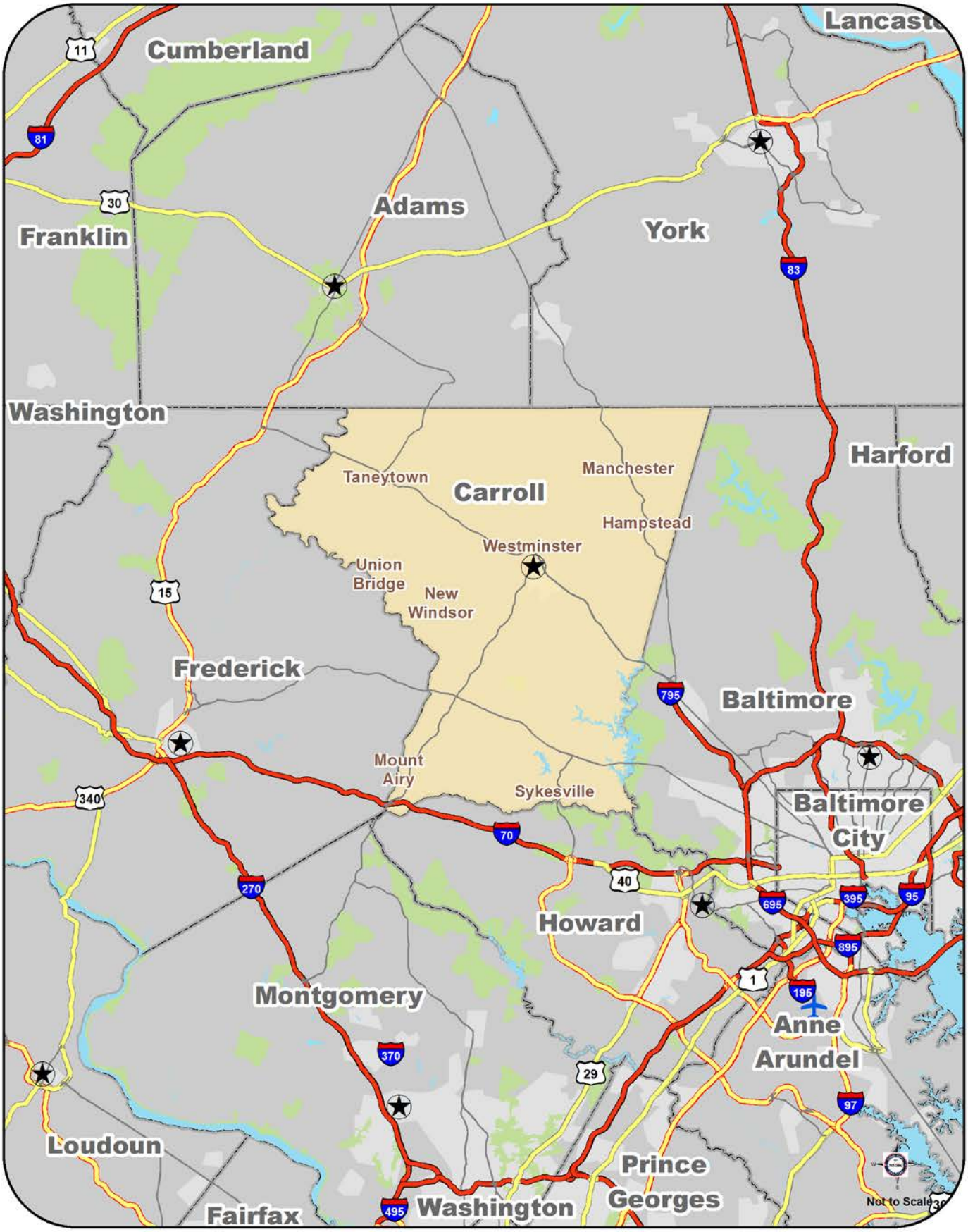
2014 Carroll County Master Plan

Adopted by the Board of County Commissioners

February 26, 2015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Resolution No. 938 – 2015

A RESOLUTION ADOPTING THE 2014 CARROLL COUNTY MASTER PLAN

WHEREAS, Carroll County developed a Comprehensive Plan titled "Master Plan of Carroll County" which was Approved and Adopted in 1964; and

WHEREAS, this Plan was the focus of a review and revision process that resulted in a modified Plan being Approved and Adopted in 2000; and

WHEREAS, Section §3-203, Land Use Article, Maryland Annotated Code, provides for the Adoption, periodic review, and revision of a comprehensive plan by jurisdictions in the State of Maryland; and

WHEREAS, the Carroll County Planning and Zoning Commission and staff worked together for more than 24 months to develop this Master Plan update; and

WHEREAS, the Carroll County Planning and Zoning Commission formally "Accepted" the draft Master Plan by a unanimous vote at the August 2014 Business Meeting; and

WHEREAS, the County provided extensive opportunities for public review, comment, question and interaction; and

WHEREAS, public input was used to guide, direct and, when necessary, modify the development of the Plan; and

WHEREAS, the Carroll County Planning and Zoning Commission has followed requirements set forth in the Land Use Article §3-203 of the Annotated Code of Maryland for a 60-day public review and comment period and held a public hearing on November 5, 2014, which was duly advertised as required by law and was attended by interested citizens; and

WHEREAS, the Carroll County Planning and Zoning Commission, following consideration of the scope and content of all proposed revisions and all comments, testimony and discussions of this Plan, formally Approved this Master Plan in the form attached hereto by adoption of an Approval Resolution on December 16, 2014; and

WHEREAS, the Carroll County Planning and Zoning Commission, by a unanimous vote, forwarded this Plan to the Board of County Commissioners of Carroll County with a recommendation for Adoption; and

WHEREAS, the Secretary of the Carroll County Planning and Zoning Commission formally transmitted the Approved Master Plan to the local elected officials on December 31, 2014, in accordance with the applicable provisions of the Annotated Code of Maryland;

2014 Carroll County Master Plan Resolution

NOW, THEREFORE BE IT RESOLVED, this 26th day of February, 2015, that the Board of County Commissioners of Carroll County following a careful and deliberate review and, in consideration of the aforementioned recitals do hereby formally Adopt the *2014 Carroll County Master Plan* in the form attached hereto.

FURTHER, the Board of County Commissioners of Carroll County endorses the consistency requirements as set forth in 1-301, 1-302, and 1-303 of the Land Use Article of the Annotated Code of Maryland; and

FURTHER, it is indisputable that landowners in this County possess certain land use and development rights at the time of this Adoption; and

FURTHER, these rights were incorporated into the assumptions and recommendations of this Plan; and

FURTHER, these assumptions and recommendations are hereby certified via the Adoption of this Plan;

THEREFORE, any action on the part of any entity, other than the Carroll County Planning and Zoning Commission and the Board of County Commissioners of Carroll County following a duly advertised public hearing, which has the effect of diminishing or detrimentally impacting rights held by Carroll County property owners at the time of this Adoption shall be considered inconsistent with this Plan.

ADOPTED this 26th day of February, 2015

THE BOARD OF COUNTY COMMISSIONERS OF CARROLL COUNTY

Doug Howard
President

Stephen A. Wantz
Vice President

C. Richard Weaver
Secretary

Richard S. Rothschild

Dennis E. Frazier

Approved for legal sufficiency

Timothy C. Burke, County Attorney

RESOLUTION NO. 01-14

A RESOLUTION CONCERNING:

The 2014 Carroll County Master Plan

FOR THE PURPOSE of Approving the Carroll County Master Plan

WHEREAS the County prepared its first Master Plan in 1964; and

WHEREAS this Plan was updated in 2000; and

WHEREAS the Land Use Article of the Annotated Code of Maryland mandates the update or development of a Comprehensive Plan every ten years; and

WHEREAS the Planning & Zoning Commission and staff worked together for more than 24 months to develop this Plan update; and

WHEREAS public input was used to guide, direct and, when necessary, modify the development of the Plan; and

WHEREAS the Planning & Zoning Commission formally "Accepted" the draft Plan by a unanimous vote at the August 19, 2014 Business Meeting; and

WHEREAS the draft Plan was formally referred to the State Clearinghouse Review Committee following Planning & Zoning Commission "Acceptance"; and

WHEREAS the County provided extensive opportunities for public review, comment, question and interaction; and

WHEREAS state and local resource and regulatory agencies, including: the Maryland Departments of Planning, Environment, Transportation and Natural Resources provided advisory comments; and

WHEREAS following formal advertisement, the Planning & Zoning Commission held a public hearing on November 5, 2014 to formally solicit public comment; and

WHEREAS approximately 50 County residents were in attendance and 26 citizens provided comment at this Public Hearing; and

WHEREAS staff and the Planning & Zoning Commission were able to successfully incorporate many of these comments into the Plan; and

WHEREAS the Planning & Zoning Commission is satisfied with the content and substance of the Accepted Plan as modified;

NOW, THEREFORE, BE IT RESOLVED, by the Planning & Zoning Commission of Carroll County, that the 2014 Master Plan for Carroll County, MD is hereby Approved; and

FURTHER, the Planning & Zoning Commission endorses the consistency requirements as set forth in 1-301, 1-302, and 1-303 of the Land Use Article of the Annotated Code of Maryland; and

FURTHER, it is indisputable that landowners in this County possess certain land use and development rights at the time of this Approval; and

FURTHER, these rights were incorporated into the assumptions and recommendations of this Plan; and

FURTHER, these assumptions and recommendations are hereby certified via the Approval of this Plan;

THEREFORE, any action on the part of any entity, other than the Planning & Zoning Commission and the Board of County Commissioners following a duly advertised public hearing, which has the effect of diminishing or detrimentally impacting rights held by Carroll County property owners at the time of this Approval shall be considered inconsistent with this Plan.

APPROVED this 16 day of December, 2014.

(signatures on following page)

THE CARROLL COUNTY PLANNING & ZONING COMMISSION

Alec Yeo, Chairman

Richard J. Soisson, Vice Chair

Eugene A. Canale

Matthew S. Helminiak

Jeffrey A. Wothers

Cynthia L. Cheatwood

Richard S. Rothschild, Ex-officio

Daniel E. Hoff, Alternate

Philip R. Hager, Secretary

Approved for Legal Sufficiency

Gail Denise Kessler, Deputy County Attorney

Copies of the Accepted 2014 Carroll County Master Plan are available.....

In hard copy or on CD at:

Carroll County Department of Land Use, Planning & Development

225 North Center Street, Suite 204

Westminster, MD 21157

Online at:

http://ccgovernment.carr.org/ccg/compplan/masterplan.asp

For additional information, contact the Carroll County Department of Land Use, Planning & Development:

By phone: 410-386-2145

By email: ccmasterplan@ccg.carr.org

ACCESSIBILITY NOTICE: The Americans With Disabilities Act applies to the Carroll County Government and its programs, services, activities, and facilities. If you have questions, suggestions, or complaints, please contact Madeline M. Morey, the Carroll County Government Americans With Disabilities Act Coordinator, 410-386-3600 or 1-888-302-8978, or MD Relay at 7-1-1/800-735-2258. The mailing address is:
10 Distillery Drive, First Floor, Suite 101, Westminster, MD 21157.

NOTE TO THE READER:

This plan was developed, Accepted, Approved and Adopted in accordance with, and pursuant to, the policies, procedures and statutes of Carroll County and the state of Maryland. In Adopting this plan, the Planning and Zoning Commission and the local elected officials do not knowingly deviate from any legal requirement or standard and have made all reasonable efforts to ensure that it is consistent with both the letter and spirit of the United States Constitution, including the Bill of Rights, as well as the Constitution of Maryland and the attendant Declaration of Rights.

The plan, its recommendations, and each of its associated implementation activities is assumed to be in accordance with all of the aforementioned documents and guarantees in effect at the time of its preparation. Adoption of this plan should not be interpreted as giving rise to any future action or initiative which is in contravention to any of the enumerated mandates cited herein and, in the event that any of the provisions of this plan shall be found to be unlawful and/or unconstitutional, such provision or portion of the plan or any implementation mechanism shall also be considered unlawful and/or unconstitutional; as such, it shall be null and void and in all manner of interpretation held to be unenforceable without affecting the remaining portion of the plan.

FOREWORD:

Land Use Plans are not inherently regulatory instruments. The most important portion of most Plans are the goals, recommendations and implementation efforts. The legislative or regulatory enactments necessary to implement the Plans will come about as a result of the language within the Plan AFTER the Adoption of the Plan. The need for "regulatory-style" language within the Plan is, therefore, eliminated. It is important, therefore, to promote a greater understanding and awareness of the public's impressions and expectations with regard to this process. Adoption of a Plan is arguably the first step in the comprehensive planning process – not the last step. The Plan implementation processes will continue over the next several years as the *2014 Carroll County Master Plan* recommendations are brought to fruition.

Alec Yeo, Chairman
Richard J. Soisson, Vice Chair
Eugene A. Canale
Matthew S. Helminiak
Jeffrey A. Wothers
Cynthia L. Cheatwood
Daniel E. Hoff, Alternate
Richard S. Rothschild, Ex-officio
Philip R. Hager, Secretary

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Carroll County Government
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Westminster, Maryland 21157
410-386-2145
1-888-302-8978
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MD Relay service 7-1-1/800-735-2258

December 16, 2014

Greetings:

Welcome to the 2014 Carroll County Master Plan. For the past several years, Land Use, Planning, and Development Department staff and the Planning and Zoning Commission have been diligently working to prepare this document for you, the residents of Carroll County. This Plan is an update of the 2000 Master Plan which, in turn, was an update of the original 1964 Plan. Although much has changed over the past five decades, much has remained the same. This Plan remains true to the original vision of the first County Plan. The 1964 Plan recognized the role of agriculture as both a cultural and economic activity of importance to Carroll County; it emphasized the fundamental difference between "development" and "growth"; and finally, it acknowledged that future residential development should be targeted to the municipalities, associated growth areas, and other locations where infrastructure could adequately support development and development could complement the provision of necessary services.

This latest iteration of the County Master Plan embraces the pioneering visions that were first articulated in the 1964 Plan. In addition to conserving natural resources and maintaining a strong agricultural base, this Plan also attempts to address the existing jobs/housing imbalance and the challenges that continuation of this trend represent, especially congestion, commuting challenges, and funding of publicly-provided resources. The addition of new employment lands will facilitate future commercial and industrial development opportunities in strategic locations which will result in increased tax revenues, enhanced local income, and tertiary benefits that will accrue through expanded patronage of local businesses and services.

We thank you for giving us the opportunity to provide you with this document as a guiding vision for the future. We have enjoyed working on it. Your participation has been rewarding, and we are especially appreciative for the trust that you have invested in us. On behalf of the staff and the Planning and Zoning Commission, thank you.

Sincerely,

Alec Yeo
Chairman

CARROLL COUNTY PLANNING & ZONING COMMISSION
Planning a better future for Carroll County

Acknowledgements

The 2014 Carroll County Master Plan is the culmination of many months and years of hard work by County staff and Planning Commission members. The result is this document. We would like to thank everyone involved for their efforts. This plan could not have been completed without their help.

Carroll County Planning and Zoning Commission Members
Alec Yeo, Chairman
Richard J. Soisson, Vice Chair
Eugene A. Canale
Matthew S. Helminiak
Jeffrey A. Wothers
Cynthia L. Cheatwood
Daniel E. Hoff, Alternate
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GIS Staff
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Other County Department Support
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Dorothy Kline, Production Distribution Services
Christopher Swam, TV Production
Roberta Windham, Legislative and Executive Policy

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Chapter 1 : Concepts & Intentions

Quality of Life

Carroll County's 2000 Master Plan for Carroll County, *Challenges & Choices*, represented the first update of the original 1964 Carroll County Master Plan. It also was the first time the master plan contained a plan document to accompany the land use plan map and goals. The 2014 update is the second revision to the original 1964 plan. The quality of life afforded to County residents has and continues to entice new residents to the County today as evidenced by safe neighborhoods, good schools, relatively uncongested roads, and attractive, less expensive housing and cost-of-living compared to surrounding jurisdictions.

Challenges & Choices

Today, unlike in 1964, it is increasingly difficult to balance the community's desire to maintain and even increase the quality of life with the pressures of development and development's demand on natural resources, public services and infrastructure. Reaffirming the visions set forth in the 1964 and 2000 Master Plan updates, the 2014 Carroll County Master Plan targets the County's Designated Growth Areas (DGAs) to receive the majority of development, while continuing to preserve productive farmland through the locally successful and nationally-recognized Carroll County Agricultural Land Preservation Program.

A principal concern raised by residents during the Master Plan process is the timely provision of public services and facilities. In April of 2004, the Board of County Commissioners (BOCC) amended the Code of Public Local Laws and Ordinances to include Chapter 156 (formerly known as Chapter 71), Adequate Public Facilities and Concurrency Management Ordinance (Concurrency Management), these were originally adopted in 1998 to ensure capital improvement projects are prioritized and programmed to maintain minimum levels of service for roads; schools; police; fire and emergency services; water and sewer services; and other services as needed through the County's Community Investment Plan (CIP).

Designated Growth Areas (DGAs) are the smaller geographic areas of the County where the majority of the County's growth is planned to occur. Community comprehensive plans are prepared for these areas that are focused on these communities and evaluate land uses at a more local scale. Carroll County's eight municipalities are at the heart of DGAs with the exception of Sykesville and Finksburg. Finksburg does not surround an incorporated jurisdiction but is still a County DGA. Sykesville lies along the southern edge of the Freedom Area. Additional land surrounding most of the municipalities is identified and planned for future annexation into the municipality to accommodate and serve planned growth. The limit to which a municipality plans to annex land into the future is referred to as the Growth Area Boundary (GAB).

Another principal concern raised by residents is development's impacts on environmental resources. The 2014 Master Plan recognizes and addresses development's impact on the environment, especially water quality and water supply in the Water Resources Element

(WRE). Water quality and water supply are proving to play an ever increasing and integral role in shaping development patterns.

In addition, it is becoming increasingly difficult to promote housing choices desired by County residents and prospective residents in the diversity and desired locations due to new state mandates, spending priorities and other directives that are designed to penalize rural and suburban regions of the state.

CARROLL COUNTY COMMISSIONERS' ENVIRONMENTAL PRINCIPLES

Vision

Adopted in October of 2011, the County Board of County Commissioners' created a set of guiding environmental principles with distinct visions and goals, which include:

- We believe that the environment is important and must be carefully maintained. The air we breathe, the land we tend and the food and water we consume must be clean and safe in order to ensure that we maintain our health, safety and quality of life.
- We believe that people must be a part of the solution. We must be wise stewards of the environment and thus we must provide opportunities for locally-based, people-driven solutions designed for the long-term.
- We believe an economy based on free-market principles produces innovative technologies and solutions that can conserve natural resources and promote environmental quality.
- We believe that growing awareness and free enterprise will recognize businesses that are good environmental stewards. Individuals and businesses that provide solutions should reap the rewards for conservation and environmentally sound practices. Market-based solutions to protect the environment can be more effective and implemented with fewer economic side effects than a centrally planned government approach to environmental problems.

Goals

The Board of County Commissioners has the following environmental goals:

1. Maintain and improve environmental quality and encourage economic prosperity while preserving the County's rural character
2. Promote land use, planning and development concepts and practices that support citizens' health, safety, well-being, individual rights and the economic viability of Carroll County
3. Maintain safe and adequate drinking water and other water supplies including efforts to protect and restore the Chesapeake Bay
4. Strive to protect our natural resources for future generations

Implementation Methods

The Board of County Commissioners will work with the Environmental Advisory Council, local municipalities, state agencies, other counties and our county departments, business leaders and citizens to develop and promote strategies that allow for continued economic progress while pursing good environmental stewardship. We will engage these partners in the formation of sound, balanced and reasonable environmental policies predicated on an accurate assessment of the problem.

Maryland Planning Legislation & Authority

Land Use Article of the Annotate Code of Maryland

The Land Use Article of the Annotated Code of Maryland (Land Use Article), formerly known as Article 66B delegates planning and land use regulatory powers to the State's municipalities, Baltimore City, and non-charter counties. Charter counties are required to comply with various sections of the Land Use Article, including but not limited to the approval of a comprehensive plan (referred to as a Master Plan in Carroll County and referred to as a "master plan" hereafter) by the governing legislative body. In Carroll County, the Planning and Zoning Commission is required to recommend approval of a Master Plan to the Board of County Commissioners. The Master Plan serves as a guiding document for public and private planning and land use-related actions and decisions.

Economic Growth, Resource Protection, and Planning Act of 1992

On October 1, 1992, the Maryland Economic Growth, Resource Protection, and Planning Act of 1992 (the Planning Act) was passed, encouraging economic growth, concentrating development in suitable areas, and protecting natural resources through the establishment of eight visions. These visions were expanded to twelve visions in 2009 as part of the Smart, Green, and Growing Legislation (see below). The Planning Act is premised on the notion that local jurisdictions possess the appropriate and best knowledge of local conditions to establish goals that advance the twelve visions, and that the state is responsible to support localities' priorities through targeted infrastructure investment. Additionally, the Planning Act requires local jurisdictions to review, and if necessary, amend their plans at regular six-year intervals; and as amended most recently with the Sustainable Growth & Agricultural Preservation Act of 2012, every ten years. This provision ensures that plans are frequently reconsidered in light of changing landscapes, levels/demands of services and new legislation.

Smart Growth and Neighborhood Conservation Act of 1997

The General Assembly adopted the Smart Growth and Neighborhood Conservation Act of 1997 (1997 Planning Act), which consists of several programs that formed the Smart Growth Initiatives. These initiatives are discussed below.

Priority Funding Areas

Priority Funding Areas (PFAs) are targeted areas to receive state funds for infrastructure. PFAs are designated based on availability of existing and/or planned water and sewer services, a permitted residential density of 3.5 dwelling units per acre, and designation as a growth area – residential or economic development – in a master plan. Areas within municipal corporate limits as of January 1, 1997, Baltimore City, areas inside the Baltimore and Capital beltways, and MD Department of Housing and Community Development Designated Neighborhoods were automatically designated as PFAs. The state is prohibited from funding growth-related projects located outside of PFAs unless there is a need to address health and safety issues (such as failing septic systems and contaminated water sources).

Rural Legacy Areas

The Rural Legacy Program redirects existing state funds into a focused and dedicated land preservation program specifically designed to minimize sprawl development patterns' consumption of agricultural land and natural resources lands by funding the purchase of easements in areas designated by the County or local land trust. The designated area must be consistent with the County's master plan. The Rural Legacy Program is a competitive, grants based program that must be applied for on an annual basis.

Job Creation Tax Credit

The Job Creation Tax Credit is an incentive based tax credit used to promote community revitalization and job creation. Maryland provides a $1,000 tax credit to businesses that create new jobs to encourage businesses expanding or relocating to Maryland. The credit is 2.5 percent of aggregate annual wages for all newly created, full-time jobs - $1,000 per new job. In a revitalization area, the credit increases to five percent of annual wages and up to $1,500 per new job. Credits cannot exceed $1 million per credit year. If the credit is more than the tax liability the unused credit may be carried forward for five years. Eligible industries include:

- Manufacturing
- Transportation or communications
- Agriculture
- Forestry
- Fishing or mining
- A public utility
- Warehousing; research
- Development or testing
- Biotechnology
- Computer programming
- Data processing or other computer related services
- Central financial, real estate or insurance services
- Operation of central administrative offices or a company headquarters
- Business services firms (only located in a PFA)

Live Near Your Work Program

The Live Near Your Work Program promotes residing in older urban areas and depending less on the automobile. Under the program, residents may receive $3,000 towards the purchase, down-payment or closing costs on a new home that is located within five miles of the resident's workplace and within one of Maryland's targeted residential development zones. For federal employees, the employer pays $1,000 of the $3,000 grant, as does the local city government. The State of Maryland pays the supplemental $1,000 using funds from an annual appropriations bill through the State Housing Finance Agency.

House Bill 1141 - Land Use - Local Government Planning; House Bill 2 - Agricultural Stewardship Act of 2006; and, House Bill 1160 - Workforce Housing Grant Program - Establishment

The 2006 session of the Maryland General Assembly produced three notable Bills related to land use planning and the master plan: HB 1141, HB 2, and HB 1160. The legislation requires four new plan elements, though some may only apply to the County and others may only apply to municipalities. These elements are a Water Resource Element (WRE), a Municipal Growth Element (MGE), a Priority Preservation Area Element (PPA), and a Workforce Housing Element (WHE).

Water Resources Element

The WRE, introduced in HB 1141, must identify if adequate drinking water supplies exist to serve demand generated by existing and future proposed development as indicated in the land use element of the Master Plan. It also must identify suitable receiving waters (where stormwater and treated wastewater can be discharged) and land areas for nonpoint source management and wastewater treatment. Pollutant

loads from both stormwater and septics must be addressed. The WRE must indicate pollutant reductions, where needed, from both existing development and future growth.

Municipal Growth Element

The MGE, introduced in HB 1141, requires municipalities to identify future growth areas that will implement their long-range vision for the future. These areas are to be based upon population projections, an assessment of land capacity and needs, and an examination of infrastructure and sensitive areas, among other things. The MGE should incorporate intergovernmental coordination since it will guide future annexations, a process involving both jurisdictions.

Priority Preservation Area Element

The PPA, introduced in HB 2, requires the County to maintain certification of its agricultural land preservation program. The PPA requires the County to identify priority preservation areas based upon the productivity of and/or profitability of agricultural and forestry enterprises, and that policies be in place to prevent these areas from being converted to or compromised by development. The acreage goal for land in a priority preservation area to be preserved through easements and zoning must equal at least 80 percent of the undeveloped land within the area. Counties also must demonstrate in future master plan updates how they are contributing towards the statewide preservation goals of the Maryland Agricultural Land Preservation Foundation (MALPF) and what they can do to address any shortcomings.

Workforce Housing Element

The WHE, introduced in HB 1160, is required of local governments pursuing eligibility and participation in the Workforce Housing Grant Program. The Workforce Housing Element should assess workforce housing needs and contain goals, objectives, and policies to preserve or develop workforce housing. “Workforce housing” is defined in the Bill as rental housing that is affordable to households with an annual income between 50 percent and 100 percent of the area median income, or homeownership housing that is affordable to households with an annual income between 60 percent and 120 percent of the median income. Measures to address workforce housing include:

- Preservation and renovation of existing housing stock
- Redevelopment of existing residential areas
- Streamlined regulatory processes and reduced regulatory fees for construction or renovation
- Financial incentives for construction and renovation including local property tax credits
- Special zoning regulations for construction and renovation including inclusionary zoning
- Efforts to preserve workforce housing stock for subsequent first-time homebuyers and renters
- Coordination with neighboring jurisdictions
- Coordination with private sector employers
- Leveraging of federal financial assistance

Other Changes

HB 1141 also amended annexation and rezoning procedures, requiring that annexations be consistent with a MGE. Additionally, all annexation proposals must contain an “annexation plan” outlining the extension of services and public facilities. The annexation plan must be provided to the County 60 days prior to, and to the Maryland Department of Planning (MDP) 30 days prior to, the public hearing for review and comment.

Another change that applies to annexations relates to the “five-year rule.” Previously under this rule,

unless a zoning waiver was obtained from the County, zoning of an annexed property could not be changed for five years if the desired zoning was substantially different from that envisioned in the master plan. This requirement no longer applies unless the proposed zoning is denser than the current County zoning by 50 percent or more. A municipality still may request a waiver of zoning from the County to circumvent the 5-year rule.

Changes also were made to the PFA criteria. Municipalities must base PFA boundaries on the capacity of available land to accommodate growth, infill, or redevelopment at densities consistent with the master plan.

If all of the elements required are not in place on or before October 1, 2009, the affected jurisdiction "may not change the zoning classification of a property until that county or municipal corporation" is in compliance. Carroll County's WRE and PPA were approved, allowing the County to retain its power to approve/deny zoning changes of a property. The County is presently not participating in the Workforce Housing Grant Program; therefore, a WHE has not been completed.

Smart, Green, and Growing Legislation: SB 273/HB 294 – The Planning Visions; SB 280/HB 297 – The Smart and Sustainable Growth Act of 2009; SB 276/HB 295 – Smart Growth Goals, Measures, and Indicators and Implementation of Planning Visions

The Smart, Green, and Growing Legislation, passed in 2009, includes three significant planning Bills designed to update existing planning legislation and further enhance state and local implementation. These Bills include the Planning Visions Bill; the Smart and Sustainable Growth Act of 2009; and the Smart Growth Goals, Measures, and Indicators and Implementation of Planning Visions Bill.

1992 Planning Act - Planning Visions

The Planning Visions Bill (SB 273/HB 294) replaced the eight visions established in the 1992 Planning Act with twelve new visions. The twelve visions relate to:

- Quality of life and sustainability
- Public participation
- Growth areas
- Community design
- Infrastructure
- Transportation
- Housing
- Economic development
- Environmental protection
- Resource conservation
- Stewardship
- Implementation of the visions

The visions establish a state policy towards land use, and they are to be reflected in local master plans and implemented through local regulations. The Planning Visions Bill also requires local jurisdictions and MDP to report to the General Assembly the effect of Adequate Public Facility Ordinances (referred to as Concurrency Management in Carroll County) on targeting growth inside PFAs. Lastly, the Planning Visions Bill permits local jurisdictions to develop Transfer of Development Rights (TDR) programs in PFAs that will

offset land acquisition costs and public facilities construction costs in PFAs with proceeds from the sale of transferred development rights. See the section, *Maryland's Twelve Visions*, for a detailed discussion of the 12 planning visions.

Smart and Sustainable Growth Act

The Smart and Sustainable Growth Act of 2009 (SB 280/HB 297) attempts to strengthen master plans by requiring implementation measures and development related decisions to be consistent with the plan. In addition to explicitly indicating the legislative intent to overturn the Court of Appeals ruling in *David Trail, et al. v. Terrapin Run, LLC et al.*, 403 Md. 523 (2008), the Bill defines actions that are "consistent with" or have "consistency with" a master plan as those actions that further, and are not contrary to, the plan with respect to:

- Policies
- Timing of implementation of the plan
- Timing of development
- Timing of rezoning
- Development patterns
- Land uses
- Densities or intensities

Local ordinances and regulations, variances or special exceptions, conditional uses, annexations, and water and sewer plan amendments fall under these actions. The need for consistency with land uses and densities or intensities within the PFA does not fall under these actions; thus, allowing mixed-use development and density bonuses in areas where development is meant to be focused. The Bill also requires Planning Commission and Board of Zoning Appeals members to complete an education course.

Smart Growth Goals, Measures, and Indicators and Implementation of Planning Visions

The Smart Growth Goals, Measures, and Indicators and Implementation of Planning Visions Bill (SB 276/HB 295) identifies a statewide land use goal to increase the percentage of growth within PFAs and decrease the percentage of growth outside PFAs. Towards this end, the Bill requires that a local jurisdiction issuing more than 50 building permits per year submit an annual report measuring the extent to which smart growth measures and indicators are achieved. Each jurisdiction must establish its own local goal towards achieving the statewide land use goal. This is to be identified in the annual report along with a time frame for achieving the goal; the resources necessary for providing infrastructure inside the PFA and land preservation outside the PFA; and progress made since the last annual report. The report also must describe the following activities inside and outside PFAs: quantity and share of growth; net density of growth; and the creation of new lots and residential and commercial building permits issued.

The jurisdiction's development capacity analysis, which should be updated every three years or when there is a significant change in zoning or land use must also be in the report. Additionally, the report should identify the number of acres preserved using local agricultural land preservation funds.

Local land use goals established and reported to MDP will not only be used in the County's annual report, but will also be used to set policy as it is related to the location, timing, and funding for growth, infrastructure, land preservation, and resource protection. When the master plan is reviewed at the ten-year review period, progress indicated in the annual reports may be used to make adjustments to the local goal and/or the mechanism put in place to achieve it.

Sustainable Growth & Agricultural Preservation Act of 2012

The Maryland General Assembly in 2012 approved the Sustainable Growth & Agricultural Preservation Act of 2012 (Senate Bill 236), also known as the Septics Bill. This most recent planning related legislation focuses on the use of septic systems by limiting the development of large-lot residential development. The law calls for counties to designate "tiers" that determine the amount and location of septic systems, thus limiting major residential subdivisions served by on-site septic systems. The law provides counties and municipalities the option to adopt a growth tier map that identifies the location residential major and minor subdivisions, and the type of sewerage system that will serve them. Without an adopted tier map, a local jurisdiction may not authorize a major residential subdivision served by on-site septic systems, community systems or shared systems. The four tiers described in the Act are as follows:

- Tier I areas are currently served by community sewerage systems
- Tier II areas are planned to be served by community sewerage systems
- Tier III areas are not planned to be served by community sewerage systems but rather allow growth to occur on septic systems
- Tier IV areas are planned for preservation and conservation and prohibit residential major subdivisions

The Bill's purported intent is to limit the amount of nonpoint source pollution entering the Chesapeake Bay by preventing an estimated 50,000 new septic systems in the state and stopping as much as 1.1 million pounds of nitrogen contributions by 2035. SB 236 also requires new regulations from the Maryland Department of Environment (MDE) that mandates Best Available Technology (BAT) for most new septic systems. Counties that adopt a tier map have the option to seek an exemption from the minor subdivision restriction within Tier IV. The Act sets a high standard for counties to meet in order to obtain this exemption. Specifically, counties must have subdivision and zoning requirements in their Tier IV area that result in a protection level of not more than 1 dwelling unit per 20 acres. The purpose of the exemption is to recognize that some local jurisdictions have requirements in place within Tier IV that greatly limit the amount of new major residential subdivisions on septic systems in agricultural and forested areas. In addition, the law indicated that the definition of minor subdivision for the purposes of this law was based on a jurisdiction's definition as of December 31, 2013. Therefore, local governments has the opportunity to revise their local definitions prior to designation Tiers. Carroll County took this opportunity to define minor subdivision, strictly for the purpose of approval of individual septic systems, as seven lots or less.

Tier IV Mapping Criteria

The Land Use Article of the Annotated Code of Maryland, §1-508(a) (4) provides:
Tier IV areas are areas that are not planned for community sewerage service and are:

- Areas planned or zoned by a local jurisdiction for land, agricultural, or resource protection, preservation, or conservation;
- Areas dominated by agricultural lands, forest lands, or other natural areas; or
- Rural legacy areas, priority preservation areas, or areas subject to covenants, restrictions, conditions, or conservation easements for the benefit of, or held by a state agency, as defined in § 9–206 of the Environment Article, or a local jurisdiction for the purpose of conserving natural resources or agricultural land.

Due to the timing of this current Master Plan, the County has not addressed the incorporation of this latest planning legislation. Currently, seven of the eight municipalities, with the exception of Mt. Airy, have mapped their tier areas. At a minimum, until the tiers are adopted, the County must track all major and minor residential subdivisions to determine grandfathering. This will require the County to evaluate the development review process and ensure all new subdivisions are in conformance with SB 236. SB 236 allows for changes to the tiers to account for changes over time as the County's vision and goals change. These changes can occur through the master planning process, the rezoning petition process, water/sewer plan amendments and other changes that will impact potential changes to the tiers. The County's intent is to consider implementing tiers and incorporate the municipalities' tier areas as appropriate once this current Master Plan is approved.

Planning Cycle

In 2013, Senate Bill 671/House Bill 409 increase the time period of a local government's comprehensive planning and zoning cycle to 10 years, instead of 6 years, to better coincide with the release of U.S. decennial census data. The bills also require that, at least once within the five-year period after the adoption or review of the local jurisdiction's comprehensive plan, the annual report a planning commission must file with the legislative body of the local jurisdiction must contain a specified narrative on the implementation status of the plan. Other additional annual reporting requirements were included as well.

Maryland's Twelve Visions

The 1992 Planning Act was based on eight visions. As discussed above, these visions were replaced with twelve new visions in 2009 as part of the Smart, Green, and Growing Act.

Meeting the Twelve Visions

The 2014 Carroll County Master Plan implements the vision for *quality of life and sustainability* by striking a balance between directing growth to DGAs (as mentioned previously, the PFAs are contained within the DGAs); preserving the County's rural working landscape; and prescribing a process to provide facilities and infrastructure necessary to accommodate development.

A variety of options for enhancing *public participation* are laid out in the plan's Community

THE VISIONS

1. *Quality of life and sustainability: a high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment;*
2. *Public participation: citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals;*
3. *Growth areas: growth is concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers;*
4. *Community design: compact, mixed–use, walkable design consistent with existing community character and located near available or planned transit options is encouraged to ensure efficient use of land and transportation resources and preservation and enhancement of natural systems, open spaces, recreational areas, and historical, cultural, and archeological resources;*
5. *Infrastructure: growth areas have the water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and environmentally sustainable manner;*
6. *Transportation: a well–maintained, multimodal transportation system facilitates the safe, convenient, affordable, and efficient movement of people, goods, and services within and between population and business centers;*
7. *Housing: a range of housing densities, types, and sizes provides residential options for citizens of all ages and incomes;*
8. *Economic development: economic development and natural resource–based businesses that promote employment opportunities for all income levels within the capacity of the state's natural resources, public services, and public facilities are encouraged;*
9. *Environmental protection: land and water resources, including the Chesapeake and coastal bays, are carefully managed to restore and maintain healthy air and water, natural systems, and living resources;*
10. *Resource conservation: waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved;*
11. *Stewardship: government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection; and*
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.*

Involvement Chapter. The County recognizes the importance of public input into the development its Master Plan, as well as the public's involvement in its implementation.

Carroll County's *DGAs* have been identified as the most suitable areas to accommodate growth since public water and sewer services are generally provided in these areas along with other essential services such as but not limited to police, fire, school, emergency, libraries and schools.

Preserving and enhancing places like the County's cities and towns helps achieve the vision for *community design*. The plan encourages thoughtful community design through recommendations that promote maintaining the community fabric of our towns and villages and, in undeveloped areas, preserving the county's rural character. The plan encourages preservation of the existing rural and suburban development patterns, with extension of mixed-use zoning only where it is appropriate. It also supports efforts to create more opportunities for safe bicycle paths and walkways in DGAs. Cluster development is also encouraged to help protect sensitive environmental features.

Ensuring that adequate *infrastructure* exists to support the County's DGAs is addressed in the WRE, and through the County's Concurrency Management. The WRE analyzes the sustainability of land use policies compared to the ability to provide adequate water/wastewater systems and to restore and maintain water quality. The County's Concurrency Management requires the preparation of an annual Concurrency Management Report that analyzes the residential development activity of the past year, assesses the available capacity of public facilities and services, and recommends ways to better achieve the stated purpose of the Concurrency Management.

The Master Plan's chapter on *transportation* contains recommendations for initiatives that will improve or maintain the viability and efficiency of the county's transportation network. Based on a feasibility and cost-effectiveness analysis of various transportation solutions, this chapter identifies future transportation improvements that reflect future demands over time as the land use plan is realized. While the planned major streets include two bypasses and several significant collector roadways, much of the plan is grounded in fiscal responsibility and the need to focus on system preservation and connectivity. Subway stations and/or government sponsored or subsidized intercounty bus services are not considered priorities.

The need to provide adequate and varied *housing* for the residents of Carroll County is expressed in the plan in several ways. By directing the majority of development to the County's DGAs, the likelihood of creating housing diversity is increased as a function of market responses. It is in the DGAs that public facilities are available, and, therefore, greater flexibility in design and density can be realized. Additionally, the Master Plan contains recommendations for enhancing housing options through various incentives, the creation of accessory dwelling units, and opportunities to create mixed-use developments.

Economic development is vital to Carroll's economy and tax base. Therefore, the Master Plan also addresses measures to ensure that economic development consistent with the state's visions is encouraged. The plan goal is for commercial and industrial uses to increase from 12 percent to a minimum of 15 percent of the tax base as new development occurs. A more balanced tax base will help the County provide needed services. An increased economic development base will also bring jobs to the County without placing an undue share of the tax burden on County residents. The 2007 Parsons-Brinkerhoff study, the *Economic Development Land and Employment Needs Study (EDLENS),* assessed commercial and industrial land available and projected job growth, and estimated the need for additional

commercial and industrial land. This Master Plan considers the results of that study in its recommendations.

Additionally, the Master Plan contains recommendations to support the agribusiness industry and the viability of agriculture as a livelihood. It also contains recommendations for maintaining the viability of resource industries, such as mineral extraction and forestry through the Mineral Resources Element and the PPA.

The vision to safeguard and manage natural resources through *environmental protection* and *resource conservation* is expressed in the Master Plan in several ways. At the broadest level, the practice of directing growth to DGAs may reduce land consumption in rural areas and help to protect sensitive environmental features by limiting the geographic extent of the impacts of development. Goals contained within the Master Plan seek to preserve the fabric of our rural and suburban neighborhoods, even in the DGAs. Additionally, the Master Plan's Environmental Resources Chapter defines and addresses the sensitive areas required by the Land Use Article and as modified by 2006 legislation. Additional sensitive areas representing important environmental resources to Carroll County are addressed as well. The WRE explores ways to achieve a sustainable balance between planned growth and the ability to provide drinking water. The WRE also identifies wastewater limitations and measures to offset those limitations. The WRE further addresses water quality issues through strategies to address nonpoint sources. The WRE is the result of exhaustive research and analysis, and provides a level of information never before available to the County. However, concerns and unknowns that attempt to mitigate nonpoint sources have not been thoroughly weighed against alternatives, and need to be evaluated via rigorous cost-benefit analysis, prior to use as a factor in guiding future land use decisions. The PPA contains recommendations for conserving a part of the County that is rich in farmland, forest land, wildlife habitat, and scenic beauty. Targeting preservation efforts to the PPA supports resource conservation goals more effectively and cost-efficiently.

The longstanding commitment of the County and the eight municipalities to provide *stewardship* of land and resources is evidenced through directing growth to the municipalities and their surrounding growth areas while maintaining the rural landscape beyond these areas. The Master Plan's Chapter 2, Planning Process, Community Involvement, and Interjurisdictional Cooperation, recommends ways to continue and enhance efforts to manage an approach to development and conservation that is mutually sustainable and beneficial. Additionally, the combined recommendations related to land use, environmental protection, resource management, concurrency management, and public facilities result in a balanced and efficient plan for the County's future.

The Master Plan addresses the vision for *implementation* that is multifaceted. Chapter 2 of the Master Plan identifies ways in which all property owners and citizens may be involved in its ongoing implementation. Existing structures such as the Town/County Agreements and state agency guidance provide effective methods for ensuring that communication continues throughout the life of the Master Plan. Numerous recommendations also aim at improving the policies, programs, and funding necessary for the Master Plan to be implemented as envisioned.

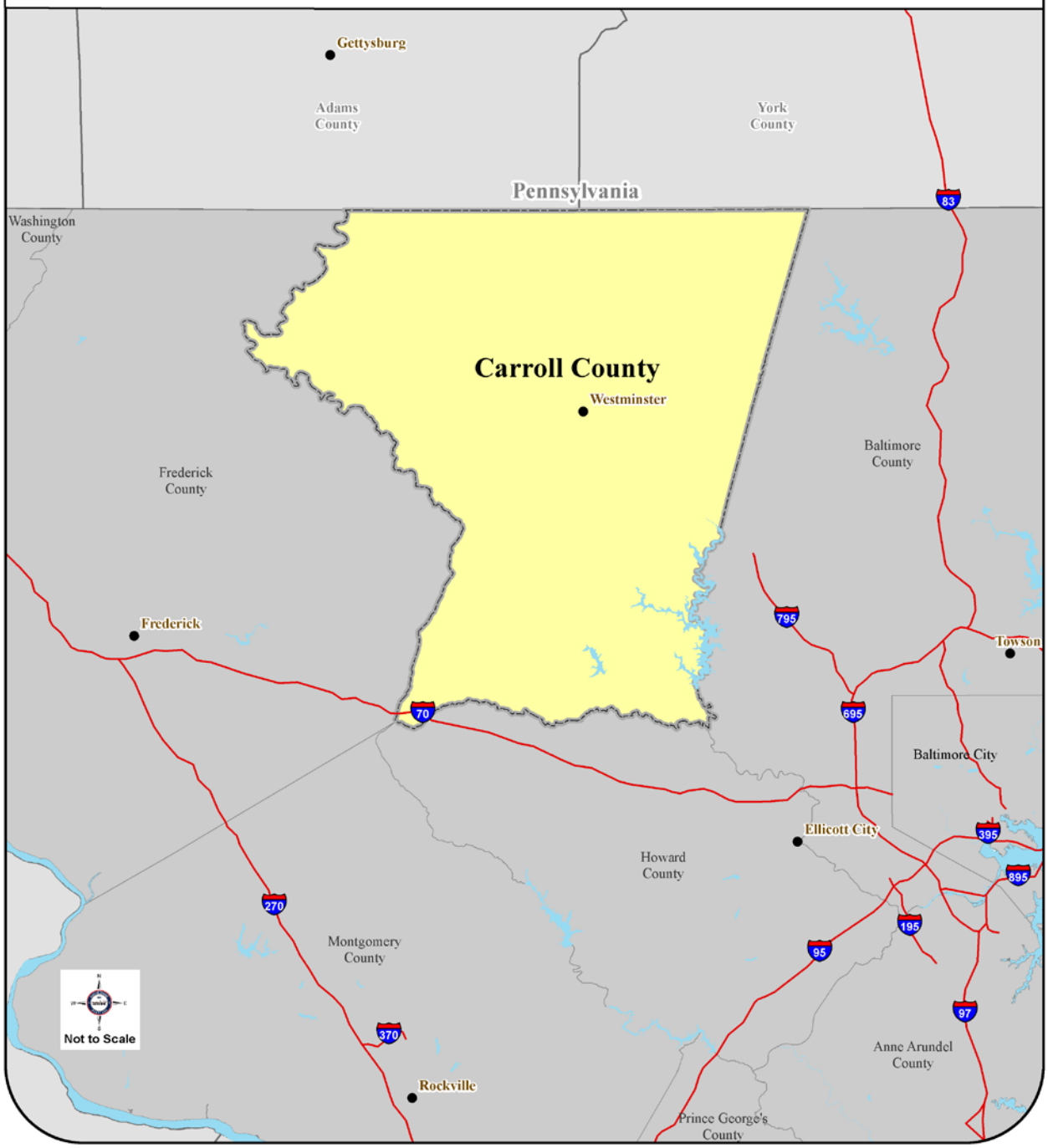
Watershed Protection and Restoration Act of 2012

In May of 2012, the Watershed Protection and Restoration Act of 2012 (HB 987) became law. The Bill requires Maryland's 10 most populous jurisdictions, including Carroll County, to collect a Stormwater Remediation Fee to fund the implementation of local stormwater management practices, and stream and wetland restoration projects. The law's intent is to assist counties in funding stormwater management in

conformance with the Environmental Protection Agency's mandated National Pollutant Discharge Elimination System (NPDES) Permit.

Location Map

Carroll County Master Plan



Chapter 2 : Interjurisdictional Coordination, Planning Process and Community Involvement

Goal

Promote communication and coordination between and among the County, the municipalities, and state and regional jurisdictions on projects and issues of mutual concern. Encourage the involvement of the community in developing, amending, and implementing the Master Plan.

Ensure respect for unalienable individual rights; encourage community involvement in planning in an open two-way communication process; encourage the involvement of the community in planning and implementing the Master Plan; provide participants with a balanced perspective on planning goals while promoting the need to respect private property rights; and accurately advise participants of the tradeoffs between various forms of development based on real-world effects.

The Significance to Carroll County

Carroll County is a non-charter, commissioner-governed County with eight incorporated municipalities within its borders. Each municipality has its own mayor, council, planning commission, and authority to enact its own laws separate and apart from those of the County.

Carroll County has a long tradition of community involvement in the preparation of community comprehensive plans and its Master Plans. The eight municipalities work in collaboration with the County to achieve the overall visions for Carroll County. Many hours of collaborative research, thought, and discussion go into the development of each plan. The County and the eight municipalities within its border recognize public involvement in the planning process is not only a legal responsibility, but an ethical and moral obligation to its residents. Public involvement is achieved through open meetings, work sessions, access to information and materials, and the public review process. The development and drafting of a plan document is the first step in achieving a community's vision. Public involvement is necessary to ensure its implementation as conceived and envisioned.

Town/County Agreements

Since 1978, the Board of County Commissioners and each municipality have annually entered into an agreement to share funds and coordinate planning and other governmental functions. The Town/County Agreements are formal documents enumerating the types of services the County provides to each of the municipalities. The agreements are tailored to the needs of the municipality and vary in complexity depending on the level of municipal in-house planning staff. Historically, County services have ranged from simple liaison (i.e. notifying the municipality of all future developments within one mile of its boundaries) to more extensive staffing for planning and development matters. These agreements also provide for cooperative referral by each jurisdiction to the other jurisdictions for review of subdivision plans, master plans, master plan amendments, annexation petitions, and rezoning petitions. These

agreements allow for a cooperative environment under which coordinated, efficient implementation of regulations and protection measures can take place. In most cases, the County provides staff and other resources to manage, implement, and enforce measures needed to ensure compliance with applicable regulations and protection measures.

An example of coordination is found in the role assumed by the County and municipalities to implement natural resource regulations. See CH2-Table 1 "Review, Inspection, and Bonding: Assignment of Responsibilities," which identifies the entity responsible for the key steps in the implementation of resource management. It summarizes the key responsibilities associated with a proposed development-subdivision or site plan–and which jurisdiction implements those items. This arrangement between the County and its municipalities, for the most part, allows for consistent and uniform application of resource management regulations. In addition, the County implements the review for adequacy and any subsequent related recommendation for timing and phasing of new development through the County's Concurrency Management Chapter 156 of Its Public Laws and Ordinances or similar measures.

These cooperative relationships have generally worked very well over the past three decades, ensuring an open exchange of information regarding plans and development proposals. As a result, many issues are resolved at the staff level, minimizing both obstacles and delays in implementation. The Board of County Commissioners also distributes funds annually to the municipalities upon execution of each County/Town Agreement.

Baltimore Regional Transportation Board and Baltimore Metropolitan Council

The Baltimore Regional Transportation Board (BRTB) is the Baltimore region's federally recognized metropolitan planning organization (MPO), which represents Carroll County. As a MPO, the BRTB is directly responsible for making sure that any money spent on existing and future transportation projects and programs is based on a continuing, cooperative and comprehensive (3-C) planning process. The Baltimore Metropolitan Council (BMC) provides technical and staff support to the BRTB by coordinating demographic, environmental, and transportation analyses and projects with Baltimore, Howard, Harford, and Anne Arundel counties, as well as Baltimore City and the City of Annapolis.

Carroll County Water Resource Coordination Council

The County and municipalities, along with the local Health Department, created the Carroll County Water Resource Coordination Council (WRCC). This group was formed in 2007 by a joint resolution that was signed by all parties. The WRCC meets monthly to discuss and address water resource management issues of mutual interest. The group coordinated the collaborative development of a joint WRE. The WRCC also acts as the local Chesapeake Bay Total Maximum Daily Load (TMDL) Watershed Implementation Plan (WIP) team, providing consensus guidance on issues related to local development and implementation of the County's WIP, including the most recent version, Phase II WIP.

Clean Chesapeake Coalition

The Clean Chesapeake Coalition is a consortium of local elected officials that are researching publically available data to identify and advocate for the most cost effective policies, programs and practices that will measurably improve the water quality of the Chesapeake Bay and its Tributaries. Carroll County is a founding member, and elected officials and staff participate in initiatives of the Coalition.

CH2-Table 1: Review, Inspection, and Bonding: Assignment of Responsibilities

Resource Management Ordinance and Activity	Hampstead	Manchester	Mount Airy	New Windsor	Sykesville	Taneytown	Union Bridge	Westminster
Floodplain								
Review*	C	C	C	C	C	N/A	M	C/M
Bond	N/A	N/A	N/A	N/A	N/A	N/A	M	N/A
Inspection	C	C	C	C	C	N/A	M	C
Easement	C	C	C	C	C	N/A	M	M
Grading								
Review*	C	C	C	C	C	C	C	C
Bond	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inspection	C	C	C	C	C	C	C	C
Sediment Control								
Review*	SCD/S	SCD/S	SCD/S	SCD/S	SCD/S	SCD/S	SCD/S	SCD/S
Bond	C	C	M	C	M	M	C	C
Inspection	C	C	C	C	C/M	C	C	C
Stormwater Management								
Review*	C	C	C	C	C	M	M	C/M
Bond	C	C	M	M	M	M	M	M
Inspection	C	C	C	M	C/M	M	M	C
Easement	C	M	M	M	M	M	M	M
Landscape								
Review*	C	C	C	C	C/M	C	M	M
Bond	C	C	M	C	M	C	M	M
Inspection	C	C	M	C	M	C	M	M
Forest Conservation								
Review*	C	C	C	C	C	C	C	C
Bond	C	C	C	C	C	C	C	C
Inspection	C	C	C	C	C	C	C	C
Easement	C	C	C	C	C	C	C	C
Water Resources								
Review*	C/No Code	C	C	C	C	C/No Code	M	C/No Code
Bond	N/A	N/A	N/A	N/A	N/A	N/A	M	N/A
Inspection	N/A	C	N/A	C	C	N/A	M	N/A
Easement	N/A	C	M	C	C	N/A	M	N/A
Environmental Site Delineation (ESD)								
Review*	No	Yes	Yes	Yes	No	No	Yes	No

Key: C = County M = Municipality S = State SCD = Carroll Soil Conservation District

* Review performed by/whose code

Source: Carroll County Bureau of Resource Management, August 2013

Maryland Association of Counties

The Maryland Association of Counties (MACo) is a non-profit and non-partisan organization that serves 23 Maryland counties by articulating and advocating for their needs to the Maryland General Assembly and state agencies. Through MACo's advocacy, training, education programs, and annual conference

members are provided with opportunities to collaborate with other jurisdictions to advocate on matters that impact them.

