# HARFORD 2016 NEXT

## A MASTER PLAN FOR THE NEXT GENERATION

**Barry Glassman**
County Executive

**BARRY GLASSMAN**
HARFORD COUNTY EXECUTIVE

WWW.HARFORDCOUNTYMD.GOV
410.638.3350

Dear Harford County Citizens:

In May of 1608, Captain John Smith wrote the following passage in his diary as he navigated the rocks and viewed the Susquehanna River near what was to become Harford County:

"Heaven and earth never agreed better to frame a place for man's habitation. Here are mountains, hills, plaines, valleys, rivers and brookes all running most pleasant into a faire bay."

As a native of Harford County, I know that we live in a special place, and it is very important to me that we plan to keep it that way. Yet, our maturing county is at a crossroads. As we take steps toward a vision that allows us to remain successful for the next several decades, we must find the right balance between our future and protecting our precious land and water resources.

With that in mind, I am pleased to present HarfordNEXT - A Master Plan for the Next Generation. This forward-looking and visionary comprehensive plan lays out our aspirational policies and goals in a flexible framework that will allow the county government to encourage economic growth while enhancing our quality of place. Arising from the most transparent planning process in Harford County history, HarfordNEXT is also our most accessible master plan, written in plain language for anyone to understand and share in our county's bright future.

Our ultimate goal is to maintain and enhance Harford County's quality of life. HarfordNEXT represents a bold and imaginative vision that will make our community stronger and prosperous for generations.

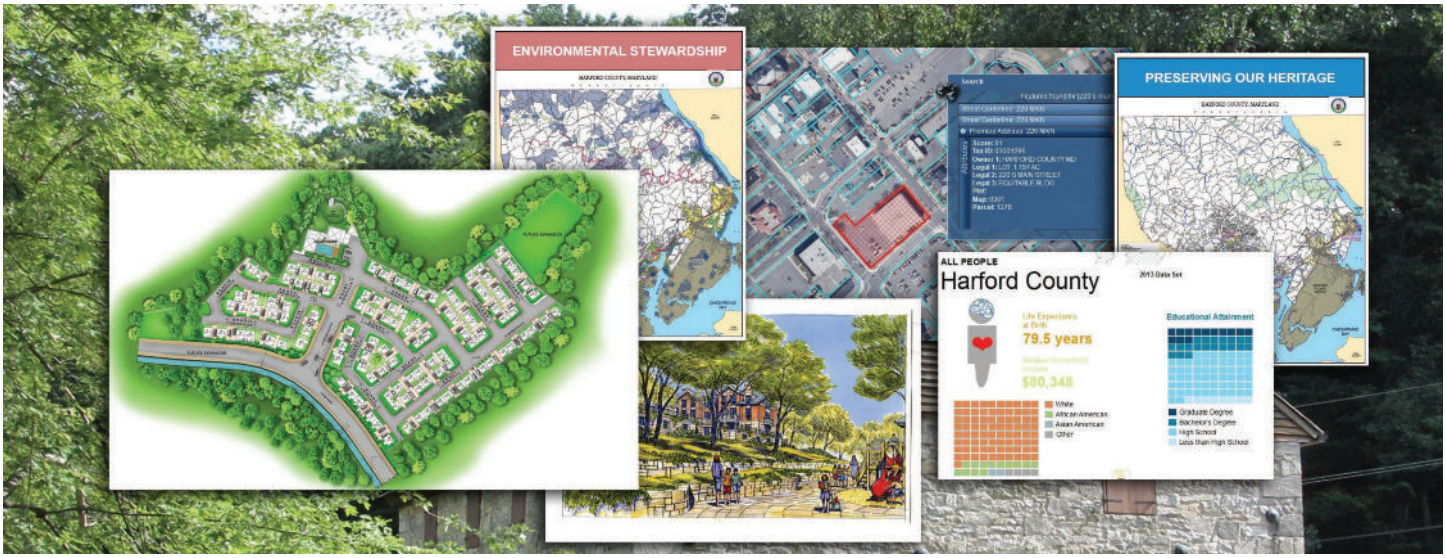
I look forward to working toward this vision and I thank you in advance for helping to make it a reality.

With every good wish, I remain

Very truly yours,

Barry Glassman
Harford County Executive






**Harford County Department of Planning and Zoning**
**220 South Main Street, 2nd Floor**
**Bel Air, MD 21014**
**Phone 410-638-3103**
**www.harfordcountymd.gov/164/Planning-Zoning**

Bradley F. Killian, Director
Jenny B. King, Deputy Director

## Planning Staff

Shane Grimm, AICP, Chief, Long-Range Planning
Bruce Johnson, Chief, Mapping and Data Services
Bill Amoss, Chief, Agricultural and Historic Preservation
Ivy Freitag
Nick Kalargyros
Matt Kropp
Bryan Lightner
Alex Rawls

## Administrative Staff

Lori Pietrowski
Sandra Caudell
Jennifer Freeman

## Data and GIS Staff

Maury Thackston
Dan Rooney, AICP
Becky Baird
Koren Buehler

# A Message from Planning & Zoning Director Bradley F. Killian

Harford County is a wonderful place to live, work, and play. Our commitment to community and the preservation of our rural legacy has contributed greatly to both our economic stability and high quality of life. As we set a course that will guide us for the next several decades, these principles will remain paramount to ensuring Harford County continues to be a wonderful place to live.

HarfordNEXT, a visionary update to Harford County's comprehensive plan, is a policy guide that emphasizes the importance of maintaining our quality of place and supports building strong communities. The document is the product of an unprecedented level of outreach and input from various individuals and stakeholders including the Planning Advisory Board, Community Advisory Boards, county agencies, planning professionals, business owners, and most importantly, county residents. I am grateful to all who contributed throughout the process in defining a forward-looking vision for Harford County.

HarfordNEXT is a departure from previous county master plans and element plans. Individual plans dedicated to specific content have been integrated into a single document organized around themes that support a holistic approach to planning. Each theme includes a brief introduction outlining the underlying principles for that theme and concludes with a compilation of recommended goals and implementations; these are the things that we, as a community, will aspire to achieve over the next ten years. HarfordNEXT also incorporates, for the first time, a theme dedicated to healthy communities, highlighting the importance of health and wellbeing to enhancing our quality of life.

HarfordNEXT sets an ambitious agenda, one that will require a collective commitment to achieve. I look forward to working with all of our partners in pursuit of our shared vision for Harford County.



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CHAPTER 1

# INTRODUCTION

HARFORD NEXT
A MASTER PLAN FOR THE NEXT GENERATION

## A Master Plan for the Next Generation



## Background

For centuries, people have been attracted to Harford County's rolling countryside and fertile soils. Through the years, Harford County has strived to maintain its rural character and identity while balancing the needs of a diverse and growing population. The County faces new challenges, as it strives to balance its heritage with future growth. HarfordNEXT will provide opportunities to accommodate and focus growth in a manner that maintains rural areas, as well as, strengthens communities, with an emphasis on sustainable development. This plan will serve as the policy guide for implementing innovative ideas that will help build strong communities, grow a competitive economic base, and preserve our rich heritage.

HarfordNEXT unites the County's element plans into one streamlined document and introduces a thematic approach to organize policies and implementation strategies. At the core of the plan are policies promoting safe, harmonious, and livable communities. The plan provides strategies to create opportunities for small businesses and initiatives to attract large national corporations with diverse workforce needs. HarfordNEXT reaffirms the County's commitment to the mission of the Aberdeen Proving Ground and creating opportunities for revitalization and reinvestment within the Chesapeake Science and Security Corridor (CSSC). The plan also recognizes the County's diverse history and agricultural roots. HarfordNEXT must balance the preservation of our productive farm lands with sustainable development, to ensure continued economic vitality. Promoting an efficient, multi-modal transportation system is another vital component to the County's economic engine. HarfordNEXT aims to ensure we are a resilient community, poised to adapt to an ever changing social and economic climate.

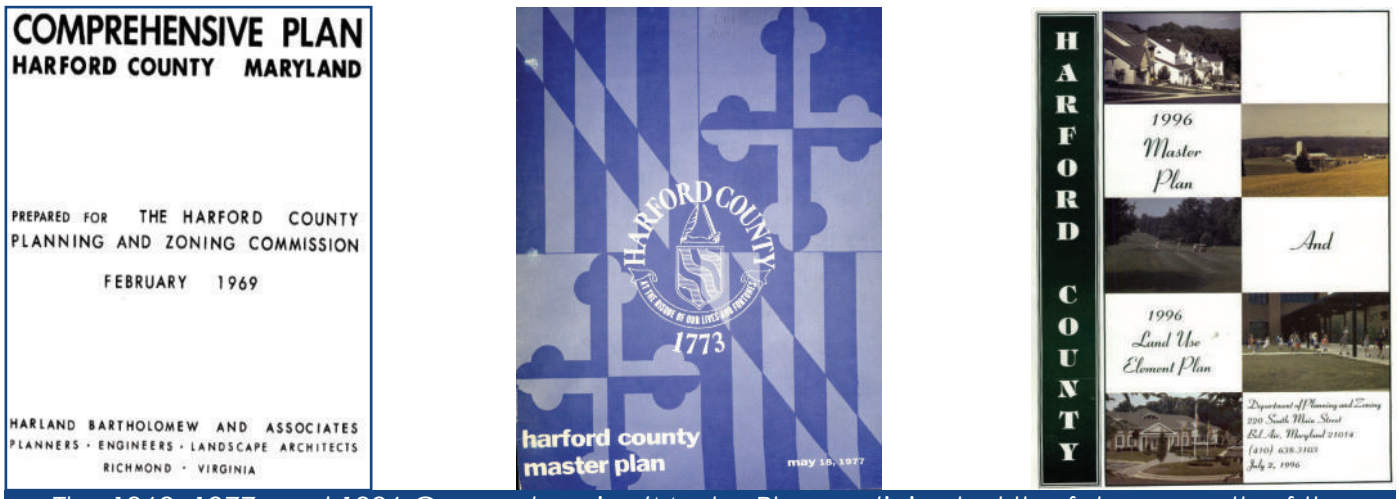
Attending to the physical and mental well-being of our citizens is a new and important component to the County's Master Plan. Harford County is seeing an alarming increase in chronic diseases such as diabetes and cancer, as well as, troublesome increases in heroin addiction. HarfordNEXT proposes goals and strategies to improve the built environment to help promote healthier, active communities. Advocating for mental wellness is also important to combating the heroin epidemic and reducing the incidence of chronic diseases.

Public participation is critical to the development of a successful master plan, and the outreach program for HarfordNEXT was unprecedented in engaging a wide range of citizens and community groups. Valuable comments and suggestions were collected in various formats of engagement; including public meetings, email, social media, and Open Town Hall, an online citizen engagement tool. Presentations were also given to the eight Community Advisory Boards. The Department's outreach efforts were important to maintaining transparency and ensuring trust between the County and its residents.

HarfordNEXT is a forward thinking plan and an exciting opportunity to address the evolving needs of the County. Implementation strategies identified in this document will help strengthen the sense of place of our diverse communities and nurture a vibrant economy. HarfordNEXT establishes the necessary framework for maintaining and enhancing our quality of life, both now and in the future.

## Harford County Comprehensive Planning History

Harford County's first Master Plan was completed in 1969 and established the original vision for growth in the County. The 1977 Master Plan introduced the Development Envelope, conceived to focus growth to areas where infrastructure was available or planned. Later, individual element plans were established to support the Land Use Element Plan, and these were related to the topics of transportation, natural resources, and historic preservation. In 1996, the Community Planning Councils were created for information sharing on common issues and to foster the development of a county-wide, comprehensive planning vision.




*The 1969, 1977, and 1996 Comprehensive/Master Plans anticipated the future growth of the County and established important planning concepts such as the Development Envelope, which continues to be an important growth management tool today.*

The 2004 Master Plan addressed state policies and initiatives, such as the eight planning visions identified in the 1997 Smart Growth Act, which established a Priority Funding Area (PFA) for capital investment and the Rural Legacy Program for land preservation. In Harford County, the PFA includes the Development Envelope, the municipalities, designated rural villages, University Center, Harford Community College, and areas designated for Mixed Office.

The Rural Legacy program uses state funds to purchase conservation easements on large tracts of land; whether for agriculture, forestry, or habitat protection. Harford County has two Rural Legacy Areas: the Deer Creek Rural Legacy Area, which encompasses much of the Deer Creek watershed, and the Manor Rural Legacy Area, which is shared with Baltimore County.

In 2006, two pieces of legislation were introduced in the Maryland General Assembly: the Agricultural Stewardship Act of 2006 and House Bill 1141. The Agricultural Stewardship Act of 2006 required the adoption of a Priority Preservation Area (PPA) Plan. An updated PPA can be found in Appendix I. It also established a set of strategies to further land preservation in the area and established the goal of preserving 80% of the remaining undeveloped land.

House Bill 1141 was addressed in 2009 with the update of the Natural Resources Element Plan, which included the required Water Resources Element (WRE). The main purpose of the WRE (Appendix II) is to ensure that Harford County has adequate water resources to meet its current

and future needs for drinking water and wastewater treatment. The WRE was developed in coordination with the County's municipalities.

In 2009, the state launched Smart, Green and Growing, a multi-agency initiative that clarified the role of the local comprehensive plans, required accountability by local jurisdictions, and added to the state planning visions. As part of the Smart, Green, and Growing legislative package, Harford County must submit an annual report that addresses specific smart growth measures and indicators that support the statewide land use goal of targeting development within designated Priority Funding Areas and minimizing development outside of these areas. Harford County's 2012 Master Plan and Land Use Element Plan built upon various state and regional planning initiatives, including all of the elements previously mentioned.

### Relationship to Municipalities

Harford County has coordinated with the Town of Bel Air and the cities of Aberdeen and Havre de Grace on the creation of their growth plans. State law requires municipal jurisdictions to develop a Municipal Growth Element (MGE) as part of their Comprehensive Plan. The MGE must identify future municipal growth areas outside of the existing corporate limits and be submitted to the County for review and comment. Proposed annexations must be consistent with those outlined in the Municipal Growth Element Plans, and permitted development on the annexed lands shall be in accordance with the County's zoning classification that is in place at the time of the annexation.

The County and municipalities are also working together on the development of Phase III of the County's Watershed Implementation Plan (WIP). The WIP will address how Harford County will partner with local, state, and federal governments to achieve and maintain water quality standards.

### Plan Objectives

Five primary objectives underscored the development of HarfordNEXT:

- Establish a vision for Harford County.
- Consolidate various element plans into one cohesive document.
- Create a document that is accessible and easily understood.
- Provide strategic implementations to guide County actions.
- Refine planning strategies to be implemented at the community level.

These objectives form the underlying purpose of HarfordNEXT; each theme, principle, goal, and implementation was conceived with these objectives in mind.

### The Big Ideas

HarfordNEXT presents an ambitious vision for the future of Harford County. While the plan articulates numerous goals and implementations impacting all aspects of County government,

several key concepts emerged. These Big Ideas represent a bold direction for the County and are a sample of signature strategies that will distinguish Harford County:

*1. Innovative development emphasizing sustainability*

Design manuals can provide a framework for new development and redevelopment to achieve harmonious design by establishing a comprehensive set of site layout and architectural standards. Overlay districts can be tailored to specific areas to provide context sensitive zoning solutions and achieve broader community goals, such as celebrating historic assets or rebranding an economically challenged neighborhood. Design manuals and overlay districts can help reinforce or define architectural character and encourage quality public open spaces and streetscapes that are compatible with existing communities.

*2. Green Infrastructure Planning*

Developing a Green Infrastructure Plan will help to identify an interconnected system of ecologically important hubs and corridors county-wide. The network will support the migration of native plant and animal species while focusing restoration efforts to help improve air and water quality. The plan will also guide state and County preservation efforts and inform decision-making when preparing master plans, evaluating development proposals, prioritizing the purchase of agricultural or conservation easements, and acquiring land for public facilities.

*3. Promotion of our historical and cultural resources*

With the advancement of Geographic Information Systems (GIS) and mobile applications, the County can streamline the field survey workflow and create a new inventory system that has the potential for local, state, and national agencies and preservation organizations to prioritize future preservation and promotion activities. Mobile applications can also be developed to create walking, bicycling, and driving tours that promote the County's cultural resources, which can, in turn, benefit the local economy. The County will also pursue Certified Local Government (CLG) designation, which can provide access to grants and technical assistance to enhance our historic preservation program.

*4. Collective Impact Model to establish health goals across various agencies and organizations*

The Collective Impact Model is a framework for fostering collaboration between organizations from different sectors to solve a specific social problem by aligning their efforts and determining overlapping measures of success. The model typically relies on five conditions to ensure success: a common agenda, shared measurement, mutually reinforcing activities, continuous communication, and backbone support. The County will utilize the Collective Impact Model to identify and solve various health issues such as the heroin epidemic, childhood obesity, and other chronic diseases.

*5. Blue Zone Community*

HarfordNEXT seeks to establish Harford County as a place that emulates many facets of a Blue Zone Community where people live measurably longer, healthier, and happier lives. Some of the implementation strategies proposed in HarfordNEXT are a first step towards

improving the health and well-being of our population. The County will develop policies and programs by collaboratively involving citizens, schools, employers, restaurants, grocery stores, and community leaders. Public and private entities can work together to identify areas of opportunity by utilizing data to target resources where assistance is needed to increase the probability of success. Harford County can achieve certification as a Blue Zone Community through individual, public, and private commitments to act on specific goals and policies outlined in HarfordNEXT.

*6. Holistic transportation planning*

Innovative approaches are necessary to relieve congestion and improve safety on Harford County's roads and highways. HarfordNEXT proposes strategies, such as Transportation Demand Management (TDM) programs, that are designed to reduce travel demand during the peak hours and/or redistribute travel demand. TDM promotes alternative ways to manage congestion, such as expanding rideshare programs, providing transit incentives, and encouraging businesses to implement teleworking and flexible scheduling for their employees. The plan also supports transportation alternatives, such as walking and bicycling, which have the added benefit of promoting an active lifestyle. Preserving rights-of-way is also essential to meeting long-range transportation goals and establishing a Complete Streets program.

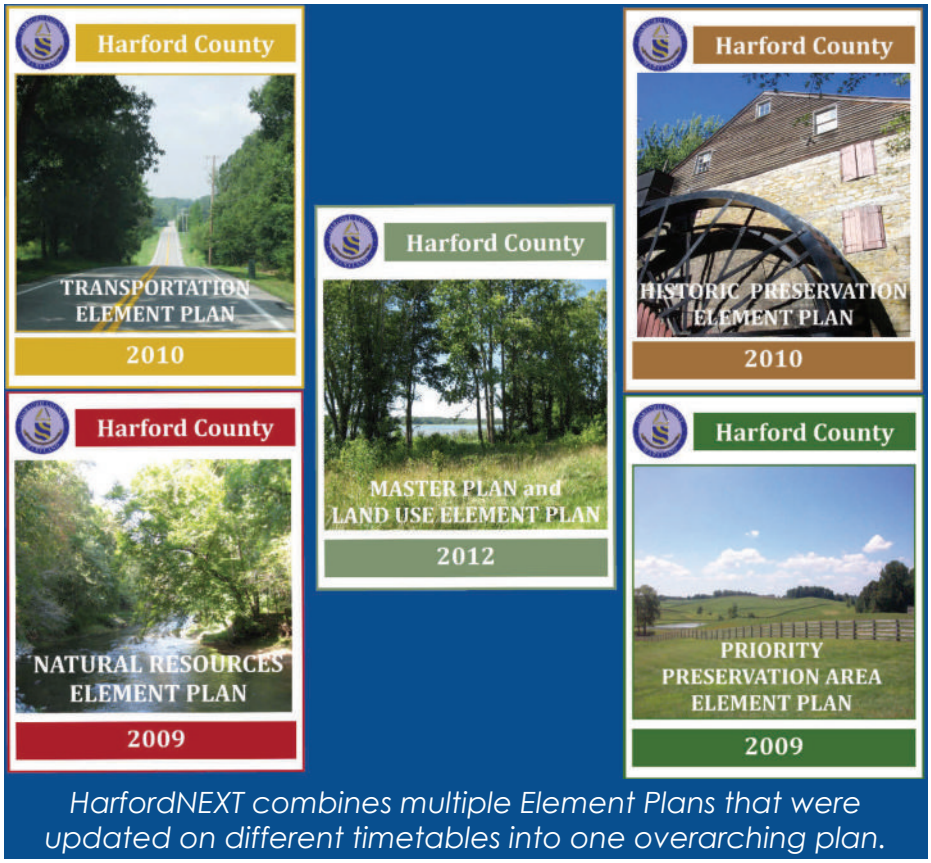
## Plan Organization

A master plan is a statement of a community's vision for the future that comprehensively coordinates all major components of services, activities, and the community's physical development. Master plans are purposefully long-range, high-level, and general in nature to provide flexibility over the planning horizon of the document. Future plans and studies will provide greater specificity and allow communities to individually prioritize their needs. HarfordNEXT is an overarching plan which will require coordinated efforts across many agencies and community engagement to realize the goals contained within the document.

HarfordNEXT is designed with a focus on enhancing the excellent quality of life enjoyed by Harford County residents, building healthy and resilient communities, and fostering economic vitality. Preparing a master plan for the next generation required the inclusion of innovative approaches to help the County grow with purpose, while also ensuring adaptability in an ever changing socio-economic environment.

Previously, Harford County's Master Plan and Land Use Element Plan were supported by several standalone element plans; such as the Transportation Element Plan, Natural Resource Element Plan, Historic Preservation Element Plan, and the Priority Preservation Area Element Plan. In an effort to streamline the Master Plan and coordinate policies and implementations across different disciplines, the Department of Planning and Zoning conceived a contemporary approach that organizes the plan around six overarching themes. This thematic approach covers the same fundamental topics as previous element plans; compiling the elements into a single document allows for more comprehensive and coordinated planning across the 25 year planning horizon of HarfordNEXT.

| THEMES AND PRINCIPLES | HarfordNEXT Elements | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | LAND USE | EDUCATION AND OUTREACH | TRANSPORTATION | HOUSING | ECONOMIC DEVELOPMENT | RECREATION | NATURAL RESOURCES | PUBLIC SERVICES, FACILITIES & UTILITIES | NATURAL HAZARDS | GROWTH MANAGEMENT | COMMUNITY DESIGN |
| **Theme #1 - Grow With Purpose** | | | | | | | | | | | |
| Livable Communities | X | | X | X | | X | | X | | X | X |
| Maintain And Enhance Harford County's Public Facilities And Infrastructure | | | X | | X | X | | X | X | X | |
| Strengthen Communities | X | | | X | | X | | | | | X |
| Ensure A Range Of Housing Opportunities For All Citizens | | | | X | | | | | | | X |
| Government Accountability | X | X | X | X | X | X | X | X | X | X | X |
| **Theme #2 - Economic Vitality** | | | | | | | | | | | |
| Grow Economic Opportunities And Competiveness | | | | | X | | | X | | | |
| Revitalize Existing Communities | X | X | X | X | X | | | X | | X | X |
| Ensure And Promote A Skilled Workforce That Will Attract Businesses | | X | | | X | | | | | | |
| **Theme #3 - Environmental Stewardship** | | | | | | | | | | | |
| Protect And Restore Environmentally Sensitive Areas | | X | | | | X | X | | X | | X |
| Preserve Water Resources | X | | | | | X | X | X | X | | |
| Adequate Stormwater Management | X | | | | | | X | X | X | | |
| Outreach And Education | | X | | | | X | X | X | X | | |
| Natural Resource Management | X | | | | | X | X | | X | | |
| **Theme #4 - Preserving Our Heritage** | | | | | | | | | | | |
| Protect Historic And Cultural Resources | X | X | | X | | X | | | X | | X |
| Protect Agricultural & Natural Resources | X | X | | | | X | X | | | | X |
| Build Capacity For Preservation | | | | | | | | | | | |
| Educate And Connect With Broader Audiences | | X | | | X | X | X | | | | |
| **Theme #5 - Mobility And Connectivity** | | | | | | | | | | | |
| Adopt A Holistic Approach To Transportation Planning | X | | X | | X | | | | | X | X |
| Integrate Transportation With Land Use Planning | X | | X | X | X | | X | | | X | X |
| Expanded Network Of Safe Bicycle And Pedestrian Facilities | | | X | | | X | | | | | X |
| Safe, Efficient, And Convenient Transit Services | | | X | | | | | | | | |
| An Emphasis On Reducing Vehicle Miles Traveled | | X | X | | | | | | | | X |
| Expand Transportation Demand Management (Tdm) | X | | X | | | | | | | X | |
| **Theme #6 - Promoting Healthy Communities** | | | | | | | | | | | |
| Foster Healthy Lifestyles And Active Living For All Harford County Residents | | X | X | | | X | | | | | X |
| Provide Safe Communities | X | | | X | | | | X | X | | X |
| Provide Access To Healthy Food Choices For All Harford County Residents | | | | | X | | | | | | |
| Support Efficient And Effective Delivery Of Health And Social Services Throughout Harford County | | X | | | | | | X | | | |




*HarfordNEXT combines multiple Element Plans that were updated on different timetables into one overarching plan.*

The six themes in HarfordNEXT represent a holistic perspective on broad planning topics. The themes are Grow With Purpose, Preserving Our Heritage, Mobility and Connectivity, Promoting Healthy Communities, Environmental Stewardship, and Economic Vitality. Each theme is structured around a number of principles and goals that correspond to implementation strategies to guide county policies over the life of the plan. The goals and implementations proposed in HarfordNEXT will become the work plan for County agencies.

From Darlington to Edgewood, the fabric of Harford County is sewn together by its diverse communities, and they are the foundation of HarfordNEXT. Seven community planning areas were established to facilitate strategic implementations at the community level. The Community Areas include Churchville/Creswell, Edgewood, Fallston, Greater Bel Air/Emmorton/Forest Hill, Greater Aberdeen/Bush River/Havre de Grace, Joppa/Joppatowne, and the Northern Tier. These seven areas vary slightly from the eight Community Advisory Boards, to maintain consistent data analysis. Each of the seven community planning areas is discussed in detail with an emphasis on identifying strengths and opportunities to achieve a high quality of life for residents.

Relevant implementation strategies from each of the themes have been applied to the Community Areas. After reviewing the strengths and opportunities for each Community Area, strategies were selected to help ensure the areas remain attractive, livable communities, which offer residents the quality of life they desire. The Community Areas section of the plan also stresses the importance of resilience and adapting to an ever changing socio-economic climate. To achieve this, the Community Areas section emphasizes the following goals:

- Protection and enhancement of existing neighborhoods;
- Provision of balanced residential, commercial and employment opportunities;
- Ensuring that neighborhoods are sustainable and resilient;
- Provision of multimodal transportation connections that are sensitive to community character;
- Provision of opportunities for a healthy lifestyle;
- Protection of natural, historical, and cultural resources; and
- Protection of rural areas.

Each of the Community Area narratives provides information on existing population and growth trends. A description of each community's character along with a land use plan for the area is included. Variations exist among the descriptions, but this reflects the uniqueness of each area. The Community Areas section of HarfordNEXT will provide the framework for future planning studies and analysis in coordination with citizens and community groups.

## Public Participation

The Department of Planning and Zoning initiated HarfordNEXT with a presentation to the County Council on April 7, 2015. The presentation included a discussion on the changes to the format of the plan; specifically, the use of a thematic approach. Following the presentation to the Council, the Department of Planning and Zoning held an open house kickoff meeting at Harford Community College on April 29, 2015. The meeting was attended by 85 citizens who provided comments on the six guiding themes explored throughout the plan.

The Department simultaneously launched a HarfordNEXT webpage that provided information on the master plan process, status of the update, and links to reference material. A link was also provided to a cloud-based online civic engagement platform known as Open Town Hall. This platform allowed for an unprecedented level of community outreach. Citizens were able to access Open Town Hall anywhere from a computer or mobile device. The forum was updated periodically with questions to engage the public on a wide range of topics. Citizens could also forward their comments directly to the Department via an email link on the webpage.

During the spring and summer of 2015, staff made presentations to all of the Community Advisory Boards (CAB). Similar to the presentation given to the County Council, Department staff educated CAB members on the changes to the format of the master plan and discussed the six guiding themes. The CAB's were then given an opportunity to provide formal written comments. As part of the engagement process, the information gathered at these events was transposed into a written format and then shared on the HarfordNEXT website. Department staff also made presentations and solicited input from stakeholder groups such as the Chamber of Commerce, Farm Bureau, and Baltimore Metropolitan Council (BMC), as well as forming a Technical Advisory Committee (TAC) composed of representatives from various municipal, county, and state agencies.

The draft of HarfordNEXT was released for public review on February 8, 2016. The draft was accessible through the HarfordNEXT webpage. In keeping with the Department's commitment to infuse technology into the planning process, citizens could use the online tool known as OpenComment to provide feedback on the draft plan.




*Citizens attended an Open House to provide input for HarfordNEXT on February 18, 2016.*

## State Planning Visions

In 2009, the Maryland Legislature passed a suite of legislation called Smart, Green and Growing, which included 12 Visions that address quality of life and sustainability, public participation, growth areas, community design, infrastructure, transportation, housing, economic development, environmental protection, resource conservation, stewardship, and implementation approaches. HarfordNEXT incorporates the State's planning Visions throughout the various themes, goals, and implementation strategies. The Visions are:

*1. Quality of Life and Sustainability: A high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment.*

Enhancing quality of life is a priority for the citizens of Harford County. The County continues to foster environmental stewardship and sustainable living, with an added focus on resiliency and adaptation. Policies related to sustainability and resilience have been incorporated into this plan and can be found within the Grow With Purpose, Environmental Stewardship and Preserving our Heritage themes.

*2. Public Participation: Citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals.*

Public participation is a significant component of comprehensive planning and the County is dedicated to providing diverse forums for public participation; including email, web portals, social media, and community meetings.

*3. Growth Areas: Growth is concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers.*

HarfordNEXT continues to focus future residential and commercial development within the Development Envelope, while exploring areas to accommodate future growth. Growth areas are discussed within the Grow With Purpose and Mobility and Connectivity themes.

*4. Community Design: Compact, mixed-use, walkable design consistent with existing community character and located near available or planned transit options is encouraged, to ensure efficient use of land and transportation resources, and preservation and enhancement of natural systems, open spaces, recreational areas, and historical, cultural, and archaeological resources.*

HarfordNEXT proposes the development of innovative design guidelines that promote mixed-use and transit oriented development, with an emphasis on providing multi-modal transportation options. Community design is discussed within the Grow With Purpose and Mobility and Connectivity themes.

*5. Infrastructure: Growth areas have the water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and environmentally sustainable manner.*

The Priority Funding Area (PFA) was established in 1997 to direct growth around existing population centers where community facilities and infrastructure exists. The County's Adequate Public Facilities Program monitors the number and location of new housing units approved and also provides an analysis of the current and future capacity of public facilities and services such as schools, water and sewer, and roads.

In coordination with the municipalities, the County has updated the Water Resources Element Plan (Appendix II). This Plan ensures that Harford County has adequate water resources to meet its current and future needs for drinking water and wastewater treatment. It also requires that there be suitable receiving water and land areas to meet the stormwater management needs of existing and future development as identified in this Plan.

Infrastructure is discussed within the Grow With Purpose, Economic Vitality, and Mobility and Connectivity themes.

*6. Transportation: A well-maintained, multimodal transportation system, facilitates the safe, convenient, affordable, and efficient movement of people, goods, and services within and between population and business centers.*

HarfordNEXT explores various policies and goals to establish an efficient and reliable multi-modal transportation system within Harford County and in accordance with State initiatives. An efficient multi-modal transportation system includes transit, rail, and non-motorized

transportation options, which encourage walking and biking as an alternative to motorized options. Transportation and related issues are discussed within the Mobility and Connectivity, Grow With Purpose, Promoting Healthy Communities and Economic Vitality themes.

*7. Housing: A range of housing densities, types, and sizes provides residential options for citizens of all ages and incomes.*

In response to social and economic changes, HarfordNEXT explores the importance of providing a variety of housing options that meets the diverse needs of our citizens. The County's Consolidated Plan (FY 2013-2017) establishes a five year strategy for how the County will provide a suitable living environment for low to moderate income families. Housing is discussed within the Grow With Purpose and Economic Vitality themes.

*8. Economic Development: Economic development and natural resource-based businesses that promote employment opportunities for all income levels within the capacity of the County.*

The Department of Planning and Zoning in cooperation with the Office of Economic Development will continue to actively support established businesses within the County, while seeking to attract new businesses to broaden the County's economic base. The County also seeks to provide prospective employers with a highly trained and skilled workforce, which will further enhance the County's attractiveness to national companies.

Economic Development is discussed in the Preserving Our Heritage, Economic Vitality, and Grow With Purpose themes.

*9. Environmental Protection: Land and water resources, including the Chesapeake and Coastal Bays, are carefully managed to restore and maintain healthy air and water, natural systems, and living resources.*

Harford County has long been committed to the protection and stewardship of the environment as evidenced by our Natural Resource District (NRD) regulations and Chesapeake Bay Critical Area Program (CBCA). HarfordNEXT explores new and innovative strategies to enhance, encourage, and promote environmental stewardship to help meet the State's goals of improving the water quality of our streams, rivers, and ultimately the health of the Chesapeake Bay. Environmental Protection is discussed within the Grow With Purpose, Environmental Stewardship and Preserving our Heritage themes.

*10. Resource Conservation: Waterways, forest, agricultural areas, open space, natural systems, and scenic areas are conserved.*

Harford County continues to be committed to the protection and preservation of its natural systems and scenic areas through the implementation of its Forest Conservation and NRD regulations. HarfordNEXT proposes the creation of a Green Infrastructure Plan, to identify an interconnected system of ecologically valuable land, where consideration will be given to minimize the impacts of new development and to focus restoration efforts. HarfordNEXT also emphasizes renewed efforts to preserve our valuable historic and cultural resources. Resource Conservation is discussed within the Grow With Purpose, Environmental Stewardship, and Preserving Our Heritage themes.

*11. Stewardship: Government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection.*

HarfordNEXT emphasizes the concept of sustainability with a new emphasis on resilience and adapting to a rapidly changing world. Sustainability and resilience strategies must be incorporated into planning for future growth, in order to ensure that future generations are not burdened by problems created by today's generation.

Stewardship is discussed within the Grow With Purpose, Environmental Stewardship, and Preserving our Heritage themes.

*12. Implementation: Strategies, policies, programs, and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, State, and interstate levels to achieve these visions.*

Harford County uses many tools to achieve the Visions, including Adequate Public Facilities (APF) legislation to manage growth by tying development to the capacity of existing government services such as water and sewer, roads, and schools. APF laws are designed to ensure that new development does not adversely impact a community's quality of life by overburdening these facilities.

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CHAPTER 2

# GROW WITH PURPOSE

HARFORD NEXT
A MASTER PLAN FOR THE NEXT GENERATION

## A Master Plan for the Next Generation






# GROW WITH PURPOSE

Harford County boasts an enviable combination of quality schools, safe neighborhoods, parks, libraries, and charming Main Street communities making it an ideal place for families to live, work, and play. Those who choose Harford County, do so because it affords them a great quality of life with low crime rates, varied housing options, suburban and rural comforts, and a thriving economy. The importance of maintaining and enhancing this quality of life is fundamental to HarfordNEXT. Recognizing that quality of life is based on multiple factors, HarfordNEXT is grounded in a sustainable approach to land use planning that supports and promotes healthy, vibrant communities. As the County continues to mature, it will be increasingly important for the land use plan to support the ideals that will maintain a high quality of life for current and future residents. The Grow With Purpose theme outlines a framework of policies and implementations that are organized through the development of five principles: Livable Communities, Public Facilities and Infrastructure, Strengthening Communities, Housing, and Government Accountability.

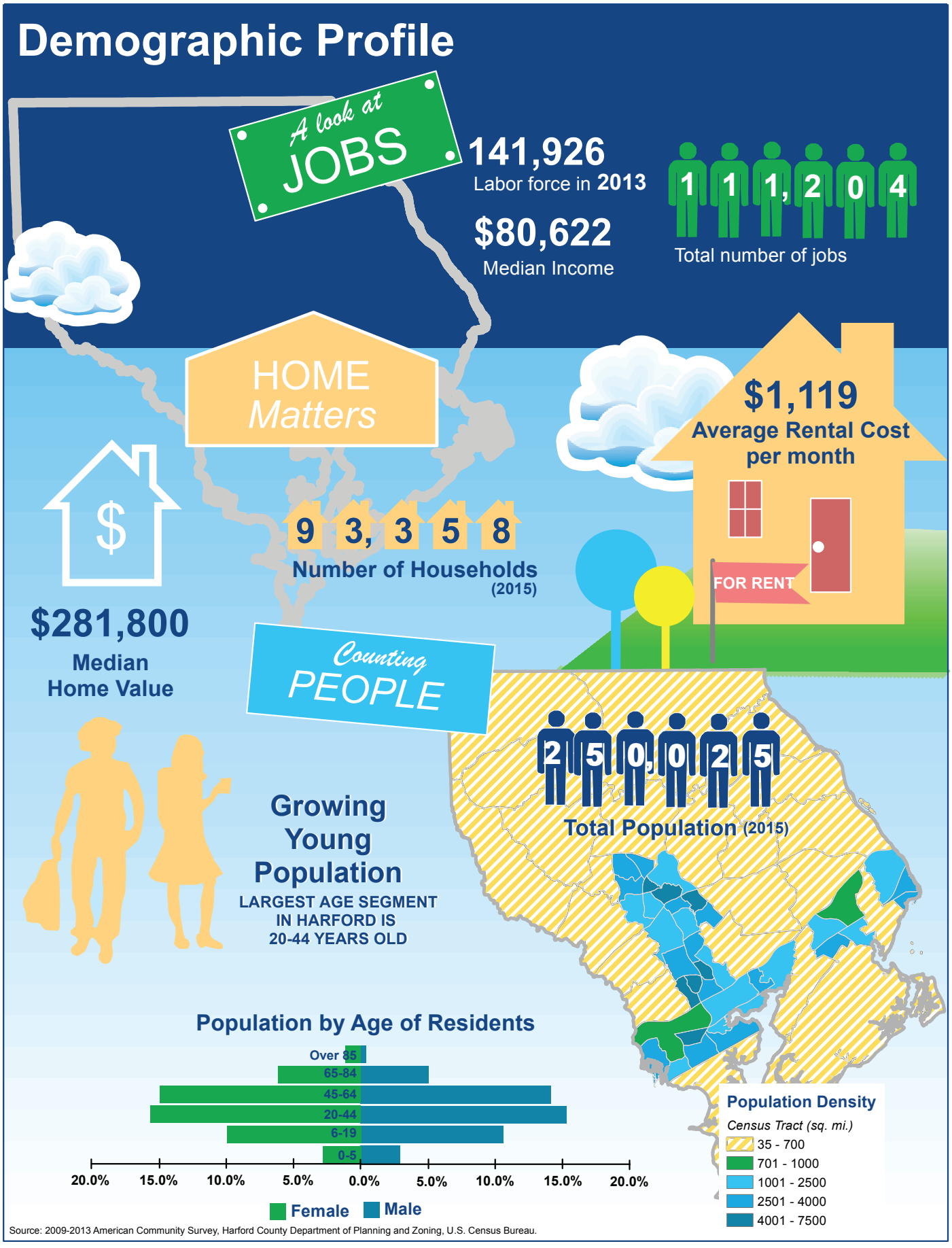
**State Visions:**

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

**Overlapping Themes:**

*Economic Vitality*
*Environmental Stewardship*
*Preserving Our Heritage*
*Mobility and Connectivity*

# Demographic Profile



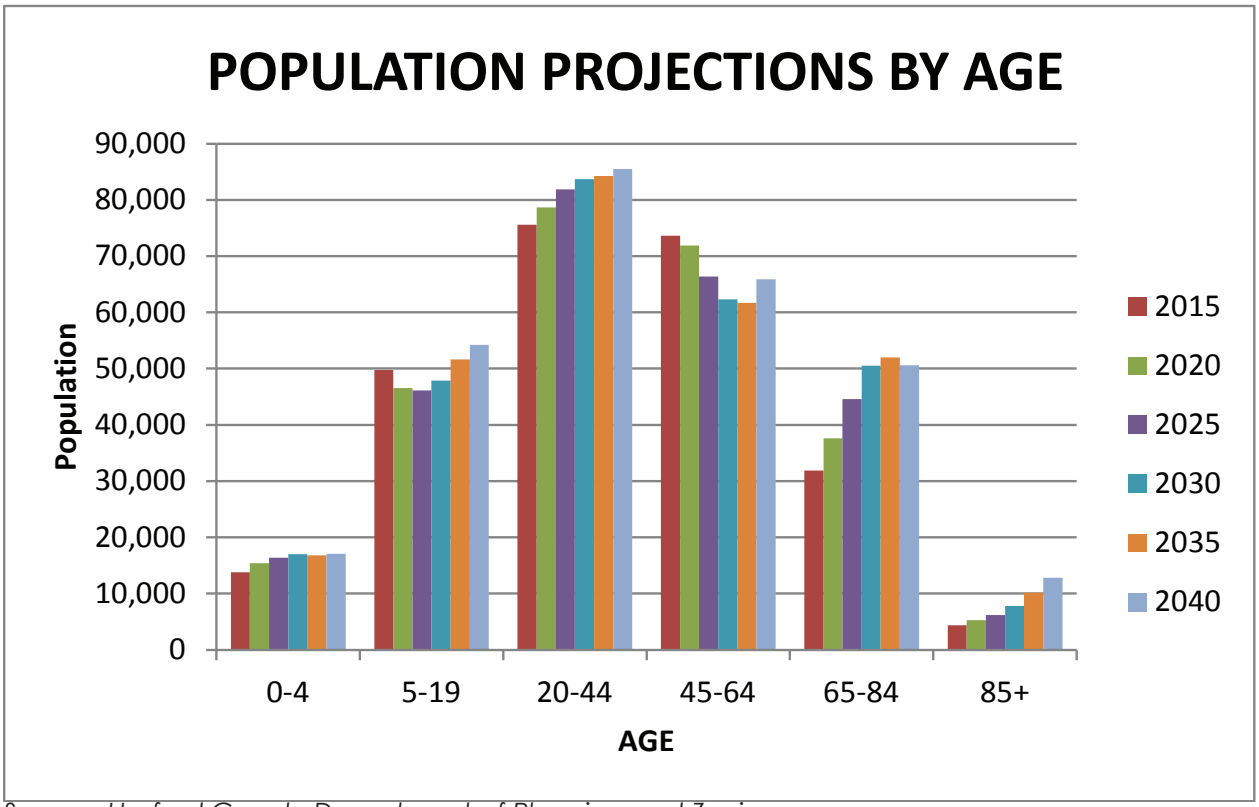

Source: 2009-2013 American Community Survey, Harford County Department of Planning and Zoning, U.S. Census Bureau.

## Population

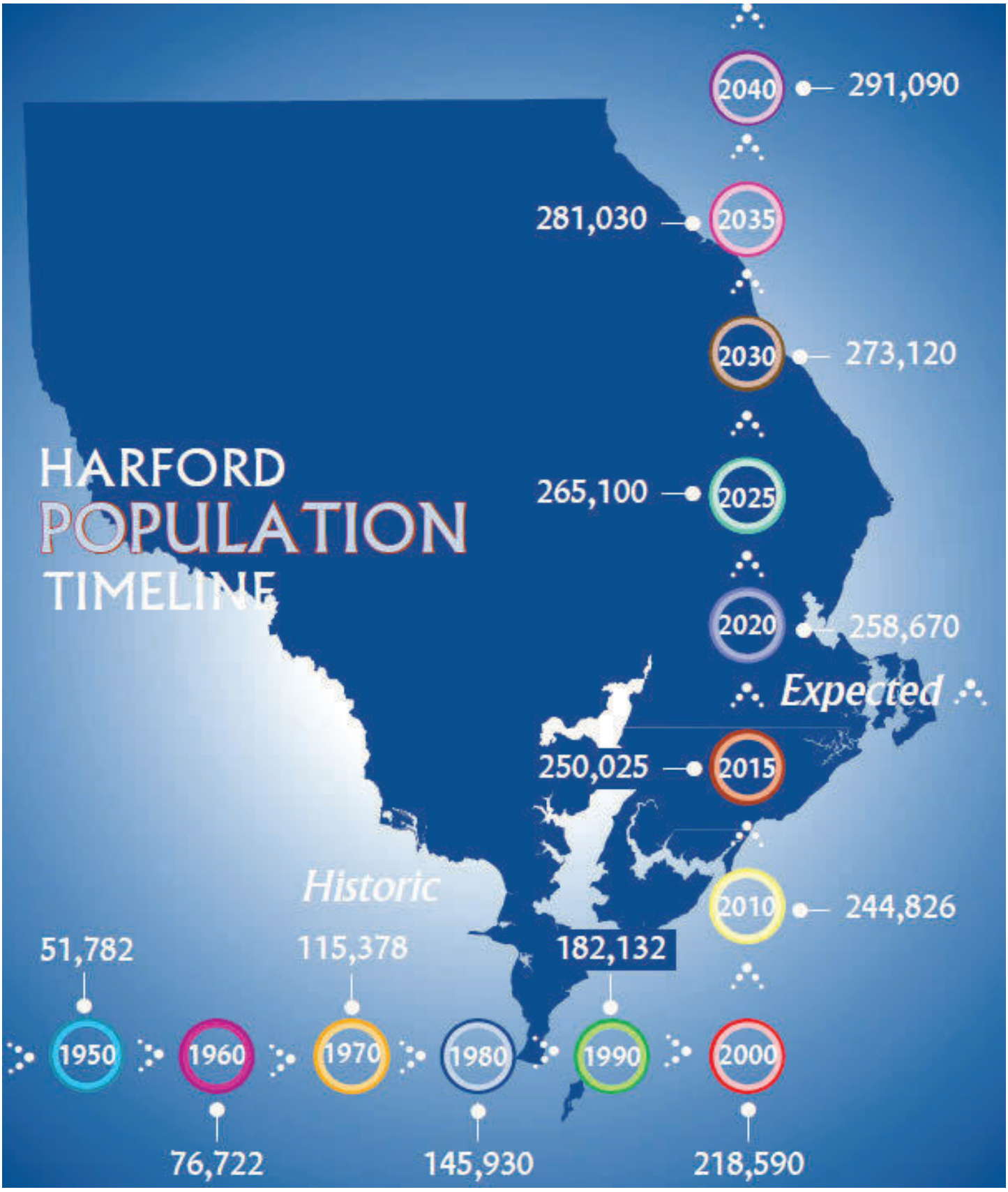
Harford County's population has grown by 70% since 1980 to an estimated 250,025 people in 2015. During the three decades following World War II, Harford's population growth reached historic highs, growing at an average annual rate of 5% between 1950 and 1970; the population more than doubled during the same period. Harford County continued to grow at a lower, though steady rate of 2.5% from 1980 to 2000. Approximately half of the growth during the 1980 to 2000 period was fueled by in-migration from Baltimore City and Baltimore County.

During the latter half of the last decade, the national economic downturn slowed the demand for new housing significantly. Population growth slowed to 0.6% annually between 2005 and 2010. As Harford County emerges from the downturn, the housing market is showing signs of recovery. After a historic low of 511 new housing units in 2008, the number of new housing starts in 2015 rebounded to 705 units.

Though the rate of population growth is unlikely to reach previous highs, population projections for the County reflect an expected increase of over 41,000 new residents (births, in-migration, etc) by 2040. To properly account for the needs of a growing population, it is important to understand the implications of anticipated demographic changes. Perhaps most important among those changes is the aging nature of Harford County's population. By 2040, the population of residents aged 65 and older is projected to grow by 75%, increasing from 36,194 to 63,435 persons. Most notably, the number of people aged 85 and over is projected to triple, increasing from 4,348 to 12,819 persons. The aging of our population is a demographic change that will have significant planning and policy implications for Harford County.

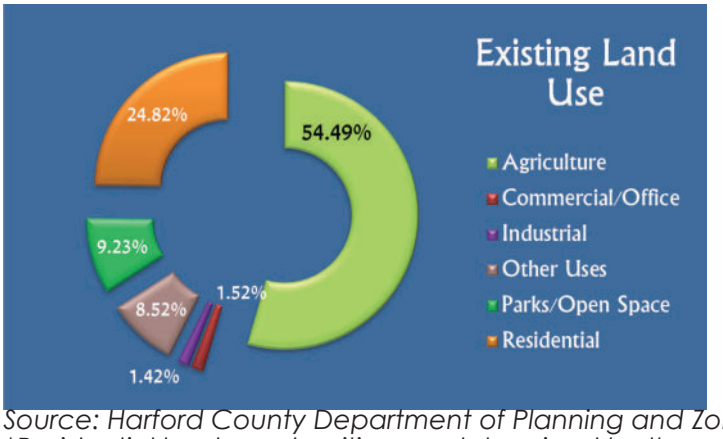


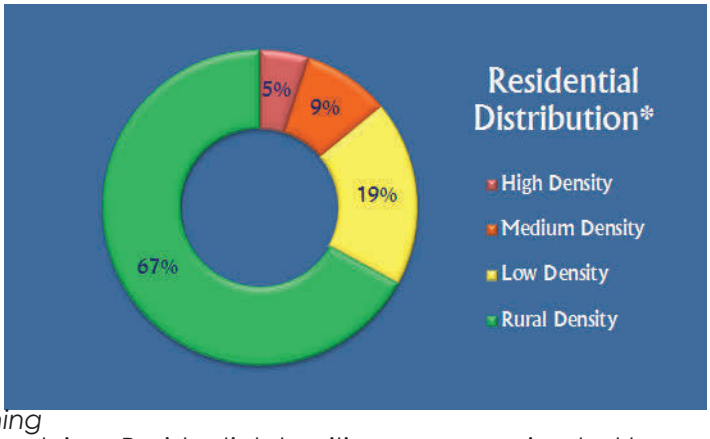

*Source: Harford County Department of Planning and Zoning*


HARFORD
POPULATION
TIMELINE
2040
291,090
281,030
2035
2030
273,120
265,100
2025
2020
258,670
Expected
250,025
2015
Historic
2010
244,826
51,782
115,378
182,132
1950
1960
1970
1980
1990
2000
76,722
145,930
218,590

## Existing Land Use

In 2015, the Department of Planning and Zoning analyzed the distribution of land uses within the County to guide the development of HarfordNEXT. The predominant use of a given property was determined through analysis of aerial photography, information from the State Department of Assessments and Taxation, and field verification. Results show a diverse mix of land uses throughout the County. It is important to note that agriculture continues to be the predominant land use, comprising 126,362 acres or approximately 55% of the total land area within the County. The second largest category is residential with approximately 25%, or 57,572 acres, of the County's land area devoted to that use.




*Source: Harford County Department of Planning and Zoning*
**Residential land use densities are determined by the parcel size. Residential densities are approximated by the following categories: High Density – 6 dwelling units per acre and greater; Medium Density – 3 to 6 dwelling units/acre; Low Density Residential – 1 to 3 dwelling units/acre; Rural Density Residential – 1 dwelling for parcels between 1 and 9.99 acres.*

## Land Capacity Analysis

*Development Envelope Residential Land Capability*

In December 2014, the Department of Planning and Zoning analyzed properties inside the Development Envelope in order to assess the County's residential potential. An inventory of residential land was compiled that comprised both vacant and underutilized parcels and accounted for factors such as parcel size, environmental constraints, zoning type, and permitted densities. The resulting inventory includes four categories: approved preliminary plans with unbuilt units, potential dwelling units from residential zoned vacant/underutilized land, municipal undeveloped land capacity, and potential residential mixed-use dwelling unit capacity. Based on this assessment, there is an existing estimated capacity for 18,883 housing units within the Development Envelope with the potential for an additional 2,652 within the three municipalities.

| *Residential Land Inventory Category* | Units |
|---|---|
| **Plan Approved Un-built Dwelling Units -** An inventory of all approved residential preliminary plans, less new construction permits issued for these plans. | 4,827 |
| **Potential Dwelling Units from Residential Zoned Vacant/Underutilized Land -** An inventory of developable land accounting for factors such as parcel size, environmental constraints, zoning type, and permitted density. | 11,739 |
| **Potential Dwelling Units From Mixed-Use Development -** Based on an inventory of parcels five acres or larger with zoning classification B1, B2, B3, CI, GI, and LI that have the potential to include a residential component if developed under Mixed-Use development standards. | 2,317 |
| **Total Unincorporated County Development Envelope Capacity** | 18,883 |

| | |
|---|---|
| **Potential Dwelling Units From Municipalities: Aberdeen, Bel Air, and Havre de Grace -** An inventory of all approved municipal residential preliminary plans, less new construction permits issued for these plans. | 2,652 |

| | |
|---|---|
| **Total Development Envelope Capacity** | 21,535 |

*Source: Harford County Department of Planning and Zoning*

*Rural Area Land Residential Capability*

While the majority of development has been directed toward the Development Envelope, it is acknowledged that a limited amount of development will occur in rural areas. Based on an analysis of the residential potential in the rural areas of the County, the estimated residential capacity available outside the Development Envelope is 7,286 units. This figure includes 5,351 potential development rights available on Agricultural zoned parcels with the remaining capacity of 1,935 units tied to Rural Residential or Village Residential zoned parcels. Potential exists for up to 1,037 additional units through the Transfer of Development Rights (TDR's).

*Commercial / Industrial Land Capability*

Harford County is committed to ensuring zoning and land use decisions are compatible and accommodate economic growth opportunities. To ensure there is sufficient capacity to accommodate commercial and industrial uses, the Department completed a comprehensive inventory of all property currently zoned B1, B2, B3, VB, CI, MO, GI, and LI. The resulting inventory included vacant and underutilized parcels in order to estimate the amount of developable acreage available for future development.

| Vacant / Underutilized Land By Zoning Type | B1 | B2 | B3 | VB | CI | MO | GI | LI | Total Acreage |
|---|---|---|---|---|---|---|---|---|---|
| Developable Acreage | 90 | 214 | 661 | 108 | 936 | 60 | 1,546 | 947 | 4,562 |

*Source: Harford County Department of Planning and Zoning*

The inventory identified 2,069 acres of developable land zoned for commercial use (B1, B2, B3, VB, CI, and MO) with an additional 333 acres of similarly zoned land within the County's three municipalities. The inventory identified 2,493 developable acres zoned for industrial use (GI, LI). An additional 155 acres of industrially zoned land is located within the municipalities.

**Developable area refers to the total area of land available for development; excluding open space, protected environmentally sensitive areas, and land used for other public facilities.**

## Infrastructure

It is anticipated that the need for publicly managed services and facilities will rise as the County's population continues to grow and mature. The maintenance of services and facilities will be an ongoing priority for the County to uphold service quality. Upgrades to facilities will require significant capital investment, and the expansion of services will likewise necessitate considerable outlay by the County or its partners that should be considered as part of a broader capital planning process to ensure they are provided in a timely and cost effective way. A method for prioritizing projects should be used to ensure that the Capital Improvement Program is consistent with the goals and objectives outlined in HarfordNEXT.

*Public Facilities*

To ensure that an acceptable quality of life is maintained, public facilities throughout Harford County must meet the needs of current and future residents. Many County departments and agencies maintain strategic plans to ensure service delivery standards are met.

Plans include:

- 2009 Fire and EMS Services Master Plan
- 2013 Land Preservation, Parks and Recreation Master Plan
- 2014 Educational Facilities Master Plan
- 2015 Lead, Engage, Exceed, A Strategic Plan for Harford County Public Library
- 2015 Facilities Master Plan

*Water and Sewer*

The County's public water and wastewater service area generally conforms to the Development Envelope. However, not all properties within the Development Envelope are served by public water and sewer, and services may be extended to properties beyond the boundary to protect human health and safety.

The Water Resources Element (WRE) is an important component of HarfordNEXT, required by the state to ensure the coordination of growth management and water resources planning between the County and the municipalities (Bel Air, Havre de Grace and Aberdeen) as well as

Aberdeen Proving Ground and private providers. The WRE also requires that there be suitable receiving water and land areas to meet the stormwater management needs of existing and future development as identified in this plan. The County's efforts to provide sustainable water resources will be a prominent focus in the coming decade. Protection of its existing surface water supplies, as well as its groundwater resources, is essential to meeting the drinking water needs of the citizens of Harford County. An updated WRE can be found in Appendix II.

The Fallston Commercial Corridor and its associated Sanitary Sewer Service Area has been experiencing planned growth and redevelopment since public sewer service was provided to the region. In 2015, the County received petition requests from two existing groups of residential properties adjacent to the Service Area to obtain sewer service by expanding the Service Area. The sewer system in the Fallston Sanitary Sewer Service Area was originally designed to provide limited capacity to a select group of properties in the Fallston Commercial Corridor. As a result of requests by some of the property owners in the area to expand the Sanitary Sewer Service Area, Harford County will be hiring a consultant to prepare a detailed comprehensive study of the Fallston Sanitary Sewer Service Area. The study will determine what improvements to the sewer system may be required to serve an expanded service area.

*Information Technology*

In 2014, Harford County unveiled its high-speed fiber optics network, known as the Harford Metro Area Network (HMAN). Once complete, HMAN will provide high-speed connectivity to government buildings, schools, libraries, and economic development zones. Harford County is currently developing a Broadband Strategic Plan. This plan is intended to supplement and provide support for the significant efforts already undertaken by the Harford County Office of Information and Communication Technology (OICT) to develop communications infrastructure for economic development and government service purposes. The Plan offers analysis and strategic guidance for steps the County can take, by itself or in partnership with the business community and private communications carriers, to fill existing gaps in the broadband market, to maximize the broadband opportunity in Harford County and, over time to attract and catalyze new investment in broadband infrastructure and services. It is important to note that Harford County's ongoing efforts to create a formal interagency structure for planning and collaboration in broadband is the first of its kind in Maryland.

*Adequate Public Facilities Ordinance*

Harford County has Adequate Public Facilities (APF) standards that tie the approval of development to the availability of existing public services such as schools, water and sewer, and roads, to accommodate new users. These standards offer a mechanism for managing the pace of development and ensure adequate service levels are in place. In July of each year, the Annual Growth Report is provided to the County Council in accordance with the APF provisions. The Annual Growth Report provides an ongoing analysis of growth trends, facility capacity, and service performance and identifies facilities below the adopted minimum standards. Public officials and County agencies use the report to assess system adequacy and identify crucial deficiencies, which helps in the evaluation of projects in the Capital Improvement Program.

## Future Growth

The Development Envelope was established in 1977 to focus growth along the US 40 and MD 924/24 corridors, and it has been largely successful in channeling growth to those areas. Between 1970 and 2012, 86% of residential growth occurred within the Development Envelope. However, in part due to the County's commitment to maintaining that boundary, property outside the Development Envelope continued to fragment as large lot residential development expanded on well and septic systems. It was not until 2012 that residential development outside the Development Envelope started to shrink as a proportion of overall growth. This coincided with passage of the Sustainable Growth and Agricultural Preservation Act of 2012, often referred to as Senate Bill 236. The bill set limitations on the use of septic systems, which further concentrated growth inside the Development Envelope. Since 2013, 91% of residential development has occurred on properties inside the Development Envelope.

The appeal of Harford County's exceptional communities, quality schools and parks, abundant rural spaces, and a healthy environment propelled much of the County's growth over the last 30 years, and the Development Envelope served as a safeguard against the rampant expansion of development that might have compromised the very qualities that make Harford County special. HarfordNEXT recognizes that these things remain important to existing residents as well as potential new inhabitants and that any enlargement of the Development Envelope could have significant ramifications with regard to the style and intensity of development. Because the Development Envelope generally corresponds to the County's designated Priority Funding Area, any expansion could also impact the delivery of crucial services.

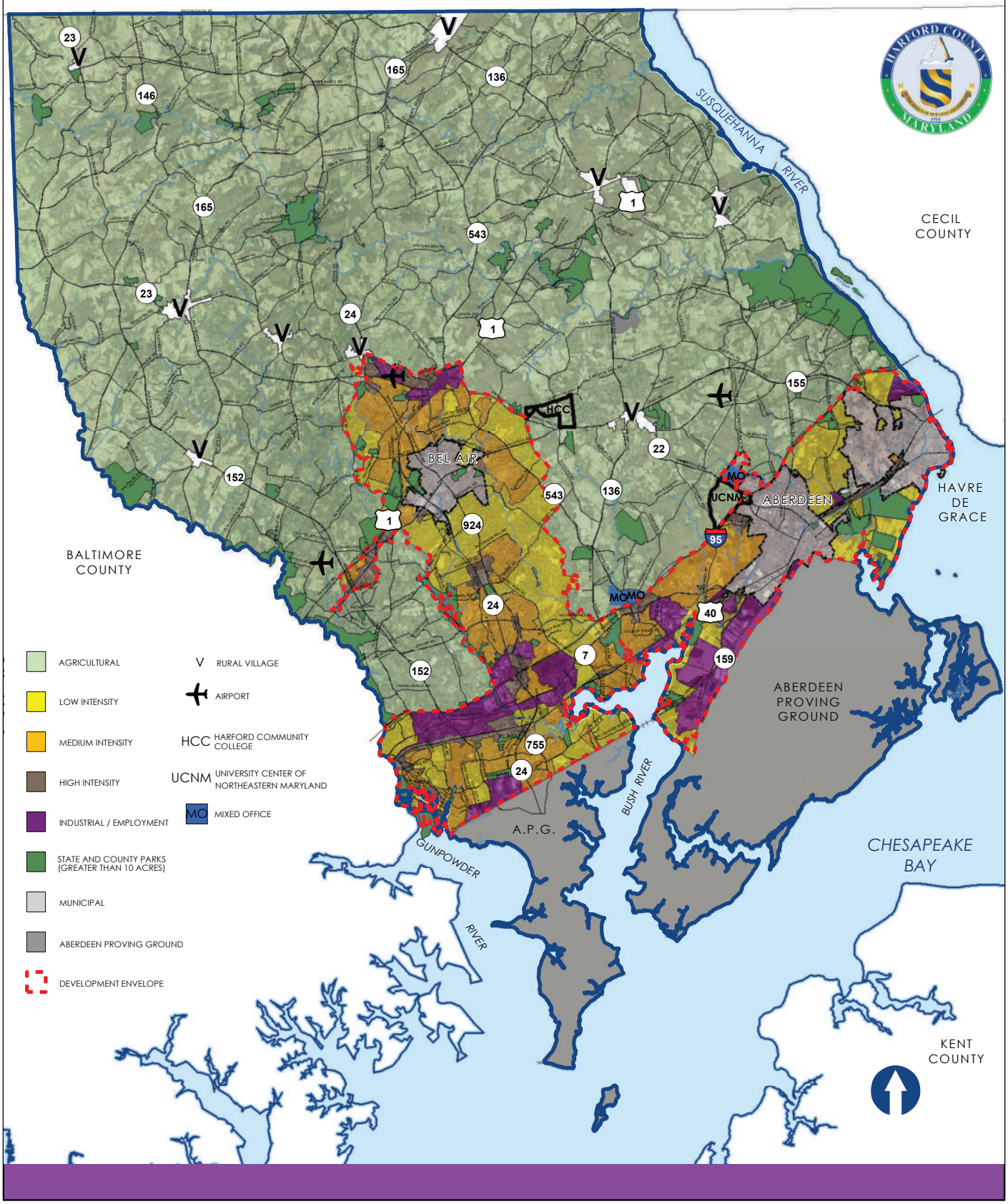
HarfordNEXT proposes three minor adjustments to the Development Envelope, including Fallston (40.8 acres at the SW intersection of MD 152 and MD 147), Forest Hill (25.75 acres at the NW intersection of MD 23 and MD 24), and Creswell (98 acres on the west side of MD 136, south of Cedar Lane). These areas constitute an expansion of just 0.29%. Due to their location adjacent to or surrounded by existing development, the properties should be zoned such that resulting development is compatible with surrounding communities.

The perpetuation of development outside of the Development Envelope can exacerbate conditions that detract from our quality of life and impede economic growth. The distribution of residential areas relative to those with a higher concentration of jobs funnels commuters onto a handful of roadways that are regularly congested. While high volumes of traffic may be anticipated along primary corridors within the Development Envelope, roadways outside of the Development Envelope are frequently the most congested according to the State Highway Administration. In particular, MD 22, MD 543, and MD 152 measure heavy congestion during morning and evening commuting hours.

*Land Use Map*

The Land Use Map represents a generalization of planned land use patterns and intensities and roughly defines the intended location of development. The Development Envelope is a primary feature of the map and generally includes that portion of the County where public water and sewer services are available or planned. The distribution of these land use designations has evolved over time to provide for balanced growth in the County. Land use designations

# Land Use Map


HARFORD COUNTY MARYLAND
SUSQUEHANNA RIVER
CECIL COUNTY
BEL AIR
HCC
ABERDEEN
UCNM
MO
HAVRE DE GRACE
BALTIMORE COUNTY
ABERDEEN PROVING GROUND
A.P.G.
BUSH RIVER
GUNPOWDER RIVER
CHESAPEAKE BAY
KENT COUNTY
AGRICULTURAL
LOW INTENSITY
MEDIUM INTENSITY
HIGH INTENSITY
INDUSTRIAL / EMPLOYMENT
STATE AND COUNTY PARKS (GREATER THAN 10 ACRES)
MUNICIPAL
ABERDEEN PROVING GROUND
DEVELOPMENT ENVELOPE
V RURAL VILLAGE
AIRPORT
HCC HARFORD COMMUNITY COLLEGE
UCNM UNIVERSITY CENTER OF NORTHEASTERN MARYLAND
MO MIXED OFFICE

and the Land Use Map inform many of the principles, goals, and implementations found in HarfordNEXT. The proposed Land Use Map reflects changes in the disposition of certain areas and highlights opportunities for growth.

