County boasts an extensive amount of parkland and open space, the overall system would benefit from a more comprehensive, well-connected trail system. The Columbia Association also provides a network of trails within their boundaries. Developers are required to incorporate open space into new residential development, however, there is no existing regulation that specifies location or requires the open space to tie into the existing trail network. As a result, the county is left with a series of discontinuous and poorly accessible trails to maintain. A coordinated effort to link open space corridors, existing trails, and parkland throughout the county would meet both recreation and transportation needs. This effort can also include additional clarity and documentation of maintenance arrangements with similar providers of trails, like the Columbia Association.

Financial Sustainability

The Department is unique to other county groups; it balances program and operational costs with generated revenue from fees, programs, camps, and services. In order to maintain a financially sustainable system, the Department must regularly evaluate the current budget to track expenses and revenue generation. The Department operating budget is broken down into five funding mechanisms, identified below:

- » General Fund (46.3 percent) — this fund is tax-supported and changes based on budget allocations from the county on an annual basis
- » Recreation and Parks Fund (43.9 percent) — this fund is revenue-generated through user fees and charges and is also variable; however, any revenue not spent annually carries over
- » Middle Patuxent Environmental Area (MPEA) Fund (.3 percent) — this fund is foundation-supported
- » Forest Conservation Fund (4.1 percent) — this fund is supported through developer impact fees
- » Timbers at Troy Golf Course (5.4 percent) — this fund is revenue-generated through course user fees

While not all costs generate direct revenue, like the program guide, they are crucial for the Department to provide their services and fulfill their mission. However, other non-revenue generating services, such as tax-supported recreation inclusion accommodation, fall within the Department's responsibilities and budget yet serve all county residents and represent a basic fundamental service. Services such as these require further discussion and evaluation to determine the most appropriate funding source.

As the Department grows and develops, consideration should be made to prioritize revenue and fee allocation and budget revenue generation to offset costs.

IMPLEMENTING PROGRAMS

In April 2016, Governor Larry Hogan signed HB 462 into law, which restores state funding for transfer-tax-funded land conservation, preservation, and recreation programs including Program Open Space. In the early 2000s, Program Open Space funds were diverted to the state general fund. HB 462 effectively reestablishes approximately \$60 million in new funding for Program Open Space, the Maryland Agricultural Land Preservation Fund, and the Rural Legacy program. The law also funds state and county land acquisition, and facility and park development and maintenance. The law requires the transfer of approximately \$90 million previously allocated away from the fund be repaid through state general funds.

Prior to this landmark law, funding mechanisms like Program Open Space, agricultural preservation purchasing, preservation and other dedicating programs, and the Rural Legacy program allocated limited resources to counties for land acquisition, capital improvements, and recreation in support of the goals and strategies laid out in the previous LPPRPs.

Program Open Space

Established in 1968, Program Open Space (POS) is a funding mechanism committed to preserving natural resources and supporting high-quality recreation opportunities statewide. Program Open Space — Local is specific to counties and the City of Baltimore for planning, acquisition, and development of recreation land or open space areas. In August 2016, Howard County submitted its most recent annual program for POS funding in accordance with the 2012 LPRP. Like the previous plan, the 2017 LPPRP addresses PlanHoward 2030, the Eight Visions from the 1992 Planning Act and Maryland Smart Growth initiatives. Program Open Space also administers the Community Parks and Playgrounds Program which financially supports local rehabilitation, expansion, or improvements to existing parks and playgrounds. Since 2012, Howard County has received \$8.9 million in state and local funds from Program Open Space which has contributed to the success of a variety of projects.

Other Funding Mechanisms

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

- » 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 facility rentals or recreation program fees)
- » Fees collected from developers in lieu of mandatory land dedication
- » State bonds

Debt financing techniques are also available for the county to consider using, including direct borrowing from a bank and bonds. Bank loans are typically short term and often must be repaid with interest in five 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. The county continues to take advantage of state bonds to cover costs not included as part of the POS grant for a particular project.

Goals & Objectives

What are the county's goals and objectives for recreation, parks and open space?

The LPPRP is intended to guide decisions about investments in park improvements and development and recreation programs over the next 10 years and beyond. This portion of the plan is based on the following Department recreation and park goals that strive to maintain excellence and drive innovation within the county:

1. Promote programs and spaces accessible to all people
2. Improve connectivity of people to recreation and park resources through all modes of travel, including walking, biking and transit
3. Stay at the forefront of trends in recreation and park facilities, recreation programs, and park design
4. Instill flexibility to adapt to shifts in community needs and meet future growth
5. Provide a range of recreation programs and inclusive park and facility designs to facilitate a diversity and cultural awareness
6. Build partnerships within county government and across the county to efficiently share resources and provide the best customer service
7. Use best practices to continue providing sustainable parks, open spaces, and recreation facilities that are safe and secure for users of all ages and backgrounds
8. Integrate a multi-faceted approach to health and wellness, supporting the mental, physical, social, and emotional well-being of the diverse Howard County community
9. Maintain CAPRA accreditation with the NRPA

Systemwide Goals

Several state and county goals are identified as part of the holistic approach to the future of county recreation, parks and open spaces.

ECOLOGY

Provide sustainable parks, open spaces and recreation facilities that are safe and secure for users of all ages and backgrounds.



VISIBILITY AND COMMUNICATION

Build partnerships within County government and across the county to efficiently share resources.



PLACEMAKING

Stay at the forefront of trends in recreation and park facilities, recreation programs and park design.



EDUCATION

Integrate a multi-faceted approach to health and wellness, supporting the mental, physical, social and emotional well-being of the diverse community.



RECREATION

Factor in diversity by providing a range of recreation programs, inclusive park and facility design and cultural awareness.



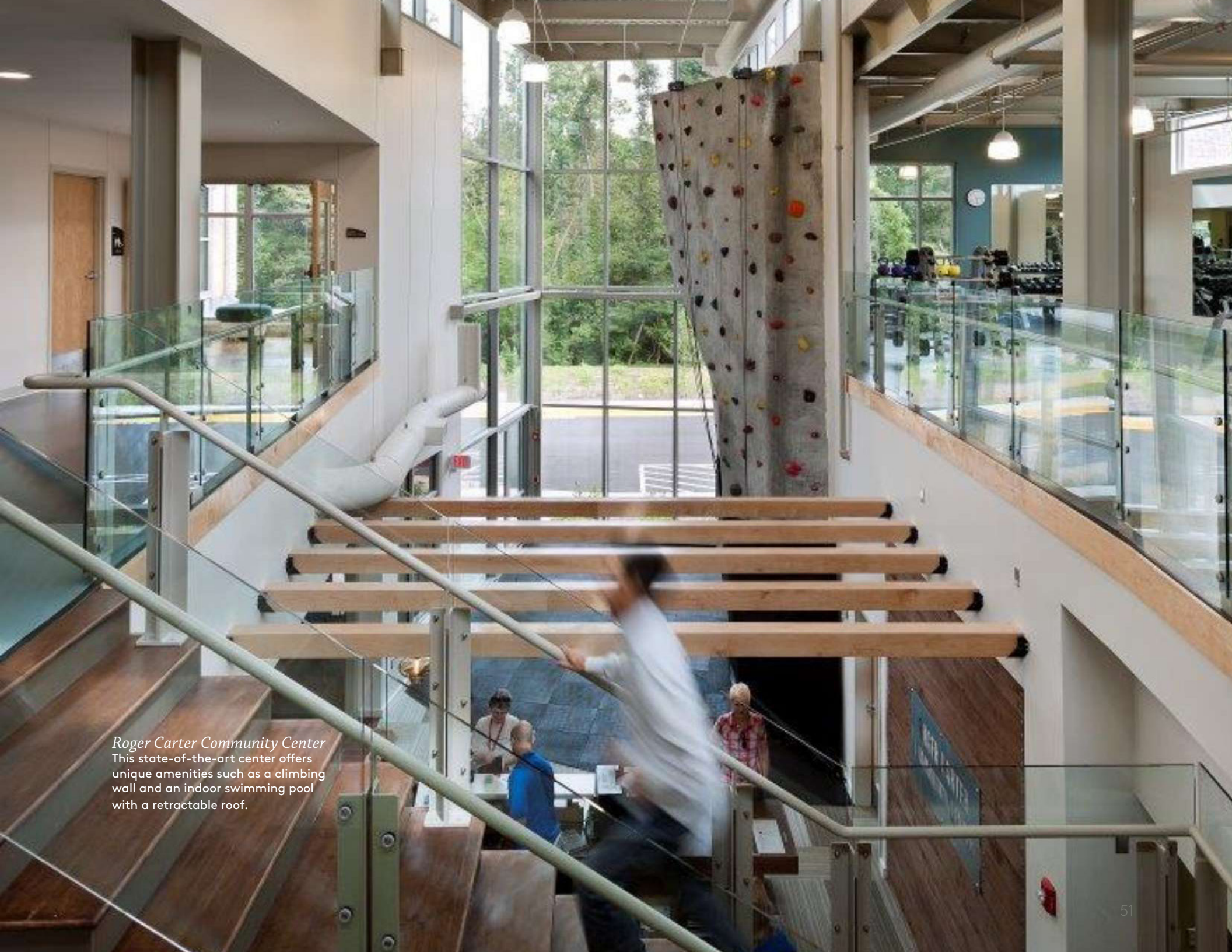
CONNECTIVITY

Improve connectivity to recreation and park resources through all modes of travel.

These goals are closely aligned with the State of Maryland's overall goals for recreation, parks, and open space preservation outlined below:

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

Both the Department and the State of Maryland's goals for recreation and parks are rooted in similar system principles including accessibility, equity, strong planning, collaboration, and recreational open space protection. Therefore, implementation of the Department goals supports implementation of the statewide goals at the local level.



Roger Carter Community Center
This state-of-the-art center offers unique amenities such as a climbing wall and an indoor swimming pool with a retractable roof.

Needs Assessment

Where does the county have gaps in service?

The Needs Assessment is an evaluation of Department assets and needs to identify existing and projected gaps in service and determine land, facility, and service priorities. This section consists of four components: the level of service analysis, user demand analysis, recreation program assessment, and trends and innovation assessment. Each of these four evaluation components and their respective findings are outlined below. For a comprehensive summary of all community needs, please refer to *Appendix D, Needs Assessment* and for a comprehensive summary of the proximity analysis, please refer to *Appendix J, Social Accessibility and Gap Analysis*.

LEVEL OF SERVICE ANALYSIS

The level of service analysis is intended to identify the provision of overall park space and amenities located within Howard County, determine the gaps in the system today, and aided in the development of goals for future level of service standards. Level of service has evolved from the use of unilateral standards applied to all agencies and has moved to creating customized information. The analysis for this plan includes a variety of methods to determine these standards including a thorough inventory, analysis of forecasted needs and existing gaps in the system, and comparison to national standards. For the complete level of service analysis, please refer to *Appendix D, Needs Assessment*.

Community Inventory Assessment

The purpose of the community inventory assessment is to provide a detailed understanding of all park and recreation amenities located within Howard County. The assessment was composed of four sections: parks and facilities, programs and services, Department partners, and similar providers.

Parks and Facilities

The first component of the assessment included a qualitative inventory of county-owned parks, open spaces, and facilities. The consulting team visited each park and open space as part of a comprehensive system tour to assess their condition, usability, connectivity, and safety. In order to get a sense of the large system and what is accessible to county residents, this inventory was combined with a list of all parks and facilities within the county outside of Department jurisdiction.

Programs and Services

All Department programs are described in a matrix format organized by age group. Each program is described by the following characteristics:

- » Level of supervision
- » Level of structured leadership
- » Cost
- » Skill level (basic, interim, expert)
- » Type of participation (physical, intellectual, social, creative)
- » Participation size (individual, small group, groups)

For the complete program services matrix, please refer to *Appendix B, Program Services Matrix*.

Department Partners

The Department partners with several agencies and organizations at both the local and state levels. While these partnerships span multiple areas of the Department, the majority focus on recreation programming and natural resource and heritage preservation. As part of the community inventory process, a list of all Department partners was compiled based on feedback from staff meetings and interviews. For this complete list of Department partners, please refer to *Appendix I, Community Inventory*.

Similar Providers

The LPPRP process included a review of similar providers in the Howard County Recreation and Parks system. An inventory of all known similar providers includes over 200 public and private organizations. Focus groups and online surveys were also sent to similar provider email groups to gauge program diversity, relationship to the Department, and future partnership opportunities. The survey captured 48 responses and represented 42 individual agencies/organizations.

Significant similar providers include the Columbia Association, YMCA, youth and adult sports and recreation organizations, and Howard County Public School System.

The interest and desire by the similar providers to engage in future partnership opportunities appears strong. Based on the expressed vision to continue to grow and specific requests for return calls to discuss partnership opportunities further, the Department should continue to identify opportunities to strengthen partnerships with organizations to provide an enhanced level of service to the community. Specific attention should be paid to developing child care, therapeutic recreation and senior programming. Consideration should also be given to the specific ideas shared in the open-ended provider responses. The Department is in an excellent place — the providers perceive

an overall positive public image, are satisfied with the Department, and have a general desire for growth; these factors favorably position the organization for future strategic partnership opportunities. For the complete list of similar providers, please refer to *Appendix I, Community Inventory*.

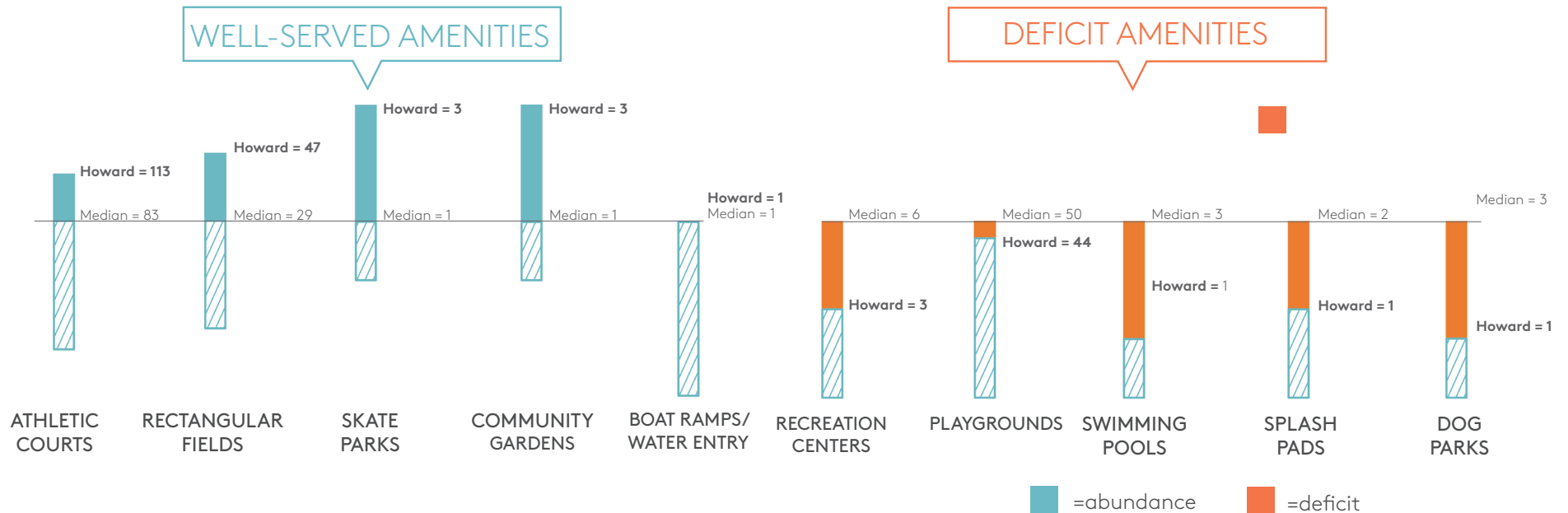
Peer Benchmarking

As part of the level of service analysis, the county's park and recreation amenities were compared with similarly sized counties throughout the United States. These national standards were synthesized from 39 peer recreation and park systems of 250,000 residents or more, all of which had submitted their data to the NRPA PRORAGIS database. Overall, Howard County ranked very well among other recreation and park systems, only falling below the median with a few amenities. The following chart identifies where the county offers more or less than the national median:

With regard to parks, Howard County maintains more than double the national median acreage of parkland. However, the total number of parks maintained is less than the national median. The county ranks above the national median in athletic courts, rectangular fields, community gardens, and skate parks, and ranks at the national median for water access points. These numbers also indicate the county does not rank at or above the national median for playgrounds, dog parks, community centers, splash pads, and swimming pools.