Monocacy Scenic River Citizens Advisory Board

Carroll and Frederick counties are members on the Monocacy Scenic River Citizens Advisory Board (the River Board). The River Board was created in 1978 to provide recommendations on land use, land development proposals, and resource management issues affecting the Monocacy Scenic River corridor and its watershed. The River Board consists of five commissioner-appointed citizen members from each county who are jointly supported by staff members from each county. The River Board is empowered to invite ex-officio representatives from the City of Frederick, Adams County, Pennsylvania (PA) and the State of Maryland. The River Board utilizes *The Monocacy Scenic River Study & Management Plan* as their guiding document. This plan was drafted in 1990 and is currently under review. The goals and objectives defined in this plan are the basis used to inform the River Board's comments and direct their activities. Recent accomplishments include advocating for sensitive design solutions for State Highway Administration (SHA) bridge projects, expanding public access opportunities and water trails on the river, participating in cleanup projects, and educational efforts to name some the Monocacy's un-named tributaries. Additional information on the River Board and its projects may be found via http://ccgovernment.carr.org/ccg/compplan/msr/ or www.TheMonocacyStartsHere.org.

Reservoir Technical Group

In 1984, a strengthened Reservoir Watershed Management Agreement (the Agreement) was established by signatory agencies, including Baltimore City, Baltimore County, Carroll County, Baltimore County Soil Conservation District (SCD), Carroll SCD, Maryland Department of Agriculture (MDA), Maryland Department of the Environment (MDE), and the BMC. The Agreement is the framework for improving water quality of tributaries feeding into the reservoirs. The Agreement created the cooperative Reservoir Watershed Protection Program, where oversight and guidance is provided by the Reservoir Watershed Protection Subcommittee and implementation is coordinated by the Reservoir Technical Group (RTG), facilitated by BMC staff. In 1990, six years after the Agreement was signed, the signatories comprehensively reviewed progress in implementing the 1984 Action Strategy, reaffirmed the Agreement, and accepted an updated 1990 Action Strategy.

The Agreement was resigned in 2004, and was followed in 2005 with a revised Action Strategies for Reservoir Watersheds. Among the completed action strategies was a "Builders for the Bay Site Planning Consensus Roundtable," bringing together municipal and community representatives, environmental advocates, regional planning organization members, developers, the construction industry, and County staff, involved in review and implementation of development within the County. The effort considered all county codes regulating both residential subdivision plans and commercial/industrial site plans to identify opportunities to reduce environmental impacts from new construction without placing undue or unintended constraints onto the development process. Legal standards and/or requirements for Federal or state permits provided the guiding framework for the analysis and recommendations. Under this effort, proposals to minimize new paved areas; encourage permeable pavement; reduce lot setbacks; and encourage cluster development patterns to preserve open lands, water recharge opportunities and support improved buffering around sensitive areas were considered. The document may be accessed via: http://ccgovernment.carr.org/ccg/compplan/WRE/docs/cc-builders-for-the-bay.pdf.

Other Interjurisdictional Coordination

While there is currently no metropolitan planning organization to coordinate with the various contiguous jurisdictions in Pennsylvania along Carroll's northern border or with adjoining Maryland jurisdictions to the

west, there are regular communications and interjurisdictional projects. As a result of various watershed and other regional projects, Adams and York, PA counties request Carroll County comment. In recent years, various hazard mitigation plans, trail projects and environmental plans have been distributed for input and comment.

Carroll County and Frederick County have a long record of coordinating and cooperating on various projects, even though Frederick is a member of the Metropolitan Washington Council of Governments. In recent years, Frederick County has sought comment on various master plans and plan updates, comprehensive rezonings and its Historic Preservation Plan, and Bicycle and Pedestrian Master plan from Carroll County.

The Challenge to Carroll County

Coordination and communication between the different levels of government both within Carroll County and its surrounding jurisdictions, as well as citizen input provide for a mechanism to address issues before they become problems. Over the last 40 years, the population of Carroll County has more than doubled. While the more rural, pre-1960 Carroll County was oriented inwards toward the county seat in Westminster, the residents moving into the county post-1960 have often maintained their ties to their previous communities in the Baltimore and Washington areas, commuting out of the County to work, shop, and recreate, sometimes making it difficult to engage the general public in planning related activities. Carroll County's areas of major development, to the east and south, are adjacent to the agricultural zones of the metropolitan counties. Conversely, southern PA's residential development is occurring adjacent to Carroll County's strong agricultural area in the north. It is only in the west that Frederick and Carroll's County's agricultural areas are contiguous. Ways to mitigate the potential impacts from these competing land uses, as well as traffic and environmental concerns, are only some of the reasons to maintain regional communication and cooperation.

Community involvement and support during the development of the Master Plan has been accomplished through social media, the County's website, press releases, local newspapers and radio stations, the Carroll County Public Library system, surveys, and a series of public workshops. As available participation mechanisms continue to evolve and expand, particularly opportunities presented through new technologies, these opportunities are often incorporated into the involvement process.

Review Process for the Update to the 2000 Master Plan and Community Involvement

In April 2009, a new draft County Master Plan – known as the Pathways Plan – was released for public review. Well over 1,000 people attended meetings and offered comment on this draft Master Plan, with the majority of the comments strongly opposing it. Based upon that input, the Planning and Zoning Commission voted to set aside the Pathways Plan, and instead focused on updating the 2000 Master Plan itself. An initial staff draft of this plan – which contained updated data and reflected recent legislated elements – was presented to the Planning and Zoning Commission at its December 15, 2009, meeting.

A series of work sessions followed between January and May 2010, during which the Planning and Zoning Commission reviewed the staff draft Master Plan and made modifications to it. These work sessions were open to the public. The final draft plan was released for the state-mandated 60-day review on June 16, 2010.

The Planning and Zoning Commission hosted several public information meetings on July 14, 19, and 21, 2010. In response to feedback on previous workshops, these open-house-style workshops were formatted to allow individuals to talk directly with Planning and Zoning Commission members and to have individual questions answered. A public hearing was held on August 19, 2010. The Planning and Zoning Commission subsequently held work sessions to review comments and determine document revisions. These work sessions occurred on September 8, 13, and 21, 2010. These work sessions were also open to the public and video recorded. The draft Master Plan was approved by the Planning and Zoning Commission on October 19, 2010.

Commercial and Industrial Land Review Process

In January 2011, the Board of County Commissioners rejected the draft Master Plan. In August 2011, the Board of County Commissioners provided the Planning and Zoning Commission with a set of goals that they wanted incorporated into the draft Master Plan to reflect their policy priorities. Several of the goals were provided to the Planning and Zoning Commission by the Board of County Commissioners' goals aimed at addressing the commercial and industrial tax base, creating jobs, and facilitating small business growth. One of the suggestions made by the Board of County Commissioners to meet these goals was to "seek out" and propose additional employment land by working with private property owners that consent to rezoning.

To this end, the Planning and Zoning Commission embarked on a comprehensive evaluation of economic development land in the County. Data from the 2007 Economic Development Land and Employment Needs (EDLEN) Study was updated by staff to aid in the evaluation of potential commercial, industrial and employment campus lands to determine the appropriate placement and acres needed of additional lands that would make Carroll County a more employment centered jurisdiction. Based on these data, as well as input from the County Department of Economic Development, the Planning and Zoning Commission developed broad criteria to evaluate general areas of the county that would support additional economic development activity. Additionally in 2012, AMB GIS Consulting developed a *Land Suitability Analysis* for Carroll County. The study analyzed various factors that could constrain future development in the County. These limiting factors focused on accessibility to important public facilities and services and the presence and severity of environmental features. These criteria will be used by the Board of County Commissioners to evaluate the consistency of zoning changes that are contemplated as part of any comprehensive rezoning to implement the recommendations contained in the Master Plan.

Work Session Series Open to the Public between December 2011 and June 2014

In addition, the Planning and Zoning Commission then began a series of work sessions to review and revise the draft Master Plan approved in October 2010 to consider and incorporate the policy priorities provided by the Board of County Commissioners. These work sessions began in August 2011 and continued through June 2014. The revised draft Master Plan was Accepted by the Planning and Zoning Commission on August 19, 2014 and distributed for 60-day public review on August 22, 201. The post-review public hearing was conducted on November 5, 2014.

Planning and Zoning Commission discussions and document review leading up to this 2014 Master Plan commenced in August of 2011. Commission members agreed for continuous public feedback on the discussions and recommendations through the following actions:

- Allow citizens the opportunity to make public comments at the beginning and/or end of each chapter/session.

- Provide comment cards for citizens to complete at each work session. These cards could be reviewed by the Commission at the beginning of the next work session.
- All comment cards and e-mails will be forwarded to the Commission prior to the next work session. Discussion of all comments returned in any format will be considered as the relevant chapter or topic is addressed during the plan's review.

The Choice: Policies & Recommendations

Policies

- Continue to encourage citizen participation in master plan updates and community comprehensive plans.
- Continue to provide municipalities with technical assistance and financial resources.
- Strive to maintain consistency between the County Master Plan and its implementing ordinances, and the respective municipal community comprehensive plans.
- Continue to participate in regional and statewide councils, boards, coalitions, associations and organizations to promote the interests of Carroll County in state and regional planning.

Recommendations

Local Municipalities

A. Continue to utilize and refine the Town/County Agreements to meet the specific needs of each municipality and the County.
B. Continue to collaborate with the municipalities on countywide issues to coordinate interjurisdictional projects and planning.
C. Continue to review municipal projects and assist municipalities in providing needed facilities through the CIP process, where feasible.
D. Continue to participate in the Carroll County Water Resource Coordination Council to address water resource issues of mutual concern among the County, municipalities and the Health Department.

Other Jurisdictions

A. Continue to participate in the Maryland Association of Counties.
B. Continue to participate in the regional collaborations of the Baltimore Metropolitan Council, Baltimore Regional Transportation Board, Reservoir Watershed Agreement, Reservoir Watershed Subcommittee and the Reservoir Watershed Technical Group, and the Monocacy Scenic River Citizens Advisory Board.
C. Continue to act as the lead for the Clean Chesapeake Coalition and encourage state and regional efforts to focus on Bay clean-up efforts that are most cost-effective.

Citizens

A. Continue to offer citizen participation opportunities to residents and stakeholders in the master plan update and community comprehensive plan update processes through public hearings, work sessions, and other venues as deemed appropriate.
B. Continue to educate the citizens on the need to protect private property rights while promoting planning goals.
C. Inform citizens of the tradeoffs between development based on market influences.
D. Notify the community early in the master planning process, and continuing throughout the process, as to proposed changes that are likely to affect individual property owners.

Fiscal Impact to the County

These goals and implementation recommendations may have fiscal impacts for the County since they may expand the current roles and efforts of staff. Additional costs to the County could be in the form of additional research, meeting participation, printing and mailing expenses, dues and participation fees, transportation, and communication.

In some instances, project-specific or topic-specific websites have been created to help facilitate information availability and public participation. Website hosting and maintenance fees may be required if a website were to reside somewhere other than on the County's server.

Consultant costs may be incurred where specialized or technical assessments are needed or when the County does not have in-house resources available to meet project needs or timeframes.

Chapter 3 : Vision Statement & Goals

The Vision

A "Vision Statement" defines a community's preferred future in a broad and somewhat idealistic, but attainable vision.

To choose a vision, a community first must develop a mental image of a realistic, and at the same time, idealistic future state. A vision should respect the rights and wishes of individual property owners while simultaneously articulating a feasible, achievable and attractive future for the community. The process of developing a vision helps to empower members of the community. A shared vision builds community, cooperation and coordination between the public and private sectors, and civic leaders and residents. The purpose of the vision statement is to serve as a guide to civic leaders when making planning and development related decisions.

Carroll County's vision for its future is:

> *Carroll County is a great place to live, work, and play. The County conserves and promotes its unique rural agricultural heritage, protects its environmental resources, and promotes a balanced approach to new development and economic opportunities consistent with the fabric of its communities. Carroll County values, and citizens' unalienable rights of life, liberty, and property, are respected, protected, and sustained.*

Master Plan Goals

To promote the public health, safety, and welfare, Carroll County will achieve its vision through the following goals (in no particular order of priority):

Goal 1

Promote communication and coordination between and among the County, the municipalities, and state and regional jurisdictions on projects and issues of mutual concern. Encourage the involvement of the community in developing, amending, and implementing the Master Plan.

Goal 2

Ensure respect for unalienable individual rights; encourage community involvement in planning in an open two-way communication process; encourage the involvement of the community in planning and implementing the Master Plan; provide participants with a balanced perspective on planning goals while promoting the need to respect private property rights; and accurately advise participants of the tradeoffs between various forms of development based on real-world effects.

Goal 3

Protect and enhance the water quality of Carroll County's rivers, streams, reservoirs, and aquifers; comply with applicable state and federal requirements related to water quality and quantity; and maintain and protect adequate water supplies to serve current and planned development.

Goal 4
To the extent feasible, provide adequate and appropriate Community Investment Plan funds to support public facilities and services. Provide an affordable, coordinated, and comprehensive system of community educational opportunities, facilities, and resources, including schools and libraries, which enhance our communities.

Goal 5
Provide a safe and functional intra-County transportation system that promotes access and mobility for people and goods through a variety of transportation modes.

Goal 6
Encourage a range of housing types, density, and affordability.

Goal 7
Preserve at least 100,000 acres of agricultural land to support the production of agricultural products and promotion of related agribusiness.

Goal 8
Preserve 80 percent of undeveloped land in the Priority Preservation Area, as adopted by the Board of County Commissioners.

Goal 9
Provide an affordable, coordinated and comprehensive system of public and private parks, recreational facilities and programs, and open space that will enhance our communities.

Goal 10
Preserve the county's historic, cultural, scenic, and architectural heritage.

Goal 11
Protect, maintain, and restore, where feasible, the environmental resources and natural ecosystems in the County by promoting land use practices that are in balance with, and minimize the effects on the natural environment, subject to appropriate cost/benefit analysis.

Goal 12
Protect certain mineral resources of current and future economic importance from preemptive land uses and to ensure availability for recovery in a manner that minimizes impacts to surrounding areas; and for reclamation purposes, assure recovery to an environmentally sensitive, aesthetically pleasing condition.

Goal 13
Promote a healthy economy and additional employment opportunities by: (a) supporting the retention and expansion of existing businesses including agribusiness through sensible land use policies; (b) focusing on development and redevelopment of existing vacant and underutilized commercial and industrial properties; (c) providing land appropriately located and zoned for a variety of types and intensities of new economic development activities; and (d) maintaining a desirable balance between economic development and residential development.

Goal 14
Facilitate a development pattern that remains consistent with the fabric of our communities, is in harmony with the surrounding built and natural environments, encourages community interaction and, in rural areas, preserves the County's rural character.

Goal 15
Pursue policies that facilitate development in appropriate areas, including the Designated Growth Areas, thereby protecting and conserving agricultural and environmental resources, preserving open space, and providing public facilities and services efficiently and cost-effectively.

The Policies

Master Plan policy statements are established as a guidance tool for decision-makers regarding planning and development related decisions, including provision of county services. The policy statement supports the Master Plan goals and should remain sensitive to the rights of all property owners and citizens.

A "policy "identifies the course of action to be taken when presented with a decision to be made on a given issue.

The Recommendations

Recommendations are planning, land use, and general government-related activities that if realized, may facilitate the achievement of Carroll County's goals. The presence of a recommendation shall in no way be construed as a mandate, requirement, or otherwise be considered an indicator that action to the contrary of any recommendation is prohibited.

A "recommendation" is an optional course of action which assists in the achievement of a goal.

The Plan Layout

The remainder of the Master Plan is divided into chapters based on topic. With the exception of the next chapter, Chapter 4, *Past, Present and Future Trends*, which describes trends within the County, each chapter identifies goals and describes the significance and challenges of a chapter's subject matter to Carroll County and the Master Plan. The "Significance" discussion explains why the choices — through the policies and recommendations — were made. The "Challenges" facing the County regarding the topic of each chapter (economic development, land use transportation, etc.) is also presented. Policies and recommendations to implement and achieve each goal are outlined in each chapter. Potential fiscal impacts to County Government are included at the end of most chapters where appropriate.

Chapter 4 : Past, Present, & Future Trends

The Significance to Carroll County

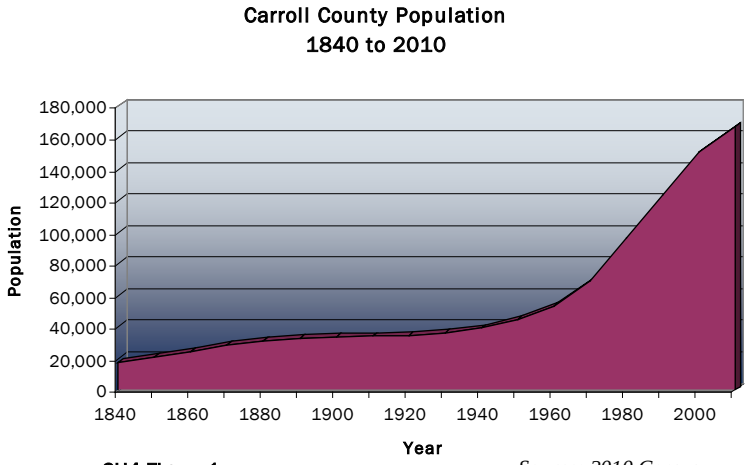
From the time of its founding in 1837 until the late 1950s, Carroll County was basically a rural farming community interspersed with small towns and villages where trade, civic, and cultural activities took place. In 1959, realizing that growth was inevitable given the County's geographic location, the Board of County Commissioners appointed the County's first Planning and Zoning Commission and by 1964, the first Master Plan was formulated and adopted for Carroll County.

In addition, each of the County's eight municipalities have since adopted a community comprehensive plan, as well as two additional small area plans for the Finksburg and Freedom unincorporated areas of the County. These community comprehensive plans address issues and future land use patterns at the smaller community level. These plans include municipal boundaries and the identified annexation areas surrounding them. These areas as a whole, including the Finksburg and Freedom areas, comprise the County's Designated Growth Areas (DGAs).

During the past 45 years, community comprehensive plans and small area amendments to the original County Master Plan have been made, and new elements have been added. Considerable changes have taken place since the first County Master Plan was adopted in 1964. However, the basic premises and visions of the original Master Plan have not changed.

POPULATION

Changes in population result from two factors. The first is natural change, which is caused by births and deaths within the existing population. The second factor is migration of people to, and from, an area.



CH4-Figure 1 *Source: 2010 Census*

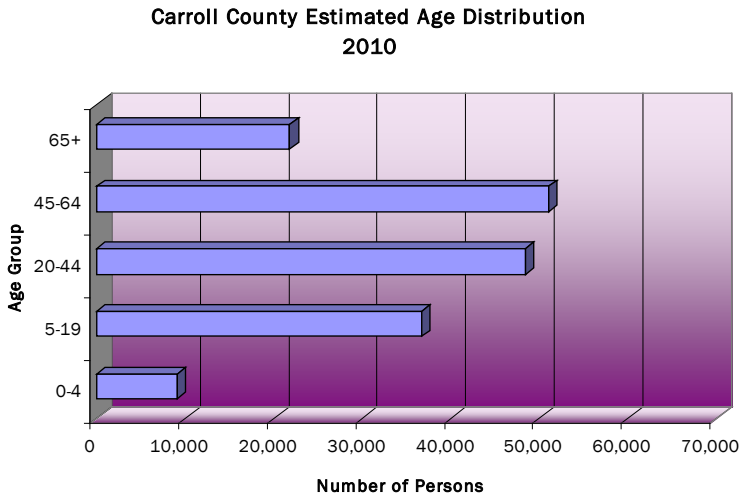
Carroll County was created in 1837. The 1840 Census was the first official tabulation of the County's population at 17,241 residents. The County has experienced growth during every decade since then. However, the rate of growth was very slow in the early years.

By 1960, when the first County Master Plan was being developed, the County had grown to a population of 52,785 a 206 percent increase from the first official Census. Since then, the County has grown at a faster rate than both the State of Maryland and the United States which experienced a 58 percent increase at this time (U.S. Census Bureau). Between 1840 and 1920 (80 years), County's population doubled to a total of 34,245 people or 131 percent. Between 1920 and 1950 (30 years), the County's population doubled again to 68,490 people. Between 1970 and 1995 (25 years), the population doubled again to reach a total of 136,980 residents.

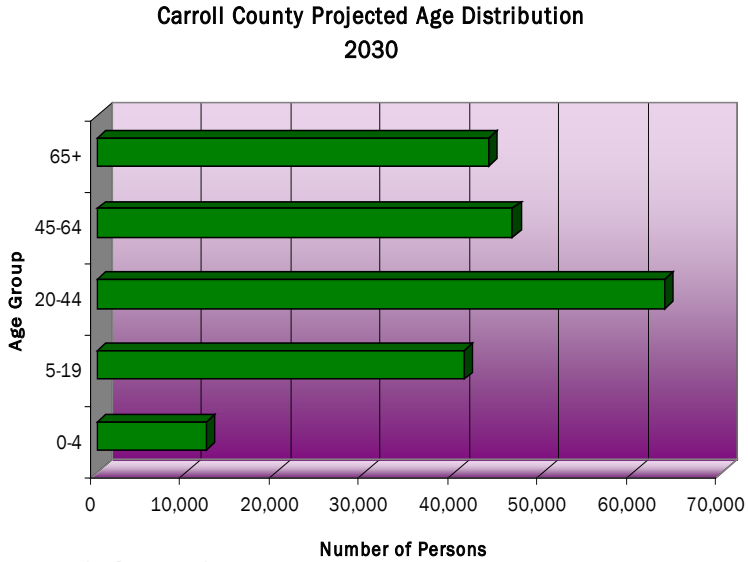
The greatest amount of growth occurred between 1970 and 1980, during which time the population grew by 27,350 people, representing a 40 percent increase and bringing the County's population to 144,330 people. Since 1980, the growth rate has remained steady at an annual average rate of 2.9 percent. The population at the end of 2010 was estimated to be 167,707 people (Bureau of Comprehensive Planning Monthly Population estimates). See Figure CH-4 Figure 1, Carroll County Population Growth 1840 to 2010.

United States Population 1960-2010		
Year	Population	Percent Change
1960	179,323,175	
1970	203,211,926	13.3%
1980	226,545,805	11.5%
1990	248,709,873	9.8%
2000	281,421,906	13.2%
2010	308,745,538	9.7%
CH 4-Table 1		*Source: 2010 Census*

Between 1960 and 2010 Carroll County's population increased to approximately 114,349 people, a 217 percent increase. In spite of this immense growth, census data shows between 1960 and 2010 some of the demographic rate of change characteristics has remained relatively constant. In 1960, the population was 95.8 percent white and 4.2 percent non-white; in 2010, the County's population was 92.9 percent white and 7.1 percent non-white. Gender ratios as a percent of County population have also remained constant during this time period at 49 percent male and 51 percent female. The percentage of the school-aged (5-19 years old) population has remained relatively constant as well at 20-22 percent between 1960 and 2010. However, the absolute number of the school-aged population has grown from 10,000 in 1960 to 36,723 in 2010.



CH4-Figure 2 *Source: 2010 Census*



CH4-Figure 3 *Source: 2010 Census*

1960 and 2010 census data shows changes in median age, increasing from 32.2 years old in 1960 to 41.1 years old in 2010. The percentage of people falling within the primary income earning years has also increased since 1960. In 2010, roughly 59.5 percent (99,786) of the County's population was between 20 and 64 years of age, compared to 53 percent in 1960. The percentage of the population 65 and over increased slightly from

11.5 percent in 1960 to 13.1 percent in 2010; however, the actual number more than tripled from 6,071 to 21,809. Finally, the population density of Carroll County in 1960 was 116 persons per square mile. In 2010, population density had increased to 366 persons per square mile. See CH4-Figure 2, Carroll County Estimated Age Distribution 2010.

Natural population increase is expected to continue at a fairly steady rate, although growth resulting from net in-migration is more difficult to project. Based on the growth trend experienced since 2000, Baltimore Metropolitan Council (BMC)[1] Round 7C Population Projections estimated a population of 249,945 by 2040. However, during the latter part of the decade new housing starts slowed, changing BMC's Round 8A Population Projections to indicate a population of 189,574 by 2040. According to the Maryland Department of Planning's (MDP) population estimates, by 2030, the County's 65 and older population segment will comprise 23.5 percent (47,000 people). MDP also estimates that there will be approximately 37,340 school-age children comprising 19 percent of the population. While Carroll County will continue to be an attractive area for young families in the near future, according to MDP's population estimates, in the long- range, there will be an aging of the County's population. These population estimates are based on MDP's demographic and socioeconomic outlook data from May of 2012. See CH4-Figure 3, Carroll County Projected Age Distribution 2030 and CH4-Table 1, Cooperative Forecasting Group Round 8A of Carroll County on the previous page.

CH4- Table 2: Cooperative Forecasting Group Round 8A Summary of Carroll County

	2010	2015	2020	2025	2030	2035	2040
Total Household Population	163,883	167,182	172,426	175,901	179,636	182,505	185,830
Average Household Size	2.81	2.74	2.74	2.72	2.71	2.71	2.68
Total Households	*62,406*	*64,142*	*66,216*	*68,021*	*69,692*	*71,302*	*72,854*
Group Quarters Population	3,301	3,368	3,474	3,544	3,619	3,677	3,744
Grand Total	*167,134*	*170,551*	*175,900*	*176,445*	*183,255*	*186,183*	*189,574*

Source: Carroll County Bureau of Comprehensive Planning for Baltimore Metropolitan Council Round 8A Forecasts, September 2013.

Housing

In 1960, there were 14,957 dwelling units in Carroll, of which 14,186 (95%) were occupied. Each occupied dwelling unit represents a household. Of the occupied dwelling units, 9,702 (68%) were owner-occupied, and 4,484 (32%) were renter-occupied. The vacancy rate was 5 percent. By 2010, the number of occupied dwelling units had increased to 59,786, of which 82 percent (49,025 dwelling units) were owner-occupied. In 2010, 4.2 percent (2,511 dwelling units) of the housing stock was vacant; 57,275 dwelling units or 97.8 percent were occupied. In 1960, 76.9 percent of all units were single-family detached (11,491 dwelling units). By 2012, the American Community Survey estimated that the number of single-family detached units had increased to 48,587, representing 77.9 percent of all dwelling units (62,379).

[1]BMC is Carroll County's designated metropolitan planning organization. Participating jurisdictions include Baltimore, Howard, Harford, and Anne Arundel counties, as well as Baltimore City and the City of Annapolis.

The number of County households paying more than 30 percent of their gross income for housing expenses (contract rent and utilities for tenants; principal, interest, taxes, insurance and utilities for owners) is estimated to have grown from 2,787 dwelling units in 1990 to 18,394 in 2010. The median value of owner-occupied units in 1960 was $11,100. By 2012, the American Community Survey (ACS) estimated that the median value of owner-occupied units in the County was $332,200. The condition of the housing stock is generally very good.

Of the County's eight municipalities, seven lie at the heart of Designated Growth Areas[2] (DGAs), with the exception of Sykesville. Sykesville lies along the southern edge of the Freedom Area. Additional land surrounding most of the municipalities is identified and planned for future annexation into the municipality to accommodate and serve planned growth. Presently, there are 38,822 housing units in the DGAs, or 61 percent of all households. For the period 2000 through 2010, 75 percent of new dwelling units added were located in the nine DGAs.

In 1960, the number of persons per household in Carroll County was 3.32. This figure declined steadily to 2.74 in 2010. This declining trend is expected to continue, which will result in a greater growth in dwelling units than in population. In 1960, 4,444 dwelling units, or 30 percent of all dwelling units, were located in a municipality. By 2000, 14,366 households, or 27 percent of all households, were located in a municipality. At the end of 2010, 19,013 households (30%) were within an incorporated municipality.

New residential dwelling units are planned to be constructed in the future and will add significantly to population growth in the County, even though the average household size is expected to continue to decline. Between 2004 and 2013, an average of 488 dwelling units was constructed annually. An average of 218 dwelling units were constructed in municipalities each year during this period, while an average of 270 units per year were constructed in the unincorporated areas of the County, which includes the Freedom and the former Finksburg Growth Areas.

Based on 2012 County and municipal land use designations, it is estimated that an additional 29,723 potential residential dwelling units can be created Countywide. As mentioned in the Population section, past growth trends (1970 to 2010) are not expected to continue. It will more likely take 30 years to add approximately 10,500 dwelling units, or an average of roughly 350 dwelling units per year. Based on land use designations, at buildout the southeast section of the County (Election Districts 4, 5, and 14) could contain 24,836 dwelling units, or 27 percent of all dwelling units in the County. The second largest area at buildout will be located in Westminster (Election District 7) with 19,167 dwelling units. The northeast (Election Districts 6 and 8) is projected to contain 11,083 dwelling units at buildout, and northwest (Election Districts 1, 2, 3, 10, 11, and 12) is projected to contain 18,451 dwelling units at buildout. The smallest area in terms of number of dwelling units at buildout would be the southwest (Election Districts 9 and 13) with 9,088 dwelling units.

AGRICULTURE

Historically, agriculture has been the largest industry in Carroll County. However, the acreage devoted to farming has steadily declined between 1960 and 2012. In 1960, farms constituted 244,805 acres. By 2012, when the most recent USDA Census of Agriculture was conducted, farmlands have decreased to 132,630 acres. The number of farms in Carroll County has been declining since 1910, which totaled

[2] Designated Growth Areas (DGAs) are the smaller geographic areas of the County where the majority of the County's growth is planned to occur. The limit to which municipal community comprehensive plans are to annex land into the future is referred to as the Municipal Growth Area Boundary.

3,884 farms. The 2,035 farms in 1960 declined to 1,092 by 2012, a 46 percent decrease in 52 years. Worth noting is the average size of farms, which has increased from 110.5 acres in 1960 to 121 acres in 2012.

While the nature of farming may change in the future, the industry will not survive if land is developed for other uses. Recognizing the importance of agricultural land to remain a viable industry, Carroll County began participating in the Maryland Agricultural Land Preservation Foundation (MALPF) Program in 1980. Through June of 2014, 65,761 acres of agricultural land have been preserved through a deed of permanent easement. The remaining 34,239 acres needed to reach the 100,000-acre County goal can be protected assuming continued commitments to MALPF, Rural Legacy, and local program funding.

SCHOOLS

Past growth in the number of students enrolled in Carroll County Public Schools reflected the overall growth in population in the County. In 1883, there were 113 schools in Carroll County (mostly one-room schoolhouses) with an enrollment of 6,150 pupils. By 1960, the public school system had grown to 10,661 students housed in 18 buildings. This past trend does not show signs of continuing and there is a steady decline in total enrollment shown through 2019. Current enrollment projections are available in the Carroll County Public Schools Educational Facilities Master Plan (June 11, 2014), prepared and approved annually by the Carroll County Board of Education. During the 2013-2014 school year, Carroll County Public Schools had an enrollment of 26,331 (stated number from plan) students (PreK-12) in 42 facilities and is the 8th consecutive year in total enrollment decline. The 42 facilities consisted of 23 elementary schools, nine middle schools, eight high schools, and two schools that provide specialized services.

During the next five years, total enrollment is projected to decline by 1,316 students (K-12). See CH4-Table 2, Carroll County Public School Five Year Enrollment Projections Through 2018-2019 School Year. (http://www.carrollk12.org/boe/default.asp)

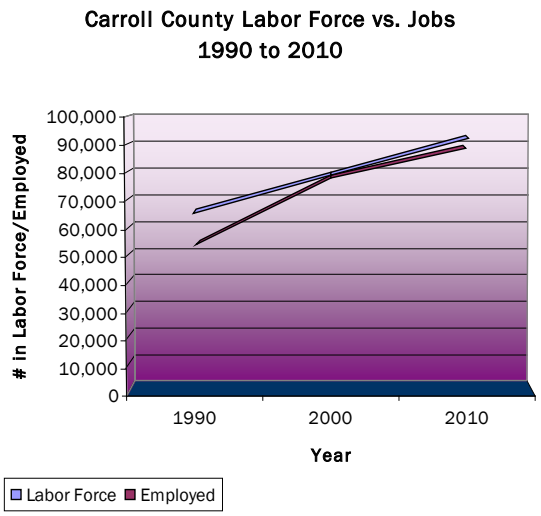
CH4-Table 3:Carroll County Public School Five Year Enrollment Projections Through 2018-2019 School Year

Grade	*2014-2015*	*2015-2016*	*2016-2017*	*2017-2018*	*2018-2019*	*Difference*
Elementary (K-5)	11,103	10,794	10,561	10,380	10,251	-852
Middle	6,067	6,099	5,960	5,831	5,713	-354
High	8,394	8,289	8,248	8,328	8,284	-110

Source: Carroll County Public Schools Public Facilities Master Plan (Enrollment Projections) 2014-'15 to 2023-'24

EMPLOYMENT

In 1960, Carroll's labor force was 20,300. With population growth, the labor force has also grown, averaging 94,603 in 2013, according to the Maryland Department of Labor, Licensing and Regulation. This included 5,417 unemployed persons. The average unemployment rate was 6.2 percent, one of the lowest in the state. See CH4-FIGURE 4, Carroll County Labor Force vs. Jobs 1990 to 2010.



CH4-Figure 4 *Source: 2010 American Community Survey*

In 1960, almost 30 percent of the labor force was employed in manufacturing.
According to the latest ACS 5-Year Estimate (2007-2011), manufacturing now employs only 7.5 percent of the labor force. The primary industry of employed persons was educational, health, and social services (23.1 percent).

The ACS 3-Year data (2009-2011) estimated that 38,087 (44.5%) County residents in the workforce worked in the County, while 47,474 (55.5%) Carroll residents left the County for employment elsewhere, including those who worked out of state.

In 1969, there were an estimated 27,414 jobs (full and part-time) in Carroll County. Employment in the County grew to 53,109 jobs in 1990 and an estimated 76,308 jobs in 2005 (U.S. Census, MDP, and U.S. Bureau of Economic Analysis (BEA). Employment in the County is projected to reach approximately 81,000 full and part-time jobs (BMC Round 8A Projections) by 2030.

COUNTY SERVICES FINANCING

County services are financed through the use of property taxes, income taxes, state and federal funds, license and permit fees, and other sources. For every dollar collected from the typical residential development, more than one dollar is expended on services. By contrast, for every dollar collected from commercial/industrial development and agricultural land, less than one dollar is expended on services. The typical existing house does not provide enough in taxes to cover the associated costs of services. New single-family homes may cover their associated costs, as new construction has trended toward larger, more expensive homes.

Carroll County has imposed an impact fee on new development for schools since 1976. Initially, the fee was used to acquire school sites. In 1989, the fee was changed to apply to construction costs as well. In August of 2013, the Board of Commissioners voted to suspend the fee, effective until July 2014. The most recent school impact fees structure for new residential units was $3,061 for mobile homes, $6,303 for single-family detached units, $7,006 for single-family attached units and $2,257 for each multi-family unit. Impact fees for schools are collected at the building permit stage. An impact fee for parks has been collected since 1989.

According to the ACS 5-Year Data (2007-2011), the median value of all owner-occupied units in the County was $342,900. The trend has been toward tax revenues generated by new construction being well above those generated by the average existing single-family dwelling.

Transportation

The transportation system serving Carroll County and its residents and businesses consists of a network of trails, roads, railways, private airfields, and a regional public airport. Aside from a few notable exceptions, such as the Hampstead Bypass, the existing Countywide transportation network has remained virtually unchanged since MD 140, the original Westminster Bypass, was built in 1952.

The first major transportation system to serve Carroll Countians was a railway built in 1831 as part of the Baltimore and Ohio (B & O) railroad. The B & O was extended to Sykesville as part of a connection to the Washington, D.C. area. A second railway system, the Western Maryland Railroad, originally chartered in 1852 as the "Baltimore, Carroll, and Frederick Railroad Company," was built to Westminster in 1861, Union Bridge in 1862, and Detour in 1868. Today, the Maryland Midland Railroad operates a freight service along the original Western Maryland Railroad rights-of-way.

The expansion of the runway at the Carroll County Regional Airport in the 1990s to 5,100 linear feet is among the more notable recent expansions of Carroll's transportation network. While the expansion allows small planes and corporate jets to utilize this public facility today, it operated as a small private facility with two turf landing strips until 1976, when Carroll County acquired the airport. In the late 1970s, the first paved runway was constructed along with the main hangar/administration building and runway lighting. The "Jack B. Poage Field," as the airport also is known, is one of eight airports/airfields currently operating in Carroll. Expansion is under consideration as the airport remains an important transportation and economic development tool for Central Maryland.

In 1962, with the adoption of the original Countywide Major Street Plan, Carroll County began the process of planning for the long-term traffic needs of its citizens and businesses. A principal focus of the 1962 Major Street Plan was the construction of bypass roads around several of Carroll's incorporated municipalities, particularly those whose Main Streets were state highways. These bypasses, in conjunction with local collector road construction, were expected to divert heavy traffic away from the historic towns and create economic development opportunities for the County. The vision set forth by the 1962 Major Street Plan has remained the focus of Carroll's transportation planning efforts ever since.

Carroll County's traffic volumes have escalated over the last 25 years. The Northwest Expressway, in particular, has accelerated the need for improvements to the state roadway system. In 2013, the most current traffic data available, the State Highway Administration reports that MD 140 in the Westminster area is accommodating roughly 53,621 vehicles per day and traffic along MD 140 near the Baltimore County line decreases to approximately 40,235 vehicles per day. Other congested corridors in the County include MD 26 in the Eldersburg area (28,780 vehicles per day), MD 30 in the Hampstead/Manchester area (18,920 vehicles per day at MD 27), MD 97 North (25,771 vehicles per day), and MD 27 in Mount Airy (24,272 vehicles per day). These increased traffic volumes indicate a need for capacity improvements along Carroll's more congested state road corridors.

Chapter 5 : Water Resources

Goal

Protect and enhance the water quality of Carroll County's rivers, streams, reservoirs, and aquifers; comply with applicable state and federal requirements related to water quality and quantity; and maintain and protect adequate water supplies to serve current and planned development.

The Significance to Carroll County

Carroll County and its municipalities worked collaboratively to develop one unified Water Resources Element (WRE) document adopted by all of Carroll County's jurisdictions to satisfy the requirements of HB 1141. As a result, in 2010, the Board of County Commissioners and seven of the municipalities adopted a WRE that addressed both the County as a whole, as well as the individual adopting municipalities.

The purpose of the WRE is to ensure that future County and municipal comprehensive plans reflect the opportunities and limitations presented by local and regional water resources. WREs are intended to improve local jurisdictions' contribution to the protection of state land and water resources; the protection of public health, safety and welfare; and meet local and state smart growth policies. The WRE, required under the 2006 provisions of HB 1141, must identify if adequate drinking water supplies exist to serve the demand generated by existing and future proposed development as indicated in the land use element of the Master Plan. It also must identify suitable receiving waters where stormwater and treated wastewater can be discharged. Stormwater and septic pollutant loads must be identified. The WRE must indicate pollutant reductions where needed from both existing development and future growth. A summary of WRE findings is presented below. To view the Carroll County WRE in its entirety, click on the link: http://ccgovernment.carr.org/ccg/compplan/WRE/docs/adoptedplan.pdf.

Drinking Water

The WRE analysis indicates the County's overall drinking water supply adequately meets current and future buildout demands; however, on a municipal-by-municipal basis[3], shortages are anticipated for most municipalities as buildout is realized. In addition, the 2013 Water and Sewer Master Plan findings concur with the WRE findings. The WRE drinking water analysis is found at: http://ccgovernment.carr.org/ccg/compplan/WRE/docs/water.pdf; and the Water and Sewer Master Plan update, is found at: http://ccgovernment.carr.org/ccg/plan/w-splan/docs2011/plan.pdf.

Wastewater (Point Sources)

The WRE includes an analysis of wastewater point source loads at buildout for each sewer service area (SSA) and the surrounding area within the DGAs that were within No Planned Service area as of 2007. Five of the eight wastewater systems were projected to exceed wastewater discharge point source load caps if buildout

[3] Of the County's eight municipalities, seven lie at the heart of Designated Growth Areas (DGAs) with the exception of Sykesville, which lies in the Freedom DGA. DGAs are the smaller geographic areas where the majority of growth is planned and for which community comprehensive plans are prepared. Additional land surrounding most of the municipalities is identified for future annexation to accommodate planned growth. The limit to which a municipality plans to annex land is referred to as the Municipal Growth Area Boundary. For a detailed discussion of PFAs, see Chapter 1, Maryland Planning and Legislation and Authority.

is realized. Proposed solutions include wastewater treatment plant (WWTP) expansions, Enhanced Removal Nutrient (ENR) upgrades (biological practices that reduce nitrogen loads from processed wastewater), and stormwater inflow and infiltration (I&I) reduction rehabilitation projects. The 2013 Water and Sewer Master Plan's findings concur with the WRE findings. See CH5-Table 2: Actions to Address Wastewater Discharges Exceeding Load Caps, as contained in the Water and Sewer Master Plan Update (on the following page). For a detailed account of the wastewater analysis in the WRE, go to www.ccgovernment.carr.org/compplan/WRE/. For detailed account of the wastewater analysis in the Water and Sewer Plan update, go to: http://ccgovernment.carr.org/ccg/plan/w-splan/docs2011/plan.pdf.

Nonpoint Source Nutrient Loading Analysis

In the WRE, countywide nonpoint source (NPS) loading rates from stormwater runoff (from developed areas), agricultural run-off and septic systems via subsurface flow were assessed under four scenarios using WRE NPS spreadsheets provided by MDE. The scenarios are summarized below.

Scenario 1: Existing land use conditions
Scenario 2: State 2007 Tributary Strategy[4] full implementation
Scenario 3: Buildout with existing zoning and 2007 Tributary Strategy full implementation

[4] State Tributary Strategies include implementation of best management practices (BMPs) to address nonpoint source loads (urban - stormwater and impervious surfaces), septic systems, and agriculture; and point source loads (wastewater treatment plant discharges). It should be noted that the Tributary Strategies have been set aside and appropriate strategies from the Tributary Strategies Implementation Plan incorporated into Maryland's Phase I and II Watershed Implementation Plans (WIPs).

Scenario 4: Buildout with existing land use designations and 2007 Tributary Strategy full implementation

Based on the modeling, nonpoint source loads would not significantly increase above baseline in any scenario as projected buildout based on land use designations is realized. For a more detailed account of the nonpoint source nutrient loading rates analysis, refer to the WRE: www.ccgovernment.carr.org/compplan/WRE/.

Nonpoint sources: agricultural land and urban land

The Challenge to Carroll County

Carroll County's public water supply systems have continually faced obstacles from state policies related to water quality and quantity, which results in challenges to achieving Smart Growth goals and objectives, as well as the Master Plan and the community comprehensive plan goals for the DGAs. Trends in the implementation of the water appropriation and permitting process have created challenges to water resource development. Local governments are finding it difficult to secure enough water from sources to meet existing or projected demands. The multitude of technical, administrative and physical issues makes development of groundwater sources costly, time-consuming, and quite unpredictable. Likewise, the utilization of surface water resources has become costly and complicated. Approval for stream withdrawal currently requires additional storage capacity within a water supply system. Therefore, using streams as a water source is typically difficult, expensive, and often not viable.

Carroll's wastewater facilities also are experiencing numerous technological, physical, and policy challenges. Several WWTP facilities have potential site limitations or other engineering challenges to expanding the plant at the current location. For many, the costs of upgrading and improvements are a stumbling block. All are constrained by the nitrogen and phosphorus caps and goals that have been placed upon them, which impacts future planned growth for some. Wastewater is one of five sectors into which pollutant sources were divided for purposes of planning and implementing strategies to achieve the Chesapeake Bay TMDLs.

With the completion of the Chesapeake Bay TMDLs, an increasingly greater emphasis has been placed on water quality issues surrounding nonpoint source pollution. The Chesapeake Bay model, used to determine the TMDLs, separated nonpoint sources into four sectors: agriculture, urban stormwater, septic, and forest. While the agriculture community and Maryland Department of Agriculture are working

together to plan for and address the pollutants generated by the agriculture sector, the State still expects counties to address the urban stormwater and septic sectors. In addition to the Bay TMDLs, TMDLs for nutrients, sediment, mercury, temperature, and/or biological impairments have been set for many local stream segments as well. Maryland's Watershed Implementation Plan (WIP) describes the strategies Maryland intends to implement to achieve the Bay TMDLs.

Cost continues to be the most significant challenge to achieving the Bay TMDLs. The primary implementation of stormwater mitigation projects for the County is through the requirements of the National Pollutant Discharge Elimination System (NPDES) Phase 1 Municipal Separate Storm Sewer System (MS4) permit. Although the County continues to budget for the projects needed to implement the permit requirements, permit compliance alone is not expected to achieve the Bay TMDL. Therefore, additional projects will be needed at additional expense. Initiatives intended to implement the State's WIP, such as the growth offsets regulation, create additional barriers to identifying land for accommodating projected growth, as well as additional costs.

Addressing existing septic loads is a significant challenge for local jurisdictions. New individual septic systems are required to use best available technology (BAT). However, existing systems are privately owned, and those property owners must be willing to voluntarily upgrade their systems to one using BAT. Very few properties currently served by existing private septic systems can be converted to be served by public sewer systems, based on either location or the capacity of the relevant wastewater treatment plants (WWTPs) to accommodate additional demand beyond that which is already planned.

MDE is currently working with the Chesapeake Bay Program to refine and update the data inputs for the Chesapeake Bay Watershed model Phase 5.3.2. The model will be rerun in 2017, called the Midpoint Assessment. Results are anticipated to shift many of the numbers and loads with which local jurisdictions have been working, creating somewhat of a moving target. Therefore, the County continues to work toward NPDES MS4 permit requirements, but with uncertainty as to the extent of the expected load reductions and additional measures to achieve them.

All of these challenges, as well as those described under Challenges in Chapter 13: Environmental Resources, create difficulties in identifying and securing sources of public water supply to serve the projected demand, expanding WWTPs to accommodate projected demand, and achieving measures to adequately remediate existing stormwater runoff. These issues in turn restrict the ability to identify additional land for employment uses and projected residential growth, which impacts the local jurisdiction's ability to foster a strong local economy and to meet requirements of the Municipal Growth Elements to accommodate anticipated population. While in many jurisdictions it may be appropriate to simply increase density through redevelopment to accommodate additional population, in Carroll County the "small-town" character, heritage, and historic qualities of the many municipalities could be jeopardized.

The Choice: Policies & Recommendations

Countywide policies and recommendations apply to each of the County's eight municipalities and the County itself. In some municipalities, some of the recommendations are either completed or in the process of being implemented. Refer to Chapter 13, *Environmental Resources* of the Master Plan subsection *Chesapeake Bay Mandated Total Maximum Daily Load* for a more detailed discussion on the Bay TMDL.

For specific recommendations contained within the WRE, review the WRE plan document at http://ccgovernment.carr.org/ccg/compplan/WRE/.
Based on State legislation extending the timeframe required to update a comprehensive plan element, the WRE will be updated by 2020. The nonpoint source component of the WRE will be based on the results and impacts to local jurisdictions of the 2017 Midpoint Assessment. Closer coordination between regulated stormwater projects and programs (NPDES Phase 1 MS4 permit), WWTP nutrient caps and capacity, and other water quality projects and programs that relate to the WRE can be achieved through the results of the Midpoint Assessment. Any effort to update the WRE prior to that time would not be an efficient, effective, or prudent use of resources given the magnitude of changes expected, particularly compared to the current nonpoint source information in the WRE. Even though it is an element of the Master Plan, the WRE document continues to be maintained under separate cover, as it provides information that is intended to inform the process to update the Master Plan, and will be updated ahead of the next Master Plan update process.

Fiscal Impact to the County

Countywide, overall fiscal implications to meet wastewater demand are based upon population projections, buildout projections, current technological capabilities, current and projected WWTP capacity, ability to expand, and caps or goals on nitrogen and phosphorus at each WWTP. Additional costs would be associated with the nonpoint source recommendations contained in the plan.

The various water supply options and alternatives evaluated and included in the WRE range in cost from less than $100 thousand to up to almost $100 million for the most expensive option. Options and alternatives to pursue would be based on needs and conditions at the time additional supply needs to be pursued.

While previously nonpoint source strategies were evaluated and addressed in the WRE, the issue has since been modeled and analyzed more thoroughly through EPA's Chesapeake Bay Watershed Model for development of the strategies to reduce nutrients and sediment to the Chesapeake Bay. After the US EPA set TMDLs for the Chesapeake Bay and its tributaries in December 2010, Maryland's Phase I and II WIPs were developed and adopted by the State, and local jurisdictions have been providing two-year milestones for progress toward achieving the Bay TMDLs. Costs associated with State-developed strategies to implement the Phase II WIP include upgrades to ENR at five of the public wastewater treatment plants in the county. While the State will cost-share portions of the costs for ENR upgrades, the local share (County and municipalities) will still total more than $36 million. The strategies MDE submitted for Carroll County to reach the State's targets for the county for stormwater treatment and mitigation and replacement of septic systems, among other strategies, could reach as high as $200 million. Significant costs are associated with all of these activities, but cannot be specifically quantified until the baseline used to calculate the amount of reduction needed can be clarified for the County.

Subsequent to the adoption of the WRE, the 2014 Carroll County Water and Sewer Master Plan was completed and adopted. This plan includes detailed actions proposed by municipalities and the County to meet drinking water and wastewater demands in the foreseeable future, roughly for the next 10 years. Estimated costs are not complete since studies will need to be conducted to implement some of the proposed actions; thereby making cost estimates a moving target. The WRE provides a starting point and consideration for the magnitude of capital investment required to ensure provisions of drinking water, wastewater, and reduction/treatment of nonpoint sources to meet projected buildout demands.

Chapter 6 : Public Facilities & Services

Goal

To the extent feasible, provide adequate and appropriate C[ommunity] I[nvestment] P[lan] funds to support public facilities and services. Provide an affordable, coordinated, and comprehensive system of community educational opportunities, facilities, and resources, including schools and libraries, which enhance our communities.

The Significance to Carroll County

Providing public facilities and services for the safety, health, and welfare of the County's citizens is a primary function of a local government. Public roads, water and sewer systems, schools, community colleges, libraries, parks and recreational sites, and public buildings are all facilities and/or infrastructure that may be provided by government. Police protection, fire and emergency medical services (EMS), public education, infrastructure maintenance, senior centers, and recreational programs are some of the services provided. Providing services and maintaining facilities and infrastructure contributes to the health and quality of life of a community.

By the mid-1990s, more than two decades of rapid growth in Carroll County resulted in public facilities and infrastructure that were operating over capacity and struggling to keep up with increased demands. To address the situation, the County enacted a series of code and policy revisions governing the subdivision and development of land. A review process was put in place to ensure that the services, infrastructure, and facilities needed to serve new residential development were sufficient to meet demands. These changes, collectively known as Concurrency Management and codified in the County Code as Chapter 156, Adequate Public Facilities and Concurrency Management, have resulted in a process that allows development to proceed at a pace that is matched by budgeting and construction of the needed facilities and services. Development projects subject to Concurrency Management are evaluated for their impact on the following public facilities and services:

A. Fire and EMS
B. Police
C. Roads
D. Schools
E. Public sewer
F. Public water

This evaluation takes places at two points during the development review process: preliminary plan review and final plan review. At each point, the impacted facilities and services are "tested" to determine whether the capacity of the facility or the provided level of service is considered "adequate," "approaching inadequate," or "inadequate." This determination is made based on thresholds set for each facility or service in Chapter 156. If a project will have an impact on a facility or service that is considered "approaching inadequate" or "inadequate," the project may not be approved, however; under "approaching inadequate" the Planning and Zoning Commission can approve a plan with phasing until the demand for services is met. Chapter 156 states, "No project may be approved by the Commission if a

public facility or service is inadequate or projected to be inadequate during the current C[ommunity] I[nvestment] P[lan], unless a relief facility is planned to address the inadequacy or the developer provides mitigation acceptable to the County or the Board of County Commissioners has determined that exceptional circumstances exist to allow the approval despite the inadequacy or approaching inadequacy." If facilities and services are deemed adequate at the preliminary plan meeting than testimony at the final review stage is unnecessary. The development proposal then moves forward in accordance with the County code requirements.