The land use categories depicted on the land use map are defined below:

Agricultural – Areas where agriculture is the intended primary land use. Residential development potential is limited and available at a density of 1.0 dwelling unit for every 10 acres. No new commercial or industrial uses are permitted except those intended to serve the agriculture industry or residents of the area while maintaining the character of the surrounding countryside.

Low Intensity – Areas within the Development Envelope where residential development is the primary land use. Development densities shall range from 1.0 to 3.5 dwelling units per acre. Neighborhood commercial uses such as doctors' offices and banks are examples of some of the nonresidential uses associated with this designation.

Medium Intensity – Areas within the Development Envelope where residential development is the primary land use. Development densities shall range from 3.5 to 7.0 dwelling units per acre. Limited commercial uses such as grocery and convenience stores, banks, and professional offices are intended for this designation.

High Intensity – Areas within the Development Envelope that are intended for higher density residential development, exceeding 7.0 dwelling units per acre. These areas are also appropriate for a wide range of commercial uses including retail centers, home improvement centers, automotive businesses and professional offices.

State & County Parks – Areas of land designated for public open space and recreation. These areas also include lands that provide specialized uses such as the Stoney Forest Demonstration Area and the Harford Glen Environmental Education Center

Industrial/Employment – Areas intended for the concentration of manufacturing, warehousing/ distribution, technical, research, office, and other employment activities. Generally these designations should be situated along major transportation corridors.

APG – Aberdeen Proving Ground was established in 1917 as a military facility where design and testing of weapons could be carried out in close proximity to the nation's industrial and shipping centers. APG occupies more than 39,000 acres of land and comprises two principal areas, the Aberdeen Area and the Edgewood Area, separated by the Bush River. APG also operates the Churchville Test Area on the east side of MD 136 north of Churchville. The Proving Ground's primary mission is supporting national defense, intelligence, medical research, engineering, and computer technology.

Mixed Office – Areas designated to promote major economic development opportunities such as corporate offices, research and development facilities, and high-tech services which create significant job opportunities and investment benefits. This area may also include residential and retail uses to service the employment center. Designated at strategic I-95 interchanges, development will be subject to specific performance, architectural, and site design standards.

Rural Villages – Areas intended for concentrated residential, commercial and institutional uses located within the agricultural areas of the County that support the character and economy of the surrounding communities by providing necessary goods and services.

*Rural Villages*

Historically, the communities of Harford County developed as rural crossroads to provide services and support to the agricultural community. Protecting our rural heritage is paramount to protecting the rural way of life and enhancing the character of the landscape and villages. Promoting rural businesses, preservation of historic farms and mills, the development of architectural standards, and the implementation of the Priority Preservation Area and Rural Legacy Area programs will ensure the County's rural villages remain at the center of the communities they serve. It is imperative that policies and strategies be implemented to maintain the viability of the Rural Villages. HarfordNEXT seeks to expand opportunities for existing businesses in the Rural Villages, with an emphasis on businesses that support the agricultural community. This plan also supports directing any growth in the rural areas towards the Rural Villages.

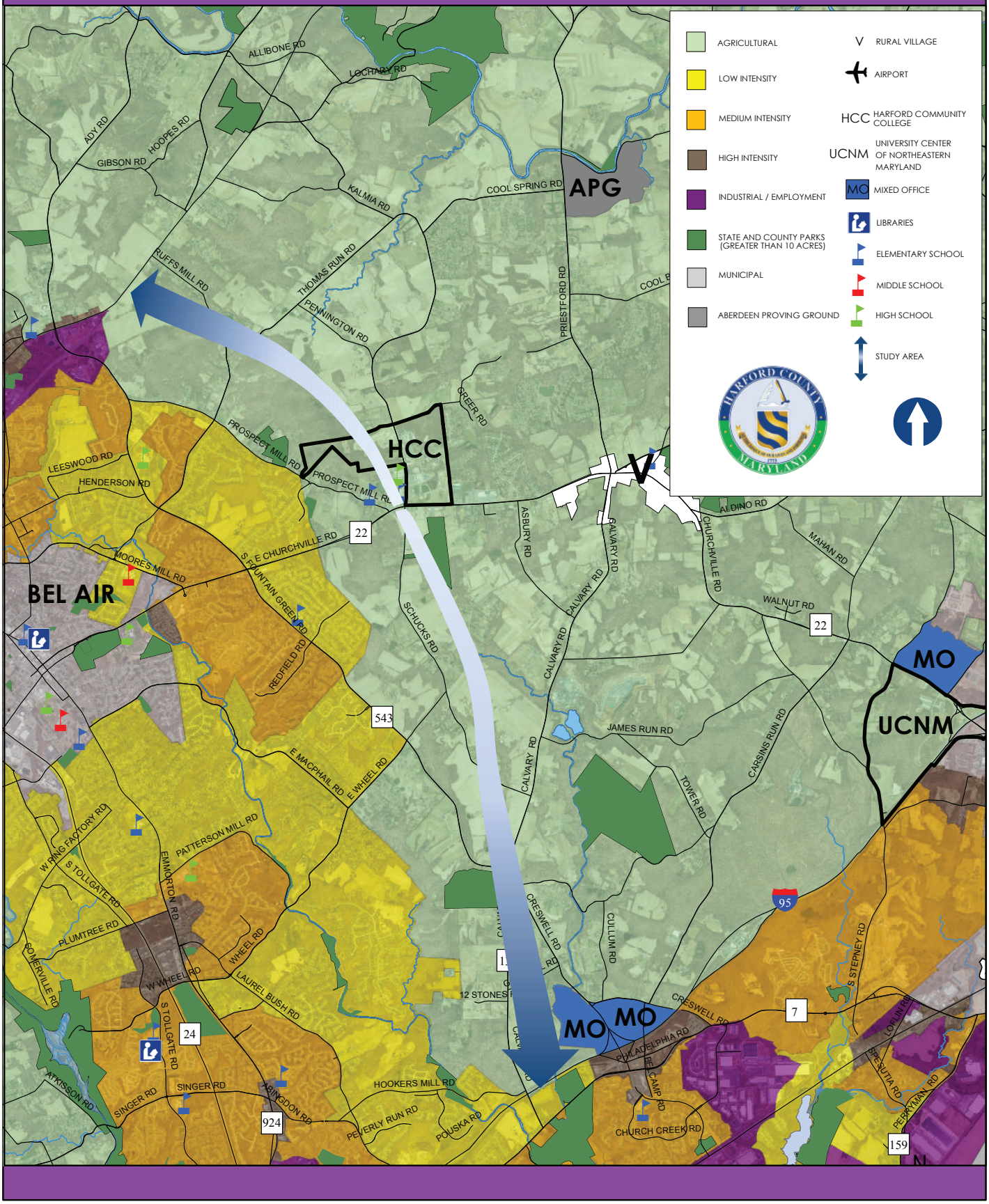
A Rural Village Study was completed in 2007 which evaluated the architectural characteristics of each of the nine Rural Villages. The Rural Village Study shall be used as the basis for developing design standards that can be used to retain or reestablish the original character of the Rural Villages. These standards should also address changes in technology, such as electronic signage, that can impact rural character throughout the County. Because properties outside of the designated villages serve as gateways into the village, commercial properties should also be designed in a manner that aesthetically supports the character of the village area. Redevelopment, infill development or any expansion of Rural Villages in the future should support the character of the village through architectural and aesthetic standards and traditional neighborhood design. New commercial development shall incorporate architecture and aesthetics that respect and enhance the community. The Rural Villages should continue to serve as community focal points, while providing amenities to serve our rural communities.

*Study Area*

In order to proactively assess the impacts of current or potential growth outside of the Development Envelope, evaluate the integration of new growth areas, and develop a comprehensive infrastructure improvement plan to address existing traffic concerns, the County will initiate a study of the area east of the Development Envelope between US 1 and I-95. The study will include a comprehensive analysis of the community facilities needed to serve this area, including schools, police, fire/EMS, water and sewerage, transportation, parks and recreation, and libraries. The study will also identify strategies for preserving the environmental, historic, and agricultural heritage of the area to ensure the quality of our cultural and natural resources are maintained.

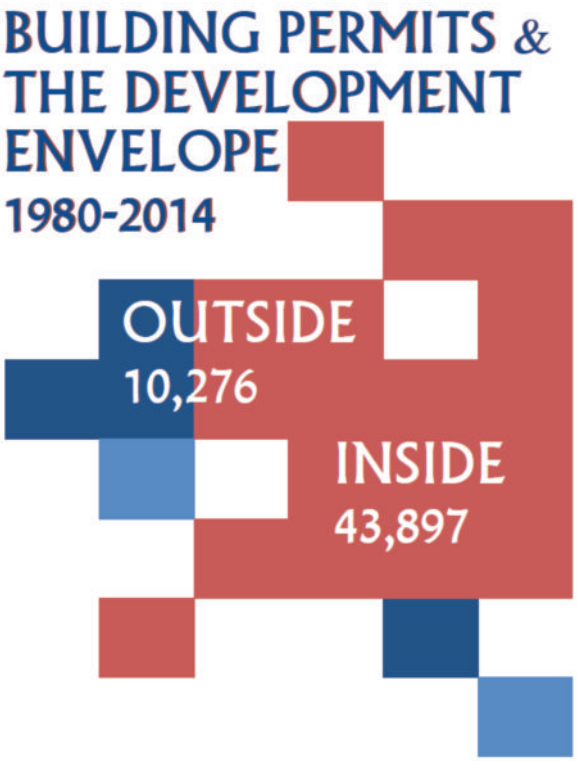
It is essential that this planning study examine development trends and current land holding capacities in order to delineate appropriate size and intensity of use of any potential future growth area.

# Study Area


AGRICULTURAL
LOW INTENSITY
MEDIUM INTENSITY
HIGH INTENSITY
INDUSTRIAL / EMPLOYMENT
STATE AND COUNTY PARKS (GREATER THAN 10 ACRES)
MUNICIPAL
ABERDEEN PROVING GROUND
V RURAL VILLAGE
AIRPORT
HCC HARFORD COMMUNITY COLLEGE
UCNM UNIVERSITY CENTER OF NORTHEASTERN MARYLAND
MO MIXED OFFICE
LIBRARIES
ELEMENTARY SCHOOL
MIDDLE SCHOOL
HIGH SCHOOL
STUDY AREA
HARFORD COUNTY MARYLAND
APG
HCC
V
BEL AIR
MO
UCNM
ALLIBONE RD
LOCHARY RD
ADY RD
HOOPES RD
GIBSON RD
KALMIA RD
COOL SPRING RD
RUFFS MILL RD
THOMAS RUN RD
PENNINGTON RD
PRIESTFORD RD
SREER RD
PROSPECT MILL RD
LEESWOOD RD
HENDERSON RD
MOORES MILL RD
S FOUNTAIN GREEN RD
E CHURCHVILLE RD
22
ASBURY RD
CALVARY RD
CHURCHVILLE RD
ALDINO RD
MAHAN RD
WALNUT RD
SCHUCKS RD
REDFIELD RD
543
E MACPHAIL RD
E WHEEL RD
JAMES RUN RD
CARSINS RUN RD
TOWER RD
W RING FACTORY RD
S TOLLGATE RD
PATTERSON MILL RD
EMMORTON RD
PLUMTREE RD
SOMERVILLE RD
WHEEL RD
W WHEEL RD
LAUREL BUSH RD
12 STONES
CRESWELL RD
CULLUM RD
95
S STEPNEY RD
MO
MO
CRESWELL RD
7
PHILADELPHIA RD
LOFLIN RD
SEQUOIA RD
PEERYMAN RD
24
S TOLLGATE RD
ATKISSON RD
SINGER RD
SINGER RD
ABINGDON RD
924
HOOKERS MILL RD
PEVERLY RUN RD
POUSKA RD
CHURCH CREEK RD
159

*Residential Permit Activity*

A total of 54,173 residential building permits were issued during the period between 1980 and 2014. Building permit activity peaked in 1987 when 2,746 permits were issued. Building permit activity declined during the last decade due to the economic downturn, with only 511 permits being issued during 2008. Although building permit activity has increased since 2008, it has not returned to levels previously experienced during the 1980's and first half of the 1990's. Since 1980, 81% of all residential building permits issued have been located within the Development Envelope. The chart below depicts permit activity between 1980 and 2014.




*Source: Harford County Department of Planning and Zoning*

In 2015, Harford County's population stood at 250,025; by 2040, it is projected that the County's population will be 291,090. There are approximately 2.7 people per household in Harford County which shows that by 2040, the County will need 119,053 housing units to accommodate those residents. There are an estimated 99,053 housing units currently within the County. Of these total units, there are 74,871 housing units within the Development Envelope. Based on housing growth trends there will be 90,414 housing units within the Development Envelope by 2040.

**Principles, Goals, and Policies for Grow With Purpose (GWP):**

## LIVABLE COMMUNITIES

### Goal GWP 1.1: Plan and coordinate growth.

Rationale: Understanding how we grow is crucial to the prosperity of our community. By understanding how we grow and providing solutions to challenges our communities face, we can ensure that our quality of life is maintained.

**Implementation**

(a) Identify barriers to infill development and determine solutions to remedy those obstacles.

(b) Assist in assembling vacant and underutilized properties in target areas for larger redevelopment opportunities.

(c) Create a tiered incentive program that aims to create quality developments. Some of the factors that can be incorporated into the program are: streamlining the approval process for redevelopment of older commercial areas and/or allow for the usage of the Fast Track program.

(d) Consider implementing Planned Unit Development (PUD) zoning in target redevelopment areas. PUD zoning is a flexible zone designated to be customized to proposed projects. A market-based range of land uses in the PUD are established and revisited as the market evolves, which allows for flexibility.

### Goal GWP 1.2: Incorporate design standards into the planning process.

Rationale: The built environment is a common thread throughout the themes explored in HarfordNEXT. The future design of the County will reinforce the vision established in HarfordNEXT.

**Implementation**

(a) Establish clear design objectives for development in different communities or along specific corridors.

(b) Create a development design manual, which depicts land use regulations, site planning and good design features for detached accessory dwelling units.

(c) Conduct visual preference surveys, design charrettes, and public workshops to engage the public on innovative design.

### Goal GWP 1.3: Encourage integrated mixed-use pedestrian oriented design.

Rationale: Mixed-use developments are built upon the live/work/play model. Mixed-use developments help promote healthy lifestyles by allowing for greater walkability as people carry out their daily activities.

**Implementation**

(a) Provide best practice examples of successful mixed use developments to the development industry within Harford County.

(b) Coordinate with the Office of Economic Development and community stakeholders to determine impediments to developing mixed-use projects.

(c) Identify and promote opportunity sites where mixed-use developments can prosper.

(d) Introduce form-based code as a regulatory land development tool.

Form-based code emphasizes the design and operation of development over the actual uses within it.

(e) Consider flexible zoning alternatives such as overlay districts and Planned Unit Developments (PUD) that will help bring about successful mixed-use projects.

### Goal GWP 1.4: Assemble a livability agenda.

Rationale: Residents choose Harford County for its outstanding quality of life. By assembling a livability agenda, Harford County can take a proactive approach to maintaining and improving our resident's quality of life.

**Implementation**

(a) Establish quality of life indicators that affect livability.

(b) Develop lighting standards that aim to reduce light pollution.

(c) Encourage the use of "dark sky" lighting practices.

Dark Sky lighting practices aim to decrease light pollution in the environment.

(d) Establish policies that allow for residents to age in place.

(e) Seek out opportunities for placemaking.

Placemaking capitalizes on local community's assets, inspiration, and potential, with the intention of creating public spaces that promote health, happiness, and well being.

(f) Prioritize improvements of bicycle and pedestrian access to bus and rail.

(g) Provide opportunities for residents to meet most daily needs within walking distance.

## MAINTAIN AND ENHANCE HARFORD COUNTY'S PUBLIC FACILITIES AND INFRASTRUCTURE

### Goal GWP 2.1: Require adequate public facilities and infrastructure for all development.

Rationale: Public facilities and infrastructure are critical components to growth within Harford County. By requiring adequate public facilities and infrastructure for all developments, this can ensure that maintenance and enhancements regularly occur.

**Implementation**

(a) Develop and maintain level of service standards for public facilities and infrastructure that must be adequate for development projects to receive a building permit.

(b) Create phasing requirements that allow for portions of projects that meet the level of service standards to be constructed and phase the remainder of the project to coincide with future availability of public services and infrastructure.

### Goal GWP 2.2: Plan for and coordinate the efficient expansion of public facilities and infrastructure to serve future growth.

Rationale: Investing in the maintenance of our infrastructure is important to avoid costly construction of new facilities and disruptive outages (technology, water, power) that can negatively impact the quality of life of our citizens and the ability to do business in the County.

**Implementation**

(a) Ensure funding for future facility and infrastructure maintenance.

(b) Ensure plans such as emergency services, parks, water and sewer are routinely audited to ensure adequate coverage.

(c) Work with service providers to upgrade and protect County infrastructure such as

power and cable lines.

(d) Utilize the County's Facilities Master Plan to make informed decisions regarding the capital budget.

(e) Support the expansion of the HMAN fiber optics system according to the Broadband Strategic Plan.

(f) Expand high speed wireless data transmission throughout Harford County.

### Goal GWP 2.3: Enhance public facilities and services.

Rationale: Public facilities are the anchor of many communities throughout Harford County. The County should promote the use of these facilities and apply smart design choices as new facilities are constructed.

**Implementation**

(a) Evaluate services delivered by County or state agencies for potential colocation.

(b) Support high-quality library facilities and programs.

(c) Encourage multiple uses at public facilities that allow for business development programs, education, fitness classes, and places for social interaction.

(d) Design public facilities to facilitate better cellular connections and provide cellular boosters for larger buildings.

## STRENGTHEN COMMUNITIES

### Goal GWP 3.1: Partner with Community Advisory Boards to identify and correct neighborhood issues.

Rationale: Community Advisory Boards were created as a way for residents to discuss topics which may affect their neighborhoods quality of life. These board members have in-depth knowledge of their neighborhoods and work to make their community livable.

**Implementation**

(a) Collaborate with Community Advisory Boards in the creation of a neighborhood indicators tracking system for tracking neighborhood health and stability based on quality of life indicators such as crime, property values, health, economic development, etc.

(b) Partner with the Community Advisory Boards to create and implement plans for their community.

(c) Work with Community Advisory Boards to develop neighborhood activities such as picnics, block parties and neighborhood night out events.

### Goal GWP 3.2: Enhance the character of established neighborhoods.

Rationale: Mature neighborhoods have a character all their own. By enhancing the character of a neighborhood, property values can increase, new investment may occur and the bond among residents will be stronger.

**Implementation**

(a) Seek grant funding under state programs to foster redevelopment within targeted areas. The County should seek funding for projects such as façade improvements, streetscape improvements, land banking, and mixed use developments.

The State of Maryland offers multiple grants that assist with redevelopment efforts on the County level.

(b) Create a Business Improvement District or

Community Improvement District in targeted areas where it is feasible, such as US 40 between MD 152 and MD 24.

Improvement Districts aim to improve upon existing communities through innovative programs that support existing retail, decrease vacancy, provide opportunities for redevelopment, and increase public and private investment within their boundaries.

(c) Reuse small vacant lots and utility easements/corridors that do not have development potential for community gardens and pocket parks.

(d) Promote community identity through the installation of gateway signage identifying neighborhoods.

**Goal GWP 3.3: Encourage the maintenance and rehabilitation of existing housing stock.**

Rationale: By rehabilitating vacant and dilapidated structures, communities improve quality of life, increase property values and reduce crime.

**Implementation**

(a) Evaluate the effectiveness of County codes in dealing with the rehabilitation or removal of vacant, dangerous, and dilapidated buildings.

(b) Educate residents on the importance of maintaining their homes.

(c) Support non-profits that work to rehabilitate vacant homes.

(d) Establish target areas for future housing rehabilitation and maintenance programs.

**Goal GWP 3.4: Identify opportunity sites for reinvestment and revitalization.**

Rationale: Harford County has multiple opportunity sites for reinvestment and revitalization. These areas of opportunity already have infrastructure in place and can help the surrounding neighborhoods and businesses prosper.

**Implementation**

(a) Identify areas with high vacancy rates and target redevelopment efforts to accelerate reinvestment.

(b) Identify areas along US 40, MD 24 south of I-95, US 1 between MD 152 and MD 147, Edgewood, and Perryman that have the greatest potential for redevelopment.

(c) Partner with the Office of Economic Development and Housing and Community Development to create programs that aim to revitalize opportunity sites.

(d) Create a US 40 corridor plan to evaluate land use opportunities for appropriate and compatible development as well as coordinating public investment with development activity.

(e) Assist property owners with land assemblage in order to maximize potential at opportunity sites.

(f) Create and invest in transit oriented development opportunities surrounding MARC station areas.

## ENSURE A RANGE OF HOUSING OPPORTUNITIES FOR ALL CITIZENS

To accommodate the projected 40,000 new residents by 2040, the County will need to offer a range of housing choices and opportunities to ensure the demand for housing can be met. The County will aim to diversify its housing stock and provide more housing options. HarfordNEXT promotes innovative methods

to accommodate new growth and allow our residents to age in place.

### Goal GWP 4.1: Establish a program to monitor Harford County's housing supply and demand.

Rationale: Establishing, maintaining and updating housing growth targets will ensure the County can maintain an adequate supply of housing.

**Implementation**

(a) Update the Department of Housing and Community Development Consolidated Plan to be consistent with recommendations in HarfordNEXT.

Linking HarfordNEXT with the Housing and Community Development Consolidated Plan will allow for a more attainable mix of housing types and promote homeownership.

(b) Work with existing and emerging area employers to identify housing needs.

(c) Coordinate with Housing and Community Development to create marketing strategies to promote emerging housing opportunities in target communities that foster inclusiveness and are free from discrimination.

(d) Determine a manageable vacancy rate for residential homes and monitor the County's supply.

### Goal GWP 4.2: Diversify Harford County's housing stock by providing a range of housing options.

Rationale: The traditional single-family home takes up more land, is less affordable and does not offer the opportunity to age in place like other housing options. New developments should include a variety of housing types, choices, and density.

**Implementation**

(a) Assess existing housing stock and gauge the needs of the County's inventory.

(b) Coordinate with the Department of Housing and Community Development to establish housing targets with an emphasis on a mix of housing types.

(c) Encourage a mixture of residential densities and housing types that are affordable and accessible to all age groups.

(d) Promote the creation of live-work units.

(e) Employ zoning regulations that allow accessory dwelling units.

### Goal GWP 4.3: Gear homeownership programs to meet projected affordable housing needs.

Rationale: Rising housing costs within Harford County have created a demand for affordable housing. HarfordNEXT supports affordable housing that allows older residents to remain in Harford County while attracting young families.

**Implementation**

(a) Identify barriers to homeownership for specific demographic groups and tailor affordable housing programs to remove barriers.

(b) Work with the Department of Housing and Community Development to monitor affordable housing needs.

(c) Create incentives and form partnerships with large employers to develop workforce housing with modern amenities.

(d) Provide educational resources pertaining to affordable housing that includes information on housing cost burden and

qualifications for different assistance programs.

(e) Develop programs which promote affordable homeownership for young families and older residents as an alternative to renting.

(f) Foster inclusive communities free from barriers that restrict access to opportunities based on protected characteristics.

### Goal GWP 4.4: Improve Harford County's existing housing supply.

Rationale: Reinvesting in our existing housing supply is a cost effective way to reduce development pressure outside of the Development Envelope and provide affordable housing opportunities to existing and new residents of Harford County. Programs that encourage reinvestment in dilapidated or vacant homes can serve a dual purpose of revitalizing communities while creating affordable housing opportunities.

**Implementation**

(a) Create programs and identify grant opportunities that target rehabilitation and modernization of aging single family homes and communities.

(b) Develop programs to assist property owners with external property renovations.

(c) Provide incentives to address redevelopment needs of aging multifamily buildings. These programs could include renovation loans, tax abatements, or grants.

## GOVERNMENT ACCOUNTABILITY

Transparency and accountability are cornerstones of good governing. County departments and agencies will work together to ensure key action items are implemented in a timely manner.

### Goal GWP 5.1: Develop and maintain a HarfordNEXT monitoring program.

Rationale: Annual reporting allows government officials to gauge progress towards goals and objectives.

**Implementation**

(a) Develop parameters to ensure plan implementations are followed.

(b) Periodically gauge the success of HarfordNEXT by tracking changes in land use, jobs, housing, neighborhood level investment, and zoning capacity.

(c) Monitor the plan implementations and adjust goals and programs accordingly to adapt to socio-economic changes.

(d) Establish an appropriate reporting period and update the County Council on the progress of the plan.

### Goal GWP 5.2: Allocate resources to implement the goals in HarfordNEXT.

Rationale: Resources should be allocated to ensure implementation of strategies identified in HarfordNEXT. An effective allocation model may include efficient workforce management or budget appropriation for priority projects.

**Implementation**

(a) Create a Strategic Plan to guide the implementation of HarfordNEXT. The Strategic Plan will include a prioritized compilation of goals and be updated every two years.

(b) Ensure the annual budget includes funding for priority projects and programs to implement HarfordNEXT.

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CHAPTER 3

# ECONOMIC VITALITY

HARFORD NEXT
A MASTER PLAN FOR THE NEXT GENERATION

## A Master Plan for the Next Generation





# ECONOMIC VITALITY

Harford County is part of the Greater Baltimore Region, advantageously located in the heart of the Mid-Atlantic with convenient access to East Coast markets. Harford County cultivates a highly-skilled workforce and an unparalleled quality of life for residents. Diverse industry sectors including defense, manufacturing, distribution, healthcare and IT combined with location, logistics, a skilled workforce, and business-friendly environment offer the ideal setting for new and expanding businesses and families alike. Harford County is Maryland's New Center of Opportunity. The Economic Vitality theme outlines a framework of policies and implementations that are organized around three key principles: Grow Economic Opportunity, Revitalize Existing Communities, and Ensure a Skilled Workforce.

**State Visions:**
*Public Participation*
*Quality of Life and Sustainability*
*Infrastructure*
*Growth Areas*
*Economic Development*
*Housing*
*Implementation*

**Overlapping Themes:**
*Grow With Purpose*
*Preserving Our Heritage*
*Mobility and Connectivity*

## Background

Historically, Harford County's economic success has been dependent upon two primary drivers: agriculture and Aberdeen Proving Ground (APG). Agriculture remains a key contributor to the county's prosperity; according to the USDA, the market value of agricultural products sold totaled over $46 million in 2012, an increase from 2007 of more than $3 million. Likewise, APG has been a key fixture in the County since 1917 and is currently Harford County's top employer and the State's third largest workforce center by population. Today, the US Army's oldest active proving ground is a research, development, testing and evaluation (RDT&E) hub for science and technology innovation with an increasing cyber mission. The 93-organization installation is a critical asset to our nation's security both domestic and abroad, and represents a 6.5 billion dollar economic impact to the region. More than 110 defense companies are located in Harford County. These companies are developing technologies such as 3D printing and prototyping making Harford County a pioneer in these fields.

Though Harford County's economic prosperity is shaped by a healthy agricultural community and base-related activities, new prospects are emerging through expanded commercial opportunities for agricultural producers and the launch of the County's small business incubator, the GroundFloor. Ensuring that the County's infrastructure is able to meet the needs of new industries is imperative.




*The GroundFloor is Harford County's premier business incubator program.*

## Economic Indicators

*Job Growth*

According to the US Census, currently 126,050 of Harford County's residents are employed with approximately 53% of the workforce occupying jobs within the County. Growth is expected to occur in multiple employment sectors, especially the technology and distribution sector. The number of jobs in Harford County is expected to increase from 104,670 in 2010 to 167,260 jobs by 2040 according to the Bureau of Economic Analysis and the Department of Planning and Zoning. This growth in employment sectors will provide more job opportunities for the residents of Harford County.

*Educational Attainment*

Education is a crucial factor to the economic success of Harford County. New residents with a high level of educational attainment have been attracted to Harford County because of employment opportunities which require advanced degrees. In fact, the present workforce at APG holds 2,930 advanced degrees. Current residents are also continuing their education to keep up with industry demands. According to the American Community Survey 2009-2013, between the years of 2000 and 2013, the County experienced a 34% reduction in the number of students who did not receive a high school diploma. During that same time period the number of persons who received a bachelors degree or higher increased by 28.7%, while those who received a graduate or professional degree rose by 59.1%. This highly educated workforce ensures that Harford County can meet the challenge of attracting new industries, which in turn promotes economic success for businesses and residents throughout the County.

## Economic Base

Harford County Government is committed to creating an economic climate that will attract new businesses and allow existing businesses to thrive and expand. The foundation of our economy must be built on a population that is prepared to enter the workforce with a diverse range of skills. Preparing our workforce to excel is vital to ensuring that our emerging employment sectors can prosper. Harford County's economy will be resilient in every sense by having a diversity of economic assets that can balance downturns and adapt to ever changing socio-economic conditions.

*Jobs By Industry*

Harford County's strong economy is based on its diversified employment sector, representing a wide range of industries. The number of jobs in the top industries can be found below.

| Number of Jobs by Industry Category | 2004 | 2014 | % Change |
|---|---|---|---|
| Government | 19,736 | 23,698 | 20.1% |
| Retail Trade | 14,121 | 15,246 | 8.0% |
| Health care and social assistance | 9,372 | 12,333 | 31.6% |
| Professional and technical services | 9,402 | 11,143 | 18.5% |
| Transportation, warehousing, manufacturing | 9,613 | 10,475 | 9.0% |
| Accommodation and food services | 6,373 | 8,385 | 31.6% |
| Construction | 9,253 | 8,230 | -11.1% |
| Other services, except public administration | 6,344 | 7,184 | 13.2% |
| Real estate and rental and leasing | 4,407 | 5,621 | 27.5% |
| Administrative and waste services | 5,422 | 5,331 | -1.7% |

*Source: 2014 US Bureau of Economic Analysis*

Over the past 10 years, multiple industries have seen job growth. The largest number of jobs within the County is in the government sector, which can largely be attributed to APG. The fastest growing industries in the past 10 years include health care and social assistance and

accommodation and food services. Industrial jobs are the fifth highest employment sector in Harford County. Evidence for this can be found in the large demand for industrial space.

*US 40 Corridor*

Harford County is committed to identifying opportunities that make the County's economic base more diverse. As commercial areas are aging throughout the US 40 Corridor and other commercial corridors throughout Harford County, revitalization strategies are needed to keep these areas vibrant as they age. The US 40 corridor provides unlimited opportunities for redevelopment efforts; however, Harford County must ensure that the availability of industrial land is not compromised. Over half (51%) of the total jobs located within Harford County can be found along this corridor. The County will coordinate its efforts to improve the US 40 corridor with the City of Aberdeen, the City of Havre de Grace and Aberdeen Proving Ground. This coordination will also help redevelop the Edgewood and Joppa areas. The long-term health and viability of the US 40 corridor will help the County create additional jobs to accommodate a diverse workforce.

The Water's Edge Corporate Campus is an example of a successful development along US 40 that incorporates multiple uses within a single development. Redevelopment along the US 40 corridor should emphasize mixed-use and transit-oriented development. Whether strengthening our infrastructure for mass transit, attracting millennials as our next wave of workers, or leveraging an opportunity for tech cluster development in proximity to Aberdeen Proving Ground, redevelopment is an investment in our future by balancing managed growth with continued preservation efforts.

*Education & Workforce Development*

Harford County has many educational and workforce assets including; a strong public school system with high graduation rates; a strong STEM focus with targeted and magnet programs; a model Science & Math Academy at Aberdeen High School; a Homeland Security program at Joppatowne High; and Biomedical program at Bel Air High. Harford Community College provides opportunities for residents to obtain an associates degree or an array of certificates. The College also provides 2 + 2 programs that make it convenient for residents to earn a four year degree. In addition, the University Center of Northeastern Maryland offers university courses, advanced education, training and resources.

**Harford Community College in partnership with Towson University offer a 2+2 program for select programs. This program allows students to obtain a four-year degree at the Harford Community College Campus.**

Harford County's Workforce Development effort is a partnership between government, higher education and industry. New and innovative programs in the area of continuing education, higher education, vocational and professional training have been developed to complement career awareness efforts and advanced skills development programs designed to support and grow a productive skilled and competitive labor force. The County also possesses a highly trained workforce that is well-suited to the service industry and technical sector. The County

has strong workforce partnerships among higher education, the local workforce investment board, and government and industry that recognize interdependency for economic stability. Harford County has a solid framework and funding tools in place for workforce training needs, including technical training grants. The Harford Business Innovation Center offers a technology incubator program that helps young technology and growth-oriented start-up companies by offering a critical combination of customized business support services and access to subject matter experts. With a highly-skilled workforce and a focus on innovation, Harford County is the premier setting for technology and entrepreneurism.

## Economic Outlook

*Economic Development Visioning and Work Plan*

In 2011, the Economic Development Advisory Board (EDAB) developed their Visioning and Work Plan. This five-year plan provides a strategic approach to sustain and enhance the County's economic development while establishing its long-term, regional viability as a hub for technology in northeastern Maryland. The plan concentrates primarily on three key areas; land use, workforce development (and education), and finance. The Visioning and Work Plan aims to improve the economic climate throughout Harford County and will be updated during the planning horizon of HarfordNEXT.

*Economic Opportunities*

Despite the downturn in the economy experienced in the late 2000's, Harford County's economy is growing, with a strong existing retail, health care and industrial base. Cultivating a diversified economy that generates quality, stable, full-time jobs that contribute to a high quality of life for our residents will require a strategic approach to capitalize on emerging opportunities across various sectors. Our economic success depends upon job creation and preparing the workforce of tomorrow for those jobs. Partnerships with Harford Community College and the University Center of Northeastern Maryland are essential to educating and training a skilled workforce that is able to adapt to the changing needs of the marketplace. Other opportunities exist to invest in the future of our workforce by partnering with the Board of Education to create programs that focus on science and technology.

Harford County has supported the vital mission of Aberdeen Proving Ground since its founding in 1917. APG will continue to provide a significant number of jobs, directly or indirectly, within Harford County. Building upon the world-class research and work performed at APG, unique opportunities exist to diversify the local economy and stimulate job creation. A significant portion of this century's job creation will be in the fields of biotechnology, and Harford County is poised to capitalize on such opportunities with a strong and well trained workforce.

Opportunities exist to revitalize and redevelop along US 40 to make the Chesapeake Science and Security Corridor (CSSC) the premier location for industries that support APG's mission. Identifying the impediments to redevelopment along the corridor is necessary to developing strategies that encourage revitalization and reinvestment within the CSSC. Innovative and forward thinking planning approaches, such as form based codes, transit oriented development, increased densities, and overlay districts can be employed to meet the long held goal of revitalizing the corridor.

The County's agricultural sector is equally important to the health of our economy. Opportunities exist to expand the marketing of locally grown and value added products. The County can also pursue opportunities to capitalize on heritage tourism and agritourism which have the added benefit of promoting the diverse range of products produced by our farms. The viability of farming and our economy in general will depend upon the ability to quickly adapt to changes in technology and capitalizing on new and expanding markets to solidify Harford County as a strong competitor in the region.

Harford County has experienced many physical, demographic and economic changes over the past decade in response to local and regional conditions. Harford County recognizes that these changes can present opportunities that will require an adaptive approach to building a diverse and vibrant economy. This will ensure that Harford County is "The New Center for Opportunity". HarfordNEXT supports economic development efforts that contribute to the County's long term sustainability and resiliency. The regional and national economy is very dynamic and will require the County to be nimble, while remaining strategic.




## Job Innovation

66,200 PEOPLE ARE EMPLOYED BY HARFORD'S 5,600 BUSINESSES

ABERDEEN PROVING GROUND GROWS WITH THE ADDITION OF 110 CONTRACTOR FIRMS

100 EMPLOYERS IN HARFORD WITH OVER 100 EMPLOYEES

## High Speed Enterprise

**135** connections to HMAN, the Harford Metro Area network, changing business communication in Harford County

## Workforce Readiness

**20,337** credit and non-credit students attended Harford Community College in 2015

**32.7%** have a Bachelor's Degree or higher

**12.9%** have a Master's Degree or higher

Source: Maryland Department of Business and Economic Development, 2009-2013 American Community Survey, U.S. Census Bureau, Harford Community College, Harford County Government

**Principles, Goals, and Policies for Economic Vitality (EV):**

## GROW ECONOMIC OPPORTUNITIES AND COMPETITIVENESS

### Goal EV 1.1: Review and amend regulatory strategies and tools that prevent economic growth.

Rationale: Routinely evaluating the development review process and codes will ensure that the County can adapt to changing socio-economic conditions.

**Implementation**

(a) Conduct an analysis of land use regulations affecting redevelopment to determine if they allow for economically feasible and quality development to occur.

(b) Evaluate parking regulations and modify as needed to ensure standards appropriately address commercial and environmental needs.

(c) Work with the Office of Economic Development and the business community to identify regulatory obstacles that impede starting or growing a business in the County.

(d) Work with municipalities to establish consistent development regulations to facilitate greater transparency and remove administrative burdens in the development process.

### Goal EV 1.2: Plan for infrastructure improvements as an incentive to stimulate economic development.

Rationale: Strategically investing in infrastructure improvements will provide new opportunities for businesses.

**Implementation**

(a) Expand the HMAN fiber optics infrastructure throughout the County.

(b) Continue to improve transportation and utilities infrastructure that support the needs of businesses.

(c) Plan for infrastructure improvements, particularly delivery of fiber optic cable, at opportunity sites.

(d) Promote streetscape improvements and beautification projects which utilize sustainable design strategies and construction practices to improve and enhance the attractiveness of aging commercial areas.

An opportunity site is a location where the conditions are right for economic development or revitalization.

### Goal EV 1.3: Support a business friendly environment.

Rationale: Providing businesses with an environment in which they can thrive is imperative.

**Implementation**

(a) Create an environment that is supportive of startups through incubator programs and accelerators.

(b) Ensure zoning regulations are conducive to the growth of small businesses.

(c) Build a coordinated retention program for businesses to determine their needs and concerns.

(d) Support recruitment and retention efforts by economic development organizations such as the Harford County Chamber of Commerce.

(e) Develop an online tool focused on assisting the development and growth of new businesses.

(f) Monitor the County's commercial tax rate

to increase the County's competitive edge.

### Goal EV 1.4: Maintain a capacity for growth.

Rationale: Identifying and maintaining an inventory of available commercial and industrial land is important to attracting new businesses and targeting development opportunities.

**Implementation**

(a) Evaluate commercial land use capacity and adjust as necessary to accommodate economic development opportunities or changing regional conditions.

(b) Promote the utilization of existing commercial and industrial zoned land within the Development Envelope, especially along the US 40 corridor.

(c) Explore land banking opportunities to ensure a future supply of commercial land is available for development within the Development Envelope.

Land banking is the process by which a government or non-profit entity assembles and holds properties for future projects in order to spur economic development.

### Goal EV 1.5: Create a development ready environment where businesses can thrive.

Rationale: Removing impediments for businesses to locate in Harford County will make the County the premier choice to open and operate a business.

**Implementation**

(a) Create a virtual tour that promotes and emphasizes the benefits of locating in Harford County.

(b) Create a program that provides tiered incentives for developers who choose to utilize innovative development practices.

(c) Work with developers to allow for the planned densification of developments to densify over time in redeveloping areas such as US 40 and transit oriented developments.

(d) Encourage mixed-use zoning districts that provide for a balanced integration of commercial and residential uses.

### Goal EV 1.6: Market Harford County as a "food hub".

The USDA defines a food hub as "a centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products".

Rationale: Labeling Harford County as a food destination will attract new businesses, residents and visitors to the County and will have a secondary effect of promoting our agricultural heritage.

**Implementation**

(a) Cultivate small businesses that produce local goods.

(b) Establish a farm to table program to promote healthy communities and promote the County's agricultural industry.

(c) Support rural businesses and the agricultural economy by encouraging farming and tourism relating to the agricultural industry.

(d) Create festivals that focus on businesses within the food industry such as farmers, restaurants, and caterers.

(e) Expand the County's Buy Local program.

(f) Promote temporary uses, such as farmers markets, bazaars, and flea markets at Park

and Ride locations to promote healthy communities.

(g) Work with the Health Department to support the creation of a common kitchen that can be utilized by food related businesses.

## REVITALIZE EXISTING COMMUNITIES

Harford County should prioritize infill development within the Development Envelope to reduce development pressure on the rural areas of the County. Revitalizing existing communities is more economically responsible than expanding infrastructure to areas outside of our designated growth areas.

### Goal EV 2.1: Adapt to changing economic conditions.

Rationale: Flexible zoning allows businesses to create, respond and adjust to rapidly changing economic conditions while ensuring the County remains resilient and ready to adapt.

**Implementation**

(a) Support co-working spaces and low-impact home-based businesses.

(b) Implement Planned Unit Development (PUD) zoning in target redevelopment areas. PUD zoning is a flexible zone designated to be customized to proposed projects. A market based range of land uses in the PUD are established and revisited as the market evolves.

(c) Develop floating zones that provide flexibility for businesses, especially startups.

### Goal EV 2.2: Revitalize existing commercial corridors.

Rationale: Redeveloping existing commercial corridors promotes investments in mature communities, which promotes economic development, improves the quality of life for residents, and provides additional services and retail opportunities to areas that may be underserved.

**Implementation**

(a) Assess the physical, infrastructure and market conditions and needs of older commercial corridors.

(b) Create a Business Improvement District or Community Improvement District for the US 40 corridor.

(c) Inventory vacant and underutilized land to find opportunities for property assembly with a specific emphasis on US 40.

(d) Work with the Department of Inspections, Licenses and Permits to provide flexibility when utilizing vacant commercial spaces.

(e) Provide redevelopment incentives to corridors with high vacancy rates.

(f) Encourage integration of housing along commercial corridors to increase pedestrian activity.

(g) Expand Fast Track process to include projects proposing the conversion of underutilized commercial buildings and redevelopment of industrial areas.

### Goal EV 2.3: Improve the appearance of aging commercial areas.

Rationale: Many aging retail areas have not been updated and the appearance of the buildings has declined. Façade improvements can encourage revitalization and stimulate investment in areas with high vacancy rates.

**Implementation**

(a) Create an outreach program between the Department of Planning and Zoning, the Office of Economic Development and

Department of Housing and Community Development that aims to improve the appearance of blighted properties.

(b) Encourage property owners to rehabilitate their physical facilities and infrastructure to accommodate new businesses.

(c) Explore commercial revitalization programs that provide grants or low interest rate loans for façade improvements and physical improvements.

**Goal EV 2.4: Work with communities on local revitalization efforts.**

Rationale: Our citizens are keenly aware of the issues that affect their neighborhoods and are an important catalyst for change. Citizens can provide valuable input about what their communities need to revitalize and succeed.

**Implementation**

(a) Create a neighborhood grant program for community and public spaces to improve aesthetics within neighborhoods.

(b) Update community plans and incorporate an economic development section tailored to the needs of the community.

(c) Engage communities through workshops and design charrettes.

(d) Encourage community events and social gatherings that partner with surrounding small businesses.

## ENSURE AND PROMOTE A SKILLED WORKFORCE THAT WILL ATTRACT BUSINESSES

**Goal EV 3.1: Provide educational opportunities that prepare students for the workforce and work to give those currently in the workforce advancement opportunities.**

Rationale: A skilled and educated workforce can promote economic development by attracting new businesses to the County.

**Implementation**

(a) Create a workforce development plan with an emphasis on Career and Technical Education (CTE) that prepares youth and adults for a wide range of high-wage, high-skill, high-demand careers.

(b) Engage established businesses to mentor entrepreneurs.

(c) Improve early childhood education programs and provide assistance to parents in order to ensure their children are ready for school.

(d) Partner local businesses with our schools and Harford Community College to develop comprehensive job readiness programs that aim to prepare students to enter the workforce.

(e) Increase the availability, awareness, and completion of Adult Basic Education and GED preparation courses.

(f) Work with schools to ensure that students are receiving training for jobs in emerging sectors, particularly in science, technology, engineering and math.

(g) Tailor educational programs at Harford Community College to meet market demands.

(h) Recruit employers that require a variety of educational backgrounds and skill levels.

(i) Work with the business community and APG to determine workforce needs and tailor high school and college programs to meet those needs.

CHAPTER 4

# ENVIRONMENTAL STEWARDSHIP

HARFORD NEXT
A MASTER PLAN FOR THE NEXT GENERATION

## A Master Plan for the Next Generation





# ENVIRONMENTAL STEWARDSHIP

Harford County is rich in natural resources that contribute to the quality of life of its residents. Harford County is committed to maintaining and enhancing these resources through the implementation of policies that promote environmental stewardship. Environmental stewardship begins with the understanding that people should live in harmony with their environment. Environmental stewardship highlights the interconnection between natural and built environments and emphasizes the need to balance responsible development with the protection of our natural resources. The Environmental Stewardship theme provides a framework of policies and implementations that preserve natural habitats, protect and enhance areas of high ecological value, and effectively manage environmental resources with limited funds. This framework is organized through the development of five principles: Protect and Restore Environmentally Sensitive Areas, Preserve Water Resources, Stormwater Management, Outreach and Education, and Natural Resource Management.

**State Visions:**
*Environmental Protection*
*Resource Conservation*
*Stewardship*
*Public Participation*
*Quality of Life and Sustainability*
*Community Design*
*Infrastructure*
*Growth Areas*
*Economic Development*
*Implementation*

**Overlapping Themes:**
*Grow with Purpose*
*Preserving our Heritage*

## Environmentally Sensitive Areas

The protection and restoration of Harford County's environmentally sensitive areas is paramount to maintaining a high quality of life for our citizens. Harford County has many sensitive resources; including streams, wetlands, floodplains, forests, rare habitats, steep slopes, and other environmental assets. Streams, wetlands and floodplains provide excellent habitat for many species. These areas have also been deemed worthy of protection for their value in improving water quality. Rare or unique habitat areas need focused preservation efforts to maintain their health and biodiversity. These areas have been identified as Targeted Ecological Areas (TEAs), which are lands deemed as the most ecologically valuable in the state. The County will also utilize other GIS data sets through the Bionet system to target ecologically valuable areas. These lands are preferred for conservation and preservation funding.

Forested resources are another important sensitive area worth protecting. By providing shade to headwater streams, reducing sediment load, and improving habitat, forests can be the most effective land cover in certain areas. Forested areas that provide hubs and corridors for wildlife are especially important for targeting protection and restoration efforts. TEAs, forested hubs and corridors will be the foundation of a future Green Infrastructure Plan for the County. The County will continue to improve the quality of our sensitive areas and environmental resources by developing new policies or building on existing efforts to protect these areas.

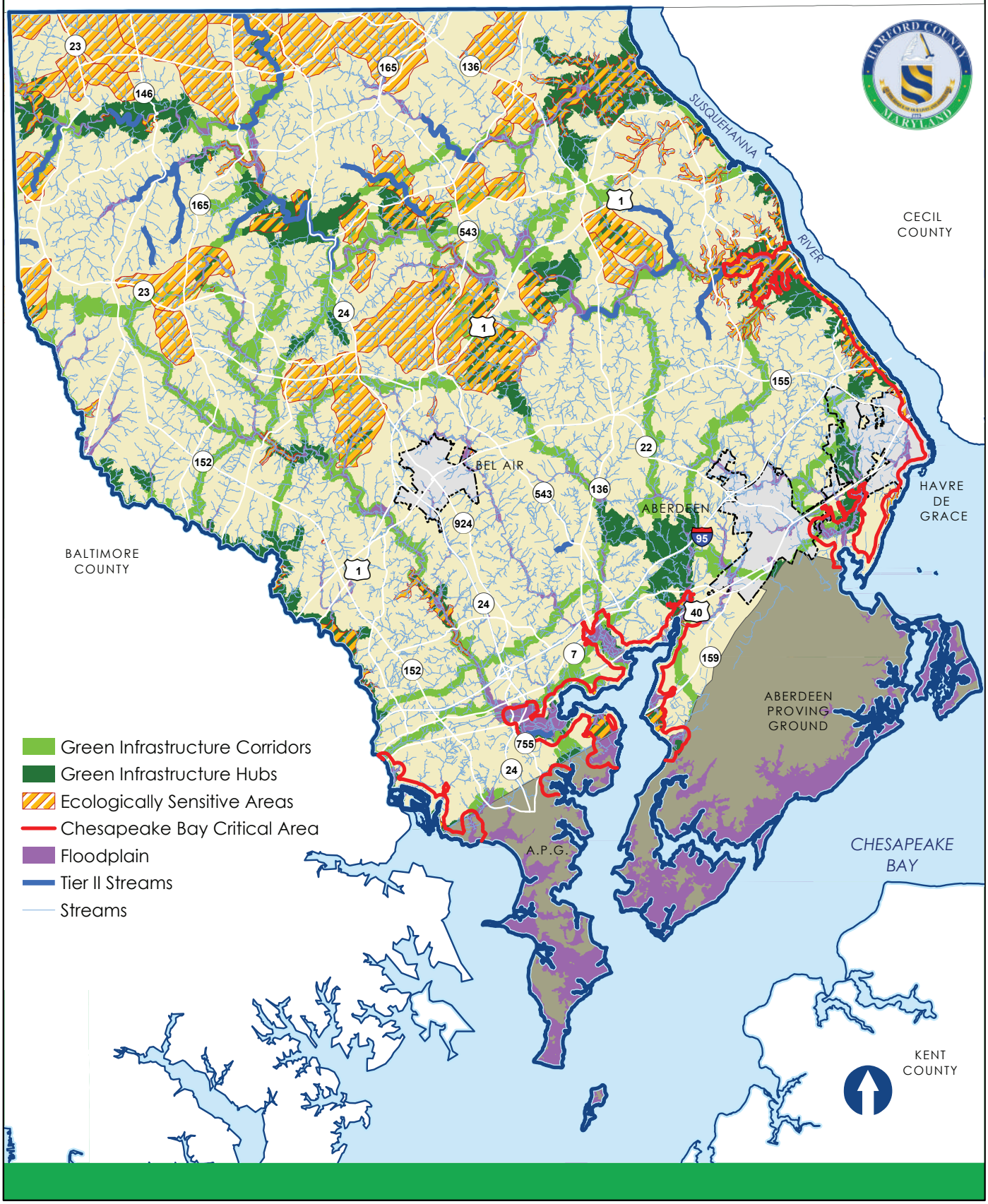


*Forested streams provide multiple environmental benefits.*

## Preserve Water Resources

The County's water resources are an integral part of the landscape of the County. Preserving and protecting the quality and quantity of our water resources is fundamental to the public's health and quality of life by providing adequate drinking water supplies, waste water treatment, and stormwater management. Certain streams are drinking water sources for County residents, while other areas rely on groundwater. Measures must continually be implemented to provide high quality drinking water for all of our citizens. The County must remain environmentally

# Sensitive Areas



responsible in its conveyance and treatment of waste water discharges. There are many high quality (Tier II) streams in the County, and additional efforts may be needed to ensure streams maintain their high quality. Quality and quantity of runoff from the landscape is greatly influenced by land cover; from forest, field, cropland and pasture to high-density urban uses. The impact of stormwater on streams must be analyzed to ensure that the water quality of our streams does not become impaired. There are many state and federal laws that Harford County must comply with in regards to water quality, and Harford County must continue to meet or exceed these measures. Through the implementation of sound land use planning, best management practices, monitoring, and education and outreach, all water resources will be effectively managed.

**Since spring 2011, the County has invested over $48 million into upgrades for the Sod Run and Joppatowne wastewater treatment facilities to improve capacity, handling, and discharge quality of wastewater.**

## Adequate Stormwater Management

A responsible environmental stewardship plan encourages stormwater management facilities that are designed in harmony with the natural environment. Stormwater management systems should be designed to mimic natural hydrology patterns. Development or redevelopment should be designed in a manner that does not overburden local streams. When impacts of stormwater runoff are treated at the source, water quality is maintained.



*Stormwater management techniques such as bioretention facilities treat pollution at the source.*

The County should consider ways to reduce the footprint of future development activities, and partner with citizen groups and non-profit organizations to restore and enhance existing developed areas. The County should also explore restoration practices that remove impervious surfaces and promote landscaping with native plants. Expanding our outreach and education efforts to install small scale stormwater management devices such as rain barrels, rain gardens, and conservation landscaping will assist with improved stormwater management.

## Outreach and Education

Community engagement is one of the foundations of environmental stewardship. The role of local government is to effectively communicate information to their citizens. The County currently has several environmentally-focused programs that use education to engage youth, such as the Envirothon. Student teams work collaboratively to develop their knowledge of ecology and natural resource management and practice their environmental problem-solving skills in preparation for Envirothon competitions. In 2011, Maryland became the first state in the nation to require students to be environmentally literate as a high school graduation requirement. One of the main goals of this requirement is to create meaningful outdoor experiences with students to foster the understanding that we are all connected to the environment. The County will continue to find ways to engage residents to foster the development of environmental stewardship for future generations.

Protecting our water resources from the impacts of nonpoint source pollution continues to be a complex challenge. This type of pollution originates from diffuse sources and effects large geographic areas, making it difficult to control and regulate. Governments at all levels have made strides in reducing pollution in sectors such as agriculture, septic systems, and wastewater treatment plants through various programs. Outreach and education was an important factor in the success of these programs. Local governments must improve outreach while encouraging grassroots efforts from concerned citizen groups and watershed associations to help make meaningful improvements on private properties at the source. The County will continue to use social media and other outlets to help build and maintain environmental outreach and education efforts.



*Arbor Day tree planting events provide outreach and eduction opportunities.*

## Natural Resource Management

The primary goal of natural resource management is to preserve and protect our natural resources while enhancing public safety and health. The responsible management of our natural resources is an essential component to a high quality of life for the citizens of Harford County. A sound natural resource management plan emphasizes the protection and restoration of natural systems while encouraging public outreach and participation in the stewardship of our resources. Natural resources such as forests, streams, and wetlands can provide many benefits when they are effectively managed. When these resources are mismanaged, they can become a community liability. HarfordNEXT supports a systematic approach to natural resource management that promotes stewardship while recognizing the economic and quality of life benefits derived from them.

# HARFORD COUNTY Natural Resources

**10,782** acres of floodplain

**26** miles of protected major stream buffers in Harford County

**60%** of the County is covered by high quality watersheds

## rare, threatened & endangered habitat



Bog turtle

The bog turtle is 3-4" in size.

Fameflower

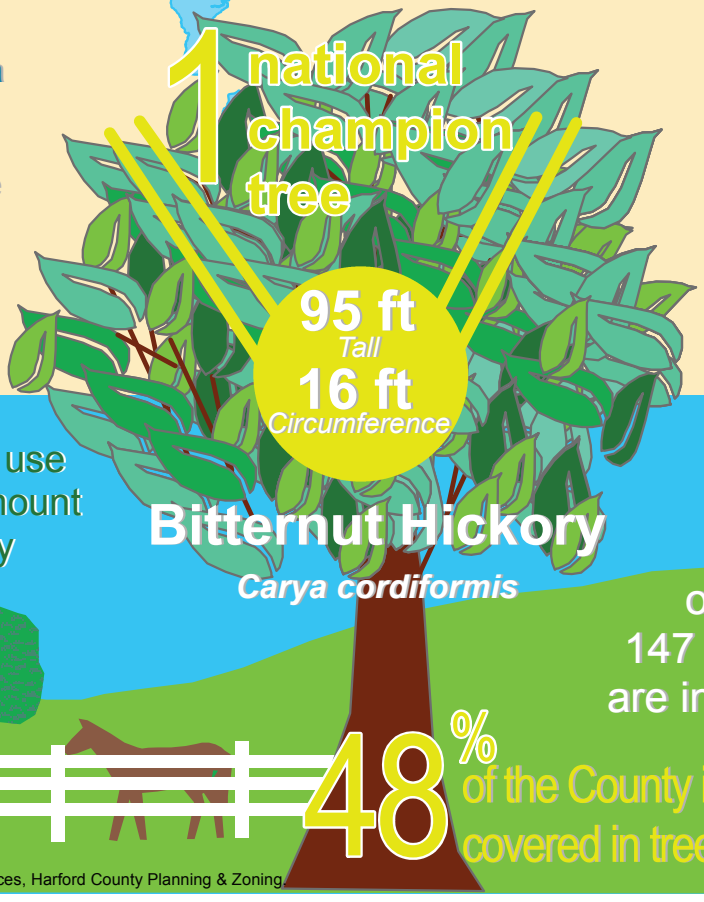


The fameflower is a rock-dwelling plant with shallow roots & is exclusive to the serpentine barrens in Harford County.



Fringe-tip Gentian

Harford County has one of the largest populations of the fringe-tip gentian in the state.




Agricultural land use has the largest amount of tree canopy

**30** of the state's 147 champion trees are in Harford County

**48%** of the County is covered in tree canopy

Source: MD Department of Natural Resources, Harford County Planning & Zoning.

**Principles, Goals, and Policies for Environmental Stewardship (ES):**

## PROTECT AND RESTORE ENVIRONMENTALLY SENSITIVE AREAS

### Goal ES 1.1: Protect streams, wetlands, and their buffers.

Rationale: Research has shown that water quality is greatly improved by preserving or restoring areas adjacent to streams and wetlands.

**Implementation**

(a) Protect Tier II subwatersheds and Targeted Ecological Areas. Require the use of innovative designs and best management practices in developments located in Tier II watersheds.

Tier II waters are streams that have been identified by the State as having significantly higher water quality than the standard for the designated use of that stream.

(b) Conduct watershed studies to assess the health of streams throughout Harford County.

(c) Consider limiting forest clearing within NRD buffers.

(d) Prepare a County Green Infrastructure Plan that will identify and prioritize large forested hubs and corridors.

### Goal ES 1.2: Preserve 100 – year floodplains.

Rationale: By discouraging development within the 100-year floodplains, the risk of flood losses is reduced. Floods can result in the loss of life and property along with increased risks to health and safety.

Harford County entered the National Flood Insurance Program on March 2, 1983. This allows County residents and businesses to purchase flood insurance, and allows the County to receive federal disaster funding.

**Implementation**

(a) Utilize advanced mapping and data tools to more accurately depict floodplains in coordination with the Department of Public Works.



*Maintaining floodplains is important to protecting life and property from major flood events.*

(b) Encourage property owners in flood prone areas to elevate structures higher than the two foot freeboard requirement to minimize damage and reduce the cost of flood insurance.

(c) Improve the County's Community Rating System (CRS) score through updated regulations, outreach, and improved flood warning dissemination, which can reduce flood insurance rates for our citizens.

(d) Pursue grants for protecting County infrastructure from flood damage.

Harford County is currently a Class VII community in CRS, which gives citizens a 15% discount on flood insurance.

**Goal ES 1.3: Protect rare, threatened, and endangered species (RTE) and ecologically significant areas from encroachment.**

Rationale: Unique combinations of climate, soil, topography and vegetation provide habitats for rare plants and animals. Focused preservation efforts will ensure the health and biodiversity of these areas.

**Implementation**

(a) Identify ecologically high-value land that is worthy of preservation based upon the presence of RTE species or other environmental assets.

(b) Pursue grants that improve rare habitats or other environmental features.



*Harford County is one of four Maryland counties that still have one of North America's smallest and rarest turtle, the bog turtle (Glyptemys muhlenbergii).*

(c) Improve outreach to landowners that have RTE habitat utilizing various methods; including the web, social media, and webinars to protect our most valuable resources.

(d) Targeted Ecological Areas should be prioritized in the County's Green Infrastructure Plan.

Harford County (excluding APG) is approximately 49% TEA, most of which is located in the northern tier of the County.

(e) Support actions to maintain habitat conditions for sensitive fishery resources in sections of Deer Creek and Little Gunpowder.

**Goal ES 1.4: Protect and restore forest resources.**

Rationale: Preserving forests provides numerous benefits such as improved water and air quality, reduced erosion and pollutants from surface and ground water, and habitat and temperature regulation for aquatic species.

**Implementation**

(a) Identify gaps in forest canopy coverage and prioritize funding for planting projects in these areas.

(b) Create incentives for land owners to reforest and restore ecologically valuable land.

(c) Develop a County program to assist property owners in planting riparian forest buffers.

(d) Apply for grants to help improve habitats on properties with existing Rural Legacy easements.

(e) Work with homeowner associations to plant unused open space areas that are routinely mowed.

(f) Partner with DPW to strategically reforest along designated County road rights-of-way to improve water quality and wildlife habitat.

(g) Enhance buffer yard requirements by requiring the use of native plants for new construction.

(h) Create a Tree Canopy Ordinance within the Green Infrastructure Plan.

## PRESERVE WATER RESOURCES

### Goal ES 2.1: Ensure high-quality drinking water to Harford County's citizens.

Rationale: Maintaining and improving the quantity and quality of our water is important to the health, safety, and welfare of our citizens and business community.

**Implementation**

(a) Coordinate with municipalities and APG to make decisions on system adequacy.

(b) Protect quality of drinking water sources with a specific emphasis on the Winters Run watershed.

(c) Explore water reuse capabilities such as greywater and rainwater recycling for certain land uses to increase efficiency and save costs.

Harford County's water system has over 600 miles of water mains with 12 storage tanks that hold over 12 million gallons of water. See WRE in Appendix II for maps of existing and future conditions of water and sewer service areas.

### Goal ES 2.2: Provide the necessary infrastructure to meet wastewater demands while improving the quality of discharge from treatment plants.

Rationale: Ensuring the proper and effective treatment of wastewater is critical to meeting water quality standards established by the federal government for our streams, rivers, and bay.

**Implementation**

(a) Improve the quality of discharge waters in accordance with our National Pollutant Discharge Elimination System (NPDES) permit.

(b) Work with the Health Department to identify areas currently served by private septic systems and assist property owners who elect to convert to public sewer.

(c) Coordinate with municipalities and APG to routinely review system adequacy.

(d) Support the use of Bay Restoration Funds for new and replacement septic systems within 1,000 feet of perennial streams and require these systems to use Best Available Technology (BAT).

Harford County has nearly 800 miles of sewer mains and lateral lines to maintain.

### Goal ES 2.3: Reduce stormwater runoff that impacts our streams, river, and bay.

Rationale: High quality water that is clean and free of pollutants is an important component of a healthy community and economy.

**Implementation**

(a) Promote and enhance the implementation standards of the County's NPDES permit.

(b) Support the actions of the existing Watershed Implementation Plan (WIP).

(c) Construct enhanced best management practices to reduce pollutants to streams and wetlands, where appropriate.

(d) Update and refine the County's nonpoint source loading analysis to accurately assess future priority projects.

### Goal ES 2.4: Protect groundwater quality to ensure a safe and adequate drinking water supply.

Rationale: Protecting drinking water supplies that are derived from groundwater is important to the health of citizens in areas not served by public water.

**Implementation**

(a) Evaluate existing impervious surface limits of the County's Water Source Protection District regulations.

(b) Identify and mitigate potential sources of contamination to reduce environmental liability and minimize the need for groundwater cleanup.

(c) Work with APG to identify strategies for maintaining and improving the quality of the County's groundwater supply wells in Perryman.

In 2014, the Potomac Group Aquifer provided 1.4 billion gallons of groundwater to County citizens.

## ADEQUATE STORMWATER MANAGEMENT

### Goal ES 3.1: Reduce the footprint of development through innovative design concepts.

Rationale: Water quality and quantity can be positively affected when natural topographical and hydrological conditions are maintained.

**Implementation**

(a) Evaluate parking standards to reduce impervious cover.

(b) Establish stricter limits on impervious surfaces and forest clearing within the Green Infrastructure Plan.

(c) Develop design standards that place an emphasis on maintaining natural landscapes.

(d) Require the inclusion of native plants as part of landscape plans to improve habitat.

(e) Evaluate height restrictions on structures to allow flexibility in new developments and reduce the impervious footprint.

### Goal ES 3.2: Establish a tree canopy program that encourages citizens to maintain and increase tree canopy in rural and urban environments.

Rationale: Increasing tree canopy in more densely developed areas helps to mitigate pollution from stormwater runoff. Other benefits include improved air quality, reductions in the urban heat island effect, and reduction in thermal pollution to streams and rivers.

Thermal pollution can degrade streams with native trout populations.

**Implementation**

(a) Increase the County tree canopy coverage (currently 48% as determined by the 2013 County Tree Canopy Assessment), by two percentage points over the next ten years.

(b) Work with homeowner's associations to plant trees within existing developments, with an emphasis on planting passive open spaces.

(c) Conduct a County tree canopy study every 10 years to track progress.

(d) Identify priority areas for reforestation efforts by utilizing GIS.

(e) Require the use of resilient native tree species that can tolerate the conditions of urban/suburban areas to increase survival rates.

(f) Partner with SHA, DPW, Parks and Recreation to incorporate tree canopy into the design of projects.

### Goal ES 3.3: Increase outreach and education activities related to stormwater management.

Rationale: Treating stormwater runoff at the source significantly reduces the cumulative effects on streams and rivers. Low-cost solutions like rain barrels, rain gardens, and conservation landscaping can help improve local water quality, enhancing the quality of life.

**Implementation**

(a) Train citizen groups to perform water quality monitoring.

(b) Assist citizen groups through grant-funded demonstration projects of stormwater best management practices.

(c) Implement an impervious surface removal outreach campaign.

(d) Partner with Parks and Recreation, DPW, and HCPS to create more stormwater management demonstration projects.

(e) Establish a rain barrel incentive program for County residents.

## OUTREACH AND EDUCATION

### Goal ES 4.1: Increase Citizen Stewardship of land and resources.

Rationale: Partnering with concerned citizen groups and watershed associations can help make meaningful improvements to our resources.

**Implementation**

(a) Encourage community gardens, community cleanups, or other enhancement initiatives.

(b) Educate citizens about environmental issues through programs such as Envirothon, 4-H, and Anita Leight Estuary Center.

(c) Implement a certification program for rain garden installers and inspectors.

(d) Educate citizen groups about grant opportunities that improve environmental resources.