While NRPA PRORAGIS benchmarking is very useful for gauging an overall sense of park and amenity provision within the county, it does not tell the complete story. These numbers must be reviewed together with feedback from the various community engagement efforts, similar provider meetings, and staff interviews in order to determine the community need.

For the full NRPA PRORAGIS report, please refer to *Appendix E, NRPA PRORAGIS Report*. For the overall evaluation of community need, please refer to *Appendix D, Needs Assessment*.



Geographic and Social Accessibility and Gap Analysis

In order to identify areas with high and low park and amenity accessibility, the consulting team utilized GIS to map each location and define their surrounding service areas to see how well the park or amenity served the county, based on population characteristics and access. The consulting team defined high need areas primarily based on race and age characteristics, as household income is relatively high across all areas of the county. Approximately less than 1 percent of households within all county census tracts are living below the poverty level.

The mapping process was used in conjunction with the other elements of the needs assessment, such as the national standards analysis described previously, and will form the basis for identifying gaps in service and potential opportunities for future facility development and capital planning. This geographic and social accessibility analysis and gap analysis are visual tools that are similar to the Maryland Department of Natural Resources *Proximity Analysis and Park Equity Analysis*, but are catered to the unique nature of Howard County. More information about the Needs Assessment and subsequent system findings, deficiencies and priorities can be found in *Appendix D, Needs Assessment*.

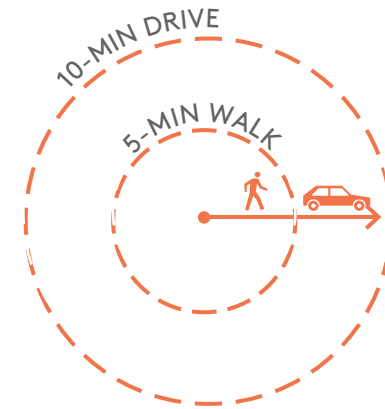
All county, state, and other publicly accessible parks, facilities, and amenities were included in this analysis. Columbia Association amenities were included in the analysis if they

are free to the public or if they operate on a fee-by-use basis.

In considering how well the county's parks and amenities serve the community, it is useful to measure access in terms of both walking and driving distances. The consulting team generated isochrones, a representation of the catchment areas served by an amenity within a given travel time and mode. In this case, The consulting team determined catchment areas within a 5-minute walk and 10-minute drive of park system amenities. The populations residing within the determined catchment areas were then calculated and combined to define the overall percentage of county residents with access.

In response to the results from the national standards analysis, the consulting team decided to focus on accessibility of parks, community centers, athletic fields, playgrounds, water access, pavilions, and trails. Overall, the results indicated that walking access is very poor across the county and that driving access is very high with the well-developed road network transecting the county's most populous areas. For example, 96 percent of the county population lives within a 10-minute drive of a park, while only 6 percent lives within a 5-minute walk of a park. However, both walking and driving accessibility results for parks and amenities were similar across multiple population groups including youth under age 18, minority populations, and those over age 55, implying that no single user group is more or less disadvantaged than another.

The accessibility analysis of amenities focused primarily on driving access, as very few residents live within a 5-minute walk of the selected amenities. Athletic fields proved to be the most accessible with 97 percent of residents living within a 10-minute drive of one field (and 78 percent of residents living within driving distance of three or more fields). Playgrounds and pavilions are slightly less accessible by car with 86 percent of all residents living within driving distance of a single playground and just 60 percent of all residents living within driving distance of a pavilion. Community centers and water access are the least accessible amenities with only 15 percent of residents living within driving access of one of the county's three community centers, and only 10 percent of residents living within driving distance of one of the county's four water access points.



Accessibility Distance

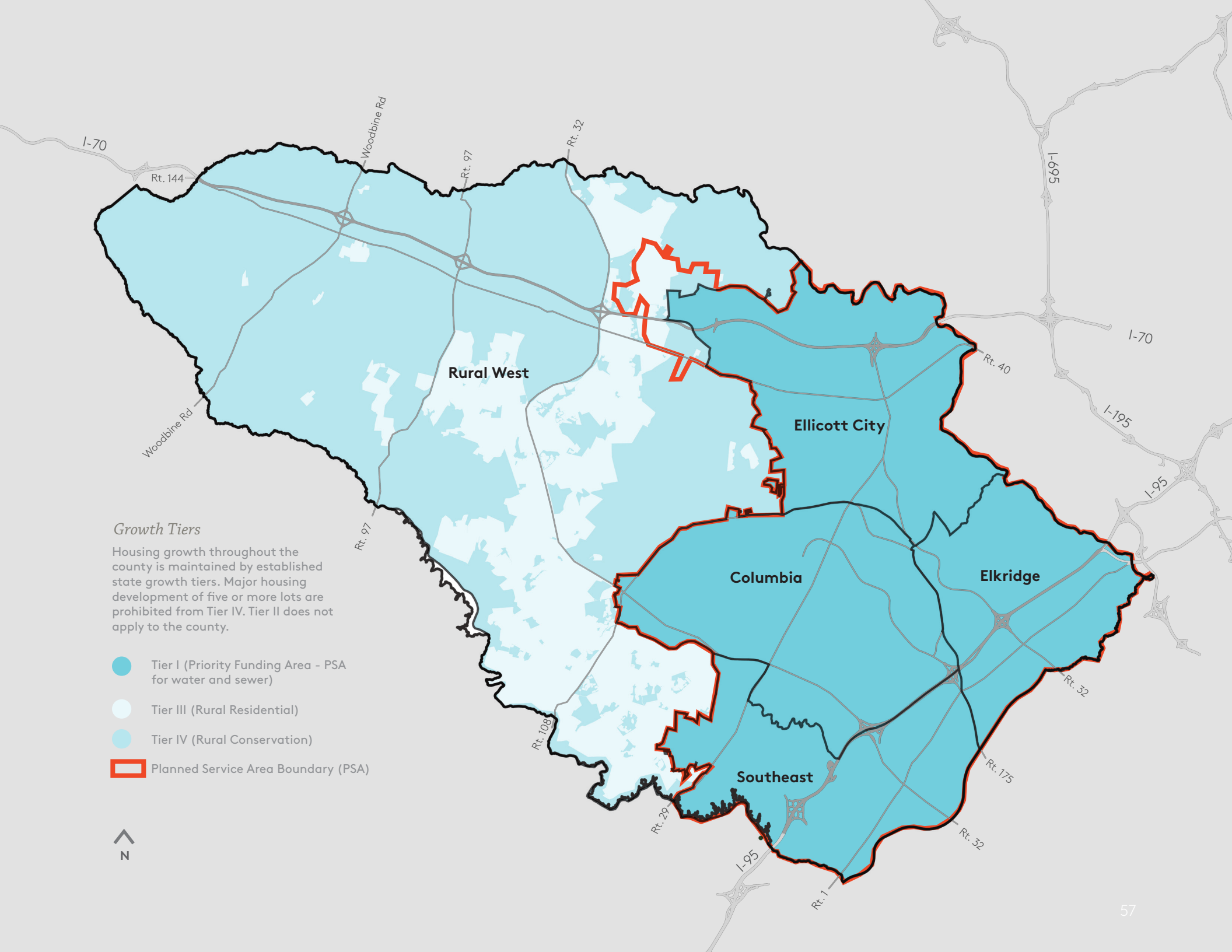
ALIGNING WITH PREVIOUS PLANNING

Evaluating social and geographic accessibility in the following section is not limited to demographic and distance considerations. The opportunity sites and zones for future park, open space, trail and facility consideration include policies shaped by PlanHoward 2030, the Howard County Bike Plan and other local policies and plans that preceded this planning process.

The following map identifies the priority funding area (PFA) and planned service boundary (PSA) for new development in the county. As per State law, the PSA growth boundary for water and sewer is also designated as the county's priority funding area. The map also identifies growth tiers for planned development and rural agricultural land conservation. The PSA and PFA align with the Tier 1 allocated growth tier and is defined by sustainable compact development opportunities.

PlanHoward 2030 acknowledges the rate of growth in the county and future potential growth that may continue and identifies goals for limiting development outside of the PSA. Under this plan, the county establishes goals for sustainable communities with integrated pathway connections, compact development and vibrant open spaces within walking distance of these communities.

Many of the opportunity zones and opportunity projects identified in this chapter and in the capital improvement plan in the Summary and Synthesis chapter fall within the identified PSA boundary.



Growth Tiers

Housing growth throughout the county is maintained by established state growth tiers. Major housing development of five or more lots are prohibited from Tier IV. Tier II does not apply to the county.

- Tier I (Priority Funding Area - PSA for water and sewer)
- Tier III (Rural Residential)
- Tier IV (Rural Conservation)
- Planned Service Area Boundary (PSA)



ACCESS TO PARKS AND NATURAL AREAS

In order to evaluate park and natural area accessibility, this analysis included county parks and natural areas, Maryland state parks, Columbia Association parks, and county school recreation areas. This analysis evaluated all parks equally and did not evaluate access by park type or size.

Results revealed that white and non-white populations living in Howard County have similar access to county-owned parks. Of the total white population, 97 percent live within a 10-minute drive of a park and only 14 percent live within a 5-minute walk of a park. Similarly, 99% of the non-white population live within a 10-minute drive of a park and 18 percent live within a 5-minute walk of a park.

The population of adults over 55 and children under 18 produced the same results, which suggests that while there may be gaps in programming and services across the county and especially in the Rural West planning region, access to parks and programming is equitably distributed across ages, races, and income levels.

NRPA Proragis peer benchmarking comparisons suggest that while Howard is well-served by parks when calculating system coverage by acreage, the County is underserved in the number of parks.

Opportunity zones, highlighted in peach, follow the Howard 2030 General Plan Primary Service Area Boundary, which was identified

by the County as a priority area for new park acquisition and investment.

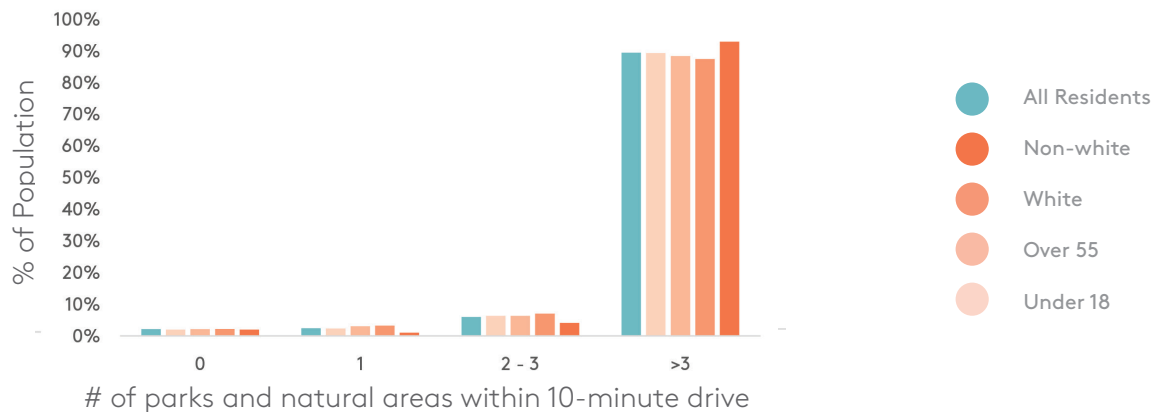
In order to address park and natural area accessibility, the county has identified the following sites as potential locations for new parks or park expansion:

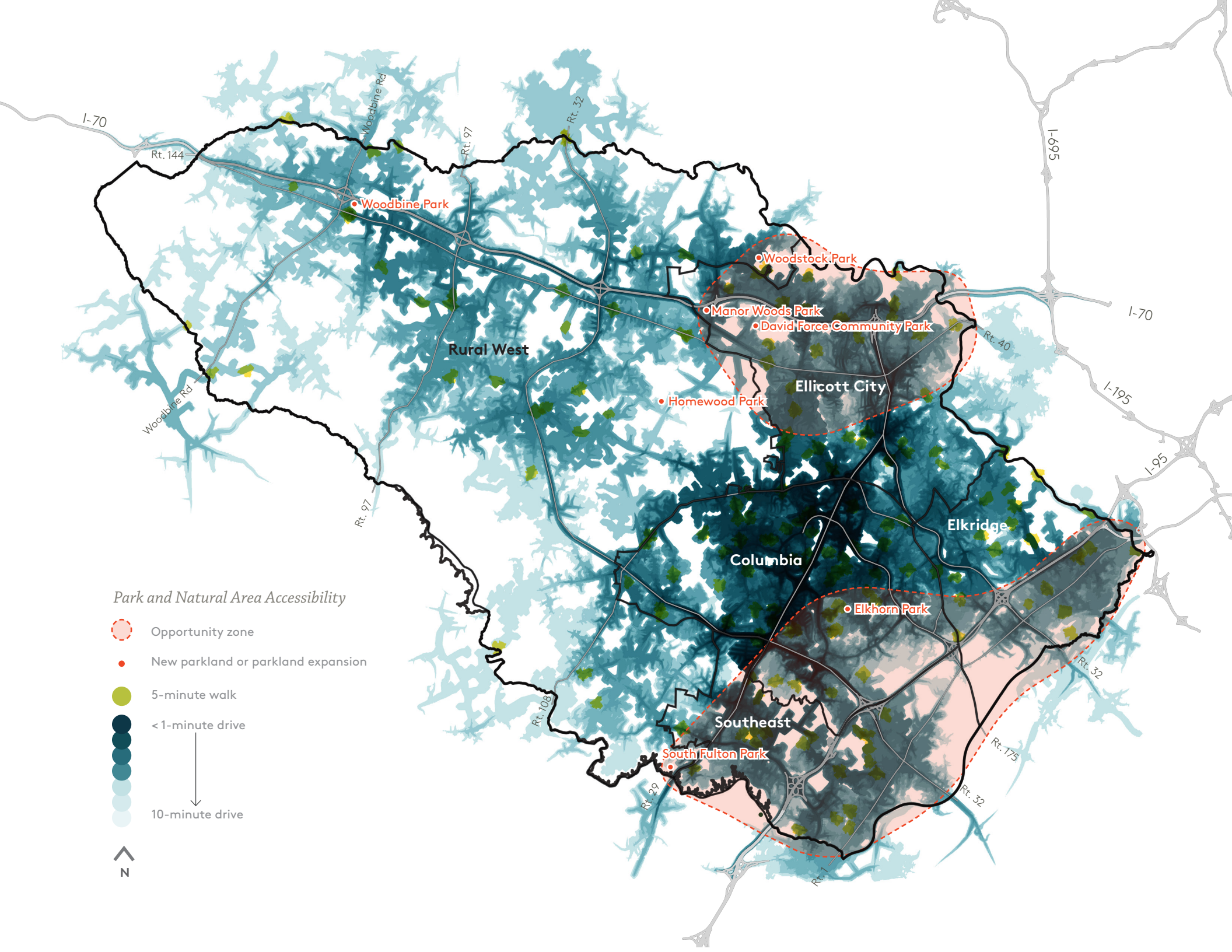
- » David Force Community Park
- » Elkhorn Park*
- » Clarksville Park
- » Woodbine Park
- » Woodstock Park
- » South Fulton Park
- » Manor Woods Park
- » Homewood Park

These projects are outlined in the Capital Improvement Plan within the Summary and Synthesis chapter.

