CALVERT COUNTY
COMPREHENSIVE PLAN

Adopted August 2019, Amended December 2022

CALVERT 2040

Your county. Your future.





FOR THE PURPOSE OF ADOPTING AMENDMENTS TO THE CALVERT COUNTY COMPREHENSIVE PLAN

WHEREAS, the Board of County Commissioners of Calvert County, Maryland, with the advice, recommendations, and input of the public and the Calvert County Planning Commission, have, heretofore, adopted the *Calvert County Comprehensive Plan*, the Dunkirk Master Plan, the Huntingtown Master Plan, the Lusby Town Center Master Plan, the Owings Town Center Master Plan, the Prince Frederick Master Plan, the Solomons Town Center Master Plan and the St. Leonard Town Center Master Plan "…with the general purpose of guiding and accomplishing the coordinated, adjusted, and harmonious development of the local jurisdiction and its environs," Maryland Ann. Code, *Land Use Article*, §3-301(a)(2), to promote the public safety, health, and general welfare of the citizens;

WHEREAS, the Board of County Commissioners held work sessions in June 2022 with staff to discuss whether amendments to the *Calvert County Comprehensive Plan* might be appropriate to further advance the vision of the *Calvert County Comprehensive Plan*;

WHEREAS, as a result of these work sessions the Board of County Commissioners directed staff to initiate the process to consider amendments to the *Calvert County Comprehensive Plan* that would adjust the boundaries of the Huntingtown, Prince Frederick, Lusby, and Solomons Town Centers;

WHEREAS, the Calvert County Planning Commission held a work session on August 24, 2022 to consider whether amendments to the *Calvert County Comprehensive Plan* might be considered, and did direct staff to perform notification and advertise a public hearing;

WHEREAS, revisions to the *Calvert County Comprehensive Plan* were prepared and input was sought from the public, adjoining jurisdictions, and State units and local jurisdictions responsible for financing or constructing public improvements necessary for implementation before a public hearing was duly advertised and conducted by the Calvert County Planning Commission on November 2, 2022;

WHEREAS, upon consideration of the input of the public and governmental agencies, the Planning Commission forwarded its findings that the proposed amendments are consistent with the *Calvert County Comprehensive Plan*, and recommendation to the Board of County Commissioners by Resolution dated November 2, 2022;

WHEREAS, by Maryland Ann. Code, *Land Use Article*, §3-204, the Board of County Commissioners "…may adopt, modify, remand, or disapprove: … (iii) an amendment to the plan…" upon public hearing if adopting or modifying the *Calvert County Comprehensive Plan*;

WHEREAS, after due notice was published, the Board of County Commissioners conducted public hearing on November 29, 2022, at which time public comment was solicited, received, and all persons wishing to be heard expressed their opinions regarding the proposed amendments to the *Calvert County Comprehensive Plan*; and

WHEREAS, upon due consideration of the comments of the public, staff, agency and local jurisdiction comments, comments of adjoining jurisdictions and comments of State units, and the

recommendation of the Planning Commission, and in furtherance of the public health, safety and welfare, the Board of County Commissioners determined it is in the best interest of the citizens of Calvert County to adopt proposed amendments to the *Calvert County Comprehensive Plan* as set forth in Exhibit "A" attached hereto and made part hereof.

NOW, THEREFORE, BE IT ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the *Calvert County Comprehensive Plan* (2019), **BE**, and hereby **IS**, amended by adopting the reductions of Town Center boundaries for the Huntingtown, Lusby, Prince Frederick, and Solomons Town Centers, and accompanying text amendments shown in Exhibit "A" hereto and made a part here (Exhibit B depicts the amendments as they will actually appear in the *Calvert County Comprehensive Plan*) as prescribed at Maryland Ann. Code, *Land Use Article*, §3-301, *et seq.*;

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that, in the event any portion of this Ordinance is found to be unconstitutional, illegal, null or void, by a court of competent jurisdiction, it is the intent of the Board of County Commissioners to sever only the invalid portion or provision, and that the remainder of the Ordinance shall be enforceable and valid, unless deletion of the invalid portion would defeat the clear purpose of the Ordinance, or unless deletion of the valid portion would produce a result inconsistent with the purpose and intent of the Board of County Commissioners in enacting this Ordinance; and

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that this Ordinance shall take effect upon recordation and publication of fair summary.

DONE, this 29th of November, 2022, by the Board of County Commissioners of Calvert County, Maryland, sitting in regular session.

Aye: 4

Nay: ∅

Absent/Abstain: 1

[SIGNATURES ON FOLLOWING PAGE]

ATTEST:

Ashley Staples-Reid, Acting Clerk

BOARD OF COUNTY COMMISSIONERS OF CALVERT COUNTY, MARYLAND

Earl F. Hance, President

Steven R. Weems, Vice-President

Approved for form and legal sufficiency by:

Christopher J. Gadway

John B. Norris, County Attorney

Mike Hart

Absent

Kelly D. McConkey

Received for Record 11/30, 2022
at 10:55 o'clock A M. Same day
recorded in Liber KPS No. 69
Folio 340 COUNTY COMMISSIONERS
ORDINANCES AND RESOLUTION.

Kathy P. Smith

FOR THE PURPOSE OF REPEALING AND READOPTING WITH REVISIONS THE CALVERT COUNTY COMPREHENSIVE PLAN

WHEREAS, the Board of County Commissioners of Calvert County, Maryland, with the advice, recommendations, and input of the public and the Calvert County Planning Commission, have, heretofore, adopted the Calvert County Comprehensive Plan, the Dunkirk Master Plan, the Huntingtown Master Plan, the Lusby Town Center Master Plan, the Owings Town Center Master Plan, the Prince Frederick Master Plan, the Solomons Town Center Master Plan and the St. Leonard Town Center Master Plan "…with the general purpose of guiding and accomplishing the coordinated, adjusted, and harmonious development of the local jurisdiction and its environs," Maryland Ann. Code, *Land Use Article*, §3-301(a)(2), to promote the public safety, health, and general welfare of the citizens;

WHEREAS, "[a]t least once every 10 years … a local jurisdiction shall ensure the implementation of the visions, the development regulations element, and the sensitive areas element of the plan" Maryland Ann. Code, *Land Use Article*, §3-303(a);

WHEREAS, as a result of the aforesaid review, the Calvert County Planning Commission determined in 2015 that comprehensive review and amendment of the existing *Comprehensive Plan* was necessary and, accordingly, prepared revisions and sought input of the public, adjoining jurisdictions, and State units and local jurisdictions responsible for financing or constructing public improvements necessary for implementation;

WHEREAS, upon consideration of the input of the public and governmental agencies, the Planning Commission forwarded a recommendation to the Board of County Commissioners by Resolution dated April 4, 2019;

WHEREAS, by Ch. 288 Laws of Maryland 2015 amending Maryland Ann. Code, *Land Use Article*, §3-204, the Board of County Commissioners "…may adopt, modify, remand, or disapprove: (i) the whole plan or part of the plan; (ii) a plan for one or more geographic sections or divisions of the local jurisdiction; or (iii) an amendment to the plan…" upon public hearing if adopting or modifying the *Plan*;

WHEREAS, after due notice was published, the Board of County Commissioners conducted public hearing on April 30, 2019, at which time public comment was solicited, received, and all persons wishing to be heard expressed their opinions regarding the *Calvert County Comprehensive Plan*;

WHEREAS, the Board of County Commissioners adopted Resolution 13-19 on June 4, 2019 to provide an additional opportunity for further review and consideration of public input pursuant to Maryland Ann. Code, *Land Use Article*, §3-204(c)(4)(ii);

WHEREAS, after due notice was published, the Board of County Commissioners conducted public hearing on July 23, 2019, at which time public comment was again solicited, received, and all persons wishing to be heard expressed their opinions regarding the *Calvert County Comprehensive Plan*;

WHEREAS, upon due consideration of the comments of the public, staff, agency and local jurisdiction comments, comments of adjoining jurisdictions and comments of State units, and the

recommendation of the Planning Commission, and in furtherance of the public health, safety and welfare, the Board of County Commissioners determined it is in the best interest of the citizens of Calvert County to adopt the *Calvert County Comprehensive Plan* as set forth in Exhibit "A" attached hereto and made part hereof.

NOW, THEREFORE, BE IT ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the *Calvert County Comprehensive Plan*, Exhibit "A" hereto, is hereby adopted as the official Comprehensive Plan for Calvert County as prescribed at Maryland Ann. Code, *Land Use Article*, §3-301, *et seq.*;

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the *Calvert County Comprehensive Plan*, adopted January 11, 2005, by Resolution No. 03-05, as amended on November 1, 2010, by Resolution No. 45-10, and on December 8, 2017, by Resolution No. 48-17, is hereby repealed;

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that, insofar as any of the aforementioned Dunkirk Master Plan, the Huntingtown Master Plan, the Lusby Town Center Master Plan, the Owings Town Center Master Plan, the Prince Frederick Master Plan, the Solomons Town Center Master Plan and the St. Leonard Town Center Master Plan (singly and collectively referred to hereinafter as the "Town Center Master Plan") may be inconsistent with the express provisions of the *Calvert County Comprehensive Plan* adopted hereby, the *Calvert County Comprehensive Plan* shall supersede such provision(s) of the Town Center Master Plan;

BE FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the Planning Commission shall, not less than every two (2) years, evaluate the rate of growth in the Town Centers and rural areas, and shall recommend any changes to the zoning regulations necessary and appropriate to attain the goals and objectives of the Comprehensive Plan;

BE FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the Transportation Plan, when adopted, shall be incorporated by reference within the Comprehensive Plan and may result in limitations upon density and floor area absent remedial actions taken by the applicant or the County that address the findings of and implement the Transportation Plan findings in the region of that applicant's proposal;

BE FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland the Water and Sewer Plan, when adopted, shall be incorporated by reference within the Comprehensive Plan and may result in limitations upon development activities and connection requirements to new and existing land uses as necessary to address the findings of and implement the findings of the Water and Sewer Plan;

BE FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the Historic Preservation Plan, when adopted, shall be incorporated by reference within the Comprehensive Plan and may result in limitations being imposed upon allowable land uses as necessary to address the findings of and implement the Historic Preservation Plan;

BE FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland the Land Preservation & Recreation and Parks Plan, when adopted, shall be incorporated

by reference within the Comprehensive Plan and may result in limitations upon development activities and connection requirements to new and existing land uses as necessary to address the findings of and implement the Land Preservation & Recreation and Parks Plan;

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that, in the event any portion of this Ordinance is found to be unconstitutional, illegal, null or void, by a court of competent jurisdiction, it is the aspiration of the Board of County Commissioners to sever only the invalid portion or provision, and that the remainder of the Ordinance shall be enforceable and valid, unless deletion of the invalid portion would defeat the clear purpose of the Ordinance, or unless deletion of the valid portion would produce a result inconsistent with the purpose of the Board of County Commissioners in enacting this Ordinance; and

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that this Ordinance shall take effect upon recordation, publication of fair summary.

DONE, this 6th of August, 2019, by the Board of County Commissioners of Calvert County, Maryland, sitting in regular session.

Aye: 3
Nay: 2 - Weems / Hance
Abstain: Ø

ATTEST:

Karen S. Phelps
Karen S. Phelps, Clerk

BOARD OF COUNTY COMMISSIONERS OF CALVERT COUNTY, MARYLAND

Thomas E. Hutchins
Thomas E. Hutchins, President

Kelly D. McConkey
Kelly D. McConkey, Vice-President

Approved for form and legal sufficiency by:

Declined to sign
Earl F. Hance

Johns, County Attorney

Mike Hart

Declined to sign
Steven R. Weems

Received for Record 8/21, 2019
at 2:26 o'clock P M. Same day
recorded in Liber KPS No. 58
Folio 449 COUNTY COMMISSIONERS
ORDINANCES AND RESOLUTION.

Received for Record August 6, 2019
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recorded in Liber KPS No. 58
Folio 408 COUNTY COMMISSIONERS
ORDINANCES AND RESOLUTION.

Kathy P. Smith

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Kathy P. Smith

Acknowledgements

The Comprehensive Plan was updated over several years (2014-2019) and involved many people. Everyone listed served in some capacity, over time, to help create the document during the input, drafting, or final approval stage of the plan.

Board of County Commissioners

Thomas E. Hutchins, President; Kelly D. McConkey, Vice-President; Earl F. Hance; Mike Hart; and Steven R. Weems

Previous Board Members

Evan K. Slaugenhoupt; Tom Hejl; and Pat Nutter

County Administrator

Terry Shannon, County Administrator
Wilson Parran, Deputy County Administrator

Planning Commission

Greg Kernan, Chair; Steve Jones, Vice Chair; Carolyn McHugh, Chair Emeritus; Rob Reed; Richard Holler; Maria Buehler; and John Toohey

Department of Planning & Zoning

Core Team

J. Mark Willis, Director; Britany Waddell, AICP, Deputy Director/Planning; Mary Beth Cook, Deputy Director/Zoning Officer; Carolyn Sunderland, AICP, Planning Commission Administrator; Jenny Plummer-Welker, AICP, Long Range Planner; Patricia Haddon, AICP, Principal Planner (retired 2018); Will Selman, CNU-A, Community Designer (2014-2017); Rachel O'Shea, Principal Planner; Kirsti Uunila, RPA, Historic Preservation Planner III; Tay Harris, Planner II (2015-2017); Ronald Marney, AICP, CFM, Rural Planner III; George W. "Will" Hager, Planner II; Judy Holt, Planner I; and Rebekah Swieringa, Planning Intern (2017)

Other Staff

Michael Bayer, AICP (2016); Tamara Blake-Wallace; Chris Breedlove; Dr. Dave Brownlee, AICP (retired 2017); Denise Cherry; Jesse Clark; Christine Finamore; Ashleigh Goedeke; Lindsay Halterman; Felicia Harrod; Jennifer Jackson; Judy Mackall; Dorothea “Scarlet” Oller; Becky Parkinson; John Swartz, CFM; Rick Stotler; Olivia Vidotto; and Roxana Whitt

Calvert Library

Carrie Plymire, Director, and Robyn Truslow

Calvert Marine Museum

Sherrod Sturrock, Director, and Jeff Murray

County Attorney’s Office

John Norris, County Attorney; and John Mattingly, Jr.

Department of Communications and Media Relations

Linda Vassallo, Director, Ruthie Buckler, Jessica Requilman, Angela Walters Small (2015-2018), and Mark Volland

Department of Community Resources

Maureen Hoffman, Director (retired June 2017), Jennifer Moreland, Director, Lorraine Joyner, and Sandra Wobbleton

Department of Economic Development

Kelly Robertson-Slagle, Director, Danita Boonchaisri, and Jennifer Pettko

Department of Finance &Budget

Tim Hayden, Director, and Lashon Bethea

Department of General Services

Wilson Freeland, Director, and Buildings and Grounds Staff

Department of Human Resources

Paula Gray, Director

Department of Parks & Recreation

Shannon Nazzal, Director, Doug Meadows (retired 2017), and Karyn Molines

Department of Public Safety

Jacqueline Vaughan, Director, and Alfred Jeffery

Department of Public Works

Rai Sharma, Director, Danielle Conrow, John Knopp, Doug Ostazeski, Julie Paluda, Audrey Piercy (2016-2017), Wayne Raither, and Frank Schlotter (retired 2018)

Department of Technology Services

Joe Klausner, Director, Erick Pate, Ray Alvey, and Rebecca Willis (2016)

Consultant Team

WSP USA

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Camiros, Ltd.

Arista Strungys, AICP, PP, Principal Consultant

Special Thanks for Hosting Public Community Meetings

Calvert County Department of Parks & Recreation, Harriet E. Brown Community Center; Calvert County Public Schools, Calvert High School; Calvert Marine Museum; Calvert Pines Senior Center; College of Southern Maryland, Prince Frederick Campus; Dunkirk Volunteer Fire Department; and Solomons Rescue Squad and Fire Department

Special Thanks

The people of Calvert County who shared their ideas and provided input for this plan

EXECUTIVE SUMMARY

Purpose

The Calvert County Comprehensive Plan (Plan) is the official policy document for Calvert County. The Board of County Commissioners, the Planning Commission, and county departments use the Plan as a guide when preparing functional plans and small area plans, evaluating proposed projects or considering changes to legislation, such as the zoning ordinance. State agencies use the Plan to determine whether or not to provide state funding for a local project (e.g. Rural Legacy, Community Legacy, public infrastructure, community development projects, etc.). Bond rating agencies look at the Plan to see if the county government is using resources wisely and in a coordinated fashion. Prospective business owners use the Plan to help them make investment decisions. Residents use the Plan to evaluate how well the county government is responding to the goals and objectives written in the Plan.

The Plan is a snap-shot in time of the dynamic process of managing growth in Calvert County. At the beginning of each chapter is a list of functional and small area plans, several of which are incorporated into the Comprehensive Plan by reference. These more detailed and specific documents both inform the Plan and will need to conform to it in their subsequent updates.

Values

Calvert County has long held the values of preserving the rural landscape and creating vibrant Town Centers. Calvert County has focused on preserving its rural character since its first comprehensive plan, published in 1967. This value has been carried forward in every subsequent comprehensive plan and has continuously influenced Calvert County's land development policies.

These two values work together and mutually sustain each other. Supporting, encouraging, and directing growth away from the rural areas helps preserve the rural landscape and focuses development into Town Centers. Similarly, supporting, encouraging, and directing growth toward the Town Centers limits development within the rural areas and creates more activity and vibrancy within the Town Centers.

In recent years, the county has added an additional value: sustainability. At its core, sustainability is the process of balancing environmental concerns with social equity and economics. The intersection of these "three E's" (equity, economics, and environment) is where the quality of life is best obtained.

Calvert County has been more successful in preserving farm and forest land than in creating vibrant Town Centers. While coming close to meeting the 2010 Comprehensive Plan goal of 35 percent of new households locating inside or within one mile of the Town Centers, Calvert County has not achieved the desired development patterns. One of the 2010 Comprehensive Plan's 10 Visions, a vision included since the adoption of the 1997 Comprehensive Plan, is for the Town Centers to be attractive, convenient, and interesting places to live, work, and shop. The implication of this vision is to focus growth in well-planned Town Centers instead of strip malls and business parks scattered throughout the

county. However, many of Calvert County's Town Centers lack a sense of place and are dominated by commercial strip development. Nearly 85 percent of Calvert County residential development is categorized as low or very low density development. Most of the residential development has occurred outside the Town Centers.

An important focus of this plan update is to address policy actions Calvert County can take to direct development to the Town Centers and to encourage development that creates the vibrancy county residents are seeking. These policy actions include:

1. Continue preserving the rural landscape while promoting a strong economy, and directing commercial, industrial, and residential uses to appropriate locations.
2. Better defining the boundaries of Town Centers and the growth areas adjacent to the Town Centers of Chesapeake Beach and North Beach, Prince Frederick, Lusby, and Solomons; and
3. Using wastewater treatment facilities and other public infrastructure investments to attract and direct growth to appropriate locations within the Town Centers.

Goal and Visions

The goal of the Comprehensive Plan is to maintain and/or improve the overall quality of life for all citizens of Calvert County by:

- Promoting sustainable development,
- Encouraging a stable and enduring economic base,
- Providing for safety, health, and education, and
- Preserving the natural, cultural, and historic assets of Calvert County.

The goal is expressed in a series of 10 visions.

1. Our landscape is dominated by forests and fields.
2. Our Town Centers are attractive, convenient, and interesting places to live, work, and shop.
3. Our wetlands, streams, and forests and the Chesapeake Bay and Patuxent River support thriving plant and animal communities.
4. Our highways are safe with only moderate congestion and transit is readily available. Walking and bicycling are practical alternatives within and in close proximity of Town Centers.
5. We waste less, consume fewer natural resources, and properly dispose of waste.
6. Our communities are safe. We care for the well-being of each other.
7. Our children are well prepared for the future. We offer robust and diverse educational opportunities.
8. We are stewards of our cultural heritage.
9. We are building a strong local economy based on renewable resources, agriculture, seafood, high technology, retirement, recreation, and tourism.
10. Our government is efficient, open, and responsive to citizen needs and concerns.

Managing Residential Growth

Implementation of previous Comprehensive Plan policies has contributed to reducing the county's growth rate for both population and households, which has continually decreased since its peak in the 1970's. Over time, Calvert County has gone from being the fastest growing county in Maryland to one of the slowest in the metropolitan areas. The population growth rate is projected to continue to slow in the future and translates into a reduced growth of households and demand for additional housing units as shown in Table ES-1.

Table ES-1 Projected Households and Growth Rate 2020-2040

Household Projections for Calvert County		
2020	**2030**	**2040**
33,900	36,900	37,600
Percent change		
2010-2020	**2020-2030**	**2030-2040**
9.9%	9.0%	1.9%

Source: Maryland Department of Planning, August 2017

Future Land Use Plan

The Future Land Use Plan guides future development and forms the basis for updating the zoning ordinance. The plan establishes nine land use categories and their locations are shown on Figure ES-1. The future land use map and the updated zoning ordinance, which implements the map, are the foundation for the successful realization of Calvert County's goals and visions.
The Future Land Use Plan establishes nine land use categories with the following meanings:

Rural Areas

Farm and Forest – Rural areas dominated by existing farms and forest. The use of Transferable Development Rights (TDRs) to allow additional dwelling units in the Farm and Forest areas contradicts the intention of preserving these areas. TDRs may not be used to increase density in these areas.

Rural Residential – Rural areas dominated by existing large-lot residential development, typically three to 10 acres in size, with an average lot size of approximately five acres. This category accommodates existing small-scale neighborhood convenience retail and service uses as well as essential public services. In past Calvert County Comprehensive Plans, rural residential areas have been designated growth areas (receiving areas for TDRs). The 2040 Plan places greater emphasis on directing residential growth to Town Centers and Residential Areas.

Waterfront Communities – Existing, mature residential communities that typically pre-date zoning and subdivision regulations with lot sizes of an acre or less. They are not planned for expansion or additional growth. TDRS may not be used to permit additional dwelling units in these areas.

Wetlands – Large concentrations of tidal wetlands as defined by state and federal regulations. These boundaries are based on current zoning (6/2017). Development is generally prohibited in these areas.

Growth Areas

Town Centers – Town Centers are the county's primary designated growth areas. Town Centers contain a mixture of residential, commercial, and institutional uses. Town Centers are areas where TDRs can be used to increase density to a maximum consistent with the approved Town Center zoning. Future development is guided by a Town Center master plan.