(e) Use social media to raise awareness about environmental programs or initiatives.

Harford County teams have won the state Envirothon competition a record nine times.

## NATURAL RESOURCE MANAGEMENT

### Goal ES 5.1: Preserve our agricultural heritage and resources for future generations.

Rationale: Preserving productive farm land ensures that our rich agricultural heritage will survive and be a valuable asset to future generations. Local farms are important to creating and maintaining food hubs and encouraging fresh locally-sourced products that promote healthy communities.

**Implementation**

(a) Direct development towards areas within the Development Envelope and Rural Villages to relieve development pressure on productive farmland.

(b) Identify opportunities to create a greenbelt that strengthens the viability of farms and limits external encroachments.

(c) Maintain contiguous tracts of farmland to increase the viability of productive land.

### Goal ES 5.2: Protect and improve local air quality.

Rationale: Clean air is important to promoting healthy communities and reducing the incidence of chronic respiratory diseases.

**Implementation**

(a) Ensure that burning laws are adequate to protect air quality.

(b) Encourage citizens to use electric or manual lawn mowers and yard tools instead of gas-powered machines.

(c) Encourage drivers to consolidate vehicle trips to reduce emissions.

(d) Pursue Congestion Mitigation and Air Quality (CMAQ) Grants for implementation projects that aim to decrease pollutants.

(e) Promote reforestation in urban environments to reduce the urban heat island effect, improve air quality, and increase energy efficiency of buildings.




*Bike lanes give citizens options for commuting, recreation, and improves our air quality.*

### Goal ES 5.3: Conserve mineral resources.

Rationale: Mineral extraction companies are a valuable resource and commodity for the County.

**Implementation**

(a) Balance the operational needs of active quarries with those of surrounding land uses.

(b) Explore the feasibility of converting inactive quarries into drinking water reservoirs or other community asset.

### Goal ES 5.4: Reduce the amount of solid waste transferred to local landfills.

Rationale: Reducing solid waste while expanding recycling programs conserves space in existing landfills, which increases life and reduces costs.

**Implementation**

(a) Evaluate expansion of recycling programs as new cost-effective opportunities arise.

The Maryland Recycling Act required counties to recycle up to 35% of solid waste by the end of 2015 with a voluntary target of 55% by 2020.

(b) Expand County compost operations that remove additional compostable materials from the solid waste stream.

(c) Partner with Maryland Environmental Services (MES) to find cost-effective measures for reducing solid waste in the County.

### Goal ES 5.5: Incorporate coastal resiliency strategies into the development of the Green Infrastructure Plan and future updates of the Harford County Hazard Mitigation Plan.

Rationale: Coastal resiliency strategies and planning will help communities better prepare for natural disasters, recover from them faster, and protect critical infrastructure.

**Implementation**

(a) Identify critical infrastructure, property, and populations at risk in order to make informed programmatic decisions to protect County resources.

(b) Analyze risk and vulnerability, and evaluate and identify cost-effective solutions to increase coastal resiliency.

(c) Apply for grants to fund implementation of projects that mitigate or reduce risk to coastal communities or government infrastructure.

(d) Incorporate new studies and coastal floodplain management measures into the Hazard Mitigation Plan.

### Goal ES 5.6: Improve efficiency by increasing access to, and availability of alternative energy sources.

Rationale: Renewable energy technologies such as wind and solar have a much lower environmental impact than conventional energy sources.

**Implementation**

(a) Evaluate public schools and County buildings to determine the viability of installing rooftop solar.

(b) Identify local regulatory impediments to streamline the use of alternative energy sources.

(c) Consider allowing solar farms in a variety of zoning districts.

### Goal ES 5.7: Encourage sustainable maintenance practices for County-owned land.

Rationale: Harford County can increase efficiency, reduce costs, and be a model for sustainability by adopting sustainable maintenance practices.

**Implementation**

(a) Establish low-mow zones to save County resources and minimize air pollution.



*Low-mow zones help to minimize air pollution and save County resources.*

(b) Plant native flowering plants in median strips and other public spaces.

(c) Develop Invasive Plant Management plans for County parks and continue support for the Noxious Weed program.

(d) Consider developing a County-run native plant nursery to use trees and plants for capital projects or other needs.

CHAPTER 5

# PRESERVING OUR HERITAGE

HARFORD NEXT
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# PRESERVING OUR HERITAGE

Harford County boasts a unique array of irreplaceable resources that represent the substantial events and activities that shaped the communities we know today. These resources provide a direct physical link to our past, contributing to our sense of community and offering continuity as Harford County continues to grow and evolve. For over forty years, the County has made considerable achievements in protecting its resources by managing the identification and preservation of its extensive historic and agricultural assets. Numerous historically significant sites and structures have been identified and protected through easements and the local landmark program, and thousands of acres of prime farmland and forests have been preserved through various land preservation programs. Culturally significant resources, such as oral histories, folklore and traditions, archaeological sites and artifacts signify our heritage and provide opportunities for preserving our legacy. According to the National Park Service, "preservation is about deciding what is important, figuring out how to protect it, and passing along an appreciation for what was saved to the next generation".

With such an abundance of historic, agrarian, and cultural resources, it is our duty to ensure their protection for future generations. The Preserving Our Heritage theme outlines strategies to help ensure that local resources endure to tell the story of Harford's past. This framework is organized around four principles: Protect Historical and Cultural Resources, Protect Agricultural and Natural Resources, Build Capacity For Preservation, and Educate and Connect With A Broader Audience.

**State Visions:**
*Environmental Protection*
*Resource Conservation*
*Stewardship*
*Public Participation*
*Quality of Life and Sustainability*
*Community Design*
*Economic Development*
*Housing*
*Implementation*

**Overlapping Themes:**
*Grow with Purpose*
*Environmental Stewardship*
*Economic Vitality*

## Historic and Cultural Resources

Harford County contains an extremely rich and diverse collection of culturally significant buildings, landscapes, sites, and communities that reflect the history of our County. Throughout the County, one can find archaeological sites from the era of the Susquehannocks, early English colonial cabins, Palladian-style mansions, two Freedmen's Bureau schools, houses built by French émigrés fleeing revolution in Europe, some of the country's earliest and finest Gothic Revival churches, and documented stops on the Underground Railroad. Physical reminders are not only interesting and valuable as splendid stylistic examples from various periods, but also as important reminders of the fascinating people who helped shape that history.



*Harford County's architectural history shows a diverse range of influences.*

Many of our historic resources no longer exist, due in part, to development activity that occurred throughout the 20th century. Lack of prioritization accelerated the loss of resources as growth occurred. Preserving our remaining resources will require adapting our traditions and landmarks of the past to fit the needs of the present, and future. This theme identifies achievable implementation strategies to meet the County's preservation goals and ensure that local historic and cultural resources preserve our sense of place and cultural landscape.

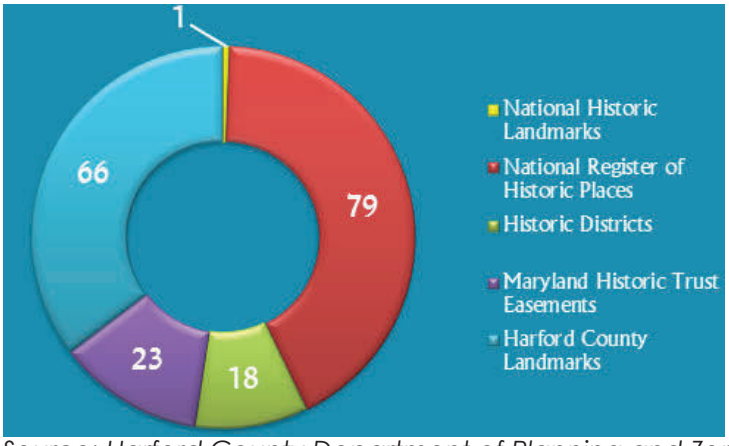
**Indigenous people have inhabited Harford County for at least 8,000 years. During the Colonial Period, thousands of Native Americans from different groups traveled through the State of Maryland contributing to Harford County's history.**

**In 2014, the Maryland Historical Trust (MHT) published *PreserveMaryland*, the statewide preservation plan for 2014-2018. *PreserveMaryland* established five statewide goals and identifies a number of preservation issues in various regions throughout the State of Maryland.**

## Historic and Cultural Resources: Designation & Protection Programs

A successful preservation program requires the coordination of federal, state, and local jurisdictions to preserve and protect resources by means of identification and designation. The Antiquities Act of 1906 and the National Historic Preservation Act of 1966 served as the foundation for most local programs and helped initiate the identification and protection of the country's most significant resources. Designations, such as the National Register of Historic Places and National Historic Landmarks, have contributed to the protection and recognition of some of the country's most notable resources.

There are more than 2,000 sites in Harford County listed on the Maryland Inventory of Historic Properties; many have one or more federal, state, or local designations. The level of designation often indicates a resource's level of prominence and helps determine the subsequent protections that accompany it.




**The Maryland Inventory of Historic Properties is a research and documentation instrument that serves as an archive of information to further the understanding of the State's architectural, archaeological, and cultural resources.**

*Source: Harford County Department of Planning and Zoning*

*Historic and Cultural Resources*

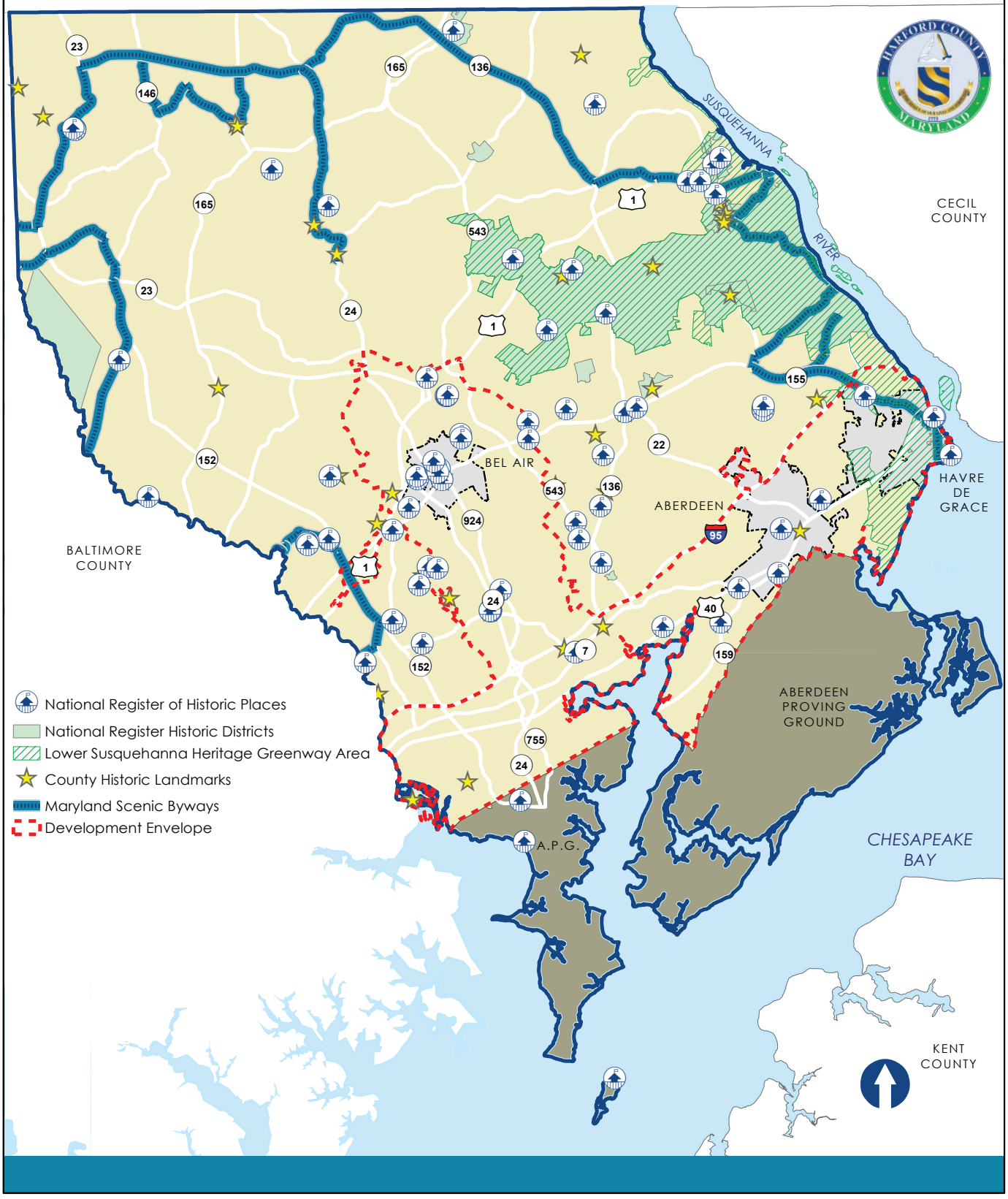
Designation as a historic resource can provide benefits to property owners. These benefits vary depending on the level of designation (i.e. federal, state, or local). Historic tax credits are the primary incentive homeowners and businesses can utilize through a historic designation. Most tax credits can be used in conjunction with other programs, which can deliver substantial savings to homeowners and businesses. Currently, Harford County offers a 10% tax credit on qualified rehabilitation projects for County Landmark properties. An increase in the tax credit allowance may boost preservation activity, spurring investment.

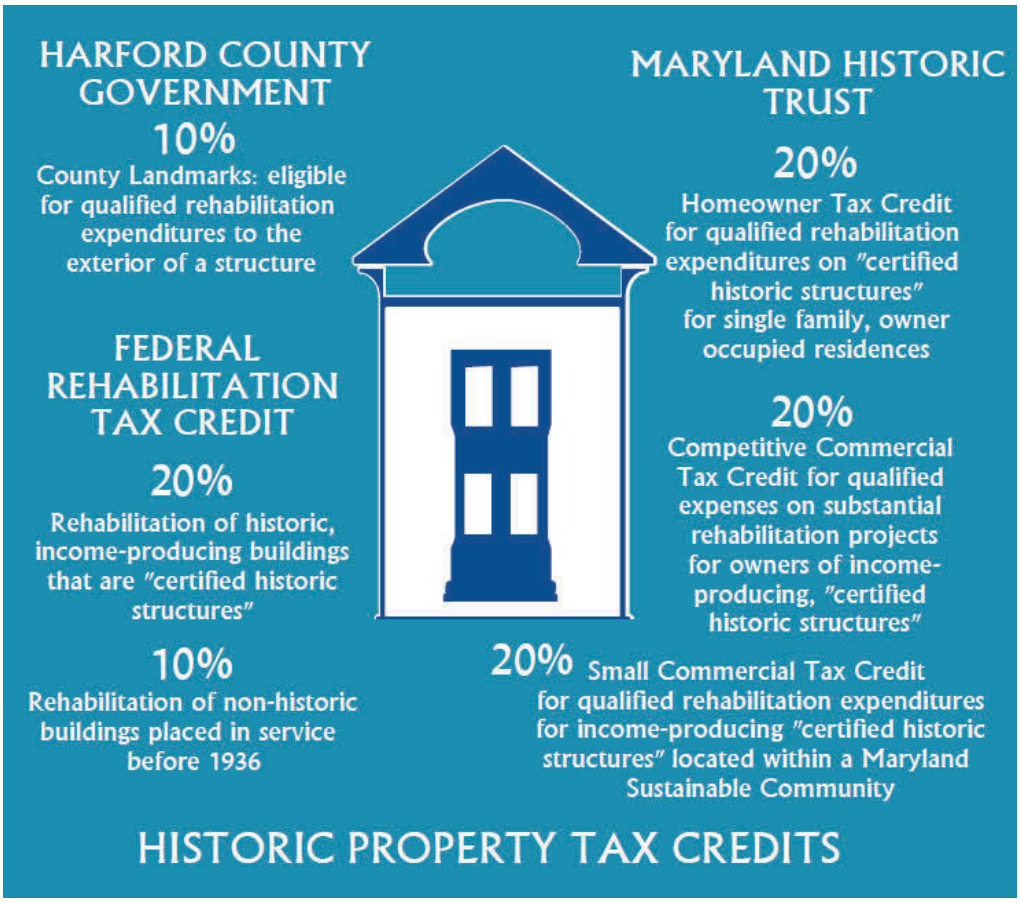
## Historic and Cultural Resources: Execution & Opportunity

Historic and cultural resources provide an orientation within society, preserving the relevance of the past and inspiring our future. The historic preservation model proposed in HarfordNEXT is structured around three primary implementations. First, the County must intensify efforts to survey and document our remaining inventory of resources. Documentation records significant aspects of history and culture through the creation of a comprehensive database. Additional surveys will assist in the documentation of the County's recent history, and aid in providing a more thorough investigation of resources currently with limited data. Second, a concerted effort to establish a heritage tourism campaign will produce educational and economic benefits while aiding and promoting preservation. Finally, a package of targeted incentives and flexible requirements can help promote adaptive reuse as a viable option for many owners or tenants. Adaptive reuse is a sustainable way to extend the useful life of structures, generate new investment, and preserve valued resources.

To aid in our preservation planning efforts, the County is seeking designation as a Certified Local Government (CLG), which not only recognizes that Harford County is committed to preserving its significant resources, but also provides support through the Federal Historic Preservation Fund. CLG's have access to funds that aid in local projects such as comprehensive surveys, documentation, and mitigation planning for the protection and enhancement of our significant resources.

# Preserving Our Heritage








*The Proctor House before rehabilitation. (Historic Tax Credit Project)*



*The Proctor House after rehabilitation. (Historic Tax Credit Project)*

# PRESERVING Harford HISTORY

*"The Greenest Building is the One Already Built."*
*-Carl Elefante*

## Historic Preservation projects (over 12 yrs)

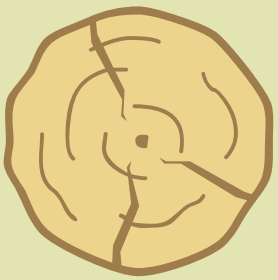
*Have employed 15,120 persons & created $1.74 billion in economic activity in Maryland.*

*Have saved 387,000 tons of material from landfills*

*Have conserved approximately $100 million in natural resources*

## OLDER IS BETTER

Most pre-1930 buildings were constructed using old growth wood. These trees were 60+ years old. This wood is naturally dense & disease resistant.



## Sustainable Treasures...



*Sophia's Dairy - BRICK*



*Swansbury - WOOD*



*Bon Air - STUCCO*



*Woodside - STONE*

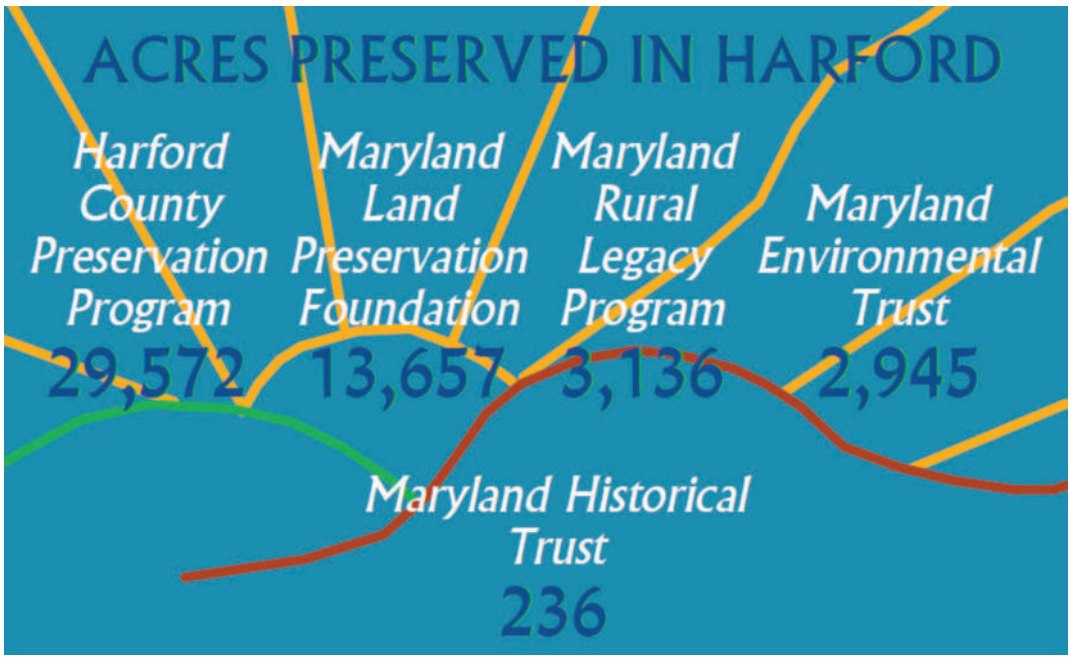
SOURCE: The Abell Report, Abell Foundation, 2009, National Trust for Historic Preservation.

## Agricultural Preservation

Harford County's heritage is intimately linked to its agricultural traditions. For generations, farms and farmers have been the cornerstone of communities throughout the County, supplying a bounty of fresh produce, grain, milk and livestock while also providing local jobs, tax revenues, pastoral views and recreational opportunities. Historically, tobacco, grain, meat production and the harvesting of timber were the foundation of the industry. Later, dairy farms and vegetable canning operations emerged as farmers pursued higher value products. Today the agricultural industry continues to evolve as producers adopt new technologies and invest in capital improvements that aid in farming operations.

While the farming industry remains strong, farmland continues to be lost, threatening the future viability of agriculture in the County. Exurban development activity over the last several decades has caused the loss of productive farmland and natural resource areas. From 1959 to 2012, over 100,000 acres of agricultural farmland were converted to residential use. To ensure farming remains a viable industry, the County must adequately plan for a future that integrates sound land use planning with education, technology and promotion to preserve our valuable agricultural resources. A sustainable agricultural industry also offers many benefits to local communities; including convenient access to healthy foods and improved nutrition. Building resilient local food systems is critical to creating healthy communities and ensuring food security.

Agricultural preservation programs provide financial rewards and other benefits when a land owner sells or donates their development rights. Those who sell development rights receive an infusion of capital that can be used to improve or diversify farming operations, purchase additional land, pay off debt, or meet other financial obligations. Participation in these programs can also provide tax benefits. As of 2015, Harford County has successfully preserved nearly 50,000 acres through conservation easements. Harford County has set a goal of 75,000 acres to be placed under perpetual land preservation easements by the year 2040. In addition, a reimagined transfer of development rights program that is applied more strategically or surgically may enhance opportunities for preservation.



## Priority Preservation Plan (PPA)

The Agricultural Stewardship Act of 2006 required counties to adopt a Priority Preservation Area Plan (PPA). The County adopted its first PPA in 2008 which included the Lower Deer Creek Rural Legacy area. The PPA was expanded in 2009 to include most of the upper Deer Creek area. As the County works towards its 2040 preservation goal of 75,000 acres, the updated PPA will now include the Manor Rural Legacy area. This area includes the Broad Creek and Little Gunpowder Falls watersheds. See Appendix I for the full Priority Preservation Plan.

## The Future of Agriculture in Harford County

For agriculture to remain a viable pursuit in Harford County, technological and operational innovations must be combined with advanced training and education to provide agricultural producers with the tools necessary to endure the many challenges facing today's farmers. Technological innovations developed to aid farm management have already changed the economics and operational practices of agriculture. These advanced capabilities have resulted in more efficient and productive farms that generated $46 million in market value in 2012.

With greater innovation and promotion, agriculture will continue to be an important sector of the economy. Harford's farmers are poised to further expand into regional and international markets while continuing to serve local residents with quality products. The County's nationally recognized operations in the dairy and beef cattle breeding programs, along with our grain producers and nurseries are delivering high quality produce and value added products that prove agriculture is thriving and growing in Harford County.

Harford County and its farmers are only beginning to reap the benefits of the burgeoning agritourism industry. The County's farms and farmers are uniquely positioned to capitalize on niche tourism that showcases our diverse agricultural economy; including tours of wineries, breweries, creameries and restaurants serving locally sourced products. HarfordNEXT seeks to build upon the successes of farmers throughout the County who have already modernized their business models by incorporating unique approaches that enhance the viability of farming for the next generation. Additionally, the ability to engage in agricultural commercial uses such as farm stands, farmers markets, restaurants, and seasonal events allow farmers to tap new income streams.

Support for farms and farmers remains strong, and Harford County is committed to ensuring farmland is preserved and future farmers have opportunities to succeed. The Preserving Our Heritage theme identifies fundamental strategies for protecting farmland and maintaining the traditions of farming. Key policies feature implementations that will guide the preservation of additional farmland and the mobilization of our next generation of farmers. Innovations, financial incentives and advanced education will provide today's agricultural producers with the tools necessary to endure.

## Agricultural Preservation



# Census of Agriculture

Harford County • 2012 Data Set

## reaping the harvest

Market value of products sold

$46 million in 2012

Products sold

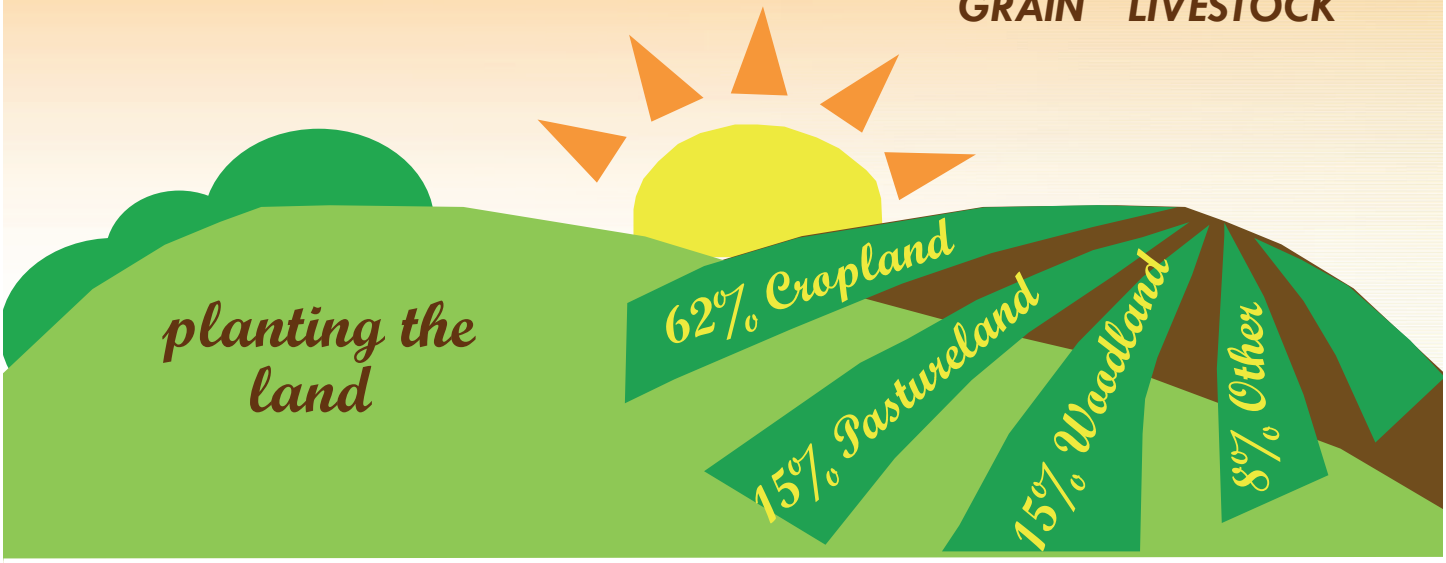
68% GRAIN

32% LIVESTOCK



CORN 14,063 acres

## planting the land




## farming by numbers

582 Number of farms

65,472 acres in farms



249 Number of principal operators who farm full time

Source: U.S. Department of Agriculture

**Principles, Goals, and Policies for Preserving Our Heritage (POH):**

## PROTECT HISTORIC AND CULTURAL RESOURCES

### Goal POH 1.1: Identification and Evaluation of Historic and Cultural Resources.

Rationale: The inventory is a documentation tool that compiles pertinent data from onsite surveys and research conducted in order to determine historical significance of a resource. Documentation aids in the determination of historic designations.

**Implementation**

(a) Update and maintain a comprehensive inventory of historic places and Geographic Information System (GIS) layers.

(b) Coordinate with the Maryland Historical Trust, and other organizations, to ensure data is exchanged on a regular and consistent basis.

(c) Research and evaluate resources with the potential to become significant over time. Identify funding sources to undertake comprehensive surveys.

(d) Identify and prioritize threatened or endangered resources deemed to be of exceptional value and significance to the County's history.

(e) Explore mobile applications to aid in onsite monitoring and survey work of properties.

(f) Establish a ranking system to distinguish a resources significance in accordance with the National Register of Historic Places established criteria.

### Goal POH 1.2: Expand the County's Historic Landmark list.

Rationale: Landmark designation preserves resources deemed most significant to local history and provides crucial protections. The number of designations in Harford County is considered low in comparison to other jurisdictions.

**Implementation**

(a) Develop strategies to expand and promote the list of Harford County Landmarks.

(b) Increase the historic tax credit percentage to strengthen the program, protect our significant resources, and spur economic development.

(c) Monitor all designated County Landmark properties annually in order to maintain compliance with the Zoning Code, ensuring their protection and integrity.

(d) Consider a Demolition-by-Neglect provision to protect local Landmarks.

(e) Identify highly desirable County Landmark properties; properties and resources deemed significant to local history.

(f) Seek funding to ensure that all County Historic Landmark's receive a plaque stating their distinguished local designation.

### Goal POH 1.3: Identification and Evaluation of Historic Districts.

Rationale: Historic districts document several sites/buildings that together, have significance to the history of a locale. As the County continues to evolve, it is important to document these districts.

**Implementation**

(a) Develop strategies for the identification of new historic districts.

(b) Identify existing local districts with the

potential to be elevated to a national designation.

(c) Research options for the protection of historic districts.

**Goal POH 1.4: Identify areas of archaeological interest and establish a local archaeology component to our existing program.**

Rationale: Archaeological resources provide opportunities to discover and learn from the past inhabitants of the County- whether it be terrestrial (land) or maritime (water) resources.

**Implementation**

(a) Develop a cultural resource management plan that incorporates an archaeological component.

(b) Coordinate with local organizations to formulate best practices and goals.

## PROTECT AGRICULTURAL & NATURAL RESOURCES

**Goal POH 2.1: Preserve large blocks of productive farm and natural resource land through conservation easements.**

Rationale: Loss of farmland and natural resource land has resulted in the decline of the agricultural industry in the County.

**Implementation**

(a) Establish a new County goal of 75,000 acres with government and private land trusts.

(b) Expand funding for the County program to reach projected goals.

(c) Work with the federal government to preserve productive farm and forest lands through the Army and USDA programs.

(d) Pursue donated easements on farmland by promoting the use of charitable contributions for income tax purposes.

(e) Continue full match participation for the state programs.

(f) Research and develop additional programs based on successful preservation programs found across the country to preserve farmland.

**Goal POH 2.2: Support agricultural operations to ensure viability of farming.**

Rationale: Support for agricultural production must be a priority in order to ensure the viability of an industry; advancement opportunities must be pursued aggressively.

**Implementation**

(a) Expand the number of farms that offer their high value crops for sale to retail consumers.

(b) Maintain an efficient permit process for agricultural commercial uses.

(c) Expand marketing program to support locally grown agricultural products.

(d) Expand producer grant program to help match funding for new and expanded value added production.

(e) Help farmers navigate the regulatory process for expanding or establishing businesses that sell traditional or value added agricultural products.

(f) Support right to farm principles and policies.

(g) Review regulations to reduce conflicts between producers, commuters, and non-farm residents in rural communities.

### Goal POH 2.3: Encourage sensitive site design in rural areas within the County.

Rationale: The creation of conventionally designed new residential and institutional uses on productive farm and natural resource land throughout the rural area contributes to fragmentation of agricultural land.

**Implementation**

(a) Review existing residential conservation clustering provision; consider requirement of a mandatory percentage of the farmland to be placed under a conservation easement.

(b) Limit the types of institutional uses allowed in rural areas; encourage uses that preserve farmland, open space, and encourage preservation of historic structures.

(c) Expand transfer of development rights program that would shift development rights out of rural areas, to locations where infrastructure can more efficiently accommodate development.

## BUILD CAPACITY FOR PRESERVATION

### Goal POH 3.1: Investigate measures to have historic and cultural resources become a part of the development review process.

Rationale: Protections must be implemented to aid in the preservation of historic and cultural resources.

**Implementation**

(a) Incorporate plan review for new developments on land containing a historic or cultural resource. Require a management plan on how new developments will avoid or minimize any adverse effect on the resource.

(b) Consider incorporation of a demolition review process. Implement a time allotment between application and approval to allow for proper documentation of site.

### Goal POH 3.2: Make rehabilitation and adaptive reuse of vacant buildings a priority.

Rationale: The greenest buildings are those already built. Preserving the built environment spurs economic activity at the local level while encouraging sustainable building practices.

**Implementation**

(a) Identify target areas for revitalization and make rehabilitation and adaptive reuse a priority. Consider offering incentives as a catalyst.

(b) Allow a mix of uses and flexibility for redevelopment projects that include historic structures.

### Goal POH 3.3: Develop guidelines that promote quality design and appropriate techniques.

Rationale: Design guidelines aid in protecting the integrity of historic resources, but also ensure that new development maintains the appropriate historical setting and scale.

**Implementation**

(a) New developments shall be compatible with the pattern, scale, and character of the historic district, Main Street, rural village or agriculturally dominant area.

(b) Establish guidelines that demonstrate appropriate rehabilitation techniques. Ensure guidelines follow the US Secretary of the Interior's Standards for Rehabilitation.

### Goal POH 3.4: Obtain designation as a Certified Local Government (CLG).

Rationale: The CLG program recognizes

counties and municipalities that have made a special commitment to preservation. Designation also provides access to grants to assist in preservation related activities and projects, such as comprehensive surveys.

**Implementation**

(a) Explore the benefits of Certified Local Government (CLG) status. Research and pursue grant opportunities to help advance Harford County's historic preservation program.

(b) Review program requirements to ensure we meet all prerequisites to obtain designation.

### Goal POH 3.5: Require a cost of community services study for new non-agricultural land uses within rural areas.

Rationale: The County's 2003 Cost of Community Services Study showed that agricultural land uses pay for themselves in needed services through the collection of property and income tax.

**Implementation**

(a) Require an updated cost of community services study for the County to include a breakdown for residential, commercial, industrial and agricultural land uses.

(b) In addition to visual, community and cultural impacts, the economic impact to the County should be factored into the approval of new uses unrelated to agriculture or natural resource protection.

## EDUCATE AND CONNECT WITH BROADER AUDIENCES

### Goal POH 4.1: Promote public understanding and appreciation for the County's heritage.

Rationale: Promotion assists in garnering support for preservation activities and encourages advocacy.

**Implementation**

(a) Educate the next generation about historic and cultural resources.

(b) Promote the annual Historic Preservation Awards held each May in association with historic preservation month.

(c) Create promotional materials to be disseminated to owners and potential owners of historic properties.

(d) Develop mobile applications that help teach and engage others about preservation.

(e) Develop walking, bicycling and driving tours of the County's historic structures and places.

### Goal POH 4.2: Promote heritage tourism.

Rationale: Promoting our historic and agricultural resources can have a tremendous impact on our economic vitality, which in turn can help emphasize the preservation of our resources.

**Implementation**

(a) Promote tourism based on heritage theme and integrate into municipal, county and regional tourism plans. Promote activities for tourists and the community.

(b) Develop interpretational materials, signs, and plaques to further understanding of the County's historical and cultural resources.

(c) Support heritage tourism initiatives that promote the County's heritage areas, parks, greenways, and nature preserves.

(d) Support associated heritage area programs designed to link, promote and

protect our significant resources. The Lower Susquehanna Heritage Greenway is responsible for the implementation of the heritage area management plan. Maintain commitments to preserving historical, cultural and natural resources for sustainable development through heritage tourism.

(e) Promote the Maryland Scenic Byways within the County and develop a wayfinding system to navigate.

(f) Develop a County scenic byways program.

(g) Identify, protect and promote significant County viewsheds.

The Captain John Smith Chesapeake National Historic Trail is a series of water routes along the Chesapeake that trace the captain's famous voyage up the bay.

### Goal POH 4.3: Collaborate with stakeholders to advance shared objectives.

Rationale: Working in unison allows for more creativity and provides a solid knowledge base in which to operate. Collaboration can further advance initiatives and launch innovative ideas.

**Implementation**

(a) Solicit active participation and cooperation of people interested in Harford County's historic preservation programs.

(b) Promote partnerships with municipalities to strengthen the foundation of preservation in the County and ensure consistency between programs.

(c) Develop a conference for local commissions, civic groups, and citizens to gather to share ideas concerning historic and cultural resources.

(d) Maintain support for local museums, programs and exhibits, which tell the story of the County's history.

(e) Support the Historical Society's mission of providing long-term conservation of relevant archives, legal materials, vintage photographs, and other research materials.

### Goal POH 4.4: Educate citizens on rural agricultural issues.

Rationale: Education serves as a tool that can benefit all citizens of the County while also aiding to preserve open space through productive agriculture and natural resource uses.

**Implementation**

(a) Continue outreach and create signage to educate community members on agricultural and natural resource needs in the rural areas of the County.

(b) Develop workshops to educate the community on concerns farmers have with encroachment on farm operations, woodland management, and equipment transportation.

(c) Educate local community members on the importance of locally grown agricultural products and how they can support local area farmers.

(d) Support and educate the County's youth about the importance of the agricultural industry and natural resource lands within the County.

### Goal POH 4.5: Continue support for organizations and programs that benefit the larger agricultural and natural resource community.

Rationale: The agricultural industry continues to expand and can remain strong with

additional education, training, and assistance by knowledgeable agricultural service providers.

**Implementation**

(a) Support agencies such as the soil conservation district, cooperative extension service, 4-H programs, the Maryland Forest Services, high school agricultural education programs, County Farm Fair, and others.

(b) Maintain access to the latest agricultural and natural resource research and educational programs.

(c) Provide continuing education opportunities such as seminars, college courses, and training for the agriculture and natural resource industry professionals.

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CHAPTER 6

# MOBILITY AND CONNECTIVITY

HARFORD NEXT
A MASTER PLAN FOR THE NEXT GENERATION

## A Master Plan for the Next Generation






# MOBILITY AND CONNECTIVITY

A primary goal of HarfordNEXT is to establish policies that strengthen individual communities and restore connections between communities. By doing so, we will reinforce our common values and establish a collective sense of place. The future of Harford County will be rooted in strong and vibrant communities that balance land use, economic development, mobility, and environmental sustainability. Transportation planning will be key to integrating these components. As we contemplate the evolution of our communities, we must evaluate the impact of changing demographics and lifestyles. To accommodate the needs of our aging population and remain a desirable destination for families and younger individuals, greater efforts are needed to reduce our reliance on the automobile as the sole or primary means of mobility. HarfordNEXT emphasizes accessibility to alternate modes of transportation, such as walking, bicycling, and transit, as a means of managing traffic on our roadways while improving air quality and promoting healthy lifestyles. The framework of Mobility and Connectivity is organized around six principles: Taking A Universal Approach To Transportation Planning, Integrating Transportation and Land Use Planning, Establishing A Safe, Robust Network Of Bicycle and Pedestrian Facilities Accommodating Users Of All Levels, Improving Transit Service Offered, Finding Alternative Ways To Manage Congestion, and Expanding Transportation Demand Management (TDM) Programs.

**State Visions:**
*Public Participation*
*Quality of Life and Sustainability*
*Community Design*
*Infrastructure*
*Transportation*
*Implementation*

**Overlapping Themes:**
*Grow with Purpose*
*Economic Vitality*
*Promoting Healthy Communities*

## Universal Transportation Planning

In considering how best to deliver comprehensive transportation solutions with increasingly limited funds, the list of proposed capital projects should be routinely assessed to determine cost effective and beneficial improvements to pursue. Investment in our transportation infrastructure is necessary to accommodate the increased strain on existing facilities. New and improved roads, bicycle facilities, sidewalks, trails and Park and Ride facilities are required to maintain a high quality of life for our citizens. These facilities should be harmonious with the character of the communities they serve and designed to foster confidence and safety. HarfordNEXT supports investment in transit, rail, freight facilities, and airparks to maintain our competitiveness in the regional economy.

## Livable Communities and Transportation

The nexus between transportation and land use is central to providing a high quality of life and promoting livable communities. Transportation is increasingly viewed as an important factor in developing a more holistic approach to land use planning; where alternative transportation options are prioritized over costly roadway expansions. Like other suburban counties, development patterns throughout Harford County reflect an emphasis on moving cars rather than circulating people. The development of a road code that combines alternative transportation options with sound land use planning is critical to promoting development patterns that reflect the livable communities model. The mobility and connectivity theme proposes implementable strategies that can be incorporated into a proposed update of the Harford County Road Code to help achieve the goal of being a livable community.

## Bicycles, Pedestrians, and Transit

Harford County offers many safe and inviting facilities for pedestrians and cyclists. Our network of sidewalks, trails, and bicycle lanes connect many communities and provide access to schools, commercial centers, parks, libraries, and places of employment. As the County continues to grow, new development should incorporate similar facilities that enhance the existing system and strengthen the interconnectivity of our communities. Enhancements to the existing system should include the extension of the MA & PA Trail and the development of new trails, such as the Colonial Greenway Trail, previously identified in the 2003 Joppa/Joppatowne Community Plan. Connecting the two segments of the MA & PA Trail remains a high priority. Additionally, the Bicycle and Pedestrian Master Plan should be reviewed and updated, to ensure efforts to extend the network of non-motorized facilities is synchronized with other land use and transportation decisions.

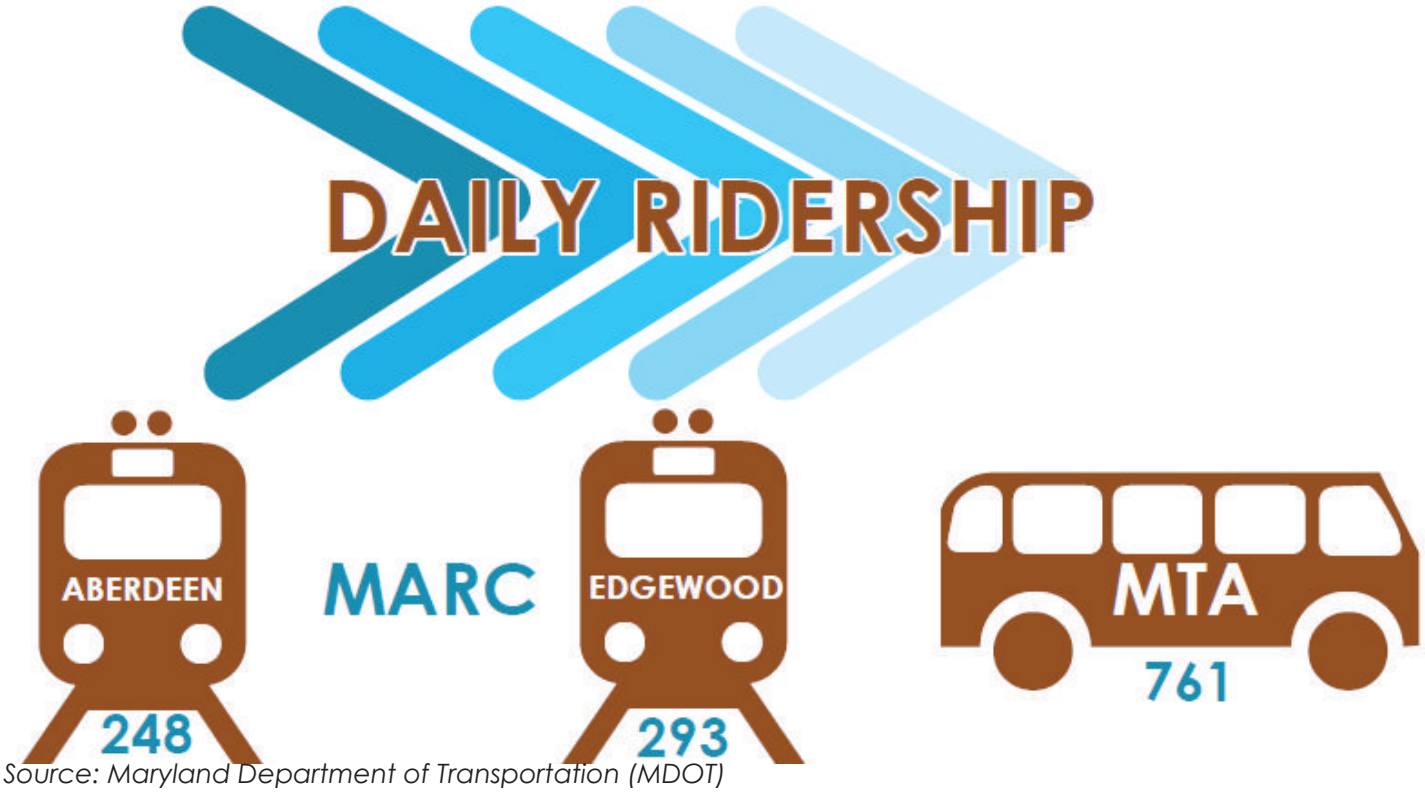
Harford Transit LINK provides a crucial service for commuters and residents moving in and around Harford County. The system provides regional links via the MTA's Commuter Bus Service and MARC train connections and fills a vital role for many residents, helping to fulfill their daily travel needs. Recognizing that transit must be part of a comprehensive strategy to solve many of our transportation issues, the goals and implementations identified in this theme support the provision of efficient, safe, and convenient bus and rail services that address local and regional travel needs. Successful transit can offset congestion, improve air quality, and help stimulate economic development. For transit to become a viable transportation option,

Harford Transit must continue to serve commuters and the transit-dependent while building ridership by providing safe and convenient access to transit stops and transfer hubs. Other system enhancements that improve service or user comfort coupled with land use decisions that facilitate transit use will encourage more widespread acceptance of transit as a viable alternative to the automobile.

**Transportation Demand Management (TDM) is a general term for various strategies that increase transportation system efficiency, emphasizing the movement of people and goods, rather than motor vehicles.**

## Improving Road Traffic Conditions

Physical constraints and limited funding at the state and local levels preclude roadway expansion as a viable solution to traffic congestion. To alleviate some of the current and projected strain, the County will explore TDM concepts that optimize the existing transportation system without adding capacity. These concepts work by reducing the travel demand during times of peak congestion; possible solutions include employee transit pass subsidies, parking management for new development, shuttle services connecting employment centers, ridesharing, commuter education, transit promotions, and providing "last mile" connections by way of bicycle and pedestrian accommodations. Special emphasis should be placed on promoting TDM along the MD 22 Corridor and within the Chesapeake Science and Security Corridor (CSSC). Specific areas where TDM solutions could improve traffic conditions include Harford Community College (HCC), Aberdeen Proving Ground (APG), and near MARC train stations.




*Source: Maryland Department of Transportation (MDOT)*

The overarching vision of HarfordNEXT emphasizes strong and connected communities. To realize that vision, Harford County must pursue policies that promote a highly efficient transportation system that clearly addresses all motorized and non-motorized modes of travel in a holistic way. The Mobility and Connectivity theme highlights goals and implementations supporting an integrated approach to transportation planning, one that balances multi-modal transportation solutions with land use planning to maximize the efficiency of our transportation facilities and maintain our high quality of life.

The Mobility and Connectivity principles and goals are consistent with the Maryland Department of Transportation (MDOT) statewide goals. Listed below are the 2035 Maryland Transportation Plan goals for transportation system planning in the state:

- Quality of Service: Maintain and enhance the quality of service experienced by users of Maryland's transportation system.
- Safety and Security: Enhance the safety of transportation system users and provide a transportation system that is resilient to natural and man-made hazards.
- System Preservation: Preserve and maintain the State's existing transportation infrastructure and assets.
- Environmental Stewardship: Ensure that the delivery of the State's transportation infrastructure program conserves and enhances Maryland's natural, historic and cultural resources.
- Community Vitality: Provide options for movement of people and goods that support communities and quality of life.
- Economic Prosperity: Support a healthy and competitive Maryland economy.

## Functional Classification

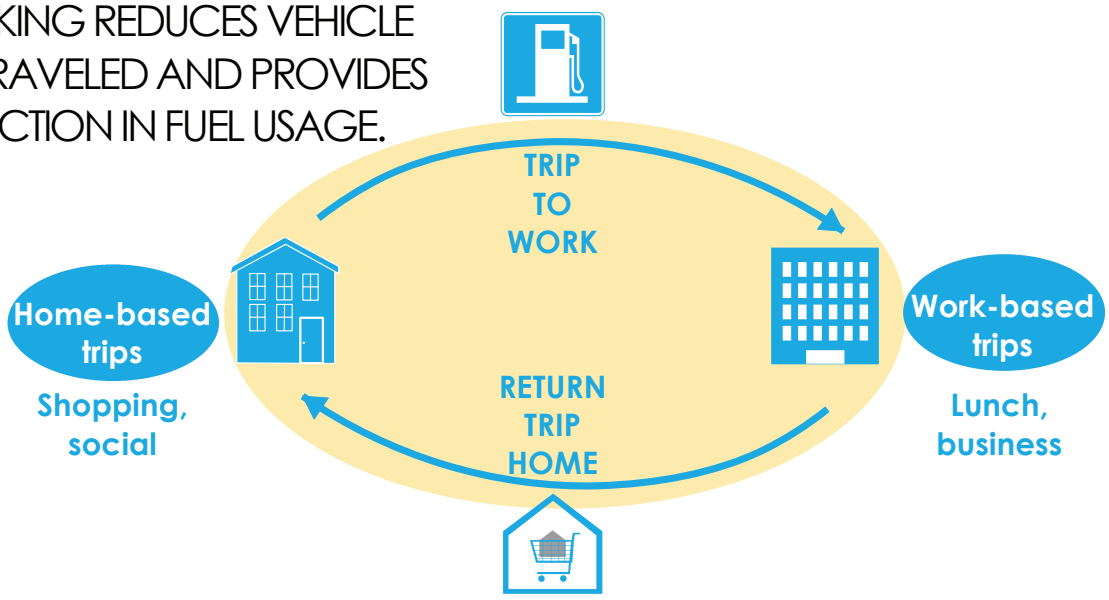
The Functional Classification of roads establishes a hierarchy of mobility and accessibility within the County road network. The classification of roadways by their function is an important component of transportation planning that defines how a road functions within the overall network of streets and roads.

A balanced relationship between mobility and access control can be ensured through the appropriate classification of roads within a network. The functional classification is also important when considering the scope of traffic impact analyses for development projects.

Roads are grouped into three general categories; arterial, collector and local roads. Arterials provide a high level of mobility and a greater degree of access control. Local roads provide a high level of access with a reduced level of mobility. Collector roadways provide a balance between mobility and land access. The Functional Classification map for Harford County along with a list of roads and definitions for each classification is provided in Appendix III.

# MULTIMODAL HIGHLIGHTS

TRIP-LINKING REDUCES VEHICLE MILES TRAVELED AND PROVIDES A REDUCTION IN FUEL USAGE.




## GREEN COMMUTING IN HARFORD

Vanpooling Program

13 Park & Ride Lots

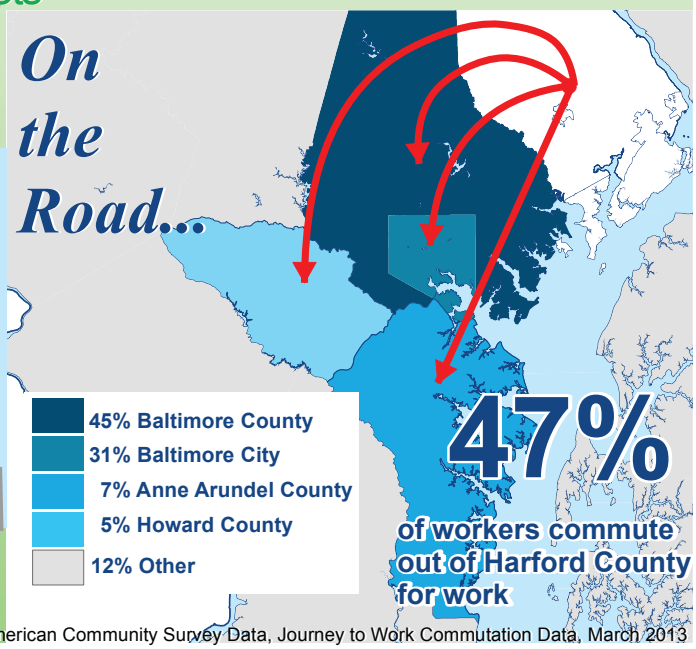
53% of workers live & work in Harford County

### How We Drive....

84% DRIVE ALONE TO WORK

51% LONG COMMUTE (>30 min) & DRIVE ALONE

### On the Road...




47% of workers commute out of Harford County for work

SOURCE: U.S. Census Bureau, 2006-2010 American Community Survey Data, Journey to Work Commutation Data, March 2013

# Multimodal Transportation



## Principles, Goals, and Policies for Mobility & Connectivity (MC):

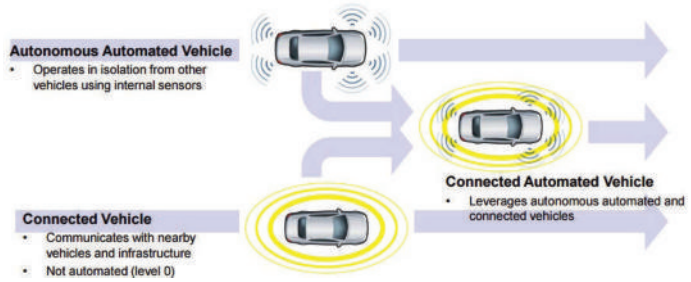
## ADOPT A HOLISTIC APPROACH TO TRANSPORTATION PLANNING

### Goal MC 1.1: Preserve right-of-way to effectively meet long-range transportation goals.

Rationale: Right-of-way preservation is essential to ensure current and future road capacity and reduce the cost of constructing improvements such as travel lanes, sidewalks, bicycle lanes, and parallel shared-use paths.

**Implementation**

(a) Research and plan infrastructure and added roadway capacity, such as for new exclusive travel lanes for connected and automated vehicles.




*Source: US Department of Transportation*

*Connected Vehicles communicate with nearby vehicles and infrastructure, while Automated Vehicles operates in isolation from other vehicles using internal sensors.*

(b) Develop a corridor capacity management and preservation program that coordinates land use and transportation decisions with the goals and policies of HarfordNEXT.

(c) Utilize the Baltimore Metropolitan Council (BMC) travel demand forecasts to determine corridors where acquisition of right-of-way is necessary to meet future needs.

### Goal MC 1.2: Improve road safety conditions for motorized and non-motorized transportation.

Rationale: Harford County is committed to preventing accidents on our roadways, particularly those leading to injury or loss of life.

**Implementation**

(a) Ensure that roadway designs prioritize safety for all modes of transportation.

(b) Conduct safety and congestion relief studies to inform decision making and identify practical alternatives for improving conditions.

(c) Prioritize capital projects that improve safety.

(d) Evaluate roads for safety as part of the development review process.

(e) Update the Harford County Road Code to ensure specifications accommodate highest levels of safety for all users.

(f) Continue to work with the Maryland Highway Safety Office to educate the public and implement highway safety programs to help reduce crashes and fatalities.

**Maryland's Highway Safety Programs:**
Impaired Driving
Occupant Protection
Distracted Driving
Aggressive Driving
Motorcycle Safety
Pedestrian and Bicycle Safety
Young and Older Driver Safety
Traffic Safety Information System Improvements
Police Traffic Services

### Goal MC 1.3: Reduce congestion on roadways.

Rationale: Congested corridors lead to higher accident rates, reduce the efficiency of the road network, and negatively impact the economy.

**Implementation**

(a) Require that traffic impact studies evaluate the impact of unapproved projects in the vicinity of new development projects that will be reviewed through the Development Advisory Committee (DAC).

(b) Consider flexible Level of Service (LOS) standards for mixed-use or transit oriented development.

(c) Develop corridor-wide LOS standards using Synchro Software and accepted guidelines.

(d) Include minimum LOS standards for bicycle and pedestrians at signalized intersections based on Highway Capacity Software.

(e) Use Notify Me application to provide alerts regarding congested areas and encourage use of alternate routes.

(f) Encourage businesses to provide employee incentives to rideshare, telework, and use transit.

### Goal MC 1.4: Commit to investing in our future by completing 33% of our priority projects over the next 15 years.

Rationale: Strategic investment in modern transportation facilities produces many long-term benefits. These benefits include traffic congestion relief, improved access to goods and services, better system reliability, increased economic development, and improved air quality. Completing these projects in a timely fashion maximizes these benefits.

**Implementation**

(a) Develop methodology to annually identify, prioritize, and pursue short-term and long-term capital improvements.

(b) Fund capital projects that align with state aid or developer contributions to maximize combined investments and accelerate completion of priority projects.

(c) Continue to prioritize the preservation of road facilities and the maintenance and operations of these facilities.

### Goal MC 1.5: Allow for efficient movement of freight and agriculture equipment.

Rationale: Movement of freight and agricultural equipment is an important part of the County's economy. The proximity of major highways, rail corridors, and large regional ports provides access to national and global markets. Designating freight routes helps avoid conflicts with residential traffic. Facilitating the efficient movement of agricultural equipment is critical to sustaining our agricultural community.

**Implementation**

(a) Identify opportunities to cluster land uses with a high concentration of freight uses.

(b) Complete the Michaelsville Road connection for truck traffic in Perryman for a direct connection to MD 715.

(c) Work with SHA to identify a location along the I-95 corridor for overnight truck parking.

(d) Identify points of conflict between commuters and agricultural equipment.

(e) Develop and install signage alerting motorists to the presence of agricultural equipment.




*The Maryland Manual on Uniform Traffic Control Devices (MUTCD) has signs that could be combined to create signage warning commuters in rural areas of farm machinery.*

### Goal MC 1.6: Support existing aviation facilities.

Rationale: Community aviation facilities can be vital links in the macro transportation system and aid local economies by creating jobs, moving goods, generating revenue, and attracting businesses to an area.

**Implementation**

(a) Encourage the aviation facilities to partner with the Maryland Aviation Administration (MAA) to develop a Harford County aviation facilities master plan.

(b) Ensure improvements to existing facilities are consistent with the character of the community they serve.

(c) Promote commercial activities associated with aviation facilities and encourage events that engage the community.



*Harford County Airport provides commercial flight services as well as recreational opportunities.*

## INTEGRATE TRANSPORTATION WITH LAND USE PLANNING

### Goal MC 2.1: Establish a Transportation for Livable Communities program.

Rationale: Livable communities promote civic engagement and a sense of place through safe, sustainable choices for a variety of elements that include transportation, housing, education, recreation, cultural diversity, and enrichment.

**Implementation**

(a) Establish a complete streets policy in accordance with national standards ensuring use of context sensitive solutions in roadway design.

A context sensitive solution is an approach to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility.

(b) Require that new development and retrofit projects be designed using the established complete streets policy.

(c) Develop streetscape and street beautification plans to include amenities such as crosswalks, pedestrian scale lighting, benches, planter boxes, street trees, banners, kiosks, trash receptacles, bicycle parking, and wayfinding signage where appropriate.

(d) Promote walkable neighborhoods that facilitate connectivity, safety, healthy lifestyles, and social interaction.

### Goal MC 2.2: Reinforce the connection between transportation planning and land use planning through updates to manuals, regulations, and design standards.

Rationale: Traditional transportation planning tends to emphasize vehicle mobility improvements over other community livability objectives. Therefore, connecting transportation planning and land use planning is essential for building resilient, livable communities.

**Implementation**

(a) Update the Harford County Road Code to ensure specifications accommodate all travel modes and that road designs are consistent with the character of the community they serve.

(b) Require context sensitive solutions that take into account the surrounding community and land uses.

(c) Plan for connections between parcels with different land uses where appropriate, including service roads along commercial corridors.

(d) Create pedestrian-oriented public spaces which are easily accessible by walking, bicycling or transit.

### Goal MC 2.3: Develop access to County and state parks and expand waterfront access.

Rationale: Parks and open space are essential to our quality of life. Providing safe connections to parks, waterfronts, and other public spaces contributes to achieving livable communities.

**Implementation**

(a) Expand operating hours at existing parks and improve access to public waterfronts and waterways for boating, fishing, and other recreational activities.

(b) Create a network of trails, greenways, and bikeways that connect communities to nearby parks, schools, and recreation facilities.

(c) Work with the Lower Susquehanna Heritage Greenway (LSHG), the East Coast Greenway (ECG), and Cecil County to identify a safe bicycle and pedestrian crossing over the Susquehanna River.

(d) Coordinate with DNR to extend the southern terminus of the Little Gunpowder Falls Trail and Big Gunpowder Falls Trail to connect to the existing State Park trail network around historic Port Joppa on Rumsey Island.



*Expanding access to Harford County's waterfront creates recreational opportunities.*

## EXPANDED NETWORK OF SAFE BICYCLE AND PEDESTRIAN FACILITIES

### Goal MC 3.1: Establish development standards that incorporate multimodal options and connectivity into new projects.

Rationale: Non-motorized connections enhance mobility and reduce congestion, particularly in areas where new development occurs. Connecting neighborhoods and local destinations with sidewalks and pathways reduces vehicle miles traveled, alleviates congestion, improves safety, and promotes active lifestyles.

**Implementation**

(a) Require bicycle parking to be included on site development plans for non-residential developments.

(b) Provide interparcel connections between developments for bicycles and pedestrians.

(c) Require facilities for internal bicycle and pedestrian circulation in commercial development and include provisions for connectivity to surrounding uses.

(d) Incorporate shared access points for commercial developments.

(e) Prioritize locations that have the greatest need for new or reconstructed sidewalks to create pedestrian links.

(f) Update GIS to show a connectivity layer identifying sidewalks, shared use paths, bicycle lanes, easements, and existing rights-of-way.

Commercial developments with shared access points unifies properties and provides smoother connections by reducing the number of conflicting turning movements which is safer for drivers, pedestrians and bicyclists.

### Goal MC 3.2: Improve safety for bicyclists and pedestrians.

Rationale: People are more likely to walk or bicycle when proper facilities are in place to provide an appropriate level of comfort and safety.

**Implementation**

(a) Evaluate the installation of chokers, refuge islands, and raised crosswalks to reduce traffic speeds and improve safety where appropriate.

(b) Provide pedestrian access and intersection improvements near transit stops.

(c) Provide connections from transit to job centers by way of bicycle and pedestrian accommodations.

(d) Follow the recommendations of the 2013 Bicycle and Pedestrian Master Plan.

(e) Conduct bicycle and walkability safety audits as prescribed in the Bicycle and Pedestrian Master Plan.

(f) Evaluate the Neighborhood Traffic Management Program (NTMP) and revise to incorporate elements that improve safety.

(g) Incorporate "Road Diets" to achieve systemic improvements by reducing the number of travel lanes and/or width of roadways.

A road diet removes a travel lane from a road and converts the extra road width into a center turn lane, bicycle lanes, a bus lane, pedestrian refuge and/or parking.

### Goal MC 3.3: Add multiple miles of shared use paths adjacent to high volume roads.

Rationale: Constructing trails and shared use paths adjacent to roadways is an efficient use of right-of-way and provides an alternative for bicyclists, joggers, and pedestrians.

**Implementation**

(a) Utilize GIS to identify existing rights-of-way with potential to accommodate shared use paths.

(b) Update GIS to show existing sidewalks, shared use paths, bicycle lanes, easements, and paper roads to identify gaps.

(c) Develop agreements with state agencies and utility companies to allow trails and paths within rights-of-way.

(d) Prioritize the development of shared use paths within existing communities and create regional connections to destinations.

### Goal MC 3.4: Develop a pilot program establishing temporary car-free zones and bicycle boulevards.

Rationale: Car-free zones and bicycle boulevards promote economic activity, healthy communities, and social interaction. Sponsored events can raise awareness of existing non-motorized transportation facilities.

**Implementation**

(a) Expand on the existing car-free events conducted by Harford Commuter Assistance and Harford Transit.



*Events such as Bike to Work day promote bicycling as an alternative to motorized options.*

(b) Work with municipalities, main street organizations, and community associations on the temporary conversion of "main streets" into pedestrian malls and bicycle boulevards.

(c) Hold cyclovia events to showcase healthy and active transportation options.

Cyclovia is the temporary closing of a road or network of streets so that they become open to people for walking, jogging, bicycling or skating. Originating in Bogota, Columbia, the concept is increasing in popularity worldwide.

## SAFE, EFFICIENT, AND CONVENIENT TRANSIT SERVICES

### Goal MC 4.1: Expand commuter train and bus service along the northeast corridor.

Rationale: Expanding commuter service will help meet the demand projected by the MARC Growth and Investment Plan (MGIP) and grow ridership through focused redevelopment around transit stops.

**Implementation**

(a) Improve intermodal connections between bus and rail to extend geographic service area.

An intermodal connector is a place where the transfer from one mode of transportation to another mode of transportation takes place.

(b) Work with MTA to provide additional MARC service to accommodate reverse commuting as well as late evening and weekend demand.

(c) Work with MTA to provide MARC commuting options to and from Delaware and Pennsylvania.

(d) Work with MTA to increase commuting options for commuters between Washington, DC and Baltimore and Aberdeen Proving Ground (APG).

(e) Work with MTA to provide service to Harbor East and additional commuter service to Downtown Baltimore.

### Goal MC 4.2: Establish safe, convenient, and accessible bus stops.

Rationale: Ridership can be increased when citizens have safe and convenient access to transit.

**Implementation**

(a) Incorporate highly visible signage, lighting, landscaping, crosswalks, and sidewalks at bus stops.

(b) Provide benches and shelters, bicycle parking, cell phone charging stations, and trash receptacles at highly used bus stops.

(c) Ensure that all bus stops comply with the ADA requirements.