* *Future school site.*

Accessibility Analysis





Park and Natural Area Accessibility

-  Opportunity zone
-  New parkland or parkland expansion
-  5-minute walk
-  <1-minute drive
-  10-minute drive



Woodbine Park

Woodstock Park

Manor Woods Park

David Force Community Park

Homewood Park

Ellicott City

Elkridge

Columbia

Elkhorn Park

Southeast

South Fulton Park

I-70

Rt. 144

Woodbine Rd

Rt. 97

Rt. 32

I-695

I-70

Rt. 40

I-195

I-95

Woodbine Rd

Rt. 97

Rt. 108

Rt. 29

Rt. 1

Rt. 175

Rt. 32

Rt. 32

ACCESS TO COMMUNITY CENTERS

In order to evaluate community center accessibility, this analysis included the three county-owned community centers. Columbia Association community centers were not included because they are fee-based.

This accessibility analysis revealed that an overwhelming 85 percent of the county population does not live within a 10-minute drive of a community center. The *Needs Assessment* and feedback from both the community, focus groups and peer benchmarking analysis also suggest a deficiency in the number of community centers. In specific, the NRPA PRORAGIS peer benchmarking comparison suggests a need for at least three additional community centers.

In response to this identified need, the Department should conduct feasibility studies for the development of a community center at the following potential locations:

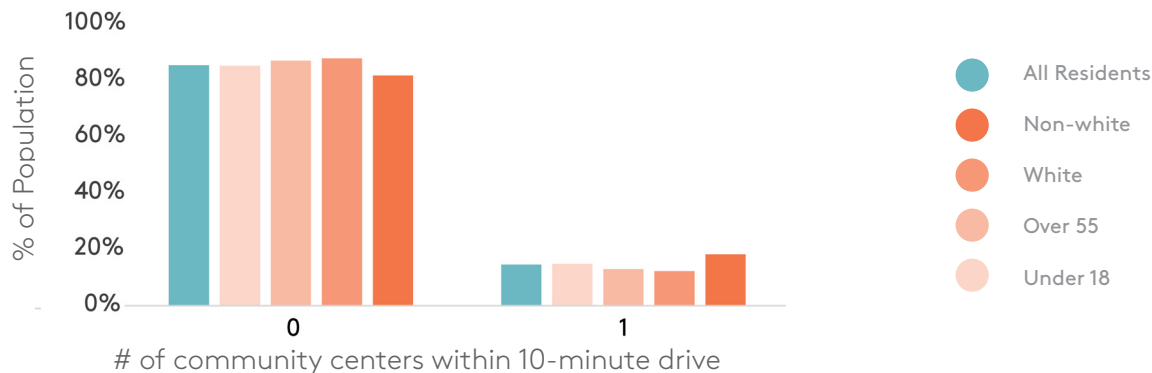
- » David Force Community Park
- » Troy Park at Elkridge
- » Manor Woods Park
- » Woodstock Park

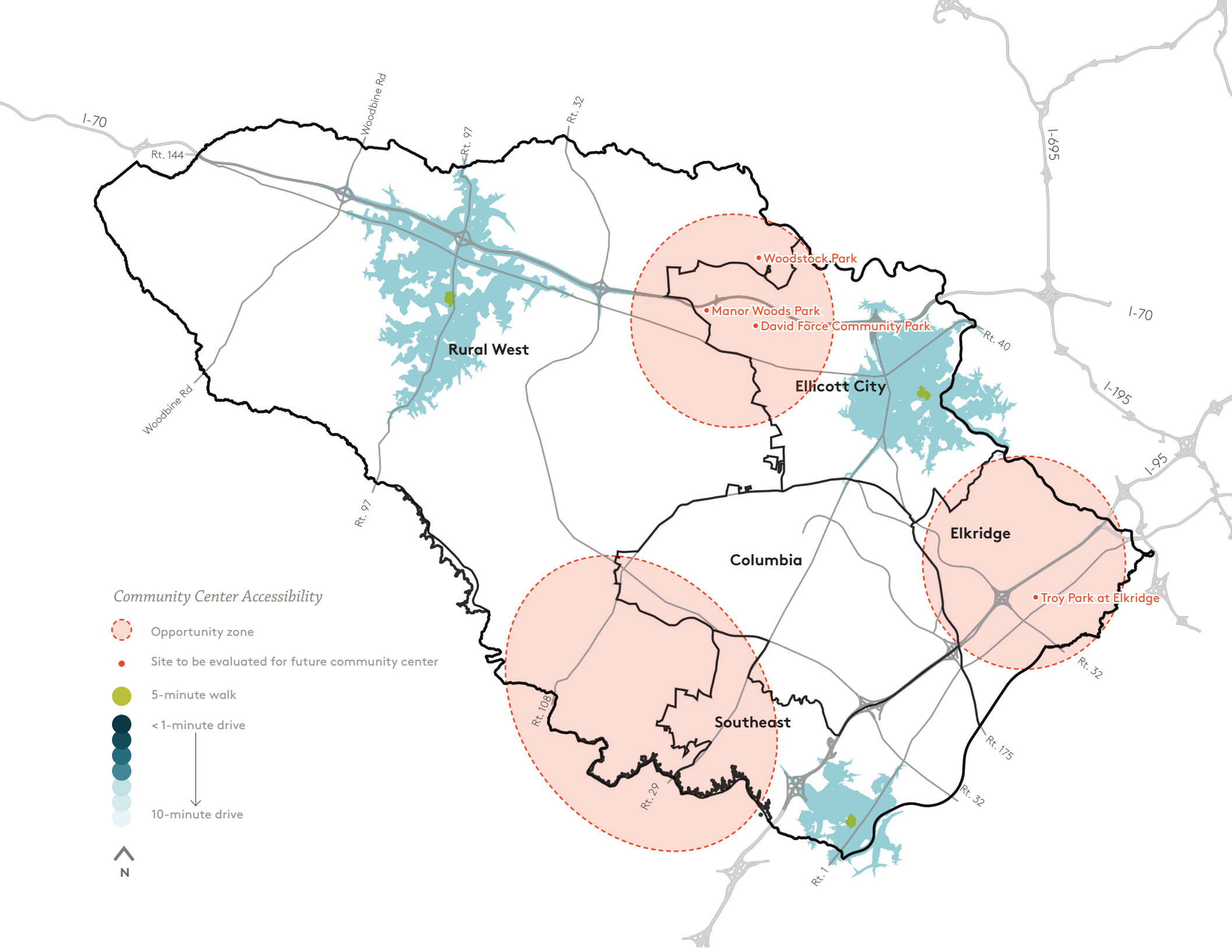
The Department has also identified a need for an additional community center in the Southeast/Rural West planning areas, as the existing North Laurel Community Center, located in the Southeast planning area, is currently operating at capacity and

development continues to grow populations in these planning regions. At this time, the Department has not yet identified a potential site for a community center in this area, but recognizes the future needs of the community and will continue to study opportunities to best serve these growing communities.








The four potential sites for community center feasibility studies are identified in the Capital Improvement Plan within the Summary and Synthesis chapter.

Accessibility Analysis





Community Center Accessibility

-  Opportunity zone
-  Site to be evaluated for future community center
-  5-minute walk
-  <1-minute drive
-  1-5 minute drive
-  5-10 minute drive
-  10-minute drive



ACCESS TO ATHLETIC FIELDS

In order to evaluate athletic field accessibility, this analysis included all county-owned athletic fields. According to NRPA Proragis, the county is well-served by athletic fields. Howard County maintains the most fields when compared against its peer communities both in overall fields and fields per 1,000 residents.

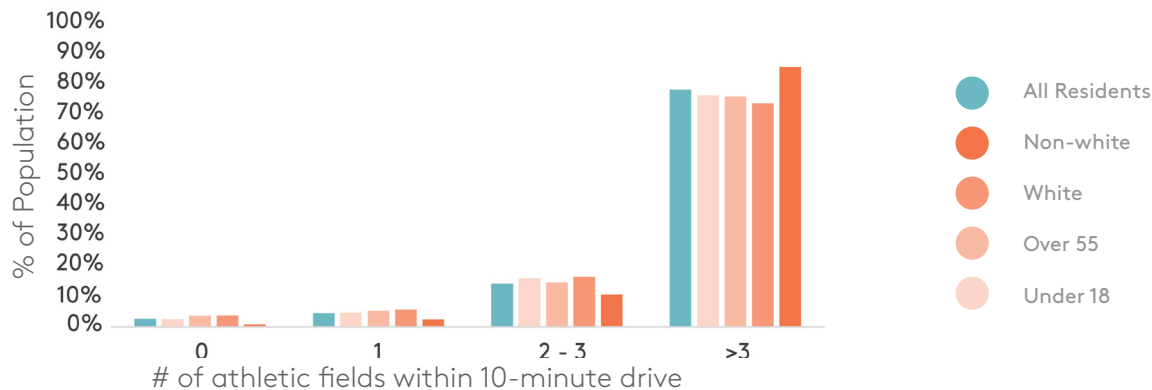
Overall, residents have very good driving access to the 47 county athletic fields. Over 75 percent of all residents live within a 10-minute drive of more than three athletic fields. Although driving accessibility ranks well, the Department has proposed new fields in the Capital Improvement Plan to meet future demand, including both lighted and

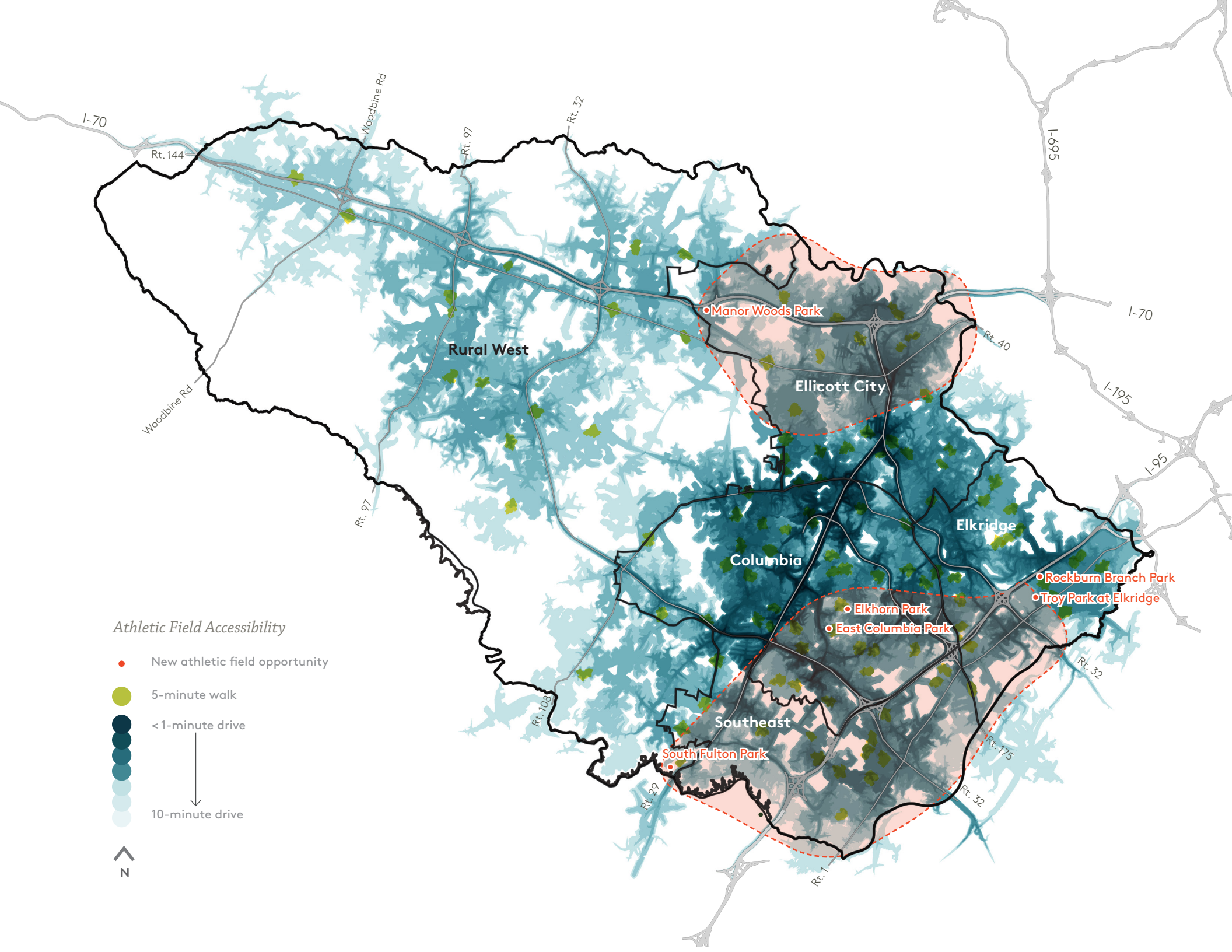
informal fields. As the Department acquires land, opportunities for athletic fields will be evaluated against the existing levels of access within the county with a focus on areas that fall within the *Howard County 2030 General Plan* Planned Service Areas. Opportunities for new fields will be evaluated for the following parks:

- » South Fulton Park
- » Manor Woods Park
- » Troy Park
- » Rockburn Branch Park
- » Elkhorn Park*
- » East Columbia Park

* Future school site.

Accessibility Analysis





Athletic Field Accessibility

- New athletic field opportunity
- 5-minute walk
- <1-minute drive
- 10-minute drive