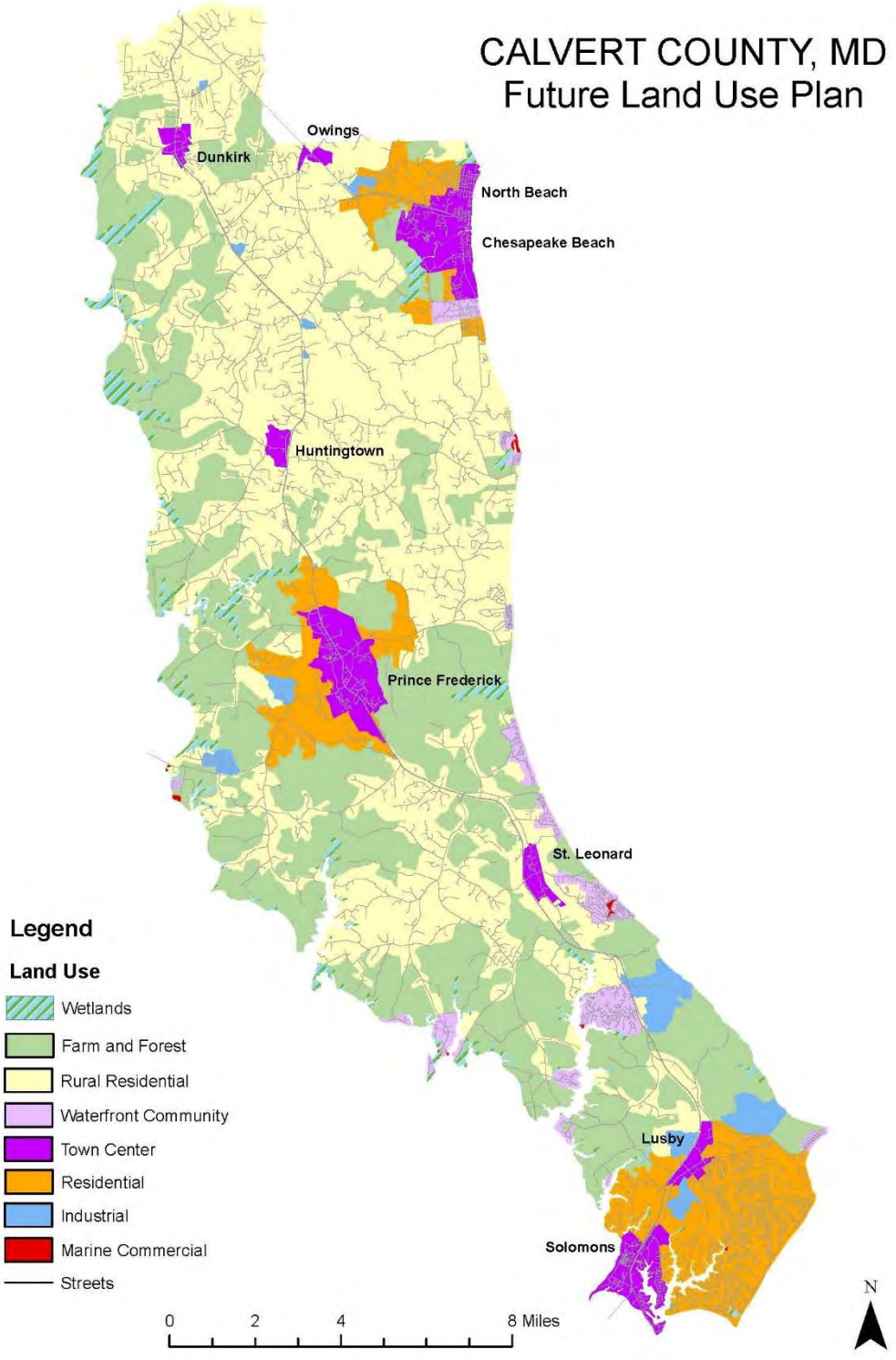
Residential – Mapped areas within approximately one mile of the North Beach, Chesapeake Beach, Prince Frederick, Lusby, and Solomons Town Centers. The density in these areas can be increased through the use of TDRs. Density in these areas can be increased to a maximum of four dwelling units per acre.

Commercial & Industrial Areas

Industrial – Manufacturing and employment centers that may include some larger-scale institutional and services uses.

Marine Commercial – Small-scale, water-dependent uses like marinas and restaurants, providing convenience services to residents and visitors.

Figure ES-1 Future Land Use Plan



Supportive Comprehensive Plan Elements

In addition to describing Calvert County's desired future land use, the Comprehensive Plan provides information, objectives, and action items associated with the different components or elements that make for a strong community. They are summarized below.

Environment and Natural Resources

The Environment and Natural Resources chapter covers a wide range of issues related to quality of life, sustainability, environmental protection, and resource conservation. It discusses the county's sensitive areas including wetlands, areas of Critical State Concern, and the Chesapeake Bay Critical Area, and provides information on protection actions for these sensitive areas. Watershed management, forest preservation, air quality, mineral resources, hazard mitigation, and hazardous materials are also discussed. The emphasis of this chapter is to take a comprehensive approach to environmental planning and preservation that encourages the preservation, protection, and conservation of land-based natural resources and to mitigate Calvert County's natural and man-made hazards.

Heritage

Calvert County is home to a broad range of cultural resources chronicling the ways of life of numerous generations and cultures. Major themes of American and world history have been enacted in the county and on the surrounding waters. Evidence and remnants abound across the county from its earliest inhabitants, colonial settlement, the early years of the United States, and the wars and conflicts that shaped modern history. This chapter describes how the county works to preserve and understand this heritage.

Housing

For many people, Calvert County represents achievement of the "American Dream." They own a home in a safe and attractive residential community. Almost half of Calvert County's homes were built in the last 30 years and more than 80 percent of occupied homes are owned by the occupants. However, this is not to say that there are not housing issues that must be addressed. Most of the current housing is unaffordable for low-income families and young adults. In addition, most of the county's housing stock is not designed to allow older residents to remain in their homes when they are no longer able to live independently. Chapter 6 outlines the challenges facing Calvert County and its housing stock and makes recommendations for how to address these challenges moving forward.

Transportation

The transportation network in Calvert County is a function of the county's shape and topography. Because the peninsula is narrow and carved with stream valleys that run east-west, MD 2/4 is the only major highway that extends for the full length of the county and, at the headwaters of St. Leonard Creek, it is the only road linking the area to the south to the rest of the county. The emphasis of the transportation element is to provide a transportation system that moves people and goods to, from, and through the community in a way that is safe, convenient, economical, and consistent with the community's historic, scenic, and natural resources. The Comprehensive Plan focuses on recommendations and actions that address traffic delays, expand pedestrian amenities, improve bicycle facilities, and enhance transit service. To further support this plan, the Board of County Commissioners have and will continue to explicitly argue against having a Chesapeake Bay Bridge crossing located in Calvert County.

Economic Vitality

Calvert County is part of the larger Washington, D.C. metropolitan region and is impacted by the conditions across the region. In addition, Calvert competes with other parts of the greater Washington,

D.C. area, Baltimore and Annapolis, and within Southern Maryland for jobs, workers, and residents. Historically, Calvert County's local economy relied on agriculture, aquaculture and recreation. Today, Calvert County's economy is based primarily upon its location within the Washington, D.C. metropolitan area. This chapter discusses the current economic conditions in Calvert County, identifies opportunities and economic sectors that Calvert County should pursue, and describes specific actions and initiatives needed to strengthen economic opportunity: direct business growth to Town Centers; expand Calvert County's tourism industry; and expand the county's education system to better provide general education, vocational, and technical training and retraining.

Water Resources

The Water Resources chapter focuses on potable water and sewerage service. The land use policies described throughout the Comprehensive Plan direct much of the county's residential and commercial growth to the Town Centers and minimize future residential development in more rural areas. Given these policies, the county must ensure that its water supply and wastewater systems in Town Centers meet current and future needs without jeopardizing the health of local waters, the Patuxent River, and the Chesapeake Bay. The plan recommends that this occur by 1) ensuring sufficient drinking water quality and quantity to accommodate future population growth, 2) ensuring sufficient wastewater treatment capacity to support development in Town Centers served by public sewer systems, 3) protecting public health and water quality in areas outside the Town Centers, and 4) installing or enhancing stormwater management systems to reduce pollution in the Chesapeake Bay and Patuxent River.

Government and Community Facilities

The Government and Community Facilities chapter provides an overview of the public, private, and not-for-profit agencies and institutions that provide public services to county residents. As Calvert County plans for its future, it must assess the current state of the schools, parks, recreational facilities, libraries, emergency services, healthcare facilities, and solid waste disposal service available to residents and plan for future needs. Planning for future needs includes assessing future demand and determining locations for future facilities. Many of the facilities discussed in this chapter have their own long-range plans, and the recommendations contained within them are adopted by reference.

Implementation

The final comprehensive plan element is implementation. This section details the objectives, strategies, and actions needed to achieve the goals, visions, and objectives identified throughout the plan. The actions are categorized into short–term (five years or less), mid-term (five to 10 years), long-term (10 plus years), and ongoing.

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Acronyms

Acronyms

ACRONYM	DEFINITION
ACSC	Area of Critical State Concern
ADA	Americans with Disabilities Act
ALS	Advanced Life Support
APAB	Agricultural Preservation Advisory Board
APD	Agricultural Preservation District
ARC	Architectural Review Committee
BIAC	Bicycle and Pedestrian Infrastructure Advisory Committee
BLS	Basic Life Support
BOCC	Board of County Commissioners
BOE	Board of Education
BRF	Bay Restoration Fund
CA	County Administrator
CAO	County Attorney's Office
CCPS	Calvert County Public Schools
CMM	Calvert Marine Museum
CIP	Capital Improvement Plan
CMR	Department of Communications and Media Relations
CR	Department of Community Resources
CSA	Community-Supported Agriculture
CSM	College of Southern Maryland
C-SMMPO	Calvert-St. Mary's Metropolitan Planning Organization
DNR	Maryland Department of Natural Resources
DOD	Department of Defense
EC	Environmental Commission
ED	Department of Economic Development
EDUs	Equivalent Dwelling Units
EMS	Emergency Medical Services
EM	Emergency Management Division
ENR	Enhanced Nutrient Removal
ESD	Environmentally Sensitive Design
F&B	Department of Finance & Budget
FEMA	Federal Emergency Management Agency
FFD	Farm and Forest District
FSDWA	Federal Safe Drinking Water Act
GS	Department of General Services
H2S	Hydrogen Sulfide
HD	Health Department
HDC	Historic District Commission
HHW	Hazardous Household Waste
HR	Department of Human Resources
HVAC	Heating, Ventilation, and Air Conditioning
IDAs	Intensely Developed Areas
JLUS	Joint Land Use Study
LAR	Leveraging and Retirement
LDAs	Limited Development Areas

ACRONYM	DEFINITION
LE	Listed as Endangered
LNG	Liquefied Natural Gas
LPPR Plan	Land Preservation, Parks, and Recreation Plan
LRTP	Long Range Transportation Plan
LT	Listed as Threatened
MALPF	Maryland Agricultural Land Preservation Foundation
MC	Marine Commercial
MCL	Maximum Contaminant Level
MDOT	Maryland Department of Transportation
MDP	Maryland Department of Planning
MDTA	Maryland Transportation Authority
MEMA	Maryland Emergency Management Agency
MET	Maryland Environmental Trust
MGS	Maryland Geological Service
MPO	Metropolitan Planning Organization
MSW	Municipal Solid Waste
MTA	Maryland Transit Administration
MW	Megawatts
MWAQC	Metropolitan Washington Air Quality Committee
NAS PAX	Naval Air Station Patuxent River
NOx	Nitrogen Oxide
NPDES	National Pollution Discharge Elimination System
PAR	Purchase and Retirement
PC	Planning Commission
PEARL	Patuxent Environmental & Aquatic Research Laboratory
PFA	Priority Funding Areas
PILOTs	Payments in Lieu of Taxes
PPA	Priority Preservation Area
PPP	Public Participation Plan
PTB	Puritan Tiger Beetle
P&R	Department of Parks & Recreation
PS	Department of Public Safety
PW	Department of Public Works
P&Z	Department of Planning & Zoning
RC	Rural Commercial District
RCAs	Resource Conservation Areas
RIAC	Southern Maryland Regional Infrastructure Advisory Committee
REC	Renewable Energy Credit
RPS	Renewable Energy Portfolio Standard Program
RTCP	Southern Maryland Regional Transportation Coordination Program
SHA	State Highway Administration
SMADC	Southern Maryland Agricultural Development Commission
SMHA	Southern Maryland Heritage Area
SSPRA	Sensitive Species Project Review Areas
STEM	Science, Technology, Engineering, and Mathematics
TCCSMD	Tri-County Council for Southern Maryland
TDP	Transportation Development Plan

ACRONYM	DEFINITION
TDR	Transferable Development Rights
TIP	Transportation Improvement Program
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TS	Department of Technology Resources
TP	Total Phosphorus
UPWP	Unified Planning Work Program
US EPA	United States Environmental Protection Agency
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VOC	Volatile Organic Compounds
WHPA	Wellhead Protection Areas
WIP	Watershed Implementation Plan
WSSC	Washington Suburban Sanitary Commission
WWTP	Wastewater Treatment Plant

CHAPTER 1. PURPOSE, MISSION, AND VISIONS

Purpose

The Calvert County Comprehensive Plan (Plan) is the official policy document for Calvert County. The Board of County Commissioners, the Planning Commission, and county departments use the Plan as a guide when preparing functional plans and small area plans, evaluating proposed projects or considering changes to legislation, such as the zoning ordinance. State agencies use the Plan to determine whether or not to provide state funding for a local project (e.g. Rural Legacy, Community Legacy, public infrastructure, community development projects, etc.). Bond rating agencies look at the Plan to see if the county government is using resources wisely and in a coordinated fashion. Prospective business owners use the Plan to help them make investment decisions. Residents use the Plan to evaluate how well the county government is responding to the goals and objectives written in the Plan.

The Plan is a snap-shot in time of the dynamic process of managing growth in Calvert County. At the beginning of each chapter is a list of functional and small area plans, several of which are incorporated into the Comprehensive Plan by reference. These more detailed and specific documents both inform the Plan and will need to conform to it in their subsequent updates.

These functional and small area plans include, but are not limited to:

- Functional (county-wide) planning
    - Comprehensive Water & Sewerage Plan
    - Comprehensive Solid Waste Management Plan
    - Land Preservation, Parks and Recreation Plan
    - Transportation Plan
    - Library Facilities Master Plan
    - Fire-Rescue-Emergency Medical Services Master Plan
    - All-Hazard Mitigation Plan
    - Educational Facilities Master Plan
    - Capital Improvement Plan
- Small area planning
    - Town Center master plans
    - Watershed plans
    - Flood mitigation plans
- Regulations
    - Development regulations such as the zoning ordinance, Critical Area, Forest Conservation, and subdivision regulations
    - Road ordinance

These plans and regulations provide much greater detail about specific locations, financing, and resources than the Comprehensive Plan publication. See Figure 1-1.

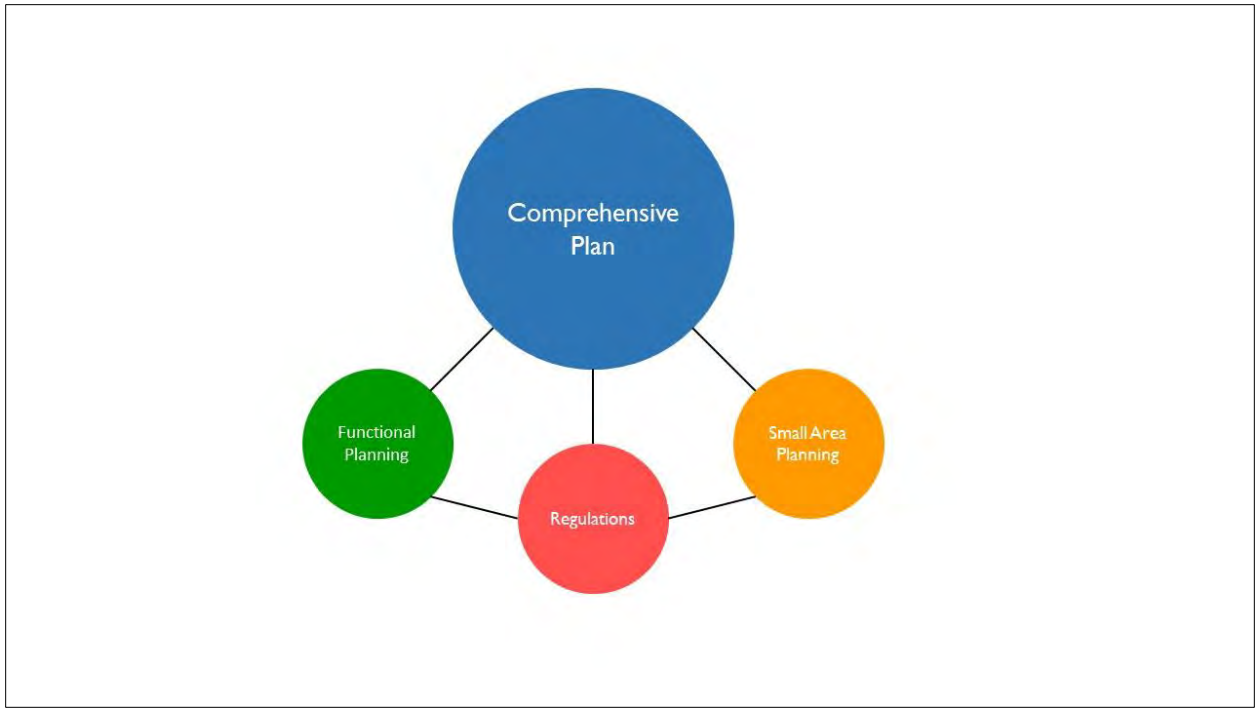


Figure 1-1 Comprehensive Plan's Relationship to Other Plans

Values

Calvert County has long held the values of preserving the rural landscape and creating vibrant Town Centers. Calvert County has focused on preserving its rural character since its first comprehensive plan, published in 1967. This value has been carried forward in every subsequent comprehensive plan and has continuously influenced Calvert County's land development policies.

The 1983 comprehensive plan was the first Calvert County plan to put forth the concept of Town Centers. This was in response to the seemingly contradictory mandates of "preserve rural character" and "promote economic development." The solution was to establish Town Centers, which would direct commercial activity and higher-density residential growth away from farms and environmentally-sensitive areas.

These two values work together and mutually sustain each other. Supporting, encouraging, and directing growth away from the rural areas helps preserve the rural landscape and focuses development into Town Centers. Similarly, supporting, encouraging, and directing growth toward the Town Centers limits development within the rural areas and creates more activity and vibrancy within the Town Centers.

In recent years, the county has added an additional value: sustainability. At its core, sustainability is the process of balancing environmental concerns with social equity and economics. The intersection of these "three E's" (equity, economics, and environment) is where the quality of life is best obtained.

Sustainability

Creating a balance in the "three E's" requires framing the approach to planning and development differently and uses the following six principles to achieve an outcome of sustainable community design.

- **Oriented to future generations** – planning for future generations as well as for the present generation.
- **Bounded by community growth limits** – approaching development conscious of the limits to a community's ability to respond to the demands of new growth and development.
- **Natural and geographic boundaries** – approaching challenges based on their natural and geographic characteristics, not artificial and political units.
- **Means to sustainability** – approaching the functional plans (such as transportation, housing, and economic development) not as ends in themselves, but rather as means to an end – the end being a sustainable community.
- **Holistic and interconnected thinking** – recognizing that functional areas are inter-related and have effect on each other.
- **Public participation** – focusing on desired outcomes and broadening the process by which a community discovers, considers and tackles issues.

Calvert County's approach to achieving sustainability begins with approaching land use goals using natural boundaries where possible to separate natural and rural areas (Priority Preservation Areas) from growth areas (Priority Funding Areas). The county's sustainability success depends upon its long-standing commitment to broad public participation in the planning process and on holistically implementing the actions in the Comprehensive Plan.

Priority Preservation Areas and Priority Funding Areas

In 2009, the county and the Maryland Department of Planning agreed upon the Priority Preservation Areas (PPA) and Priority Funding Areas (PFA) shown in Figure 1-2. PFAs, as defined by the Maryland Department of Planning, are existing communities and places designated by local governments where they want state investment to support future growth.

Preserve Rural Character

Preservation of the rural landscape has been a hallmark of Calvert County planning. In 1978, the county set a goal of preserving 20,000 acres of farm and forest land. In 1997, it achieved its 20,000-acre goal and doubled its goal to 40,000 acres. To date, nearly 30,000 acres have been preserved through the efforts of the state, county, land trusts, and private property owners.

> The best agricultural protection strategy is a profitable farm.

The county uses several strategies to preserve agricultural and open space land. The amount in each program is shown in Table 1-1.

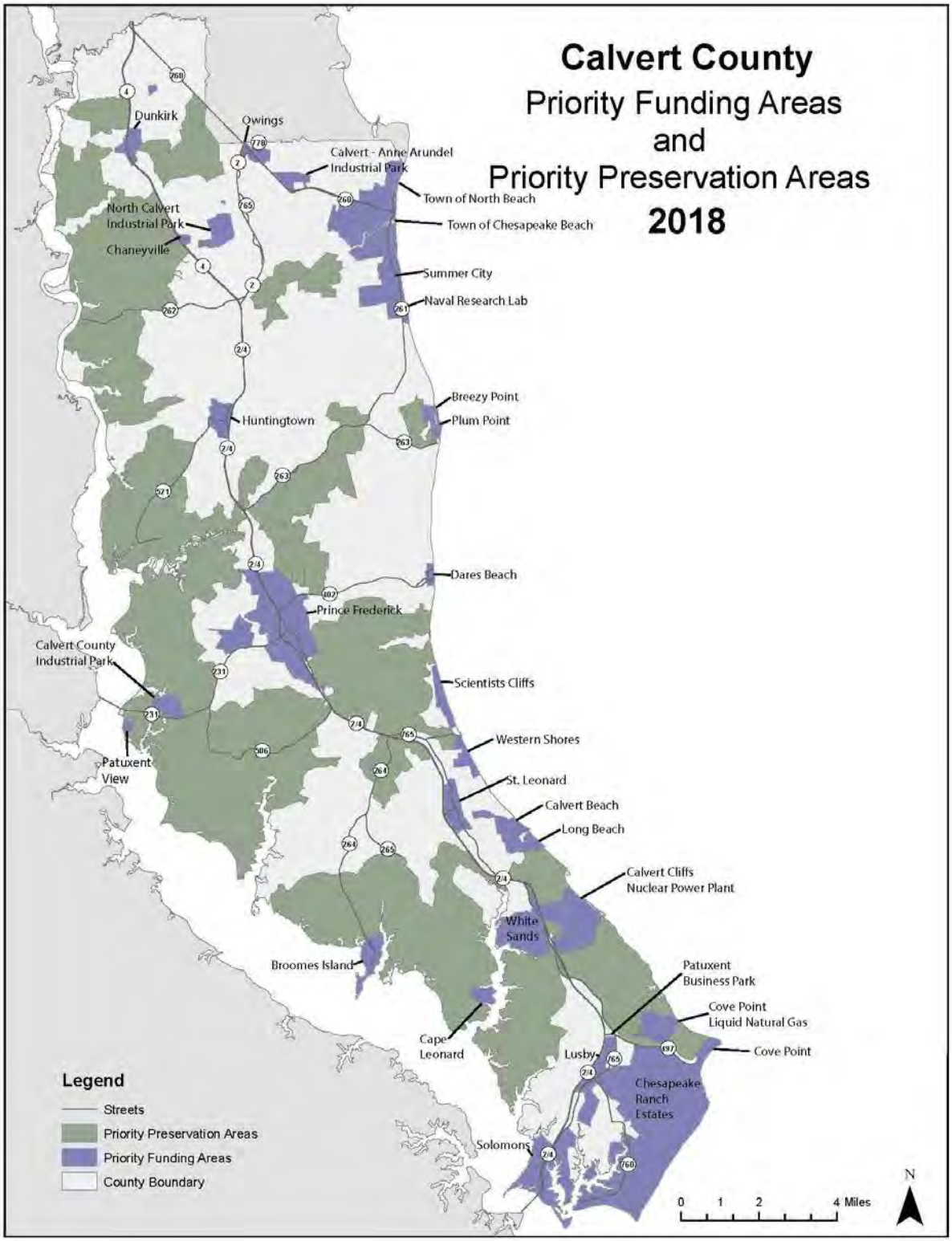
Table 1-1 Acres Preserved by Program

Land In Preservation	Acres
County Agricultural Preservation Program	20,279
Maryland Agricultural Land Preservation Foundation (MALPF)	4,715
Rural Legacy	1,738
Maryland Environmental Trust (MET)	825
Total	27,602

Source: Calvert County Department of Planning & Zoning, 2017

The county remains committed to continuing these efforts to protect rural lands through both the direct actions of these programs and through efforts to expand agricultural opportunities to assist farmers in growing their businesses. Programs to promote the purchase of local farm products and the establishment of agri-tourism activities are other ways to help farms be profitable.