### Goal 4.3: Create a centrally located bus transfer hub with amenities for passengers.

Rationale: A hub provides more effective service by allowing riders to efficiently transfer between routes. Properly located and appointed hubs are safe, provide more reliable connectivity, reduce travel times, and can attract new riders.

**Implementation**

(a) Identify suitable location(s) where existing service could be supplemented by linking additional routes.

(b) Evaluate potential need to build a hub facility in Bel Air on publicly owned property or partner location. A potential partner location could be the Harford Mall or other large parking lot.

(c) Design hubs to accommodate appropriate level of use. Possible amenities include a comfort station with restroom facilities and refreshments for drivers and passengers, shelters, benches, and informational kiosks.

### Goal MC 4.4: Improve local transit services.

Rationale: More frequent and convenient service will better accommodate users and expand ridership.

**Implementation**

(a) Improve the routes and schedules of the existing circulators in Bel Air, Aberdeen and Edgewood.

(b) Consider additional fixed route circulators, such as within Havre de Grace.

(c) Evaluate need and potential for Harford LINK service to Forest Hill.

(d) Extend service to the Edgewood train station.

(e) Incorporate Quick Response (QR) Codes on bus signs and transit literature to link to the transit website.

Bus routes will be linked to the website to determine the location of the bus en route and follow their progress on a smartphone, computer or tablet.

(f) Update the website to provide riders with information that improves confidence in the transit system, such as schedules, general information, and routes.

(g) Expand weekday service times to accommodate flexible work hours.

(h) Evaluate operating limited Saturday service for higher demand routes.

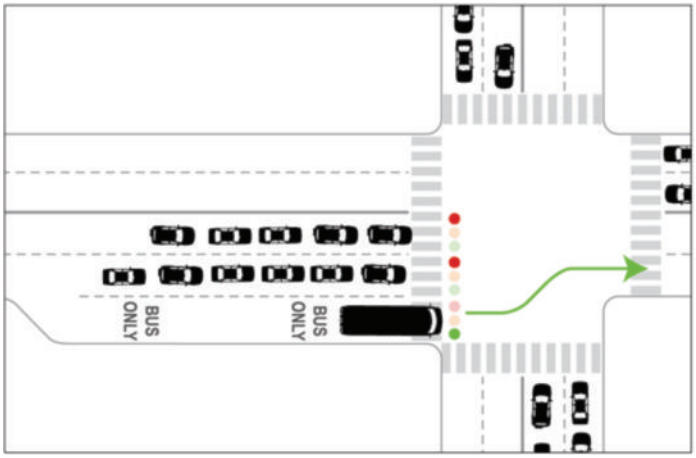
### Goal MC 4.5: Improve headways on all bus routes.

Rationale: Reduced wait times will provide greater connectivity, better reliability, and increased ridership.

**Implementation**

(a) Optimize schedules and routes to establish safe and efficient service.

(b) Equip buses with signal priority control devices and install queue jump lanes.




*Source: Ontario Ministry of Transportation*

*A queue jump is a type of roadway geometry used that gives preference to buses at intersections.*

(c) Operate express routes between municipalities and identify potential for dedicated routes between employment centers and residential hubs.

Headway is a measurement of the distance or time between buses or trains in a transit system.

### Goal MC 4.6: Upgrade Park and Ride services and facilities throughout Harford County.

Rationale: Park and Ride facilities are essential for encouraging shifts to transit and ridesharing. When Park and Ride is served by transit, it compounds the benefits by further reducing congestion, commuter costs, and air pollution.

**Implementation**

(a) Improve intermodal connectivity by providing MTA and Harford Transit LINK bus service to Park and Ride facilities.

(b) Work with MTA to establish an I-95 Commuter Bus Route originating at the MD 155 Park and Ride.

(c) Identify an appropriate location for a new Park and Ride facility along MD 924.

(d) Relocate the existing Park and Ride lot on MD 22 to a more convenient location that will better serve the corridor.

## AN EMPHASIS ON REDUCING VEHICLE MILES TRAVELED

### Goal MC 5.1: Establish pilot programs for car sharing and bike sharing.

Rationale: Car sharing and bike sharing are simple and effective ways to alleviate congestion. Participants in these programs drive less and are more likely to seek alternative transportation options.

**Implementation**

(a) Identify and solicit partner organizations to assist with program launch.

(b) Identify partner community to ensure participation during pilot phase.

(c) Promote the programs through Harford Commuter Connections and the Office of Economic Development.

In 2014, there were 2.4 billion Vehicle Miles Traveled within Harford County resulting in frequent congestion along major commuting routes.

### Goal MC 5.2: Reinstate an APG shuttle service with routes serving the Edgewood area of APG.

Rationale: An efficient and reliable shuttle service can reduce congestion and delays at the gates. Shuttle service provides a connection to APG for commuters arriving via rail. In addition, shuttle service can circulate on the base reducing car trips within and between the installations.

**Implementation**

(a) Evaluate and implement shuttle/transit service at APG and the Edgewood area of APG.

(b) Coordinate with the Transportation Work Group (TWG) at APG to provide an APG shuttle service with routes that will also serve the Edgewood Area.

(c) Reinstate shuttle service from the Aberdeen train station and provide service from the Edgewood train station connecting to the installations.

### Goal MC 5.3: Partner with HCPS to implement Safe Routes to School Programs.

Rationale: Improvements to the pedestrian and bicycle network will make walking and bicycling to school a safer and more appealing option. SRTS initiatives are often celebrated as opportunities for parents to spend time with their children and encourages them to participate in a more active and healthy lifestyle.

**Implementation**

(a) Continue to pursue funding for the Safe Routes to School Program and work to implement a program for every elementary and middle school in Bel Air, Havre de Grace, Aberdeen, Edgewood and Joppatowne.

(b) Implement a countywide Safety Town program for kindergarten students.

Safety Town was started in 1937 and is a safety education program for children that teaches pedestrian safety, bike safety, stranger safety, drug awareness, fire safety, school bus safety, outdoor safety and seatbelt safety.

(c) Ensure adequate pedestrian and bicycle infrastructure exists near and leading to the County's high schools.

(d) Encourage schools to provide educational programs that support walking.

(e) Support, promote, and expand the annual International Walk to School Day.

International Walk to School Day is a global event held each October that has become part of a movement for year-round safe routes to school.

### Goal MC 5.4: Work with APG and SHA to provide High-Occupancy Vehicle (HOV) lanes on congested roads during peak hours.

Rationale: APG has a concentration of jobs and commuters. Reducing vehicle trips is essential for relieving congestion on roads leading to the base. Creating HOV lanes provides an incentive for commuters to carpool and can reduce congestion at the gates.

**Implementation**

(a) Convert the existing eastbound MD 22 shoulder into a temporary travel lane and the left lane into a temporary HOV lane during the AM Peak Hours.

(b) Designate one of the gates at APG for HOV.

(c) Install advance notice signage along the MD 22 corridor to notify drivers of the upcoming temporary lane usage restriction.

## EXPAND TRANSPORTATION DEMAND MANAGEMENT (TDM)

### Goal MC 6.1: Promote the benefits of TDM.

Rationale: TDM programs give commuters

more travel options and provide a time savings and economic benefit.

**Implementation**

(a) Work with the Office of Economic Development and Harford County Public Schools to provide educational tools about transportation options and the benefits of clean commuting.

(b) Work with property managers of multi-tenant buildings to coordinate and implement rideshare programs and transit incentives.

(c) Support the efforts of the APG-CSSC office, APG-CSSC Transportation Center and the Transportation Work Group at APG.

(d) Emphasize TDM policies such as flextime, telework, bus pass subsidies, and parking restrictions within the CSSC.

(e) Establish TDM policies along the MD 22 corridor, such as working with Harford Community College (HCC) on scheduling of classes with large enrollment to off peak hours.

### Goal MC 6.2: Develop alternative ways to manage transportation congestion.

Rationale: Harford County supports promoting alternative ways to improving road conditions and alleviating congestion.

**Implementation**

(a) Encourage infill development opportunities that incorporate mixed use and multimodal transportation options.

Vehicle Miles Traveled are increased by development outside of existing communities and neighborhoods.

(b) Prioritize infrastructure upgrades that support infill development.

(c) Encourage mixed-use projects centered on walkability to reduce automobile trips.

(d) Promote trip chaining/trip linking to reduce VMT.

(e) Promote Live Near Your Work initiatives.

(f) Encourage athletic tournament sponsors to work with local hotels to provide shuttle service to regional fields as a means to reduce vehicular traffic and reduce carbon footprint.

### Goal MC 6.3: Educate the public and encourage people to make transportation choices that reduce the number of single occupant trips.

Rationale: When more people rideshare or take an alternate mode of transportation instead of driving alone it reduces the number of cars on the road which lowers our carbon footprint.

**Implementation**

(a) Establish an outreach program that encourages commuters to try alternate forms of transportation.

(b) Continue to promote carpooling and vanpooling as commuting options and encourage increase participation in telecommuting and flex-time.

(c) Develop tools to help commuters find rideshare partners or plan transit routes.

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CHAPTER 7

# PROMOTING HEALTHY COMMUNITIES

HARFORD NEXT
A MASTER PLAN FOR THE NEXT GENERATION

## A Master Plan for the Next Generation





# PROMOTING HEALTHY COMMUNITIES

Healthy communities are built upon active residents empowered to be champions for their own wellbeing. Based on the premise that all Harford County residents deserve the opportunity to live long and healthy lives, HarfordNEXT proposes unique initiatives and strategies that support strong and vibrant communities that foster the health of its citizens. The Promoting Healthy Communities theme outlines policies and implementations emphasizing healthy and active lifestyles, access to healthy food choices, efficient delivery of health and social services, and ensuring the safety and preparedness of our communities. This framework is organized through the development of four principles: Foster Healthy Lifestyles and Active Living For All Harford County Residents, Provide Safe Communities, Provide Access To Healthy Food Choices For All Harford County Residents, and Support Efficient and Effective Delivery Of Health and Social Services Throughout Harford County.

**State Visions:**
*Environmental Protection*
*Resource Conservation*
*Stewardship*
*Public Participation*
*Quality of Life and Sustainability*
*Housing*
*Economic Development*
*Implementation*

**Overlapping Themes:**
*Grow with Purpose*
*Environmental Stewardship*
*Preserving our Heritage*

## Background

Harford County provides many venues for physical and social activity; County parks and recreation centers, modern children's playgrounds, state parks, regional trail systems, and passive outdoor educational facilities like the Anita C. Leight Estuary Center form a highly regarded system of recreational facilities.

Healthy communities are characterized not just by their facilities but their capacity to support active lifestyles, provide connections to jobs and services, and encourage walking and bicycling as part of a daily routine. Healthy communities are also defined by their emergency preparedness and resilience; planning for natural disasters and other crises is crucial to ensuring the continuation of services after an emergency event. Similarly, achieving adequate medical, fire, and police response times to every part of the County ensures critical services are available to all when needed.

Creating and maintaining safe and healthy communities remains a top objective for County agencies, and HarfordNEXT provides strategies that will help achieve this vision through changes to the built environment while additional policies address emerging or chronic health issues such as asthma, obesity, and addiction. The goals and objectives explored in this theme are intended to encourage healthy and resilient communities with the ultimate goal of reversing negative trends. This approach is supported by Healthy Harford, a coalition of government agencies, local businesses, and non-profit organizations dedicated to making Harford County the healthiest community in Maryland. To be successful in our venture, Harford County and its partners must adopt a sustainable approach to land use planning that promotes healthy, vibrant communities and ensures the safety and wellbeing of its residents.

## Healthy Lifestyles

Harford County is committed to providing an environment that encourages daily physical activity and promotes walking and biking as alternatives to using the automobile. Communities across the country are recognizing the link between our built environments and physical and mental health and wellness. Land use decisions, community design, and transportation planning have a direct effect on the rates of obesity, incidence of chronic diseases, such as cardiovascular disease, diabetes, and mental illness, and personal injuries. Therefore, health and wellness must be incorporated into the planning process by engaging stakeholders across various government agencies and disciplines.

HarfordNEXT supports the creation of safe and convenient opportunities for outdoor recreational activity while providing adequate recreational services and facilities to accommodate year-round activity for a diverse population. Building on the success of the Ma and Pa Trail system, HarfordNEXT also supports further development of trails and pathways throughout the County that will connect people to community amenities and promote social interaction. Walkable communities are a key component of a healthy and active community.

Empowering citizens to increase physical activity and make health a priority is crucial to changing societal attitudes toward maintaining healthy lifestyles. The Promoting Healthy Communities theme promotes initiatives that reach vulnerable populations at an increased risk of developing obesity and other chronic diseases.

## Safe Communities

Public safety is frequently a top priority for a jurisdiction, and Harford County remains committed to providing first rate emergency assistance and maintaining readiness. The County is served by 12 volunteer fire and ambulance companies that annually respond to over 32,000 calls for emergency medical or fire response assistance; police emergencies are handled by the Sherriff's Office and the Maryland State Police. To maintain acceptable response times, emergency services and post-disaster resilience should be incorporated into the decision-making process across various sectors and policy areas.

## Food Choices

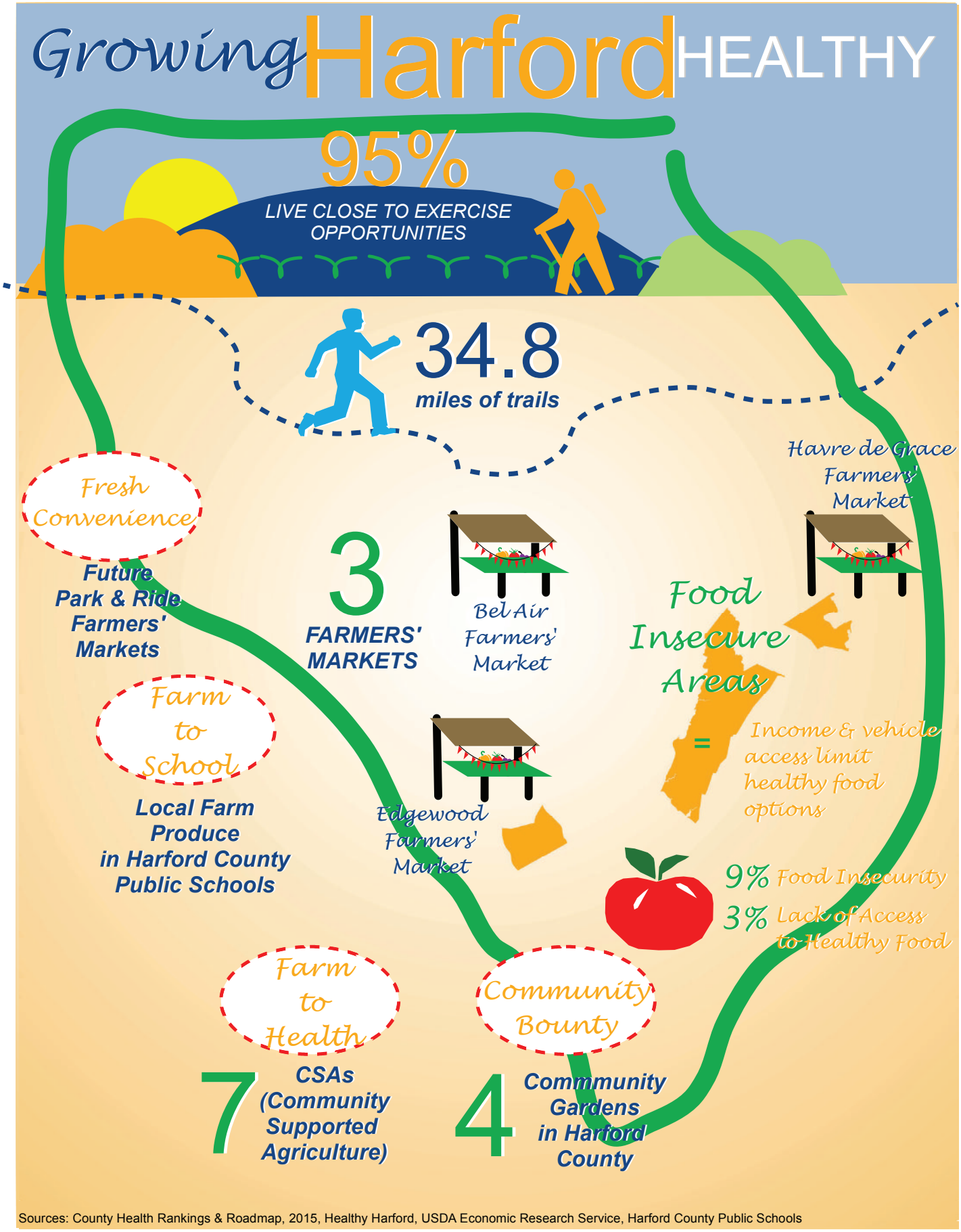
Access to fresh foods and produce is a core tenant of healthy lifestyles. HarfordNEXT acknowledges that creating healthy communities in Harford County relies on improving connections between producers and local markets, which also benefits agricultural producers who look to bring locally grown fruits and vegetables to the tables of our citizens and restaurants. Farm-to-table programs and other initiatives, such as community gardens, farmers markets, Community Supported Agriculture (CSA), urban farms, and food hubs, can help preserve our agricultural heritage by providing markets for local farm products while achieving better wellness throughout Harford County communities.

## Access to Services

Maintaining healthy communities requires a holistic approach to delivering health services, one that contemplates the various physical, social, and mental health challenges trending in Harford County and commits resources to provide assistance efficiently and effectively. Statewide, Harford County reports higher than normal incidences of chronic lung disease, Lyme disease, colorectal and lung cancers, obesity, diabetes, and drug related deaths. Coupled with the growing problem of addiction, these physical and social problems create a formidable constellation of health issues facing the County.

Many health issues can be influenced by the physical design of our surroundings. For example, obesity and diabetes rates are more prevalent where recreational facilities are lacking or not readily accessible. The correlation between land use planning and healthy communities is discernible when observing other physical health concerns, including asthma, certain forms of cancer, and cardiovascular disease. However, the relationship between community design and health is not limited to the built environment of a specific place. Necessary facilities should be planned for and located where they can be conveniently accessed, and assuring services are available in different parts of the County means coordination must occur between agencies.

While some common physical health problems can be aided simply by providing opportunities to pursue active lifestyles, other issues will require a more concentrated and collaborative approach. Substance use disorders cover a range of social health issues; in Harford County, alcohol abuse and drug addiction remain serious problems that must be addressed. Heroin use in particular is a growing problem throughout Harford County. Improving the situation requires adopting a multi-disciplined community approach that includes medical and health care professionals, government and community leaders, law enforcement, teachers, and parents.




Sources: County Health Rankings & Roadmap, 2015, Healthy Harford, USDA Economic Research Service, Harford County Public Schools

**Principles, Goals, and Policies for Promoting Healthy Communities (PHC):**

## FOSTER HEALTHY LIFESTYLES AND ACTIVE LIVING FOR ALL HARFORD COUNTY RESIDENTS

### Goal PHC 1.1: Promote wellness and prevention.

Rationale: Encouraging overall wellness increases the quality and years of a healthy life, reduces long term costs, and lessens the burden on our healthcare system.

**Implementation**

(a) Develop regular channels of communication and collaboration between local health officials and planners utilizing the collective impact model to establish health goals across agencies.

Collective impact is a collaborative approach to solving complex social problems where groups from various sectors align their efforts to establish a common agenda and goals.

(b) Build healthy and safe communities that encourage increased physical activity and reduce pollution (e.g., workplace flexibility, rideshare and vanpool programs, Park and Ride incentives, travel demand management initiatives, and telecommuting options).

(c) Expand access to preventative health services.

(d) Empower citizens to make healthy choices and lead an active lifestyle through policies and programs that make healthy options the easy choice.

(e) Support drug intervention programs with a specific emphasis on school-aged children.

Healthy Harford is the healthy communities initiative of Harford County that is dedicated to improving the health of Harford County residents through education, policy changes, and improvements in the built environment.

(f) Promote coordination between health care providers and local public health resources and programs, such as Healthy Harford and the Harford County Health Department.

(g) Support the objectives of Healthy Harford and the annual Healthy Harford Day.

(h) Develop and promote Healthy Designation programs for restaurants, workplaces, schools and child care centers.

(i) Bring together multi-disciplinary providers for information sharing and cross training of addiction and mental health.

(j) Investigate ways to promote behavioral health screenings within primary care and urgent care practices.

(k) Encourage the sharing of resources between addiction specialists and mental health providers.

(l) Raise community awareness around prescription drug use, treatment and monitoring as well as misuse, storage and disposal.

(m) Educate the public on the health benefits of increased physical activity.

(n) Encourage property owners to designate smoke-free housing units.

### Goal PHC 1.2: Locate health services to afford the maximum level of access to all residents.

Rationale: Providing access to

comprehensive, quality health care services is crucial in achieving overall wellness and health equity.

**Implementation**

(a) Develop a program to assess the service needs of vulnerable or underserved populations in the County and measure resident's access to appropriate, safe, and effective care, including clinical preventive services.

(b) Work to decrease disparities and measure access to care for diverse populations, including racial and ethnic minorities and older adults.

(c) Ensure access to safe long-term and hospice care services.

(d) Support the colocation of facilities to expand the reach of health services.

(e) Encourage hospitals and health service providers to integrate physical, oral, mental, and public health services with a focus on addressing social determinants of health.

### Goal PHC 1.3: Create safe and convenient opportunities for outdoor recreational activity.

Rationale: People are more likely to utilize parks and trails when they are safe and conveniently located.

**Implementation**

(a) Conduct walkability audits to identify gaps in connectivity or dangerous routes; prioritize infrastructure improvements that establish connections to parks and schools.

(b) Encourage shared facilities with schools, especially in neighborhoods that suffer a disproportionate lack of recreational facilities.

(c) Evaluate standards for trails, connections, community gathering places and other community amenities for new residential projects.

(d) Ensure a safe and secure environment at all county parks and recreation facilities and track incidences of crime.

(e) Examine ways to mimic Blue Zone communities.

A Blue Zone is a place where people live measurably longer, healthier, and productive lives.

(f) Develop signage to mark Lyme endemic areas and promote prevention of tick-borne diseases.

### Goal PHC 1.4: Provide adequate recreational services and facilities to accommodate year-round activity for a diverse population.

Rationale: Recreational facilities and programs should accommodate different users and be available throughout the year.

**Implementation**

(a) Follow the recommendations of the County's Land Preservation, Parks and Recreation Plan.

(b) Achieve target of 30.0 acres of recreational land for every 1,000 residents.

(c) Acquire additional recreation land, including waterfront properties, to help meet the needs of current and future residents.

(d) Offer a range of specialized programs for seniors.

(e) Work with Harford Transit to ensure access to parks and recreation facilities throughout the County.

(f) Develop additional community centers in appropriate areas.

(g) Monitor usage trends and add recreational opportunities and facilities that meet the needs of all segments of the public.

(h) Develop complementary facilities in support of the destination recreation/sports tourism market.

(i) Strengthen the development review process to ensure that future land dedications are appropriate additions to the County's system of parkland and open space.

### Goal PHC 1.5: Develop a system of trails and pathways to connect people to common destinations such as libraries, schools, parks, and commercial centers.

Rationale: An extensive system of convenient and safe trails that provide connections to common destinations will encourage walking, bicycling, and social interaction and reduce vehicle trips.

**Implementation**

(a) Set a walkability standard of ¼ mile for residents' access to recreational facilities within the development envelope.

(b) Ensure that pedestrian routes and sidewalks are integrated into continuous networks.

(c) Encourage property owners to maintain trails and sidewalks, especially during the winter months.

(d) Initiate a trail sponsorship program whereby individuals and business can support the upkeep and maintenance of the trail.

(e) Regularly review and update the Bicycle and Pedestrian Master Plan to set priorities and reflect new opportunities for connections.

### Goal PHC 1.6: Establish communities that facilitate walking as part of a regular daily routine.

Rationale: Physical activity is important to achieving a balanced healthy lifestyle, which reduces stress and lowers the risk of certain diseases associated with sedentary lifestyles. Residents of walkable communities are more likely to achieve the recommended amount of daily exercise.

**Implementation**

(a) Identify opportunities to acquire properties within the Development Envelope for recreational uses that can help achieve the established walkability standard.

(b) Establish design guidelines that support complete streets and universal design principles.

(c) Use traffic calming techniques to improve safety and access.

(d) Require new development to meet level of service standards for pedestrians and cyclists in addition to those established for cars.

(e) Expand the Safe Routes to School program so that students across the County can safely walk and bike to and from school.

## PROVIDE SAFE COMMUNITIES

### Goal PHC 2.1: Pursue an integrated strategy to reduce crime in new and existing communities.

Rationale: An effective crime control strategy is one that integrates community policing efforts with the actions of citizens who are vigilant and engaged in their communities.

**Implementation**

(a) Support community policing, neighborhood watch, and police patrols that engage community residents.

(b) Utilize resident survey data, systematic social observations, and Crime Prevention Through Environmental Design (CPTED) assessments to analyze and target specific problems within communities.

Crime prevention through environmental design is a multi-disciplinary approach to deterring criminal behavior through environmental design.

(c) Pursue a program to beautify residential and commercial properties and provide incentives for aesthetic enhancements to buildings in order to generate a sense of pride and ownership which can also increase property values.

(d) Promote programs that encourage volunteerism that focuses on crime prevention; such as Neighborhood Watch, Community Policing, DARE and National Night Out.

(e) Identify and restore "anchor points" such as parks, community centers, or other specific places. These anchor points are frequented by neighborhood residents and serve to build strong communities and provide opportunities to transmit information about the neighborhood to other residents, and provide residents with a sense of personal investment in the community.

(f) Support school programs that educate students on crime prevention and community safety.




*Grant funding helps support educational outreach on the dangers of heroin.*

**Goal PHC 2.2: Ensure that emergency services adequately serve all Harford County residents.**

Rationale: Harford County must accommodate the diverse needs of an expanding service area while providing innovative, cost-effective, and clinically sophisticated emergency medical services.

**Implementation**

(a) Ensure that new emergency medical service facilities are strategically located in order to achieve the most efficient response times to the areas they serve.

(b) Work with Emergency Operations and the Harford County Volunteer Fire and EMS association to develop an emergency medical service strategic plan.

(c) Work with the Harford County Volunteer Fire and EMS Association to recruit new volunteers and retain existing volunteers to serve their communities.

(d) Offer advanced training to first-responders to maintain rescue capabilities.

(e) Maintain and upgrade equipment and facilities to ensure availability of reliable service.

(f) Partner with public health and public safety organizations to enhance public education activities and incident prevention.

### Goal PHC 2.3: Protect life and property from natural hazards.

Rationale: Hazard mitigation is an essential part of ensuring continuity of businesses, schools, government services, utilities, and communities following hazard events.

**Implementation**

(a) Prepare a natural hazard assessment and vulnerability study for Harford County that evaluates the threat of various natural hazards and the degree of loss or damage that would result from a disaster.

(b) Ensure County agencies and partners have both a Continuity of Government (COG) and Continuity of Operations Plan (COOP) to build redundancy and continuity into local government post disaster.

(c) Create a post disaster recovery plan.

(d) Reduce hazard vulnerability through mitigation measures such as purchasing repetitive loss properties, elevating structures within the floodplain, and updating the Floodplain Management Program.

(e) Educate and encourage property owners to take action to decrease their vulnerability to the impacts of natural hazards. Empower citizens with educational programs and information on emergency preparedness, emergency procedures and safety measures

(f) Require critical facilities, buildings and infrastructure to be designed and built to withstand catastrophic damage in the event of a disaster.

(g) Secure pre-disaster mitigation funds to construct storm shelters in public facilities such as parks, fairgrounds, or near other vulnerable public areas.

## PROVIDE ACCESS TO HEALTHY FOOD CHOICES FOR ALL HARFORD COUNTY RESIDENTS

### Goal PHC 3.1: Develop opportunities for community gardens and urban farms.

Rationale: Community gardens and urban farms increase the availability of fresh fruits and vegetables and provide awareness of the environment and the science of cultivation, and incorporating it as a way of life.

**Implementation**

(a) Identify potential community garden/ urban farm sites on parkland, public easements, and school grounds.

Urban farms and community gardens can provide nearly 44 pounds of food a year per 10 square feet.

(b) Provide classes on gardening and composting on small lots. Prioritize classes in neighborhoods that lack access to healthy foods and/or green space.

(c) Encourage local businesses to provide resources and help initiate community gardens.

(d) Utilize the Harford Cable Network to promote healthy eating habits, community events focusing on exercise and nutrition, and community gardening.

(e) Support the establishment of gardens and greenhouses in all schools.

(f) Support courses that teach gardening, nutrition, and healthy cooking.

(g) Encourage edible landscaping and urban orchards.



*Community gardens offer a focal point for community organizing, and can lead to community-based efforts to deal with other social concerns.*

**Goal PHC 3.2: Encourage expansion of farm-to-table and farm to school programs.**

Rationale: Quality locally sourced food should be available to all residents. Farm-to-table programs benefit farmers through increased revenue, and residents benefit from healthy, locally sourced fresh produce.

**Implementation**

(a) Work with Healthy Harford, Harford County Public Schools, and other youth organizations to promote farm tours highlighting the importance of farms and locally sourced foods.

(b) Strengthen opportunities for farmers by linking them to new markets; such as schools, colleges, and other institutional uses such as assisted living facilities.

(c) Establish an informational website and networking resource for all local food system resources and ecologically sound farming practices.

(d) Work with local restaurants to promote farm-to-table events and encourage use of locally sourced products.

**Goal PHC 3.3: Support local food production and community based agricultural operations.**

Rationale: Convenient access to fresh fruits and vegetable can help in the fight to reduce obesity and associated diseases.

**Implementation**

(a) Encourage farmers markets in the Rural Villages and convenient locations such as park and ride facilities.

(b) Review zoning and permitting regulations to ensure farmers markets and farm stands are compatible.

(c) Support farmers markets that allow for electronic benefit transfer (EBT) so that vulnerable populations can have access to healthy locally grown foods.

(d) Encourage Community Supported Agriculture (CSA) efforts and develop materials to promote them.

(e) Assess and plan for local food processing/wholesaling/distribution facilities to connect local agriculture to markets such as retailers, restaurants, schools, hospitals, and other institutions.

(f) Provide support for farmers who choose direct marketing of their products.

(g) Enhance the capacity to produce, process, distribute, and consume food locally and regionally.

(h) Encourage grocery stores and other retail outlets to sell locally sourced produce.

(i) Provide fast-track permitting for grocery stores that carry locally sourced food products.

(j) Identify areas in the County that lack access to healthy foods or supermarkets.

## SUPPORT EFFICIENT AND EFFECTIVE DELIVERY OF HEALTH AND SOCIAL SERVICES THROUGHOUT HARFORD COUNTY

### Goal PHC 4.1: Encourage development of diverse housing types with an emphasis on life-cycle housing.

Rationale: A diverse housing stock will attract new residents while allowing existing residents to continue to live in Harford County as their needs change.

Life-Cycle Housing accommodates the different stages of life which incorporates housing opportunities for first time buyers, families, older homeowners, and senior housing; including assisted living facilities and nursing homes. This creates a community with diverse demographics.

**Implementation**

(a) Evaluate mixed use regulations and establish density bonuses for projects that incorporate affordable housing and healthy community design.

(b) Encourage live/work units and expand home based business opportunities.

(c) Encourage lifecycle housing by adopting regulations for accessory dwellings.

(d) Provide and maintain options for intergenerational/life-cycle housing.

(e) Maintain neighborhood continuity by targeting new affordable housing developments for existing residents and allow for "aging in place".

(f) Promote the redevelopment of the US 40 corridor to provide a range of housing opportunities.

(g) Develop design guidelines for new communities within the Development Envelope that promote quality affordable housing with an emphasis on building healthy and active communities.

(h) Develop strategies for homelessness prevention and creating permanent supportive housing opportunities.

(i) Collaborate with non-profit organizations and service providers that assist those experiencing homelessness, disabled individuals and families in need.

### Goal PHC 4.2: Identify where vulnerable populations exist and where community services are lacking.

Rationale: Vulnerable populations are often located in areas where material and physical resources are lacking. By identifying where vulnerable populations exist, the County can target these areas to ensure access to quality medical care and other community services, especially during times of emergency.

**Implementation**

(a) Collaborate with the Health Department, Housing and Community Development, and nonprofit organizations, including local faith-based and community-based organizations in order to identify, engage, and protect vulnerable citizens.

(b) Actively engage and involve disadvantaged groups in planning in order to understand the culture of poverty and its impact on preparedness in the event of an emergency.

(c) Develop plans for addressing the needs of non-institutionalized, home-bound older adult populations that may have limited access to health care and social services.

(d) Develop programs to educate the public and first responders on preparedness-related information specific to vulnerable populations, such as people with disabilities, economically disadvantaged, ethnic and racial minorities, pediatric, and rural populations.

(e) Develop public health preparedness, response, and recovery strategies and activities should include a strong focus on the needs of specific vulnerable populations.

(f) Work with local hospitals and health service providers to identify areas of the County that are insufficiently served and determine impediments to locating these services in underserved communities.

(g) Develop a fast track approval process for projects identified as critical to serving vulnerable populations.

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CHAPTER 8

# COMMUNITY PLANNING AREAS

HARFORD NEXT
A MASTER PLAN FOR THE NEXT GENERATION

## A Master Plan for the Next Generation



# COMMUNITY PLANNING AREAS

Communities are defined by shared educational, cultural, civic, recreational, commercial facilities and activities, natural features, and common interests. The importance of these may vary among communities – and even among different groups within one community – but the location of these facilities helps to reinforce the "sense of place" that residents feel. Strong communities and the preservation of their "community character" are essential to the County's future.

Recognizing this, a Community Areas section was first introduced in the 1996 Land Use Element Plan. HarfordNEXT continues to stress the importance of our communities as the foundation of the master plan. The Community Areas differ from the reconstituted Community Advisory Boards (CAB) that were created by the Administration in 2015. Several Community Areas were combined in an effort to streamline the document and avoid unnecessary redundancy and duplication. The areas were combined based on similar geographic and demographic attributes.

The purpose of this section is to help ensure that each of the areas remain attractive, with livable communities that offer community residents the quality of life they desire. HarfordNEXT and the Community Areas also stress the importance of resilience and adapting to an ever changing socio-economic climate.

To achieve this, the Community Areas section of the Plan emphasizes the following:

- Protection and enhancement of existing neighborhoods;
- Provision of a balance of residential, commercial and employment opportunities;
- Ensuring that neighborhoods are sustainable and resilient;
- Provision of multimodal transportation connections that are sensitive to community character;
- Provision of opportunities for a healthy lifestyle;
- Protection of natural, historical, and cultural resources; and
- Protection of rural areas

Each of the Community Area narratives provides information on existing population and growth trends. A description of each community's character along with a land use plan for the area is included. Variations exist among the descriptions, but this reflects the uniqueness of each area. Detailed implementation strategies have been derived from the principle explored in the six overarching themes in the conclusion of each Community Area. The plans presented in this document will serve as a guide for development of the area and to encourage community groups and residents within each Community Area to work with planning staff in the future to develop detailed Community Plans.

# Community Planning Areas





# CHURCHVILLE/CRESWELL

## LAND USE CHARACTERISTICS

This area contains 22,121 acres, or 9.5 percent of Harford's total land area.

Agricultural land uses comprise the majority of this area with 63.1 percent or 13,957 acres.

Residential land uses make up 20.8 percent (4,618 acres).

Other major land uses are parks/open space (4.3 percent, 948 acres); institutional (4.0 percent, 876 acres); transportation/utilities (1.3 percent, 293 acres); industrial & commercial (1.3 percent, 287 acres).

## DEMOGRAPHIC PROFILE

### Population

Population: 12,967

Median Age: 42.2

Age Composition: 31% of residents are between the ages of 45 and 64.

### Housing

Total Households: 4,362

Median Home Value: $317,552

Monthly Median Rent: $1,278

Tenancy: Owner occupied 87 percent. Renter occupied 13 percent.

### Income

Median Household Income: $96,471

### Employment

Total Jobs: 4,757

Total Labor Force: 7,332

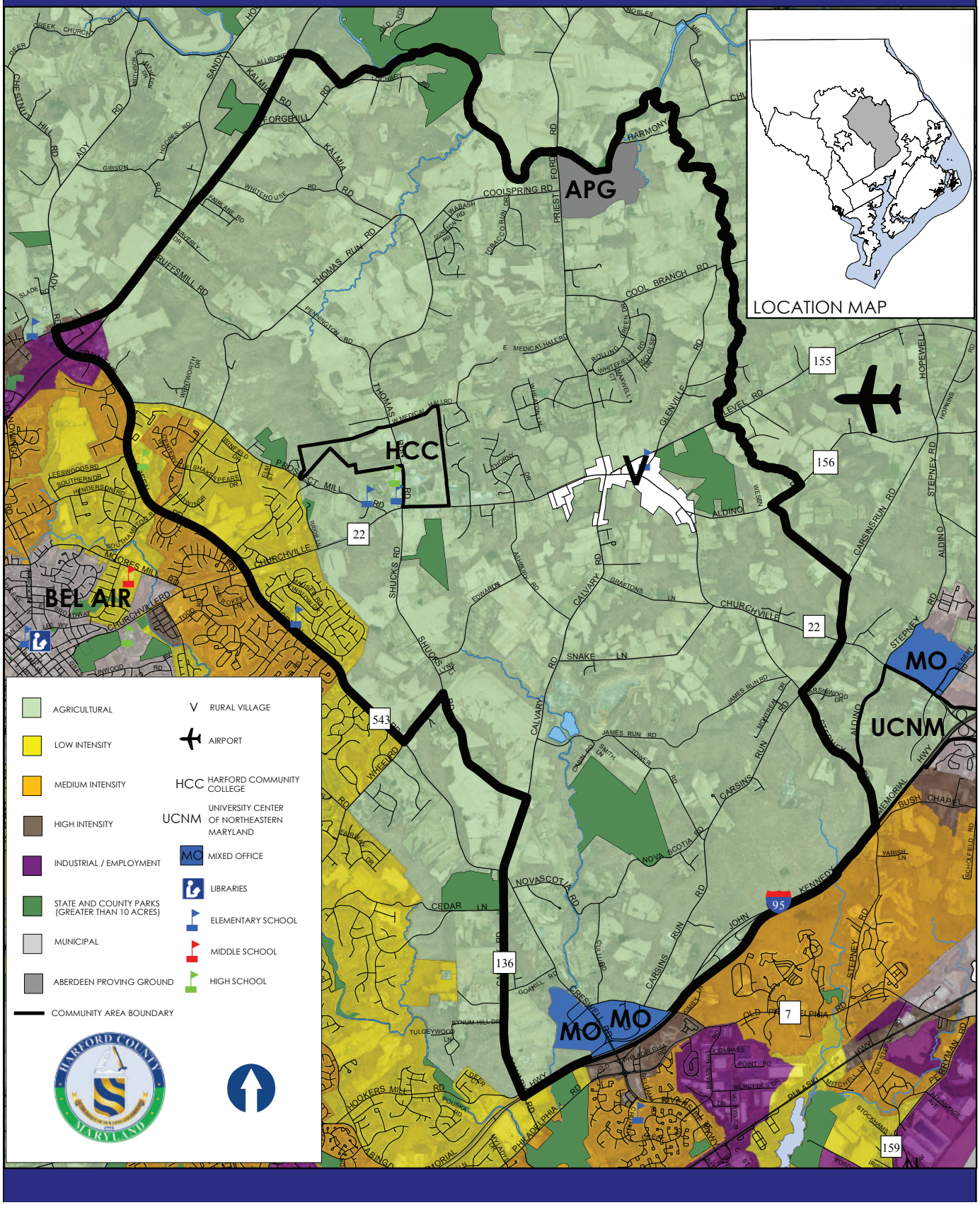
## TRENDS AND KEY ISSUES

The MD 22 Multimodal Corridor Study, which was completed in 2012, identified a range of improvements for the MD 22 corridor. One short-term improvement identified in this study was the MD 22 / Prospect Mill Rd / Thomas Run Rd intersection. This SHA project has an estimated cost of 3 million dollars and is scheduled for construction in 2016.

### Employment

Harford Community College is the largest employer (999) in the area.

# CHURCHVILLE/CRESWELL



## Location and Context

The Churchville/Creswell Community Area is located in the central portion of Harford County. The terrain closest to the southern portion of the community area is gently sloping, with the hills slowly increasing in size and steepness through the northern area. Along the Deer Creek, valley slopes are steep and wooded. The Community Area is predominately agricultural and rural residential single family housing. Business and industrial uses are limited and are found mainly in clusters along the MD 22 corridor at Churchville and Campus Hills, and in the northwestern part of the community in the Hickory area, along US 1. The Churchville rural village supports the surrounding community with mixed use businesses.

The continuation of agriculture remains important to the community, and is supported by nearby agricultural businesses. The northern portion of the community area is in the Deer Creek Valley Rural Legacy Area and the County's Priority Preservation Area. Limited commercial development exists in the Churchville rural village, with more intensity located around the Harford Community College. These uses should continue to support local residents, students, and the farming industry.

## Development and Infill Potential

Opportunities for the redevelopment and expansion of existing businesses are supported in the Churchville rural village, as long as the development is compatible with surrounding development and the agricultural character of the area.

There is a Mixed Office designation adjacent to I-95 and MD 543 which was designed to accommodate corporate offices, research and development facilities, and high-tech services, that is currently underutilized. Finding the appropriate employment use to anchor the MO, along with providing other supportive uses, will help transform this part of the community area into a regional commercial center.

## Community Assessment

Public input was gathered as part of the planning process for HarfordNEXT and an analysis of opportunities and challenges was performed for the Churchville Creswell Community Area, in order to provide a baseline for prioritizing goals and objectives. Ultimately, the community will play a critical role in determining the most effective strategies for implementation. Some opportunities for the Churchville Creswell Community Area include the Harford Community College, Mixed Office designation, and the Churchville rural village. The college can be a partner with many of the initiatives proposed in HarfordNEXT. The Churchville rural village can be enhanced by targeting redevelopment and streetscape beautification efforts. Some of the challenges for the Churchville Creswell Community Area include traffic along MD 22, limiting sprawl development patterns that threaten agricultural preservation strategies, and establishing riparian forest buffers along streams and wetlands. These tasks can be viewed as priorities for new policy initiatives, planning studies, and innovative programs. Each of the themes developed in HarfordNEXT provide implementation strategies that can be addressed with greater detail when looking at the community level.

## GROW WITH PURPOSE

*Grow With Purpose* aims to address how the Churchville Creswell Community Area can grow and evolve sustainably over time. Decisions will need to be made about how the community functions and where it focuses infill development efforts within the MD 22 corridor, Mixed Office designation, and the Churchville rural village. In order to help further preserve the rural landscapes throughout the community area clustering provisions for new subdivisions should be promoted.

### CPA 1.1: Maintain and Enhance Public Facilities and Infrastructure

(a) Expand programming at different community facilities, like the Churchville Recreation Center. Offer programs related to business development, continuing education, and fitness classes, and make the spaces available for community events.

### CPA 1.2: Strengthen Communities

(a) Develop accessible community gathering spaces, like those at the Schucks Road Regional Sports Complex, which provide people a place for social interaction and to promote a healthy community.



*Parks provide a place for social interaction and promote healthy communities.*

## ECONOMIC VITALITY

*Economic Vitality* recognizes that a diverse and vibrant economy is an integral component of making the Churchville Creswell Community Area a successful community. Additional farm stands should also be created throughout the community area.

### CPA 1.3: Revitalize Existing Communities

(a) Support small business development that fills retail gaps and revitalizes the Churchville rural village. Update the Rural Village Study, to assess Churchville's specific conditions and needs.

(b) Investigate a grant program where citizen groups can apply for infrastructure improvements to enhance their respective neighborhoods.

### CPA 1.4: Ensure and Promote a Skilled Workforce That Will Attract Businesses

(a) Partner with the Harford Community College and faculty to establish educational programs that meet local employment market demands.

In 2014, Harford Community College offered more than 70 affordable degree and certificate programs to nearly 2,000 full-time and 7,500 part-time students. An additional 11,000 noncredit students attended continuing education courses at the college.

(b) The Harford Technical School should continue to be used as an asset to provide partnerships between students entering the workforce and local businesses.

## ENVIRONMENTAL STEWARDSHIP

*Environmental Stewardship* includes developing Small Watershed Action Plans for

the Gray's Run and James Run watersheds. It also includes protecting the forested hubs and corridors in the southern portion of the community area, through the development of a Green Infrastructure Plan. Since the area is predominantly agricultural, best management practices for soil and water conservation plans will be critical to helping maintain the quality of life of the citizens in this community area.

### CPA 1.5: Protect and Restore Environmentally Sensitive Areas

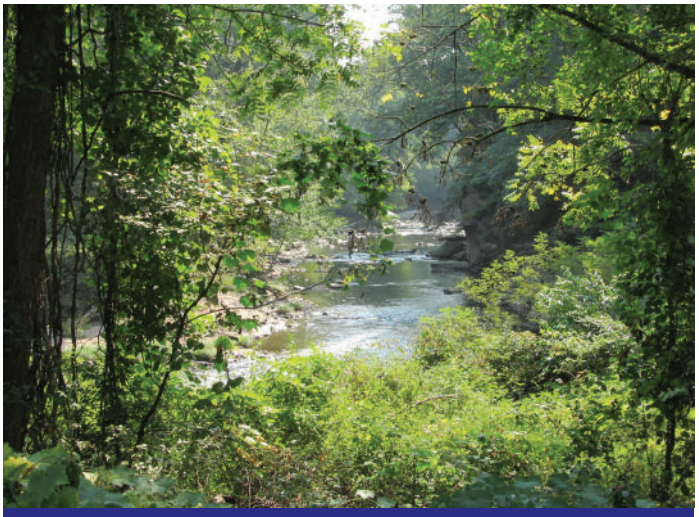
(a) Prepare a Green Infrastructure Plan and identify the main components of the system, such as Deer Creek, Grays Run, and James Run watersheds. The plan will help provide policy direction to minimize the impacts of new development, as well as, focus restoration efforts.

(b) Require the use of innovative designs and best management practices for development within Tier II watersheds, the highest quality waters in the state. The northern half of the Community Planning Area drains to Deer Creek, which is a Tier II watershed, and is also a State-designated targeted ecological area (diverse high-quality habitat area). Grants should be used to preserve high value land in this area, and incentives created for homeowners to reforest and restore their properties. Water quality improvement projects identified in the Deer Creek Water Resource Action Strategy should also continue to be implemented in this area.

(c) Improve outreach to homeowners with rare, threatened, or endangered species on their properties, and encourage the development of cooperative management plans.

### CPA 1.6: Preserve Water Resources

(a) Connect septic system areas, where they would be better served by public sewer, and prioritize Bay Restoration Funds for new and replacement best available technology septic systems that are located within either 1,000 feet of perennial streams or the Green Infrastructure Network.



*Forested stream buffers help to preserve and improve water quality.*

### CPA 1.7: Adequate Stormwater Management

(a) Increase the tree canopy throughout the community area. Partner with various agencies, public and private, to increase the tree canopy in appropriate open spaces.

(b) Increase water quality monitoring by training citizen or school groups. Focus on measuring the effectiveness of local restoration practices.

(c) Partner with Harford Community College and other institutions, such as Prospect Mill Elementary School, to create demonstration projects of storm water best management practices.

### CPA 1.8: Natural Resource Management

(a) Improve outreach and incentives for farmers to create riparian forest buffers along streams and wetlands.

(b) Foster the innovative use of alternative energy sources at community facilities, such as the Churchville Recreation Center, ensuring the applications are also sensitive to the environment.

## PRESERVING OUR HERITAGE: HISTORIC PRESERVATION

*Preserving Our Heritage* supports the promotion and preservation of the agricultural industry within the Churchville Creswell Community Area. Historic preservation is geared towards deciding what's important, figuring out how to protect it, and preserving an appreciation of what is saved for future generations.

### CPA 1.9: Protect Historic and Cultural Resources

(a) Identify and address where possible threatened or endangered historical and/or cultural resources deemed to be of exceptional value and significance to the community.

(b) Consider developing educational programs to help increase awareness and appreciation of the community's significant historic and/or cultural resources.

(c) Develop marketing strategies for the historic tax credit program and highlight demonstration projects that can be an effective economic stimulant in the community area.

### CPA 1.10: Educate and Connect With Broader Audiences

(a) Support heritage tourism initiatives throughout the Community Area, promoting heritage areas, parks, rural view sheds, and greenways.

## PRESERVING OUR HERITAGE: LAND PRESERVATION

### CPA 1.11: Protect Agricultural and Natural Resources

(a) Promote more agricultural easements in the southern portion of the community area.

(b) Develop workshops and increase marketing strategies to facilitate agricultural business.

(c) Work with the US Army's easement program to preserve land close to APG's Churchville Test Area.

### CPA 1.12: Educate and Connect With Broader Audiences

(a) Conduct workshops on the adaptive reuse and educational values of barns, gristmills, and other significant structures.

## MOBILITY AND CONNECTIVITY

*Mobility and Connectivity* seeks to establish ways in which to create a strong sense of community by focusing on integrating transportation planning with housing, land use, economic development, and environmental goals. It includes recognizing all the users of streets, such as bicyclists and pedestrians, as well as, farm equipment and commuter cars, and creating shared use paths along high volume roads. These sorts of enhancements, coupled with traffic calming techniques and innovative development practices within the Churchville rural village, can help to improve citizen's quality of life.

### CPA 1.13: Adopt A Holistic Approach To Transportation Planning

(a) Identify road corridors for right-of-way preservation, such as MD 22, and develop a corridor capacity management program for widening or construction of parallel shared use paths.

(b) Develop signage that encourages drivers to safely share the road with agricultural machinery.

(c) Work with MDOT to implement the pertinent recommendations from the MD 22 Study.

### CPA 1.14: Integrate Transportation With Land Use Planning

(a) Provide greenways to connect communities to nearby parks and schools.

(b) Support streetscape beautification projects within the Churchville rural village.

### CPA 1.15: Expanded Network of Safe Bicycle And Pedestrian Facilities

(a) Enter into agreements with state agencies and utility companies to allow rights-of-way under their control to be used for trails.

(b) Partner with the Harford Community College to showcase "Car-free events" and bike sharing programs.

## PROMOTING HEALTHY COMMUNITIES

*Promoting Healthy Communities* aims to improve the physical and social environments found throughout the community area. It includes working with local institutions such as the Community Advisory Board, Harford Community College, and churches, to help address particular health issues of concern. The goal is to maintain the health, safety, and welfare of the citizens in the Churchville Creswell Community Area.

### CPA 1.16: Foster Healthy Lifestyles and Active Living For All Harford County Residents

(a) Work with schools to encourage more walkable school sites.

(b) Consider development standards to encourage social interaction within the Churchville rural village.

(c) Use traffic calming techniques such as refuges and street trees, to improve street safety and access within the Churchville rural village.

### CPA 1.17: Provide Access To Healthy Food Choices For All Harford County Residents

(a) Identify appropriate sites for farmer's markets, encourage community-supported agriculture (CSA), and prioritize those uses in the appropriate locations.

(b) Partner with Healthy Harford and the schools to promote the importance of farms and eating locally sourced foods.

(c) Support strategies that capitalize on the mutual benefit of connections between rural economies as food producers and urban economies as processors and consumers. The Churchville Creswell Community Area should seek to connect their food producers with the local food markets within the more urbanized areas of the region, such as the Harford Community College.




## TRENDS AND KEY ISSUES

### Growth Trends

The population of the area is projected to grow by 6 percent between 2013 and 2040.

### Employment

Kohl's E-Fulfillment Center is the largest employer (1,255) in the area.

### Housing

39 percent of Edgewood area homeowners' spend 30 percent or more of their household income on housing costs in 2013 compared to 28 percent in the County overall.

# EDGEWOOD

## LAND USE CHARACTERISTICS

This area contains 5,516 acres, or 2.4 percent of Harford's total land area.

Residential land uses make up 20.8 percent (1,631 acres).

Other major land uses are parks/open space (13.1 percent, 725 acres); industrial (8.0 percent, 445 acres); commercial (7.4 percent, 410 acres); transportation/utilities (5.4 percent, 300 acres); institutional (5.2 percent, 286 acres).

## DEMOGRAPHIC PROFILE

### Population

Population: 23,981

Median Age: 32.9

Age Composition: 35 percent of residents are between the ages of 20 and 44.

### Housing

Total Households: 8,622

Median Home Value: $182,473

Monthly Median Rent: $852

Tenancy: Owner occupied 64 percent. Renter occupied 36 percent.

### Income

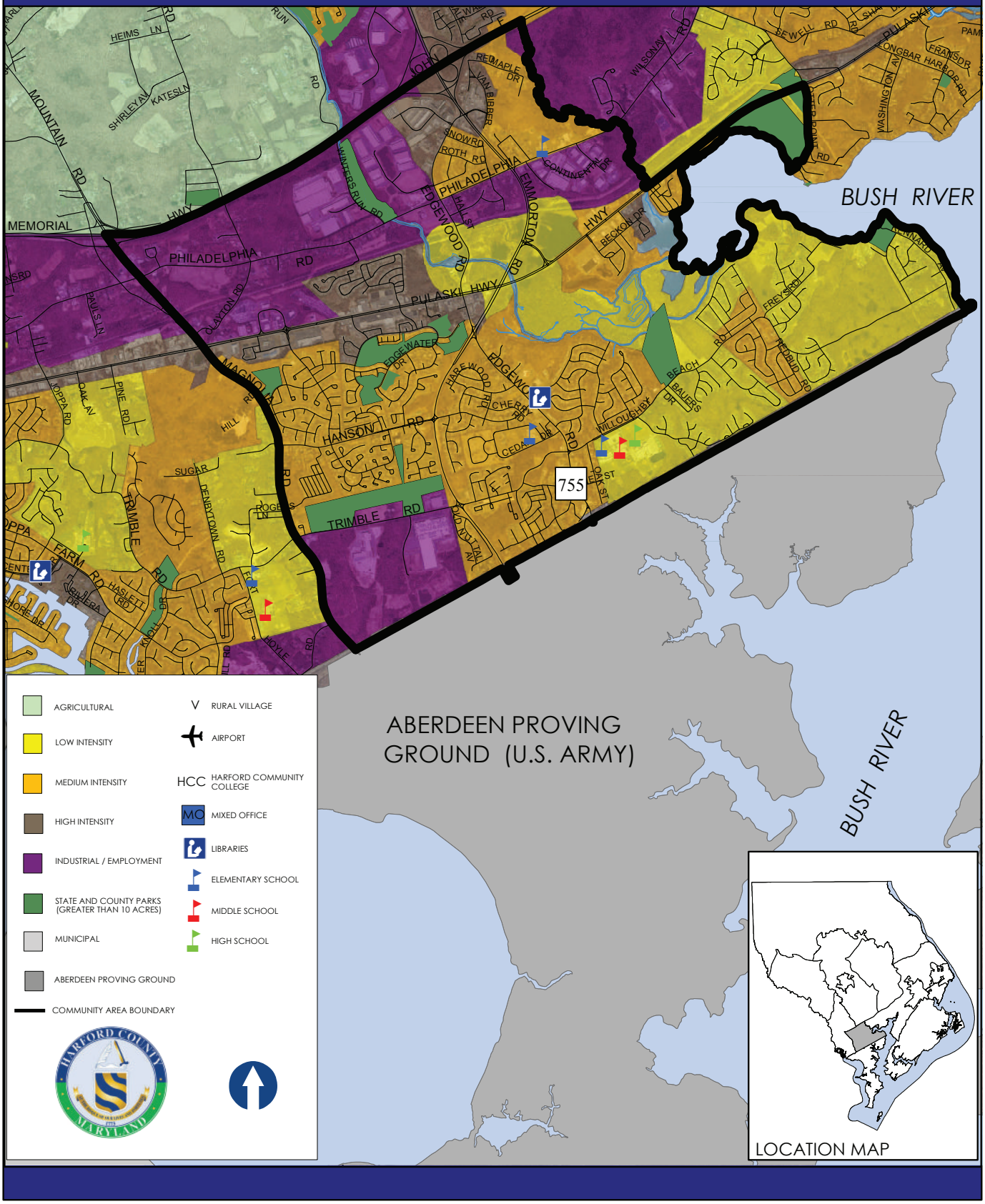
Median Household Income: $53,505

### Employment

Total Jobs: 6,440

Total Labor Force: 13,658

# EDGEWOOD


BUSH RIVER
ABERDEEN PROVING GROUND (U.S. ARMY)
BUSH RIVER
755
PHILADELPHIA RD
PULASKI HWY
HANSON RD
TRIMBLE RD
EDGEWOOD RD
MOUNTAIN RD
MEMORIAL HWY
AGRICULTURAL
LOW INTENSITY
MEDIUM INTENSITY
HIGH INTENSITY
INDUSTRIAL / EMPLOYMENT
STATE AND COUNTY PARKS (GREATER THAN 10 ACRES)
MUNICIPAL
ABERDEEN PROVING GROUND
COMMUNITY AREA BOUNDARY
RURAL VILLAGE
AIRPORT
HCC HARFORD COMMUNITY COLLEGE
MO MIXED OFFICE
LIBRARIES
ELEMENTARY SCHOOL
MIDDLE SCHOOL
HIGH SCHOOL
HARFORD COUNTY MARYLAND
LOCATION MAP

## Location and Context

Edgewood is located in the southwestern portion of Harford County. Historically, the village of Edgewood evolved from a railroad stop at the "edge of the woods." Edgewood has grown in response to the 1917 opening of the large army post, the Aberdeen Proving Ground. The community is well connected regionally with easy access to I-95, US 40 and the MARC train. Edgewood is entirely located within Harford County's Development Envelope and the area contains multiple parcels for potential future development to occur.

A diverse range of housing types exist in the community, including single family detached homes, townhouses, condos, and apartments. Major employment centers are located along the MD 7 corridor, and other commercial corridors are found along US 40 and MD 755. The Edgewood Neighborhood Overlay District was established to provide enhanced design guidelines and development incentives for the area. This designation, along with others such as Enterprise Zones, Sustainable Communities, and the Chesapeake Science and Security Corridor (CSSC), is facilitating revitalization and expansion of the businesses in Edgewood.

The waterfront within this community area is located in the Chesapeake Bay Critical Area (CBCA), which includes all land within 1,000 feet of the shoreline. Goals of the CBCA program are to minimize adverse impacts on water quality, enhance wildlife habitat, and establish land use policies for development. The Edgewood area also contains the Otter Point Creek Marsh, which are sensitive tidal and nontidal wetlands designated as a State Natural Area and National Estuarine Research Reserve, and they are monitored and studied on a national scale.

## Development and Infill Potential

There are a number of opportunities for infill development throughout the Community Area, particularly in targeted redevelopment areas along the US 40 and MD 755 corridors. The County can prioritize infrastructure upgrades in these areas, to support infill and mixed use development.

## Community Assessment

Public input was gathered as part of the planning process for HarfordNEXT and an analysis of opportunities and challenges was performed for the Edgewood Community Area, in order to provide a baseline for prioritizing goals and objectives. Ultimately, the community will play a critical role in determining the most effective strategies for implementation. Some opportunities for the Edgewood Community Area include its access and educational value along the waterfront of the Otter Point Creek Marsh and Bush River, redevelopment funding availability along the US 40 corridor, and proximity to APG. These situations can be viewed as strengths that can be built upon to enhance citizen's quality of life. Some of the challenges for the Edgewood Community Area include potential sea level rise, retrofitting outdated storm water management facilities, and softening the footprint of existing development. These tasks can be viewed as priorities for restoration activities and focusing volunteer efforts. Each of the themes developed in HarfordNEXT provide implementation strategies that can be addressed with greater detail when looking at the community level.

## GROW WITH PURPOSE

*Grow with Purpose* aims to address how the Edgewood Community Area can redevelop and evolve sustainably over time. Infill development opportunities exist along the US 40 and MD 755 corridors. The Chesapeake Science and Security Corridor (CSSC) designation brings additional development incentives to this community area.

### CPA 2.1: Livable Communities

(a) Create a mixed use center along I-95 near MD 24, and include form-based codes to enhance the design of the development.

(b) Partner with the Community Advisory Board, and other interested community groups, to update the Edgewood Community Plan, if the community so desires.




*The Edgewood Library is an anchor point for the community, providing a range of services.*

### CPA 2.2: Strengthen Communities

(a) Foster redevelopment in target areas, such as US 40, MD 24, and MD 755. Incentivize mixed use projects and assist property owners with land assemblage.

(b) Create a neighborhood indicators tracking system for tracking the health and stability of various neighborhoods in the community area.

### CPA 2.3: Maintain and Enhance Public Facilities and Infrastructure

(a) Develop a redevelopment strategy for Washington Court.

(b) Create a Transit Oriented Development Overlay District at the Edgewood Train Station.

### CPA 2.4: Ensure A Range Of Housing Opportunities For All Citizens

(a) Expand homeownership programs that support a variety of owner-occupied housing and develop programs to assist property owners with external property renovations.

(b) Adopt policies to promote the creation of live-work units and accessory dwelling units within the US 40 corridor.

(c) Foster inclusive communities free from barriers that restrict access to opportunities based on protected characteristics.

## ECONOMIC VITALITY

*Economic Vitality* recognizes that a diverse and vibrant economy is an integral component of making the Edgewood Community Area a successful community. Infrastructure improvements, design guidelines, and mixed use developments, can help to stimulate economic activity in the targeted redevelopment areas along the MD 755 and US 40 corridors.

### CPA 2.5: Grow Economic Opportunities and Competitiveness

(a) Create a tiered incentive program that provides incentives for developers who choose to utilize innovative development practices.

### CPA 2.6: Revitalize Existing Communities

(a) Perform a study of the commercial centers and corridors throughout the community area, to assess their specific conditions and needs.

(b) Partner with the Route 40 Business Association to create a Business Improvement District from MD 152 to MD 24.

(c) Explore commercial revitalization programs that provide grants or low interest rate loans for façade improvements and interior renovation.

(d) Encourage public-private partnerships at the two Park and Ride facilities that allow a business to operate a retail establishment, in return for maintaining the facility.

## ENVIRONMENTAL STEWARDSHIP

*Environmental Stewardship* includes implementing the pertinent recommendations of the Small Watershed Action Plan for Sam's Branch, to help protect and improve the quality of the water before draining into the Otter Point Creek Marsh. It also includes softening the footprint of existing development by considering conservation landscaping techniques and rain gardens to help treat storm water runoff at the source, in places such as the Edgewood Train Station or along US 40.

### CPA 2.7: Protect and Restore Environmentally Sensitive Areas

(a) Prepare a County Green Infrastructure Plan and identify the main components of the system within the community area, such as Willoughby Woods and the Otter Point Creek Marsh. The plan will help provide policy direction to minimize the impacts of new development, as well as, focus restoration efforts.

(b) Investigate grants to help protect public infrastructure from flood damage, which includes seven different sewage pumping stations in the community area.

(c) Implement projects identified in the 2012 Sam's Branch Small Watershed Action Plan, and consider new studies.

(d) Identify and preserve ecologically rich land, such as the Otter Point Creek Marsh, and focus appropriate restoration management strategies where necessary.



*The Otter Point Creek Marsh is one of the largest freshwater tidal marshes in the region.*

### CPA 2.8: Adequate Stormwater Management

(a) Reduce parking requirements, particularly large retail along US 40, MD 24, and MD 755, and require more landscaping with native plants to soften the development footprint in the landscape.

(b) Partner with various public and private agencies to increase the tree canopy throughout the community area, with a particular emphasis on open spaces.

### CPA 2.9: Outreach and Education

(a) Engage citizens about sustainability

efforts, including outreach to Edgewood middle and high schools, and home and business owners.

(b) Support community gardening efforts and recreational groups, to encourage outdoor physical activity and improve citizen's sense of community and environmental ethic.

### CPA 2.10: Natural Resource Management

(a) Foster the innovative use of alternative energy sources ( i.e. wind, solar, and geothermal) at community facilities, ensuring the applications are also sensitive to the environment.

(b) Implement coastal resiliency strategies and hazard mitigation opportunities. Identify forests, wetlands, and aquatic resources for future wetland migration, to help mitigate the potential impacts of sea level rise.

## PRESERVING OUR HERITAGE: HISTORIC PRESERVATION

*Preserving Our Heritage* supports the promotion of the agricultural industry within the Edgewood Community Area. Efforts should be made to continue the marketing campaigns of County grown agricultural and natural resource products, and additional farmer's markets at accessible locations, such as along the MD 755 or US 40 commercial corridors. Likewise, historic preservation is geared towards deciding what's important, figuring out how to protect it, and preserving an appreciation of what is saved for the future generations.

### CPA 2.11: Protect Historic and Cultural Resources

(a) Identify and address where possible, threatened or endangered historical and/or cultural resources, deemed to be of exceptional value and significance to the community.

### CPA 2.12: Educate and Connect With Broader Audiences

(a) Support heritage tourism initiatives throughout the Community Area, promoting heritage areas, parks, and greenways.

## MOBILITY AND CONNECTIVITY

*Mobility and Connectivity establishes strategies that promote the integration of transportation planning with sound land use decisions. HarfordNEXT emphasizes accessibility to alternate modes of transportation, such as walking, bicycling, and transit, as a means of managing traffic on our roadways while improving air quality and promoting healthy lifestyles.*

### CPA 2.13: Adopt A Holistic Approach To Transportation Planning

(a) Identify road corridors for right-of-way preservation and develop a corridor capacity management program for widening or construction of parallel shared use paths throughout the community area.

### CPA 2.14: Integrate Transportation With Land Use Planning

(a) Prioritize streetscape beautification projects in the commercial corridors along US 40, MD 24, and MD 755.

(b) Partner with APG to require walkability and bicycling designs as part of the development review process, to ensure walking/biking is a safe and convenient option, and provide connections to transit wherever possible.