Rural West

Ellicott City

Columbia

Elkridge

Southeast

South Fulton Park

Manor Woods Park

Elkhorn Park

East Columbia Park

Rockburn Branch Park

Troy Park at Elkridge

I-70

Rt. 144

Woodbine Rd

Rt. 97

Rt. 32

I-695

I-70

Rt. 40

I-195

I-95

Rt. 108

Rt. 29

Rt. 1

Rt. 175

Rt. 32

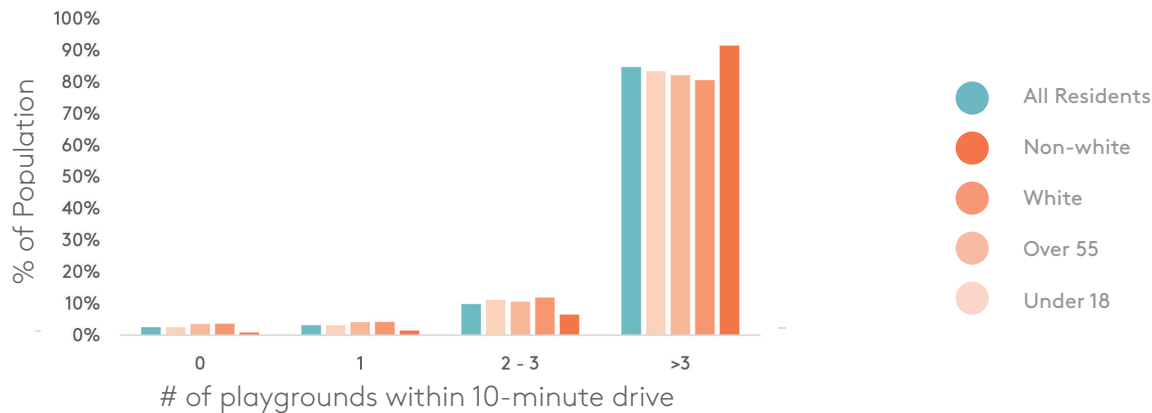
Rt. 32

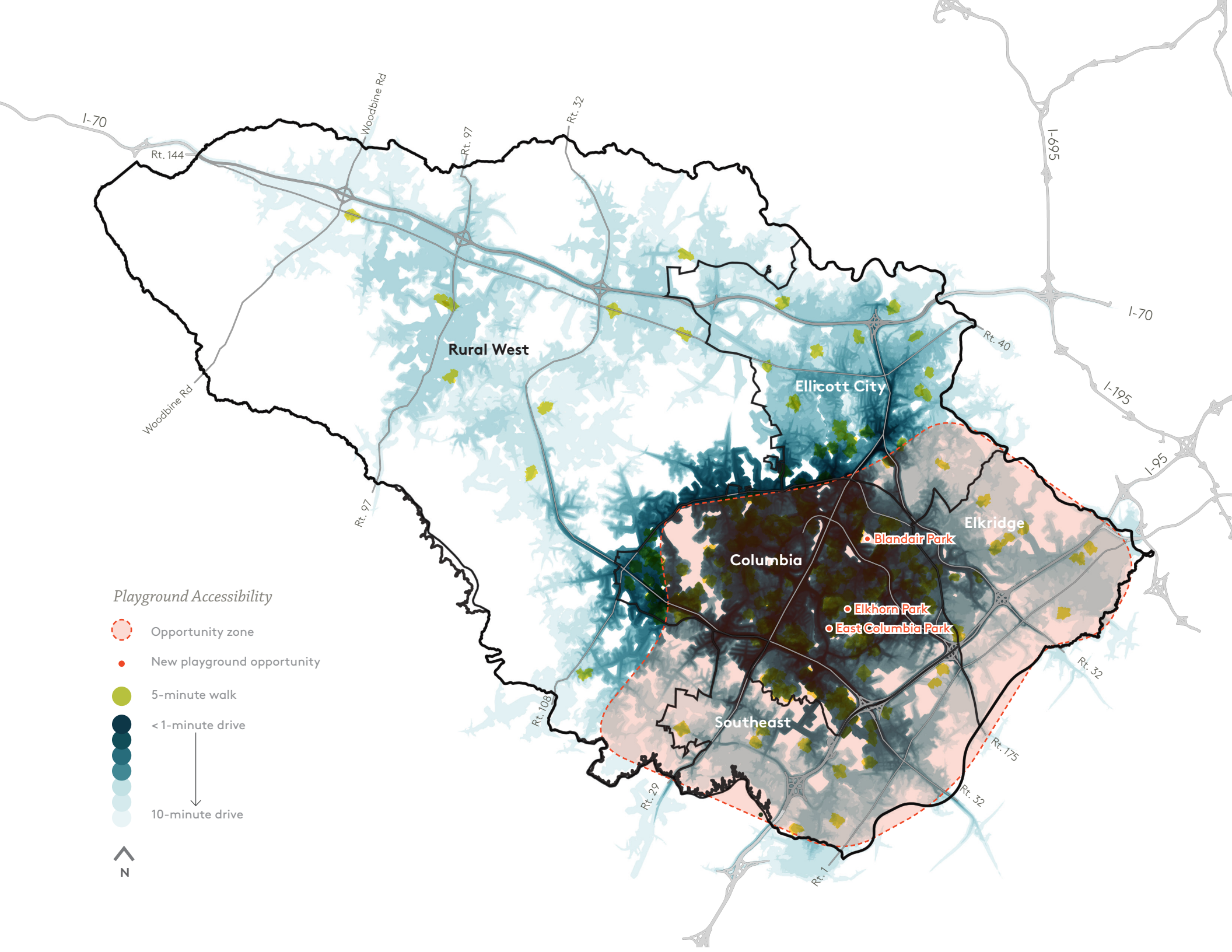
ACCESS TO PLAYGROUNDS

In order to evaluate playground accessibility, this analysis included county playgrounds, Columbia tot lots, and public elementary school playgrounds. Results indicated that 85 percent of the county population lives within a 10-minute drive of three or more playgrounds. While only 25 percent of the county population is located within walking distance of a playground, Howard County is uniquely suburban, especially in the Rural West. Though the Rural West is not well-served by playgrounds, this planning region is characterized by large lot zoning, higher incomes and larger backyards than other planning regions in the county.

As part of the Capital Improvement Plan, the county is evaluating opportunities for new playgrounds at Elkhorn Park and East Columbia Park. Longer term projects will be reviewed for opportunities to incorporate various methods of play for multiple age groups. As opportunities for walkable playgrounds accessible to new developments and growing communities arise, the Department will re-evaluate plans for those spaces.

Accessibility Analysis





Playground Accessibility

- Opportunity zone
- New playground opportunity
- 5-minute walk
- <1-minute drive
- 1-5 minutes
- 5-10 minutes
- 10-minute drive



Rural West

Ellicott City

Columbia

Elkridge

Southeast

Blandair Park

Elkhorn Park

East Columbia Park

I-70

Rt. 144

Woodbine Rd

Rt. 97

Rt. 32

I-695

I-70

Rt. 40

I-195

I-95

Rt. 97

Rt. 108

Rt. 32

Rt. 29

Rt. 32

Rt. 175

Rt. 1

WATER ACCESS

In order to evaluate water access, this analysis included state-owned, Washington Suburban Sanitary Commission, county and Columbia Association-owned parks and natural area water access opportunities. Water access as part of this evaluation is defined as a formal vista, boat ramps and launches, fishing access, and publicly accessible swimming opportunities. The analysis revealed that while over half of the county's population lives within a 10-minute drive of two water access points, more than 25 percent of the population does not live within a 10-minute drive of any water feature.

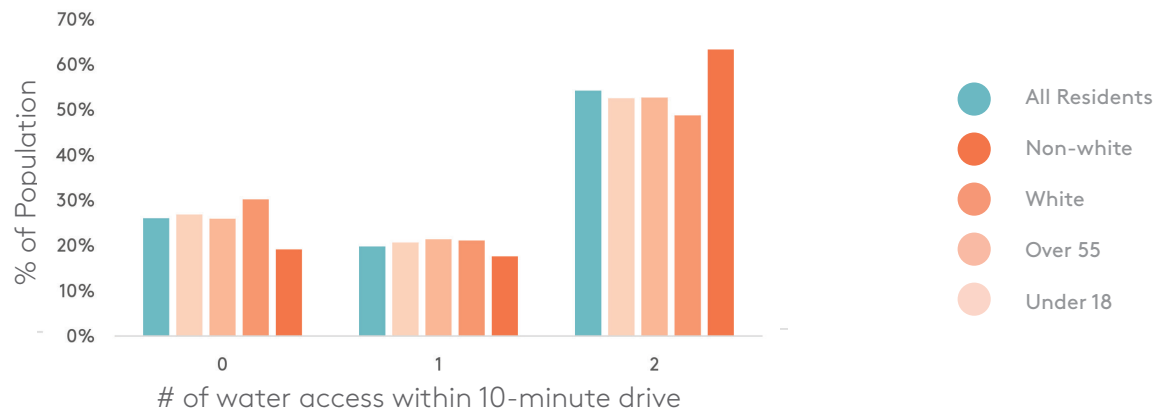
With continued land acquisition around the edges of the county along the two

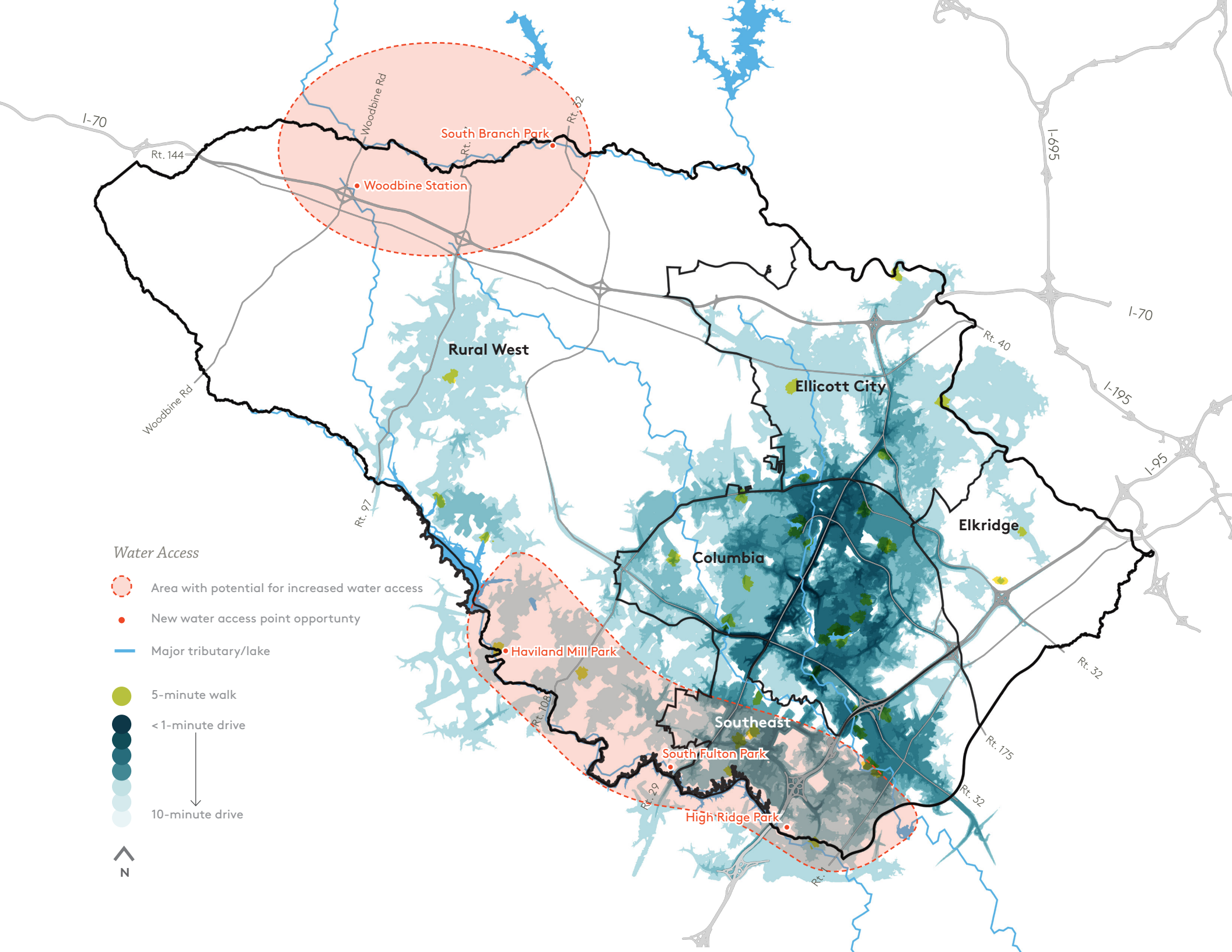
major tributaries, the County will review opportunities to increase the number of access points or expand existing water access.

In the short term, the county proposes opportunities for new water access points in the Capital Improvement Plan in the following existing county-owned parks and open spaces:

- » South Fulton Park
- » Woodbine/Morgan Station Road
- » Haviland Mill Park
- » South Branch Park
- » High Ridge Park

Accessibility Analysis





Water Access

Area with potential for increased water access

New water access point opportunity

Major tributary/lake

5-minute walk

<1-minute drive

10-minute drive

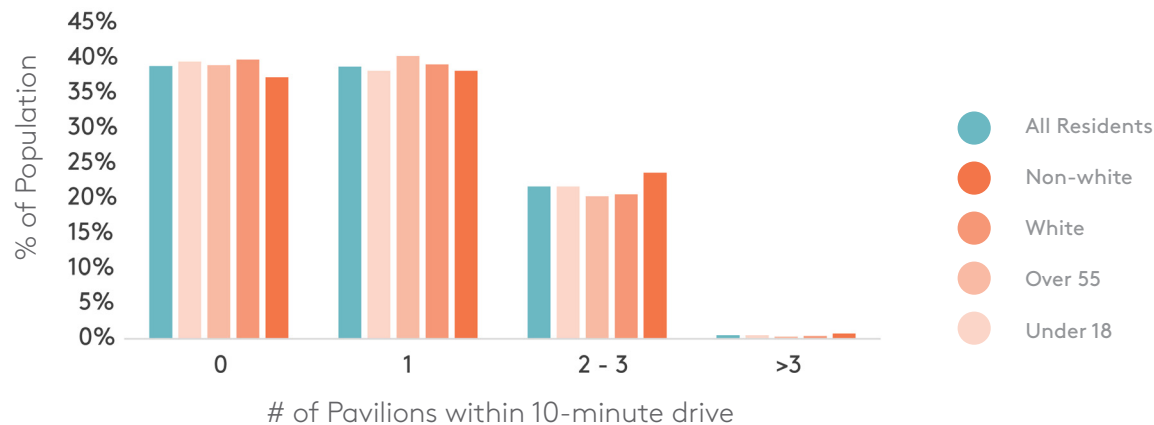


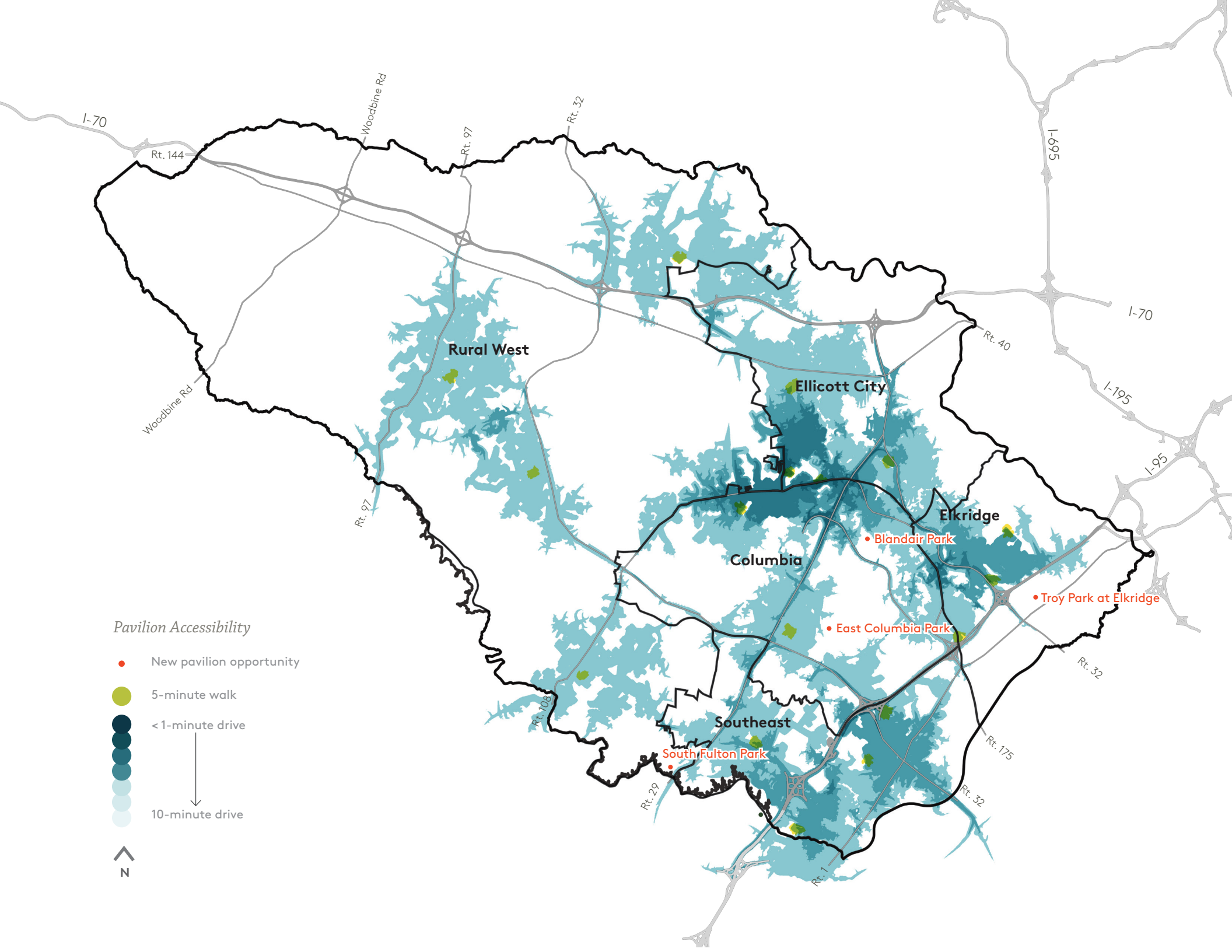
ACCESS TO PAVILIONS

Pavilions are well used throughout the county. As the county considers new locations for any additional pavilions, considerations will also need to be made based on the popularity of pavilions for events and adequate parking to support those events.

Currently, more than one-third of the county population does not have access to a pavilion within a 10-minute drive of their home. In order to increase accessibility for all residents, the county proposes several new pavilions for South Fulton Park, Blaindair Park, Troy Park and East Columbia Park.