Concurrency Management Facilities and Services

Schools

Concurrency Management for schools evaluates school capacity as indicated in CH6-Table1: Carroll County Concurrency Management School Capacity Thresholds. Capacity is assessed by one of two methods: state-rated, used for elementary and high schools; and function, used for middle schools. For elementary schools, state-rated capacity takes into account a teacher/student ratio of 22 students per kindergarten classroom and 23 students per grades 1-5 classrooms. For high schools, the state-rated capacity threshold is based upon teaching stations (classrooms, gymnasiums, music room, art room, etc.) multiplied by a factor of 25; that resulting number is then multiplied by an 85% utilization factor. For middle schools, function capacity is based upon multiplying the number of core (which excludes gymnasium music, art classrooms, etc.) by a multiplier of 25; that resulting number is then multiplied by an 85% utilization factor.

CH6-Table 1: Carroll County Concurrency Management School Capacity Thresholds

Thresholds	Elementary	Middle	High
Adequate	Current or projected enrollment ≤ 109% state-rated capacity	Current or projected enrollment ≤ 109% functional capacity	Current or projected enrollment ≤ 109% state-rated capacity
Approaching Inadequate	Current or projected enrollment is 110-119% of state-rated capacity	Current or projected enrollment is 110-119% of functional capacity	Current or projected enrollment is 110-119% of state-rated capacity
Inadequate	Current or projected enrollment equals or exceeds 120% state-rated capacity	Current or projected enrollment equals or exceeds 120% functional capacity	Current or projected enrollment equals or exceeds 120% state-rated capacity

The Carroll County Board of Education prepares an annual *Educational Facilities Master Plan*, which evaluates current school facilities future needs, and recommends solutions to address those needs. The Board of Education submits to both the County and state government, an annual CIP, a six year plan that schedules school construction based on fiscal revenues available and includes priority projects.

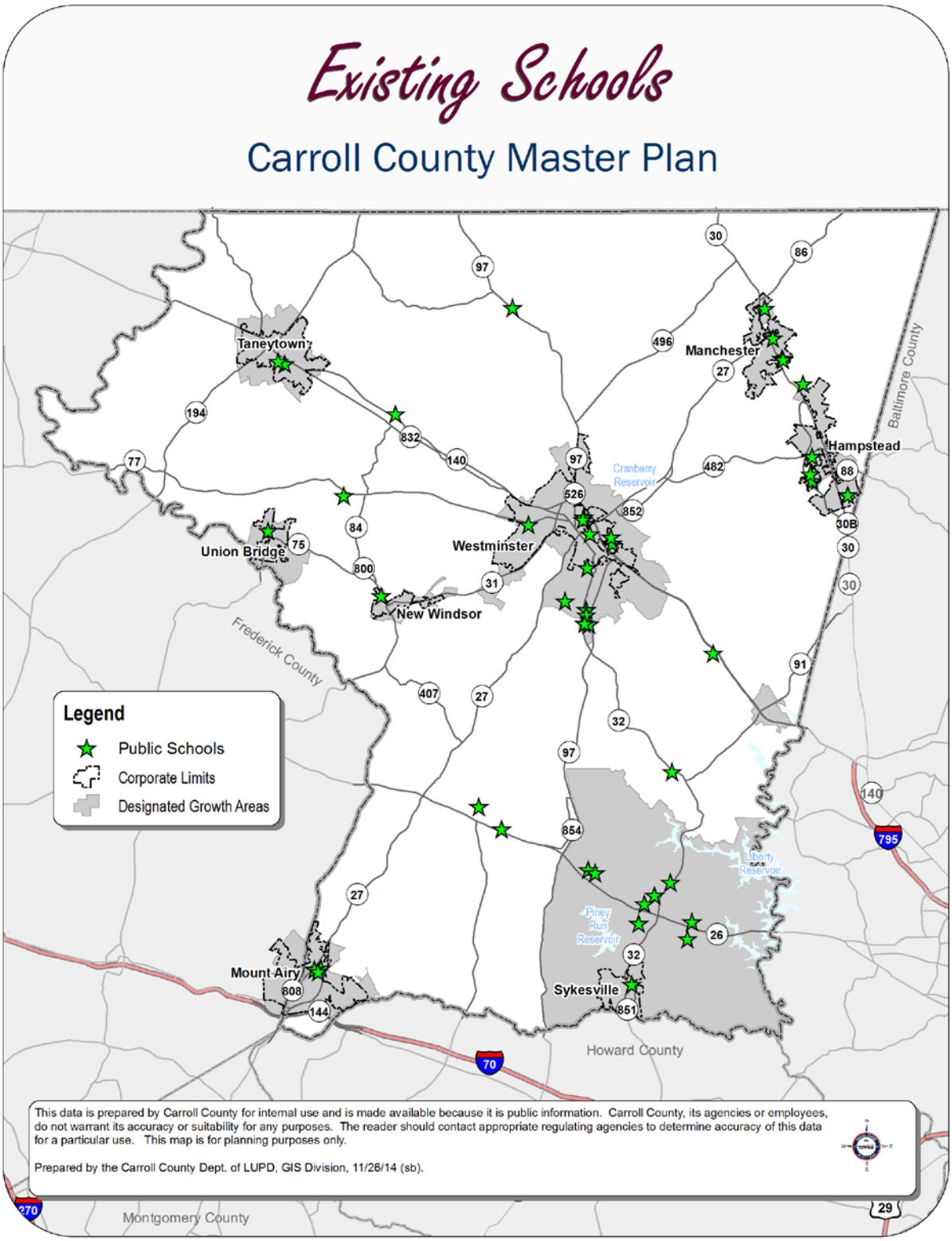
According to the *Educational Facilities Master Plan*, the County's school system has an overall state rated capacity of 31,069, not including special education schools. During the 2013-2014 school year, 26,331 students were enrolled in the County's school system[5], demonstrating that countywide, schools are operating under capacity. Enrollment is projected to decline steadily during the next seven years, after which it is projected to slowly begin rising. Using Concurrency Management thresholds, the *Educational Facilities Plan* indicates that many schools in the County are operating below operating capacity, deeming

[5] Educational Facilities Master Plan, Section 6

these schools "adequate" with the exception of Sykesville Middle School (inadequate using functional capacity) Piney Ridge Elementary and William Winchester Elementary, which are projected to operate at "approaching inadequate" in the 2014-2015 school year. Noteworthy to Carroll County's schools are the presence of relocatable classrooms - 112 throughout the county. Relocatable classrooms were initially utilized in response to the capacity issues at specific schools when growth was rapid and overwhelming the system's facilities' capacity during the latter part of the 1990s. To address inadequate capacity at that time, the Board of County Commissioners programmed CIP funds to construct several new schools and additions and instituted a development deferral in 2004. The 2008 slowing of the economy nationwide also helped to address school capacity issues. Since these actions and occurrences, the need for relocatables is now more for programmatic reasons (such as meeting the No Child Left Behind Mandate), rather than capacity reasons. In 2012, usage and condition of relocatables was studied to identify which relocatables will be maintained. The current plan can be viewed at http://www.carrollk12.org/admin/facilitiesmanagement/masterplan/default.asp.

Also noteworthy concerning growth and school capacity adequacy is the Board of County Commissioners' suspension of the School Impact Fee at the end of Fiscal Year 12, for a two year period because the County didn't have any school capacity projects planned in the six-year CIP. In Fiscal Year 2014 the Commissioners decided to extend this action to the end of Fiscal Year 2016. Instituted in 1989, the impact fee for schools has allowed the Board of County Commissioners to forward-fund new schools in advance of state funding participation in order to provide needed classrooms. A portion of the piggyback tax is used to provide additional funds for needed school facilities.

See the map, Existing Schools, Carroll County Master Plan, on the following page for school locations countywide.


Existing Schools
Carroll County Master Plan
Taneytown
Manchester
Hampstead
Union Bridge
Westminster
New Windsor
Mount Airy
Sykesville
Cranberry Reservoir
Liberty Reservoir
Piney Run Reservoir
Baltimore County
Frederick County
Howard County
Montgomery County
Legend
Public Schools
Corporate Limits
Designated Growth Areas
This data is prepared by Carroll County for internal use and is made available because it is public information. Carroll County, its agencies or employees, do not warrant its accuracy or suitability for any purposes. The reader should contact appropriate regulating agencies to determine accuracy of this data for a particular use. This map is for planning purposes only.
Prepared by the Carroll County Dept. of LUPD, GIS Division, 11/26/14 (sb).

Roads and Bridges

The County provides and maintains 1,612 paved road segments (totaling 901 miles), 79 miles of gravel road segments and approximately 151 bridges. The County long has relied on developers to pay for roads and/or road improvements associated with their development. Developer-financed roads typically are conveyed to the County after construction for on-going maintenance. This has not always resulted in cohesive, connected roadway networks. Additionally, the major roadways in the County are state roads, over which the County has very little control but on which the most congestion occurs. The County's roadway priorities typically are addressed in coordination with the Maryland Department of Transportation (MDOT) through annual processes such as the review of the Consolidated Transportation Plan at the fall tour meetings and the development of the Baltimore Metropolitan Council's Transportation Improvement Plan.

Under Chapter 156, residential development projects are tested for roadway adequacy using the thresholds as stated in CH6-Table 2: Carroll County Concurrency Management Level of Service for Roads:

CH6-Table 2: Carroll County Concurrency Management Level of Service for Roads

Thresholds	Level of Service
Adequate	Level of Service C or better for road segments and intersections within the traffic impact study area for the proposed project
Approaching Inadequate	Level of Service D for road segments and intersections within the traffic impact study area for the proposed project
Inadequate	Level of Service E or F for road segments and intersections within the traffic impact study area for the proposed project

Projects impacting roads that are considered approaching inadequate or inadequate may be required to complete off-site improvements or contribute financially toward a regional infrastructure fund. Bridges are evaluated for adequacy under the Fire/EMS evaluations, since their adequacy is related to the ability of the structure to carry heavy emergency vehicles. See CH6-Table 5: Carroll County Concurrency Management for Fire and Emergency Medical Services. Planned roadway improvements for state highways, community and neighborhood roads, and community and neighborhood connectors are found in Chapter 7, Transportation of this Mater Plan, as found in CH7-Table 1: Planned Roadway Projects: State Highway Projects; CH7-Table 2: County and Municipal Planned Major Streets, and CH7-Table 3: Planned Road Projects: County and Municipal Neighborhood Connections.

Water and Sewer

The County's *Water & Sewer Master Plan,* adopted by the Board in December 2013, identifies and projects facility needs as well as timing for improvements. The Water and Sewer Master Plan enables the County and its municipalities to delineate water and sewer service areas and budget for improvements as needed to serve the planned service areas. The Water and Sewer Master Plan, revised on a triennial basis, requires Maryland Department of the Environment (MDE) approval. The Water and Sewer Master Plan must be consistent with the Carroll County Master Plan and small area comprehensive plans; it is not an element of the Master Plan or small comprehensive plan documents, but rather a tool to implement them. The Water Resources Element (WRE), adopted by the County in 2010, is an element of the Master Plan and evaluates the relationship between planned growth and water resources throughout the County; the Water and Sewer Master Plan is an implementing tool for the WRE and thus incorporates some information from the WRE, as described in Chapter 5, Tables 1 and 2.

Carroll County owns and operates the Hampstead wastewater system, the Freedom water supply system, the Bark Hill water supply system, and the Pleasant Valley water supply and wastewater systems. Maryland Environmental Service (MES) operates the Freedom Wastewater Treatment Plant, which serves the Freedom DGA. The capacity of each of these systems is a definable amount and is allocated as new users are added to the system. The water and sewer systems are funded by user fees through a separate "enterprise" fund.

Under Chapter 156, development projects are tested for public water and sewer capacity using the thresholds as stated in CH6-Table 3: Carroll County Concurrency Management for Water and Sewer Service Areas.

CH6-Table 3: Carroll County Concurrency Management for Water and Sewer Service Areas

Thresholds	Water	Sewer
Adequate	Projected maximum day demand <85% of the total system production capacity	Projected annual average daily flow <85% of the wastewater treatment facility permitted capacity
Approaching Inadequate	Projected maximum day demand 85-94.99% of the total system production capacity	Projected annual average daily flow 85-94.99% of the wastewater treatment facility permitted capacity
Inadequate	Projected maximum day demand ≥95% of the total system production capacity	Projected annual average daily flow ≥95% of the wastewater treatment facility permitted capacity

Currently no inadequacies exist in the County's public water or sewer systems. However, development projects will continue to be evaluated for impacts to water and sewer capacities under Chapter 156. If the adequacy levels change, projects may be delayed or placed in a development queue until a relief facility has been constructed to address the issue.

Police Services

Law enforcement service to the unincorporated portions of the County is provided by the Sheriff's Office in partnership with the Maryland State Police, which serves state routes and assist with specialized investigations. The Town of New Windsor contracts with the Sheriff's Office for uniformed police protection, and the Town of Mount Airy is under a similar contract with the Maryland State Police. The Cities of Westminster and Taneytown and the Towns of Hampstead, Manchester, and Sykesville staff their own police departments. While these Departments' primary area of responsibility is to their incorporated population, officers do respond beyond municipal limits for emergencies when requested by the Sheriff's Office or State Police. In implementing Concurrency Management, the County uses an adequacy standard of 1.3 sworn law enforcement officers for every 1,000 residents. In recent years, police service has consistently met the adequacy standard. Under Chapter 156, development projects are tested for adequate police protection using the thresholds stated in CH6-Table 4: Carroll County Concurrency Management for Police Services. At the end of Fiscal Year 2012, the ratio of officers per 1,000 citizens was 1.4, with the result that police protection was deemed adequate Countywide. This ratio was projected to be maintained through Fiscal Year 2013. Projections beyond this time period are too difficult to make given uncertainties about development in the pipeline, vacant positions that might arise within the police force, and fluctuations in population – all of which could affect ratios.

CH6-Table 4: Carroll County Concurrency Management for Police Services

Thresholds	Ratio of Law Enforcement to Population
Adequate	Projected ratio of sworn law enforcement officers to population is 1.3:1,000.
Approaching Inadequate	Projected ratio of sworn law enforcement officers to population is between 1.2-1.3:1,000.
Inadequate	Projected ratio of sworn law enforcement officers to population is <1.2:1,000.

Fire and Emergency Medical Services

The County is divided into 14 districts for fire and EMS. For EMS, the County funds driver and paramedic positions, providing services 24-hours a day within all 14 districts. For fire services, the County relies primarily on volunteers. Limited funding is provided for paid staff, primarily engine drivers. Under Chapter 156, development projects are tested for fire and EMS using three criteria: (1) the percentage of calls that result in a late or no response; (2) average response time; and, (3) the capacity of bridges along the route between the station and the proposed development. Chapter 156 evaluates adequacy of these three criteria using the thresholds as stated in CH6-Table5: Carroll County Concurrency Management for Fire and Emergency Medical Services.

CH6-Table 5: Carroll County Concurrency Management for Fire and Emergency Medical Services

Thresholds	Late/No Response
Adequate	If the total number of late and no responses is less than 15% and the total number of no responses is less than 4% measured on a 24-month basis, updated monthly.
Approaching Inadequate	If either the total number of late or no responses equals or exceeds 15%, or the total number of no responses equals or exceeds 4% measured on a 24-month basis, updated monthly, but not both.
Inadequate	If the total number of late and no responses equals or exceeds 15%, and the total number of no responses equals or exceeds 4% measured on a 24-month basis, updated monthly.
Thresholds	**Average Response Time**
Adequate	Response time is 8 minutes or less from time of dispatch to on-scene arrival with adequate apparatus and personnel, using a 24-month average.
Approaching Inadequate	Response time is between 8 and 10 minutes from time of dispatch to on-scene arrival with adequate apparatus and personnel, using a 24-month average.
Inadequate	Response time exceeds 10 minutes from time of dispatch to on-scene arrival with adequate apparatus and personnel, using a 24-month average.
Thresholds	**Bridges**
Adequate	All bridges and roads for the most direct route or acceptable secondary route to the project site are adequate to support fire and emergency response apparatus.
Approaching Inadequate	N/A
Inadequate	A bridge or road is inadequate to support fire and emergency response apparatus for the most direct route and a bridge or road is inadequate to support fire and emergency response apparatus for an acceptable secondary route to the project site.

Eight bridge structures are considered inadequate, three of which have replacements/ rehabilitations planned in the CIP. The remaining structures are dispersed among seven of the 14 districts and many are

located on low-volume roadways that typically would not be on the primary or secondary routes used to respond to a call.

The Carroll County Volunteer Emergency Services Association adopted a *Volunteer Emergency Services Association Master Plan* in 2009. This plan identifies management structures and policies related to the provision of emergency services in the county, retention and recruitment issues, public safety education initiatives, funding for the provision of emergency services, and ways to continue providing emergency services to a growing population.

NON-CONCURRENCY FACILITIES AND SERVICES

Solid Waste

The County's Solid Waste Management Plan was first adopted in 1979 and last updated in 2006. It addresses the management of waste currently generated within the County and that which is expected to be generated over a ten-year period. It examines the options for reducing the amount of waste generated, increasing rates of material reuse and recycling, exploring the reuse possibilities of the waste itself, and landfilling waste that is not reusable in some manner. The plan notes that while the County's one landfill, Northern Landfill in Westminster, has adequate capacity to meet the projected 2016 needs, it is important to consider ways to extend the capacity as long as possible.

Currently, the County generates about 100,000 tons of solid waste annually. Approximately 85 percent of this is transferred out of the County for landfilling. The remaining 15 percent, is deposited into the County landfill. Only a small percentage of the total solid waste generated in the County is landfilled at the Northern Landfill in Westminster. Assuming that rates of recycling remain constant or increase, and that the County continues to transfer most of its waste, the Northern Landfill is expected to have capacity through 2059.

The Solid Waste Management Plan implements the comprehensive plan and requires state approval. It must be reviewed every two years and updated every ten years. The last plan was updated in 2006. An amendment in 2014 to the plan incorporated two state laws adopted in 2012: House Bill 929 – Recycling Rates and Waste Diversion and House Bill 1 – Recycling – Apartment Buildings and Condominiums.

Carroll County Regional Airport

The Carroll County Regional Airport, located in Westminster, is owned by the County. The airport has: a 5,100 foot long runway, approximately 110 based aircraft, and approximately 50,000 operations (take-offs and landings) per year as of December 2012. The airport is an Enterprise Fund operation, which means that operation of the airport is financed solely through user fees such as leases for hangars, and fuel sales.

In 2007, the Board of County Commissioners adopted an Airport Master Plan which called for the extension of the runway using a preferred alternative that relocated the existing runway 250 feet to the west and north, 600 feet to the north and extended it for a total length of 6,400 feet. After an Environmental Assessment concluded that this alternative would create "no significant impact" to a number of environmental features, in 2009, the Board of County Commissioners voted to proceed with this alternative. Starting in the fall of 2013, the Airport Master Plan will be updated. This process will take approximately 18 months. This update will help guide how future decisions regarding the airport will be

made by revisiting the Airport Layout Plan as well as identifying critical aircraft. A new length for the runway may be decided upon implementation of this new plan.

In 2006, Martin and Associates conducted a study "The Local and Regional Economic Impacts of a Proposed Expansion at Carroll County Regional Airport". The study estimates that by 2020, the airport would be directly responsible for 60 jobs and more than $3.4M in personal income. Currently, Skytech, the operator of the airport, employs 33 people, most residing in Carroll County. It has a $2.6 million payroll.

Other County Facilities and Services

Several other facilities and services are partially or fully funded by the County, including six libraries, a community college, two nature centers, Hashawha Environmental Center, the Carroll County Cooperative Extension Service, the County Detention Center, five senior centers, and the Farm Museum.

Libraries are located in Eldersburg, Finksburg, Mount Airy, North Carroll (Hampstead/ Manchester), Taneytown, and Westminster. The libraries provide a complete selection of books, magazines, CDs, DVDs, and audio material, as well as access to computers for patrons. The library system also operates three book mobiles and offers many educational programs throughout the year. Community meeting spaces are available at the libraries as well. In FY 2013, the library system had a total circulation of 4.2 million items, representing a circulation of 25.13 items per capita which is ranked first in the state. Approximately 57 percent of the County's population are registered borrowers.

Senior centers are located in Westminster, South Carroll (Eldersburg), North Carroll (Hampstead), Taneytown, and Mount Airy. They provide a place where seniors can "receive services and participate in social, recreational, educational, fitness, health, nutritional, and informational activities." The Senior Centers offer lunch Monday through Friday.

The Sheriff's Office operates the County Detention Center, which has a design capacity of 185 beds. For the past several years, the Detention Center has consistently operated at capacity. To address the lack of office space for staff, several programs were recently relocated to the Roadway Building on Ralph Street.

The Carroll Community College 2010-2020 Facilities Master Plan identified parking as the College's most pressing short-term need. A planned parking structure would add 700 parking spaces and meet the College's anticipated needs through 2014. Acquisition of additional land for parking is not feasible. The Facilities Master Plan also identifies two options for future building sites, each of which would add about 300,000 square feet of "future academic and support space allocated in two and three story buildings configured in a collegiate quadrangle setting." The choice to move forward with one or the other option may depend on priorities at the time, such as athletic fields and open space. Both options continue to locate all buildings on the college's current 80-acre campus.

The Challenge to Carroll County

Every community desires and expects to have facilities and services provided at a certain level, but there is a cost associated with each level of service. Carroll County's first Master Plan was adopted in 1964 as a way to better direct anticipated growth. Most of the development that has occurred has been consistent with the 1964 Master Plan.

Whether population increase is due to net natural increase or in migration, all public facilities and services provided by local government are impacted by population growth. While impact fees can be charged to new growth to ensure that the current level of service for a facility is available, an increase in the level of service would result in a cost to both existing and new development.

Concurrency Management Facilities and Services

Schools

Steady residential development in Carroll County since the 1970s has consistently placed additional demands on public school facilities. In the past, students have not always been evenly distributed within the County or within the grade levels. The areas of the County that had experienced the most rapid growth generally had schools at, or over, capacity. As of 2014, three schools were over the state-rated capacity. Enrollment at these schools continues to be monitored to determine the need for capacity relief in the future. For future updates please refer to the Board of Education's website http://www.carrollk12.org/boe/default.asp.

Other portions of the County may find that simultaneous municipal projects may cause localized inadequacies, even though the system-wide student population remains within Carroll County Public Schools' (CCPS) projections. CCPS enrollment numbers show a pupil population of 26,331 for the 2014-2015 school year. As the population of the County ages and the birth rate declines, the school age population is not growing and is expected to level off. The 2014-2024 Carroll County Public School Facilities Master Plan anticipates a grand total student population of 24,532 students for the 2023-2024 academic year.

The County has made progress in building additions to the elementary schools to accommodate the state requirement for full-day kindergarten. The County is continuing its efforts to maintain existing facilities with funding every year for roofs, HVAC systems, and paving.

Roads and Bridges

Few capacity and safety improvements to the County road network are likely to be completed in the coming years given local and state fiscal constraints. Developer financed roads will continue to be added to the network, resulting in increased infrastructure maintenance costs to the County. However, as the rate of new development slows, the opportunity for new roads or road segments to be constructed through the development process decreases. Limited funding and staffing reductions may result in less frequent maintenance of roads with low traffic volumes, such as subdivision streets.

Additionally, most of the major roadways in Carroll County are state highways. This affects the County's ability to plan for and improve roadways to address safety and economic development priorities. While the County can contribute towards the planning, design, and construction of state roadway projects, the ultimate decision to move any given project forward remains with the state. Particular concern to the County is the potential implication of the Septic Tiers legislation and its implications on expanding roads within Tier IV designated areas when these roads may be the only conduit between County DGAs.

Water and Sewer

The adequacy standard for public water is satisfied if projected maximum daily demand for water is less than 85 percent of the total system production capacity. For public sewer, the projected average daily flow must be less than 85 percent of the wastewater treatment facility's permitted capacity. At this time, the

water and wastewater systems operated by the County meet the adequacy standard. Systems operating at 80 percent or greater are required to submit a capacity management plan to MDE to show how the demand and the capability to meet the demand will be managed. Balancing planned growth areas with water and sewer capacities is one of the County's most challenging development-related issues.

Police Services

The County recently ended its contractual relationship with the Maryland State Police. Law enforcement service to the unincorporated portions of the County is provided by the Sheriff's Office in partnership with the Maryland State Police, which serves state routes and assists with specialized investigations. Police service presently meets or exceeds the adequacy standard of 1.3 sworn law enforcement officers per 1,000 county residents.

Fire and Emergency Medical Services

For EMS, the County funds driver and paramedic positions so service is provided at all times within the County. For fire protection, the County relies primarily on volunteers. Limited funding is provided for paid staff, mostly engine drivers. Recruitment of new volunteers is increasingly difficult, partially as a result of increasing training requirements. Also, volunteers often cannot respond during certain times of the day. The challenge to the County in the future is to determine how to continue to provide a high level of emergency services at a reasonable cost.

Non-Concurrency Management Facilities and Services

Solid Waste

The Northern Landfill serves the entire county and has a finite capacity. Two of the four cells have been filled and a third cell is already in use. As the County's population grows, it is assumed that the amount of solid waste generated will continue to grow as well. The County will need to have alternative plans in place to handle solid waste. Siting a new landfill will be extremely controversial and difficult, so the County has already begun a dialogue on the various options that exist for disposing of solid waste. Future decisions on how to manage the County's solid waste may have an impact on how quickly capacity at the landfill is used. A preferred solution has not been chosen. In the meantime, the County is choosing to extend the life of the landfill as long as possible. Promoting the reuse and recycling of many types of materials is one way the County is working toward this goal.

Carroll County Regional Airport

Carroll County Regional Airport is an attractive feature for recreation and business, as well as a major hub for employment related both directly and indirectly to activity at the airport. Siting or expanding airports is difficult given the requirements for clear zones and the light, noise, and other impacts that could be associated with airport activity. Currently, the Board of County Commissioners is considering whether or not to realign and lengthen the runways at the airport to allow larger aircraft to use the facility. That decision may determine how many and what types of businesses decide to locate near the airport and make use of it. The decision also will affect the degree of impact that airport activity may have on surrounding property owners.

Other County Facilities & Services

Many of the County's libraries and senior centers are located on sites that are physically constrained to varying degrees. However, no new libraries or senior centers have been planned.

Carroll Community College serves an essential role in providing "convenient and affordable postsecondary training, baccalaureate preparation, and lifelong education" to the citizens of Carroll County (Vision Statement). This is evidenced by the college's recent enrollment statistics. According to the Carroll Community College Facility Master Plan 2010-2020, enrollment at the college increased more than 25 percent between 2000 and 2009. It is projected that enrollment will increase by a similar percentage by the 2018/2019 school year. These projections, published by the Maryland Higher Education Commission, are based on historical enrollment trends and projected County growth. Many other factors can influence increases or decreases in enrollment, however. The Facility Master Plan identifies different strategies for accommodating growth of the College's buildings on its existing property. Among the challenges to the College is how to accommodate expansion of educational facilities on a site that is somewhat physically constrained. The Facility Master Plan notes that some trade-offs may need to be made with respect to athletic fields to accommodate parking or other academic buildings.

For the past several years, the County Detention Center run by the Sheriff's Office has consistently operated at design capacity. In the coming years, it may be necessary for the County to construct a minimum security facility to alleviate crowding at the County Detention Center. At this time, there is no funding for this project.

The Choice: Policies & Recommendations

Policies

- To the extent feasible, provide adequate and appropriate Community Investment Plan funds to support public facilities and services.
- Ensure County facilities and services adequately meet the demands of residential growth as it occurs through implementation of Chapter 156 of the Carroll County Code of Public Local Laws and Ordinances, Adequate Public Facilities and Concurrency Management (Chapter 156).
- Continue to provide funding priority to the public facilities included in Chapter 156 of the County Code.
- Ensure County facilities and services adequately meet the demands of non-residential growth as it occurs.
- Continue to maintain existing public facilities and services where practical and feasible.

Recommendations

A. Evaluate the proposed Capital Improvement Program for consistency with Chapter 156 of the Code of Public Local Laws and Ordinances.

Schools

A. Continue to utilize Chapter 156 and Concurrency Management to ensure planned growth is adequately served by the County's school system.

Roads & Bridges

A. Continue to utilize Chapter 156 and Concurrency Management to ensure planned growth is adequately served by the County's transportation infrastructure.
B. Continue to support the County's transportation goals, policies and recommendations.

Water & Sewer

A. Continue to utilize Chapter 156 and Concurrency Management to ensure planned growth is adequately served by the County's drinking water sources and infrastructures, and public sewer infrastructure.

B. Continue to support the County's water resources goals, policies and recommendations.

Police Services

A. Continue to utilize Chapter 156 and Concurrency Management to ensure planned growth is adequately served by the County's police services.
B. Continue to fund police services to comply with minimum adequacy standards.

Fire and Emergency Medical Services

A. Continue to utilize Chapter 156 and Concurrency Management to ensure planned growth is adequately served by the County's fire and emergency medical services.
B. Continue to support the volunteer-based organizations as the basic provider of emergency services.
C. Periodically review and update all relevant emergency services plans including the Hazard Mitigation Plan, the Emergency Services Master Plan and criteria and applicability for concurrency management.

Non-Concurrency Facilities and Services

A. Investigate ways to manage solid waste disposal in the long term.

Fiscal Impact to the County

If levels of service are increased, in most instances, additional revenue sources will be needed to fund the increase. Operating costs for public safety and corrections are projected to increase with population and employment growth. Revenues from new development are sufficient to cover these increases. An increase from the existing service level will require an increase in revenue currently dedicated to police and emergency medical services. As police service is not a one-time cost, it is considered an operating cost and cannot be funded through impact fees. Currently, the County spends approximately $3.9 million annually for paid emergency medical services at 13 of the 14 local fire companies.

The existing policy of having developers build planned major streets and mitigate impacts on existing County roadways should help the County to meet the goal without significant additional costs to the County. The recommendation to fund roads and to participate in building state highways would require an undetermined amount of additional revenues.

The construction of ten schools between 1998 and 2009 cost approximately $250 million but almost completely addressed capacity concerns in north, south, and central Carroll. By the end of the Fiscal Year 13 CIP, the County will have addressed all existing school capacity issues. The last project to address overcrowding, a new Mount Airy Middle School, was constructed and opened for the 2013-2014 school year. Projections for the next decade show a consistent decrease in countywide enrollment to 25,593 students in 2023-24.

Addressing the on-going operation and maintenance of educational facilities, including public schools, libraries, and the community college, continues to be the highest funding priority. At nearly $200 million, well over half of the Fiscal Year 14 Operating Budget is dedicated to education. Though the Board of Education, Community College, and Public Libraries receive funding from both the County and the state, the state does not provide any additional funding when a new facility is opened.

Improvements to the Freedom public water and wastewater systems and the Hampstead wastewater system are funded through an Enterprise fund. The users of the system totally support the installation and

operation of the system through various methods, such as front-foot assessment fees, user rates, and area connection fees. No general tax revenues support these systems. Because there is no fiscal impact to the County's operating or Capital Improvement Budget, the cost to the County for these services is not further addressed here.

Chapter 7 : Transportation

Goal

Provide a safe and functional intra-County transportation system that promotes access and mobility for people and goods through a variety of transportation modes.

The Significance to Carroll County

The transportation network in and around Carroll County provides access for people and products to small local markets as well as large metropolitan areas. The Carroll transportation system contains roadways, railways, trails and airways. This system enables citizens to work at the nearby employment centers of Baltimore and Washington while still residing in an area seen as offering a high quality of life. The increasing pressures being placed upon Carroll's transportation network by the commuting public and continuing declines in levels of service indicate that the transportation system needs attention.

Although railroads have historically played a large part in the development of Carroll County's small towns, the automobile has, and will continue to have a major impact on the County transportation system. In recognition of the influence of the automobile, Carroll County developed and adopted its first major street plan in 1962 – two years prior to the first Countywide master plan. The Major Street Plan envisioned an interconnected network of state and local roadways that would provide access and mobility for residents throughout Carroll County and its eight municipalities.

The implementation of the Major Street Plan has been ongoing since it was first adopted in 1962. In addition considerable sections of the local roadway network were constructed as part of residential, commercial, and industrial development projects. The difficult roadway connections, however, those having high construction costs or posing significant environmental challenges, are problematic in their implementation. Therefore, the County policy, places the lion's share of the burden for road construction on the development community. This has resulted in an interrupted and somewhat incomplete road system.

Problems are also encountered in efforts to implement the state roads portion of the Major Street Plan. Traditionally, it has been County policy to depend completely on the Maryland Department of Transportation (MDOT) for their timely construction of the County's proposed bypasses and other state road improvements. Expansions of state roadway facilities, which are, in many cases, Main Streets in local municipalities, have not been forthcoming. Carroll County and its municipal governments, expecting timely state investments in its roadway network, have allowed residential, commercial, and industrial development to proceed. The lack of road construction, as envisioned on the Major Street Plan, has created near-failing and failing conditions at multiple locations along several roadway segments in Carroll County. In its present form the existing state and local roadway infrastructure fails in its role of providing a safe and functional transportation system.

In addition to the roadway network, Carroll's transportation system also offers other functional and recreational opportunities. The public transportation component offers several park-and-ride lots and a

Countywide paratransit service. The system also includes a network of public and private airports and airfields, private taxis, and bus companies. A pedestrian facilities network of existing and proposed interconnected trails will provide both recreation and alternative transportation uses. The "Existing Transportation Facilities" Map 7-1 identifies existing transportation facilities in Carroll County, including state highways, rail lines, airports, park-and-ride lots, and the fixed shuttle routes for the County's current transit service provider.

There are two types of public transportation service in Carroll County: deviated fixed-route and demand-response service. The program is administered by the Carroll County Department of Citizen Services and funding is provided by the Federal, state and County government. Additional information can be found at the Department of Citizen Services website and in the *2013 Carroll County Transit Development Plan*. (http://carrolltransit.org/)

The Carroll County Regional Airport plays a key role in the economic development plan for the Air Business Center business park in Westminster. The availability and location of the airport services offers a great range of opportunities for businesses to transport goods as well as providing convenient access for business travel and recreational uses. The airport is an amenity for businesses by creating a more attractive location to prospective businesses who might locate here.

The Challenge to Carroll County

All indications from statewide and regional travel forecasts are that the suburb-to-suburb commute will be the fastest growing travel pattern in the future. Suburban Baltimore and Washington employment centers, such as White Marsh, Owings Mills, Columbia, Fort Meade and Gaithersburg, will continue to grow in their regional influence. Carroll's location relative to these destinations presents special challenges for the local transportation network and its ability to continue to absorb the projected increase in commuters. With the two-mile segment of I-70 in the Mount Airy area making up the entire Countywide interstate highway inventory, the major challenge to Carroll County will be to promote safe access and mobility on the existing and proposed roadway network. Four of the County's principal roadways – MD 140, MD 26, MD 32, and MD 30 – are approaching maximum carrying capacity at certain locations, thereby necessitating the bypasses and road widening identified in the Major Street Plan. DGAs with a proposed bypass on this Major Street Plan include Manchester and Taneytown. The Hampstead Bypass was completed and opened to traffic in August of 2009. In other areas, intersection and spot improvements are needed for safety and increased traffic capacity.

Carroll County has developed portions of the 1964 Master Plan; however the Major Street Plan implementation has not kept pace with the needs of the population. These planned roadways would reduce reliance on the state highways which are already overcrowded with through-traffic. Federal and state funding for major highway realignments, as envisioned on the Major Street Plan, have been cut. Carroll County, therefore, is forced to petition the state for funds, often unsuccessfully, as state roadway priorities have been redirected.

In most cases, the scenic, rural, and small-town heritage of Carroll County's municipalities and communities can be maintained and enhanced by carefully considering landscaping, streetscapes, median treatments, signage, access points, and other factors along the respective historic Main Street areas. Westminster and Mount Airy, in particular, have had great success with enhancing historic Main Street,

and this success can hopefully be carried over to other communities in Carroll County. The State Highway Administration completed two streetscape projects in Manchester and a similar project in Taneytown.

According to the American Community Survey 3-Year Data (2009-2011), which is the most recent data set to provide commuter data, roughly 55.5 percent of the County's workforce worked outside the County. The average commute time for all workers was 35.3 minutes. This situation is exacerbated by patterns of development in the County where residents of low-density, single-use developments are heavily dependent on the automobile not only for travel to work, but also for shopping, recreation, and other activities.

The County has several major commuter routes that are used to access job centers around Baltimore and Washington, DC. According to SHA, Maryland Highway Information Services Division Data Support Group, in 2012, these routes carried the following volumes:

- MD 140 at the Baltimore County line – 40,345 average daily trips
- MD 32 at the Howard County line - 19,690 trips
- MD 30 at the Baltimore County line – 18,530 trips
- MD 27 at the Frederick County line - 17,023 trips
- MD 26 at the Baltimore County line - 19,092 trips

Countywide, overall traffic volumes have been decreasing over the last 5 years. However, the percentage of those commuting outside of the County has remained relatively steady during that time while average commuter times have slightly increased. Based upon existing and projected trends, this trend is expected to continue into the future, exacerbating the existing state roadway system.

The Choice: Policies & Recommendations

Policies

- Provide a safe and functional intra-County transportation system that promotes access, connectivity and mobility for people and goods through a variety of transportation modes.
- Fund needed improvements for County roads, especially for critical roadway segments and intersections as identified in the 1962 Major Streets Plan.
- Work with the State Highway Administration to fund needed improvements to state roads, especially for critical roadway segments and intersections as identified in the County's Major Streets Plan.
- Develop pedestrian and bicycle opportunities within the County's transportation system.

Recommendations

A. Reduce traffic congestion by enhancing connectivity and upgrading inter and intra-county connector transportation routes.
B. Enhance the safety of the County's roadways by enhancing connectivity and upgrading inter and intra-county connector transportation routes.
C. Work with the State Highway Administration to address needed high priority state highway upgrades, as deemed by the County that are unfunded.
D. Investigate the value of developing a Complete Streets Policy for relevant areas of the County.
E. Update the 1962 Major Street Plan.

Fiscal Impact to the County

In Maryland, new state transportation projects or significant expansion or improvement to existing facilities essentially go through three major phases spanning from project inception to completion. They are project planning, project design / engineering, and project construction. The process begins with the Long Range Planning coordination between the state and local government and with the annual update to the State's Highway Needs Inventory(HNI), a long-range, financially unconstrained planning document, which serves as a source of candidate projects document for the Maryland Department of Transportation's (MDOT) six year Consolidated Transportation Program (CTP).

If a County is part of a Metropolitan Planning Organization (MPO), the top priority projects from each jurisdiction within that MPO will generally surface in the MPO's Long Range Transportation Plan. Carroll County is part of the Baltimore Metropolitan Council and serves on the Baltimore Regional Transportation Board (BRTB), which is the governing Board for BMC. BRTB is directly responsible for making sure that any money spent on existing and future transportation projects and programs is based on a continuing, cooperative and comprehensive (3-C) planning process. All transportation projects and programs that receive federal funding in our region go through this planning process. This includes the most recently adopted long range transportation plan for the region- *Plan It 2035*, adopted in November 2011 by the BRTB. The plan is updated and adopted every 3 years and is fiscally constrained.

Ultimately, the top priority projects from across the state are selected and approved by the Governor for inclusion in the Final CTP and submitted to the General Assembly for budget approval. However, these projects usually begin and are often taken from the Highway Needs Inventory, Regional Plan, and local level plans. The following list includes state roads that can currently be found in the HNI, Baltimore Regional Transportation Plan, County Master Plan, or local area master plan.

Carroll County has traditionally relied solely on the State of Maryland to fund State Highway Projects. It is apparent that continuing to rely on the state exclusively for state transportation improvements is not realistic planning. It is becoming clear that the County will have to provide higher levels of funding for its transportation projects.

The realization of the complete transportation network in Carroll County, including the successful implementation of the Major Street Plan, an interconnected Countywide trail system, and new roadway improvement needs identified, would be very costly. The Major Street Plan includes a combination of state and County roads which exceeds $3.6 billion in total construction costs. A Countywide trail system, consisting of over 200 miles of trails, could cost nearly $52 million to implement (based on average cost of $48 per linear foot supplied by the Carroll County Office of Parks and Recreation) if the County funded the complete proposed trail system. The cost to the residents of the County is expected to be much less because grants and developers of major projects construct much of the needed infrastructure.

The cost for construction of all County and Municipal Planned Major Streets would be around $116 million if it was completely locally funded. This would equal an average cost of $6 million per year over the planning period 2012 through 2032. The estimated cost for local road construction is based on an estimated $200 per linear foot of roadway and a land acquisition estimate of $120,000 per acre, developed by the Department of Land Use, Planning, and Development, with additional 40 percent engineering and contingency cost, 60 percent inflation cost, as well as additional costs for bridge structures assumed. While the local road projects are located throughout Carroll County, the majority of

local road construction is located within the Westminster and Freedom growth areas. It is important to note that the construction of several roadways involves the crossing of sensitive environmental areas. These projects will likely have significantly higher costs due to permitting and construction requirements.

The following tables, CH7-Table 1: Planned Roadway Projects list the Planned Roadway Projects for State Highway Projects; CH7-Table 2: County and Municipal Planned Major Streets, and CH7-Table 3: County and Municipal Neighborhood Connections. All of the listed projects have originated in a state or local planning document or are the result of a needed capacity or safety improvement. Cost estimates are provided for major roadway projects, along with the source or adopted plan in which the project appears or is adopted. Projects such as resurfacing, minor intersection improvements, traffic signing lighting and signalization, and bridge rehabilitation and enhancement projects are not included on the list. Projects listed as Planned Neighborhood Connections are expected to be developer funded, funded by the County or municipality, or a combination of both.

CH7-Table 1:Planned Roadway Projects

Project	Estimated Cost*	Plan Source
State Highway Projects		
MD 26 (Liberty Road)		
MD 32 to MD 97	$59,000,000	Plan It 2035
MD 32 to Liberty Reservoir	$84,700,000	SHA (HNI)
MD 27 (Ridge Road)		
Ridgeville Boulevard to MD 808	$141,000,000	SHA (HNI)
Kate Wagner Road to Bond Street	$64,200,000	SHA (HNI)
Bond Street to MD 140	$137,700,000	SHA (HNI)
MD 140 to MD 482	$83,100,000	SHA (HNI)
MD 30 (Hanover Pike)		
Baltimore County line to Wolf Hill Drive	$18,800,000	SHA (HNI)
North of Manchester to PA line	$137,300,000	SHA (HNI)
MD 30 Relocated (Manchester Bypass)	$406,300,000	Manchester / County
MD 30 (Business)		
Hampstead Main Street (Streetscape)	$50,000,000	State Proj
MD 31 (New Windsor Road)		
Frederick Co. line to New Windsor town limits	$88,800,000	SHA (HNI)
New Windsor Main Street (Streetscape)	$24,700,000	State Proj
MD 32 (Sykesville Road)		
Howard Co. line to MD 26	$137,500,000	Plan It 2035
MD 26 to Pine Knob Road	$56,300,000	SHA (HNI)
Pine Knob Road to MD 91	$113,000,000	SHA (HNI)
MD 91 to MD 97	$183,100,000	SHA (HNI)
MD 77 (Middleburg Road)		
Frederick County line to MD 194	$81,900,000	SHA (HNI)
MD 194 to MD 75	$138,100,000	SHA (HNI)
MD 84 (Clear Ridge Road)		
MD 75 to Baust Church Road	$112,500,000	SHA (HNI)

MD 91 (Emory Road)		
North of MD 140 to Baltimore County line	$59,100,000	SHA (HNI)
MD 97 (Old Washington Road)		
Howard County line to MD 26	$195,300,000	SHA (HNI)
MD 97 (New Washington Road / Malcolm Drive)		
MD 32 to Old Westminster Pike	$105,700,000	SHA (HNI)
MD 97 (Littlestown Pike)		
MD 140 to Pleasant Valley Road	$89,400,000	Plan It 2035
Pleasant Valley Road to PA line	$284,800,000	SHA (HNI)
MD 140 (Baltimore Boulevard)		
Baltimore County line to west of MD 91	$89,600,000	Plan It 2035
West of MD 91 to Market Street	$195,200,000	SHA (HNI)
Market Street to Sullivan Road	$200,000,000	Plan It 2035
Sullivan Road to Meadow branch Road	$61,200.00	Pending SHA (HNI)
Meadow Branch Road to MD 832 at Taneytown limits	$298,800,000	Pending SHA (HNI)

CH7-Table 2: Planned Major Streets (County & Municipal)

Project	Estimated Cost*	Plan Source
Bennett Cerf Drive Extended	$11,852,148	Westminster
Center Street Extended	$1,768,048	Mount Airy
Connector Road from Union Bridge Road to Main Street (MD 77)**	$1,203,777	Union Bridge
George Street Extended	$1,843,284	Union Bridge
Georgetown Boulevard Extended	$4,446,636	Freedom
Gorsuch Road	$714,743	County Proj
Johnsville Road Extended	$4,175,602	Freedom
Key Crossing Road	$1,993,756	Taneytown
Malcolm Drive Extended	$5,078,435	Westminster
Market Street Extended	$3,466,000	Westminster
Mount Pleasant Boulevard (formerly Ebert Rd Ext)	$1,716,323	Union Bridge
Old Westminster Pike improvements	$2,327,616	Finksburg
Robert's Mill Road Extended	$799,383	Taneytown
Rockland Road Extended	$2,239,507	Westminster
Springdale Avenue Relocated	$235,113	New Windsor
Taneytown Greenway (Antrim Boulevard Ext)	$68,100,000	Taneytown
Worthington Boulevard	$4,137,984	Taneytown

CH7-Table 3: Planned Neighborhood Connections (County & Municipal)

Project	Plan Source
Aileron Court Extended	Westminster
Allendale Lane Extended	Taneytown
Arnold Road Realignment/Improvements	Westminster
Arrington Road Realignment	Freedom
Arthur Peck Drive	Westminster
Bandy Avenue to Mycroft Street Connection	Freedom
Beck Drive Extended	Mount Airy
Bethel Road	County Proj
Boxwood Drive Extended (MD 88 north to Black Rock Rd)	Hampstead
Boxwood Drive Extended (North to MD 88)	Hampstead
Boxwood Drive Extended (Roberts Field to Trenton Mill Rd)	Hampstead
Century Drive Extended	Mount Airy
Chandler Drive	Westminster
Commercial Access Road	Taneytown
Conan Doyle Way Extended	Freedom
Crimson Avenue Extended	Taneytown
Crossbridge Drive Extended	Westminster
Crouse Mill Road	Taneytown
Dede Road Extended	Finksburg
Deer Park Road Realignment	County
Dickenson Road Extended (various segments)	Freedom
Diehl Road Relocated	Taneytown
Doss Garland Drive	Hampstead
Englar Road round-a-bout	County Proj
Feeser Road Relocated	Taneytown
Genevieve Drive Extended	Taneytown
Gamber Bypass North (Amanda Ln Ext – Niner Rd realignment)	County
Gamber Bypass South (Strawberry Land Ext)	County
Hidden Pond Way (Black Rock Rd to Upper Beckleysville Rd)	Hampstead
Hillendale Orchard Access Road	County
Hughes Road	County
Krider's Church Road Realignment	Westminster
Lee Lane Extended	Freedom
Leidy Road Extended	Westminster
Locust Street Extended	Manchester
Macbeth Way Extended	Freedom
Mall Ring Road Ramp	Westminster
Meadow Branch Road Realignment	Westminster
Monroe Avenue Extended (Oklahoma Rd to Bennett Rd)	Freedom
Niner Road Relocated	Carroll
Obrecht Road Extended	Freedom
Old Gamber Road / Bloom Road	Carroll
Panther Drive	Hampstead
Pleasant Valley Road Realignment	Westminster

CH7-Table 3: Planned Neighborhood Connections (County & Municipal)

Project	Plan Source
Prothero Road Extended	Freedom
Ralph Street Extended	Westminster
Ridenour Way Extended (various segments)	Freedom
Ridge Road Relocated	Freedom
Sells Mill Road Relocated	Taneytown
Shower Road	Taneytown
Southwestern Avenue Extended (2 segments)	Manchester
Starboard Drive Extended	Taneytown
Strawberry Drive	Finksburg
Stumptown Road Relocated	Taneytown
Swiper Road Extended	Manchester
Upper Forde Lane	Hampstead
Walnut Park Internal Circulation Road	Finksburg

* Cost estimates were derived as follows:

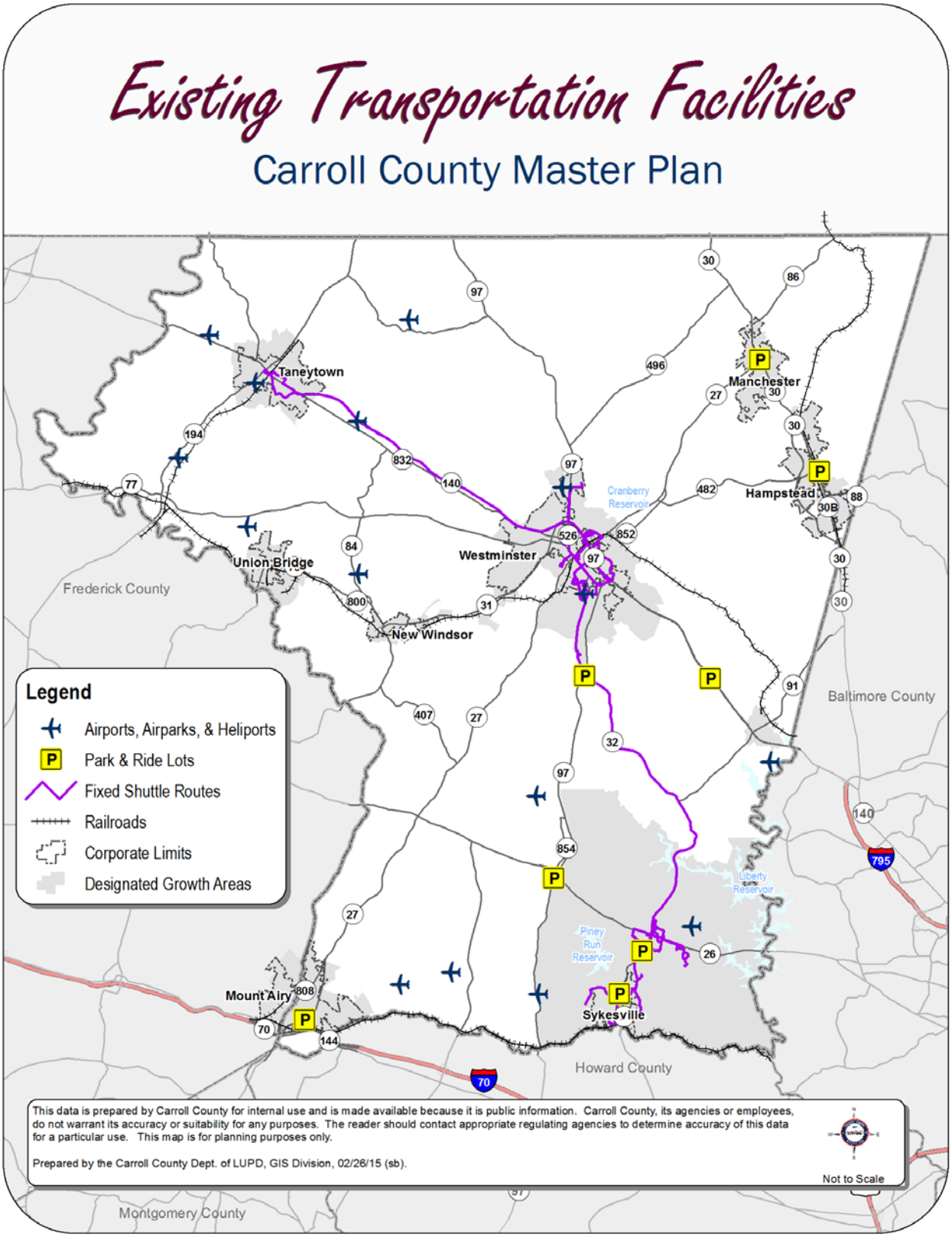
A. State Highway Projects and Antrim Boulevard: data were provided by the Maryland State Highway Administration; cost estimates include planning, engineering, right-of-way, and construction costs.