(c) Acquire easements for greenways to connect neighborhoods to nearby parks and schools, and partner with other public agencies and utility companies to use their easements.

### CPA 2.15: Expanded Network of Safe Bicycle And Pedestrian Facilities

(a) Prioritize the creation of pedestrian links for new or reconstructed sidewalks.

(b) Require developers to establish bicycle and pedestrian facilities, including bicycle parking within nonresidential developments.

(c) Explore new crossing opportunities across I-95 for bicyclists and pedestrians.

### CPA 2.16: Safe, Efficient, and Convenient Transit Services

(a) Provide amenities at bus stops to make them inviting as a mode choice. Bus stops should be accessible and include signage, lighting, landscaping, and benches.

(b) Connect the US 40 commuter route with Harford Transit.

(c) Partner with Harford Transit to perform a ridership improvement study to prioritize future outreach efforts and bus stop locations within the community area.

(d) Provide bicycle lanes along Trimble Road and Willoughby Beach Road, and extend Harford Transit, to better serve the Edgewood MARC Train Station.



*Alternative transportation choices help to relieve congestion on county roadways.*

### CPA 2.17: Expand Transportation Demand Management (TDM)

(a) Encourage mixed use development in designated locations and prioritize infrastructure upgrades that support infill development.

(b) Continue to pursue funding for the Safe Routes to School Program and work to implement a program for each elementary and middle school in the community area. Encourage these schools to provide educational programs that support walking and its health benefits.

(c) Attract APG shuttle service to connect commuters from the Edgewood Train Station to APG.

The Penn Line has a daily ridership of 24,000 passengers The Edgewood Station has the potential to capitalize on this amount of traffic, by transforming the vicinity into a high density mixed use center.

## PROMOTING HEALTHY COMMUNITIES

*Promoting Healthy Communities* aims to improve the physical and social environments found throughout the community area. It includes working with institutions such as the Community Advisory Boards, schools, and churches to help address particular health issues of concern. The goal is to maintain the health, safety, and welfare of the citizens and enhance their quality of life.

### CPA 2.18: Foster Healthy Lifestyles and Active Living For All Harford County Residents

(a) Encourage the schools to make their campuses more walkable.

(b) Perform walkability audits to identify inconvenient or dangerous routes to schools and recreational facilities, and prioritize the

necessary infrastructure improvements.

(c) Use traffic calming techniques such as medians, refuges, street trees, and on-street parking to improve street safety and access, and require developers to build these facilities as part of new development or redevelopment.

(d) Reduce parking requirements for developments that locate near transit and establish bicycle and pedestrian facilities.

### CPA 2.19: Provide Access To Healthy Food Choices For All Harford County Residents

(a) Identify potential community garden sites. Work with Parks and Recreation and other community groups to provide classes on gardening and composting.

(b) Promote grocery store access in the appropriate places and coordinate with local transit agencies to develop routes that connect residents to health service facilities.

### CPA 2.20: Support Efficient and Effective Delivery of Health and Social Services Throughout Harford County

(a) Target new affordable housing developments for existing residents to maintain neighborhood continuity.

(b) Support community policing, neighborhood watch, and walking/biking police patrols that engage residents of this community.



## TRENDS AND KEY ISSUES

### Growth Trends

The population of the area is projected to grow by 11 percent between 2013 and 2040.

### Education

42.2 percent of the population aged 25 years and older have a bachelor's degree or higher compared to 32.6 percent for the County as a whole.

### Housing

The Fallston area has the lowest median rent ($779) of all community areas though rental opportunities are limited as only 5 percent of all households are renter-occupied.

# FALLSTON

## LAND USE CHARACTERISTICS

This area contains 24,078 acres, or 10.4 percent of Harford's total land area.

Agricultural land uses comprise the majority of this area with 43.5 percent or 10,473 acres.

Residential land uses make up 38.2 percent (9,217 acres) with rural density residential uses comprising 70 percent (6,705 acres) of the residential use.

Other major land uses are parks/open space (10.0 percent, 2,417 acres); institutional (1.5 percent, 367 acres); commercial (1.4 percent, 254 acres).

## DEMOGRAPHIC PROFILE

### Population

Population: 18,610

Median Age: 44.7

Age Composition: 33 percent of residents are between the ages of 45 and 64.

### Housing

Total Households: 6,260

Median Home Value: $383,210

Monthly Median Rent: $779

Tenancy: Owner occupied 95 percent. Renter occupied 5 percent.

### Income

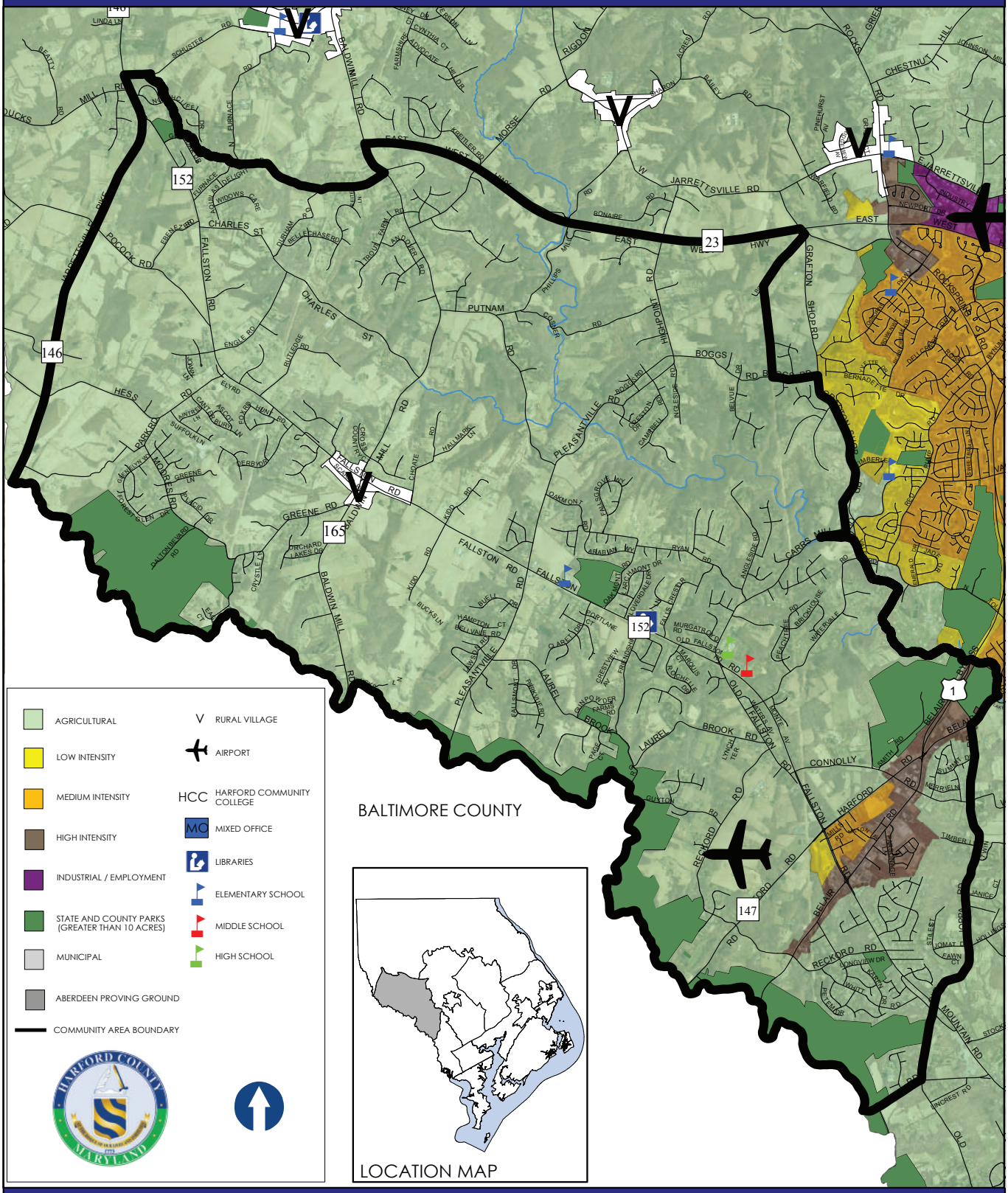
Median Household Income: $112,146

### Employment

Total Jobs: 4,801

Total Labor Force: 10,726

# FALLSTON


AGRICULTURAL
LOW INTENSITY
MEDIUM INTENSITY
HIGH INTENSITY
INDUSTRIAL / EMPLOYMENT
STATE AND COUNTY PARKS (GREATER THAN 10 ACRES)
MUNICIPAL
ABERDEEN PROVING GROUND
COMMUNITY AREA BOUNDARY
RURAL VILLAGE
AIRPORT
HCC HARFORD COMMUNITY COLLEGE
MC MIXED OFFICE
LIBRARIES
ELEMENTARY SCHOOL
MIDDLE SCHOOL
HIGH SCHOOL
HARFORD COUNTY MARYLAND
BALTIMORE COUNTY
LOCATION MAP
JARRETTSVILLE RD
CHARLES ST
PUTNAM
BOGGS
PLEASANTVILLE RD
FALLSTON RD
GREENE RD
BALDWIN MILL RD
OLD FALLSTON RD
BROOK RD
LAUREL
CONNOLLY
HARFORD
RECKORD RD
MOUNTAIN RD
GRAFTON SHOP RD
ROCKSPRINGS RD
POCOCK RD
HESS
CARRS MILL
147
146
152
165
23
1

## Location and Context

The Fallston Community Area is located on the western edge of Harford County. The area has grown considerably since the establishment of Old Fallston. Today, Fallston is characterized by a mix of agricultural and residential uses. The rural heritage of Fallston is still evident in the community area.

Only four percent of the community area is located within the County's Development Envelope and is served by the County's public water and sewer system.

Over the past 50 years, Fallston has experienced considerable rural residential development. Residential development is predominantly single-family dwellings on large lots of two acres or greater. There are also older well established communities with lots of 1 acre or less. Commercial development within the Community Area is located within the Development Envelope along the US 1 corridor from Reckord Road to Winters Run, as well as at crossroads such as MD 152 and Pleasantville Road, and MD 152 at MD 165, which is designated as a Rural Village. A wide range of retail and service uses are found within the commercial areas of Fallston.

## Development and Infill Potential

There are a limited number of opportunities for infill development in this Community Area, as Upper Crossroads is the only rural village, and the predominant land uses remain low density residential and agricultural.

## Community Assessment

Public input was gathered as part of the planning process for HarfordNEXT and an analysis of opportunities and challenges was performed for the Fallston Community Area, in order to provide a baseline for prioritizing goals and objectives. Ultimately, the community will play a critical role in determining the most effective strategies for implementation. Some opportunities for the Fallston Community Area include the Little Gunpowder Falls State Park, Ladew Topiary Gardens, and the Chenowith Activity Center. These institutions can be viewed as strengths that can be enhanced by providing additional community events and spaces for social interaction, to improve citizen's quality of life and to promote a healthy community. Some of the challenges for the Fallston Community Area include providing adequate drinking water supply, traffic along MD 152, and redevelopment along the US 1 corridor. These tasks can be viewed as priorities for new policy initiatives, planning studies, and innovative programs. Each of the themes developed in HarfordNEXT provide implementation strategies that can be addressed with greater detail when looking at the community level.

## GROW WITH PURPOSE

*Grow With Purpose* aims to address how the Fallston Community Area can grow and evolve sustainably over time. Decisions will need to be made about how the community functions and where it focuses infill development efforts within the US 1 corridor and Upper Crossroads rural village. Clustering provisions should be required for new subdivisions, in order to help further preserve the rural landscapes throughout the community area.

### CPA 3.1: Strengthen Communities

(a) Develop accessible community gathering spaces such as parks, plazas, and farmers markets, which provide people a place for social interaction and to promote a healthy community.

(b) Foster redevelopment in target areas, such as US 1, from MD 152 to MD 147.

## ECONOMIC VITALITY

*Economic Vitality* recognizes that a diverse and vibrant economy is an integral component of making the Fallston Community Area a successful community. It's important to maintain consistent economic development initiatives with groups like the Greater Fallston Association, in order to coordinate infrastructure improvements that can help to stimulate economic activity in strategic areas of the community area. Additional farm stands should also be created throughout the community area.

### CPA 3.2: Grow Economic Opportunities and Competitiveness

(a) Continue to improve transportation and utilities infrastructure, including streetscape beautification projects; that support the needs of existing businesses, in places like the Upper Crossroads rural village.

(b) Partner with community groups for maintaining consistent economic development initiatives.

### CPA 3.3: Revitalize Existing Communities

(a) Encourage a public-private partnership at the Cheyenne and Fallston Park and Ride facilities, which allows a business to operate a retail establishment, in return for maintaining the facilities.

(b) Support small business development that fills retail gaps and revitalizes the Upper Crossroads rural village.

(c) Update the Rural Village Study, to assess Upper Crossroads specific conditions and needs.

## ENVIRONMENTAL STEWARDSHIP

*Environmental Stewardship* includes developing management strategies within the Winters Run watershed to help protect and improve the quality of the drinking water for some of the neighborhoods within the community area. It also includes protecting the three state designated trout streams, noted for their high quality water and pristine wildlife habitat, through the development of a Green Infrastructure Plan. Since the area is predominantly agricultural, best management practices for soil and water conservation plans will be critical to helping maintain the quality of life of the citizens in this community area.

### CPA 3.4: Protect and Restore Environmentally Sensitive Areas

(a) Prepare a Green Infrastructure Plan and identify the main components of the system within the community area, such as Winters Run and Little Gunpowder Falls. The plan will

help provide policy direction to minimize the impacts of new development, as well as, focus restoration efforts.

(b) Require the use of innovative designs and best management practices for development within Tier II watersheds, such as Winters Run and Little Gunpowder Falls. These are the highest quality waters in the State of Maryland.

(c) Identify and preserve high value land, and create incentives for homeowners to reforest and restore their property.

(d) Improve outreach to homeowners with rare, threatened, or endangered species on their properties, and encourage the development of cooperative management plans.

Fallston has three state designated trout streams that all feed into the Little Gunpowder Falls.

### CPA 3.5: Preserve Water Resources

(a) Implement the pertinent recommendations of the Source Water Protection Plan for the Bel Air, Maryland Public Water System within the Winters Run watershed.

(b) Connect septic system areas, where they would be better served by public sewer, and prioritize Bay Restoration Funds for new and replacement BAT septic systems that are located within either 1,000 feet of perennial streams or the Green Infrastructure Network.

### CPA 3.6: Adequate Stormwater Management

(a) Increase the tree canopy throughout the community area. Partner with various agencies, public and private, to increase the tree canopy in appropriate open spaces.

(b) Increase water quality monitoring by training citizen or school groups. Focus on measuring the effectiveness of local restoration practices.

### CPA 3.7: Natural Resource Management

(a) Improve outreach and incentives for farmers to create riparian forest buffers along streams and wetlands.

(b) Foster the innovative use of alternative energy sources at community facilities, ensuring the applications are also sensitive to the environment.

## PRESERVING OUR HERITAGE: HISTORIC PRESERVATION

*Preserving Our Heritage* supports the promotion and preservation of the agricultural industry within the Fallston Community Area. Efforts should be made to connect food producers with the local food markets within the more urbanized areas of the region, as well as, create additional farm stands throughout the community area. Likewise, historic preservation is geared towards deciding what's important, figuring out how to protect it, and preserving an appreciation of what is saved for the future generations.

### CPA 3.8: Protect Historic and Cultural Resources

(a) Identify and address where possible, threatened or endangered historical and/or cultural resources, deemed to be of exceptional value and significance to the community.

(b) Consider developing educational programs to help increase awareness and appreciation of the community's significant historic and/or cultural resources.



*The Little Falls Meetinghouse is listed on the National Register of Historic Places.*

(c) Promote the historic tax credit program and highlight demonstration projects that can be an effective economic stimulant in the community area.

### CPA 3.9: Educate and Connect With Broader Audiences

(a) Support heritage tourism initiatives throughout the community area, promoting heritage areas, parks, rural view sheds, and greenways.

## PRESERVING OUR HERITAGE: LAND PRESERVATION

### CPA 3.10: Protect Agricultural and Natural Resources

(a) Investigate expanding the Priority Preservation Area and Rural Legacy Areas, to acquire more easements in the northern portion of the community area.

### CPA 3.11: Educate and Connect With Broader Audiences

(a) Conduct workshops on the adaptive reuse and educational values of barns, gristmills, and other significant structures.

(b) Expand the marketing program to support locally grown agricultural products.

## MOBILITY AND CONNECTIVITY

*Mobility and Connectivity* seeks to establish ways in which to create a strong sense of community by focusing on integrating transportation planning with housing, land use, economic development, and environmental goals. It includes recognizing all the users of streets, such as bicyclists and pedestrians, as well as, farm equipment and commuter cars, and creating shared use paths along high volume roads. These sorts of enhancements, coupled with traffic calming techniques and innovative development practices within the Upper Crossroads rural village, can help to improve citizens quality of life.

### CPA 3.12: Adopt A Holistic Approach To Transportation Planning

(a) Consider public transportation service to and from the Chenowith Activity Center.

(b) Develop signage that encourages drivers to safely share the road with agricultural machinery.

### CPA 3.13: Integrate Transportation With Land Use Planning

(a) Provide greenway trails to connect communities to nearby parks and schools.

(b) Implement the pertinent recommendations of the Maryland Scenic Byway Management Plan, as the community area is traversed by the Horses and Hounds Scenic Byway. MD 146 can become a focal point for greenways and other streetscape beautification projects in the future.

### CPA 3.14: Expanded Network of Safe Bicycle And Pedestrian Facilities

(a) Enter into agreements with state agencies and utility companies to allow rights-of-way under their control to be used for trails.

## PROMOTING HEALTHY COMMUNITIES

*Promoting Healthy Communities* aims to improve the physical and social environments found throughout the community area. The goal is to maintain the health, safety, and welfare of the citizens in the Fallston Community Area.

### CPA 3.15: Foster Healthy Lifestyles and Active Living For All Harford County Residents

(a) Work with schools to encourage more walkable school sites.

### CPA 3.16: Provide Access To Healthy Food Choices For All Harford County Residents

(a) Identify appropriate sites for farmer's markets, encourage community-supported agriculture (CSA), and prioritize those uses in the appropriate locations.

(b) Partner with Healthy Harford and Harford County Public Schools to promote the importance of farms and eating locally sourced foods.

(c) Support strategies that capitalize on the mutual benefit of connections between rural economies as food producers and urban economies as processors and consumers. The Fallston Community Area should seek to further connect their food producers with the local food markets within the more urbanized areas of the region.




# GREATER BEL AIR/EMMORTON/ FOREST HILL

## LAND USE CHARACTERISTICS

This area contains 30,400 acres, or 13.1 percent of Harford's total land area.

Residential land uses make up 38.8 percent (11,784 acres)

Other major land uses are parks/open space (14.6 percent, 4,442 acres); commercial (3.5 percent, 1,077 acres); institutional (2.9 percent, 882 acres); transportation/utilities (1.0 percent, 293 acres); industrial (0.5 percent, 178 acres).

## DEMOGRAPHIC PROFILE

### Population

Population: 92,158

Median Age: 39.6

Age Composition: 31 percent of residents are between the ages of 20 and 44.

### Housing

Total Households: 33,832

Median Home Value: $289,016

Monthly Median Rent: Median Monthly Rent $1,024

Tenancy: Owner occupied 84 percent. Renter occupied 16 percent.

### Income

Median Household Income: $89,770

### Employment

Total Jobs: 38,589

Total Labor Force: 52,857

## TRENDS AND KEY ISSUES

### Transportation

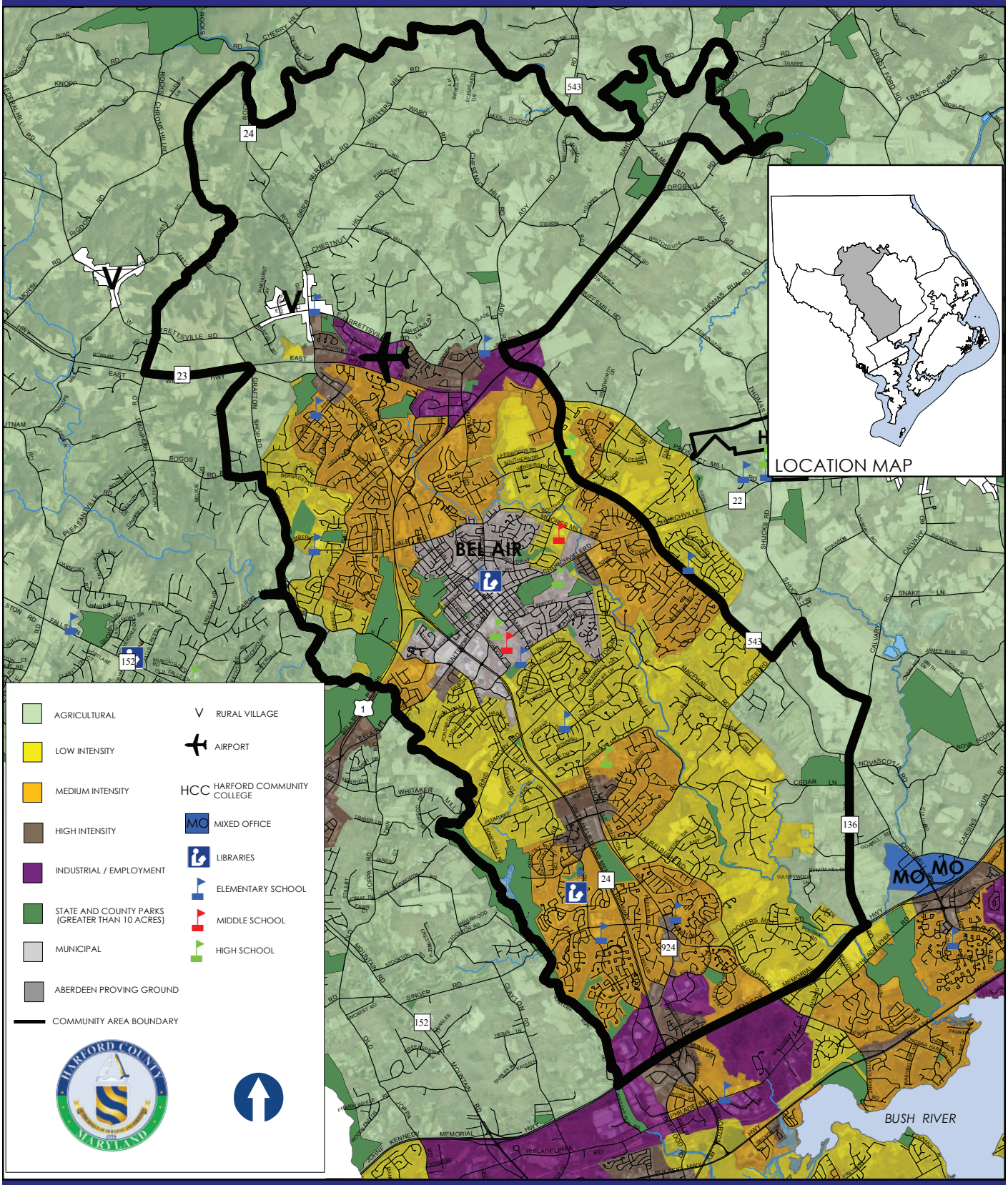
The US 1 / MD 22 Multi-modal Corridor Study was completed in July, 2015 and proposes a range of bicycle-pedestrian, roadway, and intersection improvements that will enhance safety and traffic movement in this area.

The MD 924 Corridor Study, currently underway, is expected to be completed in 2016 and will generate a range of recommendations from signage to intersection improvements in the greater Bel Air area road network.

### Employment

Upper Chesapeake Health System is the largest employer (3,129) in the area and the second largest employer in Harford County.

# GREATER BEL AIR



## Location and Context

The Greater Bel Air Community Area forms the heart of Harford County. It has a mix of land uses and is generally higher in intensity, except for the northern portion near Deer Creek, which is primarily agricultural. The area has developed outward from the Town of Bel Air into a number of suburban developments and includes the distinct communities of Forest Hill, Emmorton, and Abingdon. Some of the County's well known historic landmarks are found in Bel Air, such as the County Courthouse and the Liriodendron, which is part of the Heavenly Waters Park system. Future growth in this community area will be primarily limited to redevelopment.

Over 60% of the community area is located within the County's Development Envelope. Forest Hill began as rural crossroad community that grew with the construction of the Ma and Pa railroad. The railroad station, which is still visible today, is a historic landmark that accentuates the character of the rural village of Forest Hill. During the latter half of the 20th Century, Forest Hill experienced significant residential and commercial growth, especially along the MD 24 corridor and Jarrettsville Road with the development of the Forest Hill Industrial Airpark.

Emmorton started as a rural village in the 1800's, but given its location within the core of the Development Envelope, now includes a mix of housing types and retail centers. The Emmorton Recreation Center includes the main tennis facility for the County and offers a diversity of programs for neighborhood residents to participate in. The recent development of the Boulevard at Box Hill provides a regional retail center that attracts shoppers from all corners of the County and beyond.

## Development and Infill Potential

There are a number of opportunities for infill development throughout the Community Area, and these will help to further define the sense of the Greater Bel Air community. The County can prioritize infrastructure upgrades that support infill and mixed-use development.

## Community Assessment

Public input was gathered as part of the planning process for HarfordNEXT and an analysis of opportunities and challenges was performed for the Greater Bel Air Community Area, in order to provide a baseline for prioritizing goals and objectives. Ultimately, the community will play a critical role in determining the most effective strategies for implementation. Some opportunities for the Greater Bel Air Community Area include its centralized location, attractive gateways into the Town of Bel Air, and the popular Ma and Pa Trail. These factors can be viewed as strengths that can be built upon to enhance citizen's quality of life. Some of the challenges for the Greater Bel Air Community Area include retrofitting outdated storm water management facilities, providing adequate drinking water supply, and softening the footprint of existing development. These tasks can be viewed as priorities for restoration activities and focusing volunteer efforts. Each of the themes developed in HarfordNEXT provide implementation strategies that can be addressed with greater detail when looking at the community level.

## GROW WITH PURPOSE

*Grow With Purpose* aims to address how the Greater Bel Air Community Area can redevelop and evolve sustainably over time. Decisions will need to be made about how the community functions and where it focuses infill development efforts, with the ultimate goal of locating or enhancing infrastructure improvements in well-designed neighborhood centers and commercial corridors.

### CPA 4.1: Livable Communities

(a) Create a mixed use center along I-95 near MD 24, and include form-based codes to enhance the design of the development.

### CPA 4.2: Maintain and Enhance Public Facilities and Infrastructure

(a) Expand programming at different community facilities, like the McFaul Activity Center. Offer programs related to business development, continuing education, and fitness classes, and make the spaces available for community events.

(b) Work with key property owners to develop redevelopment strategies on gateway properties into this community area.

## ECONOMIC VITALITY

*Economic Vitality* recognizes that a diverse and vibrant economy is an integral component of making the Greater Bel Air Community Area a successful community. Being the central location for Harford County, this community has the potential to become the region's "food hub". Infrastructure improvements, design guidelines, and mixed use developments, can help to stimulate economic activity in strategic areas of the community.

### CPA 4.3: Grow Economic Opportunities and Competitiveness

(a) Provide infrastructure improvements, such as streetscape beautification projects, in order to help stimulate economic development in select job centers and corridors, and support the needs of existing and potential businesses.

### CPA 4.4: Revitalize Existing Communities

(a) Work with MTA to create public-private partnerships at the four Park and Ride facilities that allow a business to operate a retail establishment, in return for maintaining the facility.

(b) Perform a study of the commercial centers and corridors throughout the community area, to assess their specific conditions and needs.

(c) Provide incentives for good design by creating a grant program where citizen groups can apply for building and infrastructure improvements to enhance their respective neighborhoods.

## ENVIRONMENTAL STEWARDSHIP

*Environmental Stewardship* includes developing management strategies within the Winters Run watershed to help protect and improve the quality of the drinking water for the Town of Bel Air and other neighborhoods within the community area. It also includes softening the footprint of existing development by considering conservation landscaping techniques and rain gardens to help treat storm water runoff at the source, particularly the commercial centers that contain large areas of impervious surface.

### CPA 4.5: Protect and Restore Environmentally Sensitive Areas

(a) Implement projects identified in the 2008 Wheel Creek and 2011 Plumtree Run Small Watershed Action Plans, and consider new studies.

(b) Identify and preserve ecologically rich land, and focus appropriate restoration management strategies where necessary.



*Stormwater projects at Hickory Elementary School are vital to improving water quality.*

### CPA 4.6: Preserve Water Resources

(a) Implement the pertinent recommendations of the Source Water Protection Plan for the Bel Air, Maryland Public Water System.

### CPA 4.7: Adequate Stormwater Management

(a) Evaluate parking requirements and provide incentives for reducing parking, particularly large retail along MD 24, MD 924, US 1, and MD 22. Require more landscaping with native plants to soften the development footprint in the landscape.

(b) Partner with various public and private agencies to increase the tree canopy throughout the community area, with a particular emphasis on open spaces.

(c) Inspire and empower citizen groups to acquire grants for installing demonstration projects related to stormwater best management practices, such as rain barrels, rain gardens, and conservation landscaping. Partner with Parks and Rec, DPW, and HCPS to create demonstration projects as well. Establish a rain barrel incentive program.



*Arbor Day tree planting events engage and educate citizens on the benefits of trees.*

### CPA 4.8: Outreach and Education

(a) Engage citizens about sustainability efforts, including outreach to Bel Air middle and high schools, and home and business owners.

### CPA 4.9: Natural Resource Management

(a) Partner with the Town of Bel Air to foster the innovative use of alternative energy sources at community facilities, while ensuring the applications are sensitive to the environment.

## PRESERVING OUR HERITAGE: HISTORIC PRESERVATION

*Preserving Our Heritage* supports the promotion of the agricultural industry within the Greater Bel Air Community Area. Efforts should be made to continue the marketing campaigns of County grown agricultural and

natural resource products. Likewise, historic preservation is geared towards deciding what's important, figuring out how to protect it, and preserving an appreciation of what is saved for the future generations.

### CPA 4.10: Protect Historic and Cultural Resources

(a) Identify and address where possible, threatened or endangered historical and/or cultural resources, deemed to be of exceptional value and significance to the community.

(b) Develop educational programs to help increase awareness and appreciation of the community's significant historic and/or cultural resources.

### CPA 4.11: Educate and Connect With Broader Audiences

(a) Support heritage tourism initiatives associated with the Ma and Pa Trail. Promote heritage areas, parks, greenways, and rural view sheds in the northern portion of the community area.

## MOBILITY AND CONNECTIVITY

*Mobility and Connectivity* seeks to establish ways in which to create a strong sense of community by focusing on integrating transportation planning with housing, land use, economic development, and environmental goals. It includes recognizing all the users of streets, such as bicyclists, pedestrians, and transit riders, in addition to cars, and creating streetscape beautification projects where appropriate. These sorts of enhancements, coupled with traffic calming techniques and innovative development practices, can help lead to a decrease in traffic congestion.

### CPA 4.12: Adopt A Holistic Approach To Transportation Planning

(a) Identify road corridors for right-of-way preservation and develop a corridor capacity management program for widening or construction of parallel shared use paths throughout the community area.

(b) Implement the pertinent recommendations of the MD 924 and the Business US 1 & MD 22 Corridor Studies.

### CPA 4.13: Integrate Transportation With Land Use Planning

(a) Prioritize streetscape beautification projects in the commercial centers and corridors throughout the community area. Partner with the Town to establish standards for streetscape amenities, which include crosswalks, pedestrian scaled lighting, benches, planter boxes, street trees, kiosks, trash receptacles, bicycle parking, public art, uniform building facades, wayfinding signage, and awnings where appropriate.

(b) Require walkability and bicycling designs as part of the development review process, to ensure walking/biking is a safe and convenient option, and provide connections to transit wherever possible.

(c) Acquire easements for greenways to connect neighborhoods to nearby parks and schools, and partner with other public agencies and utility companies to use their easements.



*Roads designed to accommodate all users, including bicyclists and pedestrians are an asset to the community.*

### CPA 4.14: Expanded Network of Safe Bicycle And Pedestrian Facilities

(a) Prioritize the creation of pedestrian links for new or reconstructed sidewalks.

(b) Require developers to establish bicycle and pedestrian facilities, including bicycle parking within nonresidential developments.

(c) Explore new crossing opportunities across I-95 for bicyclists and pedestrians.

### CPA 4.15: Safe, Efficient, and Convenient Transit Services

(a) Provide amenities at bus stops to make them inviting as a mode choice. Bus stops should be accessible and include signage, lighting, landscaping, and benches.

(b) Provide bus service to and from key commercial centers.

(c) Improve intermodal connectivity by providing bus service to the four Park and Ride lots found in the community area.

(d) Partner with MDOT to identify a location for a new Park and Ride facility within the MD 924 corridor. Consider a location within an existing shopping center with a surplus of parking spaces.

(e) Partner with Harford Transit to perform a ridership improvement study to prioritize future outreach efforts and bus stop locations within the community area.

### CPA 4.16: Expand Transportation Demand Management (TDM)

(a) Continue to pursue funding for the Safe Routes to School Program and work to implement a program for each elementary and middle school in the community area. Encourage these schools to provide educational programs that support walking and its health benefits.

## PROMOTING HEALTHY COMMUNITIES

*Promoting Healthy Communities* aims to improve the physical and social environments found throughout the community area. It includes working with institutions such as the Community Advisory Boards, schools, and churches to help address particular health issues of concern. The goal is to maintain the health, safety, and welfare of the citizens in the Greater Bel Air Community Area.

### CPA 4.17: Foster Healthy Lifestyles and Active Living For All Harford County Residents

(a) Encourage the schools to make their campuses more walkable.

(b) Perform walkability audits to identify inconvenient or dangerous routes to schools and recreational facilities, and prioritize the necessary infrastructure improvements.

(c) Use traffic calming techniques such as medians, refuges, street trees, and on-street parking to improve street safety and access, and these facilities as part of new development or redevelopment.

(d) Reduce parking requirements for development near major transit hubs.

### CPA 4.18: Provide Access To Healthy Food Choices For All Harford County Residents

(a) Identify potential community garden sites on existing parks. Establish a community garden program with the Town of Bel Air.



# ABERDEEN/BUSH RIVER/ HAVRE DE GRACE

## TRENDS AND KEY ISSUES

### Population

The population of the area is projected to grow by 38 percent between 2013 and 2040.

### Employment

Aberdeen Proving Ground is the single largest employer in Harford County with over 24,000 employees.

The total employment for the Aberdeen/Bush River/ Havre de Grace area and APG combined contains 44 percent of all Harford County jobs.

## LAND USE CHARACTERISTICS

This area contains 32,225 acres, or 13.9 percent of Harford's total land area.

Agricultural land uses comprise the majority of this area with 35.9 percent or 11,557 acres.

Residential land uses make up 18.8 percent (6,736 acres)

Other major land uses are parks/open space (15.6 percent, 5,018 acres); industrial (6.5 percent, 2,099 acres); transportation/utilities (5.6 percent, 1,812 acres); commercial (2.7 percent, 883 acres), and institutional (2.4 percent, 767 acres).

## DEMOGRAPHIC PROFILE

### Population

Population: 54,552

Median Age: 38.5

Age Composition: 34 percent of residents are between the ages of 20 and 44.

### Housing

Total Households: 21,422

Median Home Value: $239,867

Monthly Median Rent: $835

Tenancy: Owner occupied 72 percent. Renter occupied 28 percent.

### Income

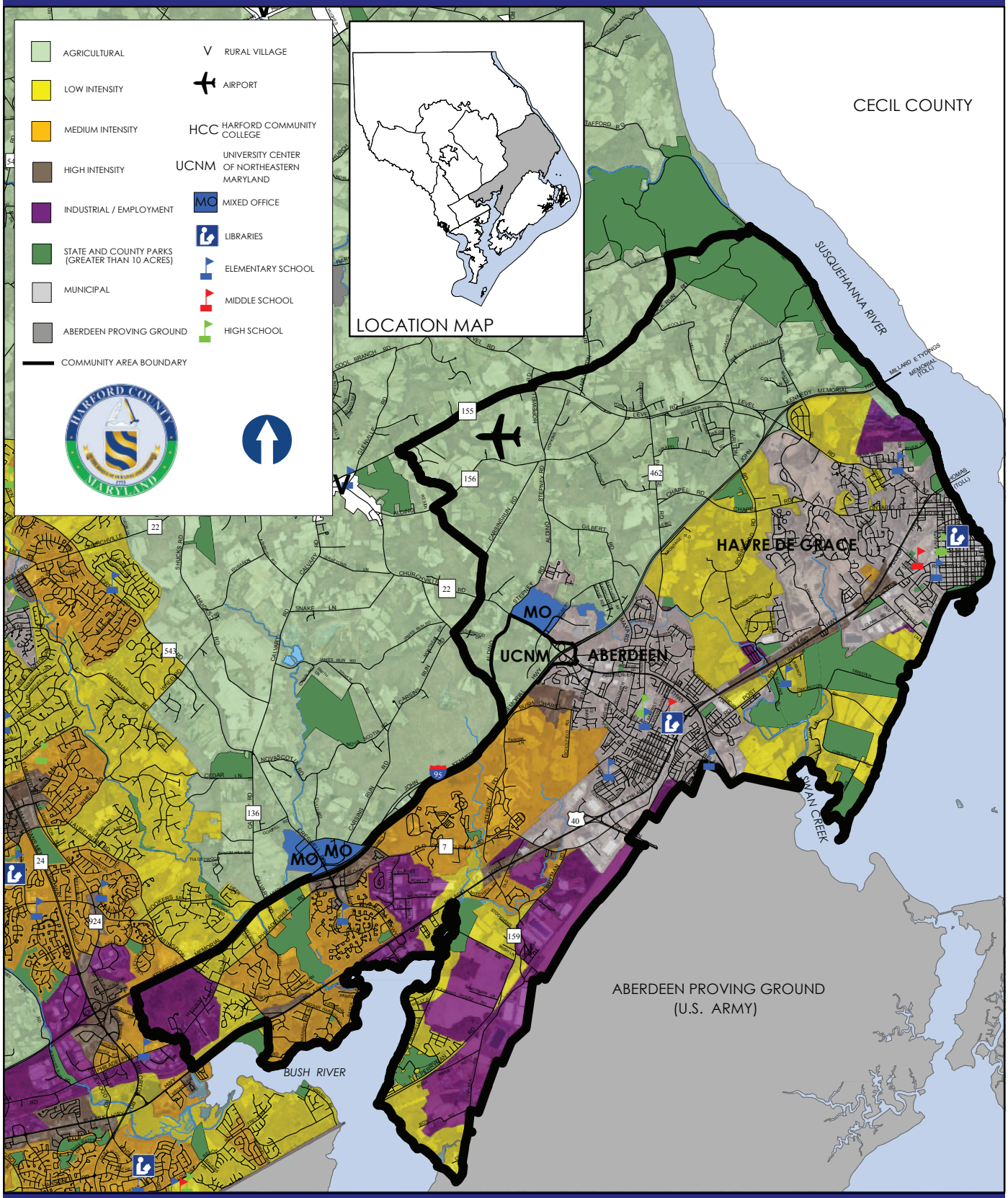
Median Household Income: $66,494

### Employment

Total Jobs: 24,680 and an additional 24,403 jobs located on Aberdeen Proving Ground (APG).

Total Labor Force: 31,421

# ABERDEEN/BUSH RIVER/HAVRE DE GRACE



## Location and Context

The Greater Aberdeen/Bush River/Havre de Grace Community Area is primarily located along the waterfront in Harford County. It has a mix of land uses and is generally higher in intensity. The area has developed outward from the Cities of Havre de Grace and Aberdeen into a number of suburban developments. Most of the community area is located inside the Development Envelope. However, agriculture (35.9%) and Parks/Open Space (15.6%) make up the primary land uses.

Havre de Grace came of age during the nation's Federalist Era and includes many fine examples of the early architectural building styles. Virtually the entire downtown area is listed as a historic district on the National Register of Historic Places. Aberdeen's origins can be traced back to the mid-19th century with the advent of the canning industry. Abundant fertile farmland and access to the railroad allowed the canning industry to flourish into the early 20th century. The era of the canning industry came to an end with the federal government's acquisition of thousands of acres in the area for the development of the Aberdeen Proving Ground military base. In Bush River, the Perryman Peninsula has a rich history dating back to the 1600s and was noted for its corn and tomato canning. Riverside was built as a planned mixed use development on The Bata Shoe Company land at Belcamp, and has residential, commercial, and industrial components.

## Development and Infill Potential

Opportunities for infill development exist throughout this community area, particularly along the US 40 corridor, the MD 22 corridor, the MD 7 corridor, and within the Perryman Peninsula. The Aberdeen Train Station and the neighborhood adjacent to it have been designated by the State of Maryland as a Transit Oriented Development area. In addition, the US 40 corridor is part of the designated Chesapeake Science and Security Corridor. The Greater Aberdeen/Havre de Grace Enterprise Zone includes land adjacent to the US 40 corridor, as well as land in Perryman, within the municipalities, and at the I-95 interchanges with MD 22 and MD 155.

## Community Assessment

Department staff solicited public input in order to develop an analysis of opportunities and challenges for the Greater Aberdeen/Bush River/Havre de Grace Community Area. The Areas residents and business owners will play a critical role in determining the most effective implementation strategies to realize the goals for their community. These specific goals can be determined through a partnership between the Department of Planning and Zoning and the community to develop a Community Area Plan.

There are many opportunities along the US 40 corridor to target redevelopment and revitalization efforts. The Lower Susquehanna Heritage Greenway also presents numerous opportunities to expand recreation and tourism in the area. This Community Area also faces challenges such as potential sea level rise, traffic congestion, disinvestment along the US 40 corridor, and aging infrastructure. The themes within HarfordNEXT provide a variety of implementation strategies to address these challenges.

## GROW WITH PURPOSE

*Grow With Purpose* aims to address how the Greater Aberdeen/Bush River/Havre de Grace Community Area can redevelop and evolve sustainably over time. Infill development opportunities exist along the US 40, MD 22, and MD 7 corridors. The County should ensure that all new development adequately addresses traffic concerns. The Chesapeake Science and Security Corridor (CSSC) designation brings development incentives to this community area.

### CPA 5.1: Livable Communities

(a) Create mixed-use centers at the I-95/ MD 22 interchange and the I-95/MD 155 interchange, with designs based on formed based code.

### CPA 5.2: Maintain and Enhance Public Facilities and Infrastructure

(a) Expand programming at different community facilities, like the Havre de Grace Activity Center. Offer programs related to business development, continuing education, and fitness classes, and make the spaces available for community events.

(b) Ensure that technological demands are met within this community area including broadband network expansion, reliable high speed cellular data, and improved cellular communication.

### CPA 5.3: Strengthen Communities

(a) Target US 40 and Perryman for redevelopment/revitalization with façade improvements, streetscape improvements, land banking, and mixed-use developments.

(b) Create a neighborhood indicators tracking system for tracking the health and stability of various neighborhoods in the community area.

(c) Initiate a US 40 Corridor Plan targeting economic development opportunities which improve access to employment and housing.

(d) Identify areas with high rates of vacant buildings and create strategies for their reuse.

(e) Reuse accessible vacant lots as community gardens, pocket parks, plazas, and farmer's markets.

### CPA 5.4: Ensure A Range Of Housing Opportunities For All Citizens

(a) Adopt policies for this community area which promote the creation of live-work units and accessory dwelling units within the US 40 corridor.

(b) Foster inclusive communities free from barriers that restrict access to opportunities based on protected characteristics.

## ECONOMIC VITALITY

*Economic Vitality* recognizes that a diverse and vibrant economy is an integral component of making the Greater Aberdeen/Bush River/Havre de Grace Community Area a successful community. This area continues to grow due its convenient access to jobs and transportation facilities such as the MARC line. Recognizing the advantageous location and redevelopment opportunities along the US 40 Corridor, the County's Office of Economic Development initiated the Ground Floor, which is a collaborative workspace designed for community entrepreneurs and start-up businesses. Growth within this area has been focused around the municipalities and within the Development Envelope. Infrastructure improvements, design guidelines, and mixed-use developments, should continue to be focused on the redevelopment of the US 40 corridor, whose long-term health and viability are critical to the economic success of the County.

### CPA 5.5: Grow Economic Opportunities and Competitiveness

(a) Provide infrastructure improvements, such as streetscape beautification projects, in order to help stimulate economic development in select job centers and corridors, and support the needs of existing and potential businesses.

(b) Land bank available land within this community area for future commercial development.

(c) Create a tiered incentive program that provides incentives for developers who choose to utilize innovative development practices.

### CPA 5.6: Revitalize Existing Communities

(a) Create public-private partnerships at the five Park and Ride facilities that allow a business to operate a retail establishment, in return for maintaining the facility.

(b) Perform a study of the commercial centers and corridors throughout the community area, such as US 40, MD 22, and MD 7, to assess their specific conditions and needs.

(c) Establish and implement PUD (planned unit development) zoning within targeted redevelopment areas within the community area.

(d) Support small business development within this community area that fills retail gaps and revitalizes neighborhoods.

(e) Inventory vacant and underutilized land to find opportunities for property assembly along the US 40 corridor.

(f) Explore commercial revitalization programs that provide grants or low interest rate loans for façade improvements and renovation.

### CPA 5.7: Ensure and Promote a Skilled Workforce That Will Attract Businesses

(a) Partner local businesses with Aberdeen and Havre de Grace middle and high schools and the University Center of Northeastern Maryland, to develop comprehensive job readiness programs that aim to prepare students to enter the workforce.




*The Harford Community College and Towson 2+2 program and University Center of Northeastern Maryland will train the next generations workforce.*

## ENVIRONMENTAL STEWARDSHIP

*Environmental Stewardship* includes planning for potential sea level and managing shoreline erosion related to storm surges. The Perryman Wellfield supplies about one-quarter of the County's public drinking water supply. This resource should continue to be protected from potential sources of groundwater contamination.

### CPA 5.8: Protect and Restore Environmentally Sensitive Areas

(a) Prepare a Green Infrastructure Plan and identify the main components of the system, such as the Oakington Peninsula, Grays Run, and Swan Creek watersheds. The plan will help provide policy direction to minimize the impacts of new development, as well as, focus restoration efforts.

(b) Investigate grants to help protect public infrastructure from flood damage, which includes 16 sewage pumping stations and the Sod Run Waste Water Treatment Plant in the community area.

(c) Implement projects identified in the 2014 Declaration Run and 2014 Riverside Area Small Watershed Action Plans, and consider new studies.

(d) Identify and preserve ecologically rich land, and focus appropriate restoration management strategies where necessary.

### CPA 5.9: Preserve Water Resources

(a) Connect septic system areas, where they would be better served by public sewer, and prioritize Bay Restoration Funds for new and replacement BAT septic systems that are located within either 1,000 feet of perennial streams or the Green Infrastructure Network.

### CPA 5.10: Adequate Stormwater Management

(a) Evaluate parking requirements and provide incentives for reducing parking, particularly large retail along US 40, MD 22, MD 7, and MD 155. Require more landscaping with native plants to soften the development footprint in the landscape.

(b) Partner with various public and private agencies to increase the tree canopy throughout the community area, with a particular emphasis on open spaces.

### CPA 5.11: Outreach and Education

(a) Engage citizens about sustainability efforts.

(b) Engage school aged children through outreach at Havre de Grace and Aberdeen middle and high schools.

### CPA 5.12: Natural Resource Management

(a) Partner with the Cities of Havre de Grace and Aberdeen to foster the innovative use of alternative energy sources at community facilities, while ensuring the applications are sensitive to the environment.

(b) Explore coastal resiliency strategies and hazard mitigation opportunities. Identify forests, wetlands, and aquatic resources for future wetland migration, to help mitigate the potential impacts of sea level rise.



*Concord Point Lighthouse is a landmark that continues to stimulate tourism in Havre de Grace.*

## PRESERVING OUR HERITAGE: HISTORIC PRESERVATION

*Preserving Our Heritage* supports the agricultural industry within the Greater Aberdeen/Bush River/Havre de Grace Community Area. Even with two municipalities and the location of this community area being mostly inside the County's Development Envelope, the land use remains mostly agricultural. Efforts should be made to connect food producers with the local food markets within the more urbanized areas of the region, as well as, create additional farm stands throughout the more rural portions of the community area. Likewise, historic

preservation is geared towards deciding what's important, figuring out how to protect it, and preserving an appreciation of what is saved for future generations.

### CPA 5.13: Protect Historic and Cultural Resources

(a) Identify and address where possible, threatened or endangered historical and/or cultural resources, deemed to be of exceptional value and significance to the community.

(b) Consider developing educational programs to help increase awareness and appreciation of the community's significant historic and/or cultural resources.



*The preservation of historic resources such as the Rock Run Grist Mill provide a direct link to the County's past.*

### CPA 5.14: Educate and Connect With Broader Audiences

(a) Support heritage tourism initiatives associated with the Lower Susquehanna Heritage Greenway. Promote heritage areas, parks, greenways, and rural view sheds in the northern and waterfront portions of the community area.

## PRESERVING OUR HERITAGE: LAND PRESERVATION

### CPA 5.15: Protect Agricultural and Natural Resources

(a) Work with the US Army's easement program to preserve land close to APG.

(b) Acquire more agricultural easements in the northern portion of the community area.

(c) Preserve the historic canning factory buildings in Perryman and Aberdeen. Prioritize these structures for adaptive reuse and help to secure grant funding.

## MOBILITY AND CONNECTIVITY

*Mobility and Connectivity* seeks to create a strong sense of community by focusing on integrating transportation planning with housing, land use, economic development, and environmental goals. The community area is a transportation hub for Harford County and is served by the MARC train, Amtrak, an MTA commuter bus, Harford Transit LINK, five park and ride lots, a state designated bicycle route, and the Lower Susquehanna Heritage Greenway. Continuing to recognize all the users of streets, such as bicyclists, pedestrians, and transit riders, in addition to cars, and creating streetscape beautification projects where appropriate, will help to improve citizen's quality of life.

### CPA 5.16: Adopt A Holistic Approach To Transportation Planning

(a) Preserve existing Right-of-Way along major roadways such as US 40, MD 22, MD 7 and MD 155, for future expansion or separated shared use facilities.

(b) Continue to implement the pertinent recommendations from the MD 22 Corridor Study, such as the HOV lane from MD 132 to APG.

(c) The Community Area contains the most industrial land in Harford County. Therefore, it is important that the safe and efficient movement of freight is prioritized. Construct the freight traffic road in Perryman with a connection to MD 715, as a safer and more efficient movement of truck traffic, taking into account the sensitive environmental resources in the area.

(d) Work with MDOT to locate overnight truck parking at the existing Riverside Park and Ride Lot on MD 7 at MD 543, near the I-95 interchange.

### CPA 5.17: Integrate Transportation With Land Use Planning

(a) Prioritize streetscape beautification projects and implement the pertinent recommendations of the MD 22 Corridor Study and the US 40 Green Boulevard adjacent to the Aberdeen Train Station.

(b) Acquire easements for greenways to connect neighborhoods to nearby parks and schools, and partner with other public agencies and utility companies to use their easements. Construct sidewalks and bike lanes to improve access to transit.

(c) Improve access to the waterfront throughout this community area and continue making the regional connections for the Lower Susquehanna Heritage Greenway.

(d) Promote green building standards and infill development along the US 40 corridor and install EV charging stations at the five Park and Ride facilities within this community area.

### CPA 5.18: Expanded Network of Safe Bicycle And Pedestrian Facilities

(a) Require developers to establish bicycle and pedestrian facilities, including bicycle parking within nonresidential developments, and implement the street connectivity policy in the subdivision code.

(b) Work with the Cities of Havre de Grace and Aberdeen to identify locations to create seasonal car-free zones as pedestrian malls, bicycle boulevards, and cyclovia events. Cyclovia events are also referred to as "Open Streets", where major streets are temporarily closed to car traffic and are converted into safe, open, car-free environments for families to run, bike, play, and be well together.

### CPA 5.19: Safe, Efficient, and Convenient Transit Services

(a) Partner with Harford Transit to perform a ridership improvement study to prioritize future outreach efforts and bus stop locations within the community area.

(b) Implement the pertinent recommendations of the Aberdeen TOD Master Plan.

(c) Operate express bus service between the municipalities and install queue jump lanes on US 40 and MD 22.

(d) Improve the Aberdeen bus circulator and provide a fixed route circulator in Havre de Grace. Provide amenities at bus stops to include signage, lighting, landscaping, and benches.

(e) Provide additional MARC and MTA Commuter Bus Service to Aberdeen, a reverse commute service from Baltimore with a direct connection to APG, and work with MTA to establish an I-95 Commuter Bus Route originating at the MD 155 Park and Ride Lot with stops at the I-95/MD 22 Park and Ride and the Riverside Park and Ride lot.

### CPA 5.20: Expand Transportation Demand Management (TDM)

(a) Continue to pursue funding for the Safe Routes to School Program and work to implement a program for each elementary and middle school in the community area. Encourage these schools to provide educational programs that support walking and its health benefits.

(b) Implement car-sharing and bike-sharing programs within the cities of Havre de Grace and Aberdeen, as well as, at APG.

(c) Attract APG shuttle service to connect commuters from the Aberdeen Train Station to APG.

## PROMOTING HEALTHY COMMUNITIES

*Promoting Healthy Communities* aims to improve the physical and social environments found throughout the community area. It includes working with institutions such as the Community Advisory Boards, schools, churches, and the cities of Havre de Grace and Aberdeen, to help address particular health issues of concern. The goal is to maintain the health, safety, and welfare of the citizens and enhance their quality of life.

### CPA 5.21: Foster Healthy Lifestyles and Active Living For All Harford County Residents

(a) Encourage the schools to make their campuses more walkable.

(b) Perform walkability audits to identify inconvenient or dangerous routes to schools and recreational facilities, and prioritize the necessary infrastructure improvements to ensure connectivity.

(c) Use traffic calming techniques such as medians, refuges, street trees, and on-street parking to improve street safety and access, and require developers to build these facilities as part of new development or redevelopment.

### CPA 5.22: Provide Access To Healthy Food Choices For All Harford County Residents

(a) Identify potential community garden sites on existing parks, public easements, schools, and churches. Establish a community garden program with the cities of Havre de Grace and Aberdeen. Work with the Department of Parks and Recreation and other community groups to provide classes on gardening and composting.

(b) Encourage creation of farmers markets and community-supported agriculture (CSA) and offer gardening and composting classes for residents.

(c) Promote grocery store access in the appropriate places and coordinate with local transit agencies to develop routes that connect residents to health service facilities.

### CPA 5.23: Support Efficient and Effective Delivery of Health and Social Services Throughout Harford County

(a) Target new affordable housing for existing residents to maintain neighborhood continuity.

(b) Support community policing, neighborhood watch, and walking/biking police patrols that engage residents of this community.



# JOPPA/JOPPATOWNE

## LAND USE CHARACTERISTICS

This area contains 10,005 acres, or 4.3 percent of Harford's total land area.

Residential land uses make up 34.9 percent (3,495 acres) with rural density residential uses comprising 60 percent (2,110 acres) of the total residential uses.

Agricultural land uses comprise 29.2 percent of the area with 2,925 acres.

Other major land uses are parks/open space (16.6 percent, 1,665 acres); institutional (4.0 percent, 404); commercial (3.3 percent, 327 acres) industrial (1.6 percent, 160); transportation/utilities (2.6 percent, 260 acres).

## DEMOGRAPHIC PROFILE

### Population

Population: 15,559

Median Age: 40.7

Age Composition: 33 percent of residents are between the ages of 20 and 44.

### Housing

Total Households: 6,074

Median Home Value: $260,649

Monthly Median Rent: $1,053

Tenancy: Owner occupied 85 percent. Renter occupied 15 percent.

### Income

Median Household Income: $73,958

### Employment

Total Jobs: 2,517

Total Labor Force: 8,995

## TRENDS AND KEY ISSUES

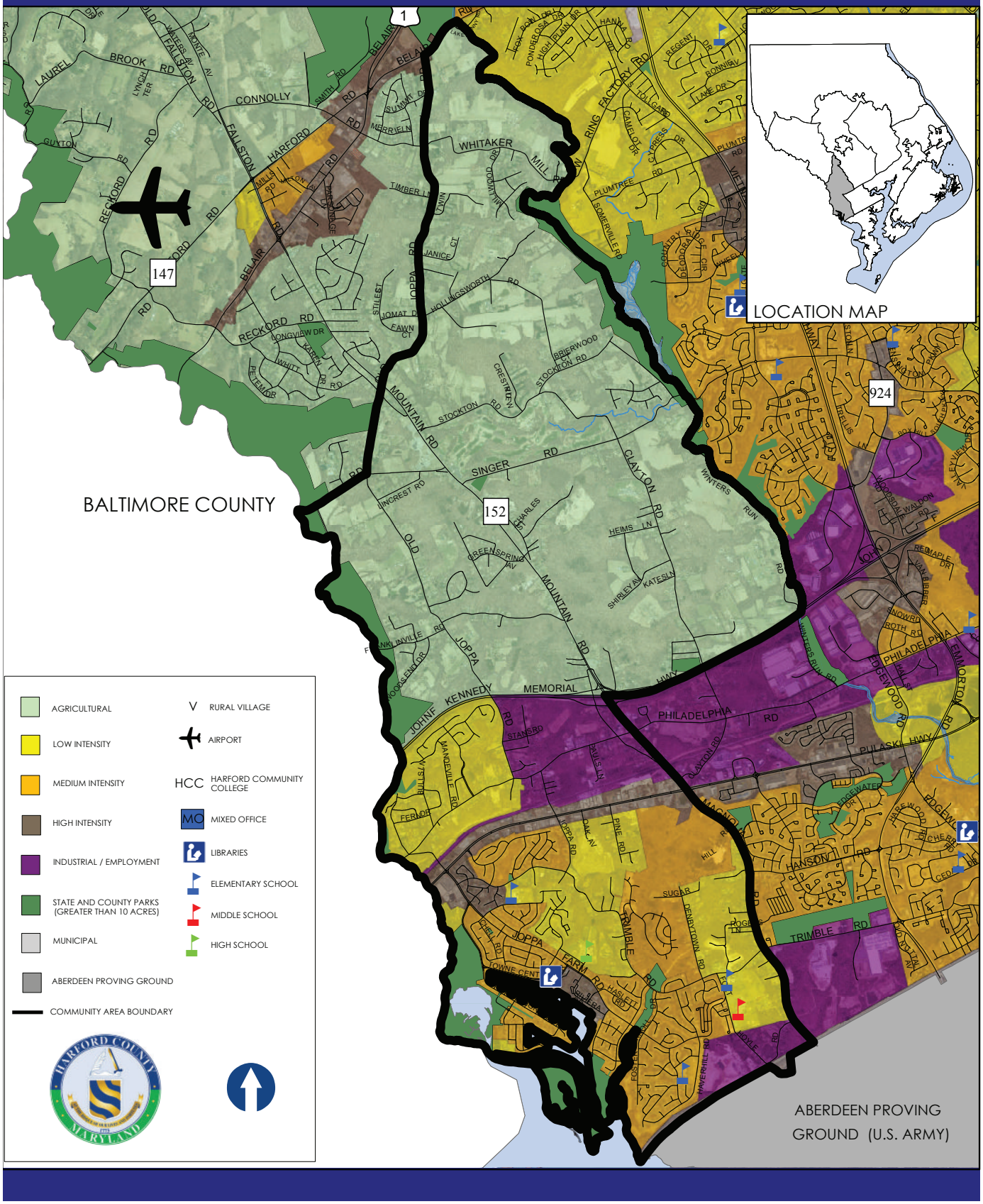
### Growth Trends

The population of the area is projected to grow by 23 percent between 2013 and 2040.

### Housing

26.6 percent of area renters' spend 50 percent or more of their household income on housing costs in 2013 compared to 22.2 percent for the County as a whole.

# JOPPA/JOPPATOWNE



## Location and Context

The Joppa Joppatowne Community Area is located in southwestern Harford County. It has a mix of land uses and is generally higher in intensity. The area originally developed around the Colonial port of Joppa, as well as, the villages associated with the many mills located along the banks of the Little Gunpowder Falls. In 1962, Joppatowne, one of the first planned unit developments in the nation, was established.

The Joppa Joppatowne Community Area is divided by I-95, with areas south of the highway located within the Development Envelope, and areas north of the highway, outside of the Development Envelope. Within the Development Envelope, there is a mix of single family, duplex, townhouse and multi-family housing communities, with the highest densities located in the Joppatowne area along the Little Gunpowder Falls. Along US 40 are various commercial retail and service businesses serving local and regional citizens. A small cluster of commercial activities can be found at the intersection of MD 7 and MD 152. Future growth in this portion of the community area will be primarily limited to infill development.

In the more rural area of Joppa, which is located outside of the Development Envelope and to the north, the primary land use designation is agricultural, with larger lot single-family housing, small farmsteads, and minimal commercial activity. Agricultural preservation efforts in this area have helped to maintain some of the area's rural character. All of the shoreline within this community area is located within the Chesapeake Bay Critical Area (CBCA). Goals of the CBCA program are to minimize adverse impacts on water quality, enhance wildlife protection, and establish land use policies for development.

## Development and Infill Potential

There are a number of opportunities for infill development throughout the southern portion of the community area, particularly targeted redevelopment areas along the US 40 and MD 7 corridors.

## Community Assessment

Public input was gathered as part of the planning process for HarfordNEXT and an analysis of opportunities and challenges was performed for the Joppa Joppatowne Community Area, in order to provide a baseline for prioritizing goals and objectives. Ultimately, the community will play a critical role in determining the most effective strategies for implementation. Some opportunities for the Joppa Joppatowne Community Area include its waterfront along the Gunpowder River, redevelopment funding availability along the US 40 corridor, and proximity to APG. These situations can be viewed as strengths that can be built upon to enhance citizen's quality of life. Some of the challenges for the Joppa Joppatowne Community Area include potential sea level rise, retrofitting outdated storm water management facilities, and softening the footprint of existing development. These tasks can be viewed as priorities for restoration activities and focusing volunteer efforts. Each of the themes developed in HarfordNEXT provide implementation strategies that can be addressed with greater detail when looking at the community level.

## GROW WITH PURPOSE

*Grow With Purpose* aims to address how the Joppa Joppatowne Community Area can redevelop and evolve sustainably over time. Infill development opportunities exist along the US 40 and MD 7 corridors. The Chesapeake Science and Security Corridor (CSSC) designation brings development incentives to this community area.

### CPA 6.1: Livable Communities

(a) Create a mixed use center along I-95 near MD 152, and include form-based codes to enhance the design of the development.

(b) Partner with the Community Advisory Board, and other interested community groups, to update the Joppa Joppatowne Community Plan, if the community so desires.

### CPA 6.2: Strengthen Communities

(a) Seek grant funding to foster redevelopment in target areas, such as US 40 and MD 7. Incentivize mixed use projects and assist property owners with land assemblage.

### CPA 6.3: Maintain and Enhance Public Facilities and Infrastructure

(a) Expand programming at different community facilities, like Joppatowne Library. Offer programs related to business development, continuing education, and fitness classes, and make the space available for community events.

### CPA 6.4: Ensure A Range Of Housing Opportunities For All Citizens

(a) Expand homeownership programs that support a variety of owner occupied housing and develop programs to assist property owners with external property renovations.

(b) Adopt policies to promote the creation of live-work units and accessory dwelling units within the US 40 corridor.

(c) Foster inclusive communities free from barriers that restrict access to opportunities based on protected characteristics.

## ECONOMIC VITALITY

*Economic Vitality* recognizes that a diverse and vibrant economy is an integral component of making the Joppa Joppatowne Community Area a successful community. Infrastructure improvements, design guidelines, mixed use developments, and institutional development, can help to stimulate economic activity in targeted redevelopment areas, such as the US 40 and MD 7 corridors.

### CPA 6.5: Grow Economic Opportunities and Competitiveness

(a) Provide infrastructure improvements, such as streetscape beautification projects, in order to help stimulate economic development along US 40, and support the needs of existing and potential businesses.

### CPA 6.6: Revitalize Existing Communities

(a) Perform a study of the commercial centers and corridors throughout the community area, to assess their specific conditions and needs.

(b) Create a US 40 Business Development and Improvement Association from the Baltimore County line to MD 152.

(c) Explore commercial revitalization programs that provide grants or low interest rate loans for façade improvements and interior renovation.

### CPA 6.7: Ensure and Promote a Skilled Workforce That Will Attract Businesses

(a) Partner local businesses with Magnolia middle and Joppatowne high schools, to develop comprehensive job readiness programs that aim to prepare students to enter the workforce.

## ENVIRONMENTAL STEWARDSHIP

*Environmental Stewardship* includes developing management strategies within the Winters Run watershed to help protect and improve the quality of the drinking water for some of the neighborhoods within the community area. It also includes softening the footprint of existing development by considering conservation landscaping techniques and rain gardens to help treat storm water runoff at the source, in places such as Rumsey Island or along US 40.



*Harford County's shorelines are protected through the Chesapeake Bay Critical Area program.*

### CPA 6.8: Protect and Restore Environmentally Sensitive Areas

(a) Prepare a Green Infrastructure Plan and identify the main components of the system within the community area, such as Winters Run and Little Gunpowder Falls. The plan will help provide policy direction to minimize the impacts of new development, as well as, focus restoration efforts.

(a) Investigate grants to help protect public infrastructure from flood damage, which includes twenty different sewage pumping stations and the Joppatowne Waste Water Treatment Plant in the community area.

(b) Implement projects identified in the 2012 Foster Branch Small Watershed Action Plan, and consider new studies.

(c) Identify and preserve ecologically rich land, and focus appropriate restoration management strategies where necessary.