Accessibility Analysis





Pavilion Accessibility

- New pavilion opportunity
- 5-minute walk
- <1-minute drive
- 10-minute drive



ACCESS TO TRAILS AND PATHWAYS

In order to evaluate trail and pathway accessibility, this analysis included trails and pathways within county parks, other county-maintained trails and pathways, major Columbia Association trails, and trails within state parks. Trail access was measured by distance to trailheads, which were identified by formal parking areas adjacent to trails. Information for parking areas adjacent to trails within state parks was not available, and therefore, trailheads were approximated based on where the trail met the state park boundary.

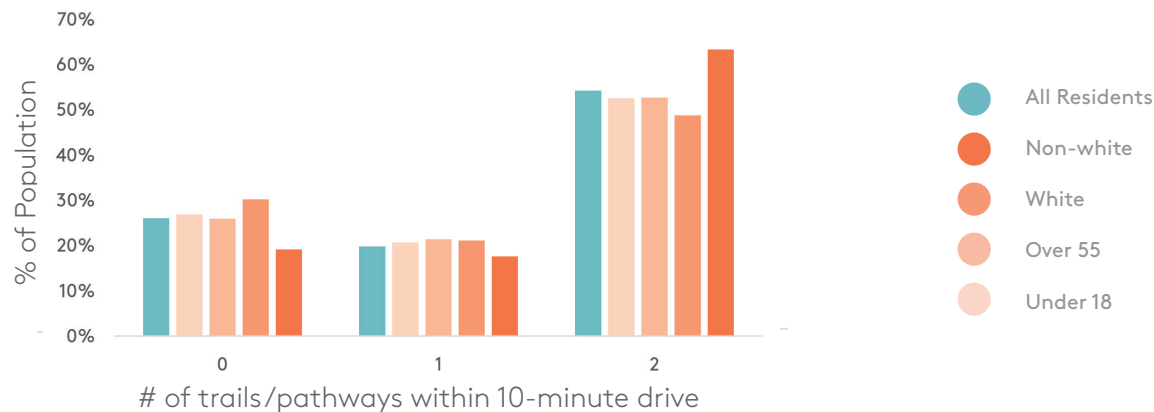
Driving access to trails within county parks is very high for the county population overall. Currently, 83 percent of the county's population has driving access to more than two trail access points. This percentage does not vary significantly across the evaluated population groups (non-white, white, over 55, and under 18).

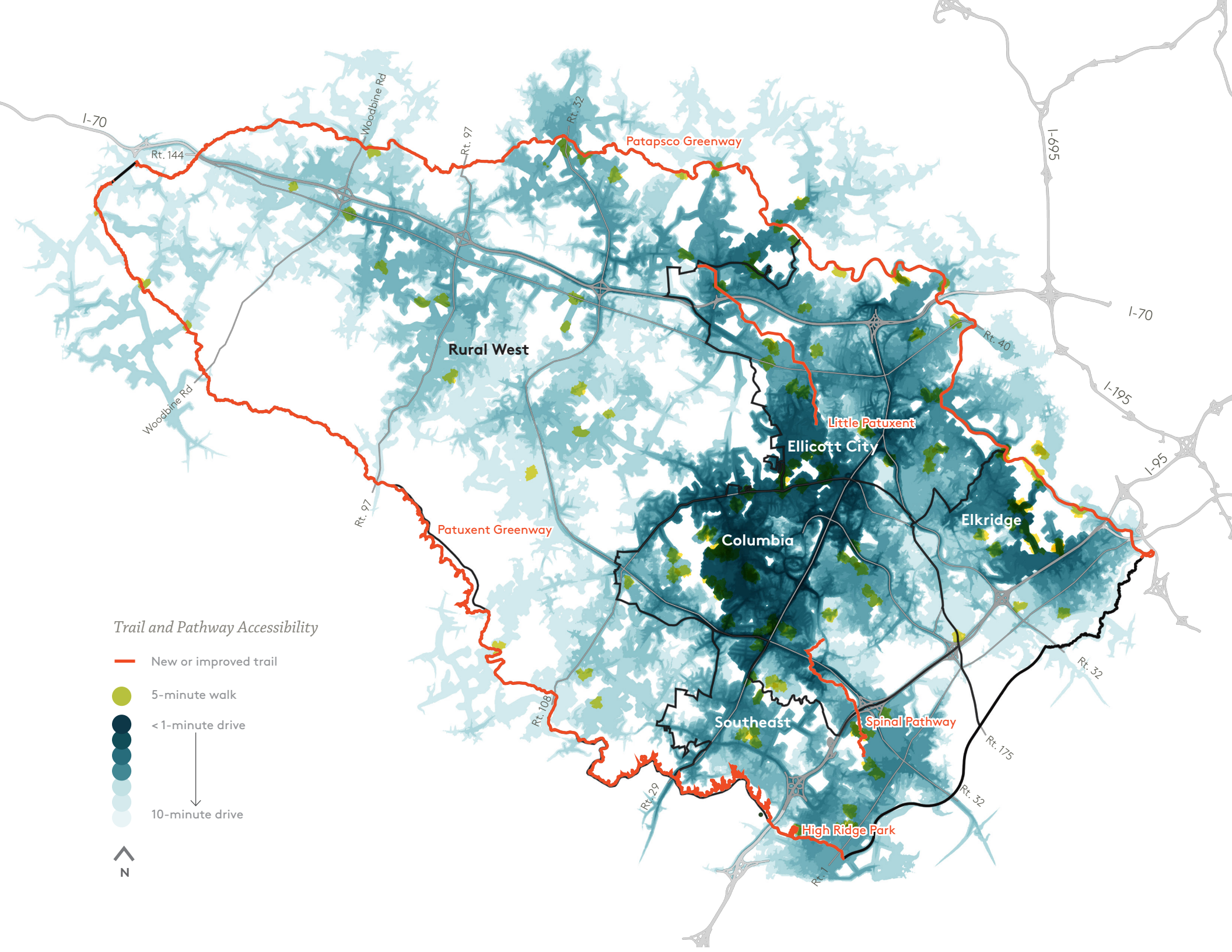
Trails were identified as the most popular outdoor activity by Howard County residents. As the county continues to age, senior residents will continue to have ample access to internal paved park trails and loop paths through parks that are close to where senior residents live.

Although this analysis revealed high driving accessibility to trails and pathways, the overall trail system lacks strong connectivity. Furthermore, feedback from both the community and focus groups discussions indicate a need for more trails and better connections between individual trails. In response, the Department has identified rehabilitation and expansion plans for the following trails in the Capital Improvement Plan to improve connectivity across the county:

- » Patapsco Greenway
- » Patuxent Greenway
- » High Ridge Park, connecting into Laurel and Prince George's County
- » Connections into existing and proposed bike paths and bike lanes in accordance with the Howard County Bike Plan
- » Little Patuxent, from Gwynn Acres Natural Resource Area to Alpha Ridge Park
- » Spinal Pathway, extending from Savage Park through Columbia to Dorsey's Search

Accessibility Analysis





Trail and Pathway Accessibility

— New or improved trail

● 5-minute walk

● <1-minute drive

● 10-minute drive



MEASURING USER DEMAND

In order to better understand the system, it is crucial to determine user satisfaction and efforts to improve the guest experience. This section of the LPPRP includes a high-level overview of the service system, primarily drawn from two staff focus groups, staff interviews, review of policies and procedures, and a review of survey results and public input sessions. This section also outlines the Department's alignment with Commission for Accreditation of Park and Recreation Agencies (CAPRA) standards relating to customer satisfaction and includes recommendations for strengthening the service system based on best practices. For more detailed information, please refer to *Appendix C, Measuring User Demand*.

Staff Focus Groups

The consulting team held two focus group sessions to determine staff recommendations for the Department. One focus group was composed of employees who have direct contact with customers and the other included leadership staff who are involved in managing programs and services. As a result of the internal focus groups, staff members identified growing trends and opportunities for improvement.

Statistically Valid Survey

As part of the LPPRP's community engagement process, the Department conducted a statistically valid phone survey through the marketing consultant OpinionWorks. Several of the questions from the survey were directly related to assessing the quality of the user experience. According to the results, 80 percent of survey respondents are either very satisfied or somewhat satisfied with parks, facilities, and programs. An overwhelming majority was also satisfied with cleanliness and park maintenance, as 92 percent of household respondents agreed the Department's assets are either always or sometimes clean and well maintained.

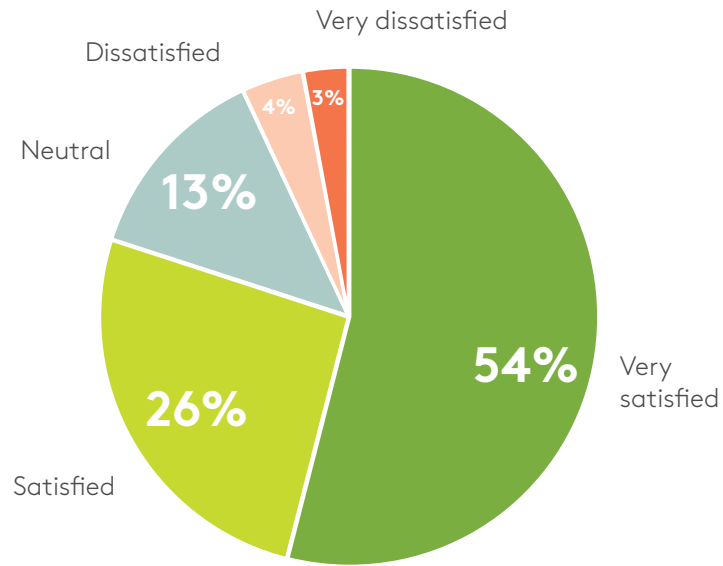
With regard to overall satisfaction, there were slight disparities in race and age. White residents reported higher levels of satisfaction than Hispanic residents, and the 25 to 34 age group reported lower levels of satisfaction than other age groups. Satisfaction is also directly related to income; while lower-income residents are not dissatisfied, satisfaction rates are 25 points lower than the highest-income residents.

CAPRA Standards

Six CAPRA standards have a direct relationship to improving the user experience. These standards are outlined with their definition and the Department's performance relative to the standard in *Appendix C, Measuring User Demand*.

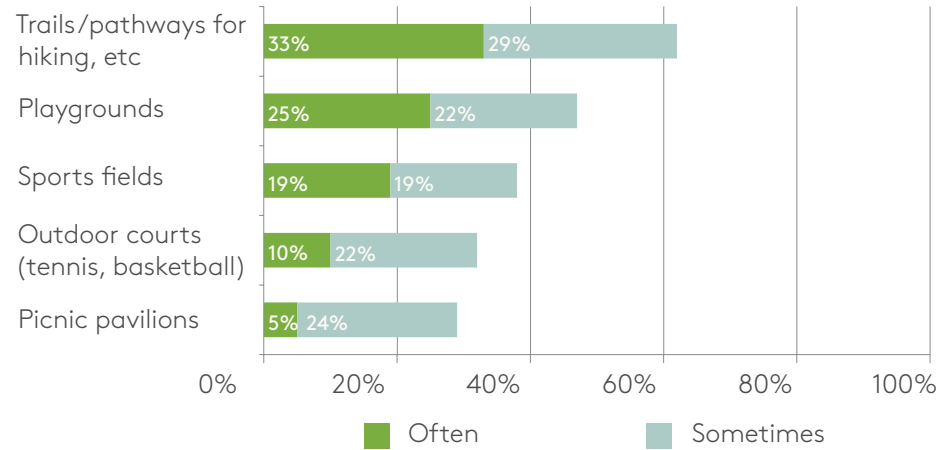
Best Practice Approaches

Despite the Department's overall high user satisfaction ratings, there is room for improvement as the county looks ahead to the future and strives for innovation. The Department could further enhance customer satisfaction based on the Malcolm Baldrige Quality Criteria for Organizational Excellence. These six criteria for organizational excellence apply to agencies of all sizes and capabilities. One of the criteria includes the development of a customer focus. Customer focus assesses how the organization engages its customers for long-term marketplace success, including how the organization listens to the voice of the customer, builds customer relationships, and uses customer information to improve and identify opportunities for innovation. The customer focus criteria and how it applies to the Department is outlined in detail in *Appendix C, Measuring User Demand*.



Statistically Valid Survey

How satisfied are you with the amenities provided by Howard County Recreation and Parks?



Statistically Valid Survey

In the past year, have you used these County Recreation and Parks offerings often, sometimes, seldom, or never?

RECREATION PROGRAM ASSESSMENT

This assessment is geared towards identifying the strengths, weaknesses, and opportunities for Howard County's Recreation and Parks future program direction. Through an analysis of Howard County's program and service offerings, including reviews of monthly reports, fees policies, and marketing plans, in addition to interviews and staff member-completed surveys, the recreation assessment intends to build upon the Department's high performance to ensure alignment with community needs.

CAPRA Requirements

The Department complies with the recreation program and services standards established by CAPRA. Three fundamental CAPRA standards include the Recreation Program Plan, Program Objectives, and Outreach to Diverse Underserved Populations. The Department's Program Plan, from 2015, also fulfills a number of non-fundamental CAPRA standards, outlined in *Appendix H, Recreation Program Assessment*. The Department's commitment to providing more outreach to a diverse population is reflected in its scholarship program to provide financial assistance, an established Therapeutic Recreation division to offer programs and inclusion services that meet and exceed the Americans with Disabilities Act (ADA)

standards, and development of facilities to ensure equity and access for all county residents.

Demographic Summary

The Howard County population is projected to increase by 28 percent between 2010 and 2040, according to the State of Maryland population projections. By 2040, the 55+ group is projected to represent 34 percent of the total population, while the white population will decline to 37 percent of the total population. Both statistics suggest that recreation programming will need to accommodate an aging population and increase outreach strategies to minority populations. Further demographic data is available in *Appendix H, Recreation Program Assessment*.

Community Survey Results

The community survey results demonstrate an 80 percent overall satisfaction rate, with 54 percent very satisfied. The survey results also expose the importance of cleanliness and maintenance to program and services participants, while non-participants cite a lack of awareness, lack of features, cost, and bad timing as reasons for not using recreation facilities. In general, the Department's high satisfaction ratings attest to the variety of programs offered and their alignment with community needs. However, higher satisfaction is recorded from white residents,

and significantly so from higher-income residents in comparison to lower-income residents. Additionally, those who use the recreation and parks system at least weekly respond with highest levels of satisfaction. Future surveys may focus more on resident need for specific program types, and to identify how the Department serves different areas, ethnic, and income groups of the county. For the full survey results, please refer to *Appendix H, Recreation Program Assessment*.

Community Input

Community input sessions were held in April, July, and September, with online commentary recorded as well. Many comments were related to recreation services, which can be used to develop program recommendations for the future. Some of the most frequently mentioned recreation activities and facilities included pickle ball courts, indoor swimming pools, outdoor fitness programming, and community gardens. It should be noted that the county, in partnership with Columbia Association, recently conducted a feasibility study of an indoor sports complex at the Oakland Mills Village Center, which included the potential expansion of the ice rink. The study concluded that the development of a sports complex of this scale was highly unlikely due to required land assembly, potential traffic and design impacts to adjacent neighborhoods, and the lack of foreseeable future funding sources. For a

detailed outline of all comments, please refer to *Appendix H, Recreation Program Assessment*.

Program Inventory

To determine if Howard County provides all major recreation programs typically offered by recreation agencies, the Department's services were compared to a master program inventory, outlined in *Appendix H, Recreation Program Assessment*. While the analysis concluded that Howard County does provide all programs, a pressing challenge is to accommodate demand with sufficient program space. Today, available space remains a challenge for provision of additional services, or even meeting the existing need for some services.

Age Segment Analysis

To review the distribution of recreation program offerings, the Department tabulated how many programs were available to four different age groups: two youth (12 and under; 13-17) and two adult (18-54; 55 and over). The data collected demonstrated that 64 percent of total programming is geared towards individuals in the 12-and-under age bracket, and that the Department should develop more programs for older residents as the 55-and-over population increases. More age segment distribution numbers are outlined in *Appendix H, Recreation Program Assessment*.



Community input
Some of the most frequently mentioned recreation activities were pickle ball and outdoor fitness.