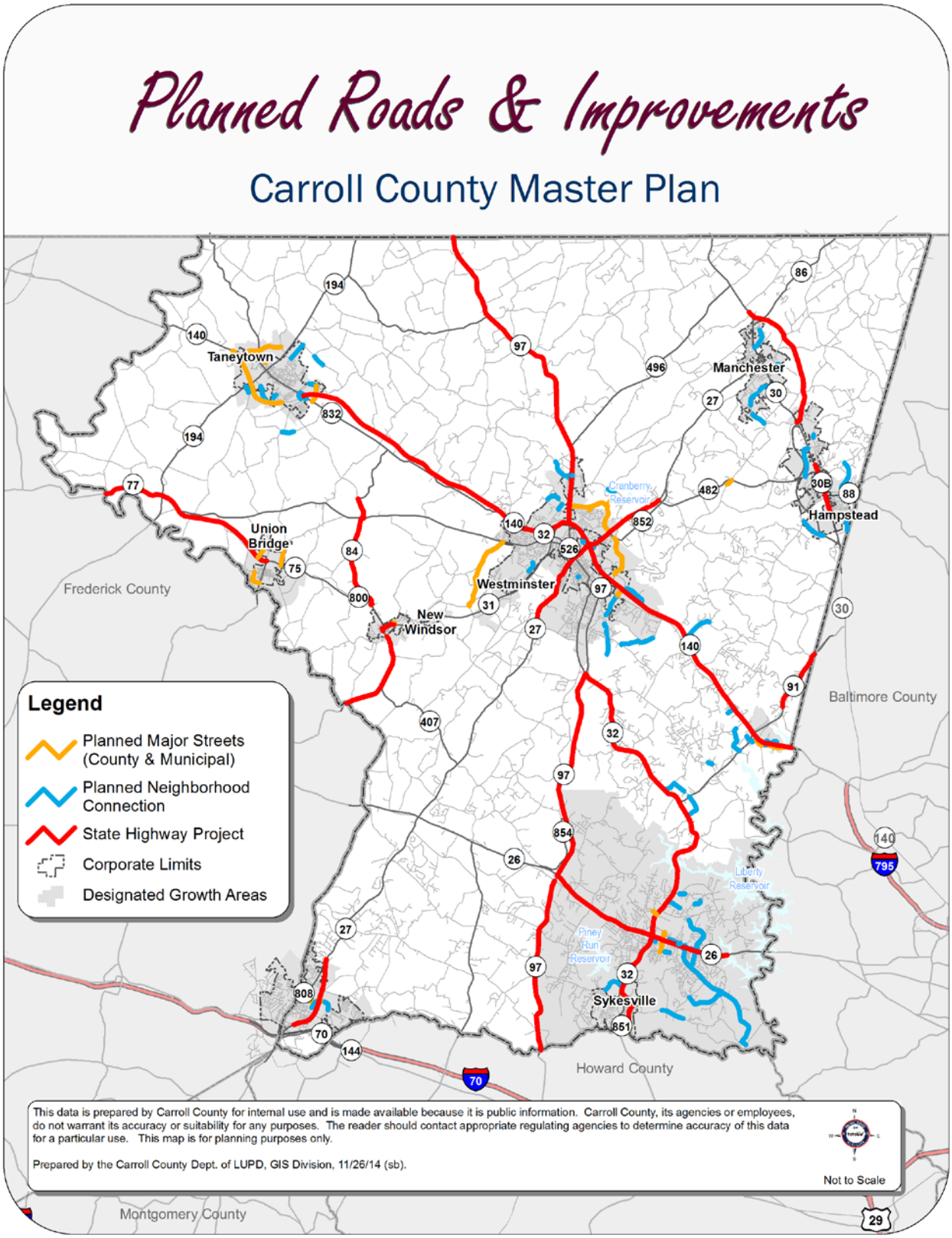
B. Planned Major Streets (Local): cost estimates were calculated using the following assumptions:
   a. Constructions costs were based on $200 per linear foot for 2-lane roadways and $400 per linear foot for 4-lane roadways
   b. Right-of-Way costs were based on $120,000 per acre
   c. Right-of-Way width was assumed to be 60 feet, except for Georgetown Boulevard Extended (100 feet) and Taneytown Bypass as a local roadway (160 feet)
   d. $1,000,000 was added for each expected bridge structure
   e. 40 percent was added to the construction costs for engineering and contingency
   f. Cost estimates are the sum of engineering/contingency/construction costs and right-of-way costs
   g. 60 percent was added to the overall cost estimates, representing 3% inflation in costs over the next 20 years

C. Planned Neighborhood Connections (Local): cost estimates were not calculated for these projects given that they will provide limited, if any, increase in transportation network capacity; most of these projects will occur at the time of development and will most likely be the responsibility of the developer

D. Estimate for Stone Road provided by Carroll County Department of Public Works

E. Estimate for Market Street from 2012 draft County CIP


Existing Transportation Facilities
Carroll County Master Plan
Taneytown
Manchester
Hampstead
Westminster
Union Bridge
New Windsor
Mount Airy
Sykesville
Cranberry Reservoir
Liberty Reservoir
Piney Run Reservoir
Frederick County
Baltimore County
Howard County
Montgomery County
Legend
Airports, Airparks, & Heliports
Park & Ride Lots
Fixed Shuttle Routes
Railroads
Corporate Limits
Designated Growth Areas
This data is prepared by Carroll County for internal use and is made available because it is public information. Carroll County, its agencies or employees, do not warrant its accuracy or suitability for any purposes. The reader should contact appropriate regulating agencies to determine accuracy of this data for a particular use. This map is for planning purposes only.
Prepared by the Carroll County Dept. of LUPD, GIS Division, 02/26/15 (sb).
Not to Scale


Planned Roads & Improvements
Carroll County Master Plan
Taneytown
Manchester
Hampstead
Union Bridge
Westminster
New Windsor
Sykesville
Cranberry Reservoir
Liberty Reservoir
Piney Run Reservoir
Frederick County
Baltimore County
Howard County
Montgomery County
Legend
Planned Major Streets (County & Municipal)
Planned Neighborhood Connection
State Highway Project
Corporate Limits
Designated Growth Areas
This data is prepared by Carroll County for internal use and is made available because it is public information. Carroll County, its agencies or employees, do not warrant its accuracy or suitability for any purposes. The reader should contact appropriate regulating agencies to determine accuracy of this data for a particular use. This map is for planning purposes only.
Prepared by the Carroll County Dept. of LUPD, GIS Division, 11/26/14 (sb).
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Chapter 8 : Housing

Goal

Encourage a range of housing types, density, and affordability.

The Significance to Carroll County

Shelter is a primary need in every community. As Carroll County continues to grow housing stock must keep pace with demand or the increased demand will drive up housing prices. However, keeping up with demand is not the only concern. To support a larger resident population and increased economic growth, adequate housing must be provided that meets the needs of a diverse population in terms of differing income levels, preferences for single- and multi-family housing, and options to purchase or rent.

In 2004, Carroll County commissioned a housing study to assess housing needs in the County. The *Carroll County Housing Study* was completed in February 2005 by Innovative Housing Institute Millennium Real Estate Advisors, Inc. and identified several trends in the County. Although significant changes have occurred in the real estate market since 2004, including the 2008 economic downturn, this study is the most recent source of data available at the time of this 2014 Master Plan update.

New housing construction has been improving the overall quality of the County's housing stock for many years. Historically, high demand has meant that housing prices and rents have increased while vacancy levels have remained fairly low (around 4.2 percent according to the 2010 Census). This has reduced housing choices for households with low and moderate incomes and forced many households to pay a larger portion of their income for adequate housing. According to the 2012 American Community Survey (ACS) 5-Year Estimates, 51.7 percent of all renters paid more than 30 percent of their income towards housing, while 35.2 percent of homeowners paid more than 30 percent towards housing. The more recent changes in the economy and the housing market have most certainly altered this trend.

Many of the new residents moving into the County are employed in higher-salary positions elsewhere in the Baltimore or Washington metropolitan areas. These residents find housing in Carroll County affordable and attractive by metropolitan standards. The median household income for County residents in 2012 was $83,155 (Source: 2012 ACS 5-Year Estimates). In other words, 50 percent of the County's households had annual incomes in excess of $83,325, and 50 percent had annual incomes below that amount. With a 2013 median sold price in the County of $280,000, the median household incomes would need to be at least $84,000 (30 percent of the total cost of the home) in order to compare favorably to the affordability of living in Carroll County. When comparing these numbers to other jurisdictions in the Baltimore Region, Carroll appears to be reasonably affordable when associating average housing values with average household incomes. See Ch8-Table 1: Median Value of Housing and Medium Household Income in the Baltimore Region.

CH8-Table 1: Median Value of Housing and Median Household Income in the Baltimore Region

	Median Household Income	Median Sold Price
Anne Arundel County	$85,690	$295,000
Baltimore County	$65,411	$200,000
Carroll County	$83,325	$263,920
Harford County	$79,953	$229,900
Howard County	$105,692	$370,000
Baltimore City	$40,100	$118,950

Source: 2012 American Community Survey 5-Year Estimates, Metropolitan Regional Information Systems, 2012

CH8-Table 2: Real Estate Trend Indicators in Carroll County provides sales information on all units sold in Carroll County over the last 10 complete calendar years:

CH8-Table2: Real Estate Trend Indicators Carroll County

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Avg Sold Price	$251,359	$303,413	$359,465	$362,499	$364,573	$325,446	$294,883	$291,757	$279,998	$284,922
Median Sold Price	$230,000	$274,900	$332,225	$330,000	$335,000	$299,000	$270,000	$265,000	$250,000	$263,920
Total Units Sold	2,528	2,454	2,350	2,013	1,696	1,241	1,369	1,270	1,340	1,537
Avg Days on Market	41	40	44	73	114	147	140	118	149	125
Avg List Price	$253,023	$305,306	$362,300	$369,181	$374,825	$338,019	$305,948	$302,655	$291,970	$294,684
Avg Sales Price as a % of Avg List Price	98.4%	98.4%	98.2%	95.8%	94.1%	90.9%	90.6%	91.1%	89.8%	92.3%

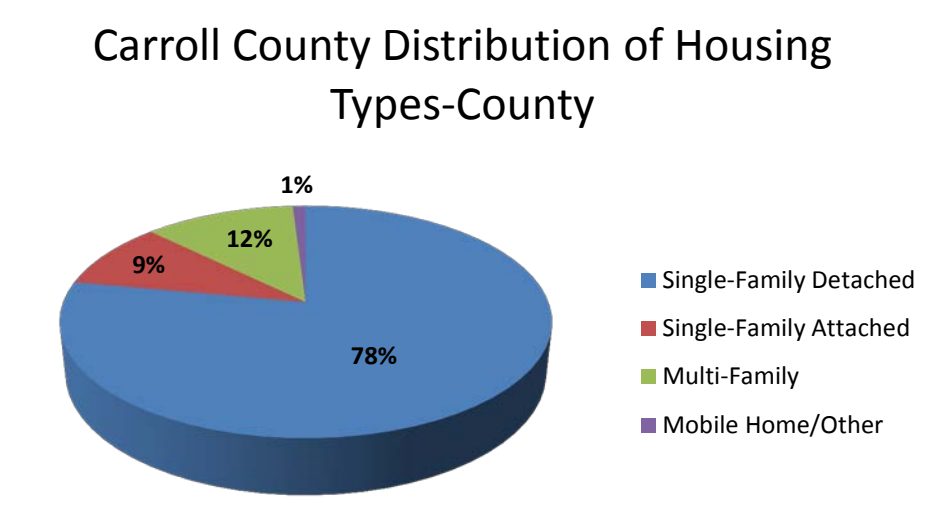
Source: Metropolitan Regional Information Systems (MRIS) 2012

The Department of Labor, Licensing, and Regulation reports that in 2013 average weekly wages offered by Carroll County employers was $748, or slightly less than $39,000 a year. Much of the new residential development that is occurring in Carroll County is priced beyond the reach of these workers, many of whom are classified as moderate-income families. Additionally, the County's low vacancy rate of 4 percent for existing homes serves to elevate the cost of renting or purchasing homes in the County.
The retention of existing businesses and industries and attraction of new businesses and industries to the

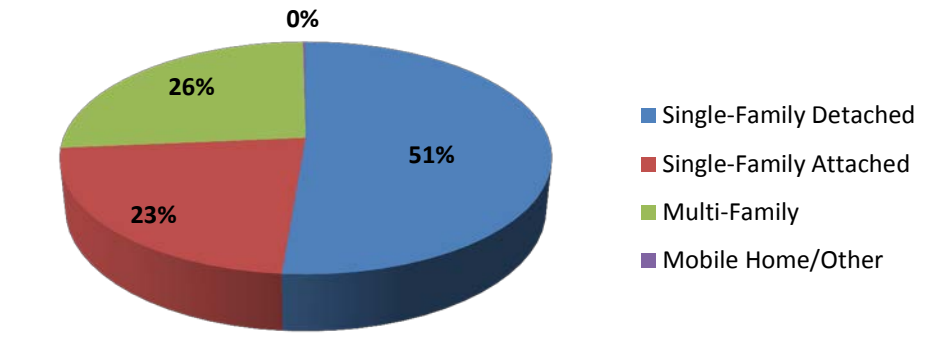
County requires that a wide range of housing types be available for workers living in or moving into the community. Access to a variety of housing options is essential for the labor force needed to support existing and future businesses to live in the County. It also enables lending institutions to reinvest in the community and offer low and moderate income households the chance to enter the housing market through attractive, affordable loans. Housing variety allows renters, first-time homebuyers, and "trade-up" homebuyers to secure housing that meets their needs as their lifestyle and financial status change throughout life.

The Challenge to Carroll County

Currently, the County's Subdivision Regulations and Zoning Ordinance contain few opportunities for diversity in housing, particularly multi-family housing or a mixture of residential and other types of land uses within a development. Only two zones in the County – the R-10,000 and the R-7,500 zones – allow for multi-family or planned unit development (PUD) housing. At this time, very little acreage in either zone exists for future development. Only about 7,450 additional units may be developed at a relatively high density in the County and municipalities. Additionally, few incentives exist in the County to promote the provision of moderately-priced housing.



CH-8 Figure 1 *Source: American Community Survey (U.S. Census)*



CH-8 Figure 2 *Source: American Community Survey (U.S. Census)*

According to the 2012 ACS 5-Year Estimates, 78 percent of the County's housing units were single-family, and 9 percent were townhouses (single-family attached). With new multi-family construction continuing to be a small portion of overall residential construction (an average of 14.2% of all units built over the last 10 year period), Carroll's housing profile is unlikely to change in the near future. See CH8-Figures 1 and 2: Carroll County Distribution of Housing Types by County and Municipalities and See CH8-Table 3: Residential U&O Permits Issued in Carroll County, 2003-2013 (below).

CH8-Table 3: Residential U&O Permits Issued in Carroll County, 2004-2013

Year	Single-Family Units		Multi-Family Units		Total
2004	791	87%	120	13%	911
2005	733	72%	287	28%	1,020
2006	658	75%	219	25%	877
2007	419	96%	19	4%	438
2008	292	98%	6	2%	298
2009	195	81%	46	19%	241
2010	186	87%	29	13%	215
2011	174	88%	24	12%	198
2012	256	88%	35	12%	291
2013	339	87%	51	13%	390

Source: Carroll County Bureau of Permits and Inspections

While multi-family housing represents a relatively small percentage of units in the unincorporated portions of the County it is far more prevalent in the municipalities. Each municipality, with the exception of Mount Airy, contains on average a much higher percentage of multi-family housing than in the unincorporated areas of the County. These units exist within apartment buildings, senior housing complexes, even in converted single-family dwellings. Numerous units are also available in mixed-use building, where retail or professional office is present in the first and second story of the building with apartments being available on the upper floors. See Ch8-Figure 2: Distribution of Housing Types by Municipalities, 2012.

As referenced in Chapter 4: Past Present and Future Trends, the population is expected to continue to age for the foreseeable future. The median age of all County residents was 36.9 years of age in 2000. That number rose to 41.1 by 2010. During that decade the percentage of persons 65 and over increased from 10.8 percent in 2000 to 13.1 in 2010. According to the Maryland Department of Planning, the County's 65 and over population is expected to be 23.5 percent of the total population by 2030 (Maryland Department of Planning Demographic and Socio Economic Outlook, May 2012). Over the last decade, age restricted housing communities for adults 55 and over has been constructed all over the County. While this type of housing will help those who wish to downsize and age in place, it does not help the younger demographic wishing to stay or locate in Carroll County.

The Choice: Policies & Recommendations

Recommendations

A. Consider changing the County Subdivision Regulations and Zoning Ordinance to facilitate appropriate densities within Designated Growth Areas.

B. In the Designated Growth Areas, with the coordination and cooperation of the municipalities, encourage mixed-use planned developments that allow for a variety of housing types as well as business and recreational uses.

Fiscal Impact to the County

Currently, the average house does not contribute enough in taxes to cover the associated costs of services. In order to offset this fiscal imbalance, the County needs to aggressively pursue business development.

Chapter 9 : Agriculture

Goal

Preserve at least 100,000 acres of agricultural land to support the production of agricultural products and promotion of related agribusiness.

The Significance to Carroll County

The preservation of agricultural land and the continuation of farming and agribusiness uses have traditionally been a major priority in Carroll County. Approximately 141,934 acres, or 49.3 percent of the land area of the County, is currently being used for agriculture. The majority of the active farms in the County are on lands currently zoned Agricultural or Conservation. The agricultural preservation goal is directed at protecting the land used for agriculture. Maintenance of a large agricultural land base will ensure that farming can continue into the future. Farmland is preserved by working with willing landowners to promote agricultural use of their property through conservation easements that prohibit development in perpetuity.

With a market value of all products sold of $111.6 million dollars, according to the latest available (2012) Census of Agriculture, agriculture continues to be an important industry in Carroll County. Of the major crops produced in Maryland, Carroll ranks seventh in corn, fourth in forage, eighth in soybeans, third in corn for silage, and tenth in wheat. The County is ranked third in dairy, fourth in cattle and calves, third in hogs and pigs, sixth in the number of horses, ponies, mules, burros and donkeys, and twelfth in poultry and eggs. Approximately 1,092 people are principal operators of County farms in either a full-time or part-time capacity with an undisclosed number of workers employed by the principal operators. Additional jobs are created and revenues generated in the agribusiness sector which supports the farming industry.

Preserving farmland provides many additional benefits to the citizens of Carroll County over and above any economic gains. Environmental and water quality goals are promoted through careful stewardship by County farmers. The rural working landscape provides open space and unparalleled views across the countryside. The overall “quality of life” experienced in Carroll County is enhanced through preserving agricultural lands and the agricultural heritage. Preservation also reduces the future need for provision of services to these areas, thereby reducing the cost of providing services.

The Challenge to Carroll County

Agricultural lands in Carroll County were converted to other uses at a rate of 1,861 acres per year between 2007 and 2012, according to the 2012 Census of Agriculture. Some of this farmland already had been planned for residential and industrial/commercial uses through comprehensive plans and zoning. But many farm properties can be developed under agricultural subdivision regulations to such an extent that jeopardizes if not precludes future agricultural use. Both minor and major subdivisions, particularly those designed with lot sizes of two acres or more, have been Carroll County’s greatest challenge to conserving farmland.

The County's farmland preservation program has been used as a means to mitigate what is allowed through subdivision regulations. It is unclear whether the Sustainable Growth and Agricultural Preservation Act of 2012 will lessen development pressure or merely change its appearance and intensity. Some analysts believe that the new law could reduce the total number of parcels that are developed, but that the patterns required by the law will promote sprawl and actually further threaten agriculture.

Carroll County has been working to preserve agricultural land since the Maryland Agricultural Land Preservation Foundation (MALPF) was developed in 1977. As of June 30, 2014, 65,761 acres of farmland throughout the County were permanently preserved through all programs, including the Carroll County Agricultural Land Preservation Program, the Critical Farms Program in conjunction with the Maryland Agricultural Land Preservation Foundation (MALPF), the Rural Legacy Program, and the Carroll County Land Trust (CCLT). The majority of easements are located in the northern half of the County, more specifically in the northwestern sector with an additional large contiguous area of preserved farms in the Bachman Valley area.

Additional acreage may be available for preservation in remaining portions of farms that are developed, referred to as 'remainders." As of July 2014, roughly 17,977 acres (of remaining parcels that are 20 acres or more in size) were in remainders, which are not permanently preserved, since rezoning of the property would be possible and could allow additional residential development rights. This would likely increase large-lot residential development. Historically in the County, as the density of non-agricultural uses in an area increases, livestock operations and major investments in agriculture have been reduced. Conflicts between farmer and non-farm neighbors increase, and the confidence in the permanence of farming decreases.

In 2009 the County began a new program designed to accelerate the number of acres preserved while reserving cash flow. Landowners are paid in tax-free installments while the County invests in a bond that in 20 years will pay the principal offered to the landowners. Installment Purchase Agreements (IPAs), achieve a high level of efficiency by limiting easement purchase offers to 40 percent of fair market value (FMV), and then mitigating this discounted value cap for the landowner by paying above-market interest on the offer (or principal). Using results from 2013, the County paid 63 percent of FMV, well below the program's self-imposed cap of 70 percent and well below what nearby counties pay. The County continues to aggressively explore additional creative and affordable preservation tools.

The ability to sustain the Agricultural Land Preservation Program in large part depends upon the willingness of the Board of County Commissioners to continue funding the program. Local commitment is more important in recent years due to reduced funding from the State of Maryland. Continuation of the program is essential to meeting the longstanding goal of preserving at least 100,000 acres as a means of securing an adequate land base for the County's agriculture – the County's most important industrial asset. Preventing further fragmentation, i.e., the breaking up of large parcels into multiple small parcels – in our agricultural areas is imperative to secure a working agricultural land base and a strong agricultural economy built on faith in the future of farming in Carroll County.

The Choice: Policies & Recommendations

In 1996, the County increased the funding dedicated to preservation of agricultural land. In addition, since 2004, the County has aggressively funded land preservation at the rate of $7-9 million per year. The rationale for the decision is that a proactive program is necessary to prevent the loss of major agricultural

areas currently at risk of changing to a more residential character. The program continues to experience strong demand from landowners who want or need to receive equity from their farmland. By expanding the options for preserving the land, it is hoped that less agricultural land will be converted to nonfarm uses.

Policies

- The permanent preservation of at least 100,000 acres of agricultural land will be accomplished primarily through programs that purchase agricultural conservation easements from willing sellers.
- Prioritize applications from farmers whose properties lie within designated Priority Preservation Areas.
- Funding mechanisms available include, but are not limited to, purchase of STRIP (separate trading of registered interest and principal securities) treasury or zero-coupon bonds, Community Investment Plan allocations, and state grants. Use of these funds ensures progress toward the County's long-standing commitment to preserving the County's rural character.
- Non-traditional agricultural pursuits will be actively supported in recognition of the important role they play in the agricultural community.
- Seek interest from landowners whose properties are surrounded by preserved lands.
- Seek interest from landowners whose properties would expand existing blocks of contiguous preserved parcels. Continue the County's record of excellence in garnering grant awards from the State's Rural Legacy Program.
- Continually evaluate purchase methods to ensure that in partnership with private landowners the program is offering competitive and attractive payment options.
- Promote sound land use practices by ensuring that targeted conservation areas complement targeted growth areas and vice versa.

Recommendations

A. Continue program funding to extinguish development rights and allow easement acquisition.
B. Strengthen collaboration between Agricultural Land Preservation and the Department of Economic Development to initiate projects that spur agricultural business development.
C. Promote the value of preserving agricultural land for economic, environmental, and quality of life benefits through support for programs like the University of Maryland Extension in Carroll County.
D. Review the principal and conditional uses allowed in the Agricultural and Conservation Zoning Districts to ensure uses to minimize conflict with agricultural use.
E. Explore additional methods to preserve agricultural land, such as, but not limited to, tax incentives, abatements, and other creative easements.
F. Investigate the opportunity to preserve remaining parcels or at a minimum assure that other uses minimize interference with the preferred use (agriculture) in the agricultural district.

Fiscal Impact to the County

Preserving agricultural land has a well-documented positive fiscal impact on the County. According to a 2007 University of Maryland study, farmland preservation has stimulated local and regional economic activity in Maryland. A Maryland County that is committed to farmland preservation "can signal a

commitment to an industry that then stimulates the industry to invest and work to be successful rather than waiting to 'sell out'," the study stated. The study found that 63 percent of farmers use the money they receive for preservation to reduce their debt, create a savings or investment plan, or invest in their operation.[6] A similar study conducted at the University of Delaware derived similar conclusions about the use of preservation funds.[7]

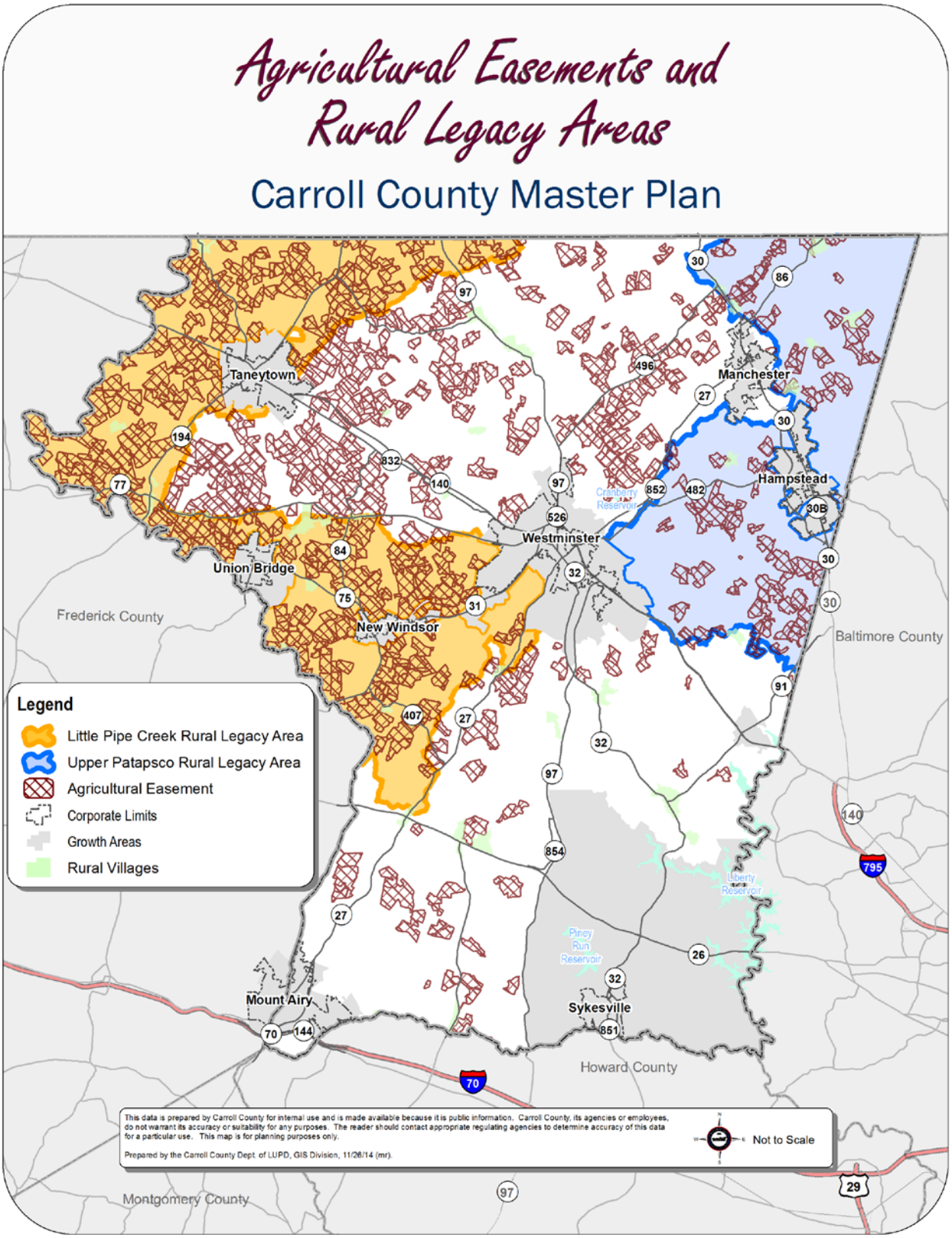
Specifically, the County's program options help farmers buy farms, start new businesses and improve or expand existing operations. While no study has been conducted to determine the breadth of this added economic activity that stems from Carroll's preservation programs, studies elsewhere conclude that farmland preservation is not just propping up urban-edge agriculture. It is spurring growth in local agricultural economies in the Mid-Atlantic .

While the public has consistently supported farmland preservation both for its economic aspect and its promise to preserve rural character and open space, there is a cost to taxpayers to preserve land.

The County's current Agricultural Land Preservation Program uses County General Funds, the County share of the Agricultural Transfer Tax, and General Obligation Bonds. In addition, in the County's special finance arrangement of leveraged Installment Purchase Agreements, STRIP treasury or zero-coupon municipal bonds are purchased to secure the principal payments, which are the easement purchase offers made to landowners. In the current arrangement, as of 2014, principal payments will mature over 20 years; during that period the County will pay interest to the landowner, which is tax-exempt. These interest payments are drawn from County General Funds. For 2012 through 2014, the interest rate paid on the principal amount was 5.25%, down from 6% paid in 2010-11. The interest rate offered reflects affordability in the bond market.

The County also utilizes state funds through the MALPF and through the Maryland Rural Legacy Program when these funds are available.

[6] Lynch, Lori. 2007 "Economic Benefits of Farmland Preservation," ed., Constance T.F. de Brun, *The Economic Benefits of Land Conservation*, The Trust for Public Land, San Francisco, CA. 2007.
[7] Duke, Joshua M. and Thomas W. Ilvento. 2004. Supplying Preservation: Landowner Behavior and the Delaware Agricultural Lands Preservation Program. University of Delaware, Dept. of Food and Resource Economics Research Report FREC RR04-01.


Agricultural Easements and Rural Legacy Areas
Carroll County Master Plan
Taneytown
Manchester
Hampstead
Westminster
Union Bridge
New Windsor
Mount Airy
Sykesville
Frederick County
Baltimore County
Howard County
Montgomery County
Cranberry Reservoir
Liberty Reservoir
Piney Run Reservoir
Legend
Little Pipe Creek Rural Legacy Area
Upper Patapsco Rural Legacy Area
Agricultural Easement
Corporate Limits
Growth Areas
Rural Villages
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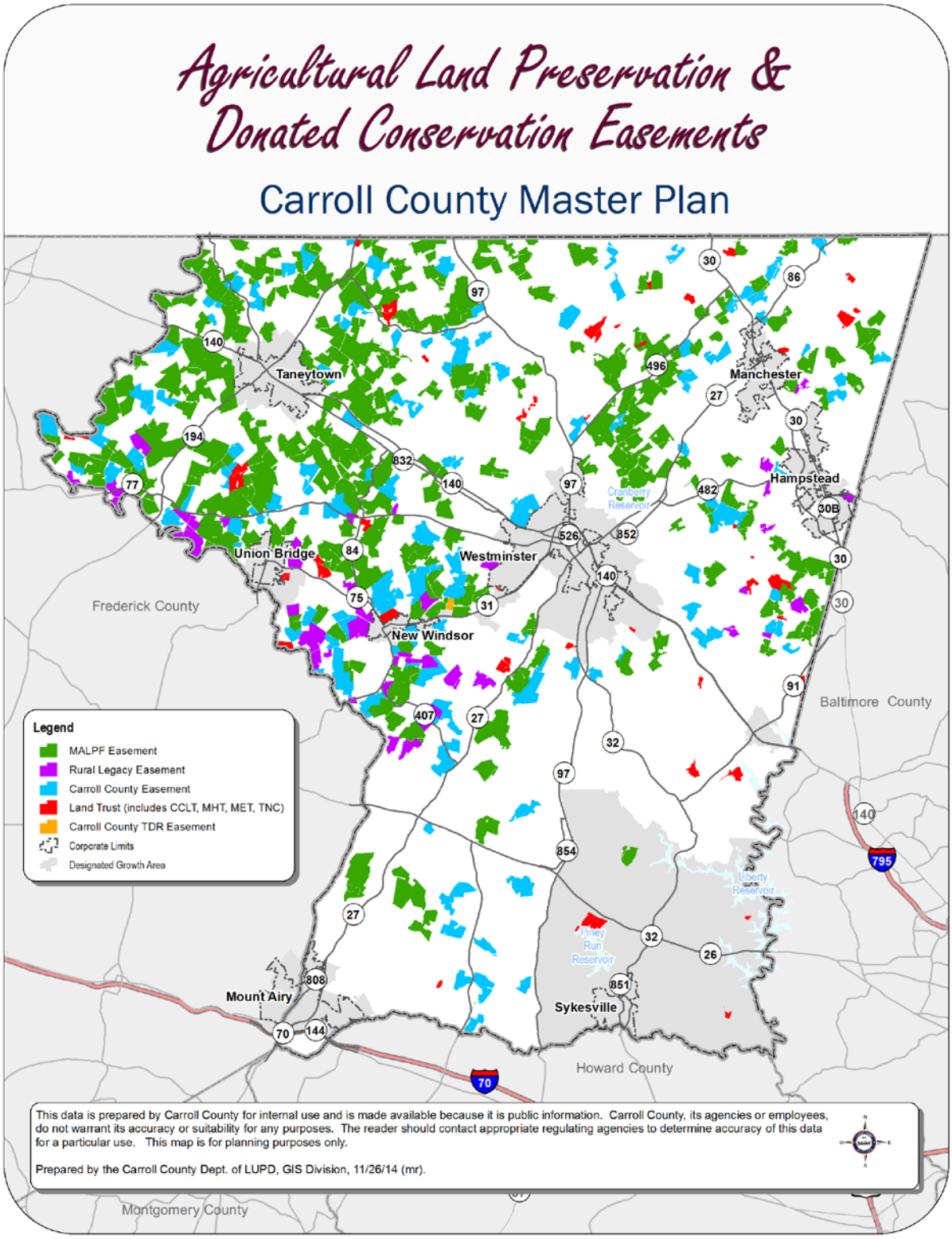
Prepared by the Carroll County Dept. of LUPD, GIS Division, 11/26/14 (mr).
Not to Scale


Agricultural Land Preservation &
Donated Conservation Easements
Carroll County Master Plan
Taneytown
Manchester
Hampstead
Union Bridge
Westminster
New Windsor
Mount Airy
Sykesville
Frederick County
Baltimore County
Howard County
Montgomery County
Cranberry Reservoir
Liberty Reservoir
Piney Run Reservoir
Legend
MALPF Easement
Rural Legacy Easement
Carroll County Easement
Land Trust (includes CCLT, MHT, MET, TNC)
Carroll County TDR Easement
Corporate Limits
Designated Growth Area
This data is prepared by Carroll County for internal use and is made available because it is public information. Carroll County, its agencies or employees, do not warrant its accuracy or suitability for any purposes. The reader should contact appropriate regulating agencies to determine accuracy of this data for a particular use. This map is for planning purposes only.
Prepared by the Carroll County Dept. of LUPD, GIS Division, 11/26/14 (mr).

Chapter 10 : Priority Preservation Area

Goal

Preserve 80 percent of undeveloped land in the Priority Preservation Area, as adopted by the Board of County Commissioners.

The Significance to Carroll County

The Agricultural Stewardship Act of 2006 (HB 2), passed by the Maryland General Assembly, required that those counties, including Carroll, that are certified by the state as operating a successful local agricultural land preservation program also establish Priority Preservation Areas (PPAs) in their comprehensive plans. There are two sets of requirements for managing the PPA, relating to conditions in the PPA itself and the County Master Plan, respectively.

Beginning in FY 2009, certified counties were to include a PPA Element in their master plans in order to maintain certification. The Priority Preservation Areas Element identifies areas of agricultural and forestry resource land that would support agricultural production and timber harvesting for the present and future. An estimated 92,909 acres of land are within the Agricultural Land Priority Preservation Area. Within this defined area, the County's goal is to permanently preserve at least 64,589 acres of undeveloped land for agricultural production.

AGRICULTURAL LAND FORESTRY DEFINITIONS

Agricultural Land
"Agricultural land" means land used for all methods of production and management of livestock, crops, trees and other vegetation, as well as aquaculture. This includes the related activities of tillage, fertilization, pest control, and harvesting as well as the feeding, housing, training, and maintaining of animals such as cows, sheep, goats, hogs, horses, and poultry. *(Source - http://www.dnr.state.md.us/met/model.html)* For mapping purposes, agricultural land is based on property data provided by the Maryland Department of Assessments and Taxation. Specifically, property that is designated in the state database as agricultural in use is recognized as agricultural land.

Forestry
While trees are vital for environmental health and provide beauty to our landscapes, they can also be economically important to landowners as a harvestable crop. "Forestry" is the management of forested land, together with associated waters and wetland, primarily for harvesting timber but also for conservation and recreation purposes. The science of forestry is built around the principle of multiple-use land management, though the harvesting and replanting of timber are the primary activities. The main objective is to maintain a continuous supply of timber through carefully planned harvest and replacement. The forest manager is also responsible for the application of other land controls, including the protection of wildlife and the implementation of programs to protect the forest from weeds, insects, fungal diseases, erosion, and fire. *(Source: http://www.answers.com/topic/forestry)*

As discussed in Chapter 9 of the master Plan, *Agriculture*, the County has been actively preserving agricultural land since the Maryland Agricultural Land Preservation Program (MALPF) was developed in 1977. Since that time, Carroll County has developed its own program that was designed to stretch dollars and preserve more land. As of August 31, 2013, 64,036 acres of farmland throughout the County were permanently preserved.

The mission of Carroll County Agricultural Land Preservation, regardless of program or funding source, is to work with willing landowners to promote agriculture and ensure its continuing economic contributions through retiring development potential to provide an adequate supply of productive agricultural land in perpetuity for future generations of Carroll citizens.

Goals

A. Preserve enough land resources to stimulate and to sustain a productive agricultural economy. The primary goal, established decades ago by a citizen committee, is to secure at least 100,000 acres of farmland using all programs available. Funding levels of the last six years of program operation have enabled the preservation of an average of 2,459 acres annually, indicating the goal can be achieved in 14 years.
B. Assure fairness in compensation to landowners for development value forgone.
C. Funding adequate to the task so that farmers know the program is dependable and operating when they need it.
D. Conduct effective stewardship of preserved lands to protect public investment.

Forestry

Maryland has approximately 2.5 million acres of forest land, which covers 40 percent of the state's land area with a total volume of more than 2,100 cubic feet per acre. Nineteen percent of the growing-stock volume is yellow-poplar, followed by red maple (13 percent) and loblolly pine (10 percent). All species of oaks combined account for 26 percent of the total growing-stock volume. There were about 5.9 billion cubic feet of growing-stock volume in 2008, and the average annual growth rate of volume has been approximately 2 percent. Maryland is the southernmost part of the Northern Forest.

While Maryland is noteworthy for its forests considering its urban growth rate and population, one aspect noted in a recent report is particularly relevant to the farming community: Sixty percent of Maryland's forest land is less than 300 feet from an agriculture use or developed edge. This is forest fragmentation, an aspect of County woodlands that exacerbates conflicts between human activities, such as agriculture, and wildlife. Forest fragmentation has been particularly noted in Carroll County, which ranks third in the state for agricultural output. Part of the reason for the high agricultural ranking is that cropland dominates Carroll's agricultural areas, making large tracts of woodland scarce. Carroll contributes little to the state's forest inventory and in fact has the least forest of any County in Maryland, having only approximately 23 percent of its land area in forest cover. This has been so since at least the early 1960s, when reliable data was collected, but anecdotal evidence indicates this has been true for possibly 150 to 200 years or more. Forest fragmentation in Carroll has resulted in more than 30 percent of wooded tracts in the County being smaller than 100 acres. (*Source: Resource Bulletin NRS 58, Maryland's Forests 2008 – USDA, US Forest Service and Northern Research Station*).

The County issues roughly 30 to 40 permits per year for private timber harvest. The total amount of forest acreage affected by timber harvesting varies from year to year. These areas are generally not clear cut. Instead, selective harvest and maintenance cutting are the common methods.

One of the larger woodland tracts in the County is in the Tree Farm Program. It is approximately 864 acres and is located in the north-central area (Union Mills) and surrounding the Piney Run Reservoir. The program is run by the American Forest Foundation. The program was established in 1946 to encourage landowners to grow and manage woodlands for timber harvest, watershed protection, soil erosion, aesthetics, and wildlife protection.

According to the U.S. Census Bureau's 2007 Economic Census wood manufacturing accounted for 512 jobs Countywide and generated an average wage of $20,198 per year. As of Sept. 2013, the Maryland Department of Natural Resources Forest Service reported roughly 15 licensed forest products operations with a Carroll County address. They included operations involving sawmills, firewood and fencing. (Source: Maryland DNR Forest Service, *Forest Product Operators List (online)*)

Soils

There are five major factors in the formation of soil – climate, living organisms, parent materials, relief (or slope), and time. Climate, whether cold, hot, dry or humid, influences the breakdown of minerals. Living organisms, both plant and animal, affect soils by what they either take from it or deposit in it. Parent materials are defined primarily by the weathering or rock formations and the movement of silt via gravity, wind, or waterway. Relief affects what remains on a particular soil based on runoff. Time demonstrates when these materials were laid down and how they have aged.

Soils are classified so that their more common characteristics can be readily identified. The current system has six basic soil categories; order, suborder, great group, subgroup, family, and series. Class I, II, and III series soils are considered to be productive agricultural soils in Carroll County. These soils can be found in the following formations: Abbottstown, Bermudian, Birdsboro, Bowmansville, Bucks, Cardiff, Chester, Codorus, Comus, Conestoga, Delanco, Elioak, Elsinboro, Glenelg, Glenville, Hagerstown, Hatboro, Lewisberry, Lindside, Linganore, Manor, Melvin, Mount Airy, Penn, Raritan, Rowland, Steinsburg, and Urbana (UrA). Not every soil contained in the series listed above qualifies as a Class I, II, or III soil, but sixty-six different soils fall within this range. Only two Class IV soils, Mount Airy (MtC2) and Linganore (LnC2), are considered to be productive soils for agriculture.

Preservation Program Evaluation

The most recent Agricultural Land Preservation program certification report was released in March 2012, and covered Carroll County program activity from 2009 through 2011. This report is available through the Department of Land Use, Planning and Development, Agricultural Land Preservation unit.

Creation of the Agricultural Priority Preservation Area

The PPA focuses on agricultural land and the preservation of agriculture in the County. Forest land is included within the Agricultural Land PPA, and while it may not contribute directly to agricultural production, it does serve to enhance a rural environment that is necessary to support the target of agricultural production necessary for sustainability.

Process to Determine Agricultural Land PPA Boundary

The Agricultural Land PPA contains an estimated 92,909 acres of land. This area was determined using the following steps:

- Step 1: Begin with the area of the County that is located outside the municipalities; designated Growth Areas for Taneytown, Westminster, New Windsor, Union Bridge, and Mount Airy; and the Priority Funding Areas designated as Rural Villages.

- Step 2: Within this initial area of the County, identify and map the following data:
  - All properties having a property assessment designation of agricultural use, as shown on the Agricultural Lands map.
  - All agricultural permanent easements, identified on the Agricultural Easements and Little Pipe Creek Rural Legacy Area map.
  - All productive agricultural soils (Class I, II, III, IV, MtC2, and LnC2). The Productive Agricultural Soils map displays their locations.
  - The Little Pipe Creek Rural Legacy Area, which has been targeted through the Rural Legacy Program for enhanced agricultural, forestry, natural resource, and environmental protection. This area is depicted on the Agricultural Easements and Little Pipe Creek Rural Legacy Area map.

- Step 3: Overlay the mapped information delineated by the above maps, and define a PPA boundary based on the area containing the highest concentration of these mapped characteristics. The Agricultural Land PPA Boundary Map indicates the area to be designated as the Agricultural Land PPA.

Preservation Goal

The sidebar indicates undeveloped acreage by current zoning within the PPA. Undeveloped land, for purposes of this plan element, is defined as the combination of unimproved properties and improved properties comprised of 10 acres or more. Conversely, developed land is defined as the sum of improved properties containing less than 10 acres of land.

Agricultural Land PPA Preservation Goal

Total Undeveloped Acreage in PPA = 80,736 AC
80% of Undeveloped Acreage = 64,589 AC

Preserved acres goal in the PPA = 64,589

Already preserved = 44,581

Remaining acres to preserve = 20,008

Properties deemed developed comprise an estimated 9,477 acres. Approximately 80,736 acres (86.7% of the total PPA) are considered undeveloped. The developed land (9,477) and undeveloped land (80,736) acreages combine to 90,213 acres, which is 2,696 acres shy of the total PPA acreage of 92,909. This discrepancy is predominantly due to the exclusion of public roadways from acreage calculations based on property data.

The majority of the Agricultural Land PPA (86,511 acres, of which 76,609 are undeveloped) is currently zoned Agricultural. The agricultural zone is based on a density standard of one residential subdivision lot per twenty acres of land, but subdivision regulations have allowed a greater density than this in many cases. For example an 80-100 acre parcel can extrapolate five lots plus a remainder are allowed, for a

total of six lots. This standard applies to each tract of farm under multi-tract deed. Furthermore, a tract that has not been divided since April 23, 1963 is allowed two off conveyances. The Agricultural Land Preservation Program was created to enable the County to retain a sufficient supply of agricultural resource lands for future generations.

The County has had a longstanding goal of preserving 100,000 acres of agricultural land in order to maintain agriculture as a sustainable industry in the County. This goal applies to the entire County, not just the Agricultural Land PPA. To support attaining this overall goal, the remaining undeveloped land within the defined PPA is targeted for preservation. The estimated acreage of the targeted land for preservation in the Agricultural Land PPA (64,589 acres) contributes to this 100,000-acre goal. In other words, of the 80,736 acres of undeveloped land within the PPA, 80 percent equates to 64,589 acres. Of this acreage, 44,581 acres are already under permanent easement. To meet the PPA preservation goal, it is the County's objective to preserve the remaining 20,008 acres in the PPA for agricultural use and forestry through purchase of easements. Additional acreage outside the PPA will need to be permanently preserved to reach the 100,000-acre preservation goal.

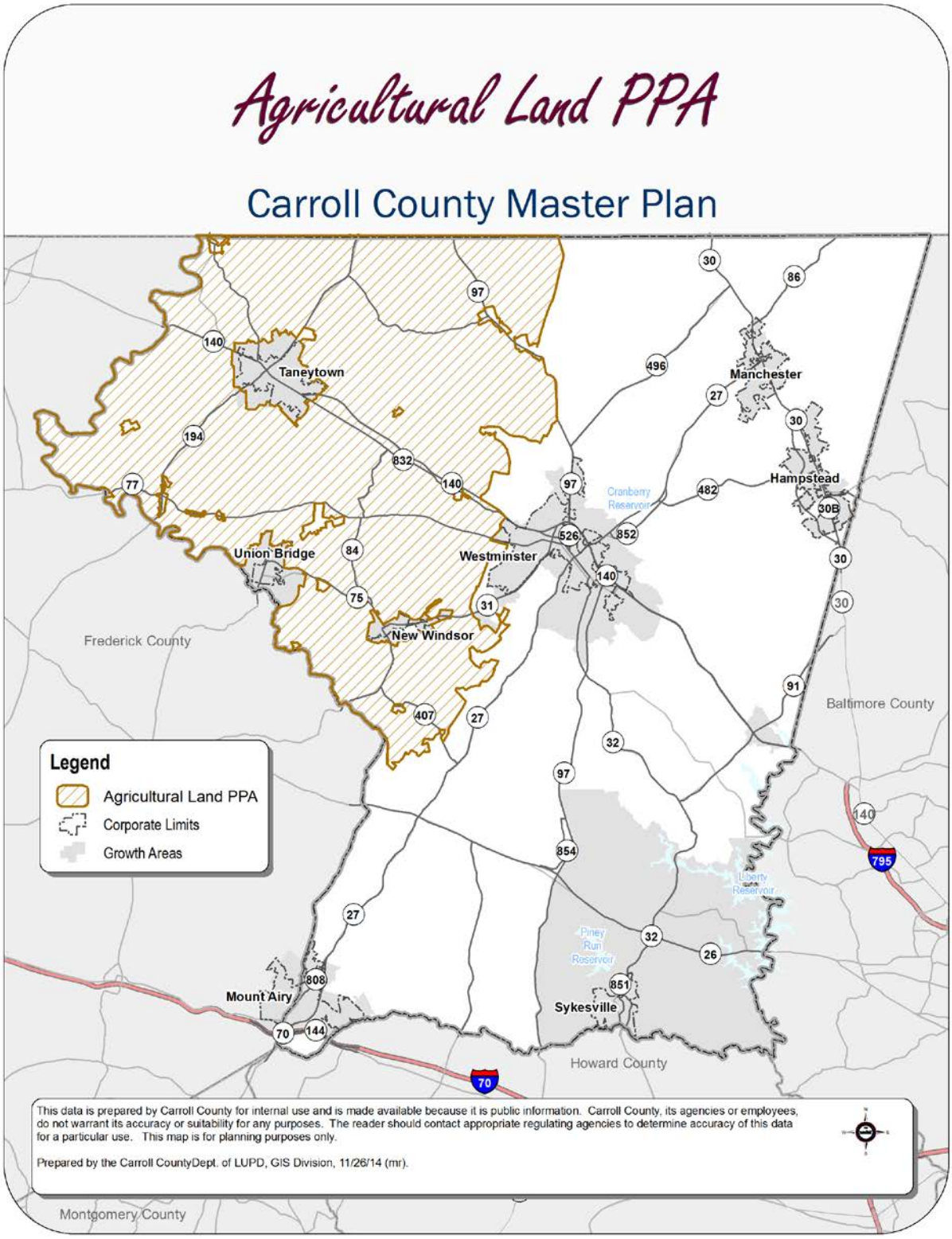
The Choice: Policies & Recommendations

Policies

- Continue to prioritize agricultural land use activities and agricultural preservation in the Priority Preservation Area in direct support of the county's goal to preserve 100,000 acres of agricultural lands.
- Support sustainable timber harvesting practices to maintain forestlands for present and future generations.

Recommendations

A. Continue to prioritize agricultural land use activities and agricultural preservation in the PPA
B. Continue to direct residential development into Designated Growth Areas.
C. Continue to fully fund Agricultural Land Preservation programs and resources.


Agricultural Land PPA
Carroll County Master Plan
Taneytown
Manchester
Hampstead
Union Bridge
Westminster
New Windsor
Mount Airy
Sykesville
Cranberry Reservoir
Liberty Reservoir
Piney Run Reservoir
Frederick County
Baltimore County
Howard County
Montgomery County
Legend
Agricultural Land PPA
Corporate Limits
Growth Areas
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Prepared by the Carroll CountyDept. of LUPD, GIS Division, 11/26/14 (mr).

Chapter 11 : Parks

Goal

Provide an affordable, coordinated and comprehensive system of public and private parks, recreational facilities and programs, and open space that will enhance our communities.

The Significance to Carroll County

Carroll County has approximately 12,227 acres of publically-owned lands available to residents for various types of recreational activities. These open space areas range from scenic, natural places, such as Hashawha Environmental Center, Piney Run Park, Morgan Run Natural Environmental Area (NEA) and the land around Liberty Reservoir, to high activity parks such as Taneytown Memorial Park, Freedom Park, the Westminster Municipal Pool, or Sandymount Park. Included in this acreage are public school sites whose playing fields are used by the entire community; reservoir areas that abound with hiking, fishing, and other recreational opportunities; state park lands in the County and municipal parks. All told these opportunities provide nearly 47.6 acres of park land per 1,000 people (or 0.0476 acres per person) of publicly-owned park land or open space per person to Carroll County's citizens.

Many of the acres considered park land or open space are either existing or proposed school sites or existing or planned public water supply reservoirs, the acreage around which is protected to ensure high quality drinking water. It is essential in areas that must rely upon surface water as their main water supply that reservoir sites be planned in advance of their need and that they be well-protected after their creation. Fortunately, this need has created the opportunity to develop low-impact recreational facilities, such as boating areas, hiking trails, picnic areas, and bridle paths on the land surrounding the reservoirs. A similar benefit has been derived from school properties which, by their nature, include playing fields and other recreational areas. The County's citizens often are able to benefit from and use these sites as part of a joint use agreement with the Board of Education.