### CPA 6.9: Preserve Water Resources

(a) Connect septic system areas, where they would be better served by public sewer, and prioritize Bay Restoration Funds for new and replacement BAT septic systems that are located within either 1,000 feet of perennial streams or the Green Infrastructure Network.

### CPA 6.10: Adequate Stormwater Management

(a) Evaluate parking requirements and provide incentives for reducing parking, particularly large retail along US 40 and MD 152. Require more landscaping with native plants to soften the development footprint in the landscape.

(b) Partner with various public and private agencies to increase the tree canopy throughout the community area, with a particular emphasis on open spaces.

### CPA 6.11: Outreach and Education

(a) Engage citizens about sustainability efforts, including outreach to Magnolia middle and Joppatowne high schools, and home and business owners.

### CPA 6.12: Natural Resource Management

(a) Foster the innovative use of alternative

energy sources (i.e. wind, solar, and geothermal) at community facilities, while ensuring the applications are sensitive to the environment.

(b) Incorporate coastal resiliency strategies and hazard mitigation opportunities, such as along Rumsey Island and Foster Branch. Identify forests, wetlands, and aquatic resources for future wetland migration, to help mitigate the potential impacts of sea level rise.

## PRESERVING OUR HERITAGE: HISTORIC PRESERVATION

*Preserving Our Heritage* supports the promotion of the agricultural industry within the Joppa Joppatowne Community Area. Efforts should be made to continue the marketing campaigns of County grown agricultural and natural resource products and to create additional farm stands throughout the northern portion of the community area. Likewise, historic preservation is geared towards deciding what's important, figuring out how to protect it, and preserving an appreciation of what is saved for the future generations.

### CPA 6.13: Protect Historic and Cultural Resources

(a) Identify and address where possible, threatened or endangered historical and/or cultural resources, deemed to be of exceptional value and significance to the community.

(b) Consider developing educational programs to help increase awareness and appreciation of the community's significant historic and/or cultural resources.

### CPA 6.14: Educate and Connect With Broader Audiences

(a) Support heritage tourism initiatives at Jerusalem Mill, promoting heritage areas, parks, and greenways throughout the community area.

## PRESERVING OUR HERITAGE: LAND PRESERVATION

### CPA 6.15: Protect Agricultural and Natural Resources

(a) Acquire more agricultural easements in the northern portion of the community area.

(b) Conduct workshops on the adaptive reuse and educational values of barns, gristmills, and other significant structures.

### CPA 6.16: Educate and Connect With Broader Audiences

(a) Enhance the Grow Local Program by expanding both the products being sold and the markets processing and buying them.

## MOBILITY AND CONNECTIVITY

*Mobility and Connectivity* seeks to establish ways in which to create a strong sense of community by focusing on integrating transportation planning with housing, land use, economic development, and environmental goals. It includes recognizing all the users of streets, such as bicyclists, pedestrians, and transit riders, in addition to cars, and creating streetscape beautification projects where appropriate. These sorts of enhancements, coupled with traffic calming techniques and more mixed use developments, can help lead to a decrease in traffic congestion.

### CPA 6.17: Adopt A Holistic Approach To Transportation Planning

(a) Identify road corridors for right-of-way preservation and develop a corridor capacity management program for widening or

construction of parallel shared use paths throughout the community area.

### CPA 6.18: Integrate Transportation With Land Use Planning

(a) Prioritize streetscape beautification projects in the commercial corridors along US 40 and MD 152. Establish standards for streetscape amenities, which include crosswalks, medians, pedestrian scaled lighting, benches, planter boxes, street trees, kiosks, trash receptacles, bicycle parking, public art, uniform building facades, wayfinding signage, and awnings where appropriate.

(b) Acquire easements for greenways to connect neighborhoods to nearby parks and schools, and partner with other public agencies and utility companies to use their easements.

### CPA 6.19: Expanded Network of Safe Bicycle And Pedestrian Facilities

(a) Prioritize the creation of pedestrian links for new or reconstructed sidewalks.

(b) Require developers to establish bicycle and pedestrian facilities, including bicycle parking within nonresidential developments.

### CPA 6.20: Safe, Efficient, and Convenient Transit Services

(a) Provide amenities at bus stops to make them inviting as a mode choice. Bus stops should be accessible and include signage, lighting, landscaping, and benches.

(b) Improve intermodal connectivity by providing bus service to the Park and Ride lot along MD 152 at I-95.

(c) Partner with Harford Transit to perform a ridership improvement study to prioritize future outreach efforts and bus stop locations within the community area.

### CPA 6.21: Expand Transportation Demand Management (TDM)

(a) Encourage mixed use development in designated locations and prioritize infrastructure upgrades that support infill development.

(b) Continue to pursue funding for the Safe Routes to School Program and work to implement a program for each elementary and middle school in the community area. Encourage these schools to provide educational programs that support walking and its health benefits.

## PROMOTING HEALTHY COMMUNITIES

*Promoting Healthy Communities* aims to improve the physical and social environments found throughout the community area. It includes working with institutions such as the Community Advisory Board, schools, and churches, to help address particular health issues of concern. The goal is to maintain the health, safety, and welfare of the citizens and enhance their quality of life.

### CPA 6.22: Foster Healthy Lifestyles and Active Living For All Harford County Residents

(a) Encourage the schools to make their campuses more walkable.

(b) Perform walkability audits to identify inconvenient or dangerous routes to schools and recreational facilities, and prioritize the necessary infrastructure improvements.

(c) Use traffic calming techniques such as medians, refuges, street trees, and on-street parking to improve street safety and access, and require developers to build

these facilities as part of new development or redevelopment.

(d) Reduce parking requirements for developments that locate near transit and establish bicycle and pedestrian facilities.

### CPA 6.23: Provide Access To Healthy Food Choices For All Harford County Residents

(a) Identify potential community garden sites on existing parks, such as Mariner Point, public easements, schools, and churches. Work with Parks and Recreation and other community groups to provide classes on gardening and composting.

Mariner Point Park in Joppatowne has over 6,500 linear feet of paved walkways, much of which is located along either the Gunpowder River or Foster Branch

(b) Work with Economic Development to promote grocery store access in the appropriate places and coordinate with local transit agencies to develop routes that connect residents to health service facilities.

### CPA 6.24: Support Efficient and Effective Delivery of Health and Social Services Throughout Harford County

(a) Target new affordable housing developments for existing residents to maintain neighborhood continuity.

(b) Support community policing, neighborhood watch, and walking/biking police patrols that engage residents of this community.




# NORTHERN TIER

## LAND USE CHARACTERISTICS

This area contains 107,540 acres, or 46.3 percent of Harford's total land area.

Agricultural land uses comprise the majority of this area with 70.9 percent or 76,273 acres.

Residential land uses make up 18.6 percent (20,090 acres) with rural density residential uses comprising 92 percent (18,457 acres) of the total residential uses.

Other major land uses are parks/open space (5.7 percent, 6,187 acres); transportation/utilities (1.2 percent, 1,275 acres)

## DEMOGRAPHIC PROFILE

### Population

Population: 26,499

Median Age: 45.4

Age Composition: 35 percent of residents are between the ages of 45 and 64.

### Housing

Total Households: 9,492

Median Home Value: $347,439

Monthly Median Rent: $817

Tenancy: Owner occupied 88 percent. Renter occupied 12 percent.

### Income

Median Household Income: $85,019

### Employment

Total Jobs: 5,017

Total Labor Force: 15,597

## TRENDS AND KEY ISSUES

### Growth Trends

The population of the area is projected to grow by 19.8 percent between 2013 and 2040.

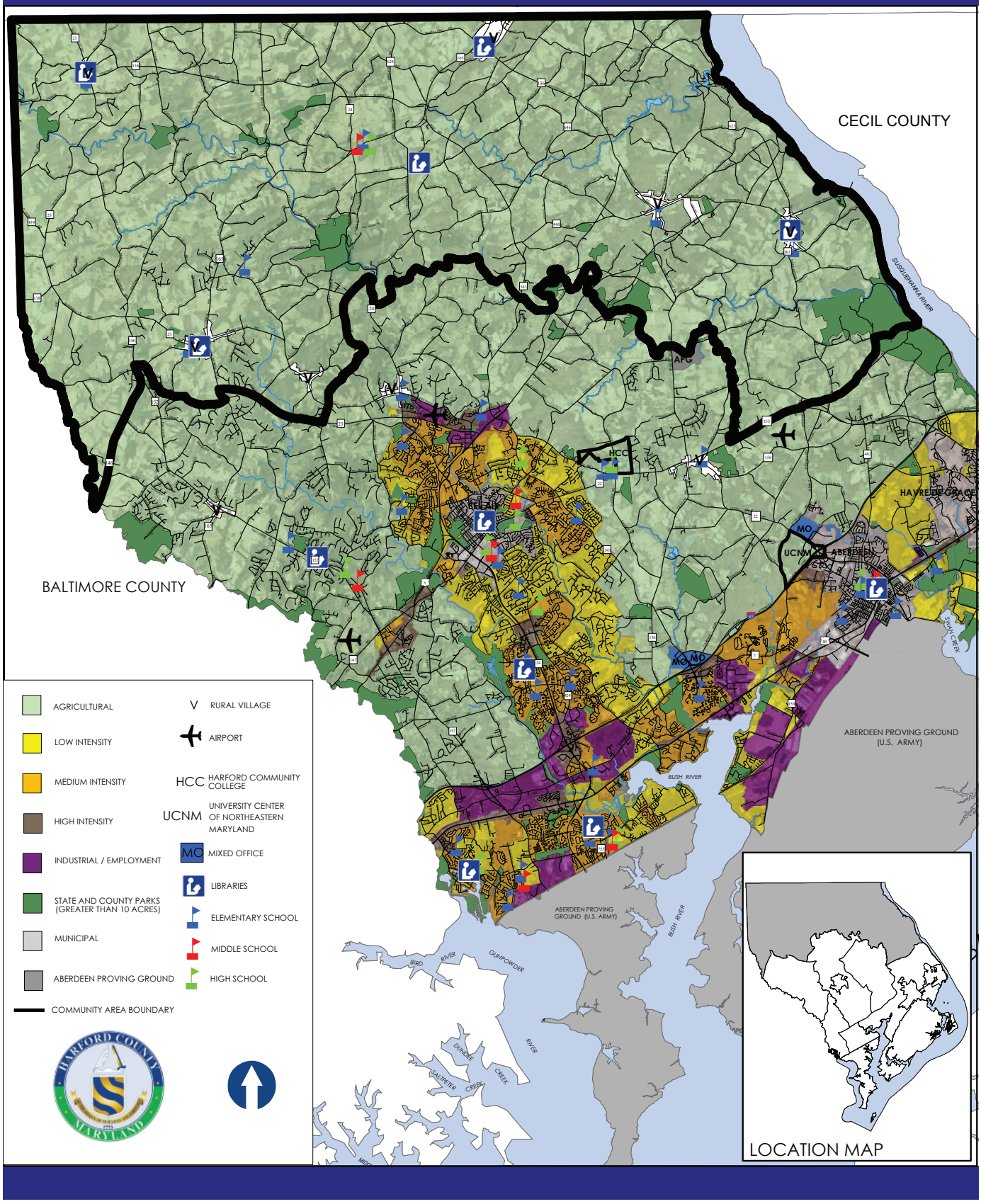
### Population

The Northern Tier community area's median age (45.4) has the highest median age of any community area

### Land Preservation

There are 33,350 acres of land preserved through the local and state preservation programs.

# NORTHERN TIER



## Location and Context

The Northern Tier Community Area can generally be described as all those areas and communities north of Forest Hill; including the rural villages of Coopstown, Jarrettsville, Norrisville, Whiteford, Dublin, and Darlington. The Northern Tier Community Area is predominantly agricultural with fragmented areas of rural residential development. The Rural Villages have generally maintained their character as small crossroads communities with minimal new development. The majority of the Priority Preservation Area (PPA) is located within this Community Area. The County's goal is to preserve a total of 75,000 acres within the PPA. There are currently over 33,000 acres permanently preserved within easement programs in the Northern Tier.

Efforts to concentrate the amount of preserved land in this area are also consistent with the recommendations of the Deer Creek Watershed Restoration Action Strategy (WRAS). Completed in 2007, this plan prioritizes subwatersheds and stream systems that are in need of restoration, and those resources that are of high quality and worthy of additional protection measures. Based on Deer Creek's conditions, the restoration priorities are focused on agricultural best management practices, riparian buffer plantings, land preservation, and outreach.

## Development and Infill Potential

There are a number of opportunities for infill development, specifically within the six rural villages. These areas can evolve to provide accessible community gathering spaces such as parks, plazas, and farmers markets, which provide people a place for social interaction.

## Community Assessment

Public input was gathered as part of the planning process for HarfordNEXT and an analysis of opportunities and challenges was performed for the Northern Tier Community Area, in order to provide a baseline for prioritizing goals and objectives. Ultimately, the community will play a critical role in determining the most effective strategies for implementation. Some opportunities for the Northern Tier Community Area include its rural heritage, high quality waters, and establishing an Agricultural Research and Exposition Center. These circumstances can be viewed as strengths that can be built upon to enhance citizen's quality of life. Some of the challenges for the Northern Tier Community Area include revitalizing the six rural villages, limiting sprawl development patterns that threaten agricultural preservation strategies, and establishing riparian forest buffers along streams and wetlands. These tasks can be viewed as priorities for new policy initiatives.

Each of the themes developed in HarfordNEXT provide implementation strategies that can be addressed with greater detail when looking at the community level.

## GROW WITH PURPOSE

*Grow With Purpose* aims to address how the Northern Tier Community Area can grow and evolve sustainably over time. Decisions will need to be made about how the community functions and where it focuses infill development efforts within the six rural villages. Clustering provisions should be required for new subdivisions, in order to further help preserve the rural landscapes throughout the community area.

### CPA 7.1: Maintain and Enhance Public Facilities and Infrastructure

(a) Expand programming at different community facilities, like the Norrisville Library and Recreation Center. Offer programs related to agricultural business development, continuing education, and fitness classes, and make the spaces available for community events.

### CPA 7.2: Strengthen Communities

(a) Develop accessible community gathering spaces such as parks and farmers markets, which provide people a place for social interaction and to promote a healthy community.

## ECONOMIC VITALITY

*Economic Vitality* recognizes that a diverse and vibrant economy is an integral component of making the Northern Tier Community Area a successful community. It's important to maintain consistent economic development initiatives with groups like the Mason Dixon Business Association, in order to coordinate infrastructure improvements that can help to stimulate economic activity in strategic areas of the six rural villages. Additional farm stands and food hubs should also be created throughout the community area.

### CPA 7.3: Grow Economic Opportunities and Competitiveness

(a) Provide infrastructure improvements, such as streetscape beautification projects, in order to help stimulate economic development in the six rural villages.

(b) Continue to partner with the Mason Dixon Business Association to maintain consistent economic development initiatives.

### CPA 7.4: Revitalize Existing Communities

(a) Create a public-private partnership at the Pylesville Park and Ride facility, which allows a business to operate a retail establishment, in return for maintaining the facility.

(b) Support small business development that fills retail gaps and revitalizes the six rural villages.

(c) Update the Rural Village Study, to assess the community's six rural villages' specific conditions and needs.

## ENVIRONMENTAL STEWARDSHIP

*Environmental Stewardship* includes developing management strategies within the Deer Creek watershed to help protect the high quality waters and pristine wildlife habitat such as native trout species. It also includes studying other watersheds, such as Broad Creek. Since the area is predominantly agricultural, best management practices for soil and water conservation plans will be critical to helping maintain the quality of life of the citizens in this community area. Conservation landscaping will also be critical in residential areas, as this can help to support the biological hubs and corridors of a green infrastructure network.

### CPA 7.5: Protect and Restore Environmentally Sensitive Areas

(a) Implement projects identified in the Deer

Creek Water Resource Action Strategy. This plan was produced in 2007 and includes improvement projects related to stormwater retrofits, citizen stewardship, and forest conservation.

(b) Perform a Watershed Assessment for the Broad Creek Watershed.

(c) Require the use of innovative designs and best management practices for development within Tier II watersheds, such as Deer Creek, which has the third highest water quality ranking in the State of Maryland.

(d) Improve outreach to homeowners with rare, threatened, or endangered species on their properties, and encourage the development of cooperative management plans.

### CPA 7.6: Preserve Water Resources

(a) Implement the recommendations of the Source Water Protection Plan for the Bel Air, Maryland Public Water System within the Winters Run watershed.

(b) Provide adequate facilities for the Whiteford Sewer Service Area, which is a joint venture between the County and the Borough of Delta in Pennsylvania.

(c) Prioritize Bay Restoration Funds for new and replacement BAT septic systems that are located within either 1,000 feet of perennial streams or the Green Infrastructure Network.

### CPA 7.7: Adequate Stormwater Management

(a) Increase the tree canopy in the six rural villages found throughout the community area. Partner with various agencies, public and private, to increase the tree canopy in appropriate open spaces.

(b) Increase water quality monitoring by training citizen or school groups. Focus on measuring the effectiveness of local restoration practices.

(c) Partner with Parks and Rec, DPW, and HCPS to create demonstration projects of stormwater best management practices.

### CPA 7.8: Outreach and Education

(a) Improve public access to the water, such as a canoe/kayak launch along Deer Creek.

### CPA 7.9: Natural Resource Management

(a) Pursue grants for implementing projects identified in the Deer Creek WRAS.

(b) Improve outreach and incentives for farmers to create riparian forest buffers along streams and wetlands.

(c) Foster the innovative use of alternative energy sources at community facilities, ensuring the applications are also sensitive to the environment.

## PRESERVING OUR HERITAGE: HISTORIC PRESERVATION

*Preserving Our Heritage* supports the promotion and preservation of the agricultural industry within the Northern Tier Community Area. Efforts should be made to connect food producers with the local food markets within the more urbanized areas of the region, as well as, create additional farm stands throughout the community area. Likewise, historic preservation is geared towards deciding what's important, figuring out how to protect it, and preserving an appreciation of what is saved for the future generations.

### CPA 7.10: Protect Historic and Cultural Resources

(a) Identify threatened or endangered resources deemed to be of exceptional

value and significance to the community.

(b) Identify highly desirable Historic Landmarks in the community for developing educational programs to help increase awareness and appreciation.

(c) Develop marketing strategies for the historic tax credit program and highlight demonstration projects that can be an effective economic stimulant in the six rural villages.



*The restored Hosanna School demonstrates the value of rehabilitation.*

### CPA 7.11: Build Capacity For Preservation

(a) Create design guidelines and rehabilitation techniques for the rural villages, historic districts, and structures found throughout the Northern Tier Community Area.

(b) Consider increasing the amount offered by the County's historic tax credit program to help protect significant resources and spur economic development opportunities within the rural villages.

### CPA 7.12: Educate and Connect With Broader Audiences

(a) Support heritage tourism initiatives throughout the Northern Tier Community Area, promoting heritage areas, parks, rural viewsheds, and greenways.

## PRESERVING OUR HERITAGE: LAND PRESERVATION

### CPA 7.13: Protect Agricultural and Natural Resources

(a) Investigate expanding the Priority Preservation Area and Rural Legacy Areas, to acquire more easements throughout the community area.

The Northern Tier has over 33,350 acres of preserved farm land. The County has a goal to preserve 75,000 acres Countywide by 2040.

### CPA 7.14: Educate and Connect With Broader Audiences

(a) Conduct workshops on the adaptive reuse and educational values of barns, gristmills, and other significant structures.

### CPA 7.15: Educate and Connect With Broader Audiences

(a) Explore the establishment of an Agricultural Research and Exposition Center, to stay connected to the latest agricultural and natural resource research and educational programs. Partner with the Future Farmers of America, and local colleges, to ensure local youth remain committed to the agricultural industry. Consider including a native plants nursery at the Center, to be used to improve water quality and enhance wildlife habitat at community facilities throughout the County.

(b) Enhance the Grow Local Program by expanding both the products being sold and the markets processing and buying them.

## MOBILITY AND CONNECTIVITY

*Mobility and Connectivity* seeks to establish ways in which to create a strong sense of community by focusing on integrating transportation planning with housing, land use, economic development, and environmental goals. It includes recognizing all the users of streets, such as bicyclists and

pedestrians, as well as, farm equipment and commuter cars, and creating shared use paths along high volume roads. These sorts of enhancements, coupled with traffic calming techniques and innovative development practices within the six rural villages, can help to improve citizens quality of life.

### CPA 7.16: Adopt A Holistic Approach To Transportation Planning

(a) Develop signage that encourages drivers to safely share the road with agricultural machinery

### CPA 7.17: Integrate Transportation With Land Use Planning

(a) Provide greenways to connect communities to nearby parks and schools. For example, acquiring an easement alongside MD 165 for a shared use path or reusing a portion of the abandoned Ma and Pa railroad line, can connect Whiteford to North Harford High School.

(b) Partner with both the Lower Susquehanna Heritage Greenway and the East Coast Greenway in identifying a safe bicycle and pedestrian Susquehanna River crossing.

(c) Implement the pertinent recommendations of the Maryland Scenic Byway Management Plan, as the community area is traversed by the Mason Dixon, Horses and Hounds, and Lower Susquehanna Scenic Byways. These roads can become focal points for greenways and other streetscape beautification projects in the future.

### CPA 7.18: Expanded Network of Safe Bicycle And Pedestrian Facilities

(a) Provide shared use paths with signage adjacent to high volume roads, such as MD 165.

(b) Enter into agreements with state agencies and utility companies to allow rights-of-way under their control to be used for trails.

## PROMOTING HEALTHY COMMUNITIES

*Promoting Healthy Communities* aims to improve the physical and social environments found throughout the community area. It includes working with institutions such as the Community Advisory Boards, schools, and churches to help address particular health issues of concern. The goal is to maintain the health, safety, and welfare of the citizens in the Northern Tier Community Area.

### CPA 7.19: Foster Healthy Lifestyles and Active Living For All Harford County Residents

(a) Work with schools to encourage more walkable school sites.

(b) Use the appropriate traffic calming techniques such as medians, refuges, street trees, and on-street parking, to improve street safety and access within the six rural villages.

### CPA 7.20: Provide Access To Healthy Food Choices For All Harford County Residents

(a) Identify appropriate sites for farmer's markets, encourage community-supported agriculture (CSA), and prioritize those uses in the appropriate locations.

(b) Partner with Healthy Harford and the schools to promote the importance of farms and eating locally sourced foods.

(c) Support strategies that capitalize on the mutual benefit of connections between rural economies as food producers and urban economies as processors and consumers. The Northern Tier Community Area should seek to connect their food producers with the local food markets within the more urbanized areas of the region.

APPENDIX I

# PRIORITY PRESERVATION AREA PLAN

HARFORD NEXT
A MASTER PLAN FOR THE NEXT GENERATION

## A Master Plan for the Next Generation



## Introduction and Background

In response to the Agricultural Stewardship Act of 2006, Harford County adopted a Priority Preservation Plan in 2008 which applied to the Lower Deer Creek Rural Legacy Area. In 2009, the Deer Creek Rural Legacy Area and the Priority Preservation Area (PPA) were expanded to include the majority of the upper Deer Creek watershed (Figure 1). To date over 34,000 acres have been protected within the PPA, and the County continues working toward an 80% preservation rate for the undeveloped lands in that area (Figure 2).

To enhance preservation efforts, the 2016 Priority Preservation Area Plan expands the PPA boundary to include all lands north of the 2009 boundary and the Harford County portion of the Manor Rural Legacy Area (Figure 3). This new PPA encompasses portions of several watersheds (Figure 4), and this designation is consistent with the goals of the Sustainable Growth and Agricultural Preservation Act of 2012 (SB 236). The area is designated Agricultural on the County's 2012 Land Use Map and is located outside of the designated growth area (Figure 5).

## Defining the Priority Preservation Area

To be designated as a Priority Preservation Area, the area should exhibit the characteristics noted in the Agricultural Stewardship Act. These are:

1. Contain productive agricultural or forest soils, or be capable of supporting profitable agricultural and forestry enterprises where productive soils are lacking;

2. Be governed by local policies that stabilize the agricultural and forest land base so that development does not convert or compromise agricultural or forest resources;

3. Be large enough to support the kind of agricultural operations that the County seeks to preserve, as represented in the comprehensive plan; and

4. Be accompanied by the County's acreage goal for land to be preserved through easements and zoning in the PPA equal to at least 80% of the remaining undeveloped areas of land in the area.

Another important consideration in selecting an area for designation as a PPA is how well the area exemplifies the goals of the MALPF Program. The state goals for agricultural land preservation are:

1. Permanently preserve agricultural land capable of supporting a reasonable diversity of agricultural products;

2. Protect natural, forestry, and historic resources and the rural area character of the landscape associated with Maryland's farmland;

3. To the greatest degree possible, concentrate preserved land in large, relatively contiguous blocks to effectively support long-term protection of resources and resource based industries;

4. Limit the intrusion of development and its impacts on rural resources and resource-based industries;

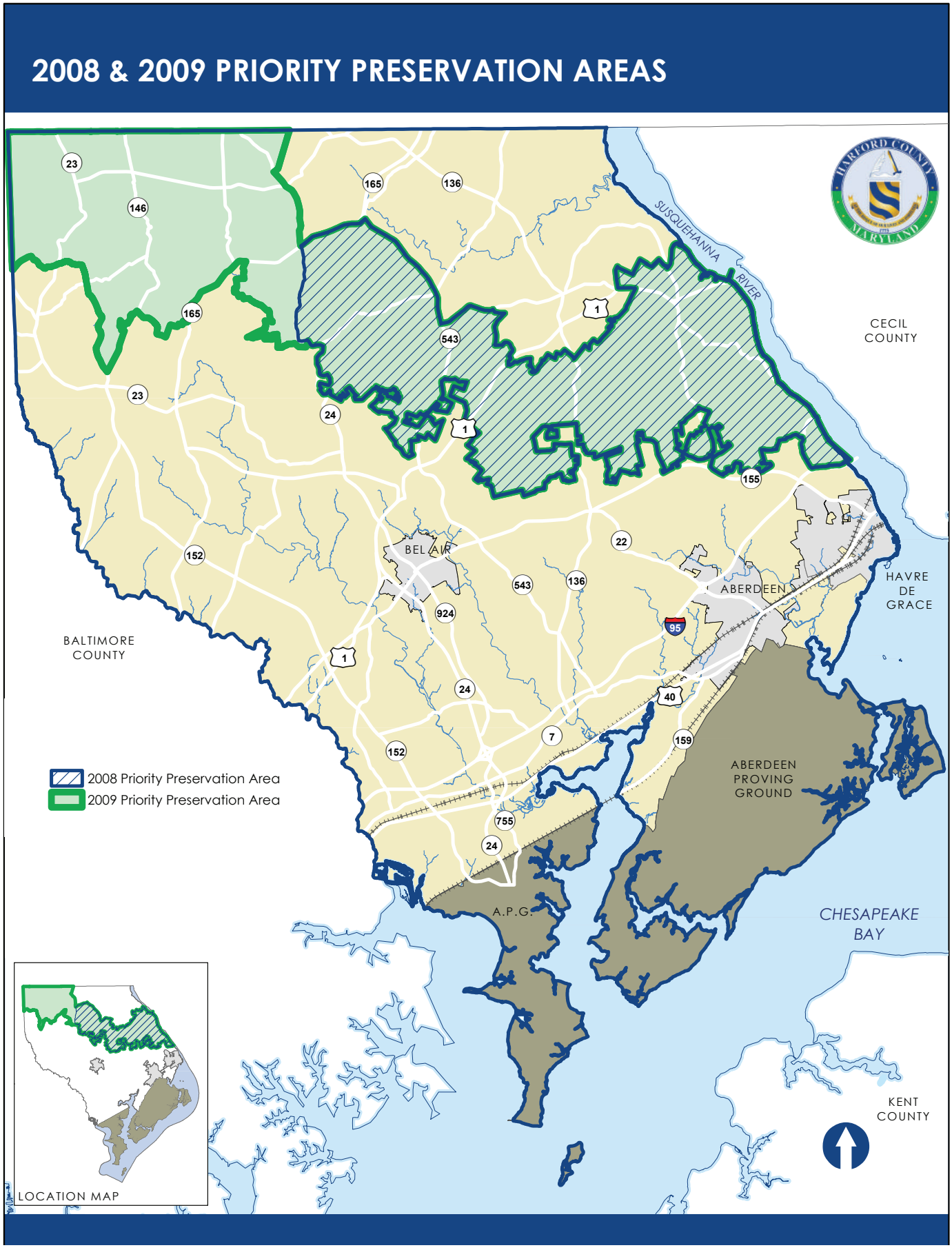

2008 & 2009 PRIORITY PRESERVATION AREAS
HARFORD COUNTY MARYLAND
SUSQUEHANNA RIVER
CECIL COUNTY
BEL AIR
ABERDEEN
HAVRE DE GRACE
BALTIMORE COUNTY
ABERDEEN PROVING GROUND
A.P.G.
CHESAPEAKE BAY
KENT COUNTY
2008 Priority Preservation Area
2009 Priority Preservation Area
LOCATION MAP
23
146
165
136
543
1
24
155
22
152
924
95
40
7
159
755

FIGURE 1

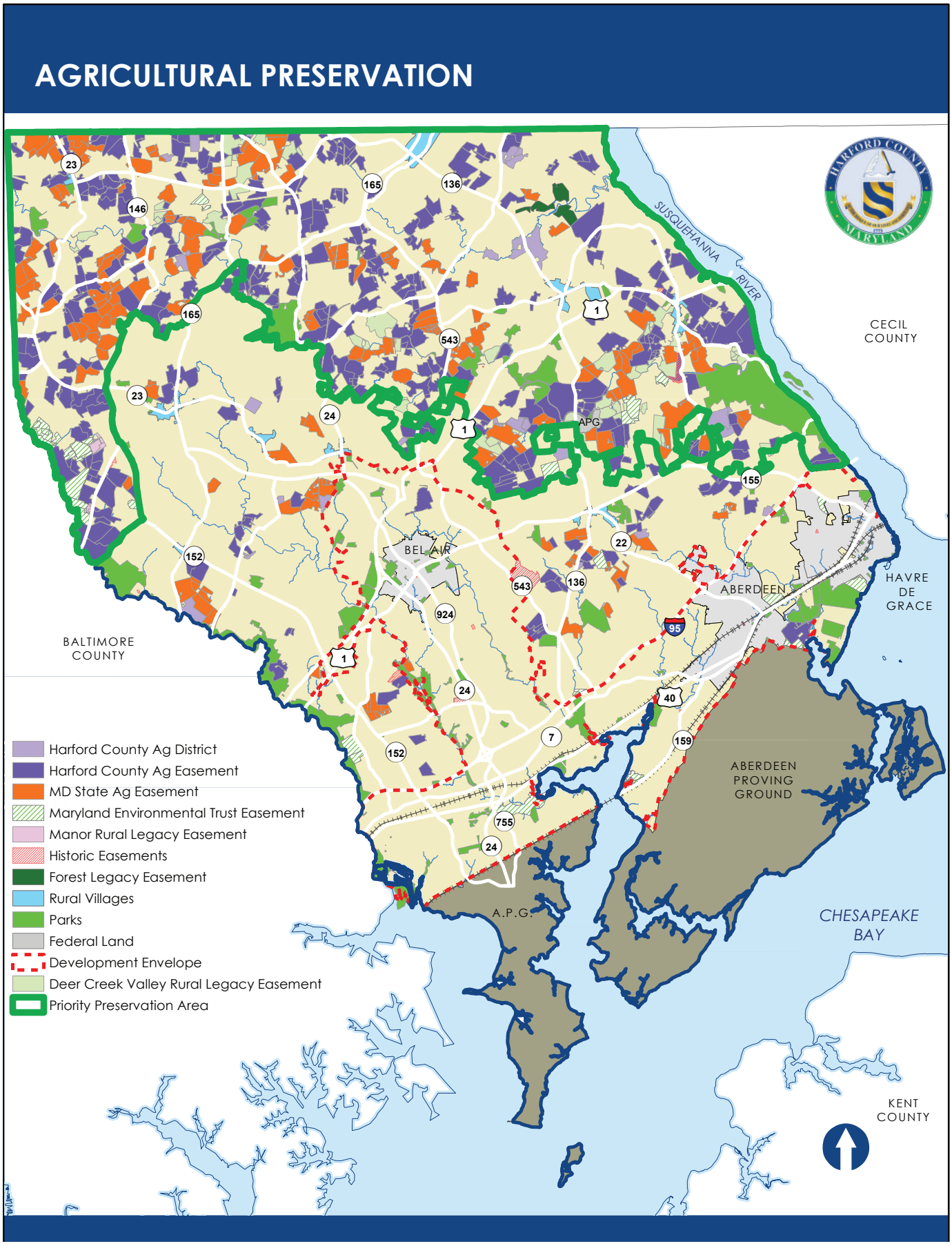

AGRICULTURAL PRESERVATION
HARFORD COUNTY MARYLAND
SUSQUEHANNA RIVER
CECIL COUNTY
APG
BEL AIR
ABERDEEN
HAVRE DE GRACE
BALTIMORE COUNTY
ABERDEEN PROVING GROUND
A.P.G.
CHESAPEAKE BAY
KENT COUNTY
Harford County Ag District
Harford County Ag Easement
MD State Ag Easement
Maryland Environmental Trust Easement
Manor Rural Legacy Easement
Historic Easements
Forest Legacy Easement
Rural Villages
Parks
Federal Land
Development Envelope
Deer Creek Valley Rural Legacy Easement
Priority Preservation Area

**FIGURE 2**

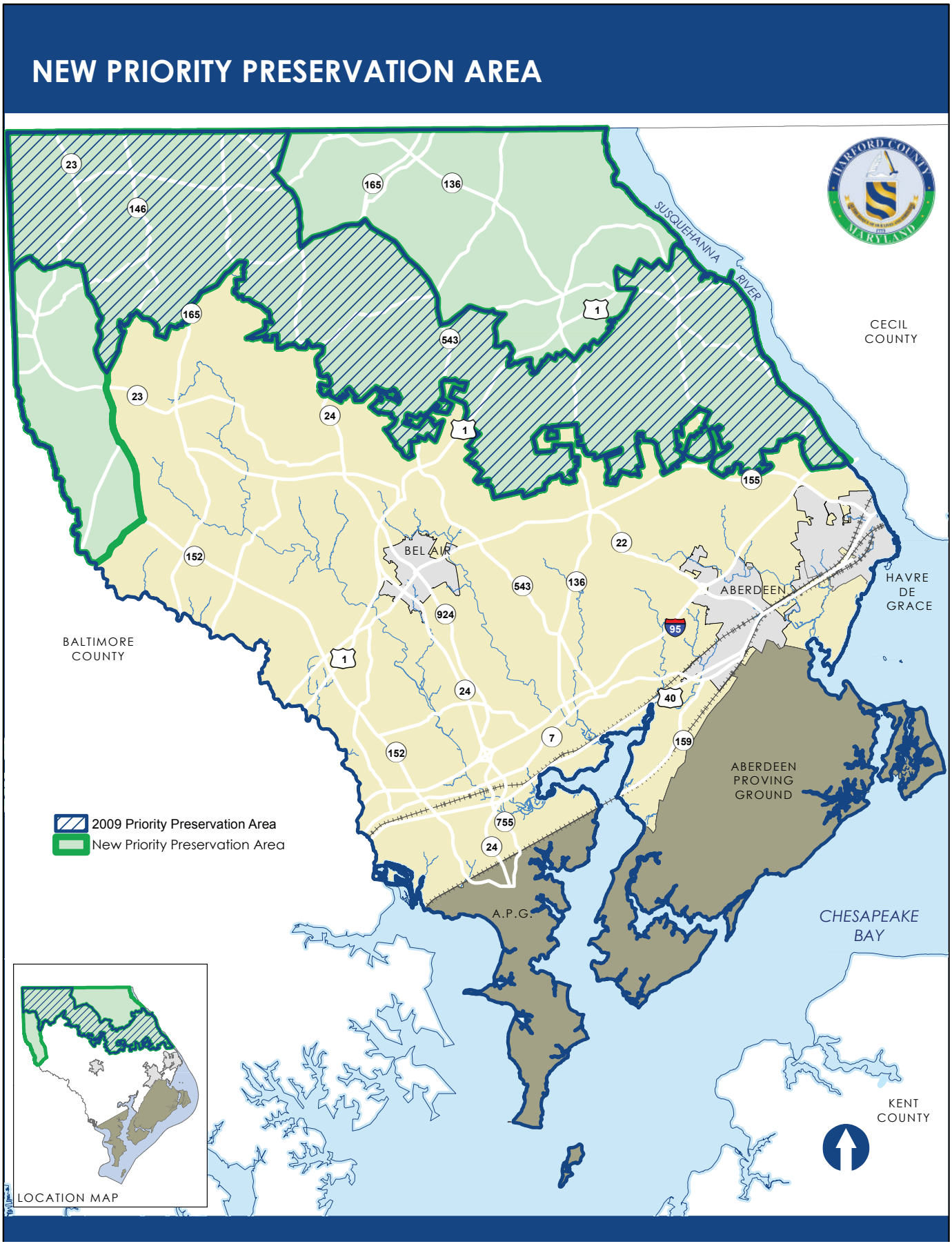

NEW PRIORITY PRESERVATION AREA
HARFORD COUNTY MARYLAND
SUSQUEHANNA RIVER
CECIL COUNTY
BEL AIR
ABERDEEN
HAVRE DE GRACE
BALTIMORE COUNTY
ABERDEEN PROVING GROUND
A.P.G.
CHESAPEAKE BAY
KENT COUNTY
2009 Priority Preservation Area
New Priority Preservation Area
LOCATION MAP
23
146
165
136
543
1
24
155
22
152
924
95
40
159
7
755

FIGURE 3

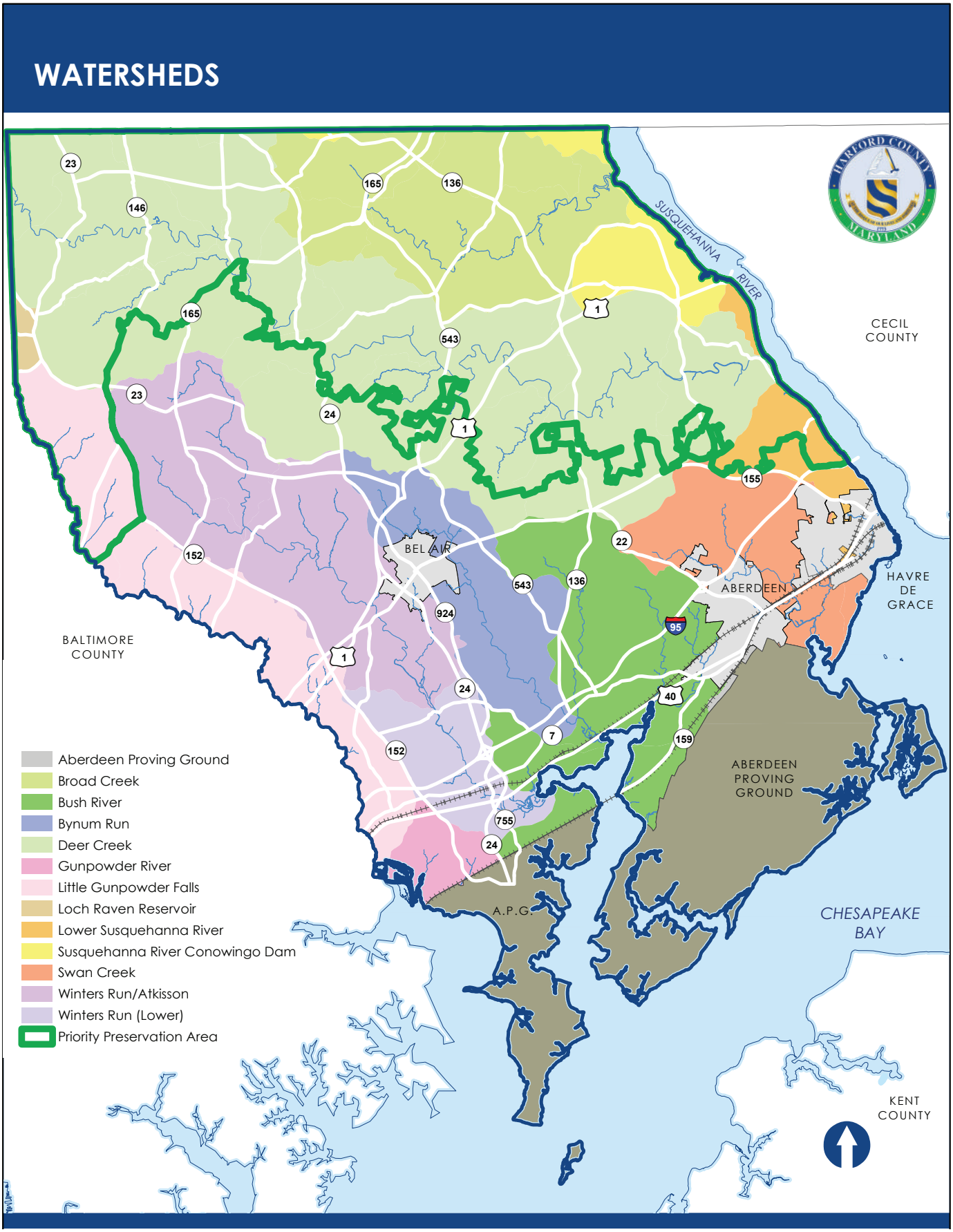

WATERSHEDS
HARFORD COUNTY MARYLAND
SUSQUEHANNA RIVER
CECIL COUNTY
BEL AIR
ABERDEEN
HAVRE DE GRACE
BALTIMORE COUNTY
ABERDEEN PROVING GROUND
A.P.G.
CHESAPEAKE BAY
KENT COUNTY
Aberdeen Proving Ground
Broad Creek
Bush River
Bynum Run
Deer Creek
Gunpowder River
Little Gunpowder Falls
Loch Raven Reservoir
Lower Susquehanna River
Susquehanna River Conowingo Dam
Swan Creek
Winters Run/Atkisson
Winters Run (Lower)
Priority Preservation Area

**FIGURE 4**


EXISTING LAND USE
HARFORD COUNTY MARYLAND
SUSQUEHANNA RIVER
CECIL COUNTY
BEL AIR
ABERDEEN
HAVRE DE GRACE
BALTIMORE COUNTY
ABERDEEN PROVING GROUND
A.P.G.
CHESAPEAKE BAY
KENT COUNTY
Agriculture
Rural Density Residential
Low Density Residential
Medium Density Residential
High Density Residential
Commercial
Office
Industrial
Transportation/Utilities
Institutional
Parks/Open Space
Other Mixed Uses
Vacant Building
Unimproved Land
Priority Preservation Area

FIGURE 5

5. Preserve approximately 1,030,000 acres of productive agricultural land by 2020;

6. Ensure good return on public investment by concentrating state agricultural land preservation funds in areas where the investment is reasonably well supported by both local investment and land use management programs; and

7. Work with local governments to:

a) Establish preservation areas, goals, and strategies through local comprehensive planning processes that address and complement state goals;

b) In each area designated for preservation, develop a shared understanding of goals and the strategy to achieve them among rural landowners, the public at large, and state and local government officials;

c) Protect the equity interests of rural landowners in preservation areas by ensuring sufficient public commitment and investment in preservation through easement acquisition and incentive programs;

d) Use local land use management authority effectively to protect public investment in preservation by managing development in rural preservation areas; and

e) Establish effective measures to support profitable agriculture, including assistance in production, marketing, and the practice of stewardship, so that farming remains a desirable way of life for both the farmer and public-at-large.

Thus, the PPA should be capable of supporting profitable agricultural and forestry enterprises and should be managed by local policies that help stabilize the land base so that agricultural and/or forest resources are not compromised. The area should also be large enough to support traditional large-scale agricultural operations, such as dairy, grain, and horse and beef cattle, that the County seeks to preserve.

Based on the PPA goal of protecting 80% of the remaining undeveloped land, and program goals to concentrate preserved land in large relatively contiguous blocks, the Lower Deer Creek Valley was selected as the County's first PPA. There was, however, strong support to include the upper portion of the watershed. In 2009, the PPA was expanded concurrent with the expansion of the Deer Creek Valley Rural Legacy Area (See Figure 1). The area encompasses 66,701 acres of which 52% (34,683 acres) has been protected.

In 2012, the Maryland General Assembly enacted the Sustainable Growth and Agricultural Preservation Act. Subsequent to its implementation, the Tier IV areas of the County were reevaluated to determine if they also met the criteria for potential designation as a PPA (Figure 6). Utilizing the same criteria employed previously (percentage of the area already preserved, acreage needed to reach the 80% goal, and the percentage of the area developed), it was determined that the expansion of the PPA should include the area north of the current boundary and the Harford County portion of the Manor Rural Legacy Area (See Figure 3).

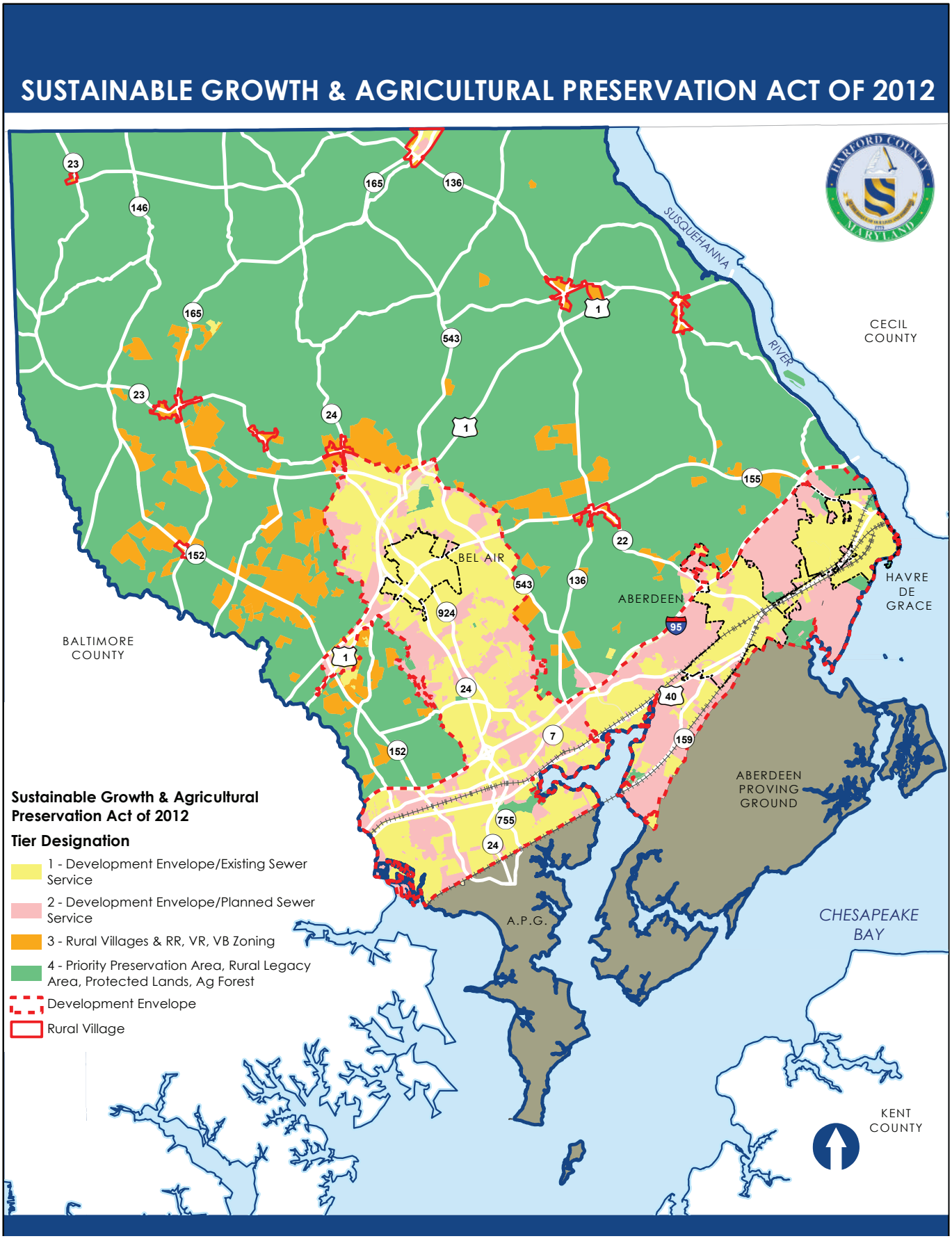

SUSTAINABLE GROWTH & AGRICULTURAL PRESERVATION ACT OF 2012
HARFORD COUNTY MARYLAND
SUSQUEHANNA RIVER
CECIL COUNTY
BALTIMORE COUNTY
BEL AIR
ABERDEEN
HAVRE DE GRACE
ABERDEEN PROVING GROUND
A.P.G.
CHESAPEAKE BAY
KENT COUNTY
Sustainable Growth & Agricultural Preservation Act of 2012
Tier Designation
1 - Development Envelope/Existing Sewer Service
2 - Development Envelope/Planned Sewer Service
3 - Rural Villages & RR, VR, VB Zoning
4 - Priority Preservation Area, Rural Legacy Area, Protected Lands, Ag Forest
Development Envelope
Rural Village

FIGURE 6

## Characteristics of the Harford County Priority Preservation Area

The newly defined PPA now encompasses over 110,000 acres of which 96,373 are zoned agricultural. Of the agriculturally zoned land, 47% (45,224 acres) has been preserved through a variety of measures. Preservation efforts in the PPA reflect a combination of easements and other protected lands. A mix of state parks and camps are located within the area; including Parker Conservation Area, Rocks, Palmer, and Susquehanna State Parks along with the Broad Creek Memorial Scout Reservation. The majority of the easements are held through Harford Agricultural Land Preservation Program (HALPP), Maryland Agricultural Land Preservation Foundation (MALPF), or Rural Legacy, with the Maryland Historical Trust and Maryland Environmental Trust holding the remainder. A portion of the 1,600 acre Broad Creek Memorial Scout Reservation has been preserved through the Forest Legacy and the

While the largest blocks of contiguous preserved lands tend to be located within the Deer Creek and Manor Rural Legacy Areas, the Broad Creek area offers a strong opportunity for continuing this pattern of land preservation which will help to maintain the viability of agricultural operations in the area.

With its high concentration of prime agricultural soils, the PPA is a major contributor to the County's agricultural economy. Almost 48% of the area is comprised of Class I, Class II, and Class III soils for crops, and over 37% of the area is comprised of Class I and Class II soils for forests. This highly productive base supports a diversified mix of agricultural and forestry enterprises.

Land uses in the area are a mix of agriculture, woodland, and residential with small areas of commercial and industrial uses. Agriculture and woodland uses comprise almost 85% of the area. There are also 55 state identified habitat sites within the area.

According to the 2012 Census of Agriculture, there are 582 farms in Harford County, and a substantial portion of these farms are located in the PPA. The average producing farm is approximately 112 acres with many farmers owning or renting multiple parcels. The area is home to some of the County's largest grain and soy producers.

While traditional beef, dairy, and cash grain operations are the major agricultural enterprise, other sectors such as equine, orchards, vineyards, and commercial horticulture are expanding. Area farmers have also demonstrated their ability to adapt to changing demographics by moving to more value added products through direct marketing aimed at the County's growing population.

Area farmers participate in Farmer's Markets, both in and outside the County, as well as the operation of roadside stands, "pick your own" fields, and Community Supported Agriculture (CSA) programs. The processing of their products into cheese, ice cream, and retail ready beef and lamb have given producers access to new markets. Many stores and restaurants actively promote their utilization of locally grown products on their shelves and farm to table menus.

National and international markets play an important role for producers within the PPA. Local horticulture operations have developed a marketing edge through the introduction of unique

plants that are being grown and developed for innovative uses. Several beef and dairy farms within the PPA are nationally known for their quality stock. Likewise, local wineries and viniculture operations continue to grow and be recognized for their international award winning wines.

Serving the racing industry and pleasure riders, the equine industry has a strong presence in the area. County thoroughbred breeders and trainers are nationally recognized for their quality bloodstock. Numerous riding stables operate throughout the PPA, providing recreational opportunities as well as competitive show events. These businesses are also providing a strong market for local hay growers and support infrastructure businesses such as feed stores, farriers, and veterinarians. The Manor Area is renowned for its long history of fox hunting and steeplechase. Steeplechase racing is showcased by races which occur each spring, and many of the farms already have horse jumps built into them.

Equally important as their quality products, many area farmers have earned recognition for taking environmental stewardship beyond mandated levels. They have taken leadership roles in their respective state, regional and national industry organizations. Their innovative land preservation, environmental stewardship, and production practices draw tour groups from across the country.

The selection of the northern portion of Harford County as a PPA clearly supports the state's goals for land preservation. This area also includes the County's two designated Rural Legacy Areas, a Certified Heritage Area, and three Scenic Byways – Horses and Hounds, Mason and Dixon, and Lower Susquehanna. All of these programs promote and support tourism while retaining the rural and natural characteristics of the area.

*The Master Plan and Land Use Element Plan*

The Harford County Charter requires the development of a Master Plan, and it requires the inclusion of a series of elements or components which "further advance the purposes" of the Master Plan. In 2015, the Department of Planning and Zoning initiated the update to the 2012 Master Plan and Land Use Element Plan. The Department's approach to the update is based on a thematic structure which incorporates the Transportation, Priority Preservation Area, Natural Resources, and Historic Preservation Element Plans into one cohesive and streamlined document known as HarfordNEXT.

The designation of the PPA is consistent with HarfordNEXT, as well as other County plans, policies, and programs. HarfordNEXT supports the continuation of agriculture and preservation of the rural quality of life that has been an important part of Harford County's history. The PPA is consistent with the Grow With Purpose, Economic Vitality, Environmental Stewardship, Promoting Healthy Communities, and Preserving Our Heritage themes explored in HarfordNEXT. These themes serve as the common thread that provides continuity and consistency throughout HarfordNEXT. In addition, various County boards and programs help to implement these policies that are designed to protect the character of the rural area.

As a component of the County's Master Plan, the PPA promotes an integrated approach to preservation efforts by establishing appropriate goals for the amount of land to be preserved, and by describing the kind of agricultural production this area will support along with the way the preservation goals will be accomplished.

## APPENDIX I | PRIORITY PRESERVATION AREA PLAN

*Senate Bill 236 the Sustainable Growth and Agricultural Preservation Act of 2012*

The Sustainable Growth and Agricultural Preservation Act was passed by the Maryland General Assembly in the spring of 2012. The three main purposes of the bill are:

1. To reduce the impacts of nitrogen that is deposited in the soil by septic systems and the resulting impacts on the Chesapeake Bay;

2. To preserve agricultural and forestry uses in rural areas; and

3. To direct new growth where public infrastructure already exists such as sewer service, roads, schools, police, and fire in keeping with statewide growth policies.

The Sustainable Growth and Agricultural Preservation Act requires the creation of four growth tiers and applies only to residential development. It specifies where subdivisions may occur and what type of sewerage system will serve them. The tiers are defined as follows:

1. Tier I – Areas currently served by public sewer and within a Priority Funding Area or currently served by public sewer and mapped as a locally designated growth area;

2. Tier II – Areas currently planned for public sewer and in the municipal growth element or mapped locally as a designated growth area;

3. Tier III – Areas not planned for public sewer and not dominated by agriculture or forests; areas not planned or zoned for agricultural or resource protection; and is one of the following:

   a. A municipality not served by public systems;

   b. A defined rural village;

   c. A mapped designated growth area; or areas planned and zoned for large lot and rural development.

4. Tier IV – Areas not planned for public sewer and that are:

   a. Planned and zoned for agricultural and resource protection;

   b. Dominated by agricultural and resource areas;

   c. Rural Legacy, Priority Preservation Areas; or

   d. Areas protected to the benefit of the state or local jurisdiction.

*Zoning Code*

Through the years, the Zoning Code has been amended to address changes in the agricultural industry and development in agriculturally zoned areas. The Code details the various zoning classifications and establishes regulations regarding permitted uses and buffers. It also addresses the development potential associated with agriculturally zoned lands. Within the PPA, 96,373 acres or 87% is zoned agricultural, and the remaining area is a mix of residential, commercial,

and industrial zoning.

The Code states that an agricultural operation or facility cannot be considered a nuisance as a result of changes to the surrounding lands. Agriculturally related commercial opportunities and agricultural public events have been added to the Code to improve the economic viability of farms.

Agriculturally zoned land can be developed at a density of one unit per 10 acres on parcels described in the land records as of February 8, 1977. On parcels where the individual owner was also the owner of record as of the 1977 date, additional lots may be permitted for the immediate family members. Development rights, purchased under an easement program, are determined in part on these criteria, thereby supporting the landowners' equity.

The passage of the Sustainable Growth and Agricultural Preservation Act placed limits on the number of lots that would be permitted on any property that is designated as a Tier IV property. It also required that local jurisdictions have legislation in place that defines major and minor subdivisions. Major subdivisions are prohibited in Tier IV areas.

The Code also includes Conservation Development Standards (CDS) to provide for increased preservation opportunities when development occurs. Under CDS, a buffer is required between the development and adjoining active farms.

## Countywide Preservation Program Evaluation

There are four major preservation programs used throughout the County; including the Harford County Agricultural Land Preservation Program (HALPP), Maryland Agricultural Land Preservation Foundation (MALPF), Rural Legacy, and Maryland Environmental Trust (MET). These programs have protected over 49,000 acres in the County (Figures 6 and 7). The Rural Legacy Program has protected over 3,100 acres while the County program has protected over 29,500 acres. The state program has protected an additional 13,757 acres through December 2015. There are also 2,915 acres preserved through MET, and 539 acres of donated easements through MHT.

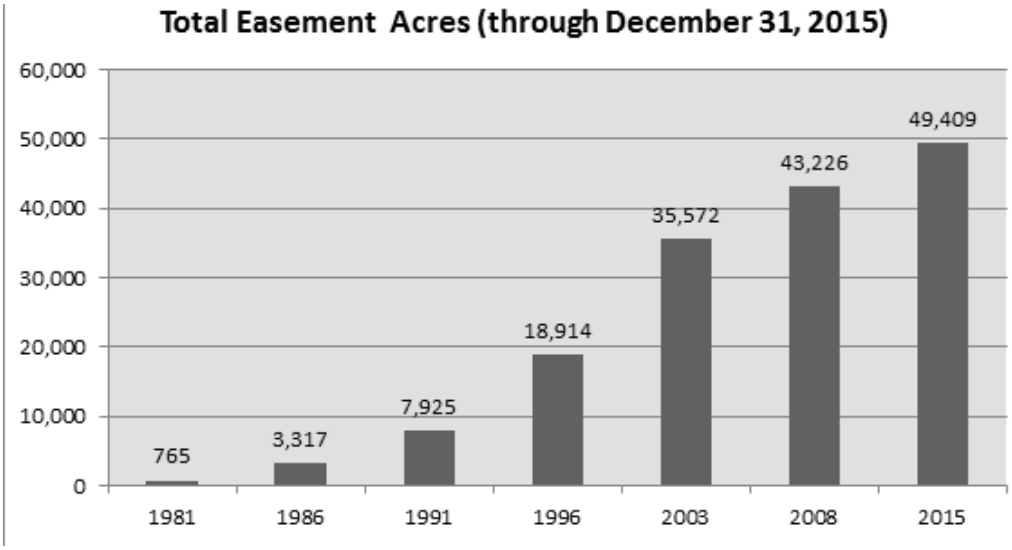



**Figure 7**

Preservation efforts in the PPA also include parklands owned by the state and County. The Maryland Department of Natural Resources (DNR) manages publicly owned lands in the County, overseeing approximately 4,100 acres of public land and protected open space including Susquehanna, Palmer, and Rocks State Parks. County parks in the PPA comprise nearly 800 acres.

Continued development pressure on areas outside of the Development Envelope as well as changing agricultural markets and practices have continued to impact the County's remaining farmland. The 2012 Census of Agriculture shows that between 2007 and 2012, the County lost 9,694 acres of farmland which is about 3,000 acres less than during the previous five year reporting period (Figure 8).

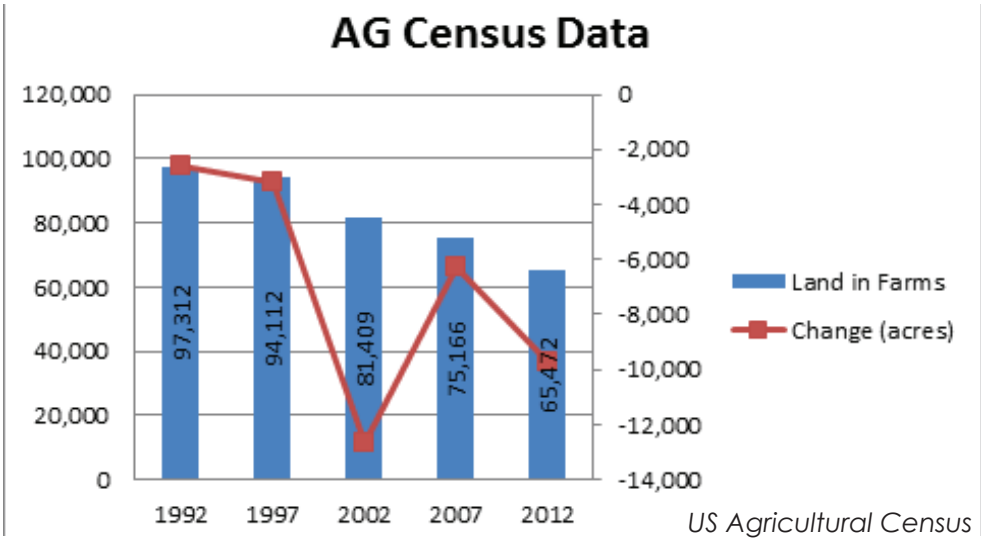



**Figure 8**

The Census of Agriculture statistics also reported that while the number of farms in the County declined between 2007 and 2012, the average farm size increased slightly (Figure 9).

| Farm Number and Size | 1997 | 2002 | 2007 | 2012 |
|---|---|---|---|---|
| Number of Farms | 651 | 683 | 704 | 582 |
| Average size (acres) | 145 | 119 | 107 | 112 |

**Figure 9**

During the period 2002-2012, the value of land fluctuated requiring adjustments in the per acre offer prices. Recently, discounting has been part of the negotiations for most preservation settlements. The average cost per acre has markedly decreased significantly since 2008, and the market remains farmer driven versus development driven. Concurrent with this downturn in the market, County offers have been lowered by half since the 2008 peak.

Since the adoption of the 2009 PPA, funding for preservation efforts has been impacted by the downturn in the economy. Since funding for agricultural preservation is linked to the land transfer tax, funding sources are taking longer to accumulate. To help stretch available funds, the County continues to encourage discounting of up to 50% from the original Rural Legacy

formulas, and MALPF has established a 70% fair market value as its cap. The County's ability to offer interested parties a variety of preservation options has helped to keep preservation efforts moving forward even through tougher economic times. The County maintains a waiting list of farms interested in receiving offers for preservation.

*Protected Lands*

| Protection Program | Countywide | PPA |
|---|---|---|
| Maryland Agricultural Land Preservation Foundation (MALPF) | 13,757 | 10,843 |
| Harford County Agricultural Land Preservation Program | 29,572 | 24,704 |
| Rural Legacy | 3,136 | 3,136 |
| Maryland Environmental Land Trust | 2,915 | 1,453 |
| Maryland Historical Trust | 539 | 141 |
| State Parks | 7,087 | 4,158 |
| County Parks | 5,020 | 789 |
| Total | **62,025** | **45,224** |

**Figure 10**

*Program Marketing*

The County's marketing program emphasizes a one-on-one effort to interested landowners. In addition, the County has taken a proactive approach to soliciting participants by offering a regular series of workshops. These workshops present the benefits of estate planning and demonstrate how selecting a preservation option can benefit the landowner and their heirs. The County also holds an annual Celebration of Agriculture that recognizes farming in Harford County with several awards including Preservationist of the Year.

*Purchase of Development Rights*

In 2006, the County updated its Purchase of Development Rights Program to enable the Harford County Agricultural Land Preservation Advisory Board to adjust the County's per acre value on an annual basis to ensure that offers remained competitive with the real estate market. In early 2007, legislation was adopted that again updated the County's 10 year old Purchase of Development Rights Program to make the program and process clearer to those interested participants. The ranking system was also adjusted to add points for properties located within or adjacent to designated PPA and Rural Legacy Areas.

## Principles, Goals, and Policies for Priority Preservation Area (PPA)

### FOCUS PRESERVATION EFFORTS IN THE PRIORITY PRESERVATION AREA TO MAINTAIN THE CONTINUED VIABILITY OF THE AREA'S AGRICULTURAL INDUSTRY.

Within the designated PPA, approximately 15,489 additional acres will need to be preserved to meet the requirements of the Agricultural Stewardship Act. Zoning and development procedures in Harford County must continue to direct development into the Development Envelope while discouraging development outside of the designated growth areas. Harford County must do this in a manner that respects and values its multi-generational farms, while demonstrating support for its young farmers as they face the challenges and opportunities of farming for future generations.

The commitment to agricultural preservation must be combined with efforts to provide for a diversification of agricultural businesses and the continued promotion of its agricultural products.

### PPA 1.1 Preserve 80% of the remaining undeveloped lands within the designated Priority Preservation Area.

Under the State's Agricultural Stewardship Act, jurisdictions with a designated PPA are required to establish a goal of preserving 80% of the remaining undeveloped lands within the PPA. While Harford County's PPA encompasses an area of about 110,000 acres, just over 87% is zoned agricultural. However, not all of these agriculturally zoned lands are eligible for preservation.