Figure 1-2 Calvert County Priority Funding Areas and Priority Preservation Areas



Source: Calvert County Department of Planning & Zoning

Create Vibrant Town Centers

Calvert County has been more successful in preserving farm and forest land than in creating vibrant Town Centers. The 2010 Comprehensive Plan set a benchmark that 35 percent of new households locate in Town Centers or immediately around Town Centers. The county appears to have been achieving this goal. While the geographic areas of Town Centers and the one-mile radii are not exactly comparable to the Priority Funding Areas (PFAs), over the five-year period of 2010 to 2015, 41 percent of permits for new residential units were constructed inside Priority Funding Areas. Even though this distribution of new households is consistent with the 2010 benchmark, it has not produced the development patterns envisioned in the Comprehensive Plan or by the Town Center Master Plans. Many of Calvert County's Town Centers lack a sense of place and are dominated by commercial strip development. Nearly 85 percent of Calvert County residential development is categorized as low or very-low density development. This implies that even the development that occurs within the Town Centers is not occurring at densities needed to create vibrancy.

An important focus of this plan update is to address policy actions Calvert County Government can take to direct development to the Town Centers and to encourage development that creates the vibrancy county residents are seeking. These policy actions include:

1. Continue preserving the rural landscape while promoting a strong economy, and directing commercial, industrial, and residential uses to appropriate locations.
2. Better defining the boundaries of Town Centers and the growth areas adjacent to the Towns of Chesapeake Beach and North Beach, Prince Frederick, Lusby, and Solomons; and
3. Using wastewater treatment facilities and other public infrastructure investments to attract and direct growth to appropriate locations within the Town Centers.

Mission and Visions

The mission of the Comprehensive Plan is to maintain and/or improve the overall quality of life for all citizens of Calvert County by:

- **Promoting sustainable development,**
- **Encouraging a stable and enduring economic base,**
- **Providing for safety, health, and education, and**
- **Preserving the natural, cultural, and historic assets of Calvert County.**

The mission is expressed in a series of 10 visions.

1. Our landscape is dominated by forests and fields.
2. Our Town Centers are attractive, convenient, and interesting places to live, work, and shop.
3. Our wetlands, streams, and forests and the Chesapeake Bay and Patuxent River support thriving plant and animal communities.
4. Our highways are safe with only moderate congestion and transit is readily available. Walking and bicycling are practical alternatives within and in close proximity of Town Centers.

5. We waste less, consume fewer natural resources, and properly dispose of waste.
6. Our communities are safe. We care for the well-being of each other.
7. Our children are well prepared for the future. We offer robust and diverse educational opportunities.
8. We are stewards of our cultural heritage.
9. We are building a strong local economy based on renewable resources, agriculture, seafood, high technology, retirement, recreation, and tourism.
10. Our government is efficient, open, and responsive to citizen needs and concerns.

CHAPTER 2. KEY ISSUES

Driving Forces and Trends

While the Plan focuses on policies and actions that guide the future of Calvert County, that future is also influenced by past decisions and by outside forces beyond the control of county government. To successfully achieve its visons, Calvert County must implement strategies that make positive change in those areas within its control.

Recent and Projected Growth

Implementation of policies from prior Comprehensive Plans has contributed to the county's slower growth, which has continually decreased since its peak in the 1970s. Calvert County was one of the state's fastest growing jurisdictions. However, the implementation of policies from prior Comprehensive Plans has contributed to the county's slower growth in recent years. This trend is projected to continue (Tables 2-1 and 2-2).

Table 2-1 Calvert County Population Changes, 1930-2010

Total Population in Calvert County								
1930	**1940**	**1950**	**1960**	**1970**	**1980**	**1990**	**2000**	**2010**
9,528	10,484	12,100	15,826	20,682	34,638	51,372	74,563	88,737
Population Change (By Decade)								
1930's	**1940's**	**1950's**	**1960's**	**1970's**	**1980's**	**1990's**	**2000's**	**2010's**
956	1,616	3,726	4,856	13,956	16,734	23,191	14,174	5,863*
10.0%	15.4%	30.8%	30.7%	67.5%	48.3%	45.1%	19.0%	6.6% *

Source: Maryland Department of Planning, August 2017

* Projected

Table 2-2 Calvert County Projected Population Growth, 2015-2040

Population Projections for Calvert County					
2015	**2020**	**2025**	**2030**	**2035**	**2040**
90,650	94,600	97,350	99,200	100,050	100,450
Projected Population Change					
2010-2015	2015-2020	2020-2030		2030-2040	
1,193	3,950	4,600		1,250	
2.2%*	4.4%	4.9%		1.2%	

Source: Maryland Department of Planning, August 2017

* Actual percent change

Geography

Two of the factors with strong influences on Calvert County's development patterns are its location and geographic character. Calvert County is a peninsula bounded on the south and east by the Chesapeake Bay and along the west by the Patuxent River. The county is approximately 220 square miles, 35 miles

long north to south, and varies in width between five and nine miles. The topography is variable and rugged with an upland plain running from the northwest to the southeast. The Chesapeake Bay edges are characterized by high cliffs that extend from the shoreline to heights of 120 to 130 feet. The higher areas in the middle of the county gradually slope west toward the Patuxent River where the highest concentration of prime farmland is found. There are many creeks in Calvert County, and water generally drains from the central elevation east towards the Chesapeake Bay or west to the Patuxent River.

Calvert County's topography has influenced where roads are located and how the road network has developed. MD 2/4 follows the county's spine with other roads branching off, providing access to development and the waterfront. Because the peninsula is narrow and there are numerous streams and creeks traversing the county, it is difficult to provide multiple north/south routes. There is limited space for alternative routes, and the numerous stream crossings add complexity and cost to any project. Calvert County's transportation spine and many of its local roads have been in place for centuries and have shaped how development has and continues to occur in the county.

In addition, Calvert County's peninsula land form has shaped the location, type, and amount of development that has occurred. The north end of the county has seen a great deal of development because of its proximity to the Washington, DC region and the jobs to be found there. The southern end of the county is very connected to the water, and does not have significant connections to major employment centers. Much of the residential development in the southern end was originally built as summer homes and has been converted to year-round use.

Because Calvert County is a peninsula, it has limited connections to neighboring jurisdictions. This is a benefit in terms of traffic volumes; however, it means that commercial businesses must rely on local demand rather than attracting additional demand from outside travelers. This impacts the amount and type of businesses that Calvert County can support.

Slowing Population Growth

An important trend Calvert County must contend with is slowing population growth. Beginning in 1988, the county government took policy actions to intentionally slow the pace of development. Because of fewer new households and businesses that locate in Calvert County each year, the location of these developments is critically important.

In many areas within the Town Centers, the housing stock is predominately single family dwellings on mid-size lots, and the commercial areas are dispersed and vehicle-oriented. It will be difficult to transform these areas to mixed-use, pedestrian-friendly, vibrant communities without an influx of jobs and houses into these areas. Therefore, Calvert County must encourage, incentivize, and direct the development that does occur to the locations most desirable from the perspective of achieving its visions.

Changing Employment Characteristics

The changing nature of employment within the county, the influx of non-residents filling jobs within the county, and an increasing number of residents traveling long distances to their out-of-county jobs have an impact on the character of the county. Historically, Calvert County's local economy was based upon agriculture, tourism, construction, energy production, and local-serving retail and service businesses. Residents both lived and worked in Calvert County. Today, the largest employers in Calvert County are

the Calvert County Public Schools, Calvert County Government, CalvertHealth (formerly Calvert Memorial Hospital), Exelon/Calvert Cliffs Nuclear Power Plant, and the Arc of Southern Maryland. Most of the remaining top ten employers are service and retail businesses.

The county is experiencing an influx of workers from neighboring jurisdictions commuting to the jobs inside Calvert County. In 2007, 8,239 or 47.2 percent of the jobs in Calvert County were filled by employees living outside the county. By 2011, that number had grown to 8,885 or 49.5 percent of the jobs in the county. (Source: On the Map profiles for 2007 and 2011, U.S. Census Bureau)

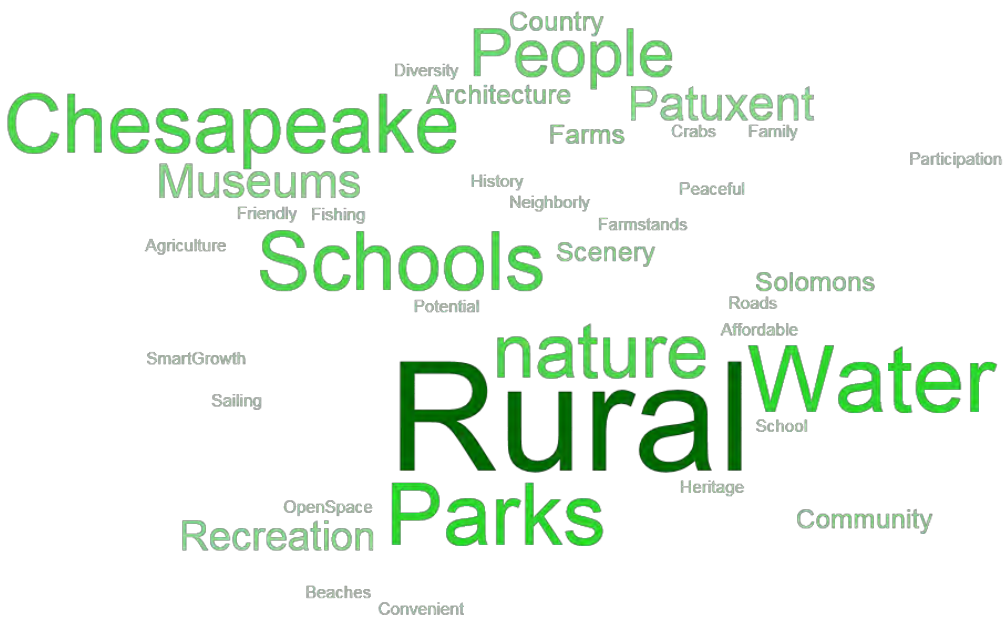
The population growth of the county over recent decades has brought new high-income residents. These higher incomes belong to residents working at jobs outside Calvert County in the Washington, DC, Annapolis, MD, and Baltimore, MD regions. Based upon median household income, Calvert County is one of the wealthiest counties in Maryland and the wealthiest in Southern Maryland.

The Plan discusses these driving forces and other trends in more detail and recommends strategies and actions to address them. These strategies and actions can help Calvert County maximize its opportunities and overcome the challenges facing the county.

Public Outreach

The Calvert County Department of Planning & Zoning began the first series of public meetings to update the Comprehensive Plan in the summer of 2016. There were four public meetings in the first series. These meetings, each of which were preceded with an open house, included an overview presentation explaining what a comprehensive plan and zoning ordinance are and why they need to be updated; described demographic, housing, and transportation trends; and gave a timeline of the update project. The overview described the importance of this project in advance of the first round of participatory public meetings. Participants were asked: what is the biggest challenge for Calvert County, what is the biggest change over the past 10 years, and what they like best/love about Calvert County. Over 430 people provided responses. A word cloud shows the most frequent response to the question about what they like best/love about the county. The larger the word, the more frequently it appeared in the responses. See Figure 2-1.

Figure 2-1. What Do You Like Best/Love About Calvert County? 2016



To learn about residents' concerns about Calvert County's future and to gather insights into the issues important to them, four Issue Identification Workshops were held in the fall of 2016. Over 210 people attended the four workshops, which were held in various locations throughout the county.

The feedback heard at the workshops more specifically defined five key issues that guided the update to the Comprehensive Plan:

- Preserving Rural Character and Directing Growth to Existing Settlements
- Strengthening Economic Vitality and Tourism
- Supporting Options in Community Character
- Providing an Efficient and Multi-modal Transportation System
- Fostering Communities with Multi-Generational Opportunities

After the key issues were defined, the Department of Planning & Zoning held a series of five workshops, each devoted to one of the key issues. Prior to each workshop, a paper providing background on the issue and offering options for strategies to address the issue was made available on the county's website. Reactions were collected through a series of small group discussions and online surveys. A summary of the results from the workshops was provided to the Planning Commission for its consideration. Copies of the issue papers and the summary prepared for the Planning Commission are included in the Appendix.

Key Issues

Providing an Efficient and Multi-modal Transportation System

Concerns about traffic delays, pedestrian amenities, bicycle facilities, and transit service pervade discussions of the county's condition and future. Calvert County is surrounded on three sides by water. MD 2/4 is the major highway joining the northern and southern ends of the county. There is only one highway crossing to the west into Charles County and one to the south into St. Mary's County. There are no highway connections to the east. Calvert's geography limits accessibility to the county and presents challenges to the creation of a robust internal transportation network.

Overall, the workshop participants believed that private automobiles will remain the primary mode of travel in the county for the foreseeable future. Sidewalks to serve local communities enjoyed considerable support with interest in improving local bus service also receiving support. Improved bicycle facilities to serve local travel and recreation demands received some interest.

Some participants said there were few stores to go to and that new shopping destinations were necessary. Other participants argued the idea that more people are shopping online, trips to stores might slow down, and a focus on transportation directed to brick-and-mortar stores may not be necessary in the future.

Participants placed the highest priority on improvements to numerous state and local roads, most notably to MD 2/4. The need for more sophisticated tools for understanding how traffic flows in the county and what future conditions might look like was clear from the public comment.

The *2010 Comprehensive Plan* calls for the construction of other sections of the Prince Frederick Loop Road, the network of local roads parallel to MD 2/4 in Prince Frederick. The 2013 Prince Frederick Charrette Report bases its recommended Town Center land use upon these roads. Similar parallel roads systems are in place or should be included in the plans for each designated growth area along MD 2/4.

The participants expressed a need for additional safe and comfortable pedestrian and bicycle connections from housing locations to commercial areas. There was considerable support for pedestrian improvements and continuous sidewalk networks in the communities of Dunkirk, Huntingtown, Prince Frederick, and Lusby. Participants believed walking around Town Centers is dependent upon where one is going and what one has to do. The participants concluded that having more things to do in Town Centers would enhance walkability and bikeability.

While the existing local transit service is generally not perceived as meeting the needs of the participants, there was support for improving service within the currently designated Town Centers and for travel throughout the county.

In a separate online survey, respondents expressed a preference for addressing automobile travel. There were a number of comments supporting improvements for walkers and bicyclists, especially in the Town Centers.

Supporting Options in Community Character

While there was considerable support for directing growth into the Town Centers, there was much concern that not all developed places in the county are or should be the same. There was a general sense that a single category of "Town Center" may not be sufficient to address the various intensities and types of development at key locations in the county.

The issue paper proposed a range of place-types that might be used in a future land use map. Five types of communities were proposed, based upon the variety of development patterns in Calvert County. The initial list included Town Centers, Hamlets, Waterfront Communities, and Residential Transition Zones. The intent of the paper was to seek out suggestions for locations that might fit into each category as a means for developing more specific definitions to reflect Calvert County concerns.

Participants made clear that some place-types would be suited for additional growth, while other place-types would not. Participants generally agreed that Town Centers are suitable for the greatest level of growth and that Villages (Minor Town Centers) are suited for some growth but not as much as Major Town Centers. Waterfront communities are not places for additional growth. Commercial uses, especially along the water, are acceptable in a few of waterfront communities, but not at all in most. Each breakout group was asked to classify various locations as place-types.

Responses to the online survey were also conflicting. There was a strong consensus in favor of Town Centers and a moderate amount of support for Villages. However, there was much disagreement on the favorability of Hamlets, Waterfront Communities, and Residential Transition Areas. There was consensus for the elimination of Hamlets as a place-type.

Fostering Vibrant, Walkable Communities with Multi-Generational Opportunities

The Town Centers in the 2010 Comprehensive Plan are the designated areas for most future growth and development. These centers are envisioned as walkable, mixed-use communities with a range of housing and business types.

The overall appearances of Town Centers are somewhat different from the vision, and achieving walkable, bike-able neighborhoods has proven elusive. Even within the Town Centers, the housing stock is predominately single-family on large lots, not necessarily suitable for the financial and lifestyle choices of many younger and older adults. Incomplete sidewalk networks and limited safe locations for bicycling make automobiles more attractive than other travel modes. Many commercial areas look more like strip centers than mixed use, pedestrian–friendly communities. These circumstances indicate that more attention should be paid to the forces that attract the development to the designated growth areas and to the regulations that create attractive environments.

The workshop on this issue offered a second opportunity to discuss how county residents perceive various types of places in the county and to envision how they might look in the future. The issue paper proposed more specific definitions for each place-type and a set of characteristics that might be applied to each. Discussion during the workshop provided additional insight into how participants view their own communities and others in the county. Following the workshop, residents of Dunkirk, Huntingtown, and Lower Marlboro submitted additional thoughts about how their communities should look in the future.

Takeaways from the conversations included:

- Prince Frederick is a Town Center and the recommendations of the charrette should inform the goals for this community in the Comprehensive Plan.
- In general, established waterfront communities are not locations for growth.
- Currently there are two levels of designated growth centers. The 2010 Comprehensive Plan calls them major and minor Town Centers. There was some acceptance of the use of Villages as an alternative to minor Town Center. Some residents from Huntingtown and Dunkirk preferred the designation "Village" for their respective communities.
- Availability of water and sewer service, building scale, and whether multi-family units are permitted are seen as key distinctions between Town Centers and Villages (Minor Town Centers).
- There were some concerns among commercial property owners that restricting the range or intensity of uses in Villages may have a negative effect on their property values.

Place-type definitions were refined after the workshop. After the public review of the October 2017 Draft of the Comprehensive Plan the Planning Commission retained the following place-types: Major Town Centers, Minor Town Centers, Waterfront Communities, and Residential. After review of the Planning Commission's Recommended Comprehensive Plan (December 2018), the Board of County Commissioners voted on June 25, 2019, to eliminate the major and minor categories and propose one category: Town Center.

Strengthening Economic Vitality

Many of the county's perceived opportunities for economic stability and job growth include tourism and special events related to the county's agricultural businesses and waterfront location. The county's agricultural heritage and proximity to the waters of both the Patuxent River and the Chesapeake Bay are the backbone of the resource and energy-based industries. A strong and vibrant agricultural economy, including agri-tourism, new crops, and new uses for open spaces is essential to retaining the rural character of the county. Other topics raised in the discussions included providing improved infrastructure of all types - roads, water, sewer, and communications.

This issue paper provided information on commuting patterns, large employers, county tax base, tourism, lost retail and service sales, and household income. Following a summary presentation on the paper, participants responded to two open-ended questions about their hopes and concerns for future economic growth in the county.

The county also provided an opportunity to respond to the same questions online. Many of those respondents expressed concern about the long-term viability of retail businesses, especially "big box" stores, in light of the growing trend of online shopping. Respondents generally favored smaller, local businesses including farm-based enterprises.

Preserving Rural Character and Directing Growth to Existing Settlements

While there are mixed feelings about the amount of new residential and commercial development in the county, there is near universal consensus that the bulk of growth should take place in designated areas, specifically, the Town Centers. To support that effort, the county should provide incentives and

advantages for developers seeking to locate new development in designated areas. Generally, the Transferable Development Rights program and the current array of county policies are not perceived as successfully directing growth into designated areas and protecting the rural areas from increased residential development. Many comments on preserving the county's rural character discuss how to attract development into the Town Centers.

This issue paper included a review of the policies outlined in the 2010 Comprehensive Plan, recent and projected growth in population and housing, construction approvals, the results of a build-out analysis, and descriptions of the current land preservation programs. At the workshop, staff presented an overview of the county's planning efforts. Following the presentation, participants developed and ranked proposals for preserving rural character and directing growth by answering two open-ended questions.

In addition to attending the workshop, people had the opportunity to respond to the questions online. In these responses, there was a large consensus over the importance of preserving the county's rural character and directing growth to designated areas. Many of the respondents voiced suggestions for preserving land. Some suggested increasing the number of preservation districts, while others suggested deflecting development from rural areas by attracting the development to Town Centers. It was also suggested to have a farmers market in each Town Center. There was not a consensus on how to pay for incentivizing the preservation of land. In regards to directing growth to designated areas, many suggested making the Town Centers more pedestrian and bicyclist friendly. Many suggestions also included improving or adding infrastructure in the Town Centers.

CHAPTER 3. LAND USE

Vision

Our landscape is dominated by forests and fields.

Our Town Centers are attractive, convenient, and interesting places to live, work and shop.

We are stewards of our cultural heritage.

Goals

Goal 1: Preserve the rural character of the county, its prime farmland, contiguous forests, cultural resources, and environmentally sensitive areas.

Goal 2: Use water and sewer policies to direct growth consistent with land use policies.

Goal 3: Develop Town Centers as attractive, convenient, and interesting places to live, work, and shop.

Goal 4: Direct commercial and industrial uses to appropriate locations; provide necessary infrastructure.

State Vision

This chapter supports the Maryland State Visions related to:

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

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

Resource Conservation. Waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved.

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

Related County Plans (Incorporated by Reference)

Master Plans – Individual master plans for the Town Centers.

Calvert County Comprehensive Water & Sewerage Plan, 2014 Update – A framework for County water supply and sewerage disposal.

Background

Calvert County enjoys a unique and enviable position in the Washington metropolitan area. The county has rural character and natural amenities with urban offerings available within an hour's travel. Convenient access to the urban areas, however, works both ways as pressures for new development in Calvert County are expected to continue.

In 1983, the county adopted the Town Center concept to provide locations suitable for residential and commercial development and to avoid extending "strip commercial development" along Calvert County's highways. Strip commercial development contributes to traffic congestion, increases the potential for highway traffic accidents, reduces the drawing power of commercial uses by limiting the opportunity to share customers with other nearby commercial uses, increases the cost of needed infrastructure, and detracts from the visual beauty of the countryside.

The Comprehensive Plan guides the character, location, and pace of development so that the nature and character of the county are preserved for future generations. The plan continues the county's efforts to preserve its rural character through a combination of strategies intended to protect agricultural, forest, sensitive lands and cultural resources, and to direct growth to suitable locations, promoting economic growth and practicing stewardship of the Chesapeake Bay.

Sustainability Approach

The land use chapter promotes creating a sustainable land use pattern by creating a balanced mix of residential, recreational, commercial, and industrial uses and is anti-sprawl. Proposed policies allow mixed uses and higher development intensities that create more efficient/less consumptive buildings and spaces in the Town Centers. A sustainable Calvert can be a place of people living in small, farm-oriented communities with a strong sense of unity surrounded by wide-open spaces. These energy-efficient land use patterns promote economic and social activities that are less dependent on automobiles. With the use of Adequate Public Facility Regulations, continue to support policies that link the amount, location and rate of residential growth to County land use objectives, including highway, school, water quality and aquifer capacities.

Existing Policies

Land Preservation

Beginning with the first Calvert County Comprehensive Plan, adopted in 1967, one of the county's primary goals has been the preservation of its rural character. Calvert County's heritage of family farms, tobacco barns, waterfront communities, and its peace and quiet are elements that define Calvert County's rural landscape and character. "Areas like Calvert County that lie at the outer edges of metropolitan areas should be maintained as natural resource protection areas, farming regions, and vacation/recreation/retirement areas"[1].

[1] 2010 Calvert County Comprehensive Plan, Page 2.

By the late 1970's, Calvert County recognized that while large lot zoning effectively reduced the number of households located within rural areas, it destroyed prime farm and forest land by taking it out of production permanently. Calvert County adopted the first Transferable Development Rights (TDR) program in the state in 1978. In 1978, the Agricultural Preservation Advisory Board set a goal of preserving 20,000 acres. In 1997, Calvert County celebrated the enrollment of 20,000 acres of prime farm and forestland in county and state land preservation programs. A goal to preserve an additional 20,000 acres was adopted that year.