Several larger facilities in the County offer multiple facilities including walking/biking trails, multiple ballfields, and/or multiuse fields which are co-located with other types of recreational activity areas at a single site. Elsewhere in the County, numerous smaller parks provide single fields and individual playgrounds or play areas on smaller sites with facilities scaled to a neighborhood scale. Beyond simply being nearby places for play, these park and open space facilities provide numerous other advantages to residents and the surrounding neighborhoods. Community benefits include promoting convenient opportunities for healthy community activities and lifestyles, safe and child- accessible recreation space for organized and individual sports, and aesthetically pleasing green space. Recreational areas function as local landmarks, imparting a sense of community identity through design, location, and the creation of places where neighbors can gather. Many park areas also benefit the natural environment by providing habitat to support native plants and animals when left in a fairly natural state. Open space with low-impact development, such as passive activity parks or trails, ensures high quality water and water recharge in and around reservoirs and well-head protections areas that have already been discussed but cannot be overestimated.

Because park and recreation areas frequently include facilities for walking and bicycling and can be prime destinations that citizens wish to reach by foot or by bike, often they may be considered elements of both recreation and transportation planning. While generalized recommendations to support and enhance pedestrian and bicycle access may be included in a master or comprehensive plan, frequently separate bicycle and pedestrian plans will be developed to consider the co-existing benefits to recreation and transportation. Two existing walking and biking plans provide either general recommendations with contextual background information or specific project recommendations. The first is an element of state transportation planning and the second was a cooperative, regional effort of the Baltimore Metropolitan Council; both looked at local projects within the context of both transportation opportunities and recreation/health benefit improvements.

In October 2002, the *Twenty-Year Maryland Bicycle & Pedestrian Access Master Plan* was enacted following two years of public discussions and development by Maryland Department of Transportation (MDOT). The development of this plan was prompted by newly enacted state code and the plan responded to federal requirements enabling funding; its implementation takes place through the state's long-range transportation plan. The bicycle and pedestrian plan sought to fulfill a vision that walking and biking opportunities should be conveniently accessible to all citizens for transportation, recreation and health and that a "seamless, balanced, and barrier-free network" will ultimately be developed. Maryland was the first state plan to perform a system-wide the Bicycle Level of Comfort (BLOC) assessment. Overall, 55 percent of state roads achieved a passing BLOC assessment and nearly 20 percent of state roads in developed areas are well served by sidewalks. Within District 7 which includes central Maryland and Carroll County, the BLOC assessment was 50.3 per cent and the sidewalk score was 11.3 percent. This was the lowest sidewalk rating in the state. The plan's technical appendix identified just over 7 miles of in-County state roads among the highest priority group for bicycle improvements and slightly less than 123 miles in the second priority group. It identified one priority pedestrian improvement project. Following the plan's adoption, implementation measures have enabled several new opportunities, which have leveraged funding to begin hybrid recreation and transportation trail projects in Westminster and the Freedom area. The Maryland Twenty-Year Bicycle & Pedestrian Master Plan may be reached via: http://www.mdot.maryland.gov/BikeWalkPlan.

The Baltimore Region Bicycle, Pedestrian, and Greenway Transportation Plan" was prepared by the Baltimore Metropolitan Council (BMC) in 2001. Its implementation would result in a network of on-road and off-road routes that support bicycling and walking for transportation and recreation purposes. This plan outlines the vision, goals, and action plan strategies for bicycle and pedestrian improvements and programs in the Baltimore region. The Plan defines two potential bicycle improvement zones and two pedestrian improvement zones in Carroll County. The pedestrian improvement zones are in Westminster for the section of Center Street between downtown Westminster and the Westminster Town Mall and in Taneytown along Frederick Street which is also MD 194. The bicycle zones are both in Westminster: Old Washington Road (MD 32) for the section between Main Street and MD 97 and MD 31 between West Main Street and the first junction of Old New Windsor Pike (MD852). Many of the recommendations and coordination efforts initiated with the BMC project were incorporated into the MDOT plan. Currently, the County will be installing sidewalks on the publically-owned properties along a major portion of the Washington Road corridor within the long-term Community Investment Plan. While not implementing the bicycle lane project, the project will substantially improve public access in the corridor and connect with several existing shared-use school ball and multiuse fields, other athletic facilities as well as an existing community trail.

The Challenge to Carroll County

Despite the fact that the County's land holdings currently exceed the acres considered by the state to be adequate for recreation, it should not be assumed currently available park land will be adequate for the future. The need for recreational facilities and open space cannot be estimated simply on an acre-per-person basis. Rather, it must be addressed through a comprehensive and frequent review of the County's demographics and the types of facilities that these statistics and the local recreation councils indicate as needed. For example, it will not help to have over 500 miles of hiking trails if there are not enough baseball fields to serve the current and projected members of the Little League teams. Each community may have its own individual and specific needs that are not addressed through the mere provision of a certain number of acres.

In the future, as the face of the County changes, its needs for recreation areas and open space may also change. The County should plan for and provide its citizens with a network of parks, recreation areas, and open space that serve the needs of the entire population to the greatest extent possible. This will require improvements and additions to the existing network. Due to sufficient land acquisitions to provide 30 acres of recreation land per 1,000 residents, the County is eligible to use more than 50 percent of its Program Open Space (POS) allocation for development projects. The accomplishment of the open space land acquisition threshold was initially confirmed with the update of the *Land Preservation, Parks & Recreation Plan (LPPRP)* in 2005 and reaffirmed with the approved 2012 Plan. This plan, required under the Natural Resources Article (Title 5, Subtitle 9) of the Annotated Code of Maryland, analyzes current and projected capacity, supply and demand for park and recreation resources. These conditions are reexamined and recertified every 5 years as a funding eligibility requirement for POS allocations; based on typical review schedules, the 2012 plan will be in force through 2017. As calculated in the 2012 LPPRP, County-owned public recreation lands are provided at 47.59 acres of per 1,000 citizens, based on September 2011 population estimates. This exceeds the minimum land acquisition target by nearly 60 percent. The plan also notes that a significant portion of that acreage, equaling roughly 42 percent of the total local recreation land, is held as "Undeveloped Parks" within the Union Mills and Gillis Falls future reservoir areas.

The majority of funding for parks and recreation facilities comes from POS and impact fees.
Park and recreation funding at times may suffer when competing against schools, police, and other similar services for limited local funds. However, benefits beyond local residents' access to parks and recreational areas may merit consideration in funding analysis. Fiscal impact studies released in March 2011 indicate that economic benefits of recreational areas are beginning to be better quantified and understood. The *2010 Maryland State Parks Economic Impact & Visitor Study* highlights that statewide, park visitation produces total impacts of $650 million, supports 10,000 full-time jobs and generates $39 million in retail, gasoline, hotel, and income taxes returned to both state and local jurisdictions. Most notably the study found that "70 percent of spending and employment impacts are concentrated within 20 minutes of State Parks in local, 'gateway communities,' often in rural settings" (http://www.dnr.maryland.gov/publiclands/pdfs/economicimpactstudy2010.pdf).

For Carroll County, these prospects merit consideration when assessing the return on investment made into parks and recreation facilities in comparison to other public investments. Improved park and recreation areas can augment other destination-based economic development strategies seeking to leverage heritage or cultural tourism, in combination with agricultural/eco-tourism activities into a unique and dynamic menu of attractions. Carroll County is uniquely positioned to offer equestrian activities, hunting, off-roading, paddling, biking, hiking and bird watching to the menu of activities which residents

and visitors alike can spend time in Carroll County enjoying while simultaneously boosting the local economy within the 20-minute circle of these destinations.

The Choice: Policies & Recommendations

The current state goal for recreation land is to maintain a minimum of 30 acres per 1,000 residents. By supporting the state goal, the County will retain its eligibility for POS funds. As of September 2013, a cumulative total of approximately 73 acres of parkland per 1,000 residents is available to Carroll County citizens. However, roughly 2/3 of the acreage classified as natural resource land (such as reservoir buffers) is ineligible for inclusion into the POS calculations reported in the LPPRP because of acreage restrictions were only 1/3 of natural resource acres can be counted. Despite that set aside, Carroll County still significantly exceeds the minimum open space goals with 47.59 acres per 1,000 people according to the 2012 LPPRP. That plan, using population projections through 2025, *further anticipates that even without any additional land acquisition*, the County would still exceed the minimum threshold with 41.55 acres per 1,000 residents. Since the County currently exceeds the 30-acre state goal, there is room for flexibility to examine specific recreational needs not being met. The minimum acreage threshold is planned at a reasonably attainable level to prevent recreational facilities from competing with other facilities such as schools and roads for improvements funding. Recreational opportunities are, however, recognized for their significant contribution to the quality of life in Carroll County.

Access to the recreational opportunities available to Carroll County citizens is mostly achieved via the automobile. One alternative to compelling residents to drive to their recreation destinations could be a Countywide trail system which would interconnect the parks and recreational facilities present in the County, while also linking towns, schools neighborhoods, and shopping areas. This goal is included partially because the majority of the funding would likely not come from the General Fund. However, a reasonable and realistic milestone for yearly construction was chosen.

Policies

- Fund the majority of additional park facilities through impact fees, POS funds, and other non-General Fund sources.
- Continue to support passive recreational opportunities that support the conservation reservoir watersheds and wellhead protection areas.
- Continue to support park and recreational opportunities in conjunction with school facilities' recreational functions.
- Continue to support the creation of open space opportunities.

Recommendations

A. Link proposed open space to existing or planned open space on adjoining development, whenever possible.
B. Identify recreation sites across the County which can meet the projected needs of the local community.
C. Support recreation sites across the County which can meet the projected needs of the local community as identified in the 2012 LPPRP.
D. Support the goals, objectives and recommendations on the 2012 Land Preservation, Parks and Recreational Plan.

Fiscal Impact to the County

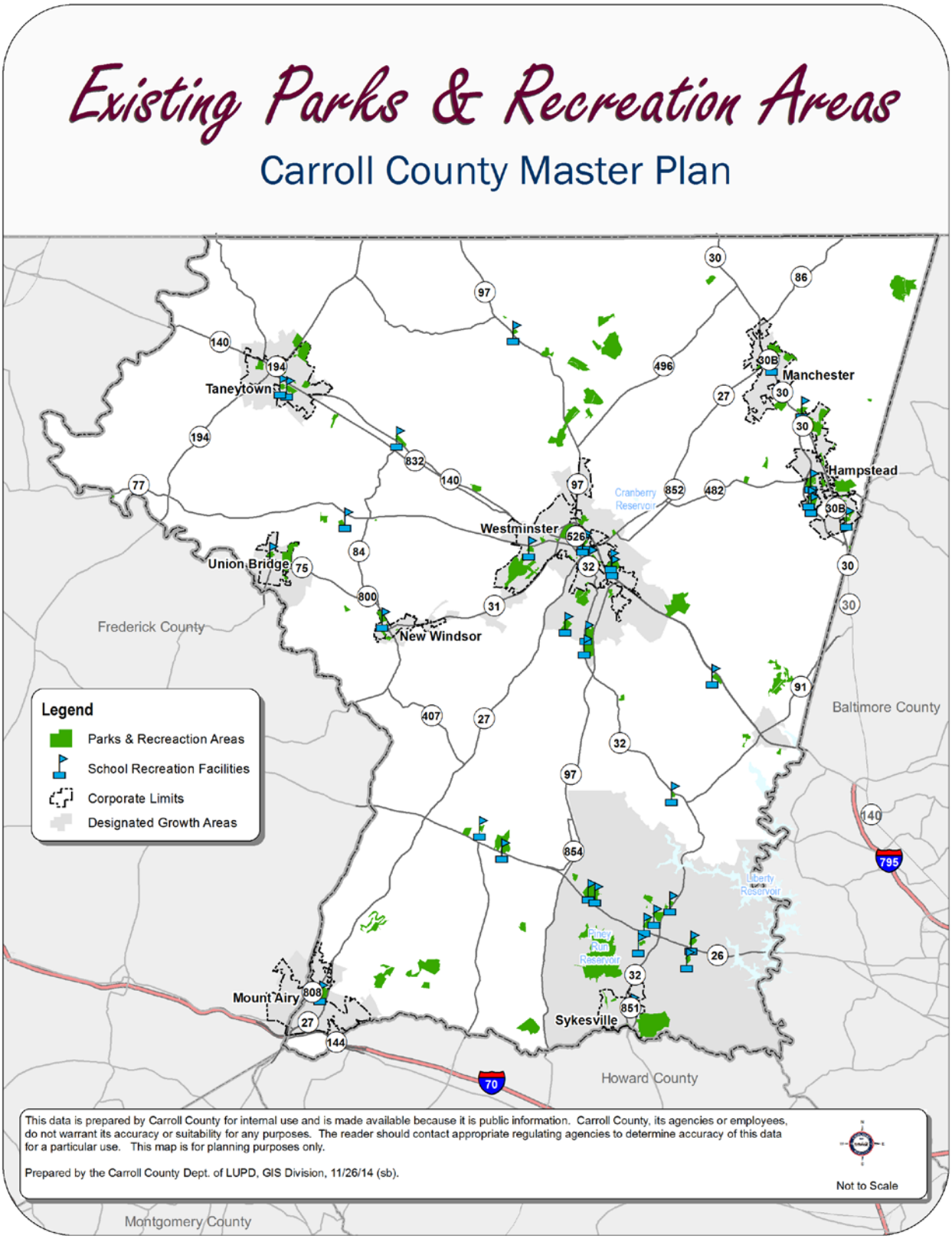
Currently, Carroll County owns sufficient gross acreage to meet the threshold of 30 acres per one thousand residents through 2035. However, it is important to note, as recognized in these recommendations, that additional park development will be needed in the future to ensure that appropriate facilities are available to meet identified needs within the growth areas.

Collected Park impact fees and POS funds accruing to the County from the State transfer tax should help to fund a portion of the County's future park needs. The State's POS fund distributions over recent years have provided:

- $936,140 for FY 2014
- $85,488 for FY 2013
- $557,001 for FY 2012 and
- $333,000 in FY 2011

The park impact fees current as of May 2013 are:

- $533 per single-family house,
- $538 per mobile home,
- $604 per townhouse,
- $530 per multi-family unit


Existing Parks & Recreation Areas
Carroll County Master Plan
Taneytown
Manchester
Hampstead
Westminster
Union Bridge
New Windsor
Mount Airy
Sykesville
Cranberry Reservoir
Liberty Reservoir
Piney Run Reservoir
Frederick County
Baltimore County
Howard County
Montgomery County
Legend
Parks & Recreaction Areas
School Recreation Facilities
Corporate Limits
Designated Growth Areas
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Prepared by the Carroll County Dept. of LUPD, GIS Division, 11/26/14 (sb).
Not to Scale

Chapter 12 : Heritage

Goal

Preserve the County's historic, cultural, scenic, and architectural heritage.

The Significance to Carroll County

Historic resources and natural attractions give a community its identity. These resources provide a sense of who we are, where we came from, and where we may be going. Conservation of these important assets helps us to understand the present as a product of the past and as a modifier of the future. Protecting these buildings and landscapes conserves tangible and visible links with a community's past, preserves places that are important parts of a community's identity, and retains important resources that may provide historical information about how an area was settled, developed, or declined.

Currently, at least 1,730 historic sites in Carroll County are included on the Maryland Inventory of Historic Properties (MIHP). The inventory is a listing of historic properties, historic districts, sites, objects and structures, scenic resources, archeological, and natural attractions. As the MIHP is an archive of historic and cultural resources, it has no regulatory duty or authority. It is estimated that fewer than half of the historic sites that had existed in the County have been inventoried; it is unknown how many resources have been demolished or lost.

As of August 2013, 61 resources in the County are included on the National Register of Historic Places. These include individual listings and 15 multi-parcel listings and/or historic districts. In total, 2,517 individual properties in Carroll County are included on the National Register of Historic Places. The districts include: Lineboro, Linwood, McKinstry's Mill, Mount Airy, New Windsor, Sykesville, Taneytown, Union Bridge, Union Mills Homestead, Uniontown, Warfield, McDaniel College, and Westminster. As of August 2013, approximately 130 additional individual sites and structures as well as an additional 8 multiple property historic districts have been preliminarily assessed as eligible for inclusion in the National Register of Historic Places.

Across the County, preservation easements have been placed on 37 historic resources, typically to enable restoration investments or to qualify to participate in various preservation-based incentive programs. Additionally, 35 unincorporated traditional settlements in Carroll are recognized as Rural Villages as defined in the Rural Villages Element. In many cases, the community's historic character was a factor considered in establishing these designations.

Four locally-zoned historic districts exist in the County: Sykesville, Uniontown, Warfield, and Westminster. Of those four, only Uniontown is within the unincorporated area of the County. This district also is the only place where the Heritage and accompanying Historic District Overlay zones exist in the County. The application of these zoning districts to Uniontown means that the historic district is governed by development standards and design guidelines. The appointed members of the Carroll County Historic Preservation Commission have approval authority over all work permits within the Historic District Overlay. It is their responsibility to ensure that exterior changes visible from a public road, including construction, alteration, reconstruction, moving, and demolition of sites and structures located within the Historic District Overlay, be done in conformance with the Secretary of the Interior's Standard for Rehabilitation. These requirements are in addition to those of the underlying zoning district.

The Historic Preservation Commission also reviews and makes recommendations on petitions for designation of historic sites, structures, and districts. Applications for zoning changes, conditional use requests, variances, and site or subdivision development plans that affect designated historic sites, structures, or districts are reviewed by the Historic Preservation Commission as well.

Several local communities are successfully capitalizing on the intersection of heritage and economic development to build vibrant downtown districts. Currently, half of the County's municipalities are leveraging redevelopment investments through the Main Street program pioneered by National Trust for Historic Preservation in 1980. In 1998, Maryland successfully completed its certification as a state coordinating program; the following year the City of Westminster became Carroll County's first state accredited and federally designated Main Street. The City of Taneytown was the next to be recognized in 2000; in 2004, Mt Airy was certified followed by the Town of Sykesville in 2013 (http://www.neighborhoodrevitalization.org/Programs/MainStreet/MainStreet.aspx#Main; http://www.sykesvillemainstreet.com/).

Why is Downtown Important?

- Your central business district is a prominent employment center. Even in the smallest communities, downtown is the largest employer.
- As a business center, your downtown plays major role. It may even represent the largest concentration of businesses in your community. It also serves as an incubator for new businesses—the successes of tomorrow.
- Most of the businesses are independently owned. They support a local family who supports the local schools, etc. Independent businesses keep profits in town.
- Downtown is a reflection of how your community sees itself—a critical factor in business retention and recruitment efforts. When industry begins looking at your community as a possible location, they examine many aspects, including the quality of life. Is downtown alive and viable, or does it represent local disinterest and failure?
- Your downtown represents a significant portion of the community's tax base. If this district declines, property will decrease in value and subsequently increase the tax burden in other parts of your community.
- The central business district is an indispensable shopping and service center. Though it may no longer hold the place as your community's most dominant shopping center, it still includes unique shopping and service opportunities. Attorneys, physicians, accountants, and insurance offices, as well as financial institutions, are often located in downtown.
- Your downtown is often the core of your community. Many buildings are historically significant and help highlight your community's history and development.
- Downtown represents a vast amount of public and private investment. Imagine the costs to recreate all the public infrastructure and buildings already existing in your central business district. Think of the waste of past dollars spent if downtown is neglected.
- A central business district is often a major tourist draw. When people travel, they want to see unique places. There isn't another downtown like yours in the world!
- Downtown is usually a government center. Most likely it is where your city hall, county courthouse, and post office are located. This "one-stop" shopping for government services is a notable feature of downtowns across the county.

Courtesy of Wisconsin Department of Development; From Wisconsin Main Street Program article by Alicia Goehring. Via: http://www.dahp.wa.gov/sites/default/files/WSMSP%20Program%20Guide%20%20Handbook.pdf

The national Main Street approach involves a four-part program to coordinate organization, economic restructuring/reinvestment, promotion, and design which nationally has returned an $18.00 private investment for each dollar of public investment over its thirty-three existence. In Maryland, a fifth element,

measures to achieve a "Clean, Safe and Green" community, are part of the evaluation and implementation process. "The cumulative success of the *Main Street Approach®* and Main Street programs on the local level has earned this revitalization strategy a reputation as one of the most powerful economic development tools in the nation." (http://www.preservationnation.org/main-street/about-main-street/reinvestment-statistics-1.html#.UkNHwaPD9Mx)

Over the years several Maryland-based economic impact studies have analyzed the economic opportunities enabled through various preservation–based programs which garner investment tax credits to support community revitalization via a 20 percent credit for eligible rebuilding costs. Between 1997 and 2005, a total of $2,698,747 in state-level credits were issued to qualifying Carroll County projects. Most recently, a single building project at the Warfield Complex was awarded $246,619 in credits in January 2013. (http://www.preservationmaryland.org/uploads/file/UMD%20HTC%20Economic%20Impact%20Study%20March%202006.pdf; http://planning.maryland.gov/PDF/Press/PressRelease-2013SCTC-Awards-20130107.pdf). This public investment program (requiring $5 of private outlay to secure $1 in credits) returns $8.53 in total economic impact, including wages and taxes, per one dollar in credits. For each $1 million in credits, 72.5 jobs are created locally; this includes 45.5 jobs on-site during construction phases (http://www.preservationmaryland.org/uploads/file/Publications/Abell%20Foundation%20Report.pdf). Further, for qualifying business or commercial projects, these benefits can be bolstered through available Federal tax credit programs.

As noted in another impact analysis, "historic rehabilitation is a labor-intensive activity, significantly more labor intensive than new construction. The dollars spent renovating historic buildings are largely paid as wages to skilled tradespeople, including carpenters, plumbers, and electricians — each of whom in turns spends his or her paycheck in the local community." This results in creating 3.2 more jobs through preservation investments when compared to the same investment in new construction (http://www.preservationmaryland.org/uploads/file/PM-Value-scn.pdf).

Another major boost to local heritage-based economic development efforts is the tourism promotion connected with Maryland's designated Heritage Area program. Carroll County participates as one of three counties comprising the "Heart of the Civil War Heritage Area" (HCWHA). This heritage area partnership, along with its management plan, was certified by the Maryland Heritage Areas Authority in July 2006 as the eleventh heritage area in the state through Maryland's Heritage Preservation and Tourism Areas Program. The heritage area includes significant portions of Carroll, Frederick, and Washington counties containing Civil War battlefields and other sites related to the conflict. In Carroll County, these sites primarily relate to supply efforts and troop movements through the area prior to and after the Battle of Gettysburg. The County's portion of the heritage area includes a 1,000 foot-wide corridor (defined as 500 feet on each side of the roadway centerlines) along many of Carroll's major roadways. All of the incorporated municipalities contain at least one of these routes and, therefore, lie partially within the heritage area. On October 5, 2006, the Board of County Commissioners passed a resolution amending the Master Plan to incorporate the Heart of the Civil War Heritage Area Management Plan (See page 28 of this chapter for a map of the Heart of the Civil War Heritage Area. That plan is incorporated by reference into this update of the Master Plan as well.

Certification enables Carroll County businesses and organizations to use state grants, loans, and tax incentives to undertake projects that support the heritage area's goals and capitalize on the area's significant Civil War-related history. Since the heritage area's inception, thousands of dollars in matching

grants have been awarded to Carroll County municipalities and heritage organizations to help fund projects ranging from downtown streetscape enhancements to walking tour brochures. Recent studies are defining and confirming positive economic benefits connected to these initiatives. Civil War tourists spend twice as long and twice as much during an average visit when compared to other tourists; an average family of four spends just under $1,000 per visit with local businesses. Multiplier effects indicate that each 956 visitors support creation of one additional local job and each visitor contributes $2.92 in local tax revenues http://www.civilwar.org/land-preservation/blue-gray-and-green-2013.pdf. With Carroll's proximity to Gettysburg, Antietam, Harper's Ferry, and Baltimore, heritage tourists are connecting to the regional opportunities and sites in significant numbers. Increasingly, this initiative is seeking to support efforts which unify a broader scope of eco-, agri-, recreational-tourism opportunities with Civil War heritage tourism. Projects might include hiking, biking, or paddling tours thorough areas or to sites of historic relevance, scenic value or promote cultural heritage tourism to visit and learn traditional farming, food or crafts. Carroll County is uniquely positioned to capitalize on these opportunities with its commitment to agricultural preservation and heritage education sites.

Additionally, Target Investment Zones (TIZs) were initially identified as part of the development of the heritage area and its management plan. The TIZs were sub-areas within the larger boundary where program investments would be focused due to existing concentrations of heritage resources and access to visitor services. In Carroll County, three TIZs were identified: Taneytown, Westminster, and Sykesville. A 2012 analysis of the TIZs revealed that during the previous decade, most established TIZs that were falling short of their established goals; many were inactive, or had only completed a single capital project. Accordingly, beginning in FY 2014, a new, project-focused "Targeted Investment" Policy is being established to replace the TIZs, easing the geographic constraints of the zones. Funded projects, while meeting basic eligibility standards, must now describe how they accomplish heritage area priorities, leverage other investments, and promote economic development.

As a partner in the Heart of the Civil War Heritage Area, Carroll County also was invited to be a partner in the "Journey Through Hallowed Ground" National Heritage Area. In 2007, the Board of Commissioners of Carroll County approved a resolution supporting the creation of this National Heritage Area stretching nearly 180 miles bounded by Gettysburg, Pennsylvania and Monticello, Virginia. The "Journey Through Hallowed Ground" National Heritage Area (JTHG) was designated on May 8, 2008, becoming the 38th National Heritage Area in the country. The historic corridor encompasses sites of national significance associated with the Revolutionary War, the War of 1812, presidential history, the Civil War, as well as Native-American and African-American heritage. These sites are found amidst the remarkable beauty of the Mid-Atlantic piedmont. General information on the heritage area and its resources is available via http://www.hallowedground.org/.

The JTHG National Heritage Area's goals are to increase national and local awareness of the significance of this area, to foster stewardship of its resources, and to enhance tourism and education in the region for the economic benefit of its residents. Regionally, visitation estimates indicate that almost 10 million visitors travel to sites and events throughout the corridor and provide at least $3 billion in cumulative impacts. Recent data from Virginia shows that investments in heritage tourism provide a 5:1 return in tax revenues. http://www.hallowedground.org/Partner-Resources/News-Press/Press-Releases/2012-11-29-JTHG-Partnership-Receives-Virginia-Tourism-Grant-for-Marketing

As of the second half of 2013, the JTHG National Heritage Area's initial management plan is being circulated for review and comment prior to the document being finalized and adopted by the Secretary of the Interior. Once this plan is completed, additional opportunities for enhancing and developing heritage tourism connections will merit active exploration to assess their local benefits. The plan is focused on fulfilling the following fifteen-year future vision:

> *In 2025, the Journey Through Hallowed Ground National Heritage Area, encompassing 15 counties from Gettysburg, Pennsylvania, to Monticello, Virginia, will be an internationally recognized destination for visitors and home to proud residents, offering an unparalleled concentration of historic sites, protected cultural landscapes, and recreational opportunities. The National Heritage Area, managed by the self-sustaining JTHG Partnership, will be a model of community collaboration that fosters heritage education, historic preservation, environmental conservation, economic opportunities, and tourism*

As part of the background research to develop and direct the management plan, a detailed visitor preference study was conducted in 2009. Within that study it was revealed that the nearby Gettysburg Battlefield was the single most likely site to be visited according to 54 percent of respondents, followed by Harper's Ferry at 35 percent and Antietam at 27 percent. Also of great significance to local economics and tourism development was the intense interest and popularity of corollary heritage, outdoor and cultural sites, and activities. Study participants would most want to:

- "Visit quaint or historic towns and villages"- 84.4 percent
- "Experience unique regional foods and cuisine"- 75.1 percent
- "Attend special events or festivals"- 72.6 percent
- "Shop in local stores"- 66.0 percent
- "Visit museums on civil war era life & culture"- 63.8 percent
- "Visit orchards or farmer's markets" - 61.4 percent
- "Visit Civil War battlefields"- 59.7 percent
- "Experience traditional American folk art and culture"- 58.1 percent
- "See covered bridges"- 55.1 percent
- "Visit wineries or wine regions/trails" - 53.9 percent
- "Participate in recreational activities—e.g. hiking, canoeing, & camping"- 51.5 percent
- "Tour historic churches or religious sites" - 50.1 percent
- "Enjoy bike trails" - 30.0 percent
- "Visit sites of African American historical interest" - 27.3 percent
- "Attend equestrian activities" - 23.8 percent
- "Golfing" - 15.4 percent

http://www.hallowedground.org/content/download/928/12149/JTHG+Visitor+Market+Research.pdf.

As previously noted (and further detailed in Chapter 11: Parks of this Master Plan), Carroll County is well positioned to leverage many, if not all, of the most desired heritage and location-based experiences, places, and opportunities being sought by these visitors.

Carroll County is included in another existing heritage tourism effort, the Civil War Trails program. The Civil War Trails effort, begun in Virginia over a decade ago, is a coordinated interstate network of sites, landmarks, battlefields, and relevant cultural destinations that are organized around each significant Civil War battle or campaign. Locally, County tourism in conjunction with the various municipalities in

partnership with local history and cultural resource stakeholders have developed and cross-promoted additional County tours and events.

This has enabled a wide range of history enthusiasts, re-enactors, genealogists, and general tourists to re-trace the footsteps of troops and understand the impacts on the local community of this turbulent period of history. This arm of the heritage tourism effort has proven particularly compelling to visitors and, as a result, particularly successful to the partner communities. These initiatives seek to bring heritage tourists into the places where history happened. The interconnected routes typically permit travelers to follow either an exclusive themed route or to connect with sections of different routes within a smaller geographic area.

Carroll County and its municipalities are also included on Scenic Byways designated by the state of Maryland. Carroll County destinations are included on four Maryland Scenic Byway routes: the "Historic National Road Byway," the "Old Main Streets Byway," the "Mason and Dixon Byway," and the "Falls Road Byway." These efforts follow a similar model and implementation strategy as the Civil War Trails program. The Byways initiative seeks to bring visitors to experience the authentic character of the many small towns, crossroad villages, unique local sites, and undisturbed scenic vistas and landscapes that remain today. More detailed information may be found via: http://visitmaryland.org/pages/byways.aspx and http://www.roads.maryland.gov/index.aspx?Pageid=97 . The success of all of these efforts relies on coordinated promotion and cross-marketing of the available resources and opportunities in each location for each program.

In the case of the "Historic National Road Byway" the Maryland byway component also dovetails with a National Byway program which traces the Old National Road from its origins in Baltimore as the western-most Atlantic seaboard port, westerly across not only Maryland but through Pennsylvania, West Virginia, Ohio, Indiana, ultimately ending at the Mississippi River in St. Louis, Illinois. While a relative short section of the nation's first interstate "highway" bisects Carroll County, its national level promotion and efforts to coordinate with multiple other intersecting historic/cultural/scenic tourism programs makes it an important gateway effort to attract visitors and investments into Carroll County: http://byways.org/; http://marylandnationalroad.org/.

The Challenge to Carroll County

Because of the County's relatively late start in suburban development and growth, many of the County's historic and scenic resources have survived. However, as the County continues to grow, it is important that efforts to inventory and protect its historic and scenic resources continue so that they can be enjoyed. Approximately half of the historic sites in the County have been inventoried over the last 37 years, over three-quarters of which were inventoried prior to 1990. Many of the sites inventoried to date were done by the State Highway Administration during the initial phases of several bypass projects in the County. With few such projects anticipated in the near future, the task to inventory the remaining sites will fall solely on the County.

Creating an inventory of the County's historic and cultural sites is crucial to understanding the resources that are here. But once the sites have been surveyed, there is no way of knowing if they later get demolished or substantially altered to the point that they lose their historical value. The County is left with

a record of our past, but no tangible evidence of it. A study of the 1,730 sites inventoried would provide information on how many remain today. However, there
are not resources available to do the necessary study. Given the fact that the County has doubled in size since the inventory began, no doubt some have been lost. As development occurs, it alters the County's scenic, historic, and cultural landscapes as well. The Historic Preservation Commission is charged with reviewing building permits, proposed regulations, and development plans for the Historic District. This provides some mechanism for overseeing development in this area. However, the County currently has no mechanism for ensuring that development outside of the Historic District occurs in harmony with or enhances these resources.

A great challenge facing Carroll County in the coming years will be the further documenting of its heritage resources. This will aid in making well-informed decisions on what needs to be protected and will assist in the development of appropriate mechanisms to adequately preserve them. However, it will require that both the public and private sectors work together to achieve the goal. Gaining private sector support for heritage preservation poses another significant challenge. Promoting awareness of the benefits that can be derived from heritage preservation among businesses and private property owners means high levels of outreach and communication. It also means developing preservation mechanisms that will serve all interested parties equally well and will not be viewed as obstacles to economic development or excessive restrictions on private property rights.

The Choice: Policies & Recommendations

Policies

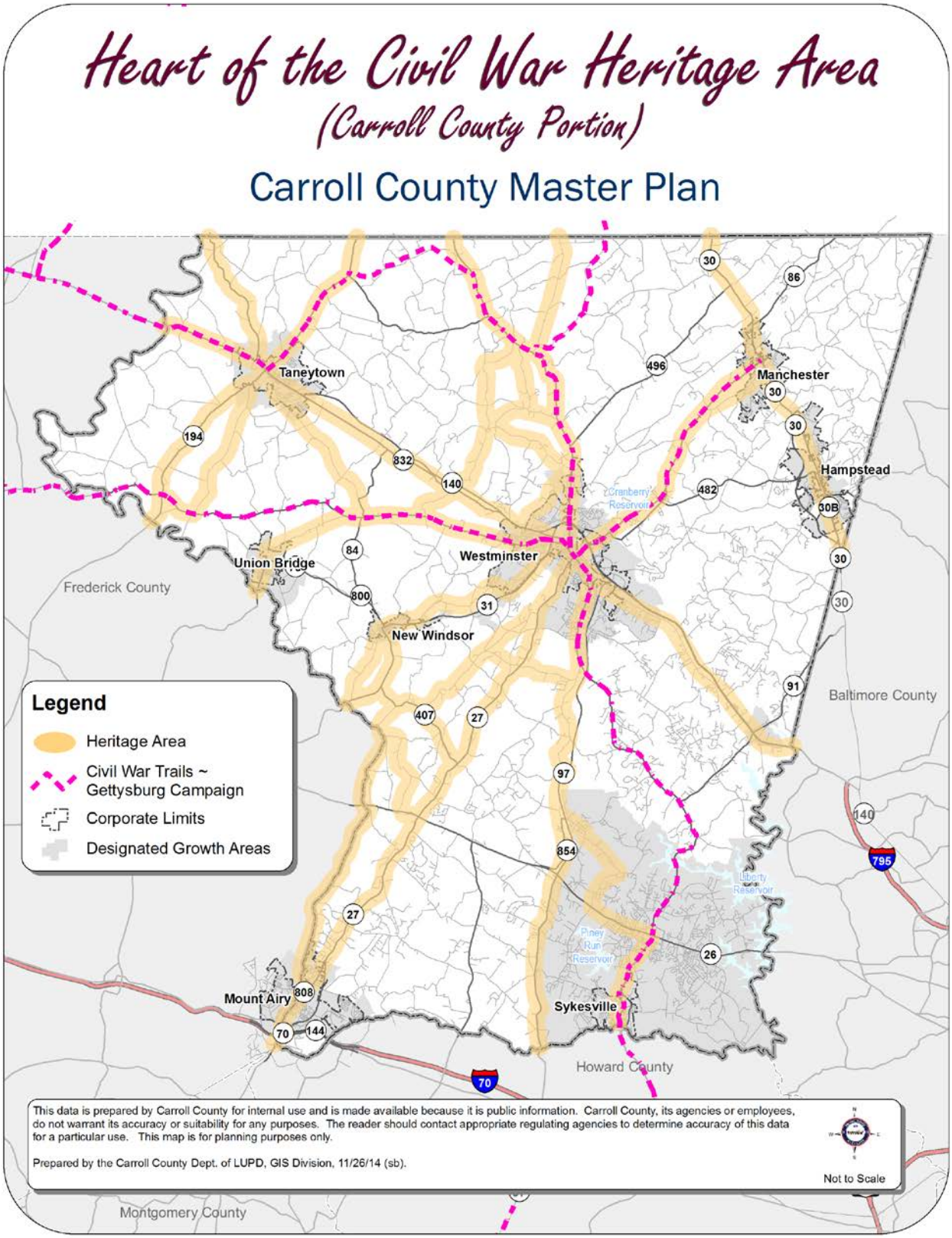
- Support the preservation and documentation of historic places.
- Support the infusion of historic preservation with economic development opportunities.
- Continue to support heritage programs.

Recommendations

A. Investigate opportunities to update and maintain data for Carroll County entries to the Maryland Inventory for Historic Properties (MDIHP).
B. Renew the County's program of nominating eligible properties and districts to the National Register of Historic Places.
C. Work with the Historic Preservation Commission to review development or planning activities that impact historic places or structures, and applications for historic designation.
D. Continue to identify historic properties and places requiring state or federal reviews during the concept plan phase of the development review process to ensure their preservation.

Fiscal Impact to the County

Some of the additional studies, regulations, amendments, and plans required under the goal and recommendations can be prepared by existing personnel. Some may require additional staff resources or contractual services for specialized skills/knowledge.


Heart of the Civil War Heritage Area
(Carroll County Portion)
Carroll County Master Plan
Taneytown
Manchester
Hampstead
Westminster
Union Bridge
New Windsor
Mount Airy
Sykesville
Frederick County
Baltimore County
Howard County
Montgomery County
Cranberry Reservoir
Liberty Reservoir
Piney Run Reservoir
Legend
Heritage Area
Civil War Trails ~ Gettysburg Campaign
Corporate Limits
Designated Growth Areas
This data is prepared by Carroll County for internal use and is made available because it is public information. Carroll County, its agencies or employees, do not warrant its accuracy or suitability for any purposes. The reader should contact appropriate regulating agencies to determine accuracy of this data for a particular use. This map is for planning purposes only.
Prepared by the Carroll County Dept. of LUPD, GIS Division, 11/26/14 (sb).
Not to Scale

Chapter 13 : Environmental Resources

Goal

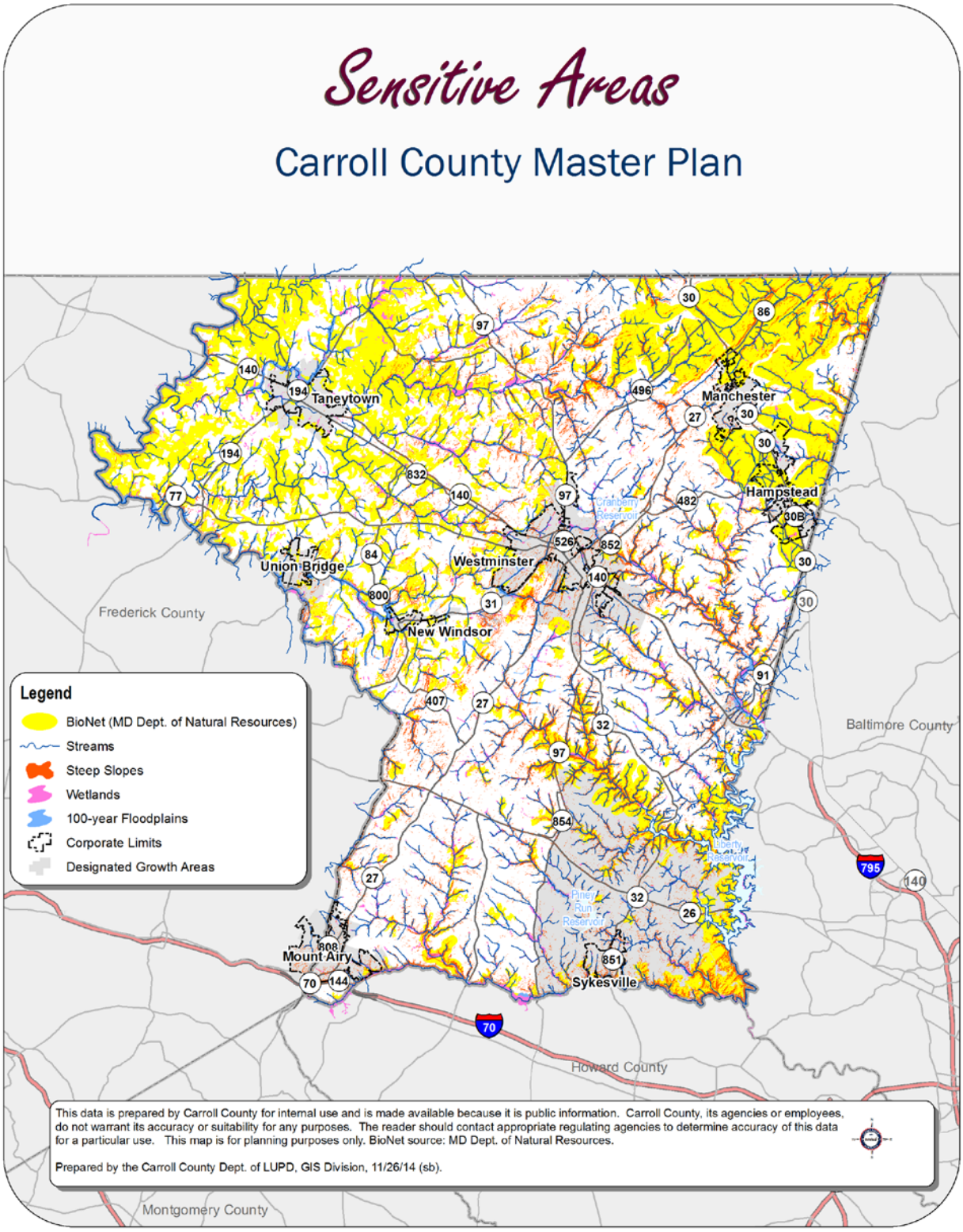
Protect, maintain, and restore, where feasible, the environmental resources and natural ecosystems in the county by promoting land use practices that are in balance with, and minimize the effects on the natural environment, subject to appropriate cost/benefit analysis.

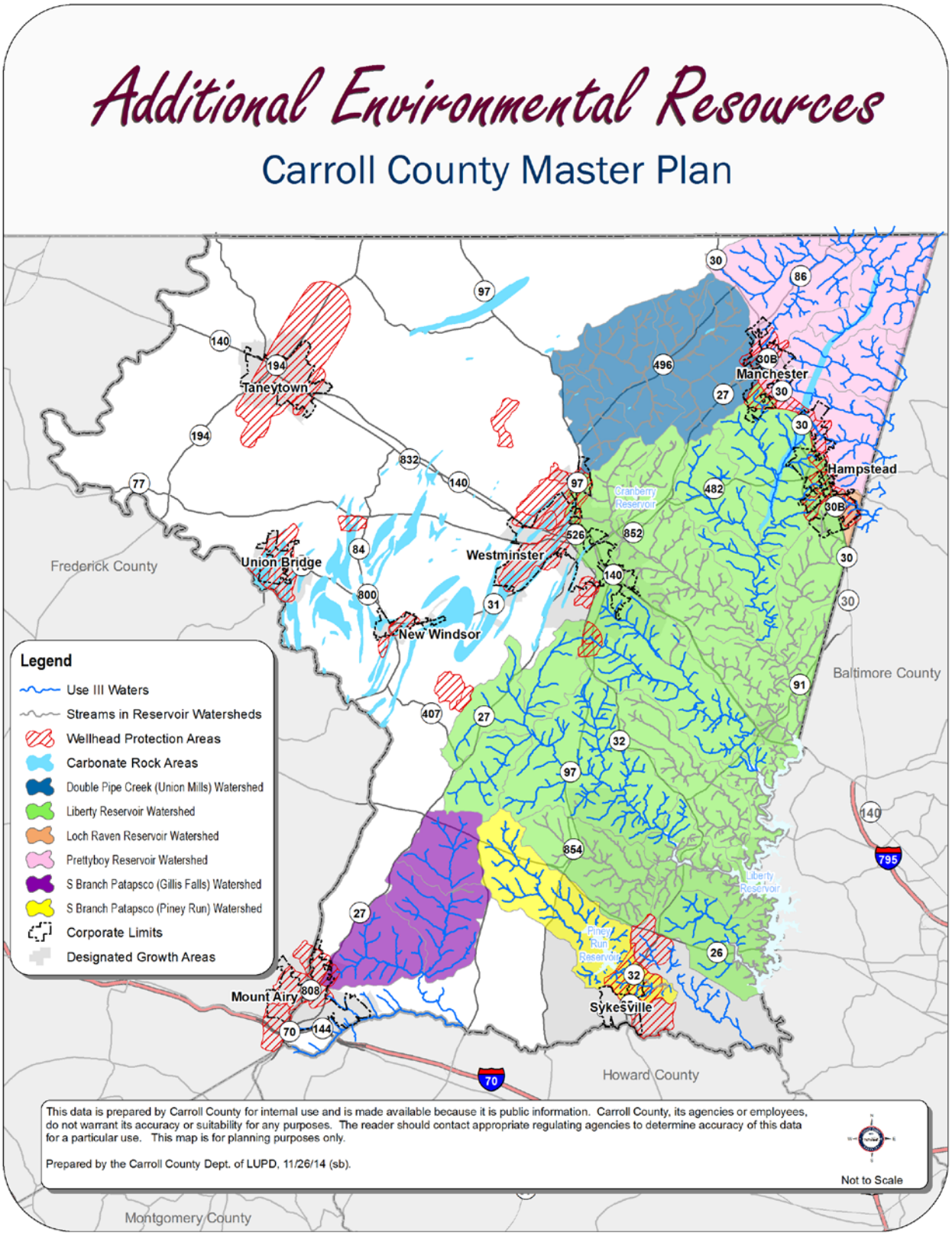
The Significance to Carroll County

Development on properties with environmental resources can vary greatly depending on the location, magnitude, type, and site design in regard to preserving these resources. Nearly every modification to the natural landscape, whether it is farming, construction of buildings, roads, sheds, patios or decks, impacts the quality of environmental resources. The County's commitment to manage these impacts is evidenced through its partnerships, programs, policies, regulations and watershed/Bay related analyses intended to conserve natural and environmental resources, and improve local water quality of groundwater sources and local feeder streams that eventually flow into the Chesapeake Bay.

Environmental Resources

The Planning Act of 1992 does not specify the extent or degree of conservation to be accorded to each environmental resource. Therefore, the definitions developed for each environmental resource also identify this level of conservation. To adequately provide consistent conservation, the best course of action suggests adoption of uniform definitions among the County and the municipalities. The Glossary in Appendix C includes the definition the "sensitive areas", as defined under the Planning Act. For a map of the County's sensitive areas see page 93. The additional "environmental resources" are mapped on page 94. The County and the municipalities have chosen to address by virtue of their importance to drinking water, water quality, and species and habitat conservation to acknowledge these areas.


Sensitive Areas
Carroll County Master Plan
Taneytown
Manchester
Hampstead
Union Bridge
Westminster
New Windsor
Mount Airy
Sykesville
Frederick County
Baltimore County
Howard County
Montgomery County
Legend
BioNet (MD Dept. of Natural Resources)
Streams
Steep Slopes
Wetlands
100-year Floodplains
Corporate Limits
Designated Growth Areas
This data is prepared by Carroll County for internal use and is made available because it is public information. Carroll County, its agencies or employees, do not warrant its accuracy or suitability for any purposes. The reader should contact appropriate regulating agencies to determine accuracy of this data for a particular use. This map is for planning purposes only. BioNet source: MD Dept. of Natural Resources.
Prepared by the Carroll County Dept. of LUPD, GIS Division, 11/26/14 (sb).


Additional Environmental Resources
Carroll County Master Plan
Taneytown
Manchester
Hampstead
Westminster
Union Bridge
New Windsor
Mount Airy
Sykesville
Frederick County
Baltimore County
Howard County
Montgomery County
Cranberry Reservoir
Liberty Reservoir
Piney Run Reservoir
Legend
Use III Waters
Streams in Reservoir Watersheds
Wellhead Protection Areas
Carbonate Rock Areas
Double Pipe Creek (Union Mills) Watershed
Liberty Reservoir Watershed
Loch Raven Reservoir Watershed
Prettyboy Reservoir Watershed
S Branch Patapsco (Gillis Falls) Watershed
S Branch Patapsco (Piney Run) Watershed
Corporate Limits
Designated Growth Areas
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Prepared by the Carroll County Dept. of LUPD, 11/26/14 (sb).
Not to Scale

Sensitive Areas

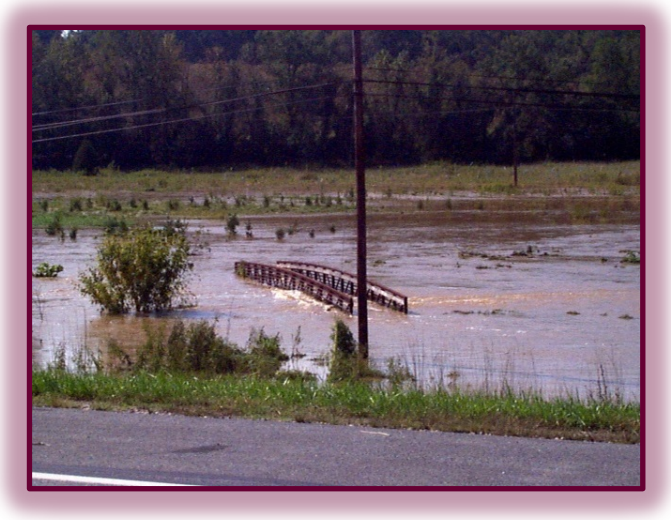
Below is a discussion of the "sensitive areas" identified in the Planning Act of 1992.

100-Year Floodplains

The land adjacent to a water body or stream inundated by the base flood with an estimated one percent chance of occurrence in any given year is referred to as the 100-year floodplain. Floodplain conservation protects people from flood hazards and prevents destruction of property by moderating and storing floodwaters and reducing erosion and sedimentation. An undisturbed floodplain contributes to water quality, which has a positive effect on drinking water supplies. Disturbance within a floodplain, such as development, adding fill or removing vegetation, changes runoff and drainage patterns, which may adversely impact water quality. Additionally, this change in the natural landscape diminishes floodplain function, possibly resulting in local and downstream areas flooding - areas that have never experienced flood problems previously.

In 2010, the Federal Emergency Management Agency (FEMA) began its map modernization process by utilizing advanced stream studies, electronic data, and GIS to refine the accuracy of the County's Flood Insurance Rate Maps (FIRMS). The revised FIRMs are expected to minimally change base flood levels (BFEs) and the location of certain properties in or out of the 100-year floodplain. FIRM updates are made available by the Bureau of Resource Management and are located on the County website at http://ccgovernment.carr.org/ccg/MapServer4/GIS/webpage/FIRM-Coverpage.html.

Carroll County has 17,162[8] acres of 100-year floodplain. Chapter 150, Floodplain Management, of the County Code primarily protects the 100-year floodplain from grading and/or development impacts. Accompanying Chapter 150 is the Floodplain Management Manual: http://ccgovernment.carr.org/ccg/compplan/resourcemgt/floodplainmanual.pdf.



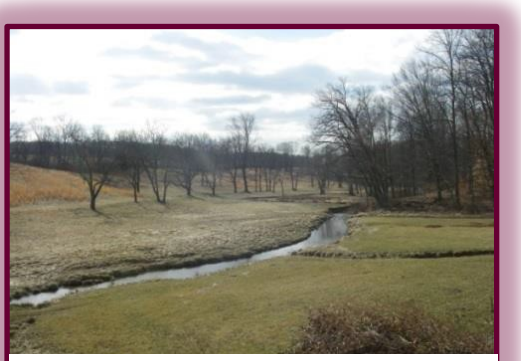
Little Pipe Creek Park Bridge

Winter Church Road

[8] Effective FIRM, August 1981.

Agricultural Land

Through the Agricultural Land Preservation Program, riparian buffers are required adjacent to both sides of the stream. The riparian buffers are preserved in perpetuity. Carroll County consistently ranks among the leaders in the state for the implementation of agricultural best management practices (BMPs). Agricultural BMPs conserve agricultural production, along with reducing or eliminating impacts to wetlands, streams, floodplains and erodible soils. For a more detailed account of the County's agricultural lands, programs, and policies, refer to Chapter 9, Agriculture, and Chapter 10, Priority Preservation Area.



Streamside riparian buffers

Forest Land

BRM'S Stream Buffer Tree Plantings

Forest habitats support different species of plants and animals; have different abilities to protect streams, soils and water; have different values for timber management and wood products industries and have different effects on air quality and carbon sequestration. The size and location of forests also matter. Many forest dependent species, such as the scarlet tanager and the barred owl will only be found in very large tracts of undisturbed, mature, hardwood forests. Forests located on floodplains are particularly important for protecting streams, rivers and riverside communities against potentially devastating effects of floods.