To determine the amount of additional acreage that must be preserved to achieve the Agricultural Stewardship Act's goal of 80%, an analysis of the PPA was completed in 2014. Within the PPA, 45,112 acres have been protected through easements or as parks. There is also an additional 24,900+ acres that consist of larger active agricultural lands and parcels - some containing a residential structure on 20 or more acres – while others are woodlands or agricultural fields. Most of these properties lack development rights; however, they continue to support the agricultural operations within the PPA while also contributing to the agricultural nature of the area. There are approximately 7,000 additional acres that have been developed for non-agricultural uses. This leaves 19,361 acres, of which 80% or 15,489 acres will need to be preserved to meet the preservation goal within the PPA.

**Implementation**

(a) Continue to preserve a minimum of 1,000 acres per year in the PPA.

(b) Investigate the possibility of designating the Broad Creek watershed as a Rural Legacy Area.

(c) Continue to utilize the Harford County Agricultural Land Preservation Program, MALPF, and Rural Legacy to fund preservation efforts.

(d) Work with the State to shorten the timeframe for MALPF settlements.

(e) Maintain the County's MALPF certification to leverage state funds with County funds.

(f) Work with local land trusts to seek alternative funding sources including state, federal, and private funds along with donations and match challenges to support preservation efforts.

(g) Investigate opportunities and programs to create additional incentives to preserve farmland.

(h) Continue to encourage the application of Conservation Development Standards for proposed residential development and include the 75% of the parcel that is preserved in preservation totals.

### PPA 1.2 Monitor current preservation programs and residential development patterns to determine the impact on working farmland.

Each year the Department of Planning and Zoning prepares an Annual Growth Report to meet the requirements of the Adequate Public Facilities legislation and the 2009 Smart Green and Growing legislation enacted by the Maryland General Assembly. This reporting requires the tracking of development inside and outside the County's designated growth areas. In addition, the Department monitors agricultural preservation efforts countywide, as well as changes to the agricultural land base.

The Department also maintains a data base which monitors development of properties that are designated as either Tier III or Tier IV properties under the Sustainable Growth and Agricultural Preservation Act of 2012. A separate data base is maintained to track subdivisions grandfathered under this legislation since their grandfathered status is subject to an expiration date.

These data bases enable the Department to identify any changes in development or preservation patterns, and it provides a foundation for identifying changes that might be needed to programs and regulations to continue to meet plan goals. These efforts are important to identifying where preservation efforts should be focused or the additional marketing of programs would be beneficial.

**Implementation**

(a) Continue to track projects grandfathered by the Sustainable Growth and Agricultural Preservation Act of 2012.

(b) Continue to direct a minimum of 80% of all new development to the designated growth areas.

(c) Continue to report preservation efforts and development impacts as part of the Annual Growth Report and determine if additional steps should be taken to further stabilize the agricultural land base.

### PPA 1.3 Ensure that within the Priority Preservation Area there is support for a range of agricultural enterprises and the potential to adapt to new markets.

Harford County has a long and rich agricultural history, sustained by farm families that have managed to evolve with the changing agricultural climate. While recent years have seen farmers continue to focus on traditional agricultural practices, they have also begun to expand their operations to include products, services and events that appeal to the changing demographics of Harford County.

As more families opt to "Buy Local" participation at local Farmer's Markets have risen, and the number of Community Supported Agriculture co-ops within the County has also increased. The CSAs involve a network or association of individuals who have pledged to support one or more local farms, with growers and consumers sharing the risks and benefits of food production. CSA members or subscribers receive a share of the anticipated harvest; once harvesting begins, they receive weekly shares of vegetables and fruit. CSA's can also include herbs, honey, eggs, dairy products and meat, in addition

to cut flowers and various ornamental plants as part of their weekly pickup arrangement.

Production and marketing of value added products along with farm centered events such as corn mazes, pumpkin patches, and wineries help to attract business from non-county residents. Agricultural related tourism is also supported by State Heritage Area and Scenic Byway programs, but continued marketing of rural tourism is needed if the County is to compete with regional attractions. In addition, the Agricultural Economic Development Advisory Committee should focus on taking the necessary steps to support local farming operations while also helping them maintain their competitive edge.

**Implementation**

(a) Promote community supported agriculture, farmer's markets, and other emerging local and regional markets and distribution systems.

(b) Continue to support agricultural and rural based tourism.

(c) Review and update the Agricultural Economic Development Initiatives to specifically support agriculture within the PPA.

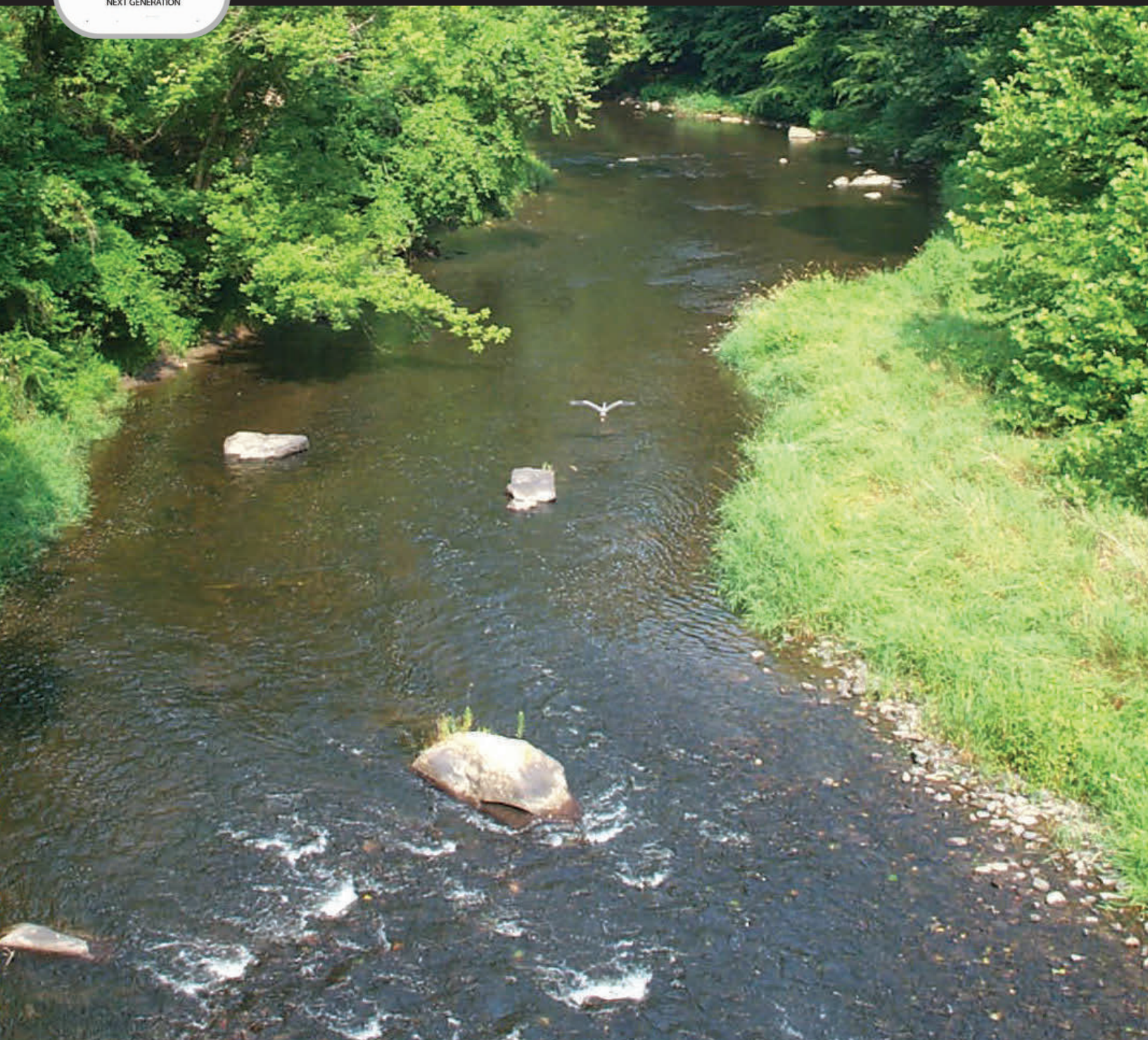
(d) Continue to review and revise zoning regulations to permit compatible agriculturally related uses in areas easily accessible to farm operators while also minimizing impacts to surrounding properties.

APPENDIX II

# WATER RESOURCE ELEMENT PLAN

HARFORD NEXT
A MASTER PLAN FOR THE NEXT GENERATION

## A Master Plan for the Next Generation



# APPENDIX II | WATER RESOURCE ELEMENT PLAN

## Introduction

A primary objective of HarfordNEXT is to protect and conserve the County's water resources. The provision of safe drinking water and clean water for recreational pursuits and environmental health is fundamental to the public's quality of life.

In 2006, the Maryland General Assembly passed HB1141 which mandated that local jurisdiction's develop a Water Resources Element (WRE) as part of their Master Plan. This appendix to HarfordNEXT addresses the requirement of HB1141 to develop a WRE within the Master Plan. The main purpose of the WRE is to ensure that Harford County has adequate water resources to meet its current and future needs for drinking water and wastewater treatment. In addition, HB1141 requires that there be suitable receiving waters and land areas to meet the stormwater management needs of existing and future developments as identified in HarfordNEXT. Policies and strategies will be presented to ensure an adequate and safe supply of drinking water resources and wastewater facilities, and protection of water quality through adequate stormwater management.

HarfordNEXT and the Land Use Map identify designated growth areas which will accommodate new development while minimizing impacts to agricultural lands and other natural resources. The County's designated growth areas include the Development Envelope (which incorporates the three municipalities of Bel Air, Aberdeen and Havre de Grace) and several other areas designated for economic development. These areas, along with nine Rural Villages, are recognized as Priority Funding Areas (PFA) by the State. The Development Envelope, designated in 1977, is a growth management tool designed to ensure that development is targeted to areas planned for public water and sewer while discouraging development in rural areas. The Development Envelope is generally defined as those areas along the MD 24/MD 924 corridor and the I-95/US 40 corridors. The County's Water and Sewer Master Plan provides for planned service within this area.

The Water and Sewer Master Plan provides for an adequate supply of clean drinking water and environmentally responsible conveyance and treatment of waste water discharges within the Water & Sewer Service Area. The Water and Sewer Service Areas are closely linked to the Development Envelope. Adequate water and sewer capacity must exist for all new development within the Development Envelope in accordance with the requirement of the County's Adequate Public Facilities regulations (APF). If sufficient capacity does not exist, then development shall not occur. Thus, to facilitate the planned and orderly growth of the County, the provision of adequate water and sewer service is essential.

The WRE begins with an analysis of the drinking water supply in the County. The drinking water supply is analyzed both inside the Development Envelope where public drinking water is provided by seven major water purveyors and outside the Development Envelope where individual and community systems rely on groundwater. The County's wastewater treatment systems are analyzed next, not only in terms of capacity but also in terms of pollutant loading rates and nutrient caps imposed by State permits. An overview of the County's stormwater management program is also presented as part of the WRE. Policies and key implementation strategies to achieve the County's water resources goals are presented.

The WRE is built upon work contained in other planning and technical documents already prepared by the County, namely the Water and Sewer Master Plan and the MS-4 (NPDES) Permit, as well as other documents that will be identified throughout this Section. It is not the purpose of the WRE to duplicate this material, but to summarize and reference it where needed.

## Coordination with Municipalities

The Departments of Planning and Zoning and Public Works coordinated with representatives from the Town of Bel Air, Maryland American Water Company, City of Aberdeen and City of Havre de Grace for the development of this WRE. Although each jurisdiction prepares its own WRE, it is critical that the County and municipalities coordinate their efforts to address water resource issues. Population projections were coordinated and verified.

The Cities of Aberdeen and Havre de Grace operate their own water and wastewater systems while the Town of Bel Air receives its water supply from the private Maryland American Water Company and is provided sewer service by the County. As a result of these coordination meetings, the study period was agreed to begin with the baseline year of 2010 and project forward to 2035. Water and sewer service area boundaries were reconfirmed, and population projections for these service area boundaries were determined by Harford County and shared with the municipalities for their planning purposes.

## Drinking Water Assessment

*Public Water Supply*

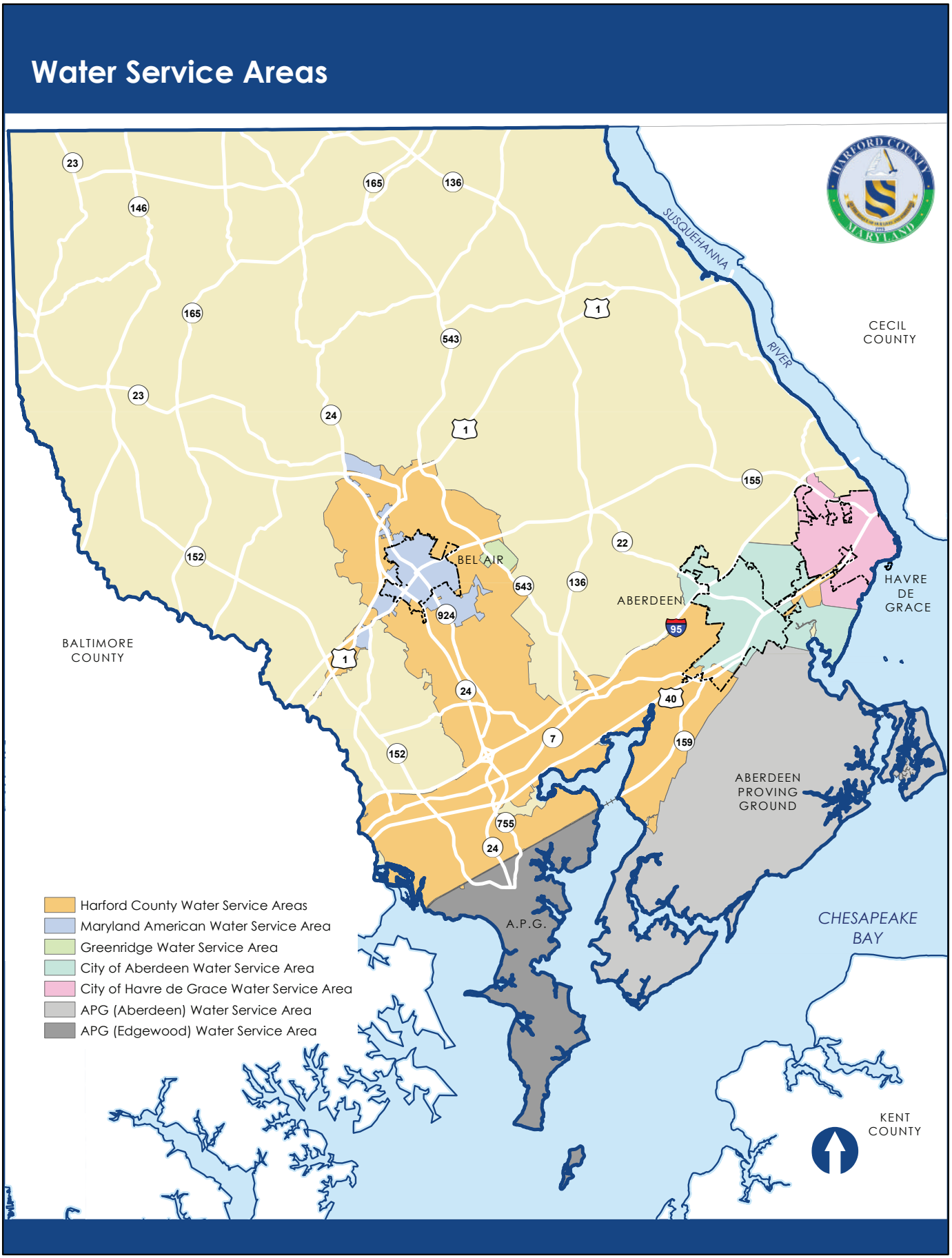
Within the County's Development Envelope there are seven distinct and separately owned, operated and managed water purveyors who meet the needs of a majority of the County's population. For the purposes of this document these major water systems are collectively named the "Major Water Systems". These Major Water Systems are: Harford County Government (known as "The County System"), Maryland American Water Company (MAWC), City of Aberdeen (Aberdeen City), City of Havre de Grace (HDG), APG – Aberdeen Area (APG – AA), APG – Edgewood Area (APG – EA), and Green Ridge Utilities (GRU). The current and future service areas for these seven water systems are shown on Figure 1 and Figure 2, respectively. Based on the 2010 Population Census, collectively these purveyors served approximately 174,000 people and it is estimated that approximately 183,000 people were served by the public water systems in 2015.

*Existing Conditions*

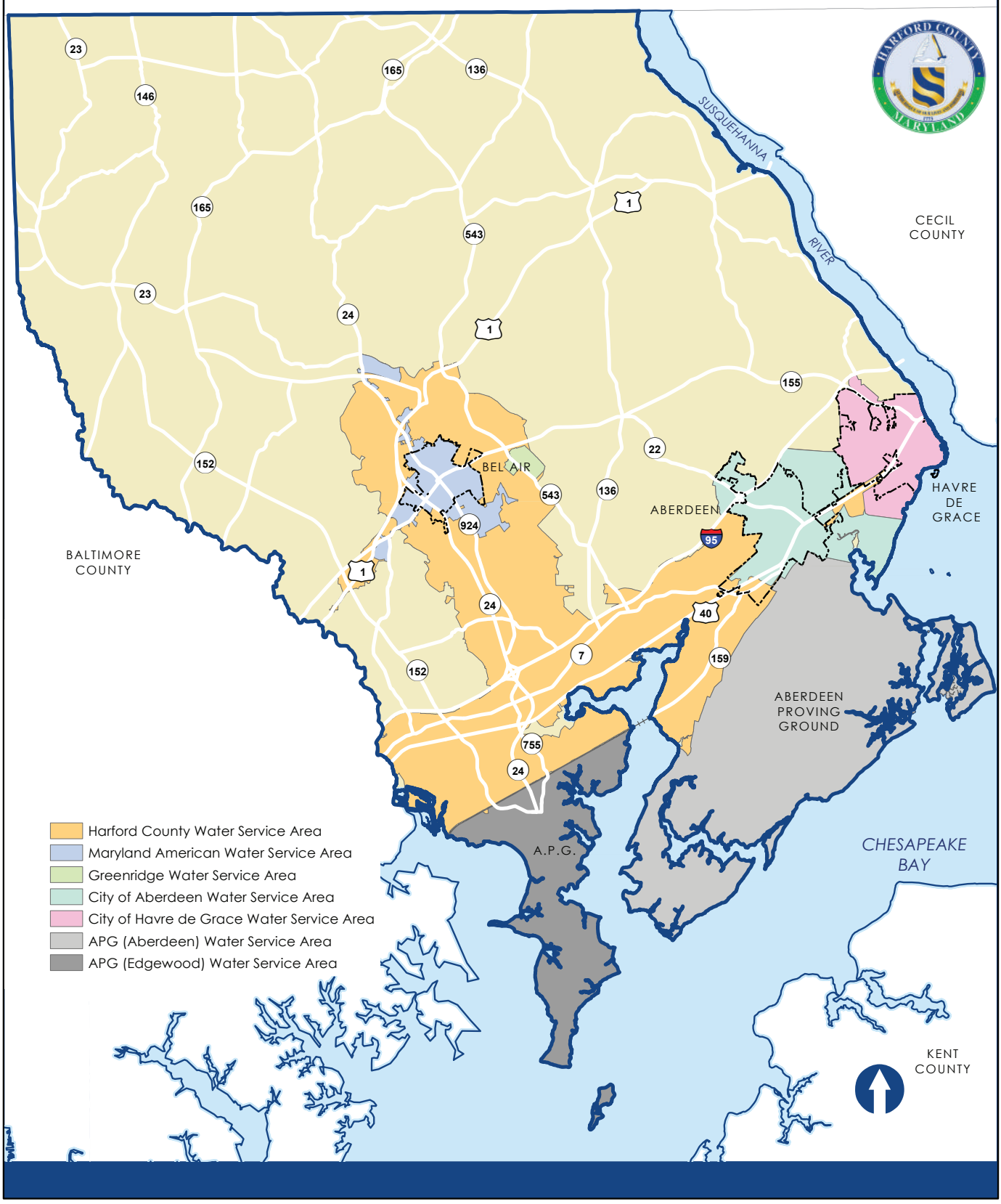
Table 1 presents the current and projected water supply demands and planned capacities for the Major Water Systems. Data for the APG-AA system and APG-EA system were unavailable. In addition, population projections and other informational facts concerning each large water system within Harford County are presented.

*The County System*

The County System is the largest purveyor of water in the County with the largest service area


Water Service Areas
SUSQUEHANNA RIVER
CECIL COUNTY
BALTIMORE COUNTY
BEL AIR
ABERDEEN
HAVRE DE GRACE
ABERDEEN PROVING GROUND
A.P.G.
CHESAPEAKE BAY
KENT COUNTY
Harford County Water Service Areas
Maryland American Water Service Area
Greenridge Water Service Area
City of Aberdeen Water Service Area
City of Havre de Grace Water Service Area
APG (Aberdeen) Water Service Area
APG (Edgewood) Water Service Area

# Future Water Service Areas



of approximately 30 square miles. The County System served approximately 125,000 residential people in 2010 and had 39,690 customer connections. In 2010, the County had supply capability of 19.6 mgd and the County's average daily demand was 13.8 million gallons per day (mgd). The maximum day demand was 15.1 mgd. Of the 13.8 mgd of average use, 12.29 mgd was needed to meet the County's domestic demand, while the commercial and industrial demand was 1.12 mgd and 0.39 mgd, respectively. In 2011, the County completed the 10.0 mgd expansion (9.5 mgd net production) to its major water treatment plant, known as the Abingdon Water Treatment Plant. This expansion brought the system's supply capability to 29.1 mgd. Growth within the County has slowed from its historic highs in the 1990's and early 2000's and contracted over the past five years. Only 1,100 new connections were made to the County's water system between 2010 and 2015. In addition, water usage per capita has decreased. The County's Municipal contractual customers did not require the use of their maximum allowable appropriation from the County system during this timeframe. Based on nine months of data for 2015 it is estimated that the average and maximum day demands will be 12.40 mgd and 14.30, respectively.

The orderly development of the County's public water supply system is controlled through the Water and Sewer Master Plan (WSMP) and the County's Capital Budget and Five Year Capital Improvement Program (CIP). The WSMP outlines phased improvements to its water supply system required to satisfy existing and future development. In addition, the County's APF regulations require adequate capacity to service planned development within the Development Envelope.

The central water supply system serving Harford County is operated by the Department of Public Works, Division of Water and Sewer. The County's service area generally lies outside of the incorporated Town of Bel Air, and Cities of Aberdeen and Havre de Grace, and also excludes the Federal land area of APG-AA and APG –EA (see Figure 2). The County System is planned in conformance with HarfordNEXT. In addition to serving the planned Development Envelope, the County System also has Water Purchase Agreements for a set amount of water to several of the other major water suppliers: Aberdeen City – 0.9 million gallons per day (mgd), Aberdeen City – APG-AA backup supply – 1.7 mgd with an option until 2018 for an additional 0.3 mgd, Maryland American – 0.5 mgd, and Green Ridge Utilities – 0.35 mgd.

Four different water treatment plants service the Development Envelope: the City of Havre de Grace Water Treatment Plant (by way of a 1980 contractual agreement), the Harford County Havre de Grace Water Treatment Plant, Perryman Water Treatment Plant, and the Abingdon Water Treatment Plant. Current combined safe treatment capacity of the four sources is 29.1 mgd, comprised of 1.3 mgd from the City of Havre de Grace Water Treatment Plant, 3.6 mgd from the Harford County Havre de Grace Water Treatment Plant, 5.2 mgd from Perryman and 19.0 mgd net production from the Abingdon Water Treatment Plant. The safe yield of each source is decreased from the raw water appropriation amount by the amount of water required by the plant itself.

The raw water source for the City of Havre de Grace and Harford County Havre de Grace Water Treatment Plant is the Susquehanna River. The intakes for these plants are located downstream of the southern-most railroad bridge crossing and are below the authority of the Susquehanna

## Present and Projected Water Supply Demands and Planned Capacities (MGD)
## SOURCE: Data Provided by Each Individual Water System

**TABLE 1**

| | PLANNING YEAR | HARFORD COUNTY GOVERNMENT | MARYLAND AMERICAN WATER COMPANY | CITY OF ABERDEEN | CITY OF HAVRE DE GRACE | GREEN RIDGE UTILITIES |
|---|---|---|---|---|---|---|
| SOURCE WATER/SAFE YIELD OF TREATMENT PLANT CAPACITY MGD [Permitted Max. Daily Appropriation - mgd] | 2010 | Susquehanna River – County HDG Plant – 3.6 [6.0] | Winters' Run Stream – 1.4 [1.7] | Ground Water – Aberdeen Well Field – 1.73 | Susquehanna River – City HDG Plant – 4.0 [5.0] | Ground Water – Port Deposit Gneiss Aquifer – 20 active wells – 0.137 |
| | | Ground Water – Talbot Formation and Potomac Group – Perryman – 5.2 [4.39] | Bynum Wells – 0.144 [.271] | | | |
| | | | Winters' Run Wells – 0.132 [.246] | Harford County Contract Purchase – 0.9 | | Harford County Contract Purchase – 0.35 |
| | | Loch Raven Reservoir/Susquehanna River – Abingdon Plant – 20* [25] | Harford County Contract Purchase – 0.54[1] | | | |
| | | Havre de Grace City Water Purchase – 1.3 | | | | |
| TOTAL SAFE YIELD (ALL PLANTS, SOURCES AND CONTRACTS) | 2010 | 19.6 | 2.144** | 2.63 | 3.86 | 0.487 |
| | 2035 | 33.54 | 2.184** | 3.5 (source unknown) | 3.86 | 0.487 |
| ANNUAL AVERAGE DAILY DEMAND (2005 IS BASED ON 5 PREVIOUS YEAR – PLUS 10% FOR DROUGHT FACTOR) | 2010 | 13.80 | 1.5 | 1.67 | City: 1.63 / County: 1.3 | 0.092 |
| | 2035 | 20.15 | 1.65 | 1.97 | 2.65 / 0 | 0.092 |
| | BUILD OUT | 25.11 | | | | |
| MAXIMUM DAY DEMAND *INCLUDES CONTRACTUAL DEMANDS 2005 ACTUAL | 2010 | 15.1 | 1.7 | 2.66 | 2.12 / 1.3 | 0.182 |
| | 2035 | 28.71 | 1.84 | 3.12 | 3.9 / 0 | 0.182 |
| | BUILD OUT | 35.65 | | | | |
| RESIDENTIAL POPULATION SERVED | 2010 | 125,531 | 15,029 | 14,831 | 12,553 | 1,736 |
| | 2035 | 165,737 | 15,027 | 17,008 | 15,355 | 1,736 |
| COMMERCIAL CONSUMPTION | 2010 | AVG: 1.12 / PEAK: 1.57 | AVG: 0.56 / PEAK: 0.66 | AVG: 0.91 / PEAK: 1.39 | UNAVAILABLE | NONE |
| | 2035 | AVG: 4.50 / PEAK: 6.29 | AVG: 0.48 / PEAK: 0.56 | AVG: 1.40 / PEAK: 2.43 | | |
| INDUSTRIAL CONSUMPTION | 2010 | 0.39 / 0.66 | UNAVAILABLE | UNAVAILABLE | UNAVAILABLE | NONE |
| | 2035 | 0.77 / 1.07 | | | | |
| DOMESTIC CONSUMPTION | 2010 | 12.29 / 12.87 | 0.94 / 1.04 | 0.76 / 1.27 | UNAVAILABLE | .184 / .182 |
| | 2035 | 14.89 / 21.35 | 1.17 / 1.28 | .57 / .70 | | .184 / .182 |
| WATER USAGE PER CAPITA | 2010 | 98 / 103 | 63 / 69 | 51 / 85 | 127 / 169 | 53 / 105 |
| | 2035 | 90 / 129 | 78 / 85 | 33 / 41 | 173 / 254 | 53 / 105 |
| NUMBER OF CONNECTIONS | 2010 | 39,690 | 4878 | 4,759 | 5000 | 855 |
| | 2035 | 48,069 | 5000 | 6,077 | 7,000 | 855 |
| WATER USAGE PER CONNECTION | 2010 | 348 / 295 | 308 / 349 | 351 / 558 | 320 / 423 | 108 / 213 |
| | 2035 | 419 / 527 | 330 / 368 | 381 / 606 | 379 / 557 | 108 / 213 |
| NUMBER OF INDIVIDUAL PRIVATE WELLS WITHIN SERVICE AREA | 2010 | 2995 | 71 | 0 | 150 | 0 |
| | 2035 | 0 | 0 | | 118 | |
| CONTRACTURAL DEMANDS | 2010 | Aberdeen City 0.9<br>APG-AA 1.7<br>MAWW 0.5<br>GRU 0.35 | | | | |

*Net production is 19 mgd, 1 mgd is used by the Treatment Plant internally
APF Report ** In 2029 agreement for finished water from HDG expires and not included *** Prepared by HC in 2013 based on 2010 census

1. New contracted flow

** Per Table 3-6, Harford County Water and Sewer Plan dated October 2015

River Basin Commission. The Perryman Water Treatment Plant uses a well field comprised of seven deep wells drawing ground water from the Talbot Formation and Potomac Group of the Coastal Plain. Source water protection regulations within the Harford County Zoning Code provide protections to the Perryman Wellfield Protection District. These regulations include prohibition of potential contaminant uses within the wellfield district, limitation of impervious surfaces within the district, and promotion of recharge of the groundwater supply.

The Abingdon Water Treatment Plant is fed from the 108-inch Susquehanna Aqueduct which is owned and maintained by the City of Baltimore. Raw water for the Abingdon Water Treatment Plant is obtained by agreement between the City of Baltimore and Harford County. The Aqueduct can provide water from two supplies: the City's Loch Raven Reservoir by gravity flow and from the Susquehanna River through Baltimore City's Deer Creek Booster Station. The primary source for the Abingdon Water Treatment Plant is the Loch Raven Reservoir. During drought conditions and possible future operational changes by the City of Baltimore, water from the Susquehanna River will be the primary source via the 108-inch Aqueduct. When Baltimore City requires water from the Susquehanna River, typically during drought times, the water source is from the Conowingo Pond north of the Conowingo Dam, thus within the authority and permitting purview of the Susquehanna River Basin Commission. The current agreement with Baltimore City allows the County to withdraw up to 25.0 mgd from the Aqueduct.

In addition to providing a water supply for domestic consumption and firefighting to its population, the County is responsible for maintaining the quality of water in the distribution system. As a result, while planning for improvements to the system to meet future demands, the County must also consider the effects of these improvements in order to maintain a high quality of water within the distribution system. A comprehensive evaluation of the entire water distribution system was previously completed. As a part of this effort, the County developed a long range Capital Improvement Program (CIP) to provide the additional facilities required to meet projected future demands through 2025.

*Municipal Systems*

The City of Havre de Grace owns and operates its own 4.0 mgd water treatment plant and water distribution system. The source of this water is the Susquehanna River. Over 13,000 residents are currently served by this system as well as commercial and industrial customers. The City's plant produces water to supply the needs of Havre de Grace as well as for small service areas just outside the City limits but within the Harford County Development Envelope. In 1980, the City and County entered into a forty-year water agreement whereby the County upgraded the City's plant to a safe capacity of 3.86 mgd in return for the right of the County to build its own water treatment plant adjacent to the City's and for the right for any remaining water capacity in the upgraded facility to be used by the County. The 1980 agreement allows the City to buy back this capacity over time and the City has been exercising this option routinely over the life of the contract. As of July 1, 2015, the City supplied the County with 1.39 mgd as per year-by-year terms. Based on current projections, the City will need the entire safe yield capacity of the facility by the end of the agreement and no renewal is currently anticipated. This water agreement contract ends in 2020.

The City of Aberdeen currently owns and operates a 1.5 mgd average (2.0 mgd peak) well field located near the boundary of APG-AA. Through a contract purchase agreement with the County, the City may purchase up to 900,000 gallons per day from the County to supplement this supply. In addition, in 2004 the County and City amended the agreement to include an additional 1.5 mgd to be used at the Chapel Hill Interconnection in order for the City to provide a reliable back up to the Deer Creek supply for APG-AA. In 2013, the agreement was once again amended for a temporary allocation of up to 0.5 mgd to be used until 2018. By 2018, a new source of water treatment at APG-AA, known as Building 250, is proposed to be brought back online. Building 250 is a previously used but now decommissioned groundwater treatment plant. If Building 250 is not brought back online by 2018, the temporary allocation must be bought and become permanent. The City owns and maintains its own water distribution system including the Chapel Hill Water Treatment Plant. The City of Aberdeen system served approximately 14,831 residential people in 2010 and had 4,759 customer connections. The City's average day demand was 1.67 million gallons per day and its maximum day demand was 2.66 mgd.

*Private Systems*

Maryland American Water Company (MAWC) provides service to the Town of Bel Air as well as County areas adjoining the Town, serving approximately 15,029 residents. Its water treatment plant draws water from Winters Run (up to 1.4 mgd) and two wells (up to 0.355 mgd). In addition, MAWC may receive up to 540,000 gpd through a contract purchase agreement with the County. The company's average day demand was 1.5 mgd and its maximum day demand was 1.7 mgd. The water supply withdrawals from Winters Run are limited during times of drought and during late summer and early fall when rainfall is not plentiful due to minimum stream "flow-by" requirements.

Green Ridge Utilities, Inc. provides water service to approximately 1,736 people via 855 customer connections outside of the Town of Bel Air and immediately adjacent to the County's water system in the Green Ridge community. The source water for the utility is a series of 20 active wells, as well as a contract purchase agreement with the County for 0.35 mgd of water. There are no foreseen future customers to its system. The service area has no plans for expansion.

*Federal Systems*

The Aberdeen Proving Ground is divided into two areas: Aberdeen area (APG-AA) and Edgewood Area (APG-EA) and is served by two independent water supply systems. APG-EA is served by a water treatment plant in the Van Bibber area which has an allocation permit to withdraw a maximum of 4.5 mgd of water from Winters Run. The Winters Run stream has a zero safe yield as a water source, due to the required flow-by criteria which frequently necessitates the plant to stop production due to low flows in the stream during late summer and early fall. In seven of the last eight summers, this plant was unable to withdraw water from Winters Run due to low stream flows. Privatization of this Federal facility is pending.

The water system for APG-AA was "privatized" by the City of Aberdeen. APG-AA is served by the Chapel Hill water treatment plant which is supplied from Deer Creek. Deer Creek also has a zero safe yield during times of drought due to flow-by requirements that can't be

maintained during moderate drought conditions. A water availability study of the Deer Creek watershed, recently conducted by the Susquehanna River Basin Commission, has revealed insufficient water in times of drought for Deer Creek to become a major drinking water source without back-up supplies. Therefore, the water allocation from this source is tied to adequate reliable backup supplies. The permitted withdrawal rate from Deer Creek is 1.5 mgd. Back-up supply is provided by the County (1.7 mgd).

*Summary of Major Water Suppliers' Existing Supply and Demand*

Table 2 presents the total supply and demand of the Major Water Suppliers as of 2010.

**TABLE 2**
**Major Water Suppliers' 2010 Supply and Demand**
**(includes both residential and non-residential)**

| 2010 | County | MAWC | Aberdeen | APG-AA | APG-EA | HDG | GRU | TOTAL |
|---|---|---|---|---|---|---|---|---|
| **Residential Population Served** | 125,531 | 15,029 | 14,831 | 3,339 | 913 | 12,553 | 1,736 | 173,932 |
| **Independent Supply* mgd** | 19.6 | .992 | 1.73 | 0 | 0 | 3.86 | .137 | 26.32 |
| **Average Day Demand mgd** | 13.80 | 1.50 | 1.67 | 0.927[1] | 1.0[2] | 2.9 | .092 | 21.89 |
| **Maximum Day Demand mgd** | 15.1 | 1.7 | 2.66 | 1.28[1] | 1.5[2] | 3.42 | .182 | 25.84 |

* Independent Supply is defined as the available safe yield supply to an entity without the use of any contractual relief from one purveyor to another. The Capacity is what is available for the purveyor's solely owned treatment plant(s).

[1] Flow data taken from Harford County meter records from delivery from the County system to APG.

[2] Flow data taken from Harford County meter records from delivery from the County system to APG-EA; no flow from APG-EA Van Bibber Plant is being produced during these times due to flow-by conditions of the Winters Run stream being below the pass- by requirement of the withdrawal permit.

## Future Needs - Water Supply

The County anticipates that of the total population projection for 2035 of 281,030 people, nearly 75%, or 210,830 people, will be on a public water supply located within the current Development Envelope. This is an anticipated 15.6% increase since 2010 in the population to be served by public water, including the municipalities and Federal land.

*The County System*

In 2011, the County completed its expansion of the Abingdon Water Treatment Plant from 10.0 mgd to 20.0 mgd (19.0 mgd net production). Additionally, in 2012 the County and Baltimore City amended its raw water purchase contract to increase the County's allocation from 20.0 mgd to 25.0 mgd. With this increased allocation from Baltimore City and another expansion of the Abingdon Water Treatment Plant, the County will have adequate water supply to meet its 2035 needs. The average day demand for the Harford County system is projected to be 20.15 mgd with a maximum day demand of 28.71 mgd in 2035.

*Municipal Systems*

The City of Havre de Grace will serve a population of approximately 15,300 residents by 2035. The average and maximum day demands of 2.65 mgd and 3.86 mgd, respectively, will be met by the current Havre de Grace Water Treatment Plant supply of 3.86 mgd. The City will be able to meet its future needs as it gradually buys back the capacity it was selling to the County through a 1980 agreement. By 2020, the City will no longer be providing water to the County system.

The City of Aberdeen has been actively searching a new water source for its short and long-term needs. In 2035, the City of Aberdeen will have a projected average day demand of 1.97 mgd and a maximum day demand of 3.12 mgd. As shown in Table 1, the total safe yield for the City is 2.63 mgd; therefore, additional water supply will be needed. The City indicates that it will seek additional capacity increases either through construction of an Aberdeen Plant or seek approval to purchase water from Harford County Government, if the County has adequate supply and appropriation available. The need for additional water sources will be addressed in the Water Resources Element of the Aberdeen Comprehensive Plan.

*Private Systems*

Maryland American Water's need for water is projected to slightly increase to 1.65 mgd average day demand by 2035. Under drought conditions MAWC cannot meet its current or future maximum day demand. In 2015, MAWC entered into a Consent Order to develop an additional safe supply to meet the current and future demands of their system. MAWC is currently in the process of designing an off-line earthen dam structure and associated pump station to augment their source of supply during drought conditions. The operation of the facility would include withdrawing water from Winters Run when stream flow is sufficiently high to fill the upland reservoir and store it for future use when stream flow is not adequate to meet permit conditions, or when raw water quality is not optimal.

Green Ridge Utilities, Inc. is currently meeting its needs through a combination of their well system and water provided by a contract with the County. There are no plans for expansion.

*Federal Systems*

Additional sources of water will be required for both the APG-AA and APG-EA service areas. APG is pursuing a strategy to bring APG Building 250 back online by June 30, 2018. Building 250 is a previously used but now decommissioned groundwater treatment plant that is capable of producing up to 3.0 mgd of potable water, thus eliminating the need to rely on any reserved

potable water capacity purchased by the City of Aberdeen as back up to the Chapel Hill WTP. When the treatment plant is placed into service again, the City of Aberdeen would release the 1.5 mgd, currently serving as reserve capacity, back to the County. The County, through a separate water purchase agreement, would then provide up to 1.5 mgd of potable water to APG-EA, thus solving both Federal installations' future water inadequacies. On September 22, 2015, the County and the City executed the 10th amendment to their water purchase contract to provide for this exchange in the future. Also on September 22, 2015 the County and APG-EA entered into a separate long term agreement to provide 1.5 mgd to APG-EA, contingent on APG constructing a new water source and treatment plant by June 30, 2018.

*2035 Development Envelope Region (no growth allotment for either APG–AA or APG–EA)*

Table 3 collectively addresses the future needs of all of the Major Water Purveyors as a region. Future demand requirements for the Federal areas of Aberdeen and Edgewood were not made available; therefore, Federal water service areas are held at their 2015 demand. Following the concept of regional availability in the future, (neglecting pressure zones, services areas and contractual requirements) Table 3 illustrates the need for additional water sources and treatment systems to be planned and developed in Harford County. The water supply availability shown in Table 3 takes into account actual water supply projects that are currently listed in the Harford County Water and Sewer Master Plan, Fall 2015, including the Abingdon Water Treatment Plant expansion to 25.0 mgd by 2030.

**TABLE 3**
**Region's Future Supply and Demand (2035)**
**(includes both residential and nonresidential)**

| 2035 | County | MAWC | Aberdeen | APG-AA | APG-EA | HDG | GRU | TOTAL |
|---|---|---|---|---|---|---|---|---|
| **Residential Population Served** | 165,737 | 15,027 | 17,008 | 3,332 | 911 | 15,355 | 1,736 | 219,106 |
| **Independent Supply* (mgd)** | 33.54 | 1.644 | 2.60 | 2 | 0 | 3.86 | .137 | 43.27 |
| **Average Day Demand1 (mgd)** | 20.151 | 1.65 | 1.37 | 1.4 | 0 | 2.65 | .092 | 27.31 |
| **Maximum Day Demand2 (mgd)** | 28.712 | 1.84 | 2.22 | 2.0 | 0 | 3.9 | .182 | 38.85 |

* Independent Supply is defined as the available safe yield supply to an entity without the use of any contractual relief from one purveyor to another. The Capacity is what is available for the purveyor's solely owned treatment plant(s).

1. HC [20.15 includes 0.25 to MAWC; 0.60 to Aberdeen City; 1.0 to APG-EA], Aberdeen City [1.37 is determined by 1.97-0.60].

2. HC [28.71 includes .5 to MAWC, 0.9 to Aberdeen City and 1.5 to APG-EA], APG-AA is assumed that Building 250 water treatment plant is up and running with a new well water source equal to at least 2.0 safe yield. See City of Aberdeen/Harford County Water Purchase Agreement 10th Amendment.

As a result of the expansion of the Abingdon Water Treatment Plant to 20.0 mgd, Harford County will be able to meet its expected maximum day demand through 2035. The future demand is based on population projections, and small increases (40,000 gpd a year) in commercial and industrial demands. This table does not reflect the total water supply required by the County to meet build-out conditions of its current planned Development Envelope contemplated in HarfordNEXT.

*Future Total Supply and Demand of the Development Envelope Region – Predicated on Build-out of HarfordNEXT.*

Table 4 presents future water needs of the County based on the buildout of the service area.

**TABLE 4**
**Region's Future Supply and Demand**
**County Build Out of Service Area**
**(includes both residential and nonresidential)**

| Beyond 2025 Build out of 2015 Development Envelope | County | MAWC | Aberdeen | APG-AA | APG-EA | HDG | GRU | TOTAL |
|---|---|---|---|---|---|---|---|---|
| **Independent Supply* (mgd)** | 33.54 | 2.0 | 1.73 | 2.0 | 0 | 3.86 | .137 | 43.27 |
| **Average Day Demand 1 (mgd)** | 25.111 | 1.65 | 2.9 | 1.4 | 0 | 2.65 | .100 | 33.81 |
| **Maximum Day Demand 2 (mgd)** | 35.642 | 1.9 | 4.1 | 2.03 | 0 | 4.0 | .137 | 45.79 |

* Independent Supply is defined as the available safe yield supply to an entity without the use of any contractual relief from one purveyor to another. The Capacity is what is available for the purveyor's solely owned treatment plant(s).

1. HC [25.11 includes 0.25 to MAWC; 0.60 to Aberdeen City; 1.0 to APG-EA], Aberdeen City [2.9 is determined by 3.5-.60].

2. HC [35.64 includes 0.5 to MAWC, 0.9 to Aberdeen City and 1.5 to APG-EA], Aberdeen City [4.10 is determined by 5.0-0.9], APG-EA [0.0 is determined by 1.5-1.5].

3. APG-AA max. demands are being met with 2.0 mgd from new Building 250 ground water treatment plant.

The County has, since 1993, envisioned the need for a total of 30.0 mgd plant capacity at the Abingdon Water Treatment Plant site with raw water supply from Baltimore City. The County is currently negotiating with Baltimore City to execute the option for the 30.0 mgd allocation and a possible additional 10.0 mgd (for a total of 40.0 mgd) in order to ensure adequate supply for all of these service areas.

Table 4 shows that at a minimum, an additional 12.0 mgd of supply allocation is required to meet provide a safe supply to APG-EA, and to meet the build-out needs of HarfordNEXT. The estimated increased allocation for the Federal lands is based on various estimates received by the County over the last several years for the provision of water to private development on APG through enhanced use leases. In addition to this increase in allocation, additional allocation should be planned due to drought demands and the impact on MAWC's Winters Run Plant. For this reason, the region should be looking at studying and permitting an additional 20.0 mgd beyond the region's current approved levels. The County and local municipalities have recently obtained funding for a study that evaluates the regionalization alternatives and feasibility for the water supply needs of Harford County and the major water systems.

## Drinking Water – Rural Area

In keeping with the County's goal to target planned growth within designated growth areas, the provision of public utilities in the rural area (outside of the designated growth areas) is prohibited unless it is needed to address a public health issue. Therefore, drinking water needs outside the County water and sewer service areas are supplied by groundwater resources. Table 5 presents the current and future population and households in the rural area relying on groundwater resources. In 2005, this accounted for approximately 30% of the County's population.

**TABLE 5**
**Population and Households in the Rural Area on Private Systems**

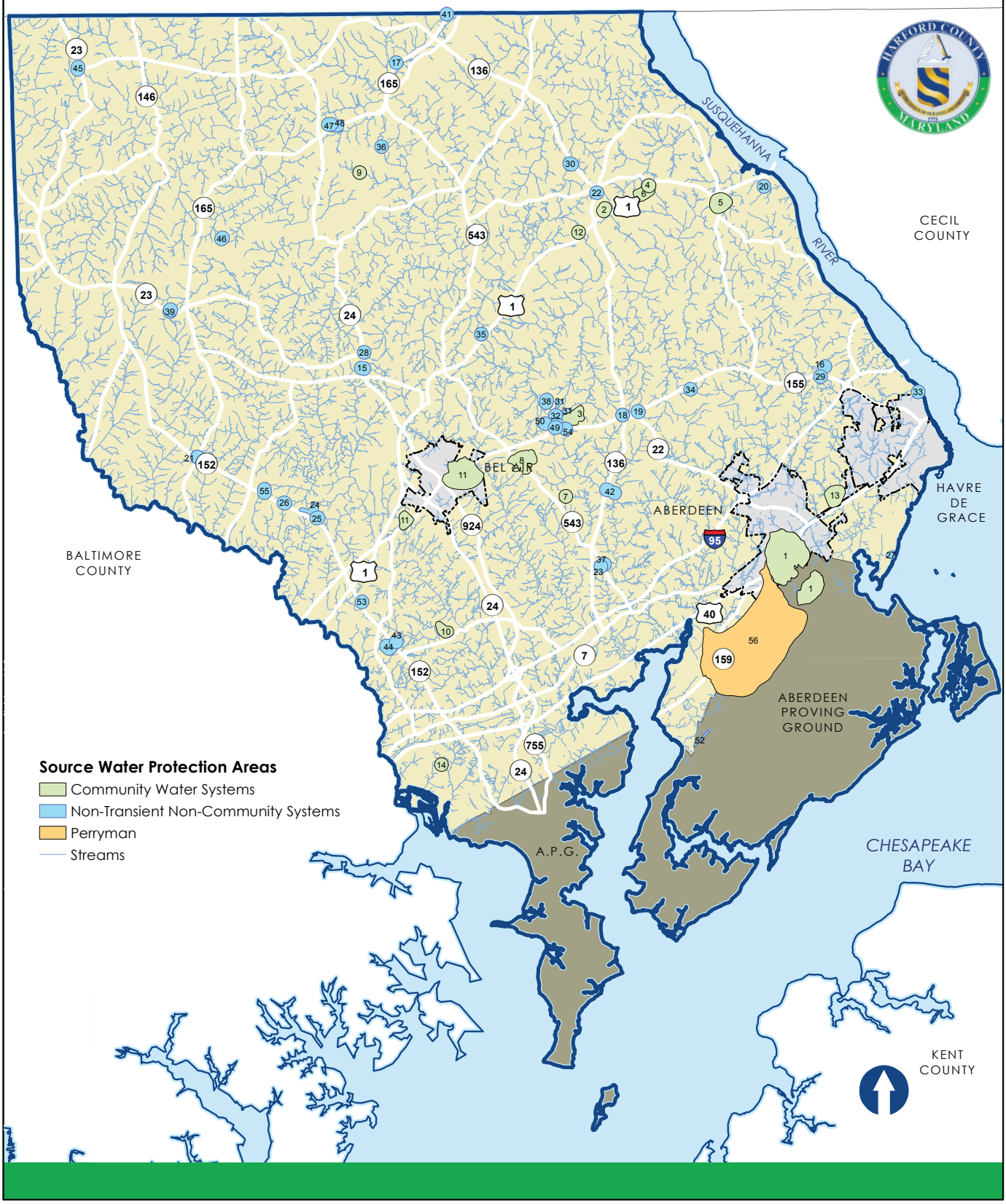
| | 2010 | 2035 (Projected) |
|---|---|---|
| Population | 62,433 | 70,199 |
| Households | 22,336 | 26,426 |

The groundwater resources of Harford County are divided into two physiographic provinces: the unconfined aquifers of the Piedmont, encompassing approximately 80% of the County, and the confined or semi-confined aquifers of the Coastal Plain. The Coastal Plain aquifers typically provide an abundant yield of water, and are currently tapped by the County and the City of Aberdeen as part of their public water supply.

A majority of the rural area lies within the Piedmont where the aquifers have more limited water-yielding potential and well yields are extremely variable. One area especially prone to low water yields is the Lower Pellitic Schist of the Wissahickon formation, particularly in the Upper Fallston/Jarrettsville area. The majority of properties, even those in these low yield areas, are generally able to obtain a satisfactory water supply.

Even though the Piedmont formations supply a large number of individual residences and industrial and commercial facilities, the reported low well yields (average reported well yields of 10.0 to 15.0 gpm with higher yields of about 50.0 gpm in draws and valleys) are not sufficient for consideration of these formations as a major groundwater source for a County water system. These formations can continue to supply individual residences, small residential developments and commercial facilities not readily accessible to the County's central water system. All requests for groundwater appropriations in the County will follow the MDE permit process.

# Water Source Protection Districts



## Agriculture

The Harford Soil Conservation District reports there are no current supply issues for existing dairy and livestock operations in the County. The Piedmont area is not conducive to intensive agricultural operations requiring large amounts of irrigation, such as the grain crop operations prevalent on the Eastern Shore of Maryland.

The Soil Conservation District will assist the agricultural community with compliance related to setbacks requirements stated in the Nutrient Management Regulation through the Maryland Department of Agriculture. These setbacks were created to provide a natural buffer to open surface water (perennial/intermittent streams and ponds) from runoff of farm land. Technical assistance for best management practices that will reduce the nutrient and sediment loads to tributaries located adjacent to farms will be the primary function of the Soil Conservation District.

## Community Water Systems

Several community water systems, including six small mobile home parks, are served by private well systems in the Piedmont (Table 6). In keeping with previous master plans, no new community water systems will be considered to serve new development outside of the Water & Sewer service area.

The Darlington and Campus Hills water systems are operated by the Maryland Environmental Service and serve populations of approximately 250 each. The Lakeside Vista subdivision serves approximately 220 people through 81 service connections. Six mobile home parks in the Piedmont serve from a low of 28 at one park to a high of 150 people at another park. One additional mobile home park is located in the southern portion of the County and taps into the Coastal Plain aquifer for its source of drinking water. All of these private community water systems outside of the Development Envelope are expected to maintain economically viable and physically reliable resources to serve the existing communities. Extensive expansion of these systems will not be encouraged, as reported in the County's Water and Sewer Plan; however, minor additions to the customer base may be logical and appropriate.

In addition to community water systems, there are 43 nontransient-noncommunity water systems that rely on groundwater to meet their drinking water needs. These systems are defined as public water systems that are not a community and serve at least 25 of the same individuals over 6 months per year. Located throughout the Piedmont are schools and day care centers which fall within this category.

The County has source water protection regulations for the County's Perryman wellfield as well as other community and nontransient-noncommunity systems. These regulations prohibit potential contaminant uses within designated wellhead protection districts and promote recharge of the groundwater supply. Figure 3 identifies these regulated wellhead areas.

## Water Quality

Overall, the water quality of Harford County aquifers is relatively good. Source water assessments have been prepared by or for MDE for the community and nontransient-noncommunity

| Community Water Systems Outside the Water and Sewer Service Area | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TABLE 6** | Service Areas | | | | | | | | | | |
| | **Darlington** | **Campus Hills (from 2004 MDE source water assessment)** | **Lakeside Vista** | **Darlington MHP** | **Fountain Green MHP** | **Swan Harbor Dell** | **Williams MHP** | **Hart Heritage** | **Clearview MHP** | **Queen Castle MHP** | **Atkins Retreat (R&R Estates)** |
| *Public Water System Identification Number* | *012-0009* | *012-0007* | *012-0014* | 012-0214 | 012-0208 | 012-0215 | 012-0207 | 012-0021 | 012-0204 | 012-0213 | 012-0210 |
| SOURCE WATER | Unconfined Quartzite Gabbro/Quartzite Gneiss | Unconfined fractured rock aquifer - Port Deposit Gneiss and Wissahicken formations | James Run Gneiss | Piedmont - Baltimore Gabbro Complex | Piedmont - James Run Gneiss formation | Piedmont - Metagabbro and Amphibolite | Coastal Plain | Piedmont - Metagraywacke | Piedmont - Baltimore Gabbro Complex | Piedmont - Baltimore Gabbro Complex | Piedmont - Baltimore Gabbro Complex |
| ANNUAL AVERAGE DAILY DEMAND (Based on 5 previous years plus 10% drought factor) | .0077 mgd | .059 mgd | .014 mgd | *10,000 gpd* | *3000 gpd* | *15,000 gpd* | *4000 gpd* | .014 mgd | *2100 gpd* | *6300 gpd* | 4,700 gpd |
| NUMBER OF CONNECTIONS | 105 | 75 | 81 | 65 | 23 | 175 | 25 | 2 | *20* | 40 | *41* |
| NUMBER OF WELLS | 4 | 6 | 3 | *5* | 2 | 2 | 1 | 1 | *3* | 2 | 2 |
| RESIDENTIAL POPULATION SERVED | 250 | 250 | 219 | 150 | 55 | 500 | 35 | *37* | 28 | *60* | *85* |
| DOMESTIC CONSUMPTION | .012 mgd | .0125 mgd (estimate based on 50 houses @ 250gpd) | .014 mgd | *10000* | *3000* | *15000* | *4000* | | *2100* | *6300* | *4700* |
| COMMERCIAL CONSUMPTION | .0010 mgd | .0555 mgd | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PLANS FOR EXPANSION | | | *No* | No | No | No | Yes | | No | No | |
| QUANTITY/QUALITY POTENTIAL ISSUES | High nitrate levels, susceptable to VOC and SOC | Susceptable to nitrates | May be susceptable to radon | Moderate susecptability to VOC and radon | May be susceptable to radon; had to deepen well 200' to increase volume and flow | Highly susceptable to VOCs and Nitrates | Susceptable to VOC's and SOCs, maybe radon; threat from Oak Rubble Landfill | Susceptable to VOC's, nitrates, radon and SOC's | Sucsceptable to nitrates, maybe radon | Succeptable to nitrates and VOC | Susceptable to nitrates, VOC's, SOC's and maybe radon |

drinking water systems in the County. These assessment reports map wellhead protection areas, identify potential sources of contaminants, and identify strategies to address protection of the water supply.

The most common threats to drinking water identified in the source water assessment reports are nitrates and volatile organic compounds (VOCs). When found, these contaminants are readily treatable by individual removal systems. The Health Department has worked with communities where contamination has been detected and has recommended appropriate water treatment options to ensure that Safe Drinking Water Act standards are met. When groundwater contamination is detected, the Harford County Health Department may conduct sampling to determine the scope of the contamination and the area that is at risk. Based on the results of the sampling, community outreach is conducted when needed.

**Water Resources Policy 1: Provide the infrastructure and facilities necessary to meet water demands within the Harford County water service area.**

**Implementation**

(a) Expand the Abingdon Water Treatment Plant by 5.0 mgd prior to exceeding maximum day demands; anticipated to beyond 2035.

(b) Implement projects in the Capital Improvement Program and reevaluate these projects annually.

(c) Promote water conservation and leak repair.

(d) Continue to prohibit new private community water systems to service new development outside of Designated Growth Areas.

(e) Adhere to the County's Adequate Public Facilities regulations and Capital Management Plan provided to MDE.

(f) Continue to restrict new multi-use systems greater than 10,000 gpd (peak rate) in no-planned-service areas.

(g) Encourage the use of treated effluent for non-potable needs.

**Water Resources Policy 2: Coordinate and share information with the municipalities and Aberdeen Proving Ground so that all entities can make informed decisions with regard to the adequacy of their systems.**

**Implementation**

(a) Continue coordination on the reallocation of water back to the City of Havre de Grace.

(b) Support and monitor the progress of the MAW and the proposed construction of an upland raw water storage impoundment and APG-AA construction of the a new ground water drinking source and treatment plant, known as Building 250. Hold biannual water utility meetings with the municipalities and Aberdeen Proving Grounds to share and monitor progress with respect

to meeting the demands of each service area.

**Water Resources Policy 3: Protect the quality and quantity of drinking water sources.**

**Implementation**

(a) Implement the Source Water Protection regulations pertaining to the Perryman wellfield, community water supplies, and nontransient-noncommunity water supplies.

(b) Pursue implementation of the Bush River WRAS and the Deer Creek WRAS to protect water quality in the Winters Run and Deer Creek watersheds.

(c) Promote low impact development and the use of green building design principles to decrease impervious surfaces and impacts to water quality.

(d) Continue to review and comment on all plans and annexations to ensure consistency with the WRE.

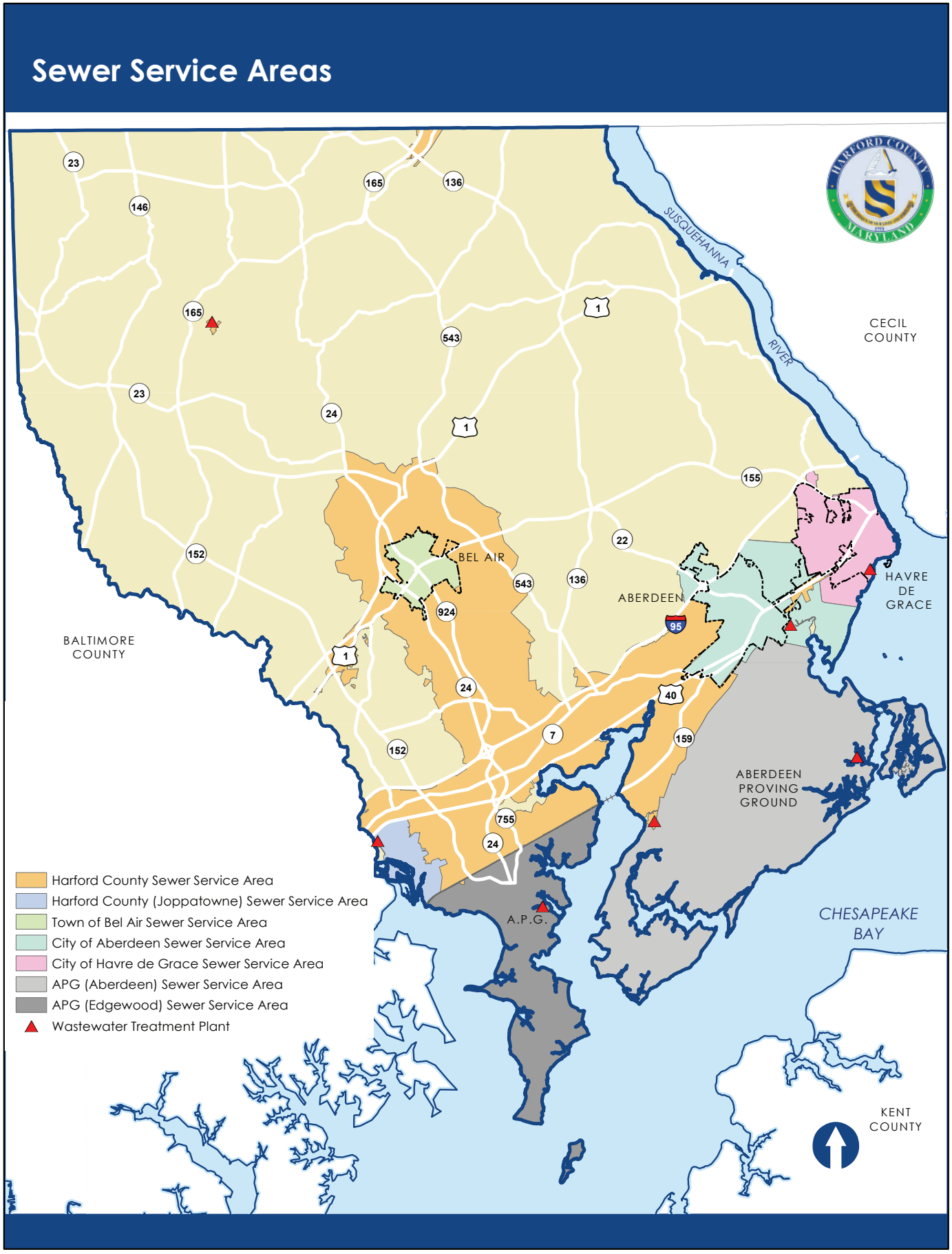
(e) Continue to evaluate water quality based on various weather related and water use scenarios.

## Wastewater Assessment

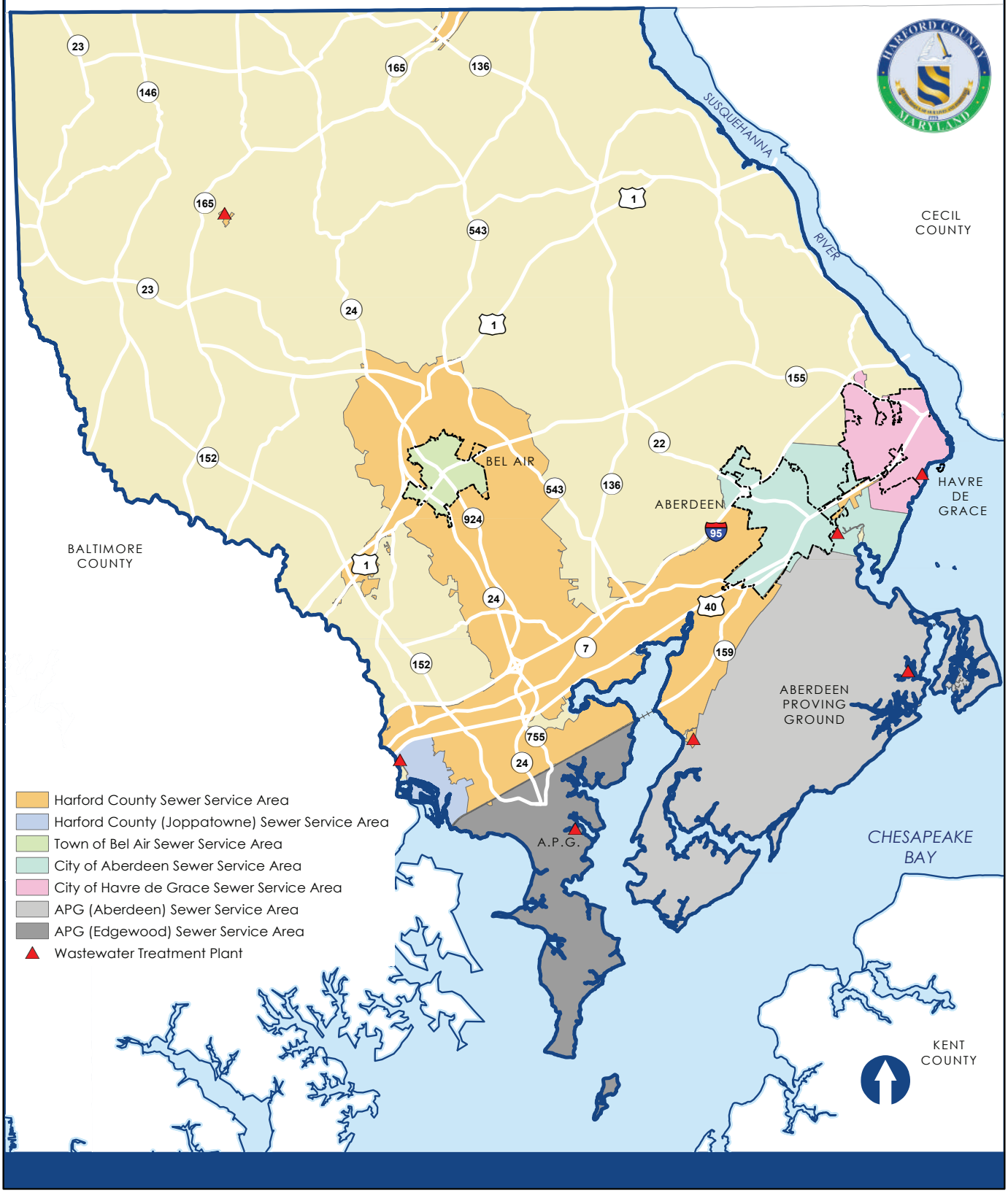
It is estimated that approximately 70% of the County's population is presently served by the County's central sewerage facilities or by a municipal owned treatment and collection system. In the Development Envelope, as shown on Figure 1, waste water is collected and treated at six waste water treatment plants each greater than 500,000 gallons per day in capacity. These major plants are: Harford County Government – Sod Run and Joppatowne Waste Water Treatment Plants (known as "The County System"), City of Aberdeen (Aberdeen City), City of Havre de Grace (HDG), APG – Aberdeen Area (APG – AA), and APG – Edgewood Area (APG – EA). The current and future service areas for these six waste water treatment plants are shown on Figures 4 and 5, respectively. The Spring Meadows WWTP, a small (.01 mgd) plant outside the Development Envelope and taken over by the County in 1976, is also included as part of the County system.