In 2010, the county designated Priority Preservation Areas by amending the 2004 Calvert County Comprehensive Plan. Adopting Priority Preservation Areas was required for the county to remain certified under Maryland's Agricultural Certification Program. The plan included the action to "Reserve the Farm and Forest District (Priority Preservation Area) for farming and natural resource-related uses and direct residential growth away from these areas."[2]

The Maryland Agricultural Land Preservation Foundation (MALPF) purchases agricultural preservation easements that will restrict development on prime farmland and woodland. As of 2016, Calvert County had acquired 35 easements under the program for a total of 4,715 acres.

Maryland's Rural Legacy Program provides funding to preserve large, contiguous tracts of land and to enhance natural resources, agricultural, forestry and environmental protection while supporting a sustainable land base for natural resource-based industries. Calvert County actively participates in the Maryland Rural Legacy Program.

The Maryland Environmental Trust (MET) works with landowners, local communities, and citizen land trusts to protect landscapes and natural resources as a legacy for future generations. MET provides direct assistance, information and innovative tools to ensure the ongoing stewardship and public concern for the natural, historic, and scenic resources of the state.[3]

As of 2018, there are three mechanisms for preserving properties in the county's agricultural preservation program: Transferable Development Rights (TDRs), Purchase and Retirement (PAR), and Leveraging and Retirement (LAR). There are additional private programs for the preservation of open space including land trusts such as the American Chestnut Land Trust that also provide long-term protection of undeveloped land.

Almost 30,000 acres of land in Calvert County have been preserved though the combined efforts of state and local governments, land trusts, and property owners, as shown in Table 3-1.

[2] 2010 Calvert County Comprehensive Plan, Action 1-4, Page 6
[3] Maryland Environmental Trust Homepage, http://dnr.maryland.gov/met/Pages/default.aspx, accessed 10-11-2017

Table 3-1 Land in Preservation

Land in Preservation	Acres
County Agricultural Preservation Program	20,279
Maryland Agricultural Land Preservation Foundation (MALPF)	4,715
Rural Legacy	1,738
Maryland Environmental Trust (MET)	825
Total	27,602

Source: Calvert County Department of Planning & Zoning, 2017

Transferable Development Rights Program and Forest Conservation TDRs

In 1978 Calvert County adopted the first Transferable Development Rights (TDR) program in the state. The county does not "acquire" easements but requires that covenants be recorded prior to the initial sale of developments rights. To begin the TDR process, property owners voluntarily apply for Agricultural Preservation District (APD) designation. The designation remains in effect for a minimum of five years. Once the district is established, the owner may petition for the certification of development rights. Once certified, the TDRs can be sold to another party and transferred to a receiving area to increase the number of residential lots/units or to satisfy forest conservation requirements via a "forest" TDR. Owners of parcels enrolled in districts from which no development options have been conveyed may withdraw their land after five or more years by giving a one-month notice of such intent.

The Calvert County Department of Planning & Zoning estimates that there are approximately 9,500 TDRs currently certified and available for purchase and approximately another 3,000 TDRs that could be certified in APDs. In 2013, the county placed a moratorium on the creation of new APDs.

The market for TDRs has varied over time. Between 1978 and 2013, 14,442 TDRs were sold. In 2013 a Calvert County Planning & Zoning review of the county's TDR program concluded that TDR sales had averaged between 500 and 600 per year but that the Great Recession had a profound impact on the use of TDRs and "total sales went from 716 in 2003 to 72 in 2012…."[4] The report recommended that the county purchase and retire about 200 TDRs per year while encouraging developer usage of approximately 300 TDRs per year. By 2015, sales had rebounded, and 647 TDRs were sold for development.

In 2015 newly adopted zoning ordinance amendments modified the TDR requirements for various unit types locating in the Prince Frederick, Lusby, and Solomons Town Centers, which have public water and sewer service. The changes reduced the number of TDRs required to construct additional units above the permitted base density[5]. Five TDRs are needed for each additional residential lot or dwelling unit in most areas of the county. In the Prince Frederick, Lusby, and Solomons Town Centers, three TDRs are required for each additional single-family dwellings on lots that average 10,000 square feet or less, two TDRs for each additional attached dwelling, and one TDR for each additional apartment unit. The changes are intended to encourage residential development within the Town Centers and reinvigorate the market for TDRs.

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[4] *Proposal to Improve the Calvert County Land Preservation Program*, 2013

[5] Base density (conventional density) is the number of permitted units without use of TDRs.

Purchase and Retirement (PAR) Program

Calvert County created a Purchase and Retirement (PAR) Fund. Its purpose is to purchase and permanently remove ("retire") development rights from the transferable development rights market. The development rights are retired rather than sold to transfer development elsewhere. Funding for the purchase of development rights has come from the agricultural land transfer tax, the recordation tax, local government funds, and matching funds from the Southern Maryland Agricultural Development Commission and the Tobacco Buyout Fund. Owners may apply through PAR to sell a limited number of development rights from land in an Agricultural Preservation District. Owners of any APD from which no development rights have been sold to others may apply to sell additional development rights. PAR is a cyclical program with offers made each fiscal year based on available funds. With each cycle the program, funding and price are evaluated to assist with maintaining participation and program operations.

Between 1993 and 2016, the county has purchased and retired 2,682 development rights through PAR at a total cost of $10.8 million. The most recent data available is from 2016 when 303 development rights were purchased at a cost of $1,136,250.

Leveraging and Retirement (LAR) Program

The county also has a Leveraging and Retirement (LAR) Fund. The Leveraging Program is similar to the PAR Fund in that the Board of County Commissioners buys development rights from APD owners and permanently retires the development rights. The primary differences between the two programs include the amount of development rights that may be sold and the method of payment. The number of development rights that may be sold to the LAR fund is not limited. The owner receives annual tax-free interest payments and a lump sum payment constituting the principal at the end of a 10, 15, or 20-year term. An installment purchase agreement is signed between the county and the seller. LAR, while not currently active, functions on a cyclical basis similar to PAR. With each cycle the program, funding and price are evaluated to assist with maintaining participation and program operations. Since it began in 1999, the county has purchased and retired 2,597 development rights through the LAR Program.

Priority Funding Areas

Maryland's Priority Funding Areas (PFAs) are targeted existing communities where local governments desire the state to invest and support future growth. Growth-related projects include most state programs that encourage growth and development, such as highways, sewer and water construction; economic development assistance; and state leases or construction of new office facilities. Funding for projects in municipalities, other existing communities, industrial areas and planned growth areas designated by counties as PFAs, receives priority for state funding over projects located outside of PFAs.

Critical Area Protection Program

The State of Maryland enacted the Chesapeake Bay Critical Area Protection Act in 1984 to address the impacts of land development on habitat and aquatic resources. The Critical Area includes all land within 1,000 feet of the Mean High Water Line of tidal waters or the landward edge of tidal wetlands connected to the Chesapeake Bay and Patuxent River. The intent of the Act is to achieve the following goals:

- Minimize adverse impacts on water quality that result from pollutants that are discharged from structures or conveyances or that have run off from surrounding lands;
- Conserve fish, wildlife, and plant habitat in the Critical Area; and
- Establish land use policies for development in the Critical Area which accommodate growth and address the fact that, even if pollution is controlled, the number, movement, and activities of persons in the Critical Area can create adverse environmental impacts.

The Critical Area Program involves cooperative implementation efforts between the state and local governments. Calvert County has adopted a specific chapter of the zoning ordinance related to Critical Area implementation. The Critical Area law requires local governments to review their Critical Area programs comprehensively every six years.

Agricultural Preservation and Sustainable Growth Act of 2012: Growth Tier Map

In 2012, the State of Maryland adopted the Sustainable Growth and Agricultural Preservation Act (the "Act") to limit creation of new residential subdivisions served by on-site sewage disposal systems. The Act, also known as the "Septics Law," was adopted to meet U.S. Environmental Protection Agency limits on Chesapeake Bay nutrient and sediment pollution. The Act establishes four tiers to identify the type and intensity of residential subdivision that may occur (minor or major) and the type of sewage disposal system to serve them.

Tier I: Areas already served by public sewerage systems and mapped as a locally designated growth area or in a municipality that is a Priority Funding Area served by public sewerage systems. In Tier I, a residential subdivision plat may not be approved unless all lots are to be served by public sewer.

Tier II: Areas proposed to be served by public sewerage systems or mapped as locally designated growth areas.

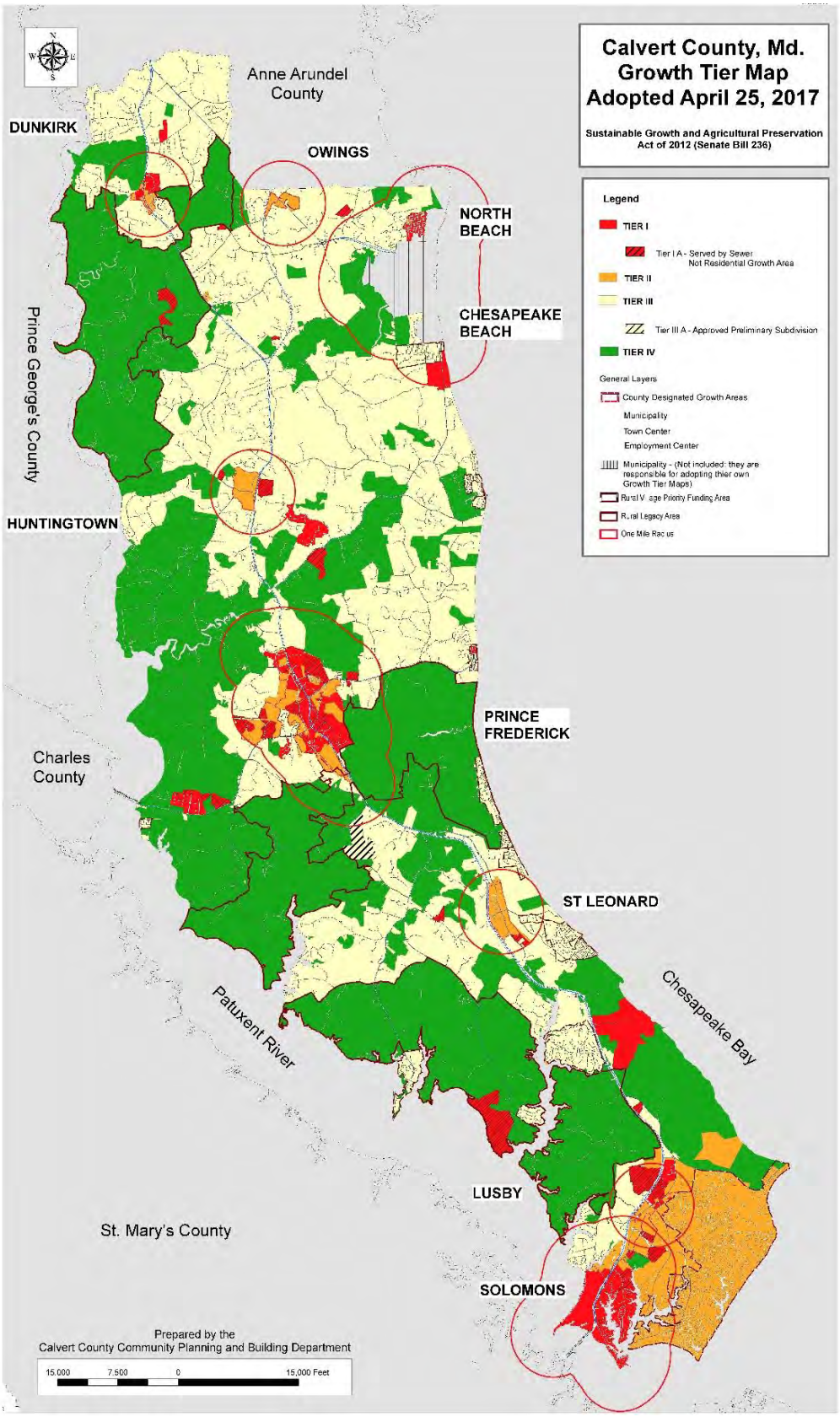
Tier III: Areas planned and zoned for large lot or rural development. They are not planned for sewerage service and are not dominated by agricultural or forest land. They are also not planned or zoned for land, agricultural, or resource protection, preservation, or conservation.

Tier IV: Areas not planned for sewerage service and which are planned or zoned for land, agricultural, or resource protection, preservation or conservation; areas dominated by agricultural lands, forest lands or other natural areas; 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 or a local jurisdiction for the purpose of conserving natural resources or agricultural land.

In April 2017, the Calvert County Board of Commissioners approved a Sustainable Growth and Agricultural Preservation Act Growth Tier Map consistent with the 2010 Comprehensive Plan and the existing and planned sewer service areas, zoning, Priority Preservation Areas, Rural Legacy Areas, and permanently preserved Agricultural Preservation Districts. (See Figure 3-1). In December 2017, the County Commissioners amended the 2010 Comprehensive Plan to include the Growth Tier Map that the Commissioners approved earlier that year. The Growth Tier Map adopted in 2017 is incorporated in this updated Calvert County Comprehensive Plan. The Growth Tier Map will be periodically reviewed and revised to reflect changes in the county's Comprehensive Water and Sewerage Plan, zoning map

changes adopted through the Comprehensive Rezoning process, and other changes, such as additional land becoming protected.

Figure 3-1 Growth Tier Map

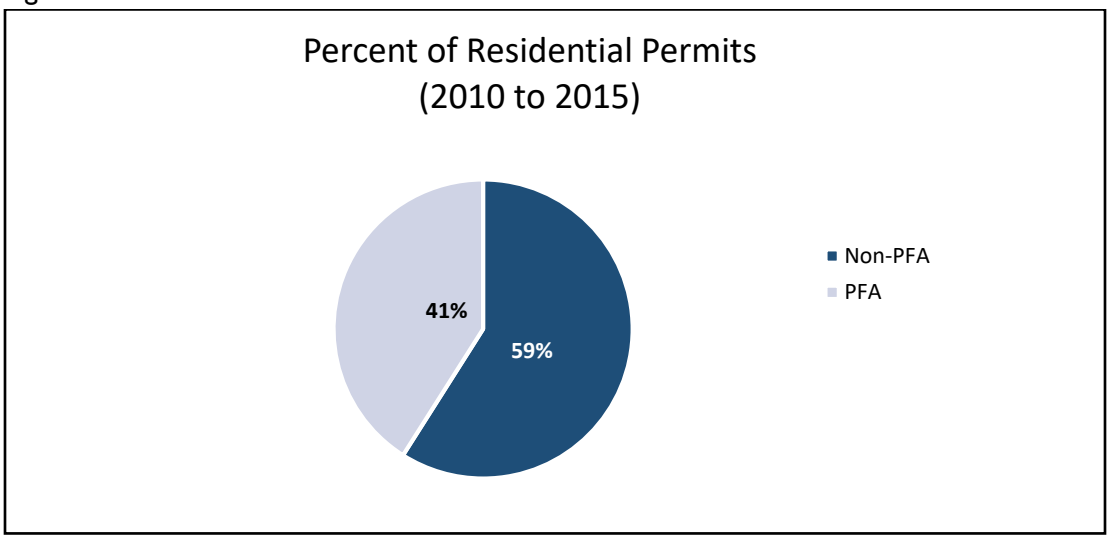


Existing Land Use

In general, residential development occurs along the major roads and corridors rather than clustered in and around Town Centers. Much of Calvert County's residential development is located north of Prince Frederick, and approximately 20 percent of existing residential land uses are concentrated within one mile of the Town Centers. Residential development in the south is more concentrated whereas residential development in the north is more dispersed. In addition, 85 percent of residential development is categorized as low or very low density with lot sizes at least half an acre or larger.

The 2010 Comprehensive Plans sets a benchmark that 35 percent of new households locate in Town Centers or immediately around Town Centers, and the county is achieving this goal. While not exactly comparable, Figure 3-2 shows over the last five years, 41 percent of permits for new residential units have gone to areas inside Priority Funding Areas.

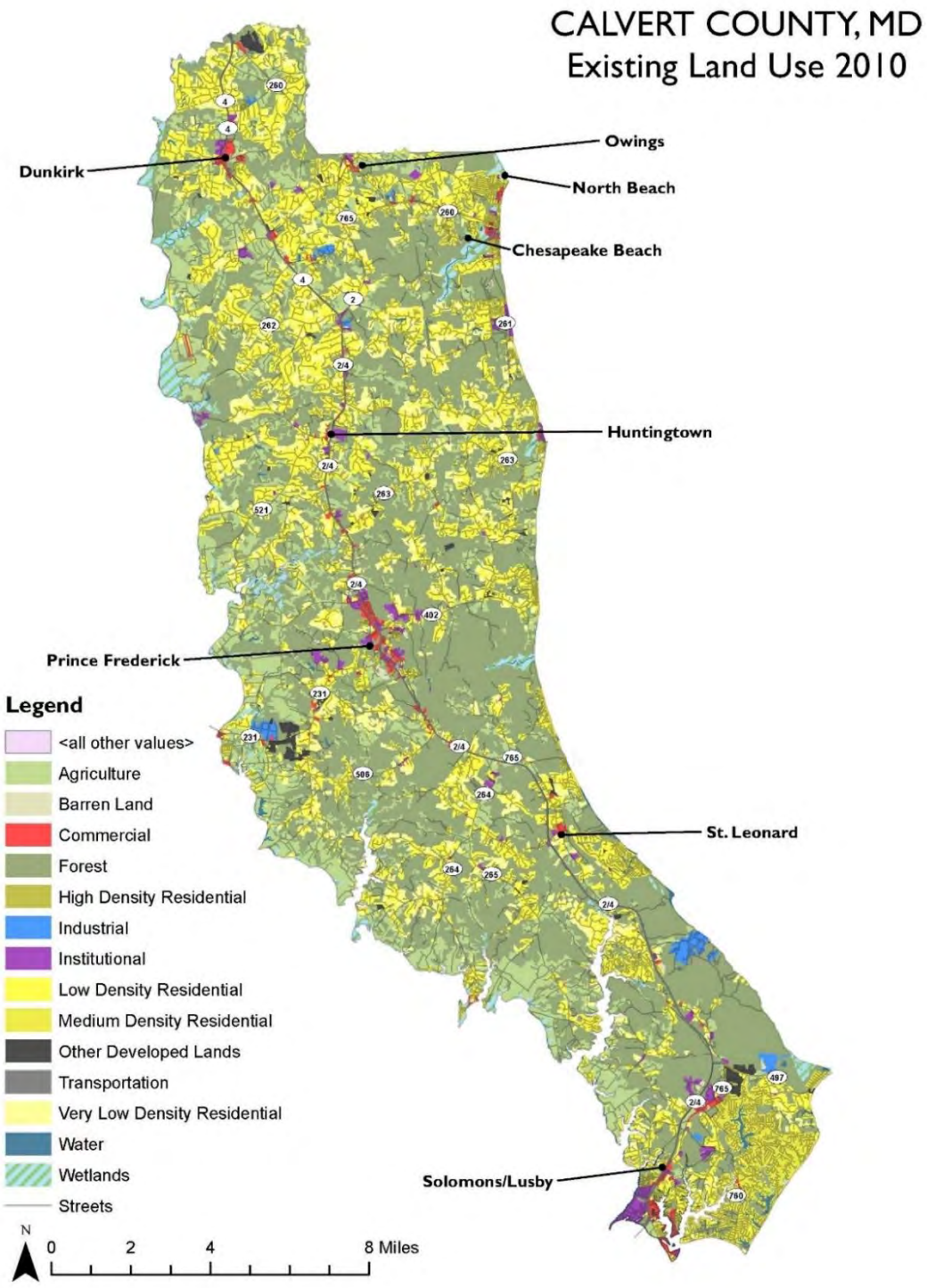
Figure 3-2 Percent of Residential Permits inside PFAs



Source: Calvert County Planning Commission Annual Reports

While this distribution of new households is consistent with the 2010 objective, it has not produced the development patterns envisioned in the Comprehensive Plan or by the Town Center master plans. Figure 3.3 shows existing land uses in 2010. There are options for creating a strong physical line by directing development and establishing clear boundaries between the rural landscape and the growth areas. These strategies could encourage development in the designated areas, restrict development in rural areas, and buffer growth areas from rural areas to limit sprawl.

Figure 3-3: Existing Land Use Map



Source: Maryland Department of Planning

Managing Residential Growth

Implementation of the previous Comprehensive Plan's policies has contributed to the county's reduced growth rate for both population and households, which has continually decreased since its peak in the 1970s. Over time, Calvert County has gone from being the fastest growing county in Maryland to one of the slowest in the metropolitan areas. The population growth rate is projected to continue to slow in the future (Table 3-2 and Table 3-3).

Table 3-2 Population Increase and Growth Rate by Decade, 1930-2010

Total Population in Calvert County								
1930	**1940**	**1950**	**1960**	**1970**	**1980**	**1990**	**2000**	**2010**
9,528	10,484	12,100	15,826	20,682	34,638	51,372	74,563	88,737
Percent Change (By Decade)								
1930's	**1940's**	**1950's**	**1960's**	**1970's**	**1980's**	**1990's**	**2000's**	**2010's**
10.0%	15.4%	30.8%	30.7%	67.5%	48.3%	45.1%	19.0%	6.6% *

Source: Maryland Department of Planning, August 2017

* Projected

Table 3-3 Projected Population and Rate, 2015-2040

Population Projections for Calvert County					
2015	**2020**	**2025**	**2030**	**2035**	**2040**
90,650	94,600	97,350	99,200	100,050	100,450
Projected Population Change					
2010-2015	**2015-2020**	**2020-2030**		**2030-2040**	
1,193	3,950	4,600		1,250	
2.2%*	4.4%	4.9%		1.2%	

Source: Maryland Department of Planning, August 2017. Numbers are rounded to nearest 100.

The slower growth in population translates into a reduced growth of households and demand for additional housing units (Table 3-4).

Table 3-4 Projected Households and Growth Rate 2020-2040

Household Projections for Calvert County		
2020	**2030**	**2040**
33,900	36,900	37,600
Percent change		
2010-2020	**2020-2030**	**2030-2040**
9.9%	9.0%	1.9%

Source: Maryland Department of Planning, August 2017. Numbers are rounded to nearest 100.

Development Capacity Analysis

The goal of a development capacity analysis is to consider the future and show a realistic image of the development that has the potential to occur given the set of conditions existing in the county. Actual growth may never occur in the exact condition illustrated but the analysis gives residents and administrators a vision to guide policy discussions about future development.

In 2016, the Maryland Department of Planning (MDP) prepared a preliminary analysis of the development capacity for the current zoning regulations in Calvert County coupled with recent provisions in state law. The analysis projected that the current zoning can accommodate approximately 9,000 additional housing units without the use of TDRs and approximately 15,000 additional housing units with the use of TDRs.[6]

The MDP ran six scenarios for Calvert County[7]. The scenarios focus on the use and application of the county's TDRs, potential implementation of the Sustainable Growth and Agricultural Preservation Act of 2012 (Growth Tier Act/"Septic Law"), and site level constraints. The scenarios are illustrative of a potential range of possibilities for development capacity in Calvert County. These data points represent the "bookends" of what could potentially occur. Future development patterns based upon the 2016 zoning would likely be "somewhere in the middle". This analysis allows for more informed decision-making about future changes to land use policy.

The two scenarios that come closest to bracketing the county's realistic development potential, Scenarios 4 and 6, are described below.

Table 3-5 shows the results for these two scenarios.

Scenario 4: No use of TDRs and "Septic Law" scenario - assumes that current programs do not change over time. This scenario illustrates the potential impacts of the septic law, using the county's draft Growth Tier Map (May 2016). It also assumes that there is no use of TDRs. In other words, zoned densities reflect the minimum densities allowed in each zoning district without the use of TDRs.