Healthy, managed forests provide valued habitat and allow for natural processes that maintain water quality and flow downstream. Trees intake water through their roots, intercept rainfall before it reaches the ground and facilitate evapotranspiration. Forest floors also stabilize soils and act as

temporary reservoirs, releasing water slowly into ground water aquifers. During periods of low rainfall, the forest floor acts as a natural sponge storing water and filtering sediment, nutrients and pollutants through large soil pore spaces. During periods of excessive rainfall, the forests also act as a natural sponge, trapping water, sediment, nutrients and pollutants through large soil pore spaces. Forests also provide wildlife and plant habitat, and act as a wind barrier reducing wind erosion.

Carroll County contains 81,769 acres of forest land, accounting for approximately 25 percent of the County's land cover. Forest cover is fairly evenly distributed throughout the County, with larger forest stands in the north central and eastern parts of the County. It is important to note that an inverse relationship exists between forest land and agricultural lands in Carroll County. The County is a leader in agricultural preservation, with 65,761 agricultural acres preserved as of June 30, 2014.

The County manages potential development and/or grading impacts to forest lands primarily through Chapter 150 of its County Code, Forest Conservation, which implements the State's Forest Conservation Act of 1991. Accompanying Chapter 150 is Carroll County's Forest Conservation Manual:

http://ccgovernment.carr.org/ccg/resmgmt/forconsmanual.pdf.

Chapter 31 of the County Code, Environmental Advisory Council, designates a nine person advisory council to assist the Board of Commissioners on tree maintenance policies and specific administrative plans involving tree placement, maintenance and removal.
The County's Bureau of Resource Management (BRM) is developing Watershed Characterization and Restoration Plans for each of 8-digit watersheds in the County. Assessment of our local streams will be performed on nine watersheds through a stream corridor assessment (SCA). Potential stream buffer planting sites are determined through the SCA. The BRM has established a "Community Buffer Program," which assists property owners in having the stream buffers planted on these properties. To date, approximately 70.69 acres (3.57 stream miles) have been planted in the Prettyboy, Liberty, South Branch of the Patapsco, Lower Monocacy, Double Pipe Creek, and Upper Monocacy watersheds. Funding for these plantings have been provided by Maryland Department of Natural Resource through the Governor O'Malley Stream Restoration Challenge and by Carroll County Government through the Community Investment Program (CIP).

Rare, Threatened and Endangered Species

In Maryland, over 200 plant and animal species have gone extinct over the past 350 years. Habitat destruction and degradation threatens to extinct another 413 native Maryland species. The key to protecting rare, threatened, and endangered species (RTEs) is to protect their habitat. Habitat protection is also an indicator of healthy ecosystems. RTE habitats are predominantly found in the Prettyboy Reservoir Watershed, near Hampstead and Manchester. Smaller habitat areas are located near the Route 97/Route 854 intersection and within the southeastern portion of Westminster.

DNR and the U.S. Fish and Wildlife Service (USFWS) regulate state and federal RTEs respectively. The County will not issue a permit unless the Maryland Department of Natural Resources' (DNR) RTE determination letter, and if applicable, USFWS review and applicable protection plan(s) and/or federal permits are submitted to the County. Habitats for the RTE plant and animal species, or those in need of conservation as listed by DNR may be found at:: http://dnr.maryland.gov/wildlife/Plants-Wildlife/rte/pdfs/rtecarroll.pdf.

Steep Slopes and Highly Erodible Soils

Carroll County's steep slopes and highly erodible soils are conserved by potential development and/or grading impacts to steep slopes and highly erodible soils primarily through Chapter 152, Grading, Erosion and Sediment Control. Steep slopes also are protected when determining the width of the water resource easement regulated in Chapter 154 of the County Code, Water Resource Management. Protective measures such silt fencing during construction is designed to minimize disturbance of steep slopes and highly erodible soils to restore and maintain water quality. For a more detailed discussion regarding soils in Carroll County, refer to Chapter 10, Priority Preservation Area.

Streams

Carroll County is located in the Piedmont region of north-central Maryland and lies at the headwaters to four major 6-digit drainage basins – Middle Potomac, Patapsco, Gunpowder, and Conewago Creek. Parr's Ridge generally runs along MD Route 27 from Mt. Airy to Manchester and diagonally divides the County, splitting two of the major 6-digit basins in half – Middle Potomac and Patapsco, and containing 1,362 of the 1,477 total miles of streams in Carroll County. Streams to the north and west drain into the Monocacy River and eventually the Potomac River. Streams to the south and east flow into the Patapsco and Gunpowder Rivers. Their uses range from recreational, such as fishing and canoeing, to agricultural, such as irrigation and watering of cattle. All of these

streams ultimately feed into the Chesapeake Bay and contribute to its water quality and ecological health.

Healthy streams contain a diversity of characteristics, including slow-moving runs, deep pools, gravel riffles, bends, and vegetative cover, sufficient dissolved oxygen and suitable temperatures. These features have a direct effect on the stream's ability to manage rainfall events, including the level and consistency of flow; and to serve as healthy habitat. Changes in ground cover and land use intensity impact water quality and habitat function of streams. Land use changes often times result in decreased vegetation, soil disturbance and increased impervious surface. Soil disturbance causes soil to erode and wash into streams if not managed properly during construction. Post construction, stormwater runoff management is required to decrease surface flow and water temperatures; and allow natural resources to filter nutrients and pollutants. If improperly managed, stormwater could erode stream banks, widen stream channels, increase sedimentation and water pollution, and result in inconsistent stream flow, dissolved oxygen levels, and turbidity. These conditions diminish the stream's viability as a habitat for plant, species and aquatic life, and more so under extreme wet or dry conditions.

The County manages potential development and/or grading impacts to streams primarily through Chapter 154 of the County Code, Water Resource Management, which requires a minimum fifty- foot stream buffer extending wider to include soils and steep slopes; and the protective zones of the: (1) Surface Watershed Area to protect stream intakes, and (2) Surface Water Management Zone to protect reservoirs and tributary streams. Streams and their buffers are protected by easements that are conveyed to the County and recorded in the Land Records of Carroll County.

Stream Buffers

Stream buffers are naturally vegetated areas on either side of a stream which often include floodplains, wetlands; and may be forest lands, grasslands, or a combination of both. Stream buffers function to protect water quality, quantity, and plant and animal habitat through stabilization of stream banks, water quality, and habitat viability; filtration of stormwater, sediment, nutrients and pollutants by slowing runoff through accentuation; filtration of nutrients by plant uptake and/or other biological activities occurring in soils; reduced stormwater velocity; and shade from tree canopy maintaining and/or cooling waters.

Forested buffers contain deep root systems that stabilize soil, and reduce erosion from high surface water flows. The forest floor filters water percolating into groundwater reservoirs, absorbs air pollutants, intercepts rainfall before it reaches the ground and facilitates evapotranspiration. This process allows intercepted water to evaporate and be utilized by the trees during photosynthesis. Forests also provide wildlife and plant habitat, and act as a wind barrier reducing wind erosion. Grassland buffers provide many of the same functions as forest buffers but on a varying degree

Carroll County has approximately 1,380 miles of streams within its borders. The County manages potential development and/or grading impacts to streams and their buffers primarily through the mechanisms as discussed in the *Streams* subsection above.

Wetlands

Wetlands serve an important function in maintaining quality and quantity of water supplies. In wetlands, inorganic nutrients are converted to organic materials and stored in the hydrophytic

vegetation. Hydrophytic plants grow in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. Stems, leaves, and roots slow the flow of runoff entering the wetland area thereby allowing sediment to settle out and be deposited in the wetlands prior to the runoff reaching stream waters. Wetlands also have a positive impact on the quantity of water, functioning as natural stormwater management facilities. They absorb and retain water, slowly discharging it into the streams. Therefore, stream flows are maintained in normal conditions, as well as extreme wet and dry conditions. Wetland areas provide essential habitats to a wide variety of flora and fauna, including migrating waterfowl. Development's impacts on wetlands are alike to those described in discussions of impacts to streams and stream buffers in previous subsections.

County Code Conservation Measures for Sensitive Areas

Several Chapters of the County Code protect sensitive areas. Table, CH13-Table 1: County Code Conservation Measures for Sensitive Areas contains a brief description of each. All of these regulations provide some degree of protection to 100-year floodplains; Rare, Threatened, and Endangered Species (RTE) habitat; steep slopes; streams and their buffers; and wetlands and their buffers.

Chapter of County Code
Chapter 150, Forest Conservation designates priority retention area for inclusion in Forest Retention Areas (FRAs). FRAs are protected by easements conveyed to the County and recorded in the Land Records of Carroll County[9].
Chapter 151, Stormwater Management requires Environmental Site Design (ESD) to Maximum Extent Practicable (MEP) to maintain predevelopment runoff characteristics and to reduce stream channel erosion, pollution, siltation, sedimentation and local flooding; and use structural BMPs when necessary.
Chapter 152, Grading and Sediment Control establishes minimum standards for the control of soil loss through erosion to minimize sediment transport through runoff.
Chapter 153, Floodplain Management, requires protection of floodplains by setting minimum technical standards for performing floodplain studies and producing consistent, accurate, current, and verifiable floodplain mapping.
Chapter 154, Water Resource Management, ensures development proceeds in a manner that will minimize adverse impacts on water supply resources.
Chapter 155, Subdivision and Development of Land requires delineation on the Environmental Site Design portion of the subdivision plan[10].
Chapter 155, Subdivision and Development of Land allows up to 50% of open space in clustered subdivisions (15% of the entire parcel must be preserved as open space) [11].

Additional Environmental Resources

The following section discusses the additional "sensitive areas" that the County and the eight municipalities believe should be conserved. These additional sensitive areas are categorized as either groundwater resources or surface water resources. Groundwater resources include aquifers, carbonate rock areas (a type of aquifer), wells, and wellheads. Surface water resources include reservoir watersheds, Tier II waters, Use III waters, and Use III-P waters.

[9] §150
[10] §155
[11] §155

Groundwater

Groundwater is the water located beneath the ground's surface stored in soil pores and in the fractures of rock formation. It is naturally replenished by precipitation which makes its way to lakes, streams and rivers and infiltrates into the ground. Groundwater is often contained in aquifers. Aquifers are underground layers of water-bearing permeable rock from which groundwater may be extracted. Carroll County relies heavily on groundwater from aquifers; specifically carbonate rock areas, for its drinking water sources. The exceptions are the City of Westminster and Freedom/Sykesville water service areas (WSAs), both WSAs relying on groundwater and surface water. Many of the municipalities store ground water in wells through which water either flows or is pumped to the surface. This area of water transfer is a wellhead. Some municipalities also rely on springs for the conveyance of groundwater to the surface, where water typically pools or provides intermittent or perennial flow.

Carbonate Rock Areas

Some of the County's groundwater sources originate from carbonate rock areas where groundwater is stored, also referred to as a carbonate rock aquifer. These carbonate rock aquifers include the Wakefield Marble and Silver Run Limestone geologic units, as well as calcareous zones found in schist, phyllite, and metavolcanic rock areas, according to the Phase II Report, *Carroll County Water Resources Study* (Volume 1, R.E. Wright Associates, Inc, May 1988). Carbonate rock lies under limited portions of New Windsor, Union Bridge, and Westminster and is the partial water source for New Windsor and Westminster, and the sole source for Union Bridge. The carbonate rocks form the most productive and environmentally-sensitive aquifers in Carroll County. The carbonate minerals in this aquifer are readily soluble in groundwater, and joints and fractures may be greatly enlarged to form cavities. Carbonate rocks in Carroll County are frequently bounded by, and interbedded with, schist, phyllite, or metavolcanic rocks. Aquifer transmissivity and storativity in the carbonate rock aquifers is fairly high in this area.

The variable transmissivity, presence of plugged and open solution channels, frequent boundary conditions, and complex geologic structure make the carbonate rock aquifer highly susceptible to contamination and allows the rapid spread of contaminants. Due to the solution-prone nature of the aquifer materials, sinkholes are a common feature of this terrain and provide a direct conduit into the groundwater system through which contaminants may travel. Sinkholes have and will occur naturally, although studies have shown that the majority of sinkholes formed today are triggered by human activities. Many factors may influence the rate of sinkhole development, which includes water table fluctuations, concentrated infiltration, and vibration. Sinkhole development begins deep in the subsurface in solution channels and fractures in the carbonate rocks. As these channels are enlarged by dissolution and the remaining insoluble materials are compacted or flushed out, voids are created. This may begin a "stoping" effect in the overlying soils as

ON-THE-GROUND ACTIONS IN CARROLL COUNTY CAN IMPACT OTHER JURSIDICTIONS' DRINKING WATER.

- The Monocacy flows into the Potomac, which provides water to Washington D.C.
- A small portion of Carroll County drains to Hanover, Pennsylvania's water supply.
- All of Carroll County drains into the Bay.
- Portions of eastern Carroll County also drain to the Loch Raven, Prettyboy, and Liberty Reservoir.

soil particles continuously move downward. Temporary soil bridges are formed in the solutioned areas between unweathered rock pinnacles, which then collapse as the void area moves upward. Depending upon the rate of downward soil movement, this may be evident on the surface as a slow subsidence or sudden collapse. Determining the optimal well production is a measure that can prevent sinkholes.

Aquifer Protection and Wellhead Protection Areas

A wellhead is where water is transferred from the well to the surface. Every municipality and the Freedom/Sykesville water service area relies on wells/wellheads for drinking water. Protecting wellheads protects groundwater used for drinking water supplies and can reduce or eliminate costly water treatment. To view Carroll County's Well Observation Network click on link: http://webgis.ccg.carr.org/Website/Wells/viewer.htm.

Groundwater protection is discussed in the *Surface Water* subsection since conservation measures protecting groundwater and surface water are interdependent. Groundwater can influence flow and quality of surface waters.

Surface Water

Surface water comes from precipitation and groundwater. It includes streams, rivers, lakes, reservoirs wetlands and oceans. Streams, rivers, reservoirs and other waterbodies provide the County with recreational uses and, in part, drinking water sources.

Reservoir Watersheds

A reservoir may be used as a drinking water source. A reservoir watershed is the land area that drains into a reservoir including, feeder streams. Carroll County lies within several reservoir watersheds. A small section of the northeastern section of the County drains into Prettyboy Reservoir and Loch Raven Reservoir, both located in Baltimore County. One-hundred thirty-six square miles of Carroll County's southeast portion drains into Liberty Reservoir, located in both Carroll and Baltimore counties. Together, these three reservoirs are major drinking sources for Baltimore City, Baltimore County, Harford County, Howard County, and parts of Carroll and Anne Arundel counties. Additionally, several smaller reservoir watersheds lie within County borders including: Piney Run Reservoir, located in Sykesville ; Cranberry Reservoir, located northwest of Westminster; the proposed Union Mills Reservoir, located on Big Pipe Creek; and the proposed Gillis Falls Reservoir, near the confluence Gillis Falls and Middle Run east of Mt. Airy.

The County relies on one operational reservoir, Liberty Reservoir, to meet current and future demands. Liberty reservoir is located in the Patapsco River Basin and was created by impounding the river. Cranberry Reservoir is fed by pumping the water from the West Branch Patapsco River into the reservoir. Two additional reservoir sites have been identified to accommodate future water and ground water supply needs - Union Mills Reservoir and Gillis Falls Reservoir.

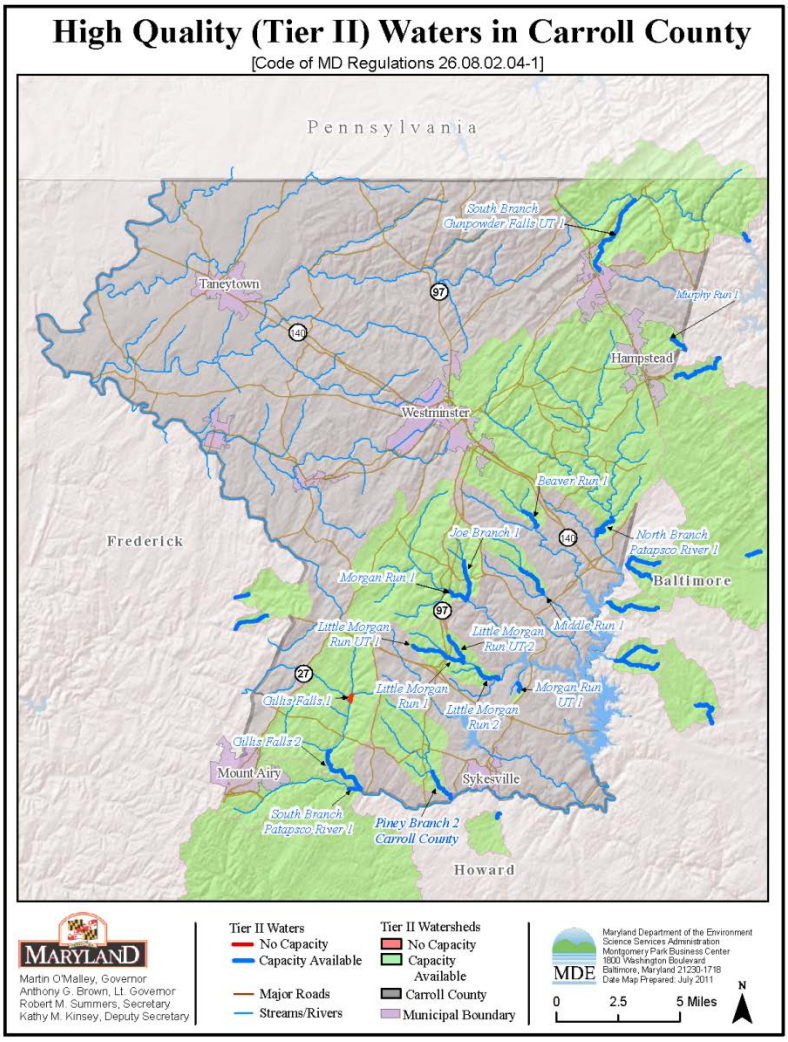
Use III Waters and Use III-P Waters

Carroll County has several waterways which have been identified as Use III waters; meaning water quality standards must support the habitat for the natural propagation of trout. These streams and their tributaries include: Gunpowder Falls, Morgan Run, Beaver Run, Snowden's Run, East Branch Patapsco River, Piney Run, Gillis Falls, Aspen Run, and South Branch Patapsco River (above the confluence with Gillis Falls) as well as some unnamed tributaries.

The first nine of these streams are further classified as III-P, which means that they flow into a public water supply (a.k.a., reservoir). Regulations are more stringent for Use III-P water standards compared to Use III water standards. The remaining streams in the County are Use IV or Use I waters, which are recreational trout waters. Fishing is an important recreational use of Use III and Use III-P streams. The presence and health of fish can be an important indicator of water quality.

Tier II Waters

Tier II waters" are regulated by Maryland's antidegradation policy, which prohibits new or increased pollutants, including nutrient loads to impact water quality. All of Maryland's current Tier II waters were designated on the basis of biological indices of integrity. Tier II waters may be found on MDE's map, High Quality (Tier II Waters) in Carroll County on the following page. For a more detailed discussion of Tier II waters see p. 54 of the Water Resources Element. http://ccgovernment.carr.org/ccg/compplan/functional.asp.



Source: Maryland Department of the Environment

Chesapeake Bay Total Maximum Daily Load

Chesapeake Bay and Its Tributaries

In 1998, the Chesapeake Bay and many of its tidal tributaries were added to the list of impaired waters (known as the 303(d) list), thus requiring the development of a TMDL to comply with the Clean Water Act. In 2000, Maryland, Virginia, Pennsylvania, Delaware, West Virginia, New York and the District of Columbia signed the Chesapeake Bay Agreement; in 2014, the Agreement was updated and re-signed. As signatories of the agreement, the states and DC committed to nonpoint source and point source goals for meeting water quality standards for the Bay. After a decade of efforts, Bay waters were still not meeting water quality standards. In response, the EPA developed Bay TMDLs to address nitrogen, phosphorus and sediment loads that exceed water quality standards. EPA assigned loading caps for nitrogen, phosphorous and sediment to each of the signatory states and DC. Each state and DC is responsible for meeting their assigned load allocation.

As part of a three-phased planning process, EPA required the Bay states to develop statewide Watershed Implementation Plans, or WIPs, that create the road map and accountability framework that steer us toward clean local streams and a healthy Chesapeake Bay. Maryland's Phase I WIP allocates the allowable load among different sources and identifies statewide strategies for reducing nutrients and sediments that impair the Chesapeake Bay.

The Phase II WIP refined the Phase I plan to include more local details about where and how nutrient and sediment loads will be reduced to clean up the Bay. As part of the reasonable assurance required by EPA for meeting the Chesapeake Bay TMDLs, Maryland's Phase II Plan identified a comprehensive set of pollution control strategies that collectively are intended to achieve the nutrient and sediment reductions needed to meet the State's 2017 and 2025 goals for restoring the Bay and improving local waters. The Phase II WIP includes the State's commitments to strategies for achieving needed pollution reductions.

What is a Total Maximum Daily Load, or TMDL?

The total amount of a pollutant or impairing substance that a stream, lake, reservoir or any other waterbody is able to assimilate and continue to meet water quality standards.

After refining data that is input to the Chesapeake Bay model (Phase 5.3.2), the model will be re-run in 2017. The combination of the refinement of data and capture of additional of BMPs implemented is expected to result in modifications to the State's progress and load allocations. The Phase III WIP will be developed following the 2017 Midpoint Assessment.

Clean Chesapeake Coalition

Carroll County is a member of the Clean Chesapeake Coalition, which has been created to "pursue improvement to the water quality of the Chesapeake Bay in a prudent and fiscally responsible manner." The members of the coalition are Allegany, Caroline, Carroll, Cecil, Dorchester, Frederick and Kent counties. The Coalition advances Chesapeake Bay WIP revisions that base clean-up efforts equitably and fairly across Bay jurisdictions rather than the by cost effectiveness and "least funding

burdens." For more information on the Clean Chesapeake Coalition, click on the link: http://www.cleanchesapeakecoalition.com/.

Groundwater and Surface Water Conservation Measures

Carroll County implements additional measures to protect and preserve ground and surface water resources beyond those that are mandated. Groundwater and surface water conservation is accomplished primarily through Chapter 154 of the County Code, Water Resource Management. Chapter 154 includes the following conservation measures: Aquifer Protection Areas, Carbonate Rock Area, Golf Course Assessments, Regulated Substance Management Plan, sinkhole conservation and mitigation measures, stream buffers, Surface Watershed Areas, Surface Water Management Zones, wellhead buffers, and Wellhead Protection Areas.

Accompanying Chapter 154 of the County Code, Water Resource Management, is the Water Resource Management Manual, which may be accessed by clicking the following link: http://ccgovernment.carr.org/ccg/resmgmt/wrmmanual.pdf.

The Stormwater Management Chapter of the County Code adheres to environmentally sensitive design (ESD) to the maximum extent practicable (MEP), meaning using natural stormwater BMPs to manage and treat stormwater runoff. Examples of natural BMPs are swales and bio retention areas that maintain natural drainage patterns. This will help restore, enhance, and maintain the chemical, physical, and biological integrity of streams, minimize damage to public and private property, and reduce impacts of land development. The degree of stormwater management necessary to satisfy the stormwater requirements is considered reasonable to regulate the effects of stormwater runoff on the receiving land and water through treatment of water quantity - overbank flood control; water quality - waterborne pollutants; bank erosion - stream channel protection; and local groundwater recharge.

In addition to the Water Resource Management Chapter of the Code, the County participates in several regional watershed based partnerships. These partnerships include: the Reservoir Technical Group, the Water Resource Coordination Council, and the Monocacy Scenic River Citizens Advisory Board. These partnerships are described *in Chapter 2, Interjurisdictional Coordination, Planning Process and Community Involvement* of the Master Plan.

The Challenge to Carroll County

Chesapeake Bay Watershed Nutrient and Sediment TMDLs

The County encounters multiple ongoing obstacles to understanding, and subsequently implementing, certain activities related to the Chesapeake Bay TMDLs and the State's WIP implementation initiatives. Carroll County is one of 10 jurisdictions in Maryland that are bound by their National Pollutant Discharge Elimination System (NPDES) Phase I Municipal Storm Sewer Systems (MS4) permit to ensure that the Bay TMDLs and the State's WIP are implemented. This permit is issued pursuant to the Clean Water Act and is a regulatory requirement.

The greatest challenge continues to be the cost of implementation at the County level. Because of the magnitude of costs involved, County staff has continually sought more information and understanding in an effort to refine the numbers and allocations and associated costs, ultimately to

ensure that the costs and commitments made are for those responsibilities that the County should take on. The toughest challenges for Carroll County individually have been identifying accurate baseline loads for Carroll County, realistic loading rates, and the source for the stormwater sector of the loads indicated by the State. Several counties are pursuing a more regional approach to addressing nutrient and sediment reductions to the Bay, such as addressing the sediment behind the Conowingo dam, to try to direct funds where they will have the greatest impact per dollar.

In addition to challenges related to costs and County resources, the Chesapeake Bay TMDLs and Maryland's WIP present challenges to future land use decision making. Reductions needed to achieve the Bay TMDLs are based on the nutrient and sediment loads from existing development and land uses. New development and certain land use activities will increase loads, possibly defeating reduction efforts unless actions are taken to address these new or increased loads. Land use decisions need to consider these impacts and how to balance them; otherwise, decisions could result in further reductions and associated costs for Carroll County. Maryland's WIP includes a strategy to account for growth. This impending "Accounting for Growth" (or "AfG") policy and regulation could have further impact on and restrict land use and planned growth decisions and activities. The proposed AfG regulation would require new development or changes in land use to offset their pollutant loads by securing additional reductions on-site or off-site, either through implementing or constructing additional BMPs or through a purchase or trading program. If adopted, this regulation would limit future growth without offsets on public wastewater treatment systems to that which can be accommodated under the nutrient caps. New loads resulting from any additional growth on public wastewater beyond the caps, or growth on served by private septic systems, would need to be offset. In identifying possible land use changes to accommodate projected population increases or economic development as part of the planning process, additional growth within DGAs may be limited.

The Sustainable Growth and Agriculture Preservation Act of 2012 (or SB 236) limits new growth outside of Priority Funding Areas (PFAs). Until such time as the Board of County Commissioners might decide to adopt growth tiers based on the criteria in SB 236, new subdivisions on parcels outside of the planned sewer service areas are limited to seven lots. This presents an additional challenge to local land use decision making in terms of where higher intensity development might be planned.

The Choice: Policies & Recommendations

Policies

- Ensure that public and private land development, redevelopment, and use comply with federal, state, and local environmental regulations.
- Encourage responsible environmental stewardship through the County's goals, policies, programs and regulations.
- Base conservation goals, policies, programs and regulations on verifiable science and on sound economics.

Recommendations

A. Conserve sensitive area lands through assessments, best management practices, policies and programs.

B. Minimize development's impact on sensitive areas.
C. Continue participation in regional, state and watershed based partnerships.
D. Continue to advance regional initiatives to address Chesapeake Bay cleanup efforts, such as addressing sediment build up at the Conowingo Dam, exceeding the sediment storage capacity of which could destroy efforts already achieved to reduced sedimentation loads in the Bay.
E. Continue to implement projects and allocate funds for Chesapeake Bay restoration efforts through implementation of stormwater mitigation projects required under the County's National Pollutant Discharge Elimination System (NPDES) Phase I Municipal Separate Storm Sewer System (MS4) permit and addressing local TMDLs.

Fiscal Impact to the County

The most significant financial impact on the County budget is expected to result from the measures needed to comply with the Chesapeake Bay TMDLs for nutrients and sediment. The cost of implementation of strategies, programs, and BMPs to achieve the load allocations assigned to Carroll County by the State is substantial. Although the State has not yet provided the County with enough information for the County to maintain a level of confidence in the expected reductions, and subsequently develop a local WIP that commits the County to certain actions, In the absence of a local WIP, MDE developed strategies for Carroll County as part of the State's Phase II WIP. The local cost to implement the State's strategies for Carroll County would exceed $229 million - $36.5 million to upgrade WWTPs (including the municipalities), $126.6 million to upgrade over $10,000 individual septics systems to best available technology (BAT), and over $65 million for stormwater (including the municipalities). The County has already programmed over $20 million for stormwater mitigation projects associated with the County's Phase I NPDES MS4 permit for fiscal years 2014 through 2019. The administrative costs for implementing the County stormwater program are paid through the County's Watershed Protection and Restoration Fund, which is funded through a dedicated portion of County tax revenues in response to HB 987, adopted by the Maryland General Assembly in 2012.

Chapter 14: Mineral Resources

Goal

Protect certain mineral resources of current and future economic importance from preemptive land uses and to ensure availability for recovery in a manner that minimizes impacts to surrounding areas; and for reclamation purposes, assure recovery to an environmentally sensitive, aesthetically pleasing condition.

The Significance to Carroll County

Approximately 4,020 acres of Wakefield Marble exist in western areas of the county, specifically land that lies between Westminster, New Windsor, and Union Bridge. Due to preemptive land development, less than 1,600 acres of this resource is considered for present and future recovery.

Mineral Resources Definitions[12]

EXTRACTIVE OPERATIONS:

- The breaking of the surface soil in order to facilitate or accomplish the extraction or removal of minerals; or
- Any activity or process constituting all or part of a process for the extraction or removal of minerals from their original location; or
- The extraction of sand, gravel, rock, stone, earth, for highway construction purposes or other public facilities.

MINERAL RESOURCE is any solid material, aggregate, or substance of commercial value, whether consolidated or loose, found in natural deposits on or in the earth, including (but not limited to) clay, diatomaceous earth, gravel, marl, metallic ores, sand, shell soil, and stone.
MINERAL RESOURCE OVERLAY consists of the Mineral Resource Recovery Area (MR), Viable Resource Area (VRA) and a Mineral Resource Notification Area.

MINERAL RESOURCE NOTIFICATION AREAS (MRN) are areas which is within ½ mile of an MR or a VRA and in which notification of property owners and clustering away from the mineral resource are required.
MINERAL RESOURCE RECOVERY AREAS (MR) are areas which is underlain by a mineral resource and under which mineral resource recovery is a principal permitted use.
MINERAL RESOURCE RECOVERY OPERATION is an operation composed of extractive operations and/or processing operations.
VIABLE RESOURCE AREAS (VRA) are areas identified as being underlain by a potentially recoverable mineral resource.

[12] Source: Chapter 158

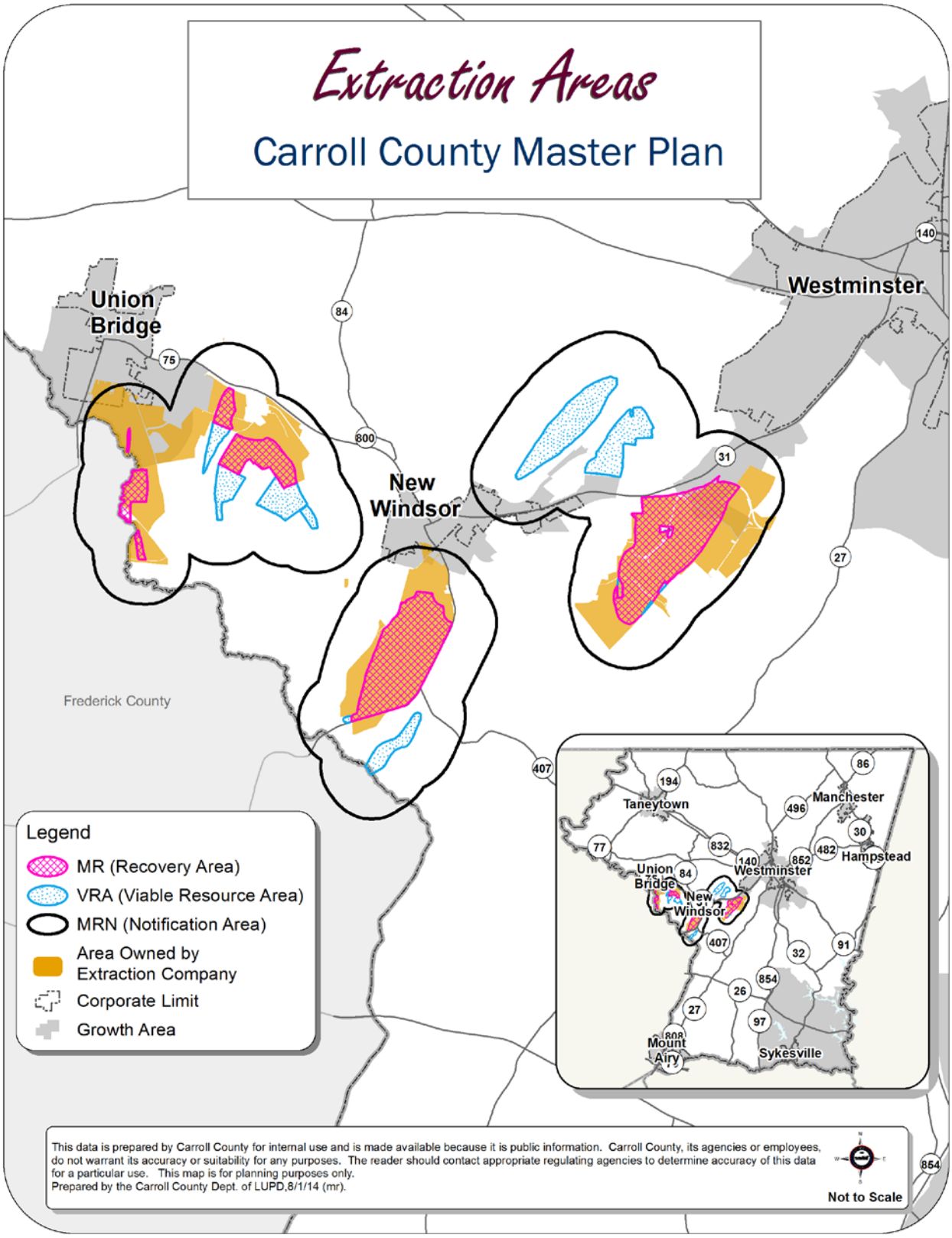
Mineral Resources Plan

On February 27, 1992, the County adopted the Carroll County Comprehensive Mineral Resources Plan, as well as its related implementation mechanisms. This plan element, prepared in accordance with Land Use Article as an element of the master plan, identifies "undeveloped land that should be kept in its undeveloped state until the land can be used to provide or assist in providing a continuous supply of minerals" in the future. In addition, the plan calls for a formal citizen public hearing process for affected residents and identifies appropriate post-excavation uses for the land that are consistent with the County's land planning process.

The MRO is the primary mechanism implementing the Mineral Resource Plan. To protect mineral resources from preemptive land development, the Mineral Resource Recovery Area (MR) zone and the Viable Resource Area (VRA) zone were created. Lands underlain with Wakefield Marble in Agricultural, General Industrial and Industrial Restricted Zones were designated as MR or VRA and to indicate mineral recovery as a preferred use. The County comprehensively rezoned areas of Wakefield Marble in the Little Pipe Creek Watershed. In addition, a Mineral Resource Notification Area (MRN) has been established delineating ½ a mile radius around MRs and VRAs for the purposes of notifying residents of a proposed new mining operation or expansion. See the map, Extraction Areas, on the next page for the mineral resource recovery designated areas.

To address development rights lost resulting from a VRA designation, the County developed a transfer of development rights program for properties designated as a mineral resource in the VRA. The owner of a parcel on which a VRA designation has been placed has the right to create residential lots only at the density permitted in the underlying zoning district. The property owner may transfer the development rights to property in the Agricultural District pursuant to the provisions of this chapter or to property zoned R-40,000, R-20,000, and R-10,000 District which is being subdivided under the cluster subdivision of Chapter 155, Subdivision and Land Development, of the County Code.

To address potential impacts of mining operations on surrounding communities, the County developed site design controls (e.g., setbacks), landscaping requirements, noise and lighting restrictions through hours of operations requirements, a recovery plan. The MRO will be shown on the zoning maps and in all subdivision plans, site plans, recorded plats, and building permits within the MRN shall have a notation that the property is within one-half mile of an area where mineral resource recovery is a permitted use.


Extraction Areas
Carroll County Master Plan
Union Bridge
New Windsor
Westminster
Frederick County
Legend
MR (Recovery Area)
VRA (Viable Resource Area)
MRN (Notification Area)
Area Owned by Extraction Company
Corporate Limit
Growth Area
Taneytown
Manchester
Hampstead
Mount Airy
Sykesville
This data is prepared by Carroll County for internal use and is made available because it is public information. Carroll County, its agencies or employees, do not warrant its accuracy or suitability for any purposes. The reader should contact appropriate regulating agencies to determine accuracy of this data for a particular use. This map is for planning purposes only.
Prepared by the Carroll County Dept. of LUPD,8/1/14 (mr).
Not to Scale

The Challenge to Carroll County

Since the implementation of the Carroll County Comprehensive Mineral Resources Plan, preemptive land development, citizenry opposition and land recovery efforts have been systematic and less problematic. However, expansion of mining operations oftentimes conjures citizen opposition. Balancing the economic benefits of mining operations and their impacts on surrounding communities will continue to challenge the County, even with existing safeguards in place.

The Choice: Policies & Recommendations

Policies

- Encourage mineral resource recovery that is economically and environmentally responsible.

Recommendations

A. Minimize preemptive development on mineral resource lands.
B. Continue public involvement to increase knowledge and understanding of mineral resource recovery operations.

Fiscal Impact to the County

According to Economic Development data, mineral resource extraction accounted for an estimated 200 jobs in the County. Data compiled by the Carroll County Collections Office for 2013 stated, these operations contributed over $300,000 in personal and real property tax (combined). One of these operations falls in the top 15 revenue generators for the entire County.

Chapter 15: Employment/Economic Development

Goal

Promote a healthy economy and additional employment opportunities by: (a) supporting the retention and expansion of existing businesses including agribusiness through sensible land use policies; (b) focusing on development and redevelopment of existing vacant and underutilized commercial and industrial properties; (c) providing land appropriately located and zoned for a variety of types and intensities of new economic development activities; and (d) maintaining a desirable balance between economic development and residential development.

The Significance to Carroll County

A healthy economy and ample employment opportunities are essential to maintaining a high quality of life in the County. Not only does a healthy economy promote the expansion and retention of existing businesses, it also encourages new businesses to consider locating in Carroll County. This, in turn, provides County residents with increased job opportunities and more buying power to support local businesses. Of equal importance is the effect a healthy economy has on the provision and cost of services to both County residents and businesses.

Currently, residential development contributes the greatest dollar amount to the County's property tax revenue. It is followed by commercial/industrial development, which is then followed by agriculture. However, for every property tax dollar contributed by typical residential development, more than one dollar is expended by the County for services, especially schools. Conversely, for every property tax dollar contributed to County revenue by commercial/industrial development, less than one dollar is expended on services the County provides for that development. Likewise, agriculture contributes far more revenue than the County expends on services. The typical existing house does not provide enough in property tax revenues to cover the associated costs of public services. Therefore, property tax revenues generated by commercial and industrial uses helps to offset the costs of providing services to residential uses.

It should be remembered, however, that each type of development has other impacts associated with it that are not accounted for in this evaluation. These impacts include levels of traffic congestion and impacts on air quality, levels of environmental protection or mitigation, and compatibility with other types of development, among others.

The health and growth of the economy has a direct correlation to the number of jobs that exist in the County. The County has a strong tradition of cottage industries and small businesses, many of which have centered around the agricultural and manufacturing sectors. However, between 2001 and 2011, the number of service jobs in retail trade, finance and insurance, healthcare and social assistance, and accommodation and food services increased by 25.5 percent. Jobs in manufacturing, on the other hand, decreased by almost 18.5 percent. Overall, the number of total jobs in the County increased by 12,865 (to 83,126 jobs) between 2001 and 2011.

Excepting the Board of Education, which is the County's largest employer (3,630), the next largest employer employs 1,759 people. Employers with greater than 700 employees are Carroll County Hospital Center (1,759), Springfield Hospital Center (833), Jos. A. Bank Clothiers (778), Random House (722), and EMA/Fairhaven (700).

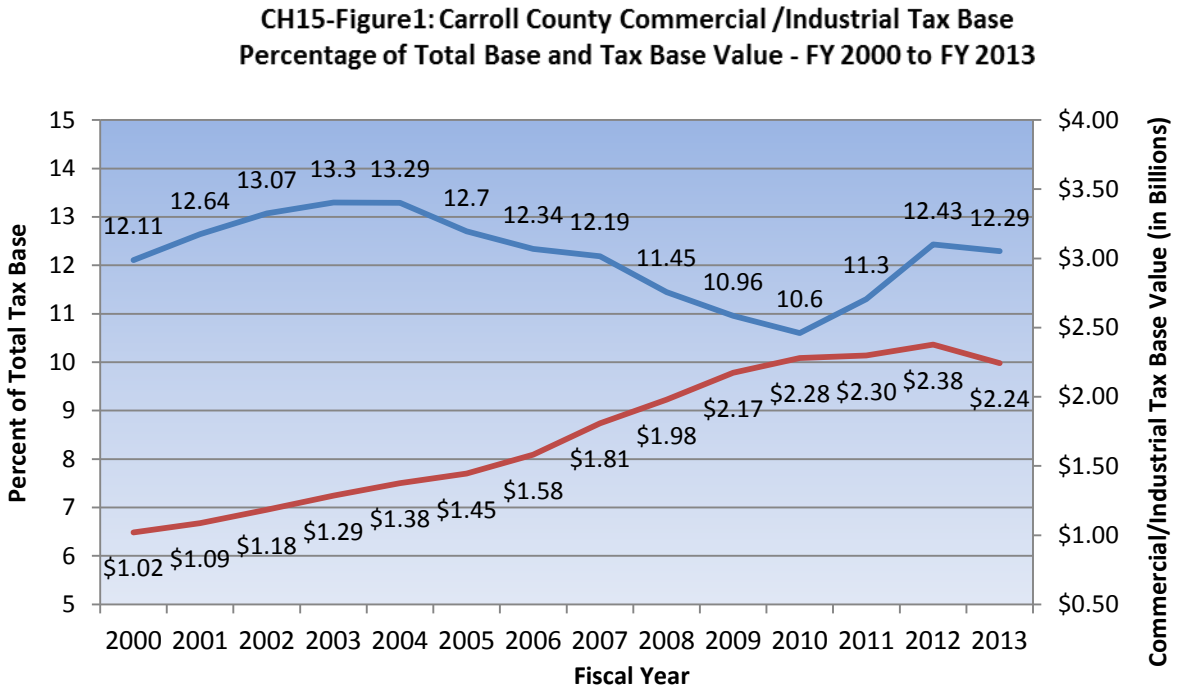
The majority of the County's resident workforce (nearly 56 percent) commutes to jobs outside the County, resulting in longer commuting distances compared to in-County jobs. In fact, Carroll County has the highest median travel time to work (34.4 minutes) of all the counties in the Baltimore region. Apart from the negative effects long commutes can have on the emotional and physical well-being of people, they also create greater traffic congestion, which is exacerbated by state transportation spending priorities.

The Challenge to Carroll County

As residential development continues to increase, the County is faced with the task of encouraging existing business expansion and attracting new business and industry to the County to provide jobs and additional tax revenue. As mentioned earlier, because of the higher costs that are associated with residential development and the relatively low costs attributed to commercial/industrial development, it is imperative that there be an adequate non-residential tax base in the County.

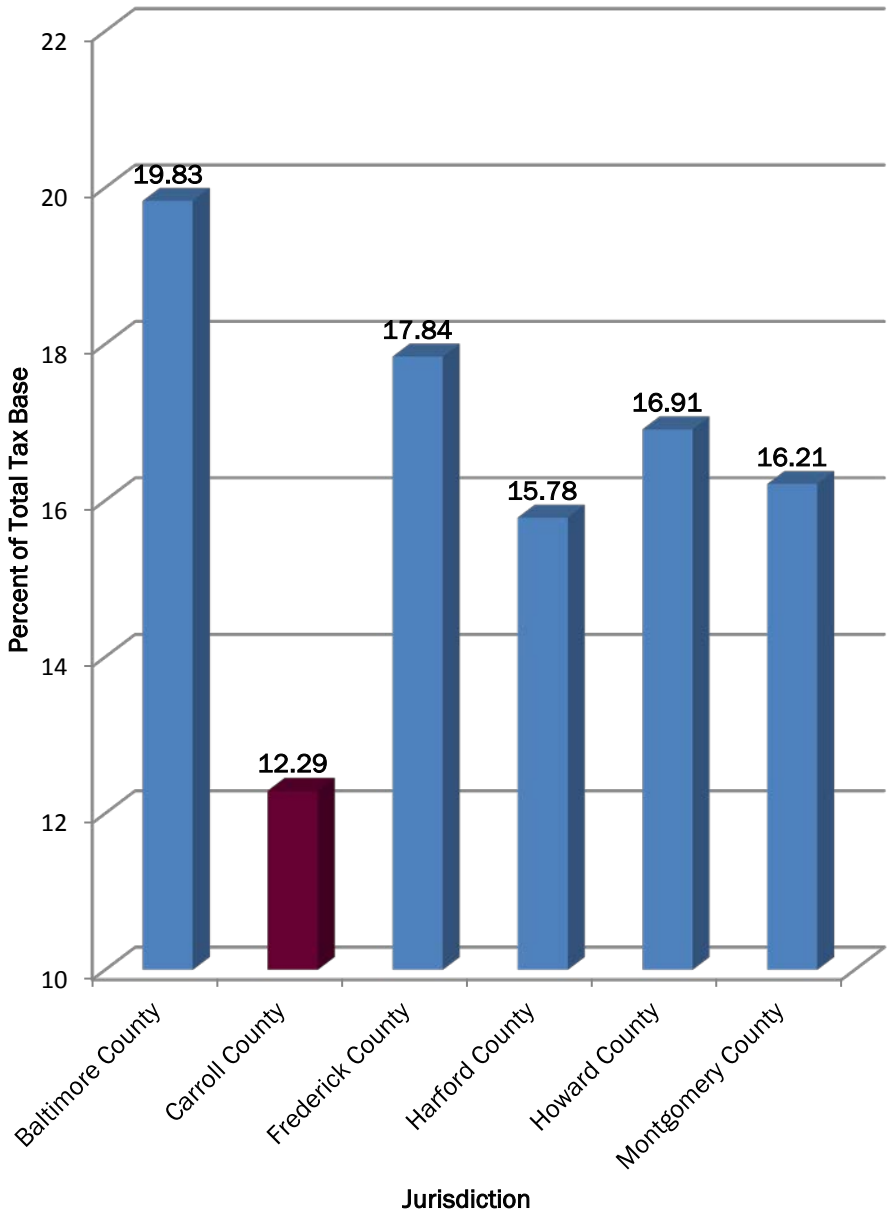
Currently, commercial and industrial development accounts for 12 percent of the total assessable base. This falls far short of neighboring counties, whose commercial and industrial development accounts for upwards of nearly 20 percent of their assessable base. Depending upon the rate and value of residential growth, the rate and value of commercial and industrial growth will need to keep pace with that residential development just to remain at the 12 percent level. To increase to a higher percentage of the total assessable base, the rate and value of commercial and industrial development would need to outpace that of residential development.

The CH15-Figure 1: Carroll County Commercial/Industrial Tax Base Percentage of Total Base, shows the percentage of commercial/industrial tax base from fiscal year 2000 to 2013. Beginning around Fiscal Year 2010, residential assessments began to fall following the burst of the nation's housing bubble. As residential assessments fell, the ratio of the commercial and industrial tax base to total assessable tax base began to creep back up to nearly the level it was before the start of the housing boom. It is believed that residential assessments were inflated during the boom, and that the more recent percentages of residential and commercial/industrial assessable base reflect a more accurate picture of real property value.



The CH15-Figure 2: Percent Commercial/Industrial Base Carroll County and Neighboring Counties FY 2013, shows graphically how the commercial/industrial percentage of tax base for Carroll County compares with that of neighboring jurisdictions. Carroll County's share of commercial/industrial tax base to total real property tax base is substantially lower than all of the other jurisdictions. The next lowest commercial/industrial share by jurisdiction is nearly 16 percent. If the County's commercial and industrial real property value were to expand more than the rest of the tax base, particularly residential, then the percentage of commercial/industrial tax base would rise. If the percentage were to rise to 15 percent, which has been a County target, it would still not surpass the other jurisdictions

CH15-Figure 2: Percent Commercial/Industrial Tax Base
Carroll County and Neighboring Counties
FY 2013



Another way to measure the balance between economic development and residential development is the ratio of jobs to housing. A higher ratio indicates there are more jobs available for the resident labor force to occupy. With a higher proportion of jobs, County residents in the workforce have a greater opportunity to live and work in the same jurisdiction, which lowers household transportation costs and traffic volumes on major commuter routes in the County. And with more of the County's

jobs being held by County residents, the income taxes of more employees stay in the County, increasing County revenues to provide needed services.

CH15-Table 1: Jobs-to-Housing Ratio Comparison 2010 compares Carroll's ratio to that of neighboring jurisdictions. The data indicate that Harford County has the lowest jobs-to-housing ratio, with Carroll County being a close second. The remaining jurisdictions have a ratio that surpasses that of Carroll by a wide margin, with an average of 1.65 jobs per household for the jurisdictions combined.

CH-15-Table 1: Jobs-to-Housing Ratio Comparison
2010

Jurisdiction	Number of Jobs	Number of Households	Ratio
Baltimore County	506,500	316,700	1.60
Carroll County	81,800	59,800	1.37
Frederick County	128,400	84,800	1.51
Harford County	115,000	90,200	1.27
Howard County	190,000	104,700	1.81
Montgomery County	646,500	357,100	1.81
Total	*1,668,200*	*1,013,300*	*1.65*

Source: Maryland Department of Planning, September 2013.

Attracting industrial and business uses to Carroll County is made more difficult because of the minimal amount of interstate highway mileage traversing the County and the fact that the County is underserved by internal expressways. Maryland Midland Railway does provide opportunities for freight movement and connection to other larger railroad systems. As a result, the County must ensure that its industrially zoned land is the most ideal land possible in terms of location, suitability for development, the provision of services, and access. This requires knowledge of the types of industries that are and will be attracted to the County, as well as their infrastructure and other service needs.

A comprehensive assessment of the County's employment land and projected employment needs was conducted by Parsons-Brinkerhoff (PB) in 2007. The study, known as the *Economic Development Land and Employment Needs Study (EDLENS)*, evaluated trends in existing commercial and employment land development, both in Carroll County and the region. Analysis included factors that could hinder successful economic development for the County. Trends in the region and in business in general, contributed to projections for the number of jobs that Carroll County could expect to create in the next 20-25 years.

Based on the emerging economic opportunities identified by the study, PB concluded that jobs in Carroll County could increase from about 80,000 today to 120,000 by 2030. However, this would only be possible if the County takes action to set aside and zone appropriate land for commercial and industrial development, and makes the investment necessary to serve these areas with water and sewer service and adequate roadways. The study indicated that approximately 4,600 acres of land will need to be rezoned for commercial and industrial uses throughout the County to accommodate the additional 40,000 jobs. However, PB also stated that if the County is able to use

existing industrial/commercial zoned sites to help meet the projected jobs demand, then the County could rezone less than the 4,600 acres recommended by the study.

The study went on to assess how well-positioned the County was to meet the projected demand for employment land. It was determined that the areas most in demand for the location of employment uses were the southern tier of the County, the MD 140 corridor between Finksburg and Westminster, and the MD 30 corridor between Hampstead and Manchester. These priority corridors became the focus of the study's recommendations. The study noted that 90 percent of the parcels currently zoned commercial or industrial in the County are less than 5 acres in size. Furthermore, much of the industrially-zoned land is not located within the priority corridors.

Based on the analysis of land currently zoned for economic development compatibility, the study developed criteria for evaluating the suitability of additional land within the priority areas of the County for employment uses. These criteria included:

- key sites identified in stakeholder interviews
- key sites designated in Municipal Comprehensive Plans
- parcels within 1 mile of a major highway
- parcels greater than 25 acres
- parcels that are now vacant
- property in use but "underdeveloped" (defined as the land values assessed higher than the value of the land's improvements)
- not subject to Agricultural easement
- proximity to higher income areas

Over 10,000 acres within the priority corridors were identified as potential sites for economic development. Parcels were clustered together in some cases and clusters were ranked based on how well they met the criteria listed above. "A" ranked clusters were considered the most desirable, followed by "B" ranked clusters, and "C" ranked clusters.

Most of the potential employment land identified in the study is not currently planned to be served with public water or sewer, an essential component of successful economic development. PB estimated that making the necessary improvements to provide water and sewer service to these areas would cost an estimated $99-123 million and $54 million, respectively. This is exclusive of the cost to provide adequate sources of water.

In 2012, AMB GIS Consulting developed a *Land Suitability Analysis* for Carroll County. The study analyzed various factors that could constrain future development in the County. These limiting factors focused on accessibility to important public facilities and services and the presence and severity of environmental features.