In addition to the major publicly-owned waste water treatment plants, there are multiple private waste water treatment systems, including those owned by the Board of Education serving public schools, mobile home parks and other commercial/community establishments, plus a large population on private individual septic systems outside of the Development Envelope. Since 1972, the County has prohibited any additional privately owned community or multi-use treatment plants with a peak capacity larger than 10,000 gpd outside its Development Envelope in order to encourage growth to remain within the growth corridor, maintain financial stability and protect the environment.

There are approximately 25,500 private septic systems that serve residential and commercial uses. Of the 25,500, approximately 3,000 septic systems are located within the Development Envelope. The number of septic systems was determined by analyzing Bay Restoration Fund accounts within Harford County.


Sewer Service Areas
SUSQUEHANNA RIVER
CECIL COUNTY
BALTIMORE COUNTY
BEL AIR
ABERDEEN
HAVRE DE GRACE
ABERDEEN PROVING GROUND
A.P.G.
CHESAPEAKE BAY
KENT COUNTY
Harford County Sewer Service Area
Harford County (Joppatowne) Sewer Service Area
Town of Bel Air Sewer Service Area
City of Aberdeen Sewer Service Area
City of Havre de Grace Sewer Service Area
APG (Aberdeen) Sewer Service Area
APG (Edgewood) Sewer Service Area
Wastewater Treatment Plant

# Future Sewer Service Areas



## Water Quality/Nutrient Loading

Increased nutrient loading is one of the key factors that have been attributed to the decline in water quality and living resources in the Chesapeake Bay. Sources of these nutrients include run-off from the land, waste water treatment plants and septic systems, and atmospheric deposition. All sources of nutrients that enter the Bay have been studied extensively and quantified. Scientists have estimated the maximum amount of nutrients that the Bay can accommodate without adverse water quality affects.

In order to meet the goals of the Chesapeake Bay Initiatives, all of the major public waste water treatment plants in Harford County have been upgraded to ENR standards of 4.0 mg/l total nitrogen and 0.3 mg/l total phosphorus. These Enhanced Nutrient Removal standards are being utilized for today's National Pollutant Discharge Elimination System (NPDES) permits. Each of the individual treatment plant owners have completed the upgrades and are achieving the ENR goals.

In response to the new pollution limits, also known as the Total Maximum Daily Load (TMDL), the seven Bay jurisdictions have created individual Watershed Implementation Plans (WIPs), or restoration blueprints that detail specific actions each would take to meet their pollution reduction goals by 2025. The blueprints guide local and state Bay restoration efforts through the next decade and beyond. The Bay jurisdictions also set two-year pollution reduction milestones to track and assess near-term progress towards completing their restoration actions; EPA regularly reviews each jurisdiction's milestones and confirmed that Maryland achieved both the 2010-2011, 2012-2013, and 2014-2015 milestones. Harford County submitted its Phase II WIP to MDE in 2012, and recently submitted new 2016-2017 programmatic milestones to track water quality improvements.

## Antidegradation Policy

Another policy used by the State to protect water quality is the Antidegradation Policy. For any amendments to a County water and sewer plan or discharge permit, MDE must review the proposed change in light of the Maryland Antidegradation Policy. This policy ensures that water quality continues to support designated uses. In addition to protecting designated uses, Federal and State laws require protection of waters that are of higher quality than the minimum standards. These waters are designated "Tier II". Tier II waters in Harford County occur mostly in the Deer Creek, Broad Creek and Little Gunpowder Falls watersheds and are depicted on the Sensitive Areas Map. All but one occurs outside of the Development Envelope. None of the major wastewater treatment plants in Harford County discharge to Tier II waters, and there are no plans for any future discharges to these waters. One small treatment plant, Spring Meadows, services an existing community in the Deer Creek watershed; there are no plans for expansion.

## Existing Conditions

Table 7 shows the present and projected waste water demands and planned capacities for the County's and local municipalities' sewer systems. In addition, population projections and nutrient (nitrogen and phosphorus) loadings are shown now and into the future. Also included

## Present and Projected Waste Water Demands and Planned Capacities
## Million Gallons Per Day – MGD

**TABLE 7**

| PLANNING YEAR | HARFORD COUNTY GOVERNMENT | | | | | | CITY OF ABERDEEN | | CITY OF HAVRE DE GRACE | |
|---|---|---|---|---|---|---|---|---|---|---|
| **PLANT**<br>**STATE PERMIT#**<br>**NPDES PERMIT#**<br>**RECEIVING STREAM**<br>**LOCATION** | SOD RUN<br>DP-1580<br>MD00056545<br>Bush River<br>Perryman | | JOPPATOWNE<br>DP-0675<br>MD0022525<br>Little Gunpowder<br>Joppatowne | | SPRING MEADOWS<br>DP-0670<br>MD0024953<br>Rock Hollow Branch<br>Jarrettsville | | CITY OF ABERDEEN<br>Swan Creek<br>Aberdeen | | CITY OF HAVRE DE GRACE<br>06-DP-0673<br>MD0021750<br>Chesapeake Bay<br>Havre de Grace | |
| SYSTEM CAPACITY<br>HYDRAULIC CAPACITY<br>Average and Maximum Day | AVG | MAX | AVG | MAX | AVG | MAX | AVG | MAX | AVG | MAX |
| | 20 | 52 | 0.95 | 3.2 | 0.01 | 0.04 | 4 | | 1.89 | 7.25 |
| CURRENT/FUTURE<br>PERMIT REQUIREMENTS<br>WITH REGARD TO<br>NITROGEN AND<br>PHOSPHORUS | Current | Future | Current | Future | N/A | | Current | Future | Current | Future |
| 2010 | 8.0 mg/l goal N<br>1.7 mg/l P | 4.0 mg/l N<br>0.3 mg/l P | 8.0 mg/l goal N<br>2.0 mg/l P | 4.0 mg/l N<br>0.3 mg/l P | | | 8.0 mg/l goal N<br>0.65 mg/l P | 4.0 mg/l N<br>0.3 mg/l P | 8.0 mg/l goal N<br>2.0 mg/l P | 4.0 mg/l N<br>0.3 mg/l P |
| NPDES LIMITS FOR<br>NITROGEN AND<br>PHOSPHORUS(LBS/YR) | 374,865 N | 243,645 N | 12,614 N | 11,573 N | N/A | | 48,729 N | | 27,715 N | |
| | 25,029 P | 18,273 P | 1,665 P | 868 P | N/A | | 3,655 P | | 2,079 P | |
| PLANNED<br>HYDRAULIC CAPACITY | AVG | MAX | AVG | MAX | AVG | MAX | AVG | MAX | AVG | MAX |
| 2010 | 20 | 52 | 0.95 | 3.2 | 0.01 | 0.04 | 4 | | 1.89 | 7.25 |
| 2035 | 20 | 52 | 0.95 | 3.2 | 0.01 | 0.04 | 4 | | 3.3 | 11 |
| EXPECTED POUNDS<br>LOADING (TMDL)<br>N-NITROGEN<br>P-PHOSPHORUS | N | P | N | P | N | P | | | N | P |
| 2010 | 374,865 | 25,029 | 12,614 | 1,665 | N/A | | | | 33,624 | 2,241 |
| 2035 | 241,397 | 18,105 | 10,959 | 822 | | | | | 27,715 | 2,079 |
| RESIDENTIAL<br>POPULATION SERVED | HC | Bel Air | Total | 9610 | 155 | | 16556 | | 12,762 | |
| 2010 | 119424 | 9135 | 128559 | | | | | | | |
| 2035 | 163955 | 8914 | 172869 | 10120 | 155 | | 18459 | | 18,847 | |
| NUMBER OF<br>CONNECTIONS | 37,000 | | | 3209 | 51 | | | | 3,933 | |
| 2035 | 51844 | | | 3379 | 51 | | | | 7,000 | |
| ANNUAL FLOWS<br>(includes I & I) | AVG | MAX | AVG | MAX | AVG | MAX | AVG | MAX | AVG | MAX |
| 2010 | 12.603 | 27.693 | 0.760 | 1.850 | 0.01 | 0.03 | 1.872 | | 1.67 | 4.2 |
| 2035 | 19.83 | 45.60 | 0.90 | 3.06 | 0.01 | 0.03 | 4 | | 2.8 | 6 |
| Buildout | 20.00 | 46.00 | 0.95 | 3.23 | 0.01 | 0.03 | 4 | | 3.3 | 11 |
| INFILTRATION/INFLOW<br>(I & I) | BASE INFLITRATION | | BASE INFLITRATION | | BASE INFLITRATION | | BASE INFLITRATION | | BASE INFLITRATION | |
| 2010 | 2.02 | 4.44 | 0.08 | 0.20 | 0.0004 | 0.02 | | | 0.53 | 1.35 |
| 2035 | 2.78 | 6.38 | 0.09 | 0.31 | 0.0004 | 0.02 | | | 0.90 | 1.92 |
| TOWN OF BEL AIR FLOW | AVG | INF | MAX | N/A | N/A | | N/A | | N/A | |
| 2010 | 1.02 | 0.80 | 1.39 | | | | | | | |
| 2035 | 1.00 | 0.64 | 1.17 | | | | | | | |
| WASTE WATER USAGE<br>PER CAPITA | AVG | MAX | AVG | MAX | AVG | MAX | | | AVG | MAX |
| 2010 | 69 | 155 | 67 | 264 | 65 | 196 | | | 63 | 329 |
| 2035 | 70 | 169 | 76 | 264 | 65 | 196 | | | 52 | 318 |
| WASTE WATER USAGE<br>PER CONNECTION | 2010 | 341 | 748 | 237 | 920 | 189 | 566 | | | 423 | 1068 |
| 2035 | 382 | 880 | 266 | 906 | 189 | 566 | | | 400 | 857 |
| COMMERCIAL<br>CONSUMPTION | AVG | MAX | AVG | MAX | | | | | AVG | MAX |
| 2010 | 1.364 | 2.728 | 0.038 | 0.075 | N/A | | | | 0.214 | 0.428 |
| 2035 | 4.304 | 8.608 | 0.040 | 0.079 | | | | | 0.754 | 1.508 |
| INDUSTRIAL<br>CONSUMPTION | 2010 | 0.313 | 0.626 | N/A | N/A | | | | 0.109 | 0.219 |
| 2035 | 0.673 | 1.346 | | | | | | | 0.169 | 0.339 |
| DOMESTIC<br>CONSUMPTION | 2010 | 8.912 | 19.897 | 0.641 | 2.392 | 0.01 | 0.03 | | | 0.808 | 2.206 |
| 2035 | 10.289 | 24.932 | 0.770 | 2.675 | 0.01 | 0.03 | | | 0.979 | 2.229 |
| NUMBER OF INDIVIDUAL<br>PRIVATE SEPTIC WITHIN<br>SERVICE AREA | 2010 | 3,276 | | 0 | | 0 | | | | |
| 2035 | 0 | | 0 | | 0 | | | | | |

is this table is the small (10,000 gpd) Spring Meadows waste water treatment plant, privately developed in 1966 and taken over by the County in 1976.

*The County Waste Water System*

The orderly development of the County's public sewer system is controlled through HarfordNEXT, the County Water and Sewer Master Plan and the County's Capital Budget and Five Year Capital Improvement Program (CIP). The Water and Sewer Master Plan outlines phased improvements to its sewer collection and treatment systems required to satisfy existing and future development. In addition, the County has established an Adequate Public Facilities regulation (APF) within the Harford County Zoning Code and issues an annual report on the status of capacity within the waste water treatment and conveyance systems that are owned and operated by the County. Through the APF regulations, Harford County reviews and approves all planned residential, commercial, and industrial development utilizing the County's Public Sewer System. A model is being developed and maintained by the Division of Water and Sewer to account for existing, planned and future flows so that sewerage infrastructure can be planned and constructed in an economical and timely manner.

Individual septic systems will continue to provide sewerage service within rural areas of Harford County. When the County's public sewerage system is extended into the areas served by septic systems, within the growth corridor, the individual systems may be abandoned and the area(s) will be incorporated into the County's public sewerage system, where economically feasible. Septic systems which are taken out of service and connected to the County's wastewater treatment plants are being tracked in order to use nutrient loadings for future credits and possible future expansions of the County's Waste Water Treatment Plant system. Based on the current number of private septic systems within the Sod Run service area, approximately 800,000 gallons a day will need to be provided at the treatment plant. Table 8 below charts the private household septic systems removed and connected to public sewer since 2005.

**Table 8**
**Private Household Septic Systems**
**Abandoned and Connected to Public Waste Water Treatment**

| Treatment Plant Service Area | Septic Systems Removed | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Sod Run | 19 | 23 | 12 | 40 | 3 | 9 | 10 | 5 | 4 | 3 |
| Joppatowne | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

*The Sod Run Waste Water Treatment Plant* is owned and operated by Harford County, Department of Public Works, Division of Water and Sewer and is located at the southern terminus of Chelsea Road in the Perryman area. Sod Run receives sewage from three major interceptor systems that serve the County's designated growth area. In addition Sod Run Waste Water Treatment Plant receives effluent from the Town of Bel Air and conveys and treats the sewage pursuant to an agreement between Harford County Government and the Town of Bel Air. This plant, which is the largest publicly-owned facility in Harford County, is designed to treat an annual average daily flow of 20.0 million gallons per day (mgd) and peak daily flows of 52.0

mgd. The most recent upgrade of the treatment facility was completed in December of 2014, when the facility was upgraded to achieve the effluent ENR standards of 4.0 mg/l of Nitrogen and 0.3 mg/l of Phosphorus. The plants hydraulic capacity was not changed in this upgrade. This plant currently provides for both secondary and tertiary levels of waste water treatment utilizing both chemical and biological processes to achieve the ENR standards. The biosolid residuals are anaerobically digested, dewatered and distributed to permitted farmland. The treated effluent is discharged to the Bush River.

Based on a Waste Water Capacity Management Plan that was completed and submitted to the Maryland Department of the Environment in April 2008 the Sod Run Waste Water Treatment Plant drainage area has approximately 9,000 equivalent dwelling units encumbered under S-1 Infill flow. MDE defines Infill in its Waste Water Capacity Management Plan Guidance Document as the number of existing unimproved (infill) parcels and lots within a Service Area. More specifically, this number includes both residential and commercial/industrial approved building permits not yet connected, vacant lots from previously recorded plats that are required to connect to public sewer and existing communities on private septic systems within the Development Envelope. Vacant land within the Sod Run drainage area can yield an additional 11,000 equivalent dwelling units based on the designations shown on the Land Use Map contained in HarfordNEXT. Combining the S-1 Infill equivalent dwelling units with vacant land potential yields 20,000 equivalent dwelling units. With appropriate allowance for infiltration and inflow, this will complete the build-out of the Sod Run Service Area.

*The Joppatowne Waste Water Treatment Plant* is owned and operated by Harford County, Department of Public Works, Division of Water and Sewer and is located south of US Route 40 on the western boundary of Harford County, in Joppatowne, Maryland. Joppatowne receives sewage from three major interceptor systems that serve the County's designated growth area. It is designed to treat an annual average daily flow of 0.95 million gallons per day (mgd) and peak daily flows of 3.2 mgd. The most recent upgrade of the treatment facility was completed in the Summer of 2013. Similar to the Sod Run WWTP the Plant was modified to achieve the ENR standards of 4.0 mg/l of Nitrogen and 0.3 mg/l of Phosphorus In the plant effluent. The plant's hydraulic capacity was not changed. This plant currently provides for both secondary and tertiary levels of waste water treatment utilizing both chemical and biological processes to achieve the ENR standards. The plant's waste biosolids are discharged into the collection system that conveys the waste to the Sod Run Waste Water Treatment Plant. The treated effluent is discharged to the Little Gunpowder River.

Based on a Waste Water Capacity Management Plan that was completed and submitted to MDE in January 2015, the Joppatowne Waste Water Treatment Plant drainage area has approximately 80 residential and 3 commercial lots on approved S-1 record plats that have not applied for building permits and associated flow, and 72 lots (197 EDU) proposed future connections (S-2 & S-3). In addition, the Joppatowne service area includes a pumping station known as PS 47 which currently has the capability to pump the station's higher flows to the Sod Run Waste Water Treatment Plant collection system instead of going to the Joppatowne Waste Water Treatment Plant. A pumping station modification is currently under construction to increase the capacity of the station and bring all of its flows to the Joppatowne Waste Water Treatment Plant. This project will save infrastructure investment while optimizing the

available Waste Water Treatment Plant capacity at both Sod Run and Joppatowne. These additional units and redirection of PS 47, with appropriate allowance for infiltration and inflow, are planned to complete the build-out of the Joppatowne Service Area.

The Spring Meadows Waste Water Treatment Plant is owned and operated by Harford County, Department of Public Works, Division of Water and Sewer and is located outside of the County's planned Development Envelope, in Jarrettsville, Maryland. This plant serves a portion of Spring Meadows and Northampton subdivisions. It is designed to treat an annual average daily flow of 10,000 gallons per day (mgd) and peak daily flows of 40,000 gallons per day. The original plant was built by a developer in 1966 and taken over by the County in 1976. The most recent upgrade of the treatment facility was completed in 1987. The plant provides secondary level of treatment and is too small for consideration of nutrient removal. The treated effluent is discharged to the Rock Hollow Branch, which is within the Deer Creek sub drainage basin. Deer Creek is not listed on the State's 303(d) list of impaired waterbodies.

*Municipal Waste Water Systems*

City of Havre de Grace

The City of Havre de Grace presently owns and operates a sewage collection and treatment facility which provides service throughout the majority of the corporate limits of Havre de Grace. The treated effluent from this facility is discharged to the Chesapeake Bay.

In 2002, the treatment plant was upgraded for BNR with a rated capacity of 1.89 million gallons per day. The treatment plant has been modified to increase its rated hydraulic capacity to 3.3 million gallons per day and add ENR technology in compliance with the Chesapeake Bay Program.

City of Aberdeen

The City of Aberdeen owns, operates and maintains a waste water treatment facility located at the end of Michaels Lane which discharges to Swan Creek. The plant has a design capacity of 4.0 mgd and a peak flow capacity of 6.0 mgd. This plant has recently been modified and currently provides for both secondary and tertiary levels of waste water treatment utilizing ENR technologies.

*Federal Waste Water Systems*

The Aberdeen Proving Ground is divided into an Aberdeen area (APG-AA) and an Edgewood Area (APG-EA) and is served by two complete and independent waste water collection and treatment systems. APG-EA is served by a waste water treatment plant which has an NPDES permit to discharge to the Bush River. This treatment plant provides a secondary level of treatment and has an existing design capacity of 3.0 mgd and average daily flow of 0.97 mgd. Privatization of this Federal facility is pending. APG-AA is served by a waste water treatment plant that is owned by the City of Aberdeen. It discharges to Spesutie Narrows and into the Chesapeake Bay. The facility has an existing design capacity of 2.8 mgd and an average daily flow of 0.83 mgd. MDE reports that this facility is in operation for ENR and is capable of achieving an effluent with Total Nitrogen of 3.0 mg/l and a Total Phosphorus goal of 0.3 mg/l.

No further information is available from the Federal government.

## Future Wastewater Needs

It is projected, based on the current availability of land and current zoning that the population served by public waste water treatment plants will grow by approximately 59,000 to approximately 217,000 by 2035. The County anticipates that of the total population projection in year 2035 to increase to approximately 281,030, nearly 77% will be on public sewer located within the current Development Envelope including the Town of Bel Air and Cities of Aberdeen and Havre de Grace.

*The County System*

Currently the Sod Run and Joppatowne Waste Water Treatment Plants will be able to provide adequate hydraulic capacity to treat the projected waste water generated by residential, commercial, and moderate industrial development throughout the County's sewer service area beyond 2035. The plants are both successfully meeting the ENR standards and complying with the nutrient loading caps outlined in the Chesapeake Bay Initiative. The County is currently evaluating the Sod Run WWTP Biosolids handling systems for both improvement and reliability with regard to the MDE regulations that will be limiting future land application based on Phosphorus levels in the soils of Maryland. Future systems may include improved dewatering and drying processes.

The Spring Meadows Waste Water Treatment Plant's service area is completely built out and there are no plans to expand the service area or hook up any additional existing homes.

*Municipal Systems*

In order for Havre de Grace's Waste Water Treatment Plant to remain within the cap limits for nitrogen and phosphorus and still provide waste water treatment to the City's planned service area, the City will need to seek land application (i.e. spray irrigation) of its effluent when daily average flows are over three million gallons per day to remain in compliance with the NPDES permit.

Currently the City of Aberdeen's waste water plant does not have enough hydraulic or cap loading capacity to meet the projected future development needs as outlined in the City Land Use Element Plan. The City will address this need in the Water Resources Element of its Comprehensive Plan.

*Federal Systems*

The APG-AA waste water treatment plant has been privatized by the City of Aberdeen and will be addressed by the City in its water resources element. The APG-EA Waste Water Treatment Plant is in the process of being privatized and will be addressed by the future owner.

**Water Resources Policy 4: Provide the infrastructure and facilities necessary to meet waste water demands within the Sod Run and Joppatowne Waste Water Treatment Plant designated drainage areas.**

**Implementation**

(a) Continue to implement projects in the Capital Improvement Plan and reevaluate these projects annually.

(b) Continue to hire and train qualified professional wastewater managers and operators.

(c) Maintain the County's infrastructure with regard to excess infiltration and in-flow.

(d) Continue to implement Code requirements to prohibit new community wastewater systems outside designated growth areas.

(e) Complete an annual Capital Management Plan as required by MDE and ensure that it adheres to the County's Adequate Public Facilities requirements.

### Water Resources Policy 5: Protect the quality of discharge waters from wastewater treatment plants.

**Implementation**

(a) Continue to maintain and operate all County wastewater treatment plants in accordance with all State and Federal requirements.

(b) Limit allocations and connections that would cause the system to exceed its maximum daily capacity rating.

(c) Promote the re-use of clean waste water effluent for non-potable uses, such as lawn and golf course irrigation, power plants, incinerators, etc.

### Water Resources Policy 6: Optimize the available waste water treatment capacity and cap loadings in Harford County and the municipalities to service the Development Envelope.

**Implementation**

(a) Review and comment on all municipal annexation plans to ensure consistency with this plan and the Water and Sewage Master Plan.

(b) Hold regularly scheduled meetings with the municipalities to coordinate and monitor service area capacity needs.

(c) Participate with MDE in the development of a nutrient trading program.

(d) Assist the City of Aberdeen to develop a regional drainage area and recoupment policy for the east Aberdeen portion of the Development Envelope.

(e) Continue to track and pursue nutrient offsets through septic tank connections and abandonment of smaller waste water treatment.

## Stormwater Management and Urban Pollutant Loads

Managing stormwater is of critical importance in protecting the quality of Harford County's stream systems. As development occurs, forest and farm land are converted to impervious surfaces, resulting in increased stormwater runoff and decreased infiltration. With development, stormwater runoff increases in volume and velocity and can result in degraded stream channels, erosion, and increased pollutant loads. This chapter of the Water Resources Section will describe the County's current efforts toward managing and mitigating stormwater runoff, and describe a proposed restoration plan to address urban pollutant loadings from Harford County into the Chesapeake Bay.

*Stormwater Management*

In order to address the effects of increased stormwater runoff, the State of Maryland enacted the first stormwater law in 1982. This law required local governments to enact stormwater ordinances to control the quantity of stormwater resulting from development. Historically, runoff from development was only managed during the construction phase by sediment control practices. In 1984, Harford County enacted its first stormwater management ordinance to control the quantity of stormwater leaving a site after development. This can be found in Chapter 214 of the Harford County Code – Sediment Control and Stormwater Management. Best management practices used to control stormwater runoff include stormwater management ponds, infiltration and flow attenuation.

In 2002, Harford County updated Chapter 214 to incorporate the 2000 Maryland Stormwater Design Manual in which stormwater quality must now be addressed as well as stormwater quantity. This manual encourages the use of environmentally sensitive site design techniques and requires that redevelopment decrease impervious surfaces by 20% or treat an equivalent area. Examples of these techniques include rain gardens, rooftop disconnection and reduced impervious surfaces. Harford County updated Chapter 214 again in 2009 to incorporate the Maryland Stormwater Management Act of 2007 which mandates that Environmental Site Design (ESD) techniques be used to address stormwater runoff wherever feasible. Innovative site design along with properly designed and well-maintained stormwater best management practices can help reduce pollutant loads, impervious surfaces and negative impacts associated with uncontrolled stormwater runoff.

Stormwater management is an integral component of another County program which comprehensively addresses water quality problems. This program is the National Pollutant Discharge Elimination System (NPDES) Program, administered by Harford County the Watershed Protection and Restoration Office (MS4 Office) within the Department of Public Works. Harford County obtained its first municipal NPDES permit in 1994. This permit addresses stormwater discharges from municipal separate storm sewer systems (MS4s). Recertification is required every five years. Stormwater retrofits and stream restoration projects within the Development Envelope are implemented through this program.

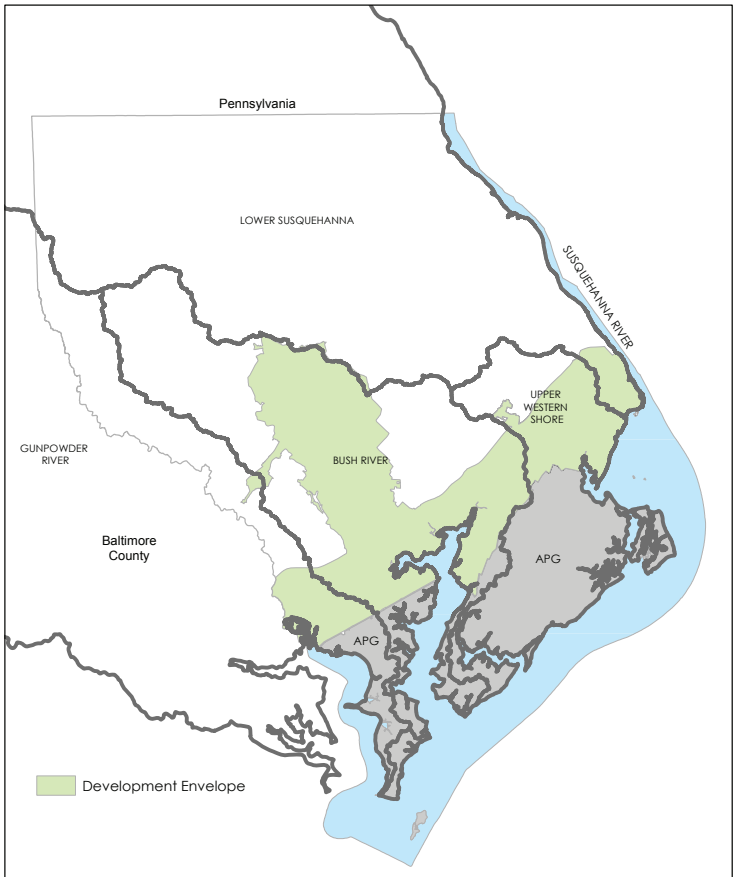
*Urban Pollutant Loading Analysis*

As required under the County's MS4 permit Part IVF2, Harford County has developed preliminary Restoration Plans for the EPA approved TMDLs for Harford County including Bynum Run for sediment, Swan Creek for nutrients, and the Chesapeake Bay for nutrients and sediment. Drafts for all three plans will be posted for public review and comment before being finalized.

The Chesapeake Bay Restoration Plan for Harford County includes an updated model of the pollutant loads calculated using the Maryland Assessment Scenario Tool (MAST) which was developed by the State to mimic the modeling of the Chesapeake Bay Model at a local level. MAST scenarios were developed for baseline (2002), current (2015) and proposed conditions for the three major river basins in Harford County; Bush River, Northern Chesapeake Bay, and Gunpowder River

Proposed scenarios were developed based on watershed restoration strategies such as new stormwater management facilities, retrofits of existing stormwater management facilities, stream restorations, and tree plantings. The cost for implementing TMDL restoration goals for Harford County is estimated at over $400 million. If implemented by 2025, the County would need to allocation $50 million.

There are currently 58,500 urban acres within Harford County excluding the municipalities, state owned properties including state highways and federally-owned properties including Aberdeen Proving Grounds. The results of the analysis below only reflects pollutant loads and restoration strategies for urban land uses.




MAJOR RIVER BASINS IN HARFORD COUNTY

**Figure 6**

## Basin Results

Since the land use and recommended restoration strategies vary between the river basins, the loads were calculated separately for the Bush River, Gunpowder River and Northern Chesapeake Bay (which includes Lower Susquehanna River and Upper Western Shore) Figure 15 delineates the major river basins in Harford County.

The Susquehanna Basin is the largest basin in the County, comprising over 50% of the land area of the County. It is mostly rural in nature and located predominately outside of the County's Development Envelope. The greatest nutrient contributions come from agricultural land. As developed land is expected to grow by over 20%, with over 2,500 new septic systems projected, developed land will comprise a greater percentage of the nutrient load in the future. No major point sources contributed to the nutrient loads nor, are any planned in the future.

The Bush River Basin is the second largest basin in the County, comprising approximately 30% of its land area. This basin contains the greatest amount of developed acreage, with half of the basin lying within the County's Development Envelope.

The Gunpowder Basin comprises approximately 10% of the County. Currently, the predominant contributor of total nitrogen loading in this basin is agricultural. By 2025, agriculture will remain the predominant contributor of total nitrogen; however, the major contributor of total phosphorus will be developed land.

Figure 7 and Figure 8 presents graphs for nitrogen and phosphorus loads for the 2010 baseline, the 2015 current loads, and compares them to the TMDL loads for Harford County urban areas.

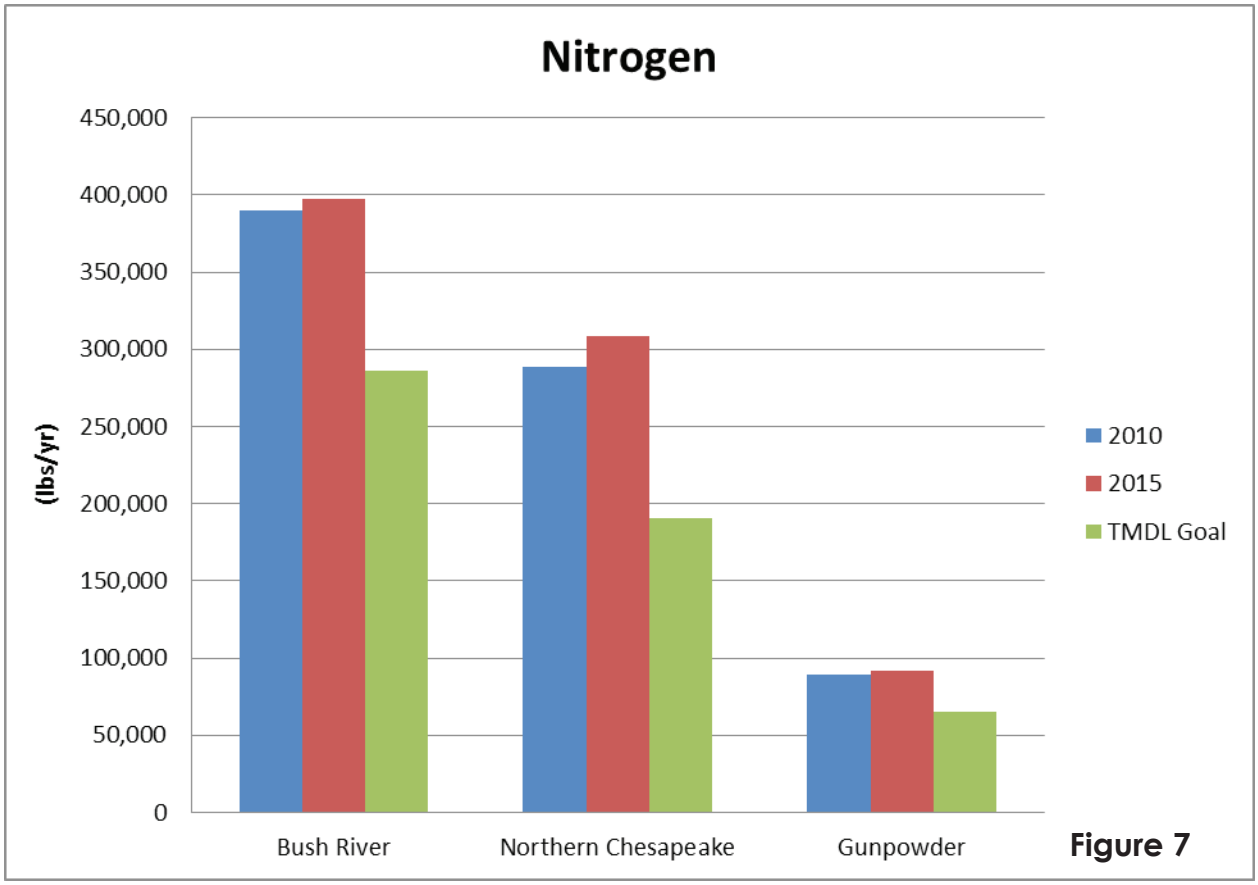



Figure 7

## Water Resources Policy 7: Optimize the County's Stormwater Management Program to reduce the impacts of stormwater runoff.

### Implementation

(a) Educate homeowners and community associations on the proper maintenance of stormwater management best management practices and on-site stormwater best management practices.

(b) Promote a decrease in impervious surfaces vs. stormwater treatment as a mechanism to meet stormwater management regulations.

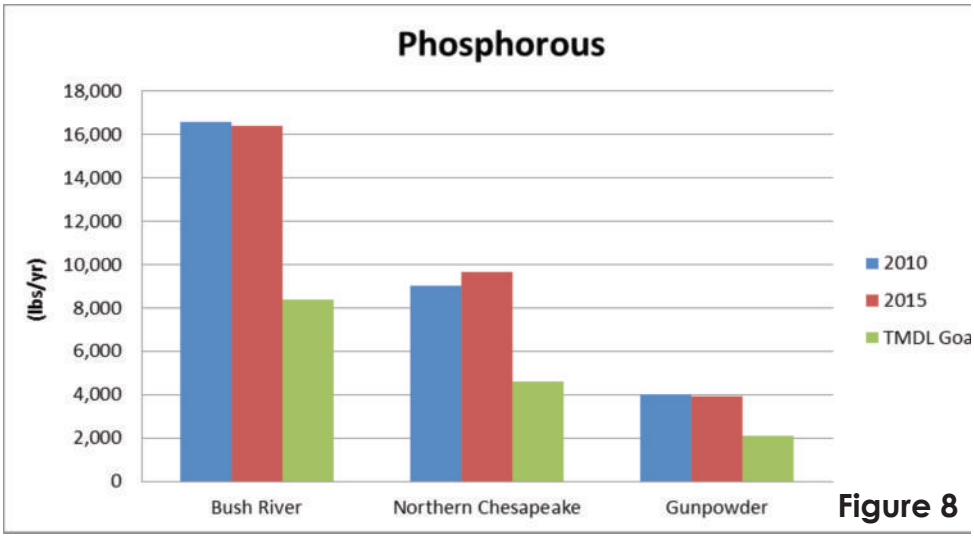



Figure 8

## Water Resources Policy 8: Reduce urban loading of pollutants to the County's stream systems

### Implementation

(a) Continue coordination with the State and the Soil Conservation District to improve stream water quality.

(b) Research and develop nutrient offset projects for subdivisions built outside of the Development Envelope using standard septic systems.

(c) Promote the use of denitrifying septic systems through the use of the Bay Restoration funds.

(d) Implement watershed restoration as required under the County's MS4 permit through stormwater retrofits and stream restoration projects.

(e) Implement the County's Bush River and Deer Creek Watershed Restoration Action Strategies.

(f) Build the capacity within County government to promote and enhance the establishment of stream buffers.

(g) Finalize and implement the MS4 Watershed Restoration Plans for Bynum Run, Swan Creek and the Chesapeake Bay.

APPENDIX III

# FUNCTIONAL CLASSIFICATION OF ROADS

HARFORD NEXT
A MASTER PLAN FOR THE NEXT GENERATION

## A Master Plan for the Next Generation



## Functional Classification

The basic functions of all roads are the movement of vehicular traffic and the provision of access to adjacent land. The Harford County Highway Classification System is exclusively based on these functions and divides the components of the overall road system into various roadway classifications, each serving the two basic functions to different degrees. These classifications are based on general plan guidelines and design data developed from alignment studies and/or traffic studies. Below are the roadway classifications and their characteristics according to US Department of Transportation Federal Highway Administration Highway Functional Classification Concepts, Criteria and Procedures.

Interstate – Interstates are the highest classification of Arterials and are designed and constructed with mobility and long-distance travel in mind. Since their inception in the 1950s, the Interstate System has provided a superior network of limited access, divided highways offering high levels of mobility while linking the major urban areas of the United States.

Expressways/Freeways – These roadways look very similar to Interstates. Like Interstates, these roadways are designed and constructed to maximize mobility and abutting land uses are not directly served by them. Roads in this classification have directional travel lanes, are usually separated by some type of physical barrier, and their access and egress points are limited to on- and off-ramp locations or a very limited number of at-grade intersections.

Principal Urban Arterial – These roadways serve major centers of metropolitan areas, provide a higher degree of mobility and can also provide mobility through rural areas. Link major centers of activity of a metropolitan area. Its primary function is for mobility and carries a high proportion of total trips entering, existing, or passing through an urbanized area. Unlike Interstates and Expressways/Freeways, forms of access include driveways to specific parcels and at-grade intersection with other roadways.

Principal Rural Arterial – These roadways serve major centers of metropolitan areas, provide a higher degree of mobility and can also provide mobility through rural areas. Serves trips of Statewide or Interstate travel. Principal Rural Arterials connects all or nearly all Urbanized Areas and a large majority of urban clusters with a population of 25,000 or more and provides an integrated network of continuous routes without stub connections (dead ends).

Minor Urban Arterial – These roadways provide service for trips of moderate length, serve geographic areas that are smaller than the Principal Arterials and offer connectivity to the higher Arterial system. Minor Urban Arterials interconnects with and augments Principal Urban Arterials and provides intra-community continuity. Spacing between Minor Urban Arterials varies from 1/8 mile – ½ mile in central business districts to 2 – 3 miles in the suburban areas. Although mobility is the primary function of this type of arterial system, it may provide limited access to major community centers along its path.

Minor Rural Arterial – These roadways provide service for trips of moderate length, serve geographic areas that are smaller than the Principal Arterials and offer connectivity to the higher Arterial system. Minor Rural Arterials are spaced at intervals consistent with population density, so that all developed areas are within a reasonable distance of a higher level Arterial.

Additionally, these roadways are typically designed to provide relatively high overall travel speeds, with minimum interference to through movement.

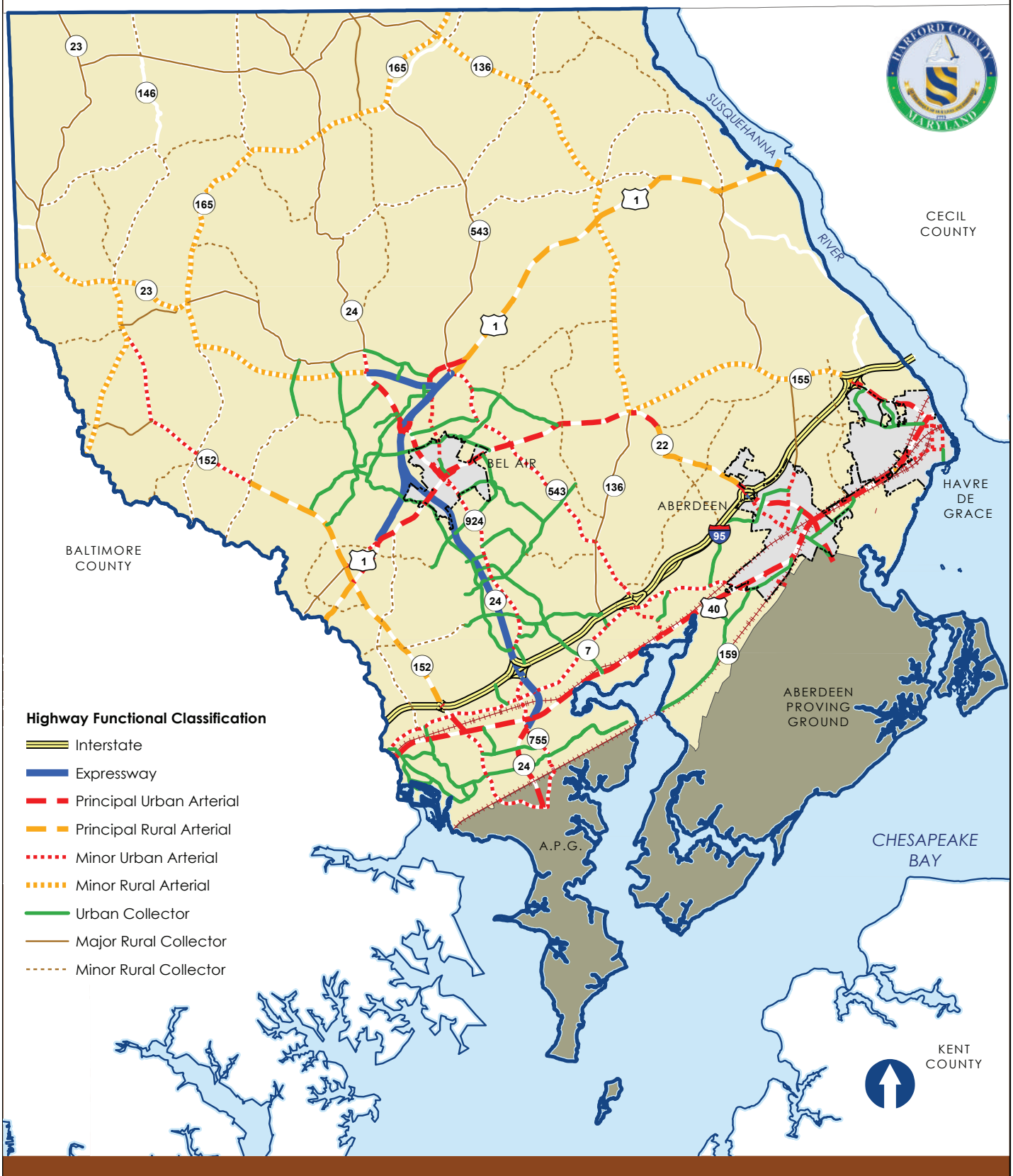
Urban Collector – Provides both access to abutting land and circulation within neighborhoods and business areas. It serves residential, commercial, and industrial areas by collecting and distributing trips from local streets and channelizing it into arterials for reaching their final destination. Operating characteristics include higher speeds and more signalized intersections.

Major Rural Collector – Provides service to towns that are not served by Principal Arterials. Intra-county travel between centers of activity such as major parks and agricultural areas of farming communities are connected via this system. It provides access to arterials for one or more neighborhoods, providing direct connections to residential roads and other collectors and has a limited amount of direct driveway access to abutting properties. These routes are spaced at intervals consistent with population density in which traffic is collected from local roads and channeled into a higher classified roadway to reach their destination in agricultural centers and towns. Also provides internal distribution within a rural neighborhood, or part of one, and has limited direct driveway access to abutting properties.

Minor Rural Collector – Provides access and service to neighborhoods, and direct access to residential, commercial, and industrial land use. The amount of access this type of road provides is important. The length of the minor collector road should remain limited to a few miles and create an efficient network to major collectors and arterials to effectively channel trips through the roadway network.

Local Roads – All unclassified roads are considered local roads. Harford County's Department of Public Works further categorizes local roads as Business District Roads and Residential Roads. Note that all developer constructed new roads will fall into one of the following Local Road categories unless otherwise specifically defined in the Planning and Zoning – Preliminary Plan Approval Letter.

# Functional Classification



| EXISTING ROADWAY SYSTEM FUNCTIONAL CLASSIFICATION | | | |
|---|---|---|---|
| ROAD NAME | BEGIN POINT | END POINT | MILEAGE |
| INTERSTATE | | | |
| I-95 (JFK Highway) | Baltimore County Line | Cecil County Line | 18.29 |
| **Total Interstate Miles (rounded to the nearest tenth of a mile)** | | | **18.3** |
| FREEWAY/EXPRESSWAY | | | |
| MD 23 | MD 24 | US 1 (Hickory Bypass) | 1.99 |
| MD 24 | US 1 Bypass Interchange | MD 755 | 8.83 |
| US 1 Bypass | MD 543 | MD 147/US 1 Business | 5.41 |
| **Total Freeway/Expressway Miles (rounded to the nearest tenth of a mile)** | | | **16.2** |
| PRINCIPAL URBAN ARTERIAL | | | |
| MD 22 | US 1 Business (Baltimore Pike/Main Street) | MD 156 | 6.31 |
| MD 22 | Long Drive | APG (Aberdeen) | 3.53 |
| MD 24 | MD 23 | US 1 Bypass | 1.81 |
| MD 24 | MD 755 | APG (Edgewood) | 1.75 |
| MD 155 | I-95 | US 40 | 2.53 |
| MD 924 | US 1 Bypass | US 1 Business | 1.88 |
| US 1 (Conowingo Road) | US 1 (Hickory Bypass) | US 1 (Hickory Bypass) | 1.58 |
| US 1 Business (Baltimore Pike/Bel Air Road) | MD 22 | US 1 (Bel Air Road)/ US 1 Bypass | 2.67 |
| US 1 (Bel Air Road) | MD 152 | MD 147/US 1 Business | 1.54 |
| US 40 | Baltimore County Line | Cecil County Line | 18.64 |
| **Total Principal Urban Arterial Miles (rounded to the nearest tenth of a mile)** | | | **42.2** |
| PRINCIPAL RURAL ARTERIAL | | | |
| MD 22 | MD 156 | Long Drive | 3.11 |
| MD 152 | Pleasantville Road | I-95 | 6.89 |
| US 1 | Baltimore County Line | MD 152 | 1.34 |
| US 1 | MD 543 | Cecil County Line | 11.75 |
| **Total Principal Rural Arterial Miles (rounded to the nearest tenth of a mile)** | | | **23.1** |
| **Total Principal Arterial Miles (Urban and Rural – rounded to the nearest tenth of a mile)** | | | **65.3** |
| MINOR URBAN ARTERIAL | | | |

| EXISTING ROADWAY SYSTEM FUNCTIONAL CLASSIFICATION | | | |
|---|---|---|---|
| ROAD NAME | BEGIN POINT | END POINT | MILEAGE |
| Edgewood Road | MD 24 | US 40 | 1.24 |
| Juniata Street | MD 763 | Revolution Street | 0.92 |
| MD 7 | Baltimore County Line | US 40 | 11.32 |
| MD 24 | MD 23 | Jarrettsville Road | 0.63 |
| MD 132 (W. Bel Air Avenue) | I-95 | APG (Aberdeen) | 2.30 |
| MD 147 | MD 152 | US 1/US 1 Bypass | 1.08 |
| MD 152 | MD 146 | Pleasantville Road | 5.64 |
| MD 152 | US 40 | APG (Edgewood) | 2.25 |
| MD 159 | US 40 | Perryman Road | 0.67 |
| MD 462 (Paradise Road) | Old Robinhood Road | MD 132 | 1.62 |
| MD 543 | US 1 (Conowingo Road) | US 40 | 10.04 |
| MD 715 | US 40 | APG (Aberdeen) | 0.53 |
| MD 755 | US 40 | APG (Edgewood) | 1.69 |
| MD 763 (Superior Street) | Juniata Street | MD 155 (Ohio Street) | 0.32 |
| MD 924 | US 1 Business (Baltimore Pike/Fulford Avenue) | MD 24 | 5.42 |
| Otsego Street | US 40 | Union Avenue | 0.53 |
| Revolution Street | US 40 | Union Avenue | 1.48 |
| Union Avenue | Otsego Street | Revolution Street | 0.64 |
| US 1 Business (Conowingo Road/ Hickory Avenue/ Broadway) | US 1 Bypass | MD 924 | 1.76 |
| **Total Minor Urban Arterial miles (rounded to the nearest tenth of a mile)** | | | **50.1** |
| MINOR RURAL ARTERIAL | | | |
| MD 23 | MD 138 | MD 165 | 4.56 |
| MD 23 | MD 165 | MD 24 | 4.81 |
| MD 136 | MD 165 | MD 22 | 12.94 |
| MD 138 | Baltimore County Line | MD 23 | 0.90 |
| MD 146 | Baltimore County Line | MD 23 | 5.34 |
| MD 155 | MD 22 | I-95 | 6.49 |
| MD 165 | MD 23 (East-West Highway) | Pennsylvania State Line | 13.48 |

| EXISTING ROADWAY SYSTEM FUNCTIONAL CLASSIFICATION | | | |
|---|---|---|---|
| ROAD NAME | BEGIN POINT | END POINT | MILEAGE |
| **Total Minor Rural Arterial miles (rounded to the nearest tenth of a mile)** | | | **48.5** |
| **Total Minor Arterial miles (Urban and Rural – rounded to the nearest tenth of a mile)** | | | **98.6** |
| URBAN COLLECTOR | | | |
| Abingdon Road | MD 924 | US 40 | 2.95 |
| Beards Hill Road | MD 132 | MD 462 | 1.14 |
| Bel Air South Parkway | Tollgate Road | MD 924 | 0.36 |
| Box Hill South Parkway | MD 924 | Abingdon Road | 0.77 |
| Brass Mill Road | MD 543 | MD 7 | 0.89 |
| Brierhill Road | MD 22 | MacPhail Road | 0.80 |
| Bulle Rock Parkway | MD 155 | Chapel Road | 1.08 |
| Bush Chapel Road | MD 132 (Bel Air Avenue) | Stepney Road | 1.44 |
| Bynum Road | Water Tower Way | MD 24 | 1.07 |
| Canvasback Drive | MD 155 | Chapel Road | 0.79 |
| Carrs Mill Road | Grafton Shop Road | MD 152 | 1.92 |
| Chapel Road | Bulle Rock Parkway | Ohio Street | 1.59 |
| Commerce Drive | Jarrettsville Road | MD 23 | 0.43 |
| East Bel Air Avenue | Old Post Road | MD 22 | 0.69 |
| Forest Valley Drive | MD 24 | Bernadette Drive | 0.73 |
| Grafton Shop Road | Jarrettsville Road | Red Pump Road | 3.53 |
| Hanson Road | MD 152 | MD 755 | 1.66 |
| Henderson Road | MD 543 | North Avenue | 1.69 |
| Hickory Avenue | Fulford Avenue | US 1 Business (Broadway) | 0.60 |
| High Point Road | Jarrettsville Road | Pleasantville Road | 1.63 |
| Hookers Mill Road | Abingdon Road | MD 136 | 1.84 |
| Jarrettsville Road | MD 24 | US 1 | 2.05 |
| Joppa Road | MD 7 | Trimble Road | 0.81 |
| Joppa Farm Road | MD 7 | Trimble Road | 0.48 |
| Laurel Bush Road | MD 924 | Abingdon Road | 2.55 |
| MD 132 | MD 22 | US 40 (Oakington Road) | 1.41 |
| MD 136 | I-95 | MD 7 | 0.33 |
| MD 159 (Perryman Road) | Old Philadelphia Road | Bush River | 4.39 |
| MacPhail Road | MD 924 | Wheel Road | 3.01 |

| EXISTING ROADWAY SYSTEM FUNCTIONAL CLASSIFICATION | | | |
|---|---|---|---|
| ROAD NAME | BEGIN POINT | END POINT | MILEAGE |
| Moores Mill Road | MD 22 | MD 924 | 2.19 |
| Mt. Royal Avenue | MD 132 | MD 22 | 0.63 |
| North Avenue | Henderson Road | MD 924 | 0.29 |
| Old Philadelphia Road | US 40 | MD 159 | 1.52 |
| Old Post Road | MD 22 | East Bel Air Avenue | 0.30 |
| Osborne Parkway | MD 24 | Grafton Shop Road | 1.28 |
| Patterson Mill Road | MD 924 | Wheel Road | 1.77 |
| Perryman East (new) | Michaelsville Road | MD 715 | |
| Perryman West (new) | US 40 at Mitchell Lane | Canning House Road | |
| Plumtree Road | MD 924 | Cypress Drive | 0.52 |
| Prospect Mill Road | MD 22 | MD 543 | 2.63 |
| Red Pump Road | Tollgate Road | MD 24 | 2.07 |
| Ring Factory Road | Whitaker Mill Road | MacPhail Road | 3.11 |
| Shore Drive | Joppa Farm Road | Bridge Drive | 0.91 |
| Singer Road | MD 924 | Winters Run Road | 1.58 |
| Spesutia Road | US 40 | MD 159 | 0.76 |
| Southampton Road | Moores Mill Road | MD 543 | 0.64 |
| Stepney Road | I-95 | MD 7 | 1.68 |
| Thomas Run Road | MD 543 | Prospect Mill Road | 0.97 |
| Towne Center Drive | Joppa Farm Road | Shore Drive | 0.70 |
| Trimble Road | Joppa Farm Road | Willoughby Beach Road | 4.53 |
| Union Avenue | Revolution Street | Commerce Street | 0.32 |
| Vale Road | MD 924 | Grafton Shop Road | 1.96 |
| Water Tower Way | MD 23 | US 1 Bypass | 0.54 |
| Watervale Road | MD 152 | Vale Road | 1.72 |
| Wheel Road | Schucks Road | Deadora Drive | 4.58 |
| Willoughby Beach Road | Trimble Road | Flying Point Road | 3.01 |
| Woodbridge Center Way | US 40 | Hanson Road | 0.80 |
| Woodsdale Road | MD 924 | Present Terminus | 0.56 |
| **Total Urban Collector miles (rounded to the nearest tenth of a mile)** | | | **84.2** |
| MAJOR RURAL COLLECTOR | | | |
| Hess Road | MD 146 | MD 152 | 1.83 |
| Jarrettsville Road | MD 24 | MD 23/MD 165 | 6.10 |
| MD 23 | MD 138 | Pennsylvania State Line | 7.91 |

| EXISTING ROADWAY SYSTEM FUNCTIONAL CLASSIFICATION | | | |
|---|---|---|---|
| ROAD NAME | BEGIN POINT | END POINT | MILEAGE |
| MD 24 | Pennsylvania State Line | Jarrettsville Road | 11.15 |
| MD 136 | MD 23 | MD 165 | 10.89 |
| MD 136 | MD 22 | I-95 | 5.82 |
| MD 147 | Baltimore County Line | MD 152 | 1.86 |
| MD 161 | US 1 | MD 155 | 5.35 |
| MD 439 | Baltimore County Line | MD 23 | 1.16 |
| MD 462 (Paradise Road) | MD 155 | Old Robinhood Road | 2.53 |
| MD 543 | MD 165 | US 1 (Conowingo Road) | 8.60 |
| MD 624 (Graceton Road) | Pennsylvania State Line | MD 165 | 3.75 |
| Schuster Road | MD 146 | MD 23 | 1.76 |
| **Total Major Rural Collector miles (rounded to the nearest tenth of a mile)** | | | **68.7** |
| MINOR RURAL COLLECTOR | | | |
| Boggs Road | High Point Road | Grafton Shop Road | 1.35 |
| Bradenbaugh Road | MD 23 | Madonna Road | 3.90 |
| Carea Road | Pennsylvania State Line | MD 136 | 1.23 |
| Carsins Run Road | MD 156 | Creswell Road | 5.90 |
| Castleton Road | MD 623 | MD 440 | 3.09 |
| Cedar Lane | Wheel Road | MD 136 | 2.12 |
| Cedarday Drive | Cedar Lane | Cedar Lane | 1.46 |
| Chapel Road | MD 462 (Paradise Road) | Bulle Rock Parkway | 2.08 |
| Cherry Hill Road | MD 24 | MD 543 | 3.94 |
| Connolly Road | MD 152 | US 1 | 1.13 |
| Constitution Road | Pennsylvania State Line | MD 24 | 1.34 |
| Cool Spring Road | Thomas Run Road | MD 136 | 1.40 |
| Creswell Road | MD 543 | Carsins Run Road | 0.53 |
| Deep Run Road | MD 623 | Prospect Road | 2.45 |
| Earlton Road | Webster-Lapidum Road | Chapel Road | 1.96 |
| Fawn Grove Road | Pennsylvania State Lane | MD 165 | 4.11 |
| Greene Road | Baltimore County Line | MD 165 | 1.89 |
| Grier Nursey Road | MD 165 | MD 24 | 6.29 |

| EXISTING ROADWAY SYSTEM FUNCTIONAL CLASSIFICATION | | | |
|---|---|---|---|
| ROAD NAME | BEGIN POINT | END POINT | MILEAGE |
| Harford Creamery Road | Bradenbaugh Road | Madonna Road | 2.93 |
| Hess Road | Baltimore County Line | MD 146 | 0.41 |
| Houcks Mill Road | Baltimore County Line | MD 146 | 2.05 |
| Jerrys Road | Madonna Road | Fawn Grove Road | 2.44 |
| Jerusalem Road | Baltimore County Line | MD 152 | 1.19 |
| Line Road | Pennsylvania State Line | MD 136 | 0.27 |
| Madonna Road | Bradenbaugh Road | MD 23 | 4.39 |
| MD 156 | MD 22 | MD 155 | 5.97 |
| MD 165 | Baltimore County Line | MD 23 (East-West Highway) | 5.52 |
| MD 440 | MD 543 | US 1 | 5.63 |
| MD 623 | Pennsylvania State Line | US 1 | 7.04 |
| MD 646 | MD 543 | MD 136 | 3.29 |
| Old Federal Hill Road | Jarrettsville Road | MD 165 | 2.79 |
| Old Joppa Road | MD 7 | US 1 Business | 5.94 |
| Old Pylesville Road (Main Street) | Pennsylvania State Line | MD 136 | 1.04 |
| Pleasantville Road | Baltimore County Line | High Point Road | 4.34 |
| Prospect Road | Pennsylvania State Line | MD 136 | 2.21 |
| Reckord Road | Old Fallston Road | MD 152 | 3.48 |
| Robinhood Road | Chapel Road | US 40 | 2.43 |
| Schucks Road | MD 22 | MD 136 | 3.09 |
| Singer Road | MD 152 | Winters Run Road | 1.85 |
| St. Clair Bridge Road | MD 165 | MD 24 | 3.26 |
| Stepney Road | MD 22 | I-95 | 2.24 |
| Thomas Run Road | Prospect Mill Road | MD 22 | 6.34 |
| Whitaker Mill Road | US 1 | Ring Factory Road | 1.81 |
| **Total Minor Rural Collector miles (rounded to the nearest tenth of a mile)** | | | **128.1** |
| **Total Collector miles (Urban, Major Rural and Minor Rural – rounded to the nearest tenth of a mile)** | | | **281.0** |

APPENDIX IV

# HARFORD COUNTY LANDMARKS

HARFORD NEXT
A MASTER PLAN FOR THE NEXT GENERATION

## A Master Plan for the Next Generation



## HARFORD COUNTY LANDMARKS

**§ 267-112 HISTORIC LANDMARKS**

| INVENTORY # | PROPERTY NAME | PROPERTY ADDRESS | CITY |
|---|---|---|---|
| HA-937 | Christopher's Camp | 1219 South Fountain Green Rd | Bel Air |
| HA-441 | Churchville Presbyterian Church & Cemetery | 2844 Churchville Rd | Churchville |
| HA-225 | Hays House | 324 South Kenmore Ave | Bel Air |
| HA-609 | Little Falls Meeting House Burial Ground | 719 Old Fallston Rd | Fallston |
| HA-610 | Fallston Friends Schoolhouse | 719 Old Fallston Rd | Fallston |
| HA-855 | Nelson-Reardon-Kennard House | 3604 Philadelphia Rd | Abingdon |
| HA-4 | Rigbie House | 2422 Castleton Rd | Darlington |
| HA-1312 | St. Francis De Sales Church | 1450 Abingdon Rd | Abingdon |
| HA-5 | Sophia's Dairy | 4602 Pulaski Highway | Belcamp |
| HA-168 | St. Mary's Church | 1 St. Mary's Church Rd | Abingdon |
| HA-561 | Stansbury Mansion | 1616 Eden Mill Rd | Pylesville |
| HA-49 | Thomas Run Church | Thomas Run Rd | Bel Air |
| HA-165 | Deer Creek Harmony Presbyterian Church | 2202 Shuresville Rd | Darlington |
| HA-12 | Deer Creek Friends Meeting House & Cemetery | 1212 Main St | Darlington |
| HA-6 | Bon Air | 2501 Laurel Brook Rd | Fallston |
| HA-307 | McComas Institute | 1911 Singer Rd | Joppa |
| HA-249 | Spesutia Church Vestry House & Cemetery | 1504 Perryman Rd | Aberdeen |
| HA-867 | Bush Hotel | 4014 Philadelphia Rd | Abingdon |
| HA-1315 | Joppa Historic District | | Joppa |
| HA-44 | D. H. Springhouse | 3000 Sandy Hook Rd | Bel Air |
| HA-469 | King and Queen Seats | Rt. 24 | Street |
| HA-1117 | Whitaker Mill & Miller's House | 1212 Whitaker Mill Rd | Joppa |
| HA-103 | Tabernacle Church | Tabernacle Rd | Whiteford |
| HA-66 | Old Brick Baptist Church | Baldwin Mill Rd | Forest Hill |
| HA-1590 | St. James African Methodist Episcopal Church Cemetery | 4139 Gravel Hill Rd | Havre de Grace |
| HA-693 | Woodside | 400 Singer Rd | Abingdon |
| HA-240 | Swansbury | 111 Beards Hill Ext. | Aberdeen |
| HA-1279 | Greenwood | 331 Glenville Rd | Churchville |
| HA-1435 | Historical Society Headquarters/Old Bel Air Post Office | 143 N. Main St | Bel Air |
| HA-356 | Joshua's Meadows | 300 N. Tollgate Rd | Bel Air |
| HA-1244 | Hopkins House | 141 N. Main St | Bel Air |
| HA-1394 | Mrs. Dunnigan's Building | 31 West Courtland St | |
| HA-1456 | Survey Stones for Bel Air at 220 South Main Street | 220 South Main Street | Bel Air |
| HA-1396 | Survey Stones for Bel Air at 33 West Courtland Street | 33 West Courtland Street | Bel Air |
| HA-1311 | Bel Air M.E. Church (Main Street) | 20 N. Main Street | Bel Air |
| HA-1267 | Asbury M.E. Church | 114 Asbury Road | Churchville |
| HA-448 | Ivory Mills | 4916 Harford Creamery Road | Norrisville |
| HA-458, HA-459 | George N. Wiley Mill | 4907 Jolly Acres Road | Norrisville |
| HA-997 | Calvary United Methodist Church | 1321 Calvary Road | Churchville |
| HA-1228 | Woodview | 1326 Somerville Road | Bel Air |
| HA-1605 | Dembytown Church | 800 Trimble Road | Joppatowne |
| HA-258 | Proctor House | 54 East Gordon Street | Bel Air |
| HA-1689 | Orthodox Friends Meeting House & Caretaker's House | 2225 Old Quaker Road | Darlington |

| HARFORD COUNTY PROPERTY | | | |
|---|---|---|---|
| HA-1393 | Old Aegis Building | 29 West Courtland St | Bel Air |
| HA-1780 | Old Aberdeen High School | 34 N. Philadelphia Blvd. | Aberdeen |
| HA-1395 | Mrs. Dunnigan's Hotel & Restaurant | 33 West Courtland St | Bel Air |
| HA-1463 | Harford Mutual Fire Insurance Company Building | 18 Office Street | Bel Air |
| HA-2181 | Darlington Library | 1134 Main Street | Darlington |
| HA-218 | Harford County Courthouse | 20 West Courtland Street | Bel Air |
| HA-1413 | Bel Air Colored School | 205 Hays Street | Bel Air |
| HA-1409 | Old Bel Air Academy | 45 East Gordon Street | Bel Air |

| PARK PROPERTY | | | |
|---|---|---|---|
| HA-2180 | Francis Silver Park (Darlington) | 2428 Shuresville Road | Darlington |
| HA-370 | Scott House (Equestrian Center) | 608 Tollgate Road | Bel Air |
| HA-230 | Liriodendron | 502 W. Gordon Street | Bel Air |
| HA-562 | Eden Mill Park | 1617 Eden Mill Road | Pylesville |
| HA-1081 | Stone House & Spring House (Edgeley Grove Farm) | 864 Smith Lane | Benson |

| BRIDGES | | |
|---|---|---|
| HA-439 | Franklinville Road | Joppa |
| HA-1119 | Old Carrs Mill Road | Fallston |
| HA-336 | Nobles Mill Road | Darlington |
| HA-799 | Cherry Hill Road | Street |
| HA-1982 | Forge Hill Road | Dublin |
| HA-1038 | Ring Factory Road | Bel Air |
| HA-1237 | Whitaker Mill Road | Joppa |
| HA-1098 | Green Road | Whitehall |

| BOARD OF EDUCATION | | | |
|---|---|---|---|
| HA-699 | Harford Glen | 60 W. Wheel Road | Bel Air |
| HA-2179 | Darlington Elementary School | 2119 Shursville Road | Darlington |

| HARFORD COMMUNITY COLLEGE | | | |
|---|---|---|---|
| HA-152 | Hays-Heighe House | 401 Thomas Run Road | Bel Air |

# HARFORD NEXT

A MASTER PLAN FOR THE
NEXT GENERATION