Scenario 6: Full Site Constraints and "Septic Law" Scenario - assumes that current programs do not change over time. This scenario illustrates the potential impacts of the septic law, using the county's draft Growth Tier Map (May 2016). It assumes that all constrained lands identified in the county's ordinance that are mapped are subtracted from the developable acres of each parcel greater than five acres.

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[6] Material in this section is based upon a memorandum from the Maryland Department of Planning to the Calvert County Planning Commission Administrator, dated August 9, 2017, Re: Calvert County Capacity Analysis

[7] The MDP development capacity analysis does not include the municipalities of Chesapeake Beach and North Beach since they have their own planning and zoning authority.

Table 3-5 Calvert County New Household Capacity by Generalized Zoning District

Generalized Zoning	Scenario 4 - NHC No TDR with Septic Law	Scenario 6 - NHC Full TDR with Septic Law and Full Constraints
Town Centers	1,200	5,400
Inside 1-Mile Radius	2,900	4,200
Outside 1-Mile Radius	4,600	5,400
Total	8,700	15,000

Source: Maryland Department of Planning, August 2017. Source numbers rounded to nearest 100.

Comparing the projected growth with the projected capacity in the county shows that while the county's policies indicate a preference for new development to locate within Town Centers, there is greater capacity to absorb new growth in the areas outside the Town Centers.

Future Land Use Plan

The Future Land Use Plan establishes nine land use categories shown in Figure 3-4 with the following meanings:

Rural Areas

Farm and Forest – Rural areas dominated by existing farms and forest. The use of TDRs to allow additional dwelling units in the Farm and Forest areas contradicts the intention of preserving these areas. TDRs may not be used to increase density in these areas.

Rural Residential – Rural areas dominated by existing large-lot residential development, typically three to 10 acres in size, with an average lot size of approximately five acres. This category accommodates existing small-scale neighborhood convenience retail and service uses as well as essential public services. In past Calvert County Comprehensive Plans, rural residential areas have been designated growth areas (receiving areas for TDRs). The 2040 Plan places greater emphasis on directing residential growth to Town Centers and Residential Areas.

Waterfront Communities – Existing, mature residential communities that typically pre-date zoning and subdivision regulations with lot sizes of an acre or less. They are not planned for expansion or additional growth. TDRs may not be used to permit additional dwelling units in these areas.

Wetlands – Large concentrations of tidal wetlands as defined by state and federal regulations. These boundaries are based on current zoning (6/2017). Development is generally prohibited in these areas.

Growth Areas

Town Centers – Town Centers are the county's primary designated growth areas. Town Centers contain a mixture of residential, commercial, and institutional uses. Town Centers are areas where TDRs can be

used to increase density to a maximum consistent with the approved Town Center zoning. Future development is guided by a Town Center master plan.

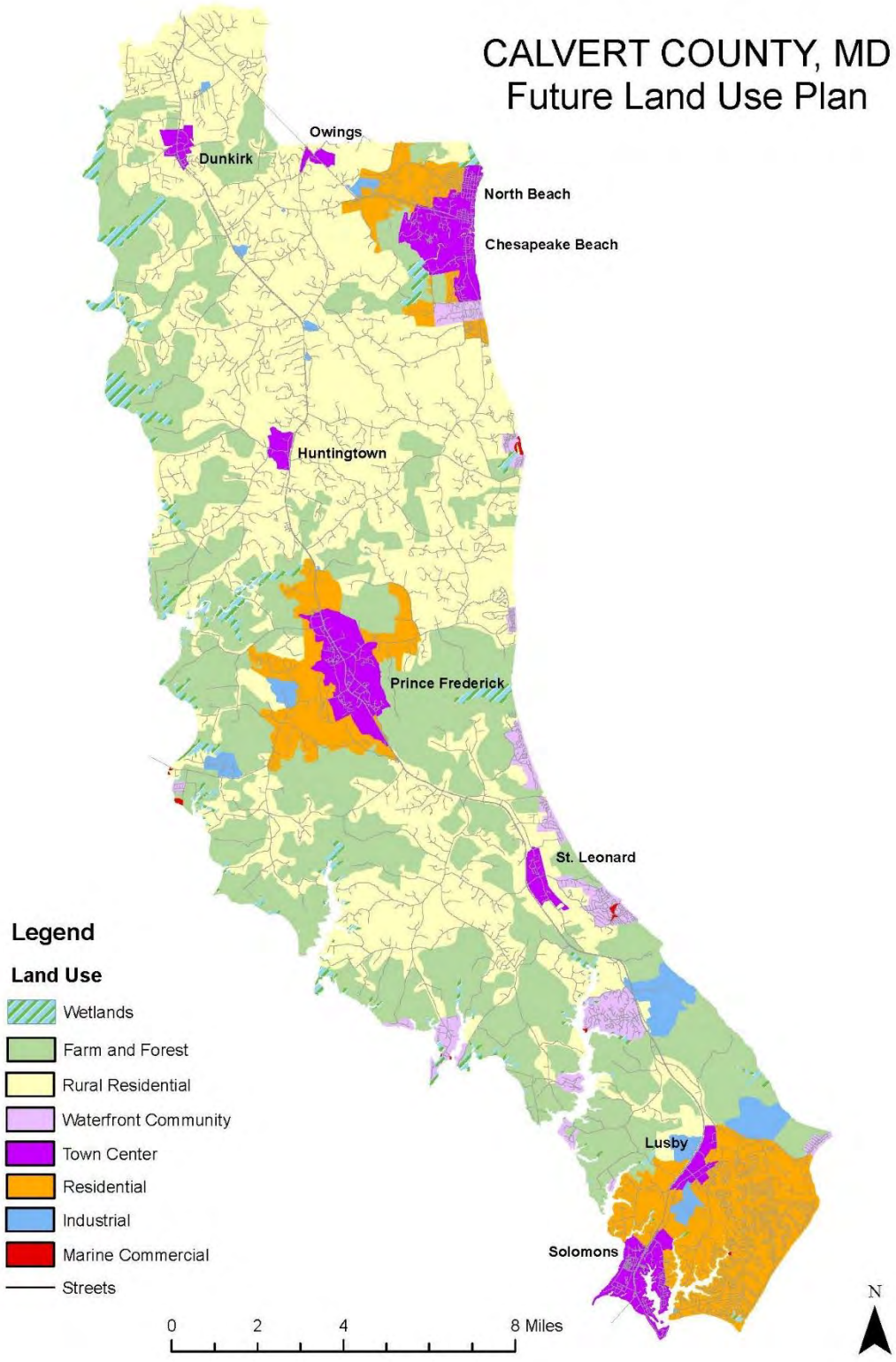
Residential – Mapped areas within approximately one mile of the North Beach, Chesapeake Beach, Prince Frederick, Lusby, and Solomons Town Centers. The density in these areas can be increased through the use of TDRs. Density in these areas can be increased to a maximum of four dwelling units per acre.

Commercial & Industrial Areas

Industrial – Manufacturing and employment centers that may include some larger-scale institutional and services uses.

Marine Commercial – Small-scale, water-dependent uses like marinas and restaurants, providing convenience services to residents and visitors.

Figure 3-4 Future Land Use Plan



Rural Areas

Over the years, the county has adopted several programs to try to minimize both the number and the impact of residential subdivisions in the Farm and Forest District and Rural Residential area while still trying to protect landowner equity. These programs include large lot zoning, critical area regulations, clustering, the TDR program, and several state and county land preservation programs.

Farm and Forest

The Farm and Forest area allows limited development and encompasses existing agriculture and forested areas. The area has been reserved for future farming and preservation of natural resources. It is predominantly in Tier IV of the Growth Tiers and should provide the lasting agricultural and forested character to Calvert County. The boundary has been reconfigured to reduce the existing residential development within the Farm and Forest District. Density may not be increased through the use of TDRs.

Rural Residential

The Rural Residential area is a combination of existing small-lot clusters far outside of the PFAs and large-lot subdivisions spread throughout the county. The Rural Residential border with the Farm and Forest area is designed to distinguish large farmland parcels from these smaller residential lots. Rural Residential is predominantly in Tier III of the Growth Tiers. The current average parcel size is 2.68 acres.

Rural Commercial

Numerous commercial uses exist in scattered locations along roadways, in many cases in locations that have been commercial for decades**.** These uses are currently zoned as Rural Commercial. Many of them are owned and managed by local business people who provide valuable services to the community. At the same time, many of these sites have substantial redevelopment and expansion potential, which can attract commercial uses away from the Town Centers.

As a general policy, nonagricultural commercial uses in the Farm and Forest areas and Rural Community areas should be limited to uses that support, complement, and promote farming, forestry, heritage, and ecotourism. Commercial uses in the Farm and Forest areas and Rural Residential areas should be strictly limited to help avoid drawing traffic onto rural roads and creating conflicts with existing residential communities.

Waterfront Communities

Waterfront Communities are unincorporated, clustered, small population centers located along Calvert County's waterfront. These small-lot communities are located in rural locations and were developed before many of the health, safety, and environmental regulations that govern the layout and design of newer communities. Their waterfront location leads to increased risks of flooding or cliff erosion and their small lot sizes served by wells and septic systems may contribute to public health and environmental threats. Waterfront communities are recognized as unique places within the county; future development within these areas is limited.

Waterfront Communities are recognized as unique places within the county but future development within these population areas is limited.

Areas proposed as Waterfront Communities include:

- Plum Point
- Dares Beach
- Cove Point
- Randle Cliff Beach
- Summer City
- Scientists Cliffs
- Calvert Beach and Long Beach
- Broomes Island

Waterfront Communities may contain marine commercial uses that are typical of other waterfront communities along the county's Chesapeake Bay shoreline. The street grid system typically runs parallel to the coast line. Rural commercial uses, if they exist, are oriented along a corridor and mixed with small-scale civic uses. The waterfront is primarily in private ownership and includes commercial marinas, restaurants, and private residences. Open space, if provided, is in the form of small pocket parks. The mix of uses serves a multi-generational community. There are water-dependent uses, such as enhanced docking facilities, boat ramps, and kayak launches.

Wetlands

Natural areas such as wetlands, wildlife habitat, beaches, and steep slopes are important from an environmental perspective, but they also help create the special character of rural areas. The protected wetlands in the Land Use Plan could serve as a starting point for a system of greenways that provide tangible benefits to the local economy by bringing tourism to the county while still supporting the environment, working farmlands, forests, and fisheries.

Growth Areas

Town Centers and Residential areas adjacent to Town Centers are designated growth areas. Town Centers are the county's primary designated growth areas. There are nine designated Town Centers: seven Town Centers are under the purview of the Board of County Commissioners of Calvert County, and two are under the purview of the municipalities, Chesapeake Beach and North Beach, which have their own planning and zoning authority.

Town Centers

Town Centers are intended to include a mix of commercial, office, residential, public, and quasi-public development as a means of promoting economic development, creating more local jobs, expanding cultural opportunities, reducing traffic congestion, preventing strip commercial development, providing a range of housing opportunities, and providing convenient access to goods and services for county residents.

Town Centers promote business growth by providing infrastructure and enabling businesses to benefit from proximity to each other. They also promote business growth by providing attractive, mixed-use settings where offices, stores, restaurants, and homes are within proximity to each other.

Town Center master plans are individually adopted and continue to provide a broad mix of commercial, office, residential, public, and quasi-public development as a means of promoting economic development, creating local jobs, expanding cultural opportunities, reducing traffic congestion, preventing strip commercial development, providing a range of housing opportunities, and providing convenient access to goods and services for county residents. Town Centers are the primary locations for most commercial uses. The strategy of directing commercial growth to Town Centers has been in effect since the adoption of the Town Center concept in the 1983 Comprehensive Plan.

The provision of adequate roads, water, wastewater systems, public transportation, and high-quality internet communication systems, together with public amenities such as parks, town squares, trails, sidewalks, bikeways, indoor recreational, and cultural facilities, should remain a top priority, in accordance with master plans for Town Centers. Emphasis is placed on creating a more compact pattern of development that will reduce dependence upon automobiles and enable people to live within convenient proximity to stores, offices, and services.

This updated Comprehensive Plan retains the policy of permitting a higher residential density with the use of TDRs within a one-mile radius of a defined central point for the Town Centers of Dunkirk, Owings, Huntingtown, and St. Leonard. The policy will be reviewed during the update of the zoning ordinance regulations.

Dunkirk

Dunkirk is the gateway to Calvert County from the Washington, D.C. metropolitan area, is bisected by MD 4, and is the only Town Center served by private community sewer systems. These characteristics require a unique set of land use policies specific to this area of approximately 200 acres at the northern end of the county. The Town Center is dominated by commercial uses oriented to MD 4. Surrounding the Town Center are large areas of single-family homes served by individual, private septic systems.

The Future Land Use Plan envisions the Dunkirk Town Center expanding to the northwest to include the county's Dunkirk District Park and to the northeast to include the state's Park and Ride lot property. Expansion of the Dunkirk Town Center will require amending the Town Center master plan and the zoning for the Town Center. These processes provide additional opportunities for public input. The Dunkirk Town Center master plan should also be updated to reflect current demographic, land use, market conditions, and the expanded area of the Town Center, as well as the policies of this Comprehensive Plan.

Owings

Owings is located along Chesapeake Beach Road and MD 2, near the northern county boundary with Anne Arundel County. The adopted Master Plan for Owings envisions a mix of uses including small-scale, retail shops, the creation of a "Main Street" quality to Thomas Street, and safe pedestrian connections. The expanded boundary shown on the Future Land Use Map encompasses the adjoining Employment Center, Rural Commercial, and the residentially zoned Residential District and Rural Community District areas along MD 260. Expansion of the Owings Town Center will require amending the Town Center master plan and the zoning for the Town Center. These processes provide additional opportunities for public input. The Owings Town Center master plan should also be updated to address the policies contained in this Comprehensive Plan.

The Owings Town Center Master Plan, adopted in 2000, depends in large part upon the provision of public water and sewer. Since the county does not have a near-term plan to provide this service and the market demand has not supported extension of service by a private entity, the master plan should be updated to more closely conform to the policies of this Comprehensive Plan.

Huntingtown

Huntingtown is in central Calvert County, north of Prince Frederick, and centered on the crossroads of Old Town Road (MD 524) and Hunting Creek Road (MD 521). The small commercial center includes restaurants, retail shops, and offices. Huntingtown High School provides a gathering place for the community as well as educational and recreation facilities. Churches, a fire station, and the post office round out the public and institutional uses located in this quiet community.

It is the county's policy that the Huntingtown Town Center is to retain its current boundary: no expansion is planned.

The Huntingtown Master Plan should be updated to address the policies contained in this Comprehensive Plan.

Prince Frederick

Prince Frederick is the largest Town Center in the county, both in land area and commercial square footage, is served by a public water and sewer system, and contains a mix of residential, commercial, and institutional uses. This Comprehensive Plan expands the boundaries of the Prince Frederick Town Center (PFTC) to include the Employment Centers (EC) which currently share a border with the Town Center and the residential area southeast of the Town Center that is zoned Residential, which includes Calvert Towne and Symphony Woods.[8] The Comprehensive Plan adopted in 2019 included two proposed expansions. The amendments proposed in 2022 scale back the expansion to the area that was proposed as Phase 1 plus approximately an acre on the east side of Prince Frederick Boulevard.

Expansion of the Prince Frederick Town Center will require amending the Town Center master plan and the zoning for the Town Center. These processes provide opportunities for public input. The Prince Frederick Town Center Master Plan should be updated to address the policies contained in this Comprehensive Plan.

The Prince Frederick Town Center contains a central business area oriented along a commercial corridor, which provides a relatively high concentration of employment and civic uses. Most of Prince Frederick is auto-dependent and not easily accessible by walking or bicycling. There are provisions for multiple travel modes, including transit options; however, a stronger multi-modal network could be provided through future redevelopment to improve pedestrian and bicycle access for a range of ages, abilities, and income groups. A mixed-use center is envisioned with a focus on multi-family housing and more public open space.

There is a small historic downtown area with pedestrian connections through parks and public squares and mid-block pedestrian passageways. The sidewalk network is limited to a few blocks before it

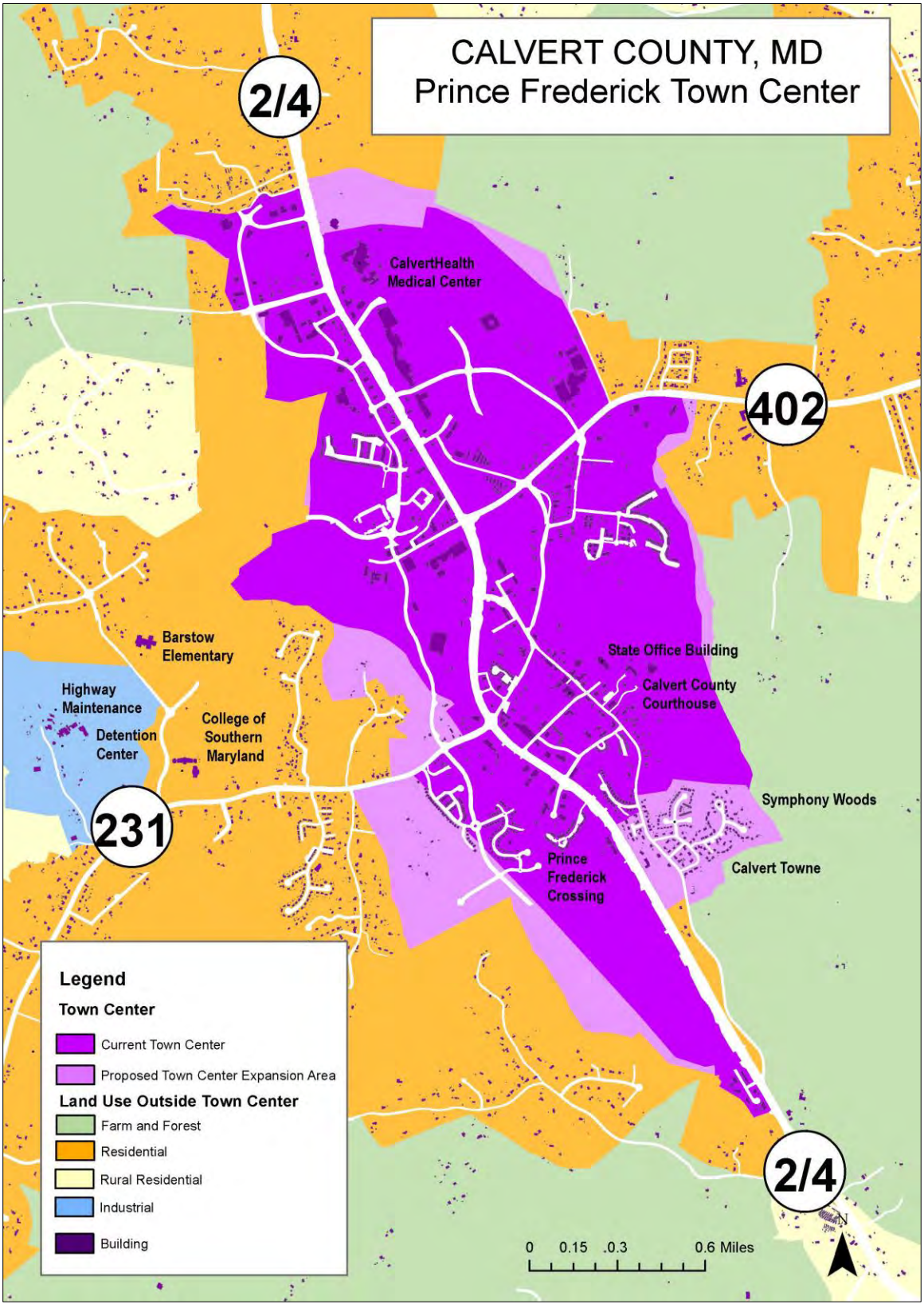
[8] The expansion will include adding any portions of parcels that are currently split zoned, provided a majority of the parcel is zoned either Employment Center or Residential District.

becomes intermittent or nonexistent. The Prince Frederick to the Bay (PF2B) Trail connects the Prince Frederick Town Center to the Parkers Creek natural area. The western trailhead is located on the grounds of the Catholic Church in the downtown area and extends approximately six miles to an overlook with wintertime views of the Chesapeake Bay. Much of the trail traverses land owned or managed by the American Chestnut Land Trust.

The greatest challenge in Prince Frederick is the modification of the current street network to foster compact, mixed-use development. The planned loop road system, consisting of Prince Frederick Boulevard and Chesapeake Boulevard, creates parallel local roads, is intended to draw local travelers off MD 2/4, the major highway, and has the potential to assist in development of a more robust grid pattern of streets.

Prince Frederick could support the highest level intensity of development for a Town Center. At a charrette for Prince Frederick, citizens and county staff worked together to develop future growth scenarios that proposed expanded boundaries, improvements to the transportation network, and options for future land use. *The Prince Frederick Charrette Report for the Heart of Calvert County* (2013) sets forth several key policy recommendations for updating the Prince Frederick Master Plan.

Figure 3-5 Prince Frederick Town Center Expansion



St. Leonard

St. Leonard is located in central Calvert County, south of Prince Frederick. The commercial core of St. Leonard is located along St. Leonard Road (MD 765) and Calvert Beach Road radiating out from the roundabout and extending one or two blocks in each direction.

The St. Leonard Town Center Master Plan was updated in 2013 and includes important goals to improve road circulation and traffic safety, preserve the image of the community, maintain environmental quality, and encourage compatible economic development. The updated Master Plan included the recommendation to expand the Town Center boundary to include the St. Leonard Elementary School property and refine the northern Town Center boundary to follow property boundaries and a site plan boundary. Expansion of the St. Leonard Town Center will require amending the Town Center master plan and the zoning for the Town Center. These processes provide additional opportunities for public input. This Master Plan should be updated to address the policies contained in this Comprehensive Plan.

Lusby

Lusby is located in southern Calvert County along MD 2/4. The Comprehensive Plan's Future Land Use Map proposes the expansion of the area of the Town Center to the north to encompass commercial and employment areas and to provide additional opportunities for mixed-use development and integration of the public and institutional activities along Appeal Lane. Much of Lusby is served by an existing public sewer system, which should be extended to allow for additional development in the Town Center and to address public health issues that may arise in the surrounding residential areas.

The Lusby Town Center is a commercial and public service center oriented to the needs of residents in southern Calvert County. Public and institutional uses near the commercial core include two elementary schools, a community center, and a residential senior citizen center. Future plans for the Town Center should strengthen the road, bicycle and pedestrian connections between the core area, these institutional uses, and the surrounding residential areas of Chesapeake Ranch Estates and Drum Point.

The current Town Center master plan guides development within the current Town Center boundaries and should be updated to reflect current demographic, land use and market conditions as well as the policies of this Comprehensive Plan. Expansion of the Lusby Town Center will require amending the Town Center master plan and the zoning for the Town Center. These processes provide opportunities for public input.

Solomons

The Solomons Town Center is located in southern Calvert County, near the mouth of the Patuxent River. The Town Center is home to the Solomons Annex of the Naval Air Station Patuxent River (NAS Pax River). Access to the Solomons Town Center is provided from the north by MD 2/4 and MD 765, and from the south by MD 4 which connects Solomons to St. Mary's County via the Thomas Johnson Memorial Bridge.

Solomons takes its character from a 200-year association with a great natural harbor. In the 19th century, Solomons Island was home to an active oyster harvesting and packing industry supporting the picturesque Avondale residential community on the mainland. The U.S. Navy has had a presence at Point Patience since World War II. In addition, the U.S. Naval Amphibious Training Base was established on

the Dowell peninsula. Following that war, marina development expanded in the Solomons area providing boat slips for transient and long-term dockage and attracting tourists served by restaurants, bars and lodging businesses, large and small.