Infrastructure constraints included analysis of the distance to: public schools, public water service areas, public sewer service areas, and major local roads and state highways. Areas in the County with the least amount of total constraints were determined to be in the following general areas: within the County's eight municipalities, the areas immediately surrounding the municipalities, the Freedom area, and the major arterial corridors.

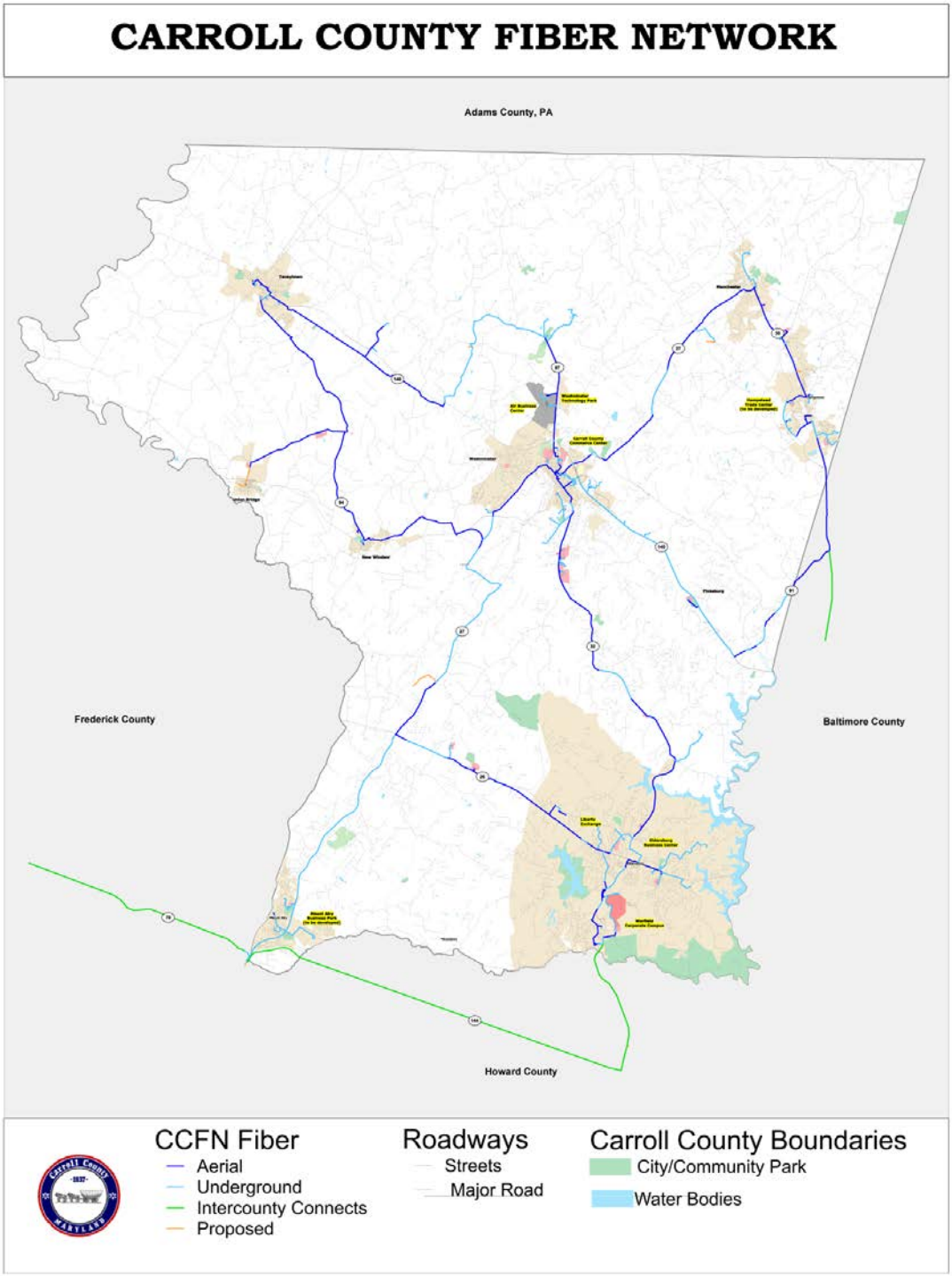
Landscape limitations involved analysis of: soils that are capable of supporting development, slope of the land, floodplains, streams, wetlands, and areas targeted for agricultural preservation (including the designated Agricultural Land Priority Preservation Area and Rural Legacy Areas). Given the nature of these environmental constraints, areas with the highest combined values are distributed throughout much of the County.

The suitability of land for future development was derived by combining the two major limitation analysis components, infrastructure constraints and landscape limitations. The analysis indicates that the areas within the County exhibiting the highest values for development are the eight incorporated municipalities, the immediate environs of the municipalities, and the Freedom area.

The information and recommendations contained in *EDLENS* and evaluation contained in the Land Suitability Analysis are considered in the land use and economic development recommendations contained in this plan.

Efforts also have been made to enhance the County's gateways to improve the first impression that visitors, as well as potential employers and residents, get when they cross the County line. Two new gateway monument signs, erected in fall 2009, welcome people to Carroll County in Finksburg and Eldersburg. Additionally, in May 2008 a local Gateway Renovation Tax Credit was enacted to encourage redevelopment of properties within the MD 140 corridor between the Baltimore County line and Sandymount Road. Property tax credits of 50-75 percent are available for a period of 5 years, depending upon the improvements made.
For some time, the County has recognized that business expansion and recruitment depends upon access to high-speed communication infrastructure. To that end, the County decided to support state-of-art broadband (i.e., high-speed data transmission) expansion to business and industry throughout the County. The County's mission was to provide access needed in today's information-based world and to close the digital divide between the County's citizens and public agencies. In essence, this network would enable advanced and cost-effective community services and enhanced economic development.

In 2007, the County began work to design and construct a fiber optic public network (Carroll County Public Network, or CCPN) to meet the high-speed telecommunications needs of both the private and public sectors. The network includes a 112-mile "backbone" system that is broken into five rings. An additional 39 miles of lateral fiber will ensure that all eight municipalities are connected along with various public and private entities that are located outside the "backbone" fiber corridors. The network is designed to provide a fiber optic infrastructure throughout the County as well as redundancy beyond the County by providing two inter-County connectors to the outside world (i.e., to Baltimore County and Howard County). This network will connect to every business park in the County to provide fiber service to business and industry. It will also connect to local, County, and State government agencies, public safety offices, police departments, public schools, and fire departments to improve communications among public service providers. In September, 2013, the "backbone" network was completed at a cost of $17 million. The map entitled "Carroll County Fiber Network" delineates the location of the fiber optic network as of November 2014.



In 2012, Carroll County initiated a new program of business training and mentoring, Carroll Business Path, whose primary role is to deliver customized small business resource assistance to small and emerging businesses in the County. The program is designed to help entrepreneurs start a small business or expand an existing one. The business path offers one-on-one guidance in developing a business plan while also connecting people to classes, informational sessions, and services targeted to small businesses. Specific support services include market analysis for the product or service involved, sources for investment capital, technology transfer information, managerial and technical support services, educational resources, and referrals to industry experts and business consultants.

Also in 2012, the County launched the Small Business Revolving Loan Fund. Starting with $1 million, the program provides start-up funding for new businesses. Business owners that qualify

can apply for a three-year loan up to $25,000. The business must be located within the County and have 25 or fewer fulltime employees. The business owner must also provide a letter of loan denial, indicating that the owner could not get a bank loan. This requirement allows the County to help entrepreneurs launch a start-up business without competing with private-sector banks. The program attempts to assist businesses that just missed being eligible for a bank loan, but otherwise have sound credentials. At the end of the three-year loan, the business owner would apply for a line of credit with a bank, returning the business's financing to the private sector and restoring the funding to the revolving loan fund for use by another new start-up business.

The tables below provide data on the County's resident workforce and jobs located within the County in 2010/2011. The table for County jobs also compares the number of jobs over a 10-year period and the percent change.

To optimize the number of County employees that work in County jobs, there needs to be a strong correlation between the number of people who work in a certain industry and the number of jobs available in that industry. For example, the number of employees in the construction industry (9,023) exceeds the number of jobs in that industry (8,119). In manufacturing, one of the highest paying jobs available in the job market, there is a deficit of jobs (4,526) compared to the number resident employees (6,481). Of particular interest is the comparison for the professional, technical, administrative, and management services industry. An estimated 12,290 jobs are available in the County and 10,125 residents who work in this industry. One of the highest skilled and highest paying job categories in the market, maintaining a substantial number of jobs in this job sector is important to the County's economy. See Ch-15 Table 2: Residential Labor Force 2006-2010 American Community Survey (5 years) Carroll County for employment data.

Looking at the changes in County jobs over the 10-year period from 2001 to 2011 reveals trends in business expansion or contraction. The decline in manufacturing jobs, which began in earnest in the nation around the mid-1990's, continues. During this 10-year period, jobs in manufacturing dropped by over 18 percent in the County. However, on a positive note, the number of jobs in the professional, technical, administrative, and management services sector grew by over 67 percent.

With respect to the manufacturing sector, Carroll County views this part of the economy as a target industry for future development given that it provides higher wages and has a significant multiplier effect (i.e., a dollar invested in manufacturing yields an additional $1.75 in economic activity for other jobs, such as shipping and sales). However, much of the new manufacturing in the 21st Century involves sophisticated technology, resulting in the jobs that require high-tech skills. Over time, this trend will render old job skills obsolete. In fact, recent studies have indicated that manufacturers are experiencing a shortage in the specialized skills they need for these new jobs.

To provide a qualified workforce that meets these needs, Carroll County works to foster partnerships between business and education. For example, the Carroll County Career and Technology Center provides classes in 3-D printing, robotics, and machining. Carroll Community College has a workforce training and business services office to join employer needs with class training. The College offers an associate of Science in Engineering for both Electrical Engineering and Computer Engineering which provide classes that deliver the advanced skills needed by manufacturing employers.

Ch15- Table 2: Resident Labor Force (16 Years & Older)
2006-2010 American Community Survey
(5-Year Estimates)
Carroll County

In Labor Force	Number	Percent
Civilian labor force	90,206	99.8
Employed	87,046	96.3
Unemployed	3,160	3.5
Armed Forces	198	0.2
Total labor force	*90,404*	*100.0*
By Industry (Employed Civilian Labor Force)	**Number**	**Percent**
Agriculture, forestry, fishing, & hunting, & mining	994	1.1
Construction	9,023	10.4
Manufacturing	6,481	7.4
Wholesale trade	2,804	3.2
Retail trade	9,841	11.3
Transportation & warehousing, & utilities	2,980	3.4
Information	2,230	2.6
Finance and insurance, & real estate & rental & leasing	6,568	7.5
Professional, technical, scientific, & management, & administrative & waste management services	10,125	11.6
Educational services, & health care & social assistance services	20,108	23.1
Arts, entertainment, & recreation, & accommodation & food services	5,192	6.0
Other services, except public administration	3,933	4.5
Public administration	6,767	7.8
Total Employed Civilian Labor Force	*87,046*	*100.0*
By Occupation (Employed Civilian Labor Force)	**Number**	**Percent**
Management, professional, business, science, & arts occupations	37,050	42.6
Service occupations	13,016	15.0
Sales & office occupations	20,675	23.8
Natural resources (farming, fishing, forestry, extraction), construction, & maintenance occupations	9,534	11.0
Production, transportation, & material-moving occupations	6,771	7.8
Total Employed Civilian Labor Force	*87,046*	*100.0*

Source: U.S. Census Bureau, September 2013

CH15- Table 3: Jobs in Carroll County by Job Type and Major Industry

	2001		2011		2001 to 2011	
	Jobs	Percent	Jobs	Percent	# Change	% Change
By Type						
Wage and salary employment	52,426	74.6	59,491	71.6	7,065	13.5
Proprietors employment	17,835	25.4	23,635	28.4	5,800	32.5
Farm proprietors employment	1,075	1.5	1,013	1.2	(62)	-5.8
Nonfarm proprietors employment[1]	16,760	23.9	22,622	27.2	5,862	35.0
By Major Industry						
Farm employment	1,561	2.2	1,372	1.7	(189)	-12.1
Nonfarm employment	68,700	97.8	81,754	98.3	13,054	19.0
Private nonfarm employment	**61,178**	**87.1**	**73,027**	**87.9**	**11,849**	**19.4**
Forestry, fishing, related activities, & other	(D)	(D)	(D)	(D)	(D)	(D)
Mining	(D)	(D)	(D)	(D)	(D)	(D)
Utilities	(D)	(D)	64	0.1	N/A	N/A
Construction	9,390	13.4	8,119	9.8	(1,271)	-13.5
Manufacturing	5,553	7.9	4,526	5.4	(1,027)	-18.5
Wholesale trade	3,243	4.6	2,715	3.3	(528)	-16.3
Retail trade	9,017	12.8	10,147	12.2	1,130	12.5
Transportation & warehousing	(D)	(D)	1,898	2.3	N/A	N/A
Information	850	1.2	858	1.0	8	0.9
Finance & insurance	2,254	3.2	3,046	3.7	792	35.1
Real estate, rental, & leasing	2,636	3.8	4,426	5.3	1,790	67.9
Professional & technical services	3,501	5.0	5,912	7.1	2,411	68.9
Management of companies & enterprises	168	0.2	486	0.6	318	189.3
Administrative & waste services	3,671	5.2	5,892	7.1	2,221	60.5
Educational services	1,266	1.8	1,864	2.2	598	47.2
Health care & social assistance	7,109	10.1	9,965	12.0	2,856	40.2
Arts, entertainment, & recreation	1,377	2.0	1,848	2.2	471	34.2
Accommodation & food services	4,369	6.2	5,386	6.5	1,017	23.3
Other services, except public administration	4,686	6.7	5,105	6.1	419	8.9
Government & Government Enterprises	**7,522**	**10.7**	**8,727**	**10.5**	**1,205**	**16.0**
Federal, civilian	309	0.4	292	0.4	(17)	-5.5
Military	537	0.8	534	0.6	(3)	-0.6
State & local	6,676	9.5	7,901	9.5	1,225	18.3
State	(D)	(D)	1,207	1.5	N/A	N/A
Local	(D)	(D)	6,694	8.1	N/A	N/A
Total Jobs	***70,261***	***100***	***83,126***	***100***	***12,865***	***18.3***

Source: U. S. Bureau of Economic Analysis (BEA), September 2013 (Classification in NAICS, which replaced SIC starting in 2001)

[1] Excludes limited partners

(D) Datum not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

By working to provide a qualified workforce for jobs in manufacturing and professional/technical/administrative/management services, the County will be in a good position to attract and retain businesses that provide these types of high-paying jobs.

Roughly 55.5 percent of the County's workforce currently works outside the County (2009-2011 American Community Survey, US Census). This statistic has remained relatively unchanged since 1990. Residents of neighboring counties and Pennsylvania occupy nearly 32 percent of the County's jobs, commuting into the County primarily from Adams, York, Baltimore, and Frederick Counties. Unless the County is able to attract businesses and industries that employ people with the skills and income demands of the County's current and future residents, the existing commuter

situation is unlikely to change. See CH15- Table 3: Jobs in Carroll County by Job Type and Major Industry.

While comprising the smallest amounts and percentages of tax base and property tax revenue compared to residential and commercial/industrial, the agricultural sector delivers a large fiscal contribution to the County's economy. For fiscal year 2014, this sector comprised over $1.895 billion in assessable tax base and provided nearly $19.3 million in real property tax revenue. According to the most recent Census of Agriculture data, County farms produced agricultural products that sold for more than $87.4 million in 2007. Given the importance of agriculture in Carroll County's economy, it is essential that the County continue to promote agriculture. This effort includes protecting agricultural land to retain the viability of agribusiness. Assistance to current farmers is important to help them keep pace with modernization and innovation in agricultural operations, take advantage of new business opportunities, diversify, and improve business skills such as marketing, financial planning, and public relations. Finally, providing assistance to young people interested in farming is important to ensure that County farms are transferred to the next generation of farmers.

The Choice: Policies & Recommendations

Commercial and industrial uses represented 12 percent of the County's assessable tax base in FY 2013. Maintaining this percentage will require an increase in industrial and commercial uses. Taxes paid by additional commercial and industrial development will help offset the cost of providing services to residential development.

In the winter of 2012, there were about 775 acres of land still available to be developed for commercial and business uses in the County, including the municipalities and their DGAs. An estimated 580 of these acres were located within a DGA, with nearly 200 acres falling outside the DGAs. As commercial development is an important part of the economic base for the County, an adequate supply of commercial land is important to economic development and to the life and health of the County's communities. Planning literature suggests that 2 to 5 percent[13] of the total developed area of the average city is devoted to current commercial uses (with a recommended minimum of 5 percent) and that 15 to 18 percent[14] (including structures and lots) of the total land area is devoted to commercial uses in municipalities such as those found in Carroll County. While these percentages are based on existing commercial development and do not account for future commercial development needs, they provide a general benchmark for evaluating future business expansion needs. The most important factors relating to developing sites for commercial uses are location, proximity to water and sewer facilities, accessibility to transportation networks, and the physical capacity of the site to support development.

[13] William I. Goodman and Eric C. Freund, *Principles and Practice of Urban Planning*, International City Managers' Association, 1968, p. 426.
[14] Thomas L. Daniels, John W. Keller, and Mark B. Lapping, *The Small Town Planning Handbook*, Planners Press, 1995, p. 112.

Ch15- Table 4: Existing and Planned Commercial and Industrial Acreage in Designated Growth Areas

DGA	Existing (Developed)				Planned				Total Comm. & Ind. AC	Comm. & Ind. as % of Total	Total DGA AC
	Comm. AC	Ind. AC	Total Existing	% of Total DGA ACs	Comm. AC	Ind. AC	Total Planned	% of Total DGA ACs			
Finksburg	159	193	352	54.9	35	105	140	21.8	416	64.9	641
Freedom/ Sykesville	453	105	558	1.9	75	1,085	1,160	4.0	2,350	8.5	28,745
Hampstead	187	235	422	16.4	65	380	445	17.3	739	28.7	2,579
Manchester	49	3	52	3.2	15	0	15	1.0	115	7.3	1,585
Mount Airy	172	9	181	4.9	51	179	230	6.3	339	9.2	3,670
New Windsor	19	47	66	7.5	9	158	167	19.0	266	30.3	879
Taneytown	131	160	291	8.9	166	496	662	19.7	1,067	31.8	3,354
Union Bridge	32	367	399	24.2	11	187	198	12.0	602	36.5	1,648
Westminster	898	429	1,327	12.3	153	847	1,000	9.2	2,860	26.4	10,835
Inside DGAs	*2,100*	*1,548*	*3,648*	--	*580*	*3,437*	*4,017*	--	*8,754*	--	*53,936*
Outside DGAs	*855*	*1,160*	*2,015*	--	*195*	*502*	*279*	--	*1,474*	--	--
TOTALS	*2,955*	*2,708*	*5,663*	--	*775*	*3,939*	*4,296*	--	*10,228*	--	--

Source: Carroll County Bureau of Comprehensive Planning, September 2013.

Note: Developed acreage was determined using aerial photographs. The planned commercial and industrial acreage was based on the land use designations adopted in each community comprehensive plan as shown on the land use designation map as of September 2013. Planned acreage represents developable land and includes acreages for both vacant and partially developed properties as spelled out in the Buildable Land Inventory, dated January 2012. Identified constraints are excluded from the developable land acreages. These constraints include: streams, 100-year floodplains, wetlands, and impervious surfaces. The land-use designation map in Chapter 16 of this plan document shows the land use designations adopted by each community for unincorporated land within the Designated Growth Areas. The adopted plans for each community can be found on the Carroll County Comprehensive Planning Bureau website.

Ch15- Table 5: Vacant Parcels and Developable Portion of Partially Developed Parcels Commercial and Industrial Parcels by Designated Growth Area

Area	Land Use Designation	# of Parcels – Size Range in Acreage						Sum # of Parcels	Sum Actual Acreage	% of Total # Parcels	% of Total Acreage
		0-1	1-5	5-10	10-20	20-50	> 50				
Finksburg	Industrial	1	6	7	1	0	1	16	174.8	5.0%	4.4%
	Commercial	5	9	2	0	0	0	16	32.8	5.0%	4.2%
Freedom	Industrial	10	30	10	3	4	7	64	1007.5	19.8%	25.1%
	Commercial	34	15	2	0	0	0	51	65.1	15.8%	8.3%
Hampstead	Industrial	0	8	2	3	3	2	18	380.7	5.6%	9.5%
	Commercial	19	10	2	1	0	0	32	65.3	9.9%	8.3%
Manchester	Industrial	0	0	0	0	0	0	0	0	0.0%	0.0%
	Commercial	8	10	0	0	0	0	18	26.1	5.6%	3.3%
Mount Airy	Industrial	6	13	1	2	2	1	25	178.8	7.7%	4.5%
	Commercial	5	6	1	0	1	0	13	51.0	4.0%	6.5%
New Windsor	Industrial	3	6	5	3	2	0	19	158.5	5.9%	4.0%
	Commercial	0	0	1	0	0	0	1	9.3	0.3%	1.2%
Sykesville	Industrial	1	5	3	1	1	0	11	78.5	3.4%	2.0%
	Commercial	7	3	0	0	0	0	10	10.6	3.1%	1.4%
Taneytown	Industrial	2	11	4	2	3	4	26	496.4	8.1%	12.4%
	Commercial	7	25	4	3	1	0	40	166.0	12.4%	21.2%
Union Bridge	Industrial	1	2	2	1	1	1	8	186.6	2.5%	4.7%
	Commercial	0	2	0	0	0	0	2	10.7	0.6%	1.4%
Westminster	Industrial	12	42	7	16	7	3	87	846.6	26.9%	21.1%
	Commercial	17	28	5	2	1	0	53	153.3	16.5%	19.6%
County (Non-DGA)	Industrial	7	25	4	2	10	1	49	502.0	15.2%	12.5%
	Commercial	39	39	4	3	1	0	86	193.9	26.7%	24.7%
Total # by Type & Size											
Industrial		*43*	*148*	*45*	*34*	*33*	*20*	*323*	*4,010.4*		
Commercial		*141*	*147*	*21*	*9*	*4*	*0*	*322*	*784.1*		
% of Total # by Type & Size											
Industrial		*13.3%*	*45.8%*	*13.9%*	*10.5%*	*10.2%*	*6.2%*				
Commercial		*43.8%*	*45.7%*	*6.5%*	*2.8%*	*1.2%*	*0.0%*				

Source: Carroll County Bureau of Comprehensive Planning, September 2013.
Based on future land-use designations as of November 2011
Note: Employment Campus and similar type uses were grouped with "Industrial".

In January 2012, there were nearly 3,940 acres of land available for industrial development in the County, including the municipalities and their DGAs. Approximately 3,440 acres were located within a DGA. Provision of an appropriate amount of land available for industrial development is essential to the economic vitality and fiscal health of the County. Industrial firms have several requirements for relocating to, or expanding in, a community: transportation accessibility and reasonably priced land with public water and sewer service, as well as access to a fiber-optic network. In small communities, new firms prosper on low-cost buildings and inexpensive preparation costs.

Ch15- Table 4: Existing and Planned Commercial and Industrial Acreage in Designated Growth Areas shows the 2012 acreage of existing and planned commercial and industrial development in the Designated Growth Areas (DGAs). Already developed land is estimated as Existing acreage. Areas that are designated for future commercial or industrial development on the adopted comprehensive plans are indicated as Planned acreage. Some areas with a commercial or

industrial land use designation are already zoned consistent with the land use designation in the plan; others will be rezoned upon annexation into the municipality associated with the DGA. The table provides the percentage of the entire DGA that is represented by Existing or by Planned commercial and industrial, as well as by the combination of Existing (Developed) and Planned. Commercial acreage exceeds the minimum 5 percent of total DGA land area for all but four of the DGAs (Freedom/Sykesville, Manchester, New Windsor, and Union Bridge). Using a minimum of 15 percent of total DGA for commercial uses, only the Finksburg DGA meets this standard.

The *2007 Carroll County Economic Development Land and Employment Needs Study* compared the percent of land in Carroll County that is developed for commercial and industrial uses to that of other jurisdictions. Based on 2002 data, Carroll County had the lowest percentage (1.5) of land used for commercial and industrial enterprises. Other jurisdictions had 2.1 percent (Harford County), 5.1 percent (Howard County), and 5.7 percent (Anne Arundel and Baltimore Counties). The Baltimore Region's average was 4.8 percent. See Ch15-Table 4: Existing and Planned Commercial and Industrial Acreage in Designated growth Areas, January 2012.

Much of the developable commercial and industrial land in the County is fragmented and somewhat scattered. Ch15- Table 5 illustrates how few properties are even just 5 acres or larger – 34 for commercial and 132 for industrial. Only 4 commercial and 53 industrial properties are 20 acres or larger. More than 74 percent of properties designated for commercial or industrial uses are 5 acres or smaller and almost 29 percent are only 1 acre or less in size. The lack of large parcels limits the development of campus employment sites and other large-scale users. See CH 15-Table 5: Vacant Parcels and Developable Portion of Partially Developed Parcels, Commercial and Industrial Parcels by Designated Growth Area.

Policies

- Perpetuate a business friendly County.
- Ensure that land use policies support economic development.
- The County will actively attract businesses and industry that are clean and unobtrusive to surrounding properties, that provide primarily high-paid jobs requiring highly-skilled workers, and that are willing to construct buildings and structures that are aesthetically pleasing and contribute significantly to the County's tax base.
- Support agribusiness. Expand programs to support and enhance agribusiness.
- Take advantage of emerging opportunities for employment growth, the County will invest in improving and expanding its transportation, water and sewer, and fiber-optic infrastructure to serve potential employment growth.
- Support the development of new technology and the growth of resident industries to increase the number of high-quality jobs for County residents and increase the commercial/industrial tax base to support public services.

Recommendations

A. Promote and facilitate economic development in accordance with the principles and visions of this Master Plan.
B. Ensure that there is adequate and appropriate resources/infrastructure to realize economic development goals and objectives.
C. Implement a process to continue to identify viable land for commercial and industrial opportunities.

Fiscal Impact to the County

Increasing the commercial and industrial (C/I) tax base would have a positive fiscal impact to the County. Currently, the C/I tax base is equal to 12 percent of the total tax base in the County. An increase in this ratio could decrease the County's reliance on residential taxpayers to cover the costs of operating the services the County provides. If the County were to increase this ratio to 15 percent, and assuming the tax base of all other property remains flat, the County would need to add $581 million to the C/I tax base. Assuming that the average assessed value of commercial and industrial land is approximately $396,140 per acre (i.e., $2,243,332,700 commercial/industrial assessed value divided by 5,663 developed acres), it is estimated this would require the development of nearly 1,500 acres of property. Development of this size would result in approximately 13,500 new jobs in the County (i.e., average 9 jobs per acre according to EDLENS). Any up-front costs incurred to attract this level of economic development, such as building roads and providing water and sewer, would reduce the potential fiscal benefits.

Chapter 16: Land Use & Growth Management

Goal

Facilitate a development pattern that remains consistent with the fabric of our communities, is in harmony with the surrounding built and natural environments, encourages community interaction and, in rural areas, preserves the County's rural character.

Pursue policies that facilitate development in appropriate areas, including the designated growth areas, thereby protecting and conserving agricultural and environmental resource areas, preserving open space, and providing public facilities and services efficiently and cost-effectively.

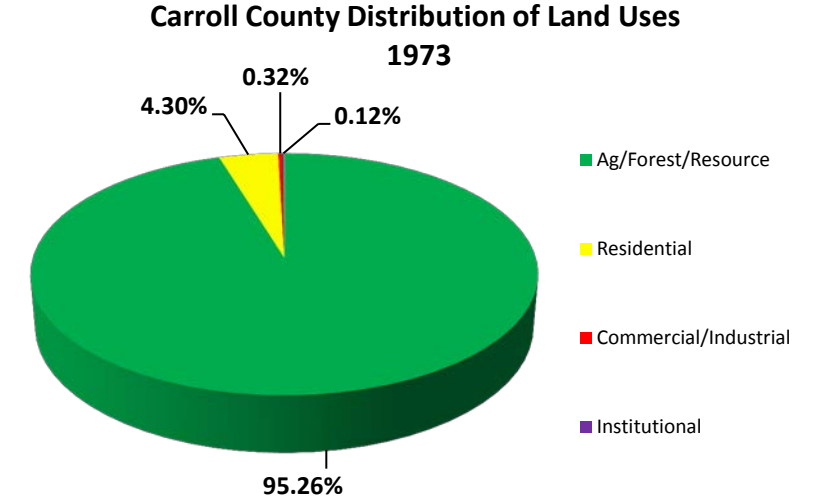
The Significance to Carroll County

Development in Carroll County has been guided by a master plan since 1964. The basic premise of the plan has been to direct development into and around the County's nine Designated Growth Areas (DGAs) while retaining the rural character and agricultural use of the surrounding land. Implementation of that premise was strengthened in 1978 through the adoption in the subdivision regulations of a lower density lot yield calculation formula for properties in the Agricultural Zone.

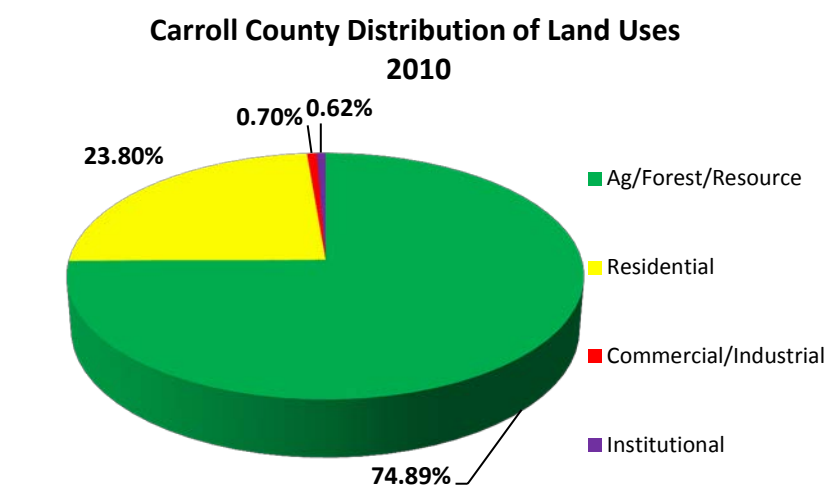
Designated Growth Areas (DGAs) are the smaller geographic areas of the County where the majority of Carroll County's planned residential, commercial, and industrial development is currently concentrated and future growth is planned. These areas generally are centered around a municipality, where historically higher density development has occurred in a more traditional town pattern, and where public water and sewer facilities and services are available. Community comprehensive plans focused on these areas are prepared and evaluate land uses at a more local scale. Carroll's eight municipalities are at the heart of the DGAs, with the exception of Sykesville, which lies along the southern edge of the Freedom area (one of the County's nine DGAs). This plan applies to the areas outside of the DGAs, although the County Master Plan and the nine community comprehensive plans are vitally linked and together help to implement the overall vision for each plan.

The map, entitled *"Corporate Limits and Designated Growth Areas"* identifies the existing DGAs in the County, based on adopted plans as of December 2013. The DGAs include Finksburg, Freedom, Hampstead, Manchester, Mount Airy, New Windsor, Taneytown, Union Bridge, and Westminster. The Town of Sykesville is situated within the Freedom Growth Area, but is not the geographical focal point or center of the DGA. State law requires that comprehensive plans be reviewed, and updated if needed, every ten years and if practical to coincide with the Census. Therefore, these plans, and potentially their DGAs, can change on a regular basis.

The Finksburg area was considered to be a growth area when its 1981 plan was adopted. This status and the boundary of the growth area (formerly referred to as the Community Planning Area) were based on the former 30-year water and sewer service areas to provide public water and sewer facilities to this area. However, these facilities are no longer planned, and development has occurred at a lower density than the other DGAs. As a signatory to the Reservoir Watershed Management Agreement, mostly recently re-signed in 2005, this lower density has been maintained to help protect water quality in the Liberty Reservoir. As a result, a corridor plan was adopted in August of 2013 reflecting the existing, more intense development concentrated along the MD 140 corridor, from the Liberty Reservoir to slightly west of MD 91. The area covered by the new *Finksburg Corridor Plan* contracted to 640 acres focusing on this intensely developed center.



Source: Maryland Department of Planning **Figure 16-1**



Source: Maryland Department of Planning **Figure 16-2**

The approach to land use that has been guiding development in the County for the past 50 years (i.e. DGAs) provides for the efficient use of land for development and the effective provision of services. By concentrating development, the delivery of facilities and services such as water and sewer, roads, schools, recreation, and natural gas, as well as police, fire and emergency services, is much easier and more cost effective. Community interaction is promoted when developments are well-designed and integrated with each other.

Concentrated development also accommodates the same number of people on less land, allowing the land outside of the growth area to remain relatively rural. This rural land is composed of agricultural land, open space, and environmental resource lands, such as forests, streams, wetlands, and steep slopes. Currently, lots created in the Agricultural Zoning District are required to be designed at a minimum lot size of one acre and clustering is encouraged to achieve the maximum possible amount of land remaining in resource lands. This policy serves to preserve the

rural working landscape as well as to maximize the land available for active farming and decreasing the overall costs for public services.

Over the last several decades, the County's land use has been changing from an overwhelmingly rural County to predominantly agricultural with increasing suburbanization. Using the Maryland Department of Planning's 1973 and 2010 Land Use/Land Cover (LU/LC) data adjusted for the areas of the County covered by this Master Plan, shows that between 1973 and 2010, approximately 48,000 acres, or 20 percent of the County was changed over from agriculture/forest to another use. In 1973, the land area in this portion of Carroll County was composed of 95 percent agricultural and resource lands and a fraction residential land. Less than 1 percent of this land area was used for commercial and industrial purposes, and the remaining 4 percent of the land area was used for various other types of development. Based on the 2010 LU/LC data, agricultural or resource lands make up 75 percent of the mapped area and 25 percent of this same area is in other uses. Figures 16-1 and 16-2 show the distribution of land uses in 1973 and 2010.

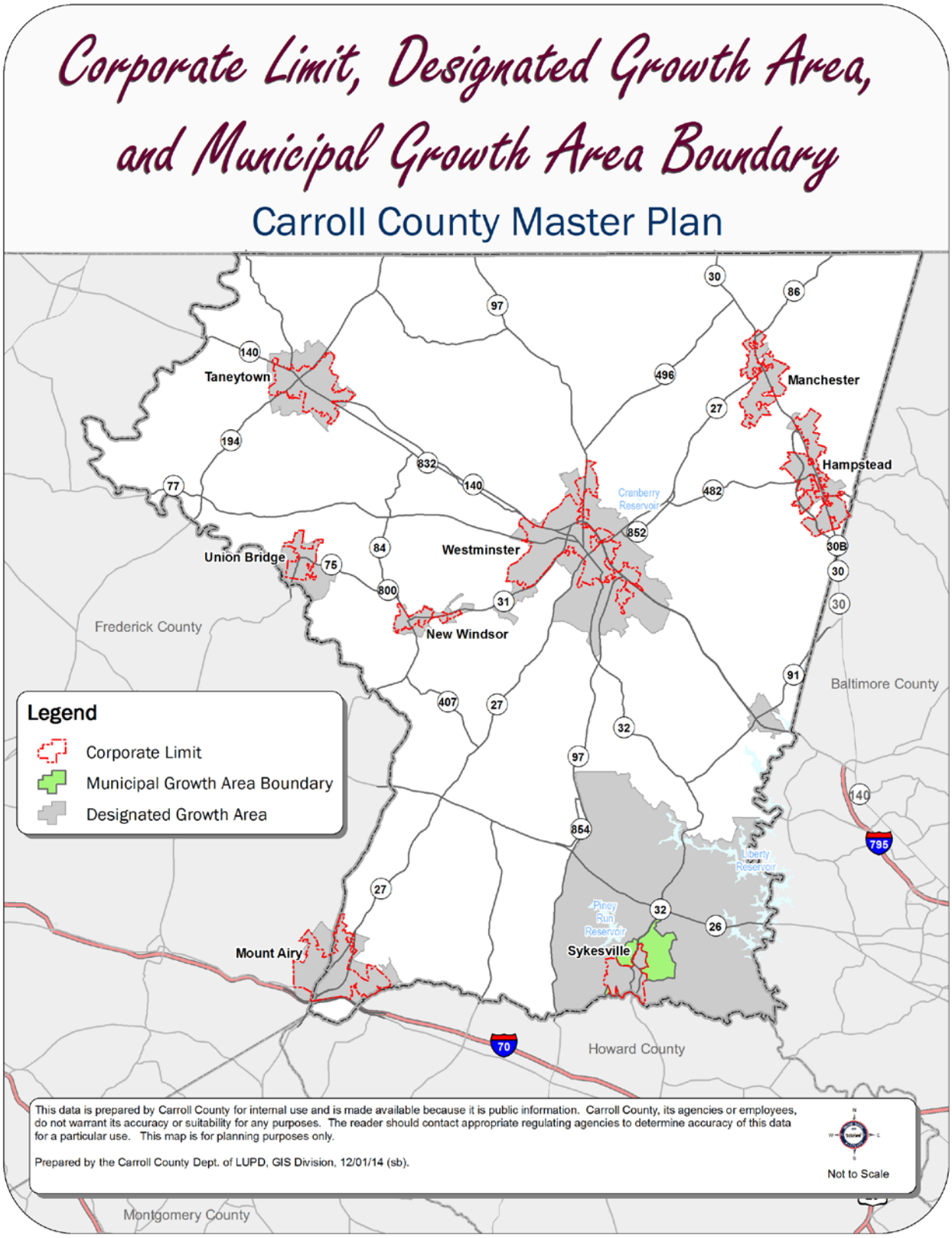
If not for the strategies employed over the last 50 years for concentrating development in the County DGAs, more of these agricultural and resource lands could have been converted to other uses. This 2014 Master Plan's overarching goal is to continue to build on the polices that have been in place since the original County master plan was adopted and continue the County's long standing land use practices of concentrating development in areas that can most appropriately accommodate development.

Since 1964, most of the growth in the County has occurred in the DGAs. Currently, approximately 57 percent of the total County population lives inside one of the DGAs, which comprise approximately 18 percent of the total County land area. In the past few years, several DGA boundaries have been reduced. In some cases, drinking water supply is the reason for DGA size reduction. In other cases, the DGA has been reduced to discourage growth along the peripheries of DGAs, leapfrogging from DGA to DGA. Table CH16-1 shows the old and new DGA boundary acreage and shows the overall reduction in the DGAs by 25 percent from its high in 2000. The reduction of these areas has also effectively reduced the number of residents and households inside of the DGAs because houses and other development formerly included in the futures for areas inside the DGAs are now calculated with those outside the DGA. Inspite of these reductions the County is still achieving a large percentage of its new development within in these boundaries.

2000 DGA Boundary		2014 DGA Boundary	
DGA	Acres	Acres	Percent of Change(%)
Finksburg	9,825.34	640.56	-93
Freedom	27,631.02	27,631.02	0
Hampstead	3,262.17	2,578.71	-21
Manchester	3,489.26	1,584.93	-55
Mount Airy	3,677.12	3,799.29	+3
New Windsor	1,059.52	879.20	-17
Taneytown	3,329.09	3,353.75	+1
Union Bridge	1,743.19	1,648.34	-5
Westminster	16,993.46	10,835.33	-36
Total Acres of DGA	71,010.16	52,951.13	-25

Table CH16-1

Based on 2013 Use and Occupancy (U & O) permits, new growth locating within the DGAs was 78 percent. Benefits to directing the majority of new growth to the DGAs include reduced infrastructure costs, minimized sprawl, maintenance of the current population distribution, and consistency with the State's twelve planning visions.


Corporate Limit, Designated Growth Area, and Municipal Growth Area Boundary
Carroll County Master Plan
Taneytown
Manchester
Hampstead
Union Bridge
Westminster
New Windsor
Mount Airy
Sykesville
Cranberry Reservoir
Liberty Reservoir
Piney Run Reservoir
Frederick County
Baltimore County
Howard County
Montgomery County
Legend
Corporate Limit
Municipal Growth Area Boundary
Designated Growth Area
This data is prepared by Carroll County for internal use and is made available because it is public information. Carroll County, its agencies or employees, do not warrant its accuracy or suitability for any purposes. The reader should contact appropriate regulating agencies to determine accuracy of this data for a particular use. This map is for planning purposes only.
Prepared by the Carroll County Dept. of LUPD, GIS Division, 12/01/14 (sb).
Not to Scale

The Challenge to Carroll County

Until now, much of the residential development in the County has occurred in the DGAs, as planned development with sufficiently zoned land. Outside of the DGAs, the 28,104 existing residential units (as of July 2014) would combine with the 15,141 estimated potential new residential units to result in a total of 43,245 residential units outside of the DGAs at build-out based on current land use designations, with 53.1 percent of all residential units located in DGAs and 46.9 percent located outside DGAs.

Existing and Planned Residential Units in Designated Growth Areas 2014

Area	Existing Units	Potential Units	Totals	Total % In / % Out
Inside DGA	35,564	13,366	48,930	
Outside DGA	28,104	15,141	43,245	
Total	*63,688*	*28,507*	*92,175*	*53/47*

Source: Land Use, Planning & Development, and Office of Technology Services

Table CH16-2

The approximate countywide build-out population, based on existing zoning designations in unincorporated areas and within the municipalities, is 215,690 people (including multi-family), which is roughly equal to 92,175 dwelling units (at an average household size of 2.34). Based on population projections developed for BMC, a population of 179,445 would be reached by 2025, 183,255 people by 2030, and 186,183 people by 2035. These projection estimates are showing a slower rate of growth than in the past, when the County was growing at a much faster rate.

The struggle to the County is to continue to direct the preponderance of new development and redevelopment activities into these smaller areas where services and facilities are available, but are constrained due to state and federal policies placing limitations on the County's ability to serve future development.

Based on the acreage outside of the DGAs and current zoning at a **medium range** estimate (see side bar), would result in a density of about 1 dwelling unit for every 5.5 acres. This density of housing units will be difficult to absorb while maintaining the quality of the rural landscape. If density in the agricultural areas increases, farmers may find it more and more difficult to move equipment, protect livestock and crops from damage, and avoid nuisance complaints by non-farm neighbors. These potential, future units in Table CH16-2 are unlikely to manifest and would most likely be much lower because of the County's aggressive land preservation strategies and effective development review process. An estimate based on the low range criteria is a more likely scenario.

POTENTIAL DWELLING UNIT RANGE ESTIMATES

High Range- development capacity of a parcel is based on residential zoning densities without any constraints considered.

Medium Range- development capacity of a parcel is based on residential zoning densities with minimal constraints. Infrastructure and stormwater restrictions are considered. Typical lot size reduction is 10-15%.

Low Range- development capacity of a parcel is based on residential zoning densities with maximum constraints. Infrastructure, stormwater and environmental restrictions are considered. Typical lot size reduction is 20-30%.

Additionally, development outside of designated growth areas creates problems for the delivery of services. Rural roads often are not constructed to carry heavy volumes of traffic, causing congestion and hazardous driving conditions. When these roads are upgraded to accommodate new traffic, they lose their rural character. Furthermore, school busing routes and the provision of emergency services must be expanded to serve more people over a greater area when growth is not concentrated.

The 2000 plan discussed the need to specifically plan to accommodate 200,000 people by 2020. It was meant to serve as a guide for providing zoning capacity, planning capital improvements, and other planning processes. However, in the past decade, new legislative requirements, policies, and regulations have changed the factors that tend to have greater driving influence over each jurisdiction's comprehensive plans and planned land uses.

The Chesapeake Bay TMDLs and Maryland's WIP and State Smart Growth initiatives and implementation pose significant challenges to flexibility in land use decision making. State Smart Growth initiatives have placed a much greater emphasis on planning for higher densities in PFAs and planned growth areas (in Carroll County, the DGAs) and preserving areas outside of DGAs. The Sustainable Growth and Agriculture Preservation Act of 2012, also known as the "Septic Bill" or SB236, restricts development outside planned sewer service areas. Carroll County, not having adopted growth tiers per SB 236, is limited to approving minor subdivisions outside of planned sewer service areas. MDE subsequently adopted regulations requiring a higher technology treatment system, referred to as "best available technology" or BAT, for new private septic systems. This requirement increases the cost to develop in areas outside planned sewer service areas. The State is working toward adoption of nutrient offset regulations, which are required for Tier III areas by SB 236 and a strategy the State committed to EPA to implement in its Phase II WIP. Once promulgated, the cost to develop outside planned sewer service areas will be driven higher yet.

The nutrient offsets requirement will increase the cost to develop inside planned sewer service areas as well once a wastewater treatment plant reaches its nutrient caps. Municipalities have been forced to contract their planned water and sewer service areas in recent years, and subsequently their DGAs as well. Some municipal systems reduced the size of their water and sewer service areas as a result of the WRE and the need to have a clear and available public water supply source and wastewater capacity to serve projected demand. As a result of the WRE process, constraints to expansion of several of the county's municipal WWTPs were identified –constrained by physical location, nutrient caps, technology, litigation, and/or other influences. Planned water service areas have also been further constrained in the past two decades by MDE's water appropriation policy requiring municipalities to own or control the land from which groundwater would be withdrawn to ensure adequate groundwater recharge is available. More recently, the areas planned for public water and sewer service in the county have been impacted through the process to update the County's Water and Sewer Master Plan and MDE's direction to include specific projects and funding sources for any improvements needed to serve all areas within the defined service areas.

The cumulative effect of all of these influences results in difficulty in expanding the DGAs so that they continue absorbing the majority of the County's growth in a concentrated manner. If the DGAs are to continue absorbing the majority of the growth, creative efforts will need to be investigated and undertaken aggressively, before all options are eliminated simply due to existing development.

The Union Bridge, New Windsor, and Taneytown DGAs are practically surrounded by Agricultural Land Preservation easements. Finksburg, Hampstead, Manchester, and Westminster are partially constrained due to their location in the Baltimore Reservoir watersheds. In addition, Hampstead, New Windsor, Taneytown, and Union Bridge were projected in the WRE as potentially exceeding their nutrient caps at their WWTPs based on the planned growth and associated projected demand at the time it was developed. While several of these municipalities have contracted their service areas and DGAs since, the caps remain a factor to be considered in planning for future growth and development. Expansion of some of the water and sewer capacity would be required before the remaining DGAs could be enlarged, and water quantity and quality issues would need to be addressed.

As each of the DGAs are unique, with their own additional challenges and circumstances, the amount and location of additional growth that each DGA can accommodate will need to be reviewed at the time each individual area plan is updated. The additional growth and development that can be accepted and planned for will affect the measures and approaches with which the County and each municipality engage in to implement the Master Plan and the individual comprehensive plans for each DGA.

FUTURE LAND USE

Carroll County is committed to continue to direct development into the County's nine Designated Growth Areas by supporting and strengthening the rural land use categories and encouraging development where infrastructure and facilities exist. Looking to the future land use for the County, the Planning and Zoning Commission, referred to as the PZC from this point forward, made a commitment to stay on the path outlined in 2000 *Carroll County Challenges and Choices: A Master Plan for the Future.* Several concepts were investigated by the Planning and Zoning Commission at Work Sessions and Business Meetings starting in February of 2014 until June of 2014. In addition to concepts for future land use, new land use categories and definitions were discussed and approved.

Land Use Terms

Existing Land Use – how the land is currently being used.

Future Land Use – land use envisioned by a master plan and forms the basis for future zoning (also known as "land use designations").

The PZC considered several concepts presented by staff and decided to focus on 4 major concepts with regard to future land use. Using the 2000 plan land use map as a guide the PZC approved changes to the 2000 Land Use Map by applying the following concepts:

Concept 1 - The DGA has been adjusted and in most cases reduced, current development patterns as they manifested (most closely reflecting the patterns on the ground) were used. This will apply to the Finksburg DGA, Hampstead DGA, Manchester DGA, New Windsor DGA, Taneytown DGA, Union Bridge DGA, and Westminster DGA.

Concept 2 - The Gillis Falls Reservoir Area where conservation land use was designated but manifested as low and very low density development because of the allowable densities of the Conservation zoning district.

Concept 3 - Increase the amount of commercial, industrial, and employment campus land as directed by the Board of County Commissioners and recommended by the EDLENS, economic development, and land owners wishing to convert to commercial land.

Concept 4 - Create new "Village Residential" and "Village Commercial/Industrial" land use categories. These categories will allow for some limited additional development and redevelopment within the confines of the existing boundary that keeps within the character, densities, and intensities of the Village.

These concepts were selected after careful deliberation by the Planning and Zoning Commission, making sure that each concept supported the overarching goals and objectives in the master plan. How these concepts have evolved since 2000 are described below:

Concept 1 manifested as a result of policies put forth by the state with regard to water resources. When the County's Water Resource Element was adopted in 2010, because of a state mandate to more closely scrutinize the County's and Municipalities long range plan for water allocation and wastewater disposal, the County's nine designated growth areas had to be able to accommodate current and future growth with regard to water appropriations, this legislation lead to the County and Municipalities shrinking the DGAs (see table CH16-1). Since these boundaries were originally designated for growth by the County the development patterns that materialized over the last several decades are now shown outside of the DGAs of the County resulting in increased residential, commercial and industrial land uses. Table CH16-3 shows the increase in land use by category of areas that were formerly counted in the DGAs but are now included in the area covered by the County Master Plan due to these boundary shifts. Freedom boundary did not change so their land uses are not shown.

DESIGNATED GROWTH AREAS FUTURE LAND USE ACRES WHEN ADDED TO THE MASTER PLAN

Finksburg	Table CH16-3
Future Land Use	*Acres*
Agriculture	193
Commercial-Low	1
Commercial-Medium	69
Employment Campus	187
Reservoir	25
Residential-Low Density	1,644
Residential-Very Low Density	3,148
Resource Conservation	3,293
Village-Commercial Industrial	6
Village-Residential	80
Hampstead	
Future Land Use	*Acres*
Agriculture	2
Commercial-High	4
Commercial-Medium	2
Industrial-Heavy	63
Industrial-Light	147
Residential-Low Density	383
Residential-Very Low Density	6
Resource Conservation	123
Manchester	
Future Land Use	*Acres*
Agriculture	49
Commercial-Low	13
Commercial-Medium	147
Residential-Low Density	422
Residential-Very Low Density	1,069
Resource Conservation	102
Mt. Airy	
Future Land Use	*Acres*
Residential-Very Low Density	88
New Windsor	
Future Land Use	*Acres*
Agriculture	192
Taneytown	
Future Land Use	*Acres*
Agriculture	100
Union Bridge	
Future Land Use	*Acres*
Agriculture	132
Resource Conservation	12
Westminster	
Future Land Use	*Acres*
Agriculture	1,258
Employment Campus	149
Extractive	17
Industrial-Heavy	17
Industrial-Light	77
Reservoir	7
Residential-Low Density	1,329
Residential-Very Low Density	1,498
Resource Conservation	2,008

Concept 2 shows how the Gillis Falls reservoir environs, which includes the areas south of MD 26 and west of MD 27, the future reservoir pool line, and areas reserved for the reservoir, as they have

developed since the implementation of the 2000 Master Plan. The majority of this area has a land use designation of "Conservation" in the 2000 Master Plan and is predominantly zoned "Conservation". The County's "C" Conservation Zone allows for 3 (three) acre lot sizes for non-cluster lots and 1 (one) acre lot sizes in cluster subdivision. The zoning provisions that allowed for large subdivisions in this area of the County, no longer support a resource conservation development pattern, but a pattern more indicative of large lot subdivision. In this area approximately 2,115 parcels encompassing 5,000 acres developed in this manner. This is an average residential density of 1 unit per 2.4 acres and is not consistent with a resource conservation land use.