Major Program Areas

The Department aims to provide programming that meets community need and is of a consistent level of quality. To form and categorize these programs, many criteria are considered. These criteria are listed in *Appendix H, Recreation Program Assessment*. Staff members reviewed existing program categories to develop a MacMillan Matrix, a metric designed to help nonprofit organizations assess their programs for sustainability in light of scarce resources. Howard County programs were analyzed in regard to four standards: organizational fit, financial capability, alternative coverage, and competitive position. Each standard is further defined in *Appendix H, Recreation Program Assessment*. Howard County's major program categories were scored 1 through 5 in regards to each MacMillan standard: the higher the score the better the Department's ability to sustain that program.

Out of the 10 analyzed program categories, Sports, Fitness, Games and Health and Wellness scored 19 of a possible 20, confirming its importance and demand within the Department's program availability. More programming statistics are available in the *Appendix H, Recreation Program Assessment*.

The Department's biggest challenge continues to be space, particularly as demand for therapeutic and active adult programs continues to grow. Moreover, the

Department's current financial assistance program will need to grow as the population increases, through registrant donations and/or by adjusting programs to augment the budget allocated to financial services.

Program Lifecycles

Programs can be analyzed by development stage to determine whether or not the Department should add, reposition, or maintain the current program lifecycle mix. Staff members categorized core programs based on four stages of the life cycle: introduction stage, growth stage, mature stage, and decline stage. The distribution statistics of programs are available in *Appendix H, Recreation Program Assessment*. Many programs are considered mature programs because of a lack of space, while others are a result of high participation. While overall program lifecycle distribution appears close to the recommended distribution of programs, only one program is in the introduction stage and one is in the decline stage, suggesting further monitoring and growth of new introductory programs may be needed.

Facility Space

Today, there is a lack of adequate indoor recreation space available for Howard County residents. While there is no national standard for square footage recommendations, a

standard of 2 to 2.5 square feet per person for indoor space is used, based on extensive national community research. Plans are in place to provide additional indoor space for the future athletic complex at Blandair Park and community/athletic center at Troy Park at Elkridge — a total of 410,230 square feet for the county. Still, more will be required to accommodate the 2020 projected population growth. Data of existing indoor space is outlined in *Appendix H, Recreation Program Assessment*.

Seasonal Reporting

The Bureau of Recreation compiles a report at the end of each programming season that analyzes how each programming division has performed. The report identifies successful programs, areas for improvement, significant changes, outcome of planned changes, and evaluation ratings. These numbers are analyzed in conjunction with the revenue and expenses of each program division and facility. The report is used to determine if program divisions met targets, and exposes which factors may have impacted program performance.

All data is outlined by recreation facility and programming division in *Appendix H, Recreation Program Assessment*.

Marketing Review

The community input sessions provided insight into the success of marketing efforts, including Howard County residents' awareness of programs and information sources. This information, in addition to the CAPRA requirements for marketing-related standards, informs the annual marketing plan that supports the Department's mission and vision. The 2015 annual marketing plan includes eight strategic initiatives, as well as more than 30 strategies, many of which are tactical. These eight initiatives are outlined in *Appendix H, Recreation Program Assessment*. Despite this, opportunities exist to improve the LPPRP by developing short-term and long-term goals and objectives, as well as to use a balanced scorecard to capture the four aspects of customers, finance, internal business support, and learning and growth within the LPPRP.

Moreover, the Marketing Department aspires to increase efforts in using data analysis for decision making, and to determine if efforts are not only yielding the best return on investment of marketing dollars but also if the Department is successfully communicating to different marketing segments. A list of how the Department currently tracks data is available in *Appendix H, Recreation Program Assessment*.

From green marketing techniques to using

social media to internal communication standards, the marketing staff utilizes quality control and quality assurance techniques. Marketing needs to be tightly connected to customer satisfaction results in programs and services, potentially through developing a trends team. Moreover, the Department should build relationships in order to secure corporate sponsorships, which will help sustain recreation programming for Howard County.

Pricing and Revenue Policy

The Department's fees and revenue policy, updated in May 2015, fulfills the CAPRA-required standard 5.1.1 Comprehensive Revenue Policy that relates to fees and charges. The policy includes philosophies, guidelines, and cost determination structures to manage fees and charges, and includes three levels of financial sustainability: direct costs, program administration, and institutional costs. Moving forward, the policy must include cost recovery goals for the 10 major program categories, and for the various facilities used. Having these goals will create accountability for program staff.

Budget worksheets and pricing information for programs at the county level are outlined in *Appendix H, Recreation Program Assessment*.

Additional Program and Service Observations

Additional program and service observation notes, from volunteer activity to drop-in programs to registration form credit card information collection, are available in *Appendix H, Recreation Program Assessment*.

Recreation Program Best Practices

The Department intends to strengthen its programs and services by focusing on three best practice areas: quality standards, customer requirements, and key performance indicators.

Developing quality standards is necessary for achieving high levels of customer satisfaction. The Department could focus on the Gaps Model of Service Quality, developed by Parasuraman and Zeithaml, to measure the gap between customer expectations and perceptions of the service used. The five components of the Gaps Model are defined in *Appendix H, Recreation Program Assessment*.

To better meet customer requirements, the Department could identify the five most important attributes to customers and reinforce them through documentation, training, surveys, and performance metrics.

Working with customers directly to identify these attributes will help the Department understand what is most important to county residents, and determine how closely existing programs and facilities meet those needs.

Key performance indicators allow agencies to track the success and identify issues with programs and services. Examples of these performance indicators are listed in *Appendix H, Recreation Program Assessment*.

TRENDS AND INNOVATION ASSESSMENT

Recreation Trends

The Physical Activity Council (PAC) produces a report summarizing data about US leisure activity, compiled from national, state, and local trends. The report identifies activity levels in various age groups and provides insight into key sport, fitness, and recreation participation trends. The Department's own Trends Analysis Plan, from 2011, outlines an eight-step process in using trend research as part of program and service development. The Plan complies with the CAPRA standard 10.5.1, which calls for the periodic assessment of the impact of societal and local recreation and leisure trends on existing and projected user populations.

Participation and Activities in the United States

Leisure activity participation has fluctuated over the last six years, although more than half of each categorized generation participates in fitness sports. Out of the 10 core participation activities identified in the PAC Overview Report, eight are fitness-related activities. Details regarding participant numbers and generational activity preferences are available in *Appendix G, Trends and Innovation*.

The report also reveals the fastest growing sports and activities by resources and participants, the latter of which provides insight into what Americans are becoming more interested in for their health, wellness, and fitness needs. The Top 10 Actual Growth Activities are listed in *Appendix G, Trends and Innovation*. The growth activities suggest that participants are interested in fun physical, emotional, and mental experiences, and non-conventional activities that require less equipment such as P90X and CrossFit. More activity trends are outlined in *Appendix G, Trends and Innovation*.

An inactive person is defined by the PAC report as one who does not participate in any of the 120 sports or activities listed. In the past six years, 2014 experienced the highest percentage of inactivity at 28.3 percent of Americans. PAC's framework of engaging

inactive people includes expanding the adult programming base to accommodate an aging population, and categorizing programs as aspirational, which has been shown to be an effective method of engaging unlikely participants. Moreover, the active adult community is interested in social program areas, such as walking and biking clubs. Further examples of active adult recreation programs are listed in *Appendix G, Trends and Innovation*, alongside the results of a recent survey to recreation professionals.

The Wall Street Journal published a list of statistics reflecting particular participation declines in the four most popular US team sports of basketball, soccer, baseball, and football, assembled from a variety of sports groups and industry associations from 2008 to 2012. All are reflected in *Appendix G, Trends and Innovation*.

Market Potential Index for Howard County

The Market Potential Index (MPI) measures the relative likelihood of adults in a specific area to exhibit certain consumer behavior, compared to the rest of the US. The MPI in Howard County for aerobics is 142, higher than the national average of 100, suggesting that aerobics programs would do well in Howard County, for instance. Determining

residents' likelihood to participate in a variety of activities can serve program development in the future.

All consumer behavior trends are derived from an ESRI report entitled Sports and Leisure Market Potential and apply to the demographic composition of Howard County. Those statistics are available in *Appendix G, Trends and Innovation*.

Major Program Areas Trends

Howard County's major program area trends supplements the sports and fitness activity trends by including information about aging adults, inclusion services, and licensed childcare. Surveys and reports indicate the aging population requires designated senior sections, facilities, and programs, in addition to easier access. Recent reports' lists of active adult trends and needs are outlined in *Appendix G, Trends and Innovation*.

Mirroring the growth of diversifying populations, special events have provided more and more programs geared toward ethnically diverse audiences. Moreover, nostalgia-themed events, to target broader audiences, in addition to food-related, pet-oriented, and family-oriented events, have grown in popularity.



National trends

Fitness activities that require less equipment, such as Crossfit and walking clubs, are growing nationwide. Image source: www.newalbanycompany.com, beachfitness.com

Volunteering consistently supports recreational programs, with higher rates from older generations. Specific volunteering trends, as released in 2012 and 2014, are listed in *Appendix G, Trends and Innovation*.

Outdoor recreation appears to have grown in popularity in the past 20 years, and has reached its peak. More agencies, however, are creating outdoor facilities to accommodate activities like biking and zip lining. Participation rates for specific activities, in reports released from 2009 to 2014, can be reviewed in *Appendix G, Trends and Innovation*.

Cost of childcare is one of the top two obstacles to afterschool care enrollment nationally and in Maryland. The Department's costs are approximately 35 percent lower than the national average, but rates are predicted to grow within the state. Parents make use of childcare programs to provide opportunities for their children's physical activity, access to healthy food, and access to STEM programs. A 2016 report on childcare predicts that despite an increased need for childcare by the year 2020, Maryland childcare providers will decline. This suggests an opportunity to develop additional childcare programs in the Department. Additionally, to meet the rising demands for extensive inclusion services, including programs for children of all abilities, parks and recreation agencies throughout the US will partner to set visions

and recommendations. A 10-point standards checklist for what childcare facilities should provide and recommendations for inclusion services are listed in *Appendix G, Trends and Innovation*.

With regards to arts programming, the National Endowment for the Arts (NEA) released a list of participation trends by activity. These national and Maryland-based statistics, from performing arts programs like dance, music, and theater, to personal art creation like painting or writing, are available in *Appendix G, Trends and Innovation*.

General program trends, beyond fitness activities or the arts, include cognitive, literary, STEM, and computer gaming activities. Agencies beyond the Department provide examples of these activities in *Appendix G, Trends and Innovation*. Also listed are locations specifically geared towards sports tourism, which must also ensure ways to maintain local residents' needs.

Further national trends, collected from recreation and parks agencies around the US, are outlined in *Appendix G, Trends and Innovation*, including suggestions for departments that have not yet incorporated these increasingly popular programs. All research conducted in the Trends and Innovation report help the Department build services aligned with industry trends as well as resident needs. A review of the

current program inventory indicates staff members have relied on trends to develop programs according to changing consumer interests. Moving forward, the Department is prepared to focus on the need for active adult programming, activities that reflect the county's ethnic and socioeconomic diversity, and increasing childcare programs. Developing a trends team for the Department may be a productive method to oversee and implement these activities.

All statistics sources listed in *Appendix G, Trends and Innovation*.



County program area trends

The county is experiencing greater demand for culture-specific events and outdoor fitness opportunities.



County Recommendations

How can the county better meet the needs of the community and serve as innovators in the field of recreation and parks?

In order to maintain excellence and drive further innovation within the Department, the Plan puts forth several recommendations for recreation and park services. These recommended improvements are based on the Plan analysis and community input and are represented through the following seven categories, all of which correspond to specific department goals:

- » Recreation
- » Education
- » Ecology
- » Connectivity
- » Placemaking
- » Visibility and Communication

At the countywide level, the Plan recommends the following:

Recreation: Celebrate the uniqueness of Howard County's diverse community through recreational opportunities that support multi-generational play, evolving trends, and diverse programming that are accessible to everyone. These opportunities should maintain a healthy balance of facility and park supply to support growing demand.

Education: Support lifelong learning through programming and partnerships that build community knowledge around the importance of healthy living and wellness.

Ecology: Celebrate the significance of Howard County's watershed system and diverse open space types. Invest in sustainable spaces and practices throughout all parks, recreation and natural spaces.

Connectivity: Create strong physical connections within and between parks, facilities and open spaces. Imagine Howard County as a connected green infrastructure

system that supports people and the greater natural system and provides linkages between the community and neighboring counties.

Placemaking: Create inspiring public spaces that focus on local community assets to enhance human relationships, reinforce park identity and promote overall wellbeing.

Visibility and Communications: Improve the identity of the system through enhanced wayfinding and impactful communication that is clear and visible. Continue to build meaningful partnerships outside of the Department to enhance visitor experience and community outreach.

Department Operations: Cultivate a strong workforce under the tenets and mission and vision of the Department. Enhance operational sustainability, efficiency, and the user experience.



Gary J. Arthur Community Center

Although already providing numerous successful programs and camps, the community center at Western Regional Park would benefit from stronger physical connections to the park itself and to the adjacent civic institutions.



**ENHANCING HEALTH
AND RESILIENCE OF
NATURAL SYSTEMS
AND CULTURAL HERITAGE**

Existing Conditions

What natural and historic resources does the county maintain?

Contributing to Howard County’s high quality of life, protected lands and historic resources managed by the Howard County Natural and Historic Resources Division support essential ecosystem services while offering residents and visitors the opportunity to connect with nature and the county’s cultural heritage. These ongoing efforts reflect the State of Maryland’s commitment and vision for environmental protection and conservation of natural and heritage resources while addressing challenges and conditions that are unique to Howard County.

ECOLOGICAL SETTING

While the region was strongly influenced by Ian McHarg’s progressive and ecologically driven approach to planning in the 1960s (noted in the LPPRP introduction), centuries of settlement and broader land use changes have significantly decreased and fragmented the county’s historic forest canopy cover. These changes have impacted not only the diversity and composition of the county’s ecological communities, but have also contributed to water-related issues in local streams and rivers, which all drain to the Chesapeake Bay.

As part of a multi-state effort to restore the Chesapeake Bay and its tributaries, watershed planning efforts began. In recent decades, major contributing watersheds and sub-watersheds have undergone studies to identify restoration potential, as part of compliance with an effort led by the Storm

Water Management Division in the Bureau of Environmental Services — National Pollutant Discharge Elimination System stormwater discharge permit. Efforts from several of the Department’s program aid in the reporting requirements for this permit.

Reforestation is one strategy used to reconnect and buffer natural systems; however, habitat loss and fragmentation have had significant impacts on wildlife populations and biodiversity. While smaller habitat fragments and increasing edge conditions have favored edge-dwelling species such as deer, species requiring specialized habitats — such as forest interior dwelling bird species — have mostly declined.



Ecological Context

Howard County is part of the greater Chesapeake Bay estuary and is bounded by the Patuxent and Patapsco Rivers.



N

NATURAL AND HISTORIC RESOURCES DIVISION

The mission of the Natural and Historic Resources Division of the Howard County Department of Recreation and Parks is to manage, protect, and enhance the natural, historic, and cultural resources of the county. Cultivating environmental and cultural awareness, the division promotes responsible stewardship of the land and historic resources, and strives to connect people of all ages with their surroundings. The Natural and Historic Resources Division is composed of the following management sections:

- » Natural Resource Operations
 - Natural Resource Management
 - Forestry
 - Enforcement
 - Deer Management
- » Park Rangers
- » Heritage Programming
- » Middle Patuxent Environmental Area
- » Robinson Nature Center

The Natural and Historic Resources Division also works closely with other divisions outside the Department to achieve environmental protection and enhancement goals including the following:

- » Department of Public Works Storm Water Management Division
- » Department of Public Works Construction Inspection Division
- » Howard County Soil Conservation District
- » Office of Community Sustainability
- » Department of Planning and Zoning
- » Maryland Department of Natural Resources
- » Maryland Department of Agriculture
- » Alliance for Chesapeake Bay
- » Columbia Association
- » Howard County Chapter of the Maryland Ornithological Society
- » Howard County Forestry Board
- » University of Maryland

Through these partnerships, the Natural and Historic Resources Division works to advance the state's GreenPrint goals to protect Targeted Ecological Areas (TEAs) that represent lands and watersheds of high ecological value that have been identified as conservation priorities.