Solomons has expanded its role as a tourist center, adding and expanding attractions such as the Annmarie Sculpture Garden and Arts Center, the Calvert Marine Museum, the Waterman's Memorial Park, and the Riverwalk and Pavilion. Protection of the architectural and historic resources are key to retaining and expanding tourism.

Outside the historic areas of the Town Center, expanding opportunities for employment, business and residential growth should seek to reflect the community's historic character while attracting new residents and jobs.

The current Town Center Master Plan guides development within the Town Center boundaries and should be updated to reflect current demographic, land use and market conditions as well as the policies of this Comprehensive Plan

Residential

The 1983 Comprehensive Plan also recommended that towns be established around Town Centers and that single-family residential development be directed to the towns. Areas within a one-mile radius of each Town Center were designated to permit higher density with the purchase of Transferable Development Rights. The 2010 Comprehensive Plan continued to define a one-mile radius around each Town Center as a location for additional growth, limited primarily to single-family detached homes on private well and septic systems.

The Residential areas are mapped on the Future Land Use Map, are more clearly defined than in previous plans, and are associated with -the municipalities of Chesapeake Beach and North Beach, Prince Frederick, Lusby, and Solomons. These Residential areas provide a transition from higher density Town Centers outward to rural areas. Residential areas are connected to their adjoining Town Centers through the local roadway, bicycle and pedestrian networks. Community amenities help to establish an identity and provide a sense of place for those living in the area. In general, these areas consist of detached single-family houses. This new land use category makes future development in these locations more predictable and better identified with their associated Town Center.

Commercial and Industrial Areas

Commercial development is mainly focused inside Town Centers with some additional commercial development located in Rural Commercial zoning districts, most of which are located along the main roadways. Calvert County promotes a broad mix of commercial, office, residential, public, and quasi-public development within Town Centers.

Industrial

Industrial areas are to provide space specifically for targeted industries such as high-technology firms and research industries. The intent is to allow limited retail and service uses in these districts and to reserve adequate and flexible space for high-revenue-generating uses that provide high-quality jobs for County residents.

Industrial areas give preference to industries, offices, commercial services, wholesale, and marine-related businesses. Providing appropriate locations for these uses will not only help ensure that they have the infrastructure they need but will also help to reduce the potential for conflicts and negative impacts that can be associated with some commercial and industrial uses. Design standards can further help minimize these conflicts and negative impacts, allowing for more mixed-use development that can enhance quality of life as well as economic opportunity.

Marine Commercial

Marine Commercial areas provide locations adjoining waterways for businesses which supply and cater to marine activities and needs. These include services and facilities such as boat service and repair facilities, boat docks, marine equipment stores, wholesale and retail fish and shellfish sales, hotels, motels, restaurants, and cocktail lounges. Calvert's commercial waterfront is one of the county's main tourism attractions. The County government needs to be proactive in facilitating its proper and effective use.

Goals and Objectives

Goal 1: Preserve the rural character of the county, its prime farmland, contiguous forests, cultural resources, and environmentally sensitive areas.

Objective 1: Reserve the Farm and Forest District for farming and natural resource-related uses.

3.1.1.1 Review and evaluate the Purchase and Retirement (PAR) and Leveraging and Retirement (LAR) Programs to assess future implementation strategies and consider modifications to improve program operations. [BOCC, P&Z]

3.1.1.2 Establish a procedure for collecting voluntary contributions to the PAR fund with payment of property tax. [P&Z, F&B]

3.1.1.3 Provide local support to the Maryland Agricultural Land Preservation Program and other state and federal agricultural preservation programs. [P&Z]

3.1.1.4 Continue to support the goal of permanently preserving a minimum of 40,000 acres of prime farm and forestland through county, state, and federal land preservation programs and land trusts. [BOCC, Agricultural Preservation Advisory Board (APAB), P&Z]

3.1.1.5 Continue to limit the types of public and quasi-public uses in the Farm and Forest District based upon their purpose and intensity. [BOCC, P&Z]

3.1.1.6 Periodically review and update the Calvert County Growth Tier Map. [BOCC, PC, and P&Z]

3.1.1.7 Do not increase highway capacity within the Farm and Forest District. [PW]

Objective 2: Promote on-farm processing and provide appropriate locations for the processing of local agricultural products.

3.1.2.1 Permit and market value-added opportunities for farm product sales. [P&Z, ED]

3.1.2.2 Facilitate the development of an animal processing facility and regional grain depot. [P&Z, ED]

Objective 3: Protect the scenic quality of existing rural landscapes and vistas.

3.1.3.1 Explore opportunities for developing heritage sites and ecotourism. [P&Z, ED, PR, CMM]

3.1.3.2 Look at the potential for linking agricultural and heritage tourism with other economic development activities such as the marketing of locally-grown foods. [P&Z, ED]

3.1.3.3 Reduce negative environmental impacts of subdivision roads and make them visually compatible with the rural character of the surrounding area while maintaining road safety. [P&Z, PW]

3.1.3.4 Strengthen regulations and incentives governing the preservation of older structures. [P&Z, HDC]

3.1.3.5 Look for opportunities to connect designated wetlands with other protected natural areas and preserved agricultural lands to create a network of green spaces (green infrastructure). Where appropriate, this network could include hiking trails to create recreation opportunities for residents and visitors. [P&Z, P&R]

Goal 2: Use water and sewer policies to direct growth consistent with land use policies.

Objective 1: Make provisions for water and sewer service in Growth Areas consistent with the planned land uses and intensity.

3.2.1.1 Consider options for public financial support for provision of public water and sewer facilities in the Prince Frederick, Lusby, and Solomons Town Centers to promote economic development, encourage multi-family housing opportunities, and protect public health. [BOCC, P&Z, PW, F&B]

3.2.1.2 Allow privately-funded community sewage treatment facilities to serve commercial, industrial and employment uses located outside Town Centers, consistent with economic development goals. [BOCC, PW, P&Z]

Objective 2: Limit public water and sewer service in Rural Areas.

3.2.2.1 Do not locate public facilities such as sewer or water service areas, schools, and fire and rescue stations within the Farm and Forest areas and Wetlands areas. [BOCC, GS, PW, PS, F&B, BOE]

3.2.2.2 Limit public sewer systems to locations where public health is compromised by existing water supply and sewage disposal technologies. [BOCC, PW]

3.2.2.3 Allow public water and sewer facilities in locations within a designated Waterfront Communities only when necessary to address public health and safety. [BOCC, PW]

Goal 3: Develop Town Centers as attractive, convenient, and interesting places to live, work, and shop.

Objective 1: Continue to promote a broad mix of commercial, office, residential, public, and quasi-public development within Town Centers.

3.3.1.1 Promote Town Centers as community cultural and activity centers by locating schools, colleges, recreational, and cultural facilities there. [BOCC, GS, P&R, BOE]

3.3.1.2 Facilitate the creation of farmers markets in all Town Centers. [ED, P&Z]

3.3.1.3 Consider ways to strengthen regulations regarding derelict buildings. [P&Z, County Attorney's Office (CAO), BOCC]

3.3.1.4 Allow the use of TDRs to increase the density and range of housing types provided in Town Centers. [BOCC, P&Z]

3.3.1.5 Allow uses that serve both local residents and employees to locate in employment areas. [BOCC, P&Z]

Objective 2: Review the Transfer of Development Rights Program so that it directs the majority of growth to Growth Areas.

3.3.2.1 Evaluate the use of TDRs within the Farm and Forest areas and the Rural Residential areas. [P&Z, APAB]

3.3.2.2 Explore the use of TDRs to increase commercial intensity in Town Centers. [BOCC, P&Z, ED, APAB]

3.3.2.3 Evaluate the funding and administration of the Purchase and Retirement Program for development rights. [P&Z, APAB, F&B]

3.3.2.4 Evaluate the policy of using TDRs in the one-mile radius of the Town Centers (Dunkirk, Owings, Huntingtown, and St. Leonard). [P&Z, PC, BOCC]

Objective 3: Ensure that Town Center Master Plans are updated on a periodic basis.

3.3.3.1 Review and update the Town Center Master Plans to reflect the policies of the Calvert 2040 Plan. [BOCC, PC, P&Z]

3.3.3.2 Maintain a schedule to review and update Town Center Master Plan. [BOCC, PC, P&Z]

3.3.3.3 Use the Prince Frederick Charrette Report as a basis for updating the Prince Frederick Town Center Master Plan. [BOCC, PC, P&Z]

3.3.3.4 Review Town Center Master Plans to look for additional ways to reduce dependence upon automobiles by promoting "pedestrian-friendly" site design and increasing pedestrian and bicycle circulation within and between residential, commercial, and office uses. [P&Z, PW]

3.3.3.5 Continue to improve the appearance of Town Centers by emphasizing Town Center Master Plan Capital Improvements Projects and Architectural Review. [BOCC, PC, P&Z, Architectural Review Committees (ARCs), GS, PW]

3.3.3.6 As Master Plans are updated, look for ways to preserve and enhance the unique character of each Town Center. [PC, P&Z, ARCs, HDC]

Goal 4: Direct commercial and industrial uses to appropriate locations; provide necessary infrastructure.

Objective 1: Locate Commercial Uses and Employment Areas appropriately in Town Centers.

3.4.1.1 Continue to direct commercial and employment growth to Town Centers. [BOCC, P&Z, ED]

3.4.1.2 Identify and implement ways to improve commercial business and employment growth in Town Centers. [ED]

3.4.1.3 Interconnect roadways, transit routes, bike routes and pedestrian networks to make the employment area part of the adjacent community. [P&Z, CR, PW]

Objective 2: Support development in the Industrial and Marine Commercial areas.

3.4.2.1 Develop a long-range infrastructure plan for the Industrial areas. [ED, PW, P&Z]

3.4.2.2 Maintain an inventory of Industrial land. [P&Z, ED]

3.4.2.3 Allow office and business uses in Industrial areas. [BOCC, P&Z]

3.4.2.4 Monitor the amount of marine commercial zoning needed and the best locations in terms of the following factors: water depths, erosion potential, water quality, and critical navigation areas. [P&Z, ED]

3.4.2.5 Allow maximum utilization of areas zoned Marine Commercial (MC) without causing significant adverse effects on aquatic resources, visual aesthetics, or neighboring residential uses (e.g., outdoor lighting projecting onto residential property). [P&Z]

Objective 3: Avoid the potential for strip commercial development along highways.

3.4.3.1 Do not permit additional commercial and retail development along highways outside Town Centers. [BOCC, P&Z]

3.4.3.2 Do not allow commercial and retail uses to have direct access onto MD 2/4 in Huntingtown, St. Leonard, or Lusby. [BOCC, P&Z, SHA]

3.4.3.3 Require that rural commercial properties meet the same site design and architectural design standards that are required for businesses that locate within the nearest town centers. [BOCC, P&Z]

Objective 4: Phase out rural commercial properties.

3.4.4.1 Develop a plan for phasing out Rural Commercial districts that are vacant or under-utilized. [P&Z, ED]

3.4.4.2 Restrict the expansion of rural commercial uses and maintain a small-scale rural character. [BOCC, P&Z]

Objective 5: Commercial Uses in the Farm and Forest and Rural Residential.

3.4.5.1 Limit commercial uses in the Farm and Forest and Rural Residential areas to help avoid traffic congestion and conflicts with existing residential communities. [BOCC, P&Z, PW]

3.4.5.2 Permit low-impact supplemental income opportunities within the Farm and Forest and Rural Residential areas that support, complement, and promote farming and heritage/ecotourism. [BOCC, P&Z]

CHAPTER 4. ENVIRONMENT AND NATURAL RESOURCES

Vision

Our wetlands, streams, and forests and the Chesapeake Bay and Patuxent River support thriving plant and animal communities.

Goals

Goal 1: Preserve, protect, and conserve natural resources and environmentally sensitive areas.

Goal 2: Continue a comprehensive approach to environmental planning with special emphasis on watershed planning.

Goal 3: Preserve, protect, and conserve land-based natural resources.

Goal 4: Mitigate natural and man-made hazards in Calvert County.

State Visions

This chapter supports the Maryland State Visions related to:

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.
Environmental protection. Land and water resources, including the Chesapeake and coastal bays, are carefully managed to restore and maintain healthy air and water, natural systems, and living resources.
Resource conservation. Waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved.
Stewardship. Government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection.

Related County Plans

Flood Mitigation Plan, 2016 – The Calvert County Flood Mitigation Plan establishes a multi-objective management approach that integrates floodplain management with development regulations, public involvement, economic development, housing, water quality, and recreation.
All-Hazard Mitigation Plan, 2016 – This plan was developed to assess the hazards and risks present in Calvert County. The plan was updated in 2016 as part of a five-year review cycle.
Calvert County Watershed Implementation Plan II Strategy, 2011 – This plan contains a strategy to meet Calvert County's 2017 interim watershed target loads for nitrogen, phosphorus and sediment.
Hall Creek Watershed Implementation Plan, 2011– This plan presents actions to address environmental quality concerns in the Hall Creek Watershed.
Hunting Creek Watershed Management Plan, 1993 – This plan presents actions to address environmental quality concerns in the Hunting Creek Watershed.

Background

Calvert County is approximately 220 square miles in area, 35 miles long north to south, and varies in width between five and nine miles. The county is a peninsula bounded on the south and east by the Chesapeake Bay and along the west by the Patuxent River. Due to this unique geography, Calvert County enjoys a distinct variety of natural resources that are not present in other counties in the Washington, D.C. metropolitan area.

The topography of the county is variable and rugged with an upland plain running from the northwest to the southeast. The plain is split by a number of valleys along creeks, such as Fishing Creek, Parkers Creek, Battle Creek, St. Leonard Creek and Hellen Creek. Along the Chesapeake Bay shore, the upland ends in high cliffs that extend from the shoreline to heights of 120 to 130 feet. On the west, the upland areas gradually slope toward the Patuxent River, where rich farmland is found. Water generally drains from the higher elevations towards the Chesapeake Bay and Patuxent River. Calvert County's geography provides an abundance of diverse natural resources: the Cliffs of Calvert, numerous creeks leading into the Patuxent River and the Chesapeake Bay, large areas of forest, and wetlands.

This chapter identifies the county's natural resources, sensitive environmental elements, and unique habitats. It identifies the challenges these resources face and opportunities to protect and enhance them through policies and planning. It includes discussion of floodplains, forestland, air quality, natural hazards, the Chesapeake Bay Critical Area, wetlands, streams and their buffers, steep slopes, habitats of rare and threatened species, and mineral resources.

The value of natural resources can be readily measured by the saleable products, commercial services, and the property and health protection they provide. It is hard to agree upon the dollar value of the ecological services they provide, but this value is often much greater than their commercial return. To ensure their availability for future generations, care must be taken not to deplete nonrenewable natural resources and to conserve the renewable ones. Conservation management, preservation, and regulatory protection are some of the ways natural resources are protected.

Sustainability Approach

The Environment and Natural Resource Chapter promotes conservation of natural resources, such as surface water, forests, open space, natural systems, and scenic areas and fisheries, so that they will be available for future generations. This chapter also promotes preservation or restoration of environmentally sensitive areas (wetlands, streams and their buffers, floodplains, steep slopes) and large tracts of forested land and wildlife corridors. These natural resources should be protected in part for the beneficial functions they provide, including habitat for fauna and flora, nutrient and sediment retention and removal, flood control and recreation. Sustainable communities conserve natural resources, reduce consumption, reuse products, and recycle.

Sensitive Areas

Sensitive areas include wetlands, streams and stream buffers, floodplains, steep slopes, cliffs, and habitat for rare, threatened, and endangered species. These areas are easily damaged by human activity and are generally unsuitable for development. Adverse effects of development include destruction of habitat and

reduction of diversity of plant and animal species, increased nutrient and sediment loads in waterbodies, and increased runoff causing flooding. Sensitive areas in Calvert County are shown in Figure 4-1 and defined below.

Figure 4-1 Wetlands, Stream Buffers, and Chesapeake Bay Critical Area

Critical Areas

The Critical Area for the Chesapeake Bay consists of all land within 1,000 feet of the Mean High Water Line of tidal waters or tidal wetlands along the Bay and its tributaries. Calvert County adopted the initial Critical Area Program in 1988 to comply with state legislation. These sensitive areas are subject to regulation of development and human activities with oversight by the Critical Area Commission under the Department of Natural Resources (DNR).

Land within the Critical Area is classified as Intensely Developed Areas (IDAs), Limited Development Areas (LDAs), or Resource Conservation Areas (RCAs) based on the intensity of existing and permitted development. Development is regulated in these areas according to their classification.

Under the locally-administered Critical Area Program, review and approval is required for construction, grading, clearing vegetation, removing trees and branches, and clearing land within the Critical Area. The program provides additional protection for a 100-foot buffer around the Chesapeake Bay tidal waters and tidal wetlands. Individuals developing within the Critical Area Buffer must submit a Buffer Management Plan that shows any development activity and ensures limited vegetation disturbance within the 100-foot buffer.

The requirements of the Critical Area Program are implemented through various local ordinances including the zoning ordinance and subdivision regulations.

Wetlands

Wetlands are generally lowlands covered with shallow water that provide ecological benefits such as floodwater storage, pollution control, wildlife habitat, and a major food supply for aquatic organisms, migratory waterfowl, and other wildlife. Wetlands are also referred to as marshes, swamps, bogs, and vernal pools. Wetlands include both freshwater and saline areas. Calvert County has approximately 2,400 acres of wetlands, most of which are tidal wetlands located along the coastline. The county's wetlands are protected and regulated through the Maryland Department of the Environment and Calvert County regulations. The State of Maryland requires a 25-foot buffer around wetlands, and Calvert County expands the 25-foot buffer to 50-foot for non-tidal wetlands and 100-foot for tidal wetlands.

Areas of Critical State Concern

The areas of Critical State Concern are specific geographic areas of the state which, based on studies of physical, social, economic and governmental conditions and trends, are demonstrated to be so unusual or significant to the state that the Secretary of the Maryland Department of Planning designates them for special management attention to assure the preservation, conservation, or utilization of their special values.

The Maryland Department of Planning has identified Jug Bay and the Battle Creek Cypress Swamp as Areas of Critical State Concern (ACSC). The designated ACSCs include tidal wetlands and non-tidal wetlands, including the freshwater marshes that are some of the largest in the state. Any degree of alteration or intrusion by development in the sites themselves will have significant negative impacts on these ecosystems.

Jug Bay is located principally along the Prince George's and Anne Arundel counties' shoreline of the Patuxent River. The bay itself lies at a point roughly one mile from where Anne Arundel, Prince George's, and Calvert counties meet, and a small portion of the associated tidal wetlands extends into Calvert County.

Battle Creek Cypress Swamp is located in the southern portion of Calvert County. It is a coastal plain swamp that contains one of the last remaining stands of bald cypress in Maryland. The Battle Creek Cypress Swamp is a designated Sanctuary owned by The Nature Conservancy, which protects the wetlands on the site from development. However, legal development on the land adjacent to the Battle Creek Cypress Swamp has the potential to affect the health of these wetlands.

The Maryland Department of Planning (MDP) has identified the residential development near the eastern boundary of Battle Creek Cypress Swamp as an area of Special Consideration, noting that the stability of this area depends on future land use, but does not restrict development on the site.[1] This area contains single-family residential development and agricultural land. The land area of the swamp is zoned Farm and Forest District, but is bordered by a small area of Rural Residential. According to the state's system for ACSC, these zones classify the areas as protected zones, which restrict or limit development.

Streams and Their Buffers

Streams are conduits to lowlands, rivers, and the Chesapeake Bay. They provide habitat for many aquatic organisms, including areas for fish spawning and feeding. They also provide drinking water for wildlife and a means of transportation for organic materials that support aquatic species. At the same time, streams provide a direct pathway for pollutants to move downstream into our rivers and the Chesapeake Bay. These pollutants, including sediment, nutrients and toxic waste, can cause serious damage to aquatic ecosystems and the fisheries production within them. Forest and wetland buffers adjacent to streams serve the important function of removing pollutants before they enter the stream. They also provide habitat and habitat corridors for wildlife.

Calvert County has at least 200 miles of non-tidal streams.[2] A 2009 Maryland Biological Stream Survey of Calvert County's streams indicated that 19% of streams were in good condition, 25% were in fair condition, and 56% were in poor to very poor condition. The key stressors to these streams are nutrient enrichment, acid rain, inadequate riparian buffers, unstable banks, and poor overall physical habitat (US EPA).

Streams that are in good condition (Lyons Creek, Plum Point Creek, and Hall Creek) should be protected from degradation. Those in poor and very poor condition should be considered for remediation.

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[1] Maryland Department of Planning, Maryland's 1981 Areas of Critical State Concern – Past, Present and Future, 2008

[2] Green Infrastructure Center Inc., Esri.

Steep Slopes and Cliffs

A cliff is a high steep face of 10 feet or higher from the toe of the slope with a slope more than 50 percent, whether vegetated or non-vegetated.

Steep slopes are defined as areas with a slope greater than or equal to 25 percent or 15 percent in the Critical Area. Four percent of Calvert County's slopes are steep slopes, most of which are covered and stabilized by forest cover. However, disruption of vegetation on steep slopes can lead to severe erosion, landslides, loss of fertile topsoil, filling in of waterways, flooding, and decrease in water quality. Preservation of steep slopes adjacent to waterways is especially important because of the potential harm to water quality and aquatic habitat. All steep slope areas are generally unsuitable for development.

Cliffs are a high steep face of 10 feet or higher from the toe of the slope with a slope of more than 50 percent, whether vegetated or non-vegetated. The Calvert Cliffs, located along the Chesapeake Bay on the eastern side of the county, are of concern due to natural erosion. The exposed materials in the cliffs include consolidated sediments such as clay, gravel, and sand. The cliff tops vary in height from 75 feet to 135 feet. The cliffs are eroded by waves, landslides, groundwater seepage, freeze/thaw action, and weathering. Houses built near the edge of these cliffs face considerable danger from ongoing erosion and episodic events. In 2010 the county formed a steering committee to consider the impact of shoreline erosion on houses near the eroding cliffs. The steering committee developed a report and preliminary framework for addressing the issues associated with cliff erosion.

The report identifies the most viable short term solution as property relocation or government acquisition of houses that are in immediate danger. The report found that 234 homes are located within 100 feet of the cliffs and 131 of these homes are located within areas with an erosion rate of up to 2 feet per year, presenting risks to these properties and the residents who live in them. Calvert County received a $5.15 million "hazard mitigation" grant through FEMA in 2012 to begin acquiring homes near the edge of the cliffs.

Medium-term potential solutions for this severe erosion issue include cliff stabilization and shoreline stabilization, according to the report. Because many of the properties on the cliffs contain habitat for the endangered Puritan Tiger Beetle, the county and property owners are bound by strict limits on the types of land disturbance they can undergo as part of cliff and shoreline stabilization efforts. Those properties that have Puritan Tiger Beetle habitat must follow a set of guidelines to mitigate damage to the population if they seek to pursue engineering solutions to prevent erosion.

The Steering Committee identified long-term solutions as working with the Army Corps of Engineers to conduct a two-year feasibility study of the eroding shorelines in Calvert County and identifying and pursuing fee simple or easement acquisition of Puritan Tiger Beetle habitat.[3]

Following the Steering Committee Report, the Board of County Commissioners appointed an advisory committee composed of residents of the affected shoreline communities. This committee completed its

[3] Calvert County et al. (2010). *Chesapeake Bay Cliff Erosion in Calvert County – Draft Steering Committee Report http://www.co.cal.md.us/DocumentCenter/View/3389*.

work in 2014 and provided a written report[4] with a series of recommendations to encourage and facilitate the efforts of shoreline property owners and communities who want to develop and construct appropriate cliff stabilization measures. These measures addressed both administrative changes to county procedures and requests for changes to state requirements.