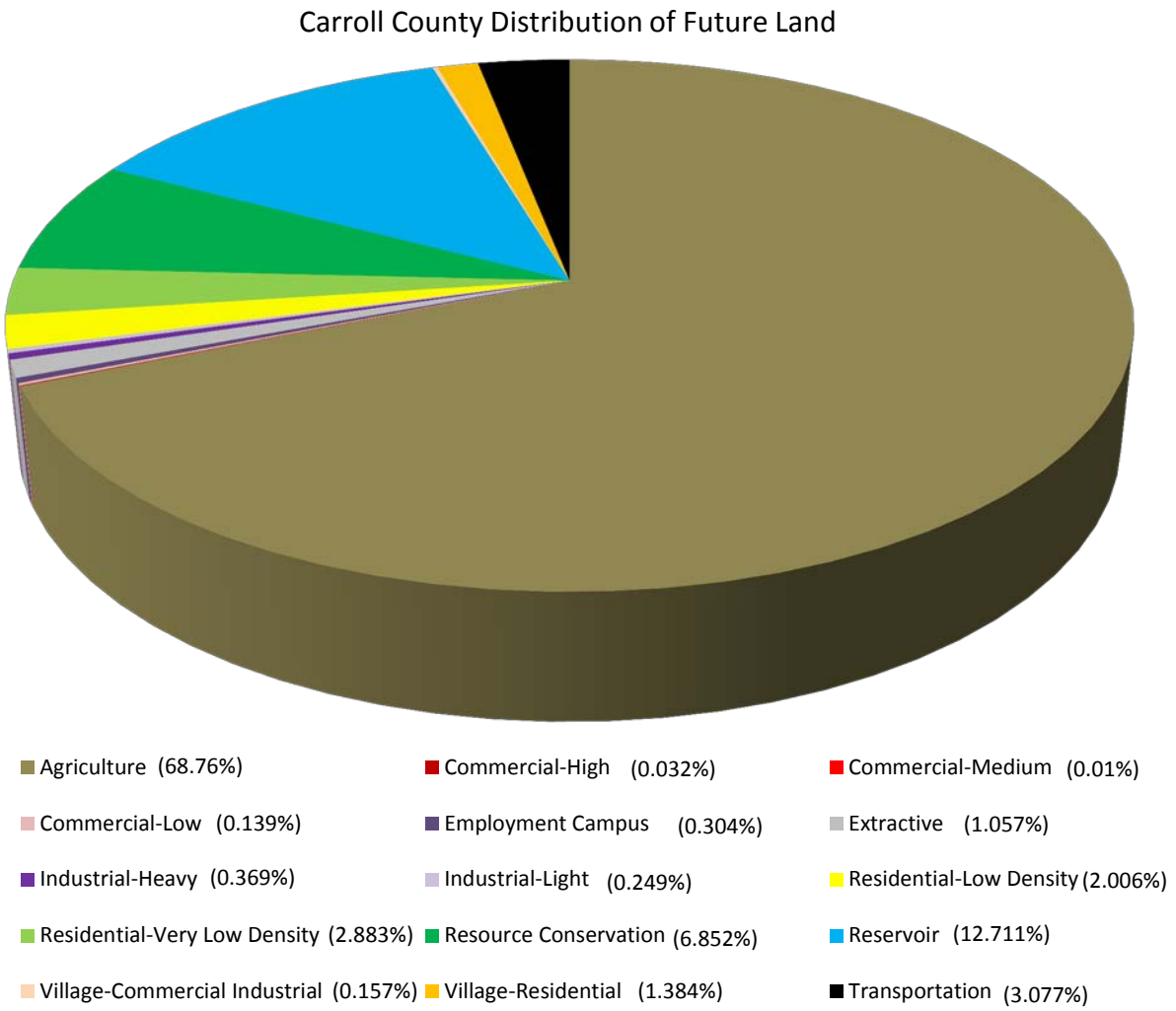
Concept 3 reaffirms the County's commitment to continue to foster economic development. Chapter 15, Economic Development, analyzes the County's need for an increased economic tax base and to balance the deficiencies in the jobs/housing balance. This can only be achieved if the County dedicates more land to commercial, industrial, and institutional enterprises. This Master Plan increases these land uses by a total of 1,333 acres or 0.60 percent of the land covered by the Master Plan and is only 0.56 percent of the total County land. Table CH16-4 shows these additional acres and their future land use designation. They County recognizes the need to coordinate these future land uses with many of the municipalities they surround. The County will continue to work with these municipalities throughout the implementation process and take the most appropriate course of action. The *Mt. Airy Environs* and the *Westminster and Environs* future land use maps on Pages 143 and 144 show the location and type of the future land use designations proposed surrounding these areas.

Additional Economic Development Land Uses Table CH16-4

Land Use Type	Acres Added
Commercial-High	60
Employment Campus	738
Industrial-Heavy	300
Industrial-Light	332

Concept 4 recognizes that each rural village is unique and has a rich history all its own and separate from other areas of the County. The rural village designation grew out of State of Maryland's 1997 Smart Growth Areas Act. This legislation allowed counties to identify community crossroads in rural areas that were not incorporated, but had unique historic qualities. These rural villages would allow for new growth of a primarily in-fill nature or limited peripheral expansion within the confines of the designated boundary. In order to fully utilize the County's rural villages and allow for redevelopment and limited new development that remains within the "character" of each community, this new land use designation will help achieve the goal of this concept. Map 16-2 shows the location of each of the County's 35 rural villages along with the County Priority Funding Areas.

The *Carroll County Master Plan* Map 16-3 illustrates these future land use concepts by blending them into a seamless map that enhances the County's policies and reaffirms its commitments. Chart CH16-3 shows the breakdown of these categories and Appendix B contains the category definitions. Based on this new distribution of land uses the County still maintains its agricultural, reservoir and resource conservation lands, which constitute approximately 89 percent of the land base in the area covered by the Master Plan. The remaining 11 percent is in other uses, with residential land use making up the bulk of this acreage at 10 percent.



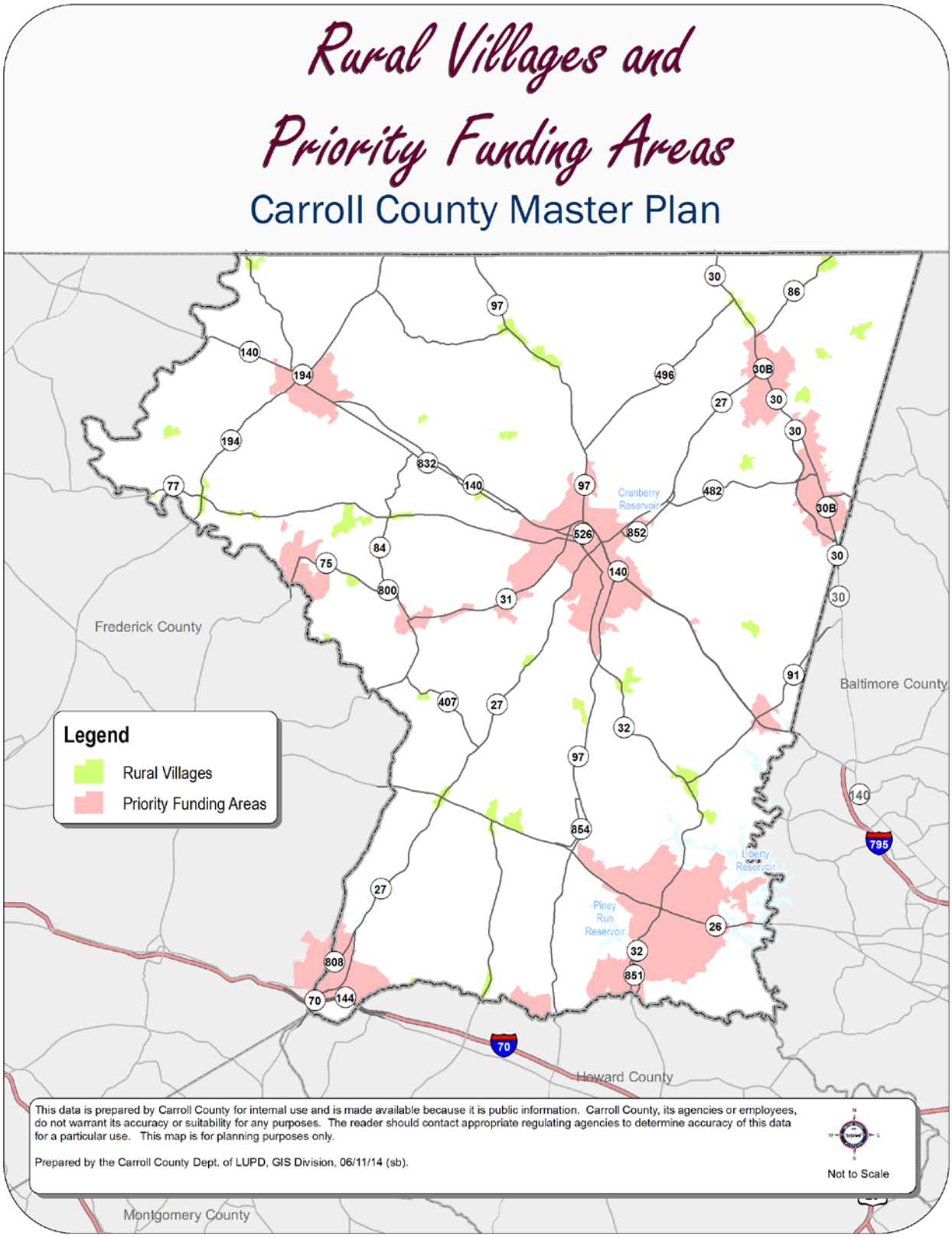
2000 Master Plan Land Use		2014 Master Plan Land Use		2014 Master Plan Acres formerly in 2000 Master Plan	
Land Use	Acres	*Generalized Land Use	Acres	*Generalized Land Use	Acres
Agriculture	173,764	Agriculture	168,858	Agriculture	2,023
Business	394	Business	800	Business	243
Conservation	30,691	Resource Conservation	34,813	Resource Conservation	5,568
Industrial	666	Industrial	2,185	Industrial	640
Residential	7,347	Residential	23,009	Residential	9,666
Totals	212,862		229,665		18,141

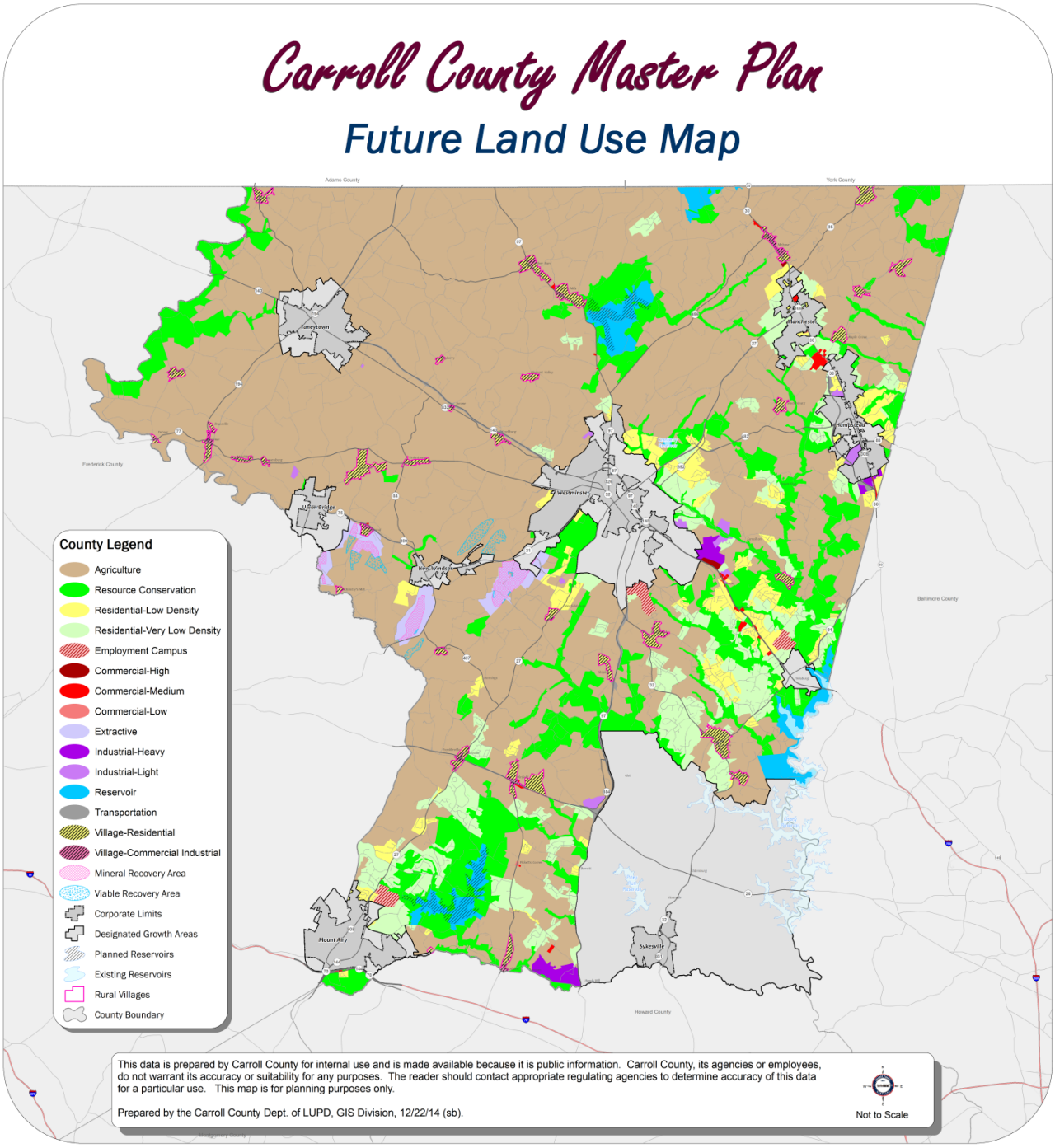
Table CH16-5

**2014 Generalization- Agriculture (Ag, extractive, village residential), Resource Conservation (reservoir, conservation), Business (high, medium, low commercial, village commercial), Industrial (employment campus, heavy, light industrial), Residential low and very low density residential).*

Comparing the 2000 Master Plan to the 2014 Master Plan very little has changed with regard to the direction of the future land use. Looking at the two plans side-by-side, Table CH16-5 shows the 2000 land uses relative to the 2014 land uses. Because there is not a one-for-one comparison

between land use categories, the 2014 categories have been generalized to match the 2000 categories. In addition, some of the acreage increase is due to those areas being removed from a DGA.


Rural Villages and
Priority Funding Areas
Carroll County Master Plan
Legend
Rural Villages
Priority Funding Areas
Frederick County
Baltimore County
Howard County
Montgomery County
Cranberry Reservoir
Liberty Reservoir
Piney Run Reservoir
This data is prepared by Carroll County for internal use and is made available because it is public information. Carroll County, its agencies or employees, do not warrant its accuracy or suitability for any purposes. The reader should contact appropriate regulating agencies to determine accuracy of this data for a particular use. This map is for planning purposes only.
Prepared by the Carroll County Dept. of LUPD, GIS Division, 06/11/14 (sb).
Not to Scale


Carroll County Master Plan
Future Land Use Map
Adams County
York County
Frederick County
Baltimore County
Howard County
Taneytown
Manchester
Hampstead
Westminster
Union Bridge
New Windsor
Mount Airy
Sykesville
County Legend
Agriculture
Resource Conservation
Residential-Low Density
Residential-Very Low Density
Employment Campus
Commercial-High
Commercial-Medium
Commercial-Low
Extractive
Industrial-Heavy
Industrial-Light
Reservoir
Transportation
Village-Residential
Village-Commercial Industrial
Mineral Recovery Area
Viable Recovery Area
Corporate Limits
Designated Growth Areas
Planned Reservoirs
Existing Reservoirs
Rural Villages
County Boundary
This data is prepared by Carroll County for internal use and is made available because it is public information. Carroll County, its agencies or employees, do not warrant its accuracy or suitability for any purposes. The reader should contact appropriate regulating agencies to determine accuracy of this data for a particular use. This map is for planning purposes only.
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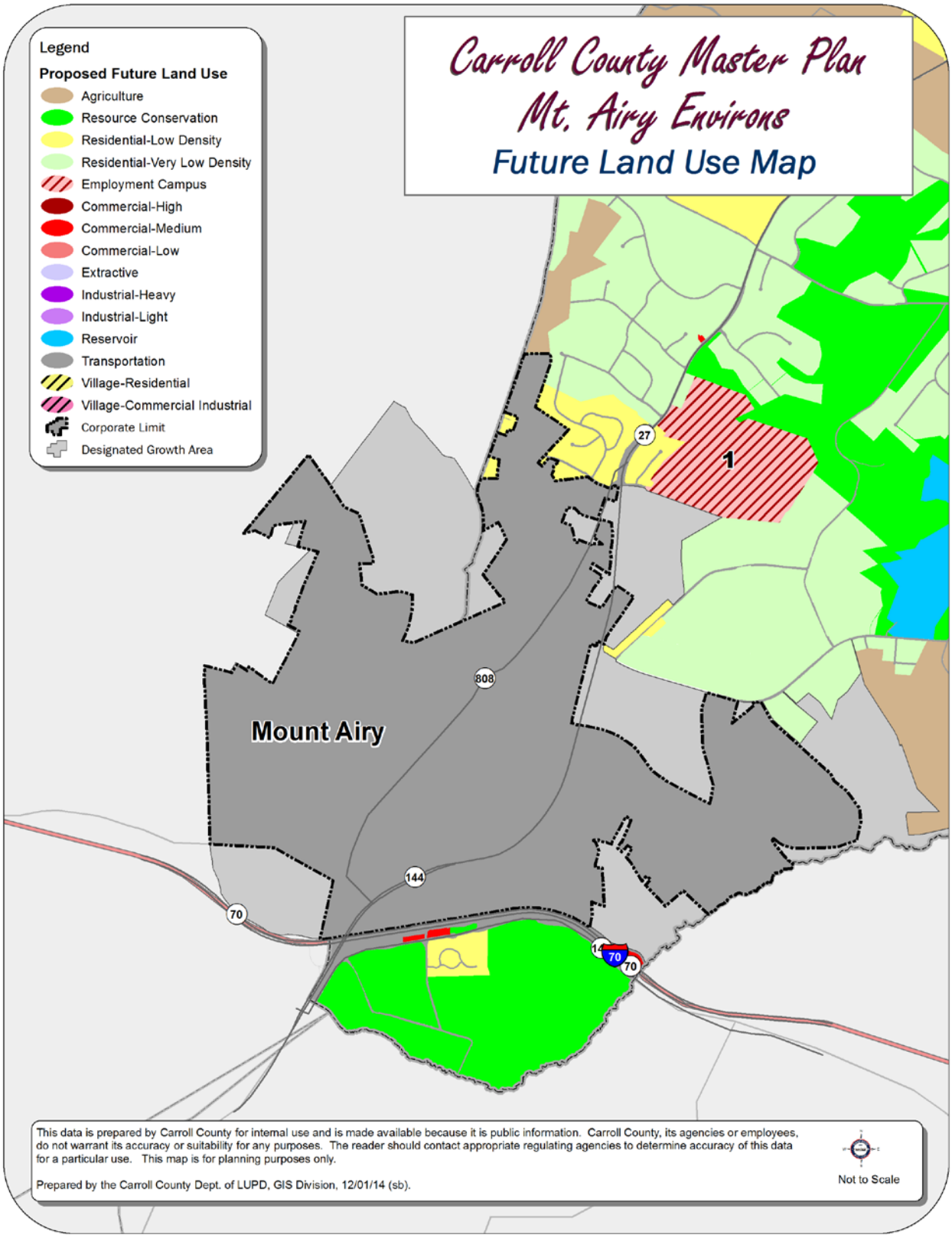
Carroll County Master Plan
Mt. Airy Environs
Future Land Use Map
Legend
Proposed Future Land Use
Agriculture
Resource Conservation
Residential-Low Density
Residential-Very Low Density
Employment Campus
Commercial-High
Commercial-Medium
Commercial-Low
Extractive
Industrial-Heavy
Industrial-Light
Reservoir
Transportation
Village-Residential
Village-Commercial Industrial
Corporate Limit
Designated Growth Area
Mount Airy
1
27
808
144
70
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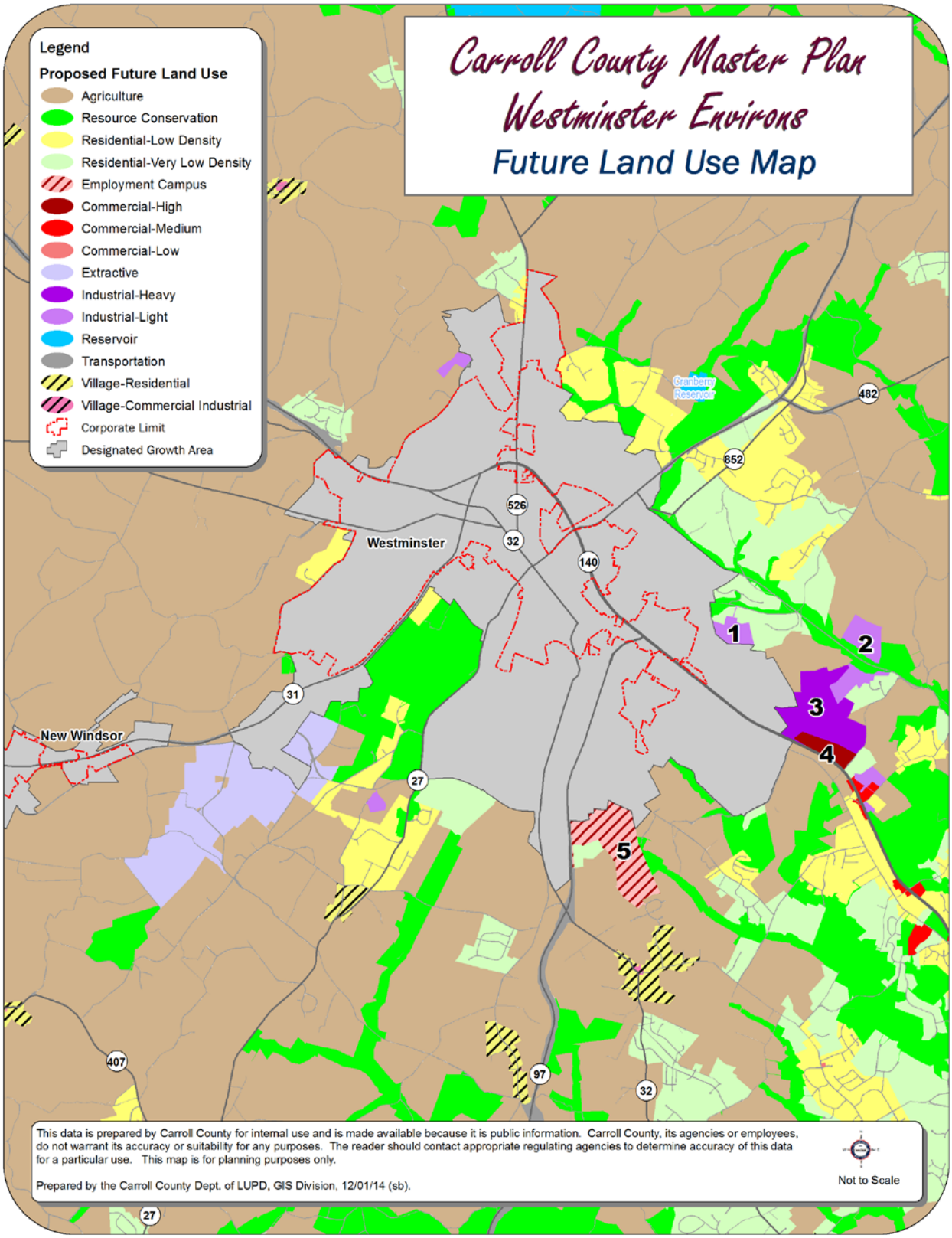
Not to Scale


Carroll County Master Plan
Westminster Environs
Future Land Use Map
Legend
Proposed Future Land Use
Agriculture
Resource Conservation
Residential-Low Density
Residential-Very Low Density
Employment Campus
Commercial-High
Commercial-Medium
Commercial-Low
Extractive
Industrial-Heavy
Industrial-Light
Reservoir
Transportation
Village-Residential
Village-Commercial Industrial
Corporate Limit
Designated Growth Area
Westminster
New Windsor
Cranberry Reservoir
482
852
526
32
140
31
27
407
97
1
2
3
4
5
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Prepared by the Carroll County Dept. of LUPD, GIS Division, 12/01/14 (sb).
Not to Scale

The Choice: Policies & Recommendations

Policies

- Continue to pursue and implement the County's longstanding focused pattern of development that has successfully facilitated balanced development and an idyllic lifestyle.

Recommendations

A. Work with the municipalities to incorporate ways to achieve the County's goal to pursue policies that facilitate development in appropriate areas, including the designated growth areas, when updating the community comprehensive plans.
B. Continue to coordinate with the municipalities on future land use designations outside of their MGAs and DGAs, but still within the 1-mile buffer per the Town-County Agreements.
C. Periodically review the Carroll County Zoning Code to maintain compliance with the updated Carroll County Master Plan.
D. Review and update the uses permitted in each zoning district to ensure consistency with each zone's purpose and corresponding land use descriptions as detailed in the Master Plan.
E. Continue to develop an annual concurrency report that monitors development and details remaining capacities to adjust the rate of growth to match the County's ability to fund improvements.
F. Continue supporting Main Street programs and expand them to Rural Villages and the Freedom Growth Areas, where appropriate, to encourage development that is consistent with the character of the Main Street areas and the historic villages.
G. Investigate various state programs that strengthen reinvestment, revitalization and promote the County's older communities.
H. Encourage land practices that protect the rural character of the Rural Villages. To preserve the unique character and facilitate infrastructure maintenance, consider converting Rural Villages into full Priority Funding Area designations, where appropriate.

Fiscal Impact to the County

Most of the fiscal expenditures currently take place as part of the Department's and the County's responsibilities for: resource management, development review, public works, planning, and economic development. Several of the recommendations, while important from a planning standpoint, will have a budgetary impact to make the DGAs better able to accept new development. Forward funding major planned street connections is not currently a capital budgetary item. Additional revenue sources would have to be found to implement this recommendation.

Appendix A: Implementation Strategies

The Significance to Carroll County

The execution of a Master Plan is carried out through various implementation mechanisms. These mechanisms can range from minor internal policy changes to major County code updates and capital expenditures for much needed infrastructure or facilities. The Plan's implementation processes will begin once the Plan is Adopted and will continue over the next several years as the *2014 Carroll County Master Plan* recommendations are brought to fruition. Below is a list of possible implementation strategies by chapter that maybe carried out over the lifecycle of this Plan.

IMPLEMENTATION RECOMMENDATIONS BY CHAPTER

Chapter 2 - Planning Process, Interjurisdictional Coordination and Community Involvement

A. Continue to distribute planning and development related information through press releases, social media, the County library system, and via municipalities' to make participation opportunities more easily accessible.

Chapter 5 – Water Resources

A. Continue to pursue water appropriation permits where additional water sources are needed for drinking water provision
B. Implementation strategies are tied to efforts in *Chapter 6: Public Facilities and Services.*

Chapter 6 – Public Facilities and Services

A. Explore funding for needed capital improvement projects specified in the 2013 Carroll County Master Water and Sewer Plan for County projects.

Chapter 7 – Transportation

A. Work with the County's Delegation to the General Assembly to seek funding for state highway projects and prioritize them with the State Highway Administration (SHA).
B. Investigate a greater role and responsibility for construction of state arterial and collector roads with the CIP funding in partnership with the state.
C. Work with SHA to upgrade MD 32 and MD 27 to a divided highway status from the southern County line to Westminster.
D. Maintain and/or improve the level of service along state arterial roads through corridor preservation, capacity increase and conveyance improvements and other measures.
E. Calculate the accident rate based on the most recent available "Accident Detail Highway Location Listing," published by Maryland State Highway Administration, and review the high-accident intersections or roads to identify possible improvements needed.

F. Implement traffic calming measures prior to construction on minor roads where there is a defined need to slow traffic and improve safety in areas with nearby residences.
G. On major roads, implement strategies that enhance the flow of traffic with solutions such as roundabouts, pavement design, and geometric design may be considered.
H. Develop and adopt a Bicycle and Pedestrian Facilities Master Plan(s). When developing a Bicycle and Pedestrian Facilities Master Plan, identify suitable bicycle and pedestrian facilities and amenities that allow and encourage residents to bike or walk to their destinations and to serve as a guide for Community Investment Plan (CIP) and new development projects, to reduce traffic congestion, to provide transportation alternatives, and to provide recreational and health benefits.
I. Review the Zoning Ordinance, Subdivision Regulations, and the standards for highway and street design and construction to identify any obstacles that would prevent implementation of access control policies, particularly on arterials and collector roads, and a connecting system of internal and external streets, providing for shorter and fewer vehicle trips and better traffic circulation.
J. Include the Carroll County Regional Airport when developing transportation system linkages in an updated of the Countywide comprehensive transportation plan.
K. In conjunction with G above, review road standards to allow roads to promote, where appropriate, pedestrian safety.
L. Develop and implement an east-west alignment route that connects Routes 31 to 97 as a strategy to reduce congestion and vehicle miles traveled.
M. Support initiatives to reduce the length and number of household trips related to work.
N. Support development that reduces the Average Daily Traffic (ADT) by investigating Chapters 103 and 223 related impediments.
O. Conduct a study to identify if there is a need to increase park-and-ride lots where appropriate in the County.
P. Encourage the use of alternative transportation, such as bicycles, transit, and carpools, to improve air quality by reducing the number of vehicles on the road during the week.
Q. Encourage new subdivision and road design to provide bicycle and pedestrian-friendly routes to shopping, schools, and recreation areas.
R. Evaluate zoning and subdivision regulations to minimize cul-de-sacs, use-in-common drives, and panhandle lots in “R” Residential districts.
S. Conduct traffic studies to determine viable options to safely and efficiently move traffic, including heavy truck traffic in known or identified trouble spots throughout the County, such as MD 75/MD 77.
T. Investigate the value of developing a Complete Streets Policy for relevant areas of the county.
U. For all subdivision projects that identify future alignments require signage be erected to advise the public of a future roadway project.
V. Continue to work with the SHA to seek funding for streetscape improvements such as those conducted in Manchester and Taneytown, and citing measures implemented in Mount Airy and Westminster.

Chapter 8 - Housing

A. Consider changing the County Subdivision Regulations and Zoning Ordinance to permit mixed-use and non-age-restricted multi-family development within the Designated Growth Areas.
B. In the Designated Growth Areas, with the coordination and cooperation of the municipalities, encourage mixed-use planned developments that allow for a variety of housing types as well as business and recreational uses.

Chapter 9 – Agriculture

A. Investigate the opportunity to preserve remaining portions or at a minimum assure that other uses minimize interference with the preferred use (agriculture) in the agricultural district.

Chapter 10 – Priority Preservation Area

A. Preserve lands in the Priority Preservation Area in a manner that supports recommendations as stated in *Chapter 9: Agriculture*.
B. Continue to require timber harvesting best management practices such as selective cutting in timber harvest operations.
C. Continue to support the American Forest Foundation and its Tree Farm Program.

Chapter 11 – Parks

A. Evaluate the existing fee structure for parks to determine if the fee is adequate to provide affordable public recreation facilities and parks in the future.
B. Link proposed open space to existing or planned open space on adjoining development, whenever possible.
C. Promote passive recreational opportunities in reservoir watershed and well head protection areas.
D. Preserve the Union Mills and Gillis Falls areas for passive recreational uses.
E. Seek funding for construction of greenway corridor trails.
F. Explore the use of POS or other funds for fee simple or easement purchases of identified greenway corridors and/or segments.

Chapter 12 – Heritage

A. Institute a regular program to survey, document, map, and complete evaluations and submissions of the County's undocumented historic resources the MDIHP.
B. Coordinate with the Agricultural Land Preservation Program to inventory and document historic agricultural buildings as part of the process of inclusion into the easement programs.
C. Stimulate interest in using existing Federal and State tax credits and other economic incentives for rehabilitating, adapting, and reusing historic properties.
D. Maintain active participation in the various byway, heritage, eco, or agri tourism partnership projects to leverage and attract economic development opportunities, investments and returns to Carroll County.
E. Continue to support Main Street programs in the county's municipalities.
F. Develop and adopt a Community Heritage Plan that identifies measures to preserve, rehabilitate, and/or incorporate historic resources into redevelopment or new development. The Plan should also identify opportunities to utilize the tourism value of Carroll's historic and cultural sites more fully.
G. Implement the management plans for the Heart of the Civil War Heritage Area and, once finalized The Journey Through Hallowed Ground Heritage Area.

Chapter 13 – Environmental Resources

A. Continue to conserve agricultural lands and enforce fifty-foot stream buffers through MALPF.
B. Continue to secure funds for stream buffer assessments and restoration.
C. Continue to implement the forest banking program.
D. Continue to minimize development's impact on recharge rates of community supply wells to allow for the maximum recharge.
E. Continue to evaluate impacts to sensitive watersheds and recharge areas for community water supplies when determining new development patterns.
F. Continue to maintain, restore and/or regenerate forested stream buffers through development regulations, NPDES permit compliance and DRM's stream assessment efforts.
G. Encourage all municipalities to adopt the County's Water Resource Management Ordinance or similar protections for municipal water resources.

H. Consider potential preservation strategies for the large wetland in the Alesia area that has been identified as a wetland of State concern and is being evaluated for rare, threatened, and endangered species.
I. Continue participation in the Watershed Resource Coordination Council, Clean Chesapeake Coalition, Monocacy Scenic River Citizens Advisory Board, and the Reservoir Technical Group in a manner that ensures appropriate cost/benefit ratios.

Chapter 14 – Mineral Resources

A. Continue to assess and implement the MRO, MRA and VRA designations based upon changing and expanding operations.
B. Continue to offer TDRs for property owners with VRA designated placed on their property.
C. Continue to disclose MROs, MRAs and VRAs to new homeowners at the time of sale.
D. Continue to implement MRN areas.

Chapter 15 – Economic Development

A. Continue to ensure that the development review process for industrial and commercial development is predictable, consistent, and evenly applied to make Carroll County more attractive to existing and potential businesses.
B. Ensure the development review process is business friendly.
C. Zone adequate commercial, industrial and employment campus lands to increase the non-residential economic tax base.
D. Ensure the provision of appropriately-located industrial and office land, preferably within the DGAs where adequate infrastructure exists or is planned.
E. Revise the text of the Employment Campus Zoning District to provide for comprehensively planned employment centers *that* combine research and development, office, flex-space, and other light and limited industrial uses, *while* also providing a more flexible approach to design and development.
F. Create new zoning districts that would facilitate new businesses and economic growth.
G. Protect and enhance Main Street viability through business expansion/retention by supporting tax-credit and loan programs for development/redevelopment, providing planning and technical assistance to the County's municipalities, and collaborating with municipal staffs to enhance infrastructure such as roadways, water and sewer facilities, and broadband communication.
H. Identify areas and parcels of land to be targeted for redevelopment, and review/revise land use designations and regulations as needed to facilitate redevelopment.
I. Facilitate the expansion of existing businesses through the periodic comprehensive review of the zoning code and zoning maps during community comprehensive plan updates.
J. Explore the creation of new business and office zoning classifications that would be highly compatible with residential uses to serve as transition or buffer zones between residential areas and more intensive business or industrial zoning.
K. Improve access to industrially zoned land.
L. Continue to work closely with the Town of Sykesville and the Warfield Development Corporation to identify an acceptable development strategy for the Warfield Complex.
M. Encourage large-scale commercial and employment developments to locate where infrastructure already exists or is planned.
N. In Rural Villages, encourage small neighborhood commercial development that is consistent with local character and that revitalizes historic properties.
O. Review and modify the business and industrial zones to promote new business activity, and take out the principal permitted and conditional uses that are inconsistent with the purpose of the zone.
P. Evaluate the addition of development criteria or standards for specific uses.

Q. Encourage the municipalities to review permitted uses and other requirements in their business zones to better facilitate desired business development/redevelopment.
R. Continue to facilitate commercial development to be consistent with the character and needs of each particular community.
S. Improve the visual image of the County's gateways through the use of the Gateway Tax Credit and other appropriate tools to make the County more attractive for business and tourism.
T. Identify and direct funding for projects that will provide needed transportation, water and sewer, and fiber-optic improvements and expansions to attract potential new employment opportunities in targeted areas.
U. Continue programs such as Carroll Business Path that assist and mentor small-business owners.
V. Continue to work with local businesses, local public schools, and colleges/universities to meet workforce development, training, and retraining needs, especially in technology-related fields (including science, technology, engineering, and math).
W. Fund transportation projects that expand transportation options and connectivity to ensure an adequate workforce for County employers.
X. Maximize opportunities to develop or redevelop high-visibility employment areas, major industrial parks, and mixed-use opportunity areas.
Y. Along major roadway corridors, encourage the assembly of small, separate adjoining parcels of developable land into single larger parcels to avoid piecemeal development or redevelopment (i.e., scattered and uncoordinated) and to promote consistent and long-term development objectives.
Z. Promote training programs for existing and emerging farmers to improve critical business knowledge and skills.
AA. Provide incentives to farmers to diversify operations through agribusiness innovations.
BB. Enhance agri-business sustainability through encouraging the next generation of farmers by connecting younger farmers with experienced farmers and by assisting in farm succession planning.

Chapter 16 – Land Use & Growth Management

A. Continue to implement the concurrency management program to ensure that residential growth proceeds at a rate that will not unduly strain public facilities and services.
B. Comprehensively rezoning areas of the County subject to the Master Plan.
C. Implement the Master Plan through formal town/County agreements that show support from the municipalities for concentrating growth in those towns that have the ability to accommodate it and that provides additional support from the County to assist the towns in accomplishing this goal.
D. Look to forward build planned roads as funding is available to avoid fragmented infrastructure development and to foster the establishment of complete and cohesive communities.
E. Locate new schools, libraries, other public services, and business development in the DGAs where they can most effectively and efficiently serve the largest number of people and to promote concentration of growth within the DGAs.
F. To preserve the unique character and facilitate infrastructure maintenance, consider converting Rural Villages into full Priority Funding Area designations, where appropriate.
G. Review residential, commercial, and industrial zoning and subdivision regulations and modify as necessary to ensure they are consistent with the Master Plan goals.

Appendix B: Existing and Future Land Use Definitions

Existing Land Use – how land is currently being utilized.

Land Use	Description (Abbreviated)
Agriculture/Resource	Agriculture includes the use of land for growing of crops, dairying, pasturage, horticulture, floriculture, viticulture, or animal/poultry/honeybee husbandry. Resource land relates to property that is occupied by natural or environmental resources, including wooded areas and forests, wetlands, streams, ponds, steep slopes, floodplains, natural vegetation, and fish and wildlife and their habitat.
Very Low Density Residential	Residential subdivision with lot sizes greater than 1 acre and up to 10 acres.
Low Density Residential	Residential subdivision with lot sizes between 1 and ½ acres or 1 unit per acre up to 2 units per acre.
Medium Density Residential	Residential subdivision with lot sizes between <½ and ¼ acres or >2 units per acre up to 4 units per acre.
High Density Residential	Residential subdivision with lot sizes <¼ acre or >4 units per acre.
Mixed Use* (this will only be used for properties that have this current designation)	Properties that are developed with a mix of residential uses (dwelling units) and commercial uses will be classified in this land-use category. The mix of uses can be within a single building or among buildings located throughout the site. Typically if the mix of uses is within one building, the residential uses are located above the ground floor level of commercial uses.
Commercial	A land use or activity involving the sale of goods, products, wares, or merchandise directly to the consumer (e.g., retail).
Industrial	Land that is used to assemble, fabricate, finish, reduce, refine, manufacture, package, or process goods in a manner where the form, character, or appearance changes. Manufacturing involves a series of actions that transform one or more raw materials into a finished product. Industrial uses also include mineral processing.
Transportation	Properties that are comprised of stationary structures or facilities, located on or beneath ground, which enable the transport of people (passengers) or goods (freight); essentially the transportation infrastructure.
Utility	All lines and facilities related to the provision, distribution, collection, transmission, or disposal of water, stormwater, sanitary sewage, oil, gas, heat, steam, power (e.g., electricity), information, and telecommunications. This land-use category applies if the property is devoted to the use as opposed to an easement on the property that allows the use.
Public Facilities & Institutions	Uses involving a public, private, or public/private (quasi-public) group use of a nonprofit nature, typically to provide a public service (including educational, cultural, governmental, and religious purposes).
Extractive	Properties that involve on-site extraction of surface or subsurface mineral products or natural resources. Parcels are primarily used for surface mining and deepening for extraction of materials such as gravel, stone, minerals,

	ore, soil, or peat.
Open Space/Recreation	Open space is the land area within a development that has been dedicated for the use and enjoyment of all residents of a subdivision/development or for the use and enjoyment of the public in general. It is a separately created parcel(s) or lot(s) designated for and recorded as open space, as opposed to being preserved for this purpose through an easement. Recreation pertains to land uses that provide leisure-time activities that refresh the body and mind through forms of play, amusement, or relaxation.
Reservoir	This land use pertains to the pool area only of existing surface-water reservoirs in the county.
Vacant	Property that is not being actively used for any purpose and is unimproved (i.e., no buildings or structures are on the property). To be considered vacant, the property must not be in use for other purposes, such as productive agriculture, designated open space, parkland, natural preserve, etc. If no development activity has started on a recorded subdivision lot, it is considered vacant. "Vacant land" typically is a temporary status and connotes imminent change or high potential for change to a different use.

Future Land Use Definitions – land use designations as part of the Master Plan.

Future Land Use Designation	Description (Abbreviated)
Agriculture	Agriculture includes the use of land for growing of crops, dairying, pasturage, horticulture, floriculture, viticulture, or animal/poultry/honeybee husbandry.
Resource Conservation	Resource conservation land relates to land that is occupied by natural or environmental resources, including wooded areas and forests, wetlands, streams, ponds, steep slopes, floodplains, natural vegetation, fish and wildlife and their habitat. These are areas where, because of natural geographic features it is considered feasible and desirable to conserve open spaces, water supply sources, woodland areas, wildlife, and other natural resources. This may include extensive steeply sloped areas, stream valleys, water supply sources and adjacent wooded areas. Residential, commercial and industrial development should be directed to areas with a land use classification for that purpose.
Reservoir	This land use pertains to the pool area and acquired properties of existing and planned future surface-water reservoirs in the county.
Residential- Very Low Density	Residential subdivision with lot sizes greater than 1 acre and up to 10 acres.
Residential -Low Density	Residential subdivision with lot sizes of approximately 1 acre.
Residential -Medium Density	Residential subdivision with lot sizes of approximately ½ acre.
Residential -High Density	Residential subdivision with lot sizes of approximately ¼ acre.
Commercial - Low Intensity	The purpose is to provide for services needed by a neighborhood population characterized by low volumes of traffic. Activities would involve the sale of services, goods, products, wares, or merchandise directly to the consumer (e.g., retail) of a small, local nature. Generally would not include uses with expanded hours of operation.
Commercial -Medium Intensity	The purpose is to provide for services needed by a larger, suburban area population than in a neighborhood commercial setting and is characterized by low to medium volumes of traffic. The intent is to provide for land use for activities involving the sale of goods, products, wares, or merchandise directly to the consumer (e.g., retail).
Commercial - High Intensity	The purpose is to provide logical locations for businesses with high volumes of traffic that serve the region for warehousing, large scale retail, wholesale and some light processing operations. Longer hours of operation are to be expected.
Industrial-Light	Land that is used to warehouse, assemble, fabricate, finish, reduce, light manufacture, package, or process goods in a manner where the form, character, or appearance changes. Manufacturing involves a series of actions that transform one or more raw materials into a finished product. Industrial uses also include mineral processing.
Industrial-Heavy	Land that is to provide for the manufacturing, refining or processing which may require extensive transportation, water, and/or sewerage facilities, as

	well as open space, because of the number size of plant, its byproducts, which might result because of the heavier or larger manufacturing plants proposed.
Transportation	Properties that are comprised of stationary structures or facilities, located on or beneath ground, which enable the transport of people (passengers) or goods (freight); essentially the transportation infrastructure.
Extractive	Properties that involve on-site extraction of surface or subsurface mineral products or natural resources. Parcels are primarily used for surface mining and deepening for extraction of materials such as gravel, stone, minerals, ore, soil, or peat.
Village - Residential	Within the defined boundary of each individual Rural Village this designation will provide for the protection and character of the existing villages by permitting limited residential development consistent with the rural village's individual character. Densities not to exceed average existing density.
Village -Commercial /Industrial	Within the defined boundary of each individual Rural Village this designation will provide for the protection and character of the existing villages by permitting limited commercial and existing industrial development consistent with the rural village's individual character where land is already zoned commercial not to exceed neighborhood commercial uses unless it is already operating as such.
Employment Campus	To provide an area for business activities in a campus like setting to attract employers of highly skilled workers and primarily higher paying jobs.

Appendix C: Glossary of Terms

Accessory dwelling unit is an additional attached or detached dwelling unit on a lot with a principal dwelling unit.

Aesthetics relates to the pleasantness of the total environment and the perceptual aspects of the physical surroundings—their appearance to the eye and the comfort and enjoyment offered to the other senses.

Agricultural or Agricultural Purposes is the raising of farm products for use or sale, including livestock or poultry husbandry, and the growing of crops such as grain, vegetables, fruit, grass for pasture or sod, trees, shrubs, flowers, and similar products of the soil, and including stables for boarding and training horses.

Amend or Amendment means any repeal, modification, or addition to a regulation, any new regulation, any change in the number, shape, boundary or area of a zone or any repeal or abolition of any map, part thereof or addition thereto.

Board of Zoning Appeals (BZA) are residents of the County appointed by the County Commissioners to hear and decide appeals where it is alleged there is an error in any order, requirement, decision, or determination made by the Zoning Administrator in the administration and enforcement of the zoning ordinance. The BZA may also hear and decide requests for a conditional use to the zoning ordinance. The power to authorize variances from the zoning ordinance, upon appeal, in specific cases is also given to the Board when this action will not jeopardize the public health, safety, and welfare.

Census data includes the results of the population counts made every 10 years by the U.S. Bureau of the Census dating back to 1790. Following the 2000 U.S. Census, modifications were made to the data gathering processes. The decennial U.S. Census will now count the total population by address and gather data on their age, gender, and ethnicity. The Census Bureau now also gathers and reports detailed population data through the American Community Survey. This instrument gathers and reports a wide range of data, including, household type or makeup, housing conditions, property ownership, incomes, and commuting patterns. A separate Agricultural Census is taken every 5 years; the three most recent surveys were 2002, 2007, and 2012. Information includes farm size, farm ownership, amounts, and values of crops, animal types, etc.

Cluster development means a development that groups residential, commercial, or industrial uses on a specific portion of a development site in order to provide for a reduction in permitted lot size and an increase in resulting open space, environmental or landscape resources, or recreation or other public facilities for the development.

Community Fabric describes the inherent pattern of development, typical structure forms and scale, patterns of roads, public spaces, landscaping, and the like which form a background to a traditional neighbor setting or that defines its typical character.

Community Investment Plan (CIP) is a six-year timetable for the installation of permanent public structures, facilities, roads, and other public improvements based upon budget projections.

Concurrency Management is a program designed to ensure that proposed or planned residential growth proceeds at a rate that will not unduly strain public facilities, including schools, roads, water and sewer facilities, police, fire, and emergency medical services. The program establishes minimum adequacy standards or thresholds for these facilities and services and mandates that the cumulative impacts of proposed or planned residential growth, within the incorporated municipalities and the County, be considered in testing for adequacy under these standards.

Conditional use means a use which may be permitted in a district, through the granting by the BZA upon a finding by the BZA that it meets specified conditions.

Demographics are the characteristics of the population, such as average household size, density, growth rate, birth rate, median age or income, etc. Their role in the planning process is to help assess changing needs or demands for community facilities, infrastructure, or services. Demographics analysis include reporting actual census counts and data, future projections, analyzing potential impacts or trends and establishing contexts for surrounding areas. For example, preparations to provide needed services and facilities for an aging population will be dramatically different than those to respond to increasing birth rates.

Density means the number of buildings, offices, or housing units on a particular area of land.

Development means any activity, other than normal agricultural activity, which materially affects the existing condition or use of any land or structure.

Dwelling is any building arranged, designed, or used in whole or in part for residential purposes, but not including a tent, cabin, trailer, or mobile home, or a room in a hotel or motel.

Easement is the right to use property owned by another for a specific purpose, such as power line easement, or the property owner gives up the right to some of the uses he or she may otherwise have of that property.

Impact fees are fees charged as a precondition to construction or development approval which are related to funding public improvements necessitated in part or in whole by the development.

Improvements refer to facilities which aid in land development, such as streets, sewer and water lines, curbs, sidewalks, street lights, fire hydrants, and street signs.

Infrastructure is a general term for public and quasi-public utilities and facilities such as roads, bridges, sewer plants, water lines, power lines, fire stations, etc.

Infill development refers to development that occurs on vacant land which is scattered throughout an area which is already mostly developed. It does not refer to development that occurs on the fringes of a growth area.

Jurisdiction means the territory of a county or municipality within which its powers may be exercised.

Lot means a parcel of land occupied or intended to be occupied by a principal building and its accessory buildings and uses.

Master plan means a *comprehensive plan* or any portion of the general plan which may consist of maps, data and other descriptive matter as a guide for the physical

development of the County or any portion thereof, including any amendments, extensions, or additions thereto adopted by the Commission, indicating the general locations for major roads, parks or other public open spaces, public building sites, routes for public utilities, zoning districts or other similar information.

Mixed-use development means a single, relatively high-density development project, usually commercial in nature, which includes two or more types of uses. Zoning approvals for a mixed-use development may require the approval of a schematic or other development plan at the time of zoning.

Overlay zone is a zone which is superimposed upon other zoning. Overlay zones are used in areas which need special protection or have special problems. Development of land subject to an overlay must comply with the regulations of the underlying zoning district and the overlay.

Parcel is a contiguous lot or tract of land owned and recorded as the property of the same persons or controlled by a single entity.

Plan means the policies, statements, goals, and interrelated plans for private and public land use, transportation, and community facilities documented in texts and maps which constitute the guide for the area's future development.

Planned unit development (PUD) means a development comprised of a combination of land uses or varying intensities of the same land use in accordance with an integrated plan that provides flexibility in land use design approved by the local jurisdiction with at least 25 percent of the land permanently dedicated to open space. Zoning approvals for a planned unit development may require the approval of a schematic or other development plan at the time of zoning.

Planning Commission refers to an official body appointed by the governing body of a city or county that is responsible for making the comprehensive plan. In addition, the Planning Commission makes recommendations to the governing body on the zoning ordinance and zoning decisions as well as subdivision regulations. The Planning Commission has authority over approval of development proposals.

Policies identify the course of action to be taken when presented with a decision to be made on a given issue. To fulfill its role as a guidance tool, policy statements are included in the plan. These policy statements express the community's desires for future decisions and help to guide the achievement of the goals they have developed. The policies indicate the direction that decision-makers would take when decisions are to be made regarding County services and land use development to the extent economically feasible. The policy statements are based on an overall set of goals for the community and its future and should remain sensitive to the rights of all property owners and citizens.

Preliminary plan refers to the plan submitted by a developer after the concept plan submittal. The preliminary plan shows the property to be subdivided, lots, all roads, and easements.

Private Property Rights the bundle of rights attached to personal property for exclusivity of use, service and the ability to exchange the resource at mutually agreeable terms.

Recommendations are optional courses of action which assist in the achievement of goals.

Regulation means any rule of general applicability and future effect including any map or plan.

Right-of-Way (ROW) means the right to cross over property. A right-of-way usually refers to public land. For example, public land on which a street is built is a right-of-way. The ROW includes not only the street, but the land between the street and sidewalk and the sidewalk. Rights-of-way across private property are frequently for utility lines or driveways but may also provide for other types of access.

Sensitive Areas As defined by the Planning Act of 1992 these areas include the following: streams and their buffers, 100-year floodplains, habitats of threatened and endangered species and steep slopes.

Stream means part of a watercourse, either naturally or artificially created, that contains intermittent or perennial base flow of groundwater origin.

Subdivision is the division of any tract or parcel of land into 2 or more lots or parcels. Subdivisions may be minor, classified as up to 3 lots or major, more than 3 lots. In unincorporated areas not served by public sewer, there may also be Septic Minor subdivisions creating up to 7 lots only for purposes of septic system approvals. Septic Minor subdivisions greater than 4 lots must meet all other public facility standards and/or adequacy tests for major subdivisions.

Subdivision regulations are the controls that government exercises over the creation of lots and parcels.

Townhouse means one of a group of multi-family dwelling units in the same structure, each of which units is separated by a party wall from any adjacent unit and each of which dwelling units has its own entrance directly from the outside.

Variance is a relaxation of the terms of codes and ordinances. It may be allowed where such variance will not be contrary to the public interest and where, owing to conditions peculiar to the property and not the results of the actions of the applicant, a literal enforcement of the chapter would result in practical difficulty or unreasonable hardship.

Zone means an area within which certain uses of land and buildings are permitted and certain others are prohibited, yards and other open space are required and lot areas, building height limits, and other requirements are established.

Zoning Capacity is the maximum number of dwelling units or businesses that could be expected to be built in an area based on the zoning.

Land Use, Planning & Development

"Planning a Better Future for Carroll County"