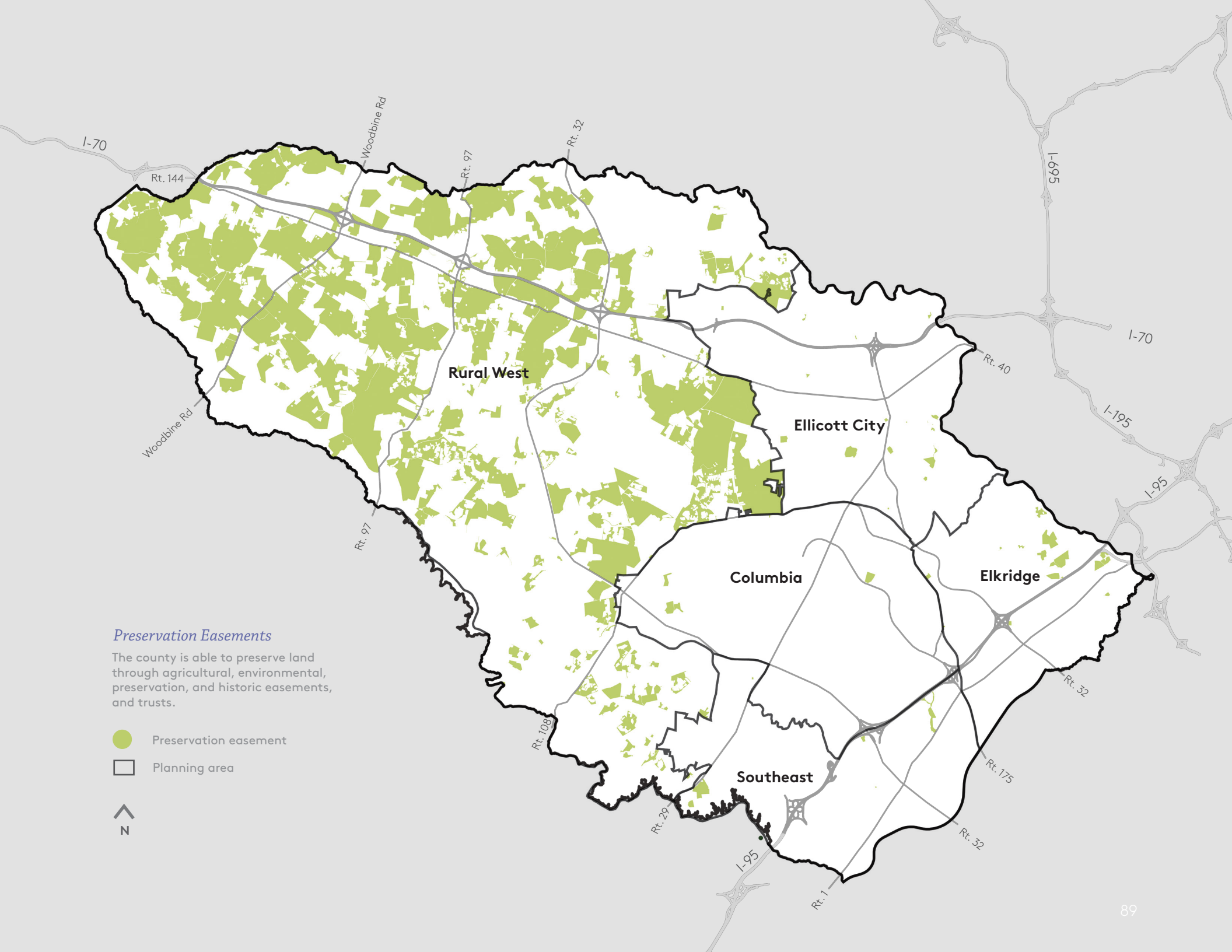
EXISTING NATURAL AREAS

Natural Resource Areas

Natural Resource Areas (NRA) represent a significant portion of the county's park and recreation system. These publicly accessible, protected areas allow for limited development and are managed to enhance the resource and related habitats. These areas also play a significant role in the protection and enhancement of the county's waterways that span across several watersheds, shown on page 91. Of the Department's 9,378 acres of total land holdings, 1,887 acres (20 percent) are considered natural resource areas. These areas include the following:

Carrs Mill NRA: Once a controversial landfill, Carrs Mill Park is a 21-acre natural resource area in the Rural West that was remediated and deeded to the county in 1996.

Gorman Stream Valley Park NRA: Also called Gorman Park, the NRA is 215 acres of county land and several hundred acres of Columbia Association open space. The NRA is home to a mix of deciduous upland and floodplain forests along both sides of the Middle Patuxent River. Migrant warblers and thrushes are known to pass through this area during migration periods.



Preservation Easements

The county is able to preserve land through agricultural, environmental, preservation, and historic easements, and trusts.

- Preservation easement
- Planning area



Gwynn Acres NRA: Gwynn Acres NRA is a seven-acre open space, located on the eastern side of the Little Patuxent River off Columbia Road. The NRA includes paved and unpaved trails and is home to young and mature deciduous floodplain trees.

Middle Patuxent Environmental Area: Home to nearly 150 species of birds, more than 40 species of mammals, and numerous amphibians, reptiles, fishes, butterflies, plants, and other wildlife, the 1,021-acre Middle Patuxent Environmental Area (MPEA) is the largest natural resource conservation area in the Howard County park system. The MPEA offers opportunities for environmental education and research, in addition to passive recreation with over 5.5 miles of hiking trails and numerous volunteer opportunities.

Patapsco Greenway (Houchens): The 34-acre property is in the Rural West planning region of the county along the Patapsco River on the border of Howard County and Carroll County.

Patapsco Greenway (Lewis): The Lewis property is a 6-acre parcel along the Patapsco River, just south of the Houchens property.

Patuxent Basin NRA: The Patuxent River Basin is a 43-acre winding site along the Patuxent River, just before the river leaves the county. The basin is south of the Rocky Gorge Dam and supports a wide range of plant and animal species.

David Force NRA: Preserved as an important forested area to protect water quality, provide habitat for wildlife, and support recreational hiking and nature observation, this 221-acre natural resource area is situated between Interstate 70 in the north and US Route 40 to the south along David Force Creek, a tributary to the Patuxent River.

Font Hill Wetlands Park: Located in Ellicott City this park was the first State/County/Private sector cooperative wetland project in the State of Maryland, presenting numerous opportunities to observe and study wetlands and their wildlife in this 26-acre park.

Chaconas Property: A 19-acre parcel located along the Patapsco River in the northwest section of the county.

EXISTING HISTORIC RESOURCES

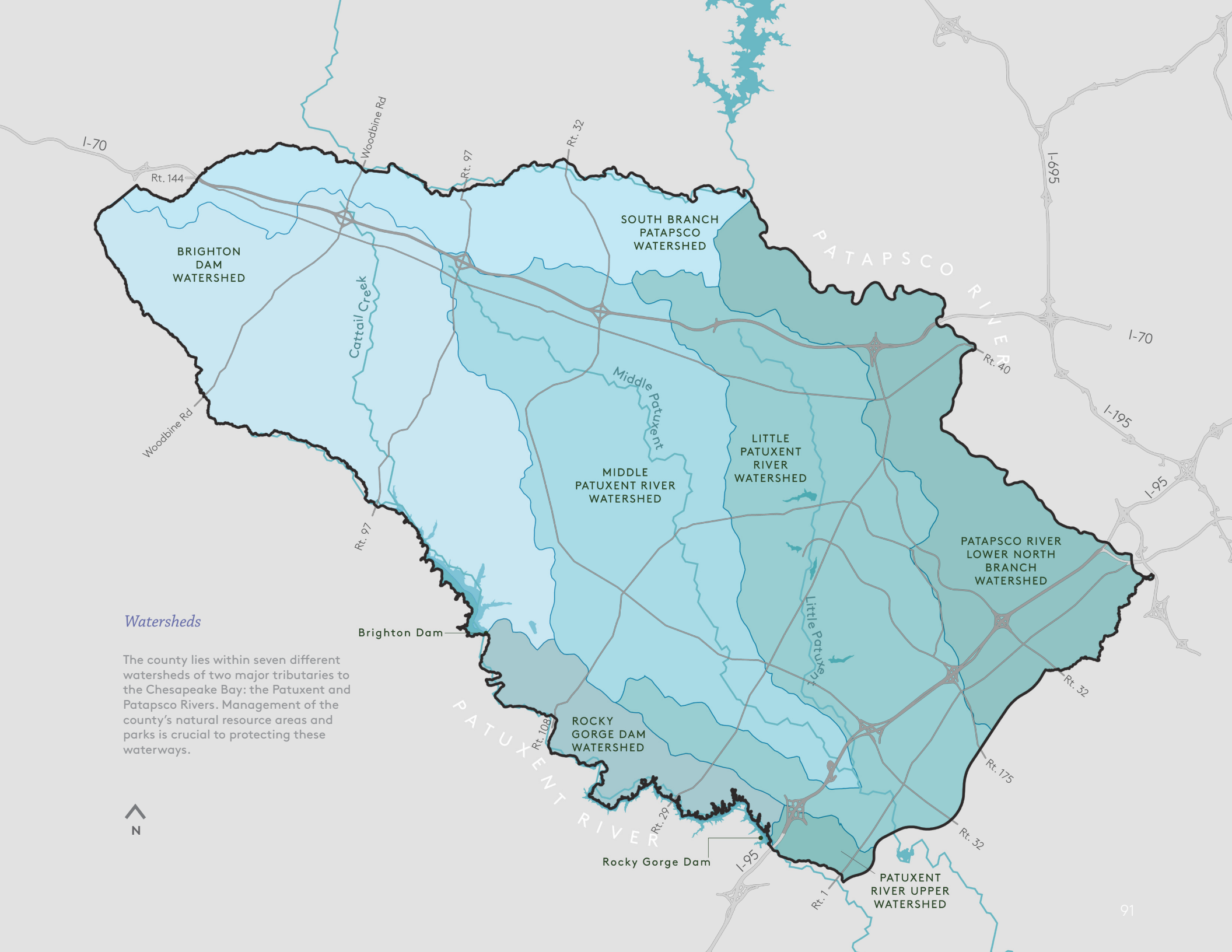
Heritage resources within Howard County illustrate many facets of the area's past including Native American settlement, early European settlement and agriculture, slavery and abolition, industry and transportation, and mid-twentieth-century community planning. Many of these resources are located within Ellicott City, where a concentration of historic buildings and structures tell the story

of a bustling town shaped by its proximity to both river and railroad. Other heritage assets, particularly those that illustrate the county's rich agricultural heritage, are spread throughout the county. Many resources have been lost due to twentieth-century development, but the county's efforts to conserve open land and the protection provided by historic designations have preserved many sites that are invaluable to the interpretation of Howard County's past.

Heritage Programming

Heritage Programming is a section within the Natural and Historic Resources Division of the Department. The mission of the program is to "benefit a diverse audience through utilizing our historic resources in various ways by staying current with technology and heritage tourism trends, by providing historically accurate information to our visitors, and maintaining a sense of place through the built environment and the intangible heritage associated with the region." Heritage Programming oversees an inventory of 25 historic and cultural sites with varying management structures and programming arrangements.

As of 2016, Heritage Programming directly manages programs for six of these sites (The Firehouse Museum, Patapsco Female Institute Historic Park, Pfeiffer's Corner Schoolhouse, Ellicott City Colored School, Restored, the



Watersheds

The county lies within seven different watersheds of two major tributaries to the Chesapeake Bay: the Patuxent and Patapsco Rivers. Management of the county's natural resource areas and parks is crucial to protecting these waterways.



Thomas Isaac Log Cabin, and the Heritage Orientation Center,). One of the sites, Belmont Manor and Historic Park, is managed by a separate group within Park Operations, and private entities manage three additional sites (Waverly Mansion, Hebb House, and the B&O Railroad Museum). Several of the sites are structures that can be experienced by passers-by but are not ideal for active heritage programming, such as the Bollman Truss Bridge, the Gilford Quarry Pratt Through

Truss Bridge, the Lt. Ephraim Anderson Grave Site, and the Ryan Property Historic Well. Other sites remain vacant or unused. Most of the programs managed by Heritage Programming are focused on Ellicott City, but the Department’s historic sites are spread across the county. The Heritage Programs office is currently located in a house adjacent to Centennial Park but not in the vicinity of foot traffic or any historic sites.

All revenue generated by heritage programming stays within the Department and directly benefits further programming and the treatment of historic sites, making revenue a high priority for Heritage Programming. The staff must balance the need to generate additional revenue with maintaining the integrity of both the historic sites and their programs.

Heritage Programming greatly benefits from partnerships with other organizations, many of which are led by Howard County residents who have a long history of involvement with the interpretation and preservation of heritage resources. Beyond school field trips, Heritage Programming notes less involvement and interest from younger generations of county residents.

Although the current programming is of high quality, Heritage Programming lacks a system for staff and resources to grow substantially and to program many of the unused historic sites currently within the Department’s inventory. Currently, all staff manage the programs, when they should focus on contractor management. Volunteers and contingent staff could run the programs so that full-time staff can supervise and expand the program model. This way, programming could occur at more historic sites, many of which are currently not used, and increase preservation opportunities. Appropriate programming for vacant historic sites is a high priority for Heritage Programming.

Historic Sites
B & O Railroad Museum
Belmont Manor and Historic Park
Bollman Truss Bridge
Ellicott City Colored School House, Restored
Firehouse Museum
Bernard Fort House (Heine property)
Howard District Court House (formerly the Heritage Orientation Center)
Patapsco Female Institute Historic Park
Gilford Quarry Pratt Through Truss Bridge
Thomas Isaac Log Cabin
Waverly Mansion

Historic Sites Within Parks	Park
Blandair Historic Farm	Blandair Park
Clover Hill Farm House	Rockburn Branch Park
Doyle Spring House	Rockburn Branch Park
Hebb House	West Friendship Park
James Marlow House	Schooley Mill Park
James Sykes House	West Friendship Park
Lt. Col. Ephraim Anderson Grave Site	Colonel Anderson Memorial Park
McKenzie Barn	Rockburn Branch Park
Pfeiffer’s Corner Schoolhouse	Rockburn Branch Park
Ryan Property Historic Well	Ellicott City Colored School House, Restored
Simpsonville Mill Ruins	Robinson Nature Center
Troy House	Troy Park
Poplar Springs Spring House	Poplar Spring Park



ELLICOTT'S MILLS

BALTO & OHIO RAILROAD

B & O Railroad Museum
The county has maintained several historic sites, such as the B & O Railroad Museum, that serve as regional tourist attractions.

Heritage Programming manages a range of historic property types and program types. Belmont Manor is a successful example of a historic property that is being adaptively reused for event programming, such as weddings and training events. Resources such as the Ellicott City Colored School and the Firehouse Museum are used for active cultural interpretation and house permanent exhibits. Others are used for active interpretation through living exhibits, such as the Hebb House at West Friendship Park. Some historic sites, such as the Gilford Quarry Pratt Through Truss Bridge and the Thomas Isaac Log Cabin, are used for passive interpretation through interpretive signage. Many sites, such as the Clover Hill Farm House and the Ryan Property Historic Well, remain unused either because their condition cannot accommodate programming, there are not sufficient resources for programming, or appropriate programs have not yet been identified. Currently, Heritage Programming does not have a comprehensive plan for the prioritization of appropriate programming for its historic sites.