Habitat for Rare, Threatened, and Endangered Species

Calvert County's large forest and wetland areas support high biodiversity in the county. However, over time, this habitat has been reduced by land disturbance and development. The introduction of non-native plants has further reduced habitat for naturally-occurring species in the county.

The Maryland Department of Natural Resources' (DNR) Natural Heritage Program has identified 20 animal species and 83 plant species in Calvert County in the inventory of Rare, Threatened, and Endangered Species. One animal species, the Atlantic Sturgeon, is listed as endangered (LE) in the United States under the Endangered Species Act. This species is "in danger of extinction within the foreseeable future throughout all or a significant portion of its range". The Northeastern Beach Tiger Beetle and Puritan Tiger Beetle are listed as threatened (LT) under the Act. The Puritan Tiger Beetle is also "Critically Imperiled" on a global scale.[5] The DNR has established the Puritan Tiger Beetle Habitat Conservation Program to protect the species. This program requires any individual altering a Puritan Tiger Beetle habitat to obtain a permit and mitigate the impact to the habitat. This requirement limits the potential to address the erosion of the Calvert Cliffs, where large portions of the cliffs are habitat for the Puritan Tiger Beetle.

The county's rare, threatened, and endangered species are concentrated primarily in the coastal areas of the peninsula. Randle Cliff Beach, Camp Roosevelt Cliffs, Flag Ponds, and Cove Point Marsh are classified by Calvert County as Natural Heritage Areas and large portions of the eastern coastline are State Listed Species Sites, which both contain rare, threatened, and endangered species.

The state maintains a database of Sensitive Species Project Review Areas (SSPRA), which provides general locations of documented rare, threatened, and endangered species, to guide counties in identifying and monitoring these species. Areas within Calvert County are designated SSPRAs, but the exact locations are not made available to the public to protect the species. Calvert County should preserve sufficient amounts of sensitive land to maintain a high diversity of wildlife and plant life.

Protection Measures

The following existing regulations, ordinances, and processes contain provisions related to the protection of sensitive areas in Calvert County:

- Critical Areas Regulations
- Floodplain Regulations
- Soil and Erosion Control Regulations

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[4] Final Report of the Calvert County Cliffs Stabilization Advisory Committee, Recommendations to the Board of County Commissioners for the Stabilization of the Calvert Cliffs, http://www.co.cal.md.us/documentcenter/view/5832, accessed 9/26/2018

[5] Maryland Department of Natural Resources, List of Rare, Threatened, and Endangered Species of Calvert County, 2016.

- Stormwater Management Ordinance
- Zoning Ordinance
- Subdivision Ordinance
- Sediment Control Ordinance
- Development Review Process
- Natural Heritage Areas

Watershed Management

Watershed management plays an important role in improving the water quality and health of the county's wetlands and waterways. Calvert County lies within portions of the West Chesapeake Bay and Patuxent River watersheds. Refer to Figure 4-2 for the locations of watersheds located within Calvert County.

The most prevalent pollutants within Calvert County's watershed are nitrogen, phosphorous, and sediment. The county's major point-source polluters are wastewater treatment plants. Non-point source pollution originates from agricultural land, septic systems, and runoff from impervious surfaces and cultivated lawns. Calvert County has focused on reducing the pollutants within the Chesapeake Bay watershed through its Watershed Implementation Program and is currently implementing strategies, such as improving stormwater retention and upgrading septic systems, to reduce pollution.

Regardless of the current steps, the Maryland Biological Stream Survey found that the streams within the West Chesapeake Bay watershed are in "poor" health and the Patuxent River watershed are in "fair" health. None of the state's stronghold watersheds, i.e., watersheds with the highest biodiversity of rare, threatened, or endangered species of fish, amphibians, reptiles, or mussels, are in Calvert County. This indicates a need for restoration and protection projects and land use changes to improve the health of the county's watersheds. Education on the watersheds would increase citizen involvement in improving the health of the watersheds. In early 2018, a new interactive watershed map titled "What's My Watershed and What's In It?" was posted on the county's website. This map shows citizens in which of the county's 23 watersheds they live and also provides information about their watershed (http://www.co.cal.md.us/index.aspx?NID=264).

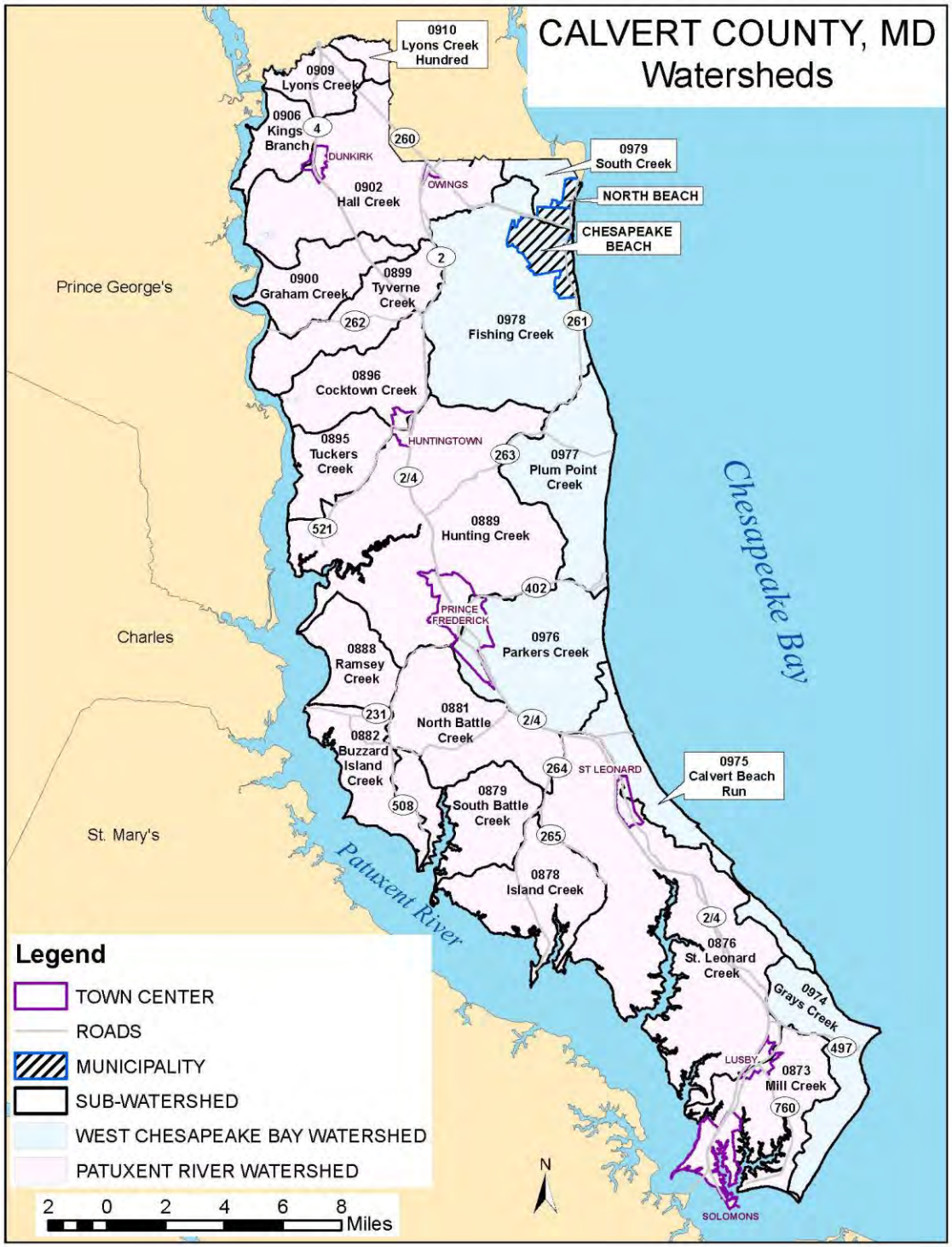
The county has created watershed implementation plans to guide projects to improve the quality of select watersheds. These watersheds include:

- Hall Creek Watershed Implementation Plan, 2011
- Hunting Creek Watershed Management Plan, 1993

Patuxent River Policy Plan

The Patuxent River is one of the eight major tributaries to the Chesapeake Bay and is the longest and deepest river running entirely through Maryland. The Patuxent River Commission adopted the 2015 Patuxent River Policy Plan to guide the seven Patuxent counties so that actions be undertaken to protect and improve the health and economic value of the Patuxent River. The Calvert County Board of Commissioners adopted the Plan by resolution in 2014. This updated plan calls for closer connections between people in the watershed and the river's resources. The policies focus on:

Figure 4-2 Watersheds in Calvert County



Source: Geographic Information Systems Team, Technology Services Department, Calvert County Government, December 2018

- The replenishment of fish and shellfish resources important to local economies
- The temperature and hydrology of stormwater runoff, and wetland and terrestrial habitat protection
- Drinking water supplies
- Public outreach and education
- Recreation and public access[6]

Forested Land

Forest cover is the most natural and least polluting land cover in Calvert County. Forested areas historically covered the majority of Calvert County. In 2007, the Maryland Department of Planning estimated forest cover in Calvert County to be 64,211 acres. Today, forest covers 62,500 acres or 45 percent of land use in the county (Figure 4-3).

Forest interior (forest more than 300 feet from a forest edge) provides important habitat to many species. Many species of birds can only reproduce in forest interior habitats. These are known as forest interior dwelling birds and some examples include the scarlet tanager, barred owl, pileated woodpecker, and whippoorwill. Forest interior represents 40 percent of forest cover or 18 percent of the county land area. Thirty-five percent of the estimated forest interior habitat is currently protected and the remaining 65 percent is threatened by development. Land preservation measures must be pursued to achieve a higher level of protection.

Forest cover adjacent to streams (riparian forests) is essential to preserving water quality. Forests absorb nitrogen in both surface and shallow groundwater, trap phosphorous-laden sediment, and remove other pollutants resulting from adjacent land uses and from atmospheric deposition.

Today, forest covers 62,500 acres or 45% of land use in Calvert County. Forest interior represents 40% of forest cover or 18% of Calvert County land area.

In addition to mitigating pollution, forests provide important wildlife habitat, induce groundwater recharge, and minimize flooding. Forests provide organic matter, such as leaf litter, which serves as the basis of the food chain for many species. Riparian forest canopy provides shade, which is critical for moderating stream temperature, and the roots of the trees stabilize stream banks and protect against erosion.

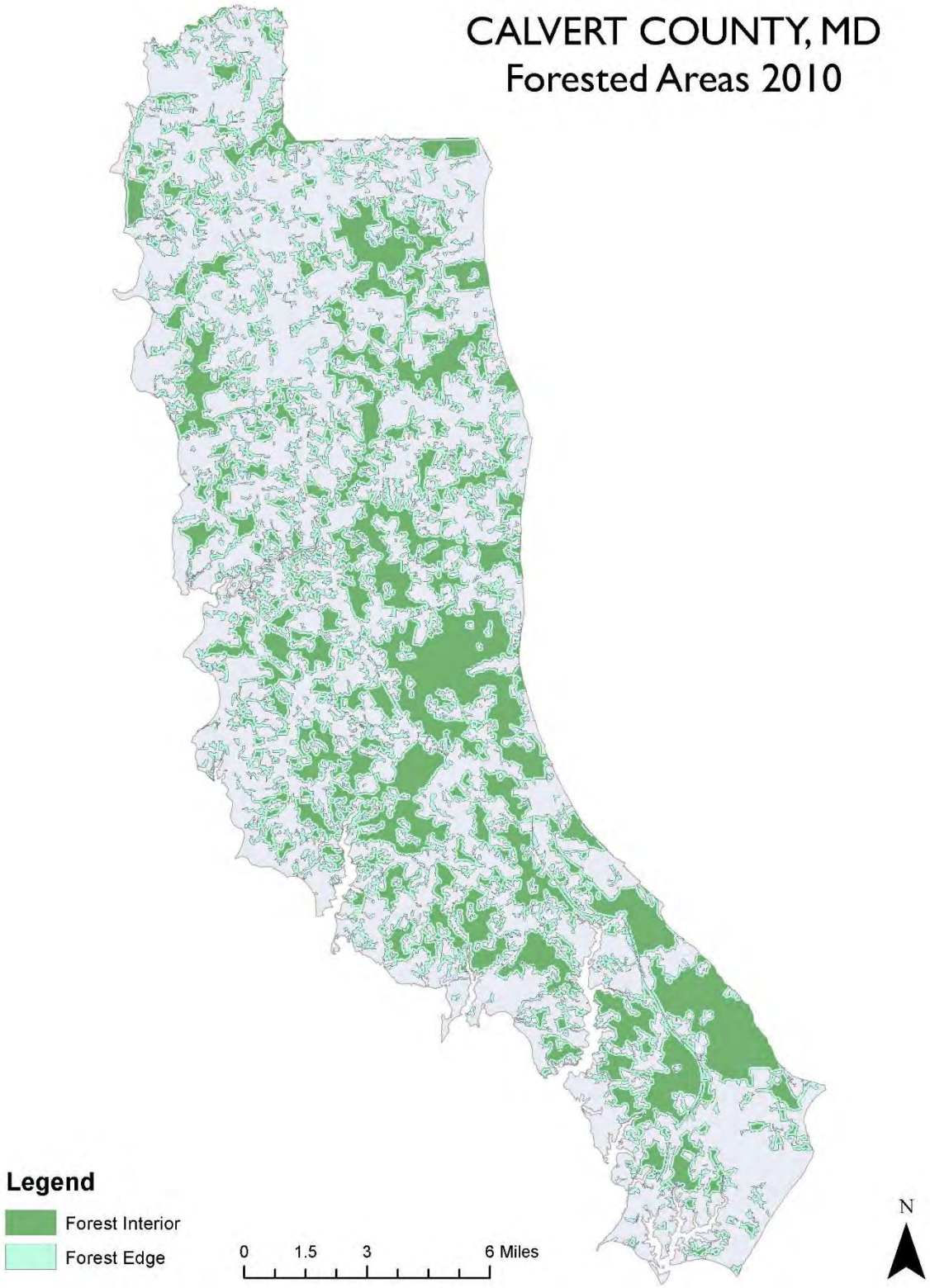
Calvert County has land preservation programs to protect forested areas, including local land trusts, county land trusts, easement programs, and the Forest Stewardship Program. These programs have conserved 17,400 acres of forested land.

Greenways are corridors of land set aside for recreational use, environmental protection, or a combination of both. Networks of wetlands, large tracts of forest, other protected natural areas, and

[6] http://planning.maryland.gov/Pages/OurWork/PaxRiverComm/PatuxentRiverCommInfo.aspx. Provided October 5, 2018 by Maryland Department of Planning.

the habitat pathways that connect them, are also known as green infrastructure. The Maryland Department of Natural Resources has identified lands and watersheds that have high ecological value, naming them Targeted Ecological Areas (TEAs). The TEAs are the most ecologically important areas in Maryland. They are targeted by state for conservation through the state's Program Open Space. The data and maps are available to agencies, organizations, and the public via an online interactive mapping program (https://geodata.md.gov/greenprint/). In Calvert County, TEAs identified include the Parkers Creek and Battle Creek watersheds, the Fishing Creek watershed and Sewell Branch corridor, and the Calvert Cliffs State Park and Flag Ponds Nature Park corridor, among others. Where appropriate, these networks could include hiking trails to create recreation opportunities for residents and visitors.

Figure 4-3 Forested Areas Map



Source: Maryland Department of Planning

Air Quality

Calvert County is designated as a Nonattainment Area for 8-Hour Ozone[7], indicating that it does not meet the EPA's National Ambient Air Quality Standards. Ozone is not directly emitted into the air. It is created by chemical reactions between oxides of nitrogen and volatile organic compounds in the presence of sunlight. Motor vehicle emissions and fossil fuel-burning power plants are significant sources of ground-level ozone air pollution. Calvert County has been participating in the Metropolitan Washington Air Quality Committee (MWAQC) to address its pollution levels based on the requirements of the federal Clean Air Act.

> Ground level ozone is not emitted directly into the air, but is created by chemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOC). Ozone at ground level is the main ingredient in "smog." Ozone is most likely to reach unhealthy levels on hot sunny days in urban environments. Ozone can also be transported long distances by wind, so even rural areas can experience high ozone levels. (US EPA)

Emissions from motor vehicle trips originating in Calvert County have been estimated to comprise just over one percent of the regional total in the Washington Metropolitan Area. About 60 percent of the county' workforce commuted to jobs outside of the county in 2010-2015, and most of these trips were by personal vehicle. The average travel time to work for a Calvert County resident was 40 minutes.

Mineral Resources

The primary mineral resources found in Calvert County are sand and gravel, used mainly in the construction industry (Figure 5-4). Most the county's sand and gravel resources are in the northern portion of the peninsula, but supplementary amounts occur in the lowland terraces bordering the Patuxent River.

The southern portion of the county has deposits of clay, stone, diatomite, and titanium-rutile, which generally align with the White Sands area and southward to the tip of the county (Figure 5-4). Most of these areas are developed, located on Calvert Cliffs Nuclear Power Plant or the Dominion LNG sites, are school sites and/or are designated as preserved parks. Some of the lands remain undeveloped but are intermixed with the development or preserved lands.

Mineral extraction is not a major activity in the county, and most deposits are not commercially viable. Calvert County has a flagstone producer, a diatomite producer, and two sand and gravel producers in operation in the northern portion of the county today.

[7] https://www3.epa.gov/airquality/greenbook/ancl.html (accessed 7/31/17)

Figure 4-4 Mineral Resources

Source: USGS

Hazard Mitigation

Hazard mitigation involves reducing the risks of natural hazards and their associated damage to people and property. Calvert County developed a detailed All-Hazard Mitigation Plan in 2017 that addresses the natural hazards that are most likely to affect the county.

Hazard Identification

Planning for hazard mitigation begins with historical hazard occurrences in Calvert County. The natural hazards identified include floods (storm surge/tide and coastal flooding), severe winds (hurricanes, coastal storms), thunderstorms, tornadoes, wildfire, drought/extreme heat, hail, winter storms, coastal erosion, dam/levee failure, and earthquakes. Human-caused hazards include hazardous materials (HazMat), energy pipeline failures, and terrorism. Historical records are used to identify the level of risk associated with these hazards in Calvert County.[8]

Vulnerability Assessment and Loss Estimation

The All-Hazard Mitigation Plan includes an assessment of Calvert County's vulnerability to each of the identified hazards and the potential losses associated with a hazard incident. Hazard risk is ranked High, Medium, or Low based on the expected annualized loss, expected frequency of the hazard, and potential for loss of life. Human-caused hazards addressed in the All-Hazard Mitigation Plan—terrorism (chemical, radiological and biological agents), hazardous materials incidents (HazMat), and energy pipeline failures—warrant an overall rating of low risk for Calvert County.[9]

The hazards with the highest risk in Calvert County are Flood and Coastal Storm Wind. Table 5-1 ranks 10 natural hazards by estimated level of risk: high (red), moderate (brown and yellow), and low (green).

Table 4-1 Overall Risk Ranking for Calvert County

Hazard	Ranking
Flood	1
Coastal Storm Wind	2
Tornado	3
Severe Thunderstorm	4
Lightning	5
Earthquake	6
Winter Storm	7
Extreme Temperatures	8
Hail	9
Drought	10

Source: Calvert County Maryland All-Hazard Mitigation Plan, 2017

[8] Calvert County Maryland All-Hazard Mitigation Plan, 2017, page 47
[9] Ibid., page 96.

Hazardous Materials

Federal and state regulations control the use and disposal of hazardous wastes. These wastes are not allowed in the county landfill. Nuclear waste from the Calvert Cliffs Nuclear Power Plant is currently stored onsite because a federal repository is not yet available.

Leachate, the liquid that accumulates at the bottom of lined landfills, is considered a hazardous waste and is treated at an appropriate wastewater treatment plant. Currently, the leachate from the Appeal Landfill is treated at the Solomons Wastewater Treatment Plant.

The Cove Point Dominion Liquefied Natural Gas (LNG) Terminal also presents potential hazards associated with combustible gas located at the terminal. A Risk Study performed by the Maryland Power Plant Research Program indicates that the main hazards at the LNG facility include liquid or vapor release, gas dispersion, fires and explosions. However, the total calculated risks to the facility and surrounding residential population are extremely low. [10]

Goals and Objectives

Goal 1: Preserve, protect, and conserve natural resources and environmentally sensitive areas.

Objective 1: Preserve and restore wetlands.

- 4.1.1.1 Maintain substantial monetary penalties for the unauthorized destruction of wetlands. [P&Z, MDE]
- 4.1.1.2 Restore or create wetlands and wetland buffers in areas that will reduce nutrient pollution runoff from farms and developed areas. [MDE, DNR]
- 4.1.1.3 Develop regulations to address existing and future development adjacent to wetlands. [P&Z, MDE]
- 4.1.1.4 Revise site planning criteria to encourage use of natural features of a site and planting of native vegetation, as well as to prevent disturbance of wetlands and their buffers. [P&Z]

Objective 2: Preserve and restore floodplains.

- 4.1.2.1 Consider raising the floodplain protection level. [BOCC, P&Z]
- 4.1.2.2 For development in the floodplain, ensure that construction practices minimize damage to property and the environment during flooding. [P&Z]
- 4.1.2.3 Prohibit the removal of vegetation in the floodplain. [P&Z]
- 4.1.2.4 Create flood management plans for each identified watershed. [P&Z]

Objective 3: Preserve and restore streams and stream buffers.

- 4.1.3.1 Require and maintain undeveloped buffers containing native vegetation that limit development around perennial streams. [P&Z, DNR]
- 4.1.3.2 Preserve and restore riparian forests. [P&Z, DNR]

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[10] Maryland Power Plant Research Program, *Cove Point LNG Terminal Expansion Project Risk Study*, Maryland Power Department of Natural Resources, 2006 (Revised 2010)

Objective 4: Preserve and protect steep slopes.

4.1.4.1 Develop regulations to address existing and future development on steep slopes. Limit grading and alterations of natural vegetation on steep slopes. [P&Z]

4.1.4.2 Revise site planning criteria to encourage use of natural features of a site and planting of native vegetation as well as to prevent grading of steep slopes. [P&Z]

Objective 5: Develop methods to protect the habitats of rare, threatened, and endangered species.

4.1.5.1 Work with the State to map rare, threatened, and endangered species outside the Critical Areas and develop protective measures. [P&Z]

4.1.5.2 Limit shore erosion control measures in areas of Calvert Cliffs that have significant Puritan tiger beetle populations. [P&Z, DNR, USFWS]

Objective 6: Create greenways throughout the county.

4.1.6.1 Establish greenway systems along stream valleys especially where they connect large tracts of protected agricultural and forest lands. [P&Z]

Goal 2: Continue a comprehensive approach to environmental planning with special emphasis on watershed planning.

Objective 1: Create, adopt and update watershed plans for each major watershed in the county.

4.2.1.1 Develop guidelines addressing the content and public involvement process for preparing watershed plans. [P&Z]

4.2.1.2 Establish budgets, a schedule and track the preparation and completion of watershed plans. [P&Z]

Objective 2: Foster greater public awareness, education, and support of environmental concerns.

4.2.2.1 Maintain, support, and improve the environmental education programs for school-aged children, including the CHESPAX program for the Calvert County Public School System. [BOE, EC, BOCC]

4.2.2.2 Develop environmental education programs focused on watershed protection for adults and families, working with the University of Maryland Center for Environmental Science Chesapeake Biological Laboratory and Morgan State University's Patuxent Environmental & Aquatic Research Laboratory. [EC]

Goal 3: Preserve, protect, and conserve land-based natural resources.

Objective 1: Preserve and restore forestland.

4.3.1.1 Using the map of the 2010 forested areas map, track and report forest loss and gain. [P&Z]

4.3.1.2 Retain 90% of existing forest as of 2010. [P&Z, DNR]

4.3.1.3 Require replacement of 100% of forest loss since 2010 outside the Critical Area, Town Centers. [P&Z, DNR]

4.3.1.4 Expand land preservation programs that protect forested areas (e.g. local land trusts, county land trusts, easement programs, Forest Stewardship Program, and Department of Defense programs for the Joint Land Use Area). [P&Z, Land Trusts, DNR, DOD]

Objective 2: Address mobile sources of air pollution.

4.3.2.1 Develop infrastructure such as bike lanes to facilitate non-vehicular modes of travel. [PW, SHA]

4.3.2.2 Encourage telecommuting to reduce miles traveled for commuting. [P&Z, ED]

4.3.2.3 Encourage land use strategies that reduce the need for daily trips and miles traveled via automobile. [P&Z]

Objective 3: Provide Information to the public regarding mineral resources.

4.3.3.1 Require that significant mineral resources be shown on subdivision preliminary plans and on site plans. [P&Z]

4.3.3.2 Make state maps of mineral resources in Calvert County available to the public. [MGS]

Goal 4: Mitigate natural and man-made hazards in Calvert County.

Objective 1: Minimize future losses from disasters by reducing the risk to people and property

4.4.1.1 Provide protection of critical facilities/infrastructure vital to disaster response, such as fire and police, and those vital to the continuous operations of the county, such as hospitals and health care facilities, water and sewer facilities, electrical and other utility, and transportation systems. [BOCC, EM, MEMA, FEMA]

Objective 2: Provide continuous education and training.

4.4.2.1 Continue to develop and support disaster preparedness education and awareness programs, targeting specific benefits to residents, visitors, businesses, and elected officials. [P&Z, EM]

4.4.2.2 Identify and coordinate public information programs and events such as contests and festivals with public and private partners. [P&Z, EM, MEMA, FEMA]

4.4.2.3 Educate the public on higher standards of protection to structures and facilities from hazards. [P&Z, EM, MEMA, FEMA]

4.4.2.4 Continue public education and outreach on the topics of economic vulnerability and recovery through collaborative programs involving government, businesses and community organizations. [P&Z, EM, MEMA, FEMA]

4.4.2.5 Identify and seek multiple funding sources that will support hazard mitigation awareness and training programs. [P&Z, EM]

Objective 3: Emphasize pre-disaster retrofitting and post-disaster planning.

4.4.3.1 Identify vulnerable critical facilities and infrastructure. [P&Z, EM]

4.4.3.2 Promote disaster mitigation features in new building construction and retrofit existing structures. [P&Z]

4.4.3.3 Continue to develop economic incentive programs for both public and private sectors to promote structural retrofitting. [BOCC, EM, MEMA, FEMA]

4.4.3.4 Develop and support public and private projects and programs to retrofit, relocate, or acquire properties susceptible to repetitive flooding. [P&Z, EM, MEMA, FEMA]

Objective 4: Minimize losses and institute adequate regulations through land use regulations.

4.4.4.1 Identify and support public and private projects and programs to retrofit, relocate, or acquire properties as well as remove structures susceptible to repetitive flooding. [P&Z, EM, MEMA, FEMA]

4.4.4.2 Continue to implement systematic maintenance programs for stormwater management systems. [PW]

4.4.4.3 Discourage new development in high hazard areas through appropriate regulations and land use planning. [P&Z]

4.4.4.4 Enforce local, state and federal floodplain regulations and building standards for development in flood hazard areas. [P&Z]

Objective 5: Protect natural resources and open-spaces that provide flood and other hazard mitigation.

4.4.5.1 Encourage actions that protect natural resources while supporting community resiliency and hazard mitigation efforts. [P&Z]

4.4.5.2 Coordinate natural resource preservation and land use planning to ensure that those natural resource areas, that are shown to provide hazard mitigation benefits, remain open spaces, and retain the natural benefits they provide. [P&Z]

Objective 6: Protect infrastructure and critical facilities to reduce potential disruption of regular activities during and after hazard events.

4.4.6.1 Efficiently utilize resources to reinforce infrastructure, to withstand potential hazards, and to ensure continued use during and after an event. [PW]

4.4.6.2 Coordinate with the Towns of Chesapeake Beach and North Beach to research, secure, and effectively use external or additional sources of funding to help make the infrastructure and critical facilities on which the residents, businesses and visitors of the county and towns depend, more resilient to various hazards and events. [P&Z, EM, PW]

CHAPTER 5. HERITAGE

Visions

We are stewards of our cultural heritage.

We are building a strong local economy based on renewable resources, agriculture, seafood, high technology, retirement, recreation, and tourism.

Goals

Goal 1: Identify, protect, and interpret the buildings, places, and archaeological sites that signify the heritage of the community.

Goal 2: Document and conserve Calvert County ways of life, the memory of the people.

Goal 3: Develop heritage resources as cultural capital to connect the past to the future.

State Vision

This chapter supports the vision and goals of PreserveMaryland, a five-year plan produced by the Maryland Historical Trust that charts a way for the historic preservation community to work more effectively to protect the state's historic and cultural heritage.

Vision: In 2018, the preservation community has sufficient public and private support to identify, document and protect diverse places of historic and cultural significance.

Goals: Public agencies, private organizations and individuals involved in preservation are called upon to:

- Connect with Broader Audiences
- Improve the Framework for Preservation
- Expand and Update Documentation
- Build Capacity and Strengthen Networks
- Collaborate Toward Shared Objectives

Related County Plans

Calvert County Land Preservation, Parks and Recreation Plan, 2018 (incorporated by reference) This plan presents a comprehensive overview of the county's recreation, parks, and open space. It lists potential sites for land acquisition and park expansion.

Background

People have lived in Calvert County for thousands of years. All the activities that people have pursued to make a life here — hunting in the woods, trapping in the marshes, cultivating the land, fishing the waters — have left an imprint on the environment. These ways of life were shaped by the setting. The heritage of Calvert County is completely bound to its land and water. Farms and communities developed in coherent relationship to the local resources on which they depended.

Archaeological remains tell of the earliest inhabitants who trapped and fished, hunted and harvested here for more than 10,000 years before people from other continents settled in Southern Maryland. Calvert County was established in 1654, twenty years after the Maryland colony was founded.

Heritage cannot be abstracted from its physical setting. The long presence of people in Calvert County has shaped the land to be the way it looks. At the same time the ways of life that people pursued have been allowed or constrained by the land, topography, soils, and the water. The environment and people are inseparable. Calvert County Government and its citizens have long celebrated its history and the fact that major themes of American and world history have been enacted on its landscapes and shores: from Native American lifeways to Colonial settlement; the formation of the United States; and the wars and conflicts that touched lives and lands in the county. This chapter describes the means that the county has adopted to preserve and understand its heritage.

Identification of resources that communities value is the starting point of any preservation plan. Providing protection for them, incentives for preservation, and funding for mitigation requires a thoughtful collaboration of citizens and government agencies. This chapter discusses some of the preservation challenges the county faces and suggests strategies to address them.

Sustainability Approach

"The greenest building is the one that is already built" is a phrase that captures the relationship between our heritage resources and sustainability. This Plan promotes the preservation of historic buildings and supports the application of best practices in preserving them and adapting them for new uses. This Plan promotes the conservation of places and archaeological sites that signify and define Calvert County. It also promotes effective stewardship of cultural properties and the development of heritage resources as cultural capital to connect the past to the future in a way that celebrates Calvert County's unique identity and sense of place.

Existing Policies

Identification of Cultural Resources

As of March 2018, 1,371 historic sites and structures in Calvert County are listed on the Maryland Inventory of Historic Properties (MIHP). The MIHP is a statewide listing of historic sites and structures and is not regulatory. In addition, there have been 536 archaeological sites in the county recorded on the Maryland Archeological Site Survey. Twenty resources are listed on the National Register of Historic Properties and include historic homes, churches, archaeological sites, lighthouses, the Chesapeake Railway Museum, and historic vessels, like the Wm. B. Tennison at the Calvert Marine Museum which, like the Lore Oyster House, is a National Historic Landmark.

Historic District Commission

The Board of Calvert County Commissioners (BOCC) first adopted a Historic District ordinance in 1974 and established the Historic District Commission (HDC), deriving its authority from State enabling legislation. Since 1974 the BOCC, on recommendation of the HDC, has designated over 90 individual properties as Historic Districts. The ordinance has been amended to include archaeology on those properties and is now Chapter 57 of the Calvert County code. Designation as a Historic District helps to promote the stewardship and ensure the preservation of historic properties while not freezing them in time. The HDC is a volunteer citizen board of seven persons appointed by the BOCC for terms of three years. The commission reviews proposed work and alterations to designated properties and makes recommendations to the BOCC for new designations and for the approval of tax credits for approved work. Studies done elsewhere in Maryland and nationwide have demonstrated that designated properties tend to hold their value better than others, and the funds a property owner expends to restore and maintain them is multiplied by a factor of six in the local economy.

The Historic District Commission has initiated grant-funded projects to document cultural resources every year since 1989, including ways of life, such as tobacco farming, that defined the county's culture. A multi-year project to document tobacco culture resulted in the architectural survey of numerous barns, as well as a wealth of oral histories that have formed the basis of two books on "the money crop" and have contributed to two online video tours of Calvert County landscapes.

Development Review

Implementing actions specified in earlier Calvert County Comprehensive Plans, the Department of Planning & Zoning ensures that new development projects are reviewed for potential impact on cultural resources which include historic buildings and archaeological sites. The county has one cultural resources professional on staff.

Calvert County cultural resources locations have been mapped by the Maryland Historical Trust and county staff and appear as layers in the county permit tracking system, enabling efficient identification of proposed developments that include known historic buildings and archaeological sites.

If a project that will negatively affect an archaeological site is proposed on a property in Prince Frederick, St. Leonard, or Solomons, then the county government has the authority to require an archaeological survey, based on the regulations included in those three Town Center Zoning Ordinances. An archaeological investigation may also be required if a multifamily construction project is proposed. In other areas of the county and on other kinds of projects, archaeology and historic architectural documentation can only be recommended.

Since 1993, demolitions of buildings more than fifty years old as well as demolition on a property that has mapped cultural resources on it is reviewed by the cultural resources planner. In some instances, photo-documentation is required.

Challenges/Key Issues

Environmental Threats

Many historic homes and archaeological sites are located near the water and are vulnerable to flooding, storm surge, and erosion. The Historic District Commission has completed three vulnerability studies of cultural resources, including two watershed studies of Battle Creek, counting the sites within the Battle Creek Cypress Swamp, and Hunting Creek. In 2017 the county conducted, using GIS mapping, a county-wide desk audit of vulnerability of documented cultural resources. Some of the findings for Calvert County are summarized below.

Table 5-1 Effects of Hurricane Storm Surge

Number of vulnerable resources in Calvert County in event of hurricane storm surge				
Hurricane Category	**1**	**2**	**3**	**4**
Archaeological Sites	27	74	104	128
Buildings	18	65	145	180

Source: Calvert County Historic District Commission, 2017

Table 5-2 Effects of Higher Water Levels Due to Coastal Flooding

Number of vulnerable resources in event of higher water levels			
Rise in Water Level	**2 feet**	**5 feet**	**10 feet**
Archaeological Sites	44	69	105
Buildings	3	24	105

Source: Calvert County Historic District Commission, 2017

The actual number of vulnerable sites and structures is likely higher than these since the survey only counted those resources that have been recorded. Strategies to mitigate the effects of water and weather still have to be worked out. Most of the vulnerable resources are on private property so funding for mitigation, whatever it may be, will also need to be addressed.

Historic Roads

Some of the roads we travel daily began as trails, connecting water to uplands, traversing the land from Indian village to village. Some roads mark the paths from barns to wharves where hogsheads of tobacco were loaded onto boats bound for faraway ports. Many roads are still called by the names of those who lived on them: Hance, Wilson, Turner, Christianna Parran. Some roads, such as Sawmill or John's Chapel, are witnesses to ways of life that have virtually vanished from the landscape.

The Historic District Commission has conducted two studies of historic roads in Calvert County. The findings of the studies led the Departments of Public Works and Planning & Zoning to agree with the HDC on nineteen roads that should be flagged when any project is proposed that would affect the visual characteristics of and along the routes. County agencies confer with one another before undertaking maintenance and trimming along the oldest of the roads. Historic roads are often scenic, but more important they lead to specific places that have their own identities. Development along the routes has not recently been an issue, but could be in the future. In the event that development projects should be permitted along one of the routes, every reasonable effort should be made to protect the character of

the roads and landscapes along them so that they may continue to serve as the special and evocative corridors that they are.

Cultural Resources Are Assets

To be effective stewards of heritage, citizens must be educated about the nature and value of historic and natural resources in order to see opportunities in those resources. Heritage resources can be thought of as "cultural capital". They can be developed as focal points for tourism promotion with a double benefit: the resources are conserved along with local identity, and they help the community generate needed income. The way that maritime history has been woven into Solomons as a tourist destination may serve as an example. Celebrating heritage is also an obvious means to develop regional heritage and tourism programs that will enrich Southern Maryland as a whole. Heritage can be an organizing principle for sustainability and can integrate well with other initiatives and plans such as recreation, economic development, transportation, and environmental plans.

While others are invited to visit and celebrate Calvert heritage, the object of heritage—its substance and form—must be identified from within the community itself. The objective is to build community and deepen the sense of place. This makes the experience of life in Calvert distinctive. Thoughtful conservation and celebration of heritage resources maintains a sense of the uniqueness of Calvert County and sustains the identity of this special place where past and present, land and water are woven together.

Goals and Objectives

Goal 1: Identify, protect, and interpret the buildings, places, and archaeological sites that signify the heritage of the community.

Objective 1: Promote the documentation and protection of Calvert County's heritage.

- 5.1.1.1 Continue to add undocumented sites to the Maryland Inventory of Historic Properties and update the forms for properties that have been previously surveyed but have inadequate information. [P&Z, HDC]
- 5.1.1.2 Continue to record archaeological sites and add them to the Maryland Archaeological Sites Survey and to update forms for recorded sites when new information is available. [P&Z, HDC]
- 5.1.1.3 Continue preservation of sites and structures through the designation of Historic Districts and provision of assistance and support to property owners; encourage the designation of multi-property districts. [P&Z, HDC]
- 5.1.1.4 Promote the adaptive reuse of existing building stock. [P&Z, ED, GS]
- 5.1.1.5 Adopt an archaeological site protection ordinance that is applicable county-wide. [P&Z, PC, BOCC]
- 5.1.1.6 Adopt a historic/scenic roads ordinance. [BOCC, PC, P&Z]
- 5.1.1.7 Research and develop strategies to mitigate the effects of environmental threats to cultural resources. [P&Z, GS]

5.1.1.8 Ensure adequate support of programs for the documentation of threatened sites and structures and for the publicizing of strategies and incentives that would encourage preservation of threatened resources. [BOCC, HDC, P&Z]

Goal 2: Document and conserve Calvert County ways of life, the memory of the people.

Objective 1: Support and encourage programs that focus on local history, cultural geography, and folklife.

5.2.1.1 Continue to support and maintain existing archives and repositories of oral histories collected through the Historic District Commission. [BOCC, HDC, CMM, GS]

5.2.1.2 Continue to collect oral histories and make them available in electronic format to the Calvert Marine Museum, the Calvert County Historical Society, and the Southern Maryland Studies Center at the College of Southern Maryland. [HDC, P&Z, CMM]

Goal 3: Develop heritage resources as cultural capital to connect the past to the future.

Objective 1: Celebrate heritage as a means of creating and nurturing a sense of local identity

5.3.1.1 Work with agricultural, environmental, and land trust organizations to promote consideration of historical and archaeological resources in open space, or protection through easements or other preservation strategies. [P&Z, HDC]

5.3.1.2 Work with Communications and Media Relations and the tourism office to ensure that information about heritage resources is shared. [P&Z, HDC, CMR, ED]

5.3.1.2 Support efforts to interpret and celebrate local heritage at historic sites, in the public schools, and at special events in the community and make information available to assist in those endeavors. [P&Z, HDC, ED, CMR, Heritage Committee]

CHAPTER 6. HOUSING

Vision

Our Town Centers are attractive, convenient, and interesting places to live, work, and shop.

Goals

Goal 1: Provide for full range of housing types in Town Centers to attract and retain multi-generational communities.

Goal 2: Encourage walkable, mixed use communities in Town Centers.

Goal 3: Provide programs to increase housing affordability.

Goal 4: Support aging in place through universal house design housing units and supportive services, especially near health and support services.

State Vision

This chapter supports the Maryland State Visions related to:

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

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

Related County Plans (incorporated by reference)

Master Plans – Individual master plans for the Town Centers.

Background

For many people, Calvert County represents the "American Dream" — home ownership in safe and attractive residential communities. On average, between 2010 and 2014, 81 percent of all occupied homes in the county were owned by the occupant, and almost half of the houses have been built since 1990. The Plan public workshops raised two major concerns that need to be addressed:

- Most housing is out of reach for low-income families and for young adults.
- Most of the County's housing stock is not designed to allow older residents to remain in the home when they are no longer able to take care of large houses and lots or no longer able to live independently.

Existing Conditions

The number of housing units in Calvert County almost doubled between 1990 and 2010, but since that time, the increase in total number of units has remained very slow as shown in Table 6-1. Calvert County's housing stock is predominately single family, although the percentage of multi-family units has increased slightly in recent years, as shown in Table 6-2.

Table 6-1 Total Housing Units in Calvert County, 1990-2016

Years	Total Housing Units	Change
1990	18,974	
2000	27,576	8,602/ 860 average
2010	33,780	6,204/620 average
2011	34,009	229
2012	34,186	177
2013	34,418	232
2014	34,596	178
2015	34,767	171
2016	35,056	289

Source: US Census Bureau: 1990-2010 Decennial Census, 2011-2016 Annual Estimate of Housing Units, and 2016 Population Estimates

Table 6-2 Units per Residential Structure in Calvert County, 2005-2014

	2005 to 2009 Average	2010 to 2014 Average	Percent Change
1 unit structures	95.2%	93.8%	-1.4%
2 or more unit structures	4.3%	5.3%	1.0%
Mobile homes and all other types of units	0.5%	0.9%	0.4%

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-year Estimates

Sustainability Approach

Proposed policies promote sustainable building practices that minimize environmental impacts from buildings and landscapes. The proposed policies create a range of housing densities, types, and sizes that provide residential options for citizens of all ages and incomes. This strategy means an adequate percentage of homes needs to be affordable and located away from incompatible uses (land uses that would negatively affect residential land use).

Housing Values and Affordability

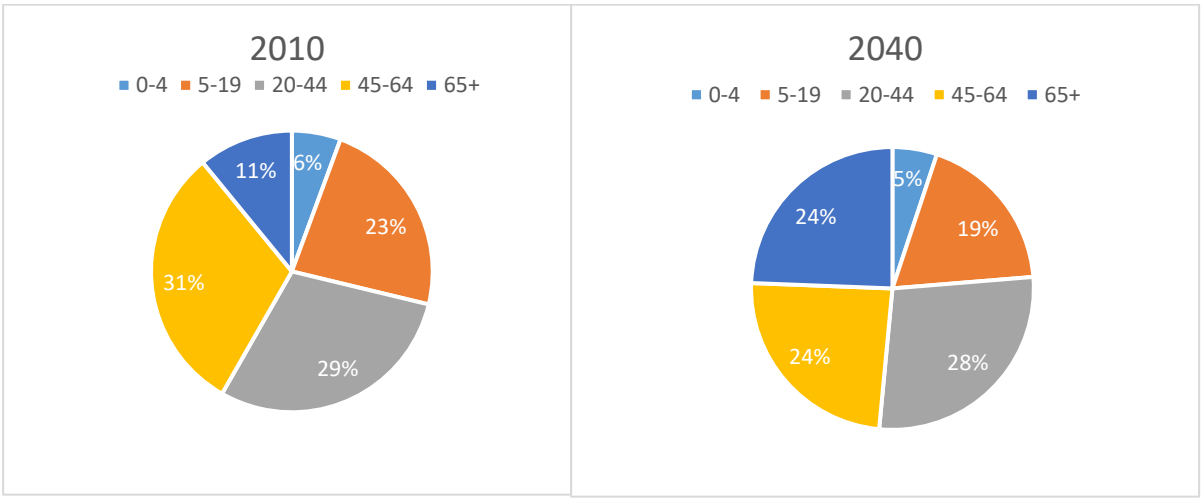
The median value of Calvert County housing has decreased over the past 10 years, but remains higher than the median value in Charles and St. Mary's counties. Calvert County's median value has declined from its 2007 peak at $425,000 to a low of $328,000 in 2012. Between 2012 and 2014, Calvert County saw the greatest increase in median housing values of the three. It increased to $340,000 in 2014, while St. Mary's and Charles have remained just under $300,000.

The federal Department of Housing and Urban Development (HUD) defines an "affordable dwelling" as one that a household can obtain for 30 percent or less of its income.

While Calvert County has the highest median housing values in Southern Maryland, it also has the highest proportion of residents that spend more than 30 percent of household income on housing. A quarter of mortgage holders and over 40 percent of renters in Calvert County pay more than 35 percent of their household income toward housing.

The price of housing may partially explain the relatively small changes in population projections for the age groups 20-44 years and 0-4 years shown in Figure 6-1. These groups represent young adults, young families, first-time home-buyers, and families with young children.

Figure 6-1 Calvert County Population by Age Group, 2010 and 2040



Source: Projections prepared by the Maryland Department of Planning, August 2017. Population data from 2010 from the U.S. Census Bureau.

Recognizing these challenges, Calvert County became the first county in the state to participate in the House Keys for Employees Program offered by the Maryland Department of Housing and Community

Development. This program matches an employer's contribution toward the down payment and closing costs for first-time buyers purchasing a home in Calvert County with additional funding from the county and from the State of Maryland. Through a combination of State and local funds, eligible borrowers could receive up to $15,000 toward closing and down payment costs for the purchase of a home. Participating employers include:

- Calvert County Government
- Calvert County Public School System
- Calvert Well Pet Clinic
- Chaney Enterprises
- Royalle Dining Services

The Housing Authority of Calvert County manages several housing assistance programs for citizens with low or fixed income:

- Housing Choice Voucher (Section 8)
- Rental Assistance Program (RAP)
- Rental Assistance Demonstration (RAD)
- Senior Apartments

The Southern Maryland Tri-County Community Action Committee manages three housing communities in Calvert County intended to provide affordable alternatives for lower income households.

Effects of Land Use Patterns

An Environmental Protection Agency supported study titled *Location Efficiency and Housing Type* discussed the effects of location and housing type on energy consumption:

> "1. A home's location relative to transportation choices has a large impact on energy consumption. People who live in a more compact, transit-accessible area have more housing and transportation choices compared to those who live in spread-out developments where few or no transportation options exist besides driving. Choosing to live in an area with transportation options not only reduces energy consumption, it also can result in significant savings on home energy and transportation costs.
>
> "2. Housing type is also a very significant determinant of energy consumption. Fairly substantial differences are seen in detached versus attached homes, but the most striking difference is the variation in energy use between single-family detached homes and multifamily homes, due to the inherent efficiencies from more compact size and shared walls among units. Moderate energy-efficient building technologies, such as those qualifying for Energy Star performance, also

generate household energy savings that are notable but not as significant as the housing location and type".[1]

Calvert County's development is dispersed, that is, the houses are spread-out throughout the countryside at low densities. When houses are located away from services and public transportation, the occupants are more automobile-dependent. For example, each worker in a household may need a separate vehicle. According to national studies, the average family spends $8,700[2] per year in automobile payments and operating and maintenance costs. Each $1,000 that could be reduced from automobile expenses would cover the monthly payments on $10,000 of a house loan.