Heritage Programs Recommendations

- » Expand programming outside of Ellicott City to encompass the whole county.
- » Develop a plan for curating the hundreds of archaeological artifacts currently held by Heritage Programs. Ensure any curation plan is consistent with the Secretary of the Interior's Standards for Preservation and Archaeology and the Standards and Guidelines for Archaeological Investigations in Maryland.
- » Provide a central home base for the Heritage Program that gives visibility to the group and their work.
- » Develop a formal strategy and plan for programming historic sites within the recreation and parks system. The objective of the plan should be to provide a consistent process for making decisions regarding the most viable and appropriate use and programs for individual historic sites. The strategy should incorporate an assessment of historic significance and integrity of individual assets based on the standards and guidelines set by the National Register of Historic Places and the Maryland Historic Trust. Categories of uses can include adaptive use for events (such as Belmont Manor and Historic Park), active interpretation (such as the Firehouse Museum), adaptive use for stable tenancy (such as retail, restaurant, or office space), and passive interpretation (such as the Gilford Quarry Pratt Through Truss Bridge).
- » Incorporate trends in heritage tourism and preservation and focus on appealing to a wide range of audiences, including younger generations who may currently have less attention on the heritage of Howard County.
- » Identify revenue-generating programs that can fund the expansion of Heritage Programs and the maintenance/ mothballing of unused historic sites awaiting programs.
- » Build awareness of Howard County's rich history with its residents while creating destinations for non-residents.

ACCOMPLISHMENTS SINCE PREVIOUS PLAN

Since 2012 the Natural and Historic Resources Division has made considerable progress on working toward the state and county goals outlined in the LPPRP. The following provides a brief summary of notable achievements and accomplishments, many of which align with the state's GreenPrint goals to coordinate the efforts of multiple conservation programs to preserve the identified Targeted Ecological Areas (TEAs). Please note: some figures in the following summary represent achievements for the duration of the program which may have commenced prior to 2012.

Forest Conservation/ Reforestation Programs

Working toward restoring Howard County's forest canopy, 80,101 trees have been planted through several different programs.

Private Land Forest Conservation

- » Private Forest Conservation Establishment — conservation easements located on private properties with environmentally sensitive features (58 acres planted, 17,657 trees planted and 23,657 feet of stream buffered to date)
- » Developer default plantings — privately held lands (13,731 trees have been planted on 68 acres since 2012)

- » Tree Canopy program — free native trees and planting services provided to homeowners (2,596 trees planted from 2011 to 2015)
- » Stream ReLeaf – riparian stream buffer enhancement program for private property owners (15,876 trees planted from 2003 to 2017)
- » Turf to Trees program - provides trees and planting services to Howard County property owners with lots of 1.5 to 10 acres in size, free of cost (1,187 trees planted on six acres)

Recreation and Parks Planting

- » Public Land Forest Conservation - 12,511 trees have been planted since 2012
- » Emerald Ash Borer program — surveying and under-planting for long-term forest management in David Force Natural Resource Area (12.1 acres replanted) and other affected sites countywide. The Department closely coordinates this program with the efforts of the Maryland Department of Natural Resources (DNR) Forest Service. In May, 2015, the Department co-hosted a regional EAB workshop with the DNR Forest Service at the Robinson Nature Center. Several representatives from the DNR Forest Service and the Maryland National Capital Park and Planning Commission have also toured the various county management sites.

Community Efforts

- » Volunteer Tree Plantings - conducts two plantings per year (600 trees planted to date)
- » Students Branching Out - student and volunteer environmental education program that has planted 15,943 trees to date, totaling more than 95 acres of reforestation.

Environmental Education

Robinson Nature Center: In 2011, the Department opened their first nature education facility along the Middle Patuxent Environmental Area. With the intention of bringing nature and people together, the center offers outdoor trails, educational exhibits, and programs. Over the past few years, the center has experienced tremendous success serving as a popular destination for school classes, families, and adults across several neighboring counties. The building itself has also been praised for its environmentally-friendly features resulting in LEED Platinum certification and is located within a designated TEA.

Maryland Partnership for Children in Nature:

The county has collaborated extensively with the Maryland Partnership for Children in Nature, a public and private partnership that works to provide opportunities for children to play and learn outdoors and promote environmental literacy.

The county collaborates with the partnership on several programs at the Robinson Nature Center, as well as through several Howard County Conservancy programs at their Mount Pleasant site in Woodstock. The county leases the Carriage House at Belmont Manor and Historic Park for various environmental education programs.

Public Outreach and Community Engagement

To date, close to 9,000 volunteer hours have contributed to improving the environmental quality of Howard County. From tree plantings to cleanup programs throughout the county, the following programs offer opportunities for Howard county residents to make a difference in their community.

Students Branching Out: combines environmental education with water quality planting efforts (students and volunteers have been engaged in a total of over 2,500 service hours).

Restoring the Environment and Developing Youth (READY) Projects: assists the Department with forest conservation planting maintenance such as tree shelter removal, invasive species control, monitoring, developing rain gardens and other stormwater facilities.

Volunteer tree plantings: conducts two planting events per year.

Stream and pond clean-up program: since 1996, 2,536 volunteers have invested 5,558 hours cleaning county waterways; since 2000, 40.41 miles of streams and rivers and 102.7 acres of pond and lake areas have been cleaned.

Educational materials: a variety of brochures and website links have been developed placing an emphasis on public education to protect the environment.

Weed Warriors: a volunteer group removes invasive plants from county lands (to date, 178 volunteers have worked 758 hours removing invasive plants).

Howard County GreenFest: more than 2,000 in attendance at the ninth annual event in 2017.

Park Rangers: provide quality customer service and information related to park safety, amenities, resources, and regulations while protecting the environment; offerings include the Bark Ranger program, the Ticked Off program, interpretive walks, and displays at expos and the county fair.

Trout in the Classroom: run by Trout Unlimited, this program raises Rainbow Trout eggs in the classroom for release into local streams; park rangers partner with Trout Unlimited to release the trout and help teach students about the value of water quality.

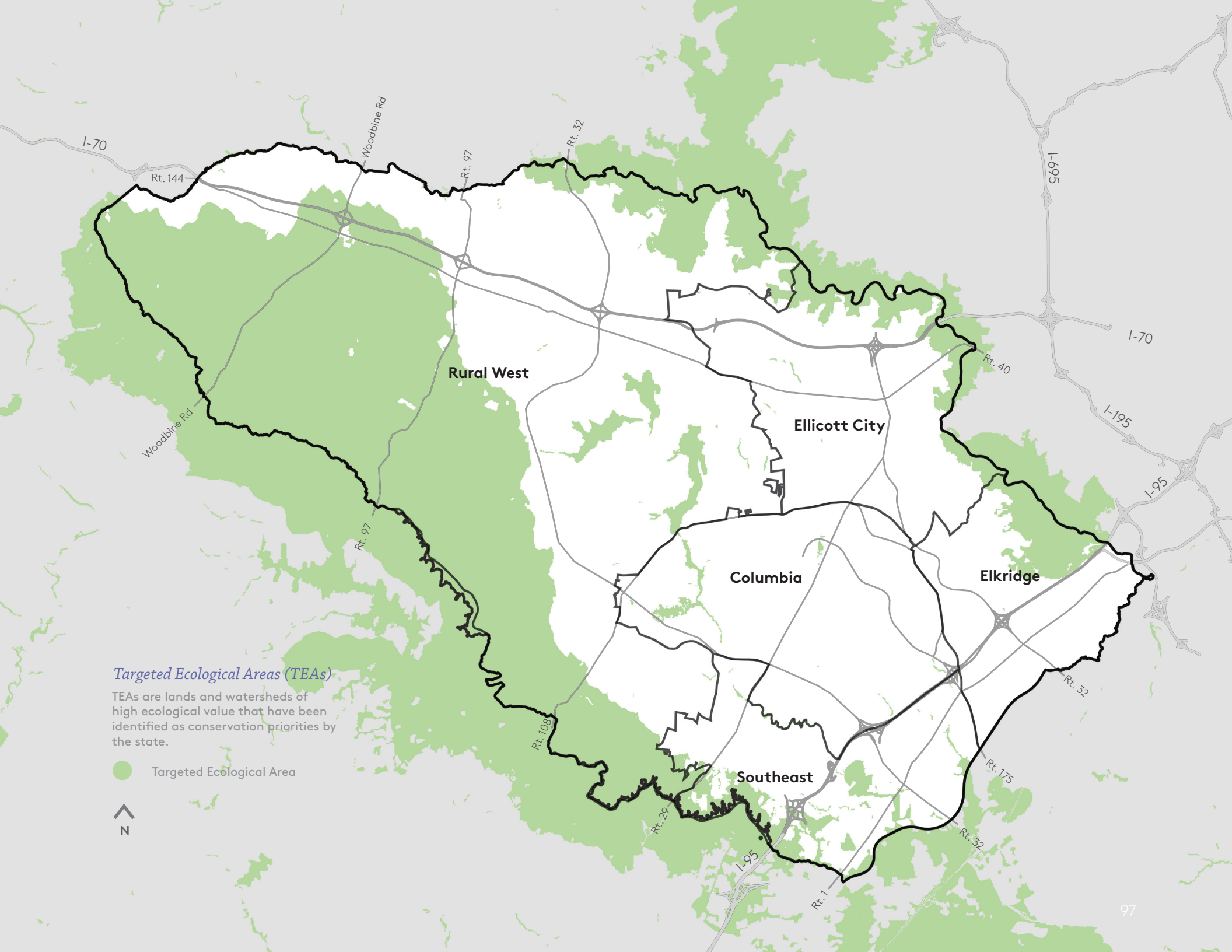
Trail Management

Trail Planning and Management Guidebook: Since 2012, the Department has completed a Trail Planning and Management Guidebook that describes Best Management Practices to follow when designing and constructing natural surface trails. This guidebook is to serve as a resource for trail planning decisions for the Department, as well as for the Department of Planning and Zoning, and to be shared with developers to ensure existing and newly constructed trails comply with sustainable standards.

Natural Surface Trail - Action Strategy: Started in 2013, the Department annually updates the Action Strategy—a document that plans objectives needed to be achieved to meet identified trail management goals. It documents the locations, construction and maintenance events on existing trails or newly planned routes. The next update will closely coordinate with recommendations from *Bike Howard 2015* and most likely will expand to include paved trail corridors.

Biological Surveys

Citizen scientists have logged more than 7,400 hours surveying amphibians, butterflies, and dragonflies; contributing to the inventory of Howard County biota. A number of programs are listed here:



Targeted Ecological Areas (TEAs)

TEAs are lands and watersheds of high ecological value that have been identified as conservation priorities by the state.

 Targeted Ecological Area



Frogwatch USA: an effort to gather data on declining amphibian populations (since 2000, 1,127 volunteers gathered information at 18 sites by conducting frog calling surveys with a total of 5,876 hours of volunteer service). managed by the Association of Zoos and Aquariums.

Annual Butterfly Count: As part of a partnership with the Howard County Bird Club, the Department participates in an annual census of North American butterflies found in the county (since 2007, 130 volunteers have worked 349 hours).

Annual Dragonfly Count: since 2006, the Department has partnered with the Howard County Bird Club to conduct the annual census of dragonflies and damselflies (odonates) in the county (since 2009, 155 volunteers have worked 1,216 hours on this survey).

Maryland Amphibian and Reptile Atlas: the Maryland Amphibian and Reptile Atlas began 1/1/2010 and ended 12/31/14; this project was lead by the Maryland Department of Natural Resources and the goal was to collect data to map, by blocks every 10 square miles, of the distributions of these animals all across the state; data will be published in 2017 and repeated in 2034.

Species Management

Deer management: monitors and manages deer populations in the county while

educating hunters and homeowners about deer-related issues.

Resident Canada Goose Management Program: population control measure to reduce degradation of lake, pond waters, and shorelines at several park properties.

Trout Stocking: state officials have determined that the water quality in these rivers is sufficient to support a recreational, three season fishery and during the fall of

2015, 6,000 brown and rainbow trout were stocked in the Little and Middle Patuxent Rivers, in addition to 2,500 trout stocked in Centennial Park Lake.

Meadow management: where appropriate, lands are actively managed in early

Deer population

The county continues to look for innovative solutions to address the overpopulation of deer.



successional habitats and planted to grass and wildflowers species beneficial to a variety of pollinators, small mammals, and birds.

Aquatic weed management: in fishable ponds and lakes, invasive aquatic vegetation is managed to support active recreation and water quality.

EXAMPLES OF SYSTEM CHALLENGES

Historic Site Maintenance and Programming

The Heritage Programming section within the Natural and Historic Resources Division struggles to maintain and program its 25 heritage sites due to limited resources. A lack of funding and staff creates a tension between the need to develop revenue-generating programs and the division's stewardship goals and responsibilities.

Invasive Species

Invasive species pose a considerable threat to the biodiversity and resilience of natural systems throughout Howard County and the surrounding region. Ongoing efforts continue to monitor and manage the many invasive species of concern; however, education, outreach, and continuing support from local volunteers is essential for the continuing success of the management program. Some

of the species which are currently monitored and managed by Howard County and supporting volunteer organizations includes but is not limited to; the Emerald Ash Borer beetle (*Agrilus planipennis*), Purple Loosestrife (*Lythrum salicaria*), Garlic Mustard (*Alliaria petiolate*), Canada Thistle (*Cirsium arvense*), Multi-flora Rose (*Rosa multiflora*), Japanese Knotweed (*Fallopia japonica*), and Japanese Stiltgrass (*Microstefium vimineum*).

Deer Management

Howard County faces an overpopulation of white-tailed deer, which results in overgrazing of the natural environment and an abundance of ticks leading to Lyme disease. The Department uses various methods to control the deer and tick populations.



Historic site maintenance

The county has difficulty maintaining and developing active programming for all of their heritage sites such as the Clover Hill Farm House.

IMPLEMENTING ORDINANCES AND PROGRAMS

Natural and Historic Resources Division has been instrumental in helping to create numerous policy and management guidelines. Those policies and guidelines are identified in detail below:

Title 19: Within the Howard County Code of Ordinances, the Parkland Watershed Facilities Fund authorizes the County Executive to purchase and develop land within the limits of the county for public park use and possible future expansion of county water facilities.

Department Policy and Procedures: The role of the Department is to ensure the Department's philosophy, goals and policies are appropriate; they will be reviewed by the director and designated staff at least yearly in accordance with HCDC Policy A-003, Policy and Procedure and Post Order review. Staff are encouraged to participate, to the maximum degree possible, in recommending changes as needed.

Beaver Management: In its role as a steward of Howard County's natural resources (Howard County Code Title 19, subtitle 2, Section 19.200-211), it shall be a goal of the Department of Recreation and Parks to practice an attitude of acceptance of, and tolerance for, beaver activity as part of the county's natural environment

and it will foster this attitude among the public through education. The Department recognizes beavers as a natural and desirable component of the environment because of their contribution to the quality and diversity of natural habitat.

Digitizing Forest Conservation Easements:

This easement program was established pursuant of the Forest Conservation Act of Howard County. Natural and Historic Resources Division is responsible for the inspection of any forest conservation easement established under a forest conservation agreement between the "developer" and the "county". According to this easement program, the developer is required to retain existing trees, plant trees to replace trees cleared during the course of development, or plant trees to create new forests. The area dedicated for the required retention, reforestation or afforestation is shown on the plan's plat of the Forest Conservation Easement and is described in the Deed of Forest Conservation Easement.

Farm Lease Best Management Practices

Inspections: The Department manages approximately 9,378 acres of county parkland out of which several park properties are leased to local farmers for agricultural production. Department benefits from proper management of these properties until the parks designed and developed. Farmers are required to follow the Resource Management

Plans (RMPs) written by US Department of Agriculture. Department will annually visit the property to insure the agreed upon RMP is being followed and implemented. If the farmers fail to follow the approved RMP, department may terminate the lease.

Forest Conservation Easement

Regulations: This regulation was established pursuant to the Forest Conservation Act of Howard County. Easements recorded in plats, plans and deeds are digitalized into GIS system. Accurate posting of protective signs along easement perimeters is carried out. Assessment of forest cover, plant survival and invasive species is performed. Threats like encroachments and deficiencies are reported.

Insect Collection Policy: The Department's role as a steward of Howard County's natural resources brings in the responsibility to protect and manage endangered species/ insects and their environments. The Natural and Historic Resources Division, will provide for the coordination, oversight, guidance, and where applicable, public notice and enforcement of all activities related to allowing amateur, professional and university-lead research projects involving the collection of organisms/insects within County-owned properties. Formal written request for permission should be approved to carry out the collection. The Department will not permit the collection of rare, threatened, or endangered insect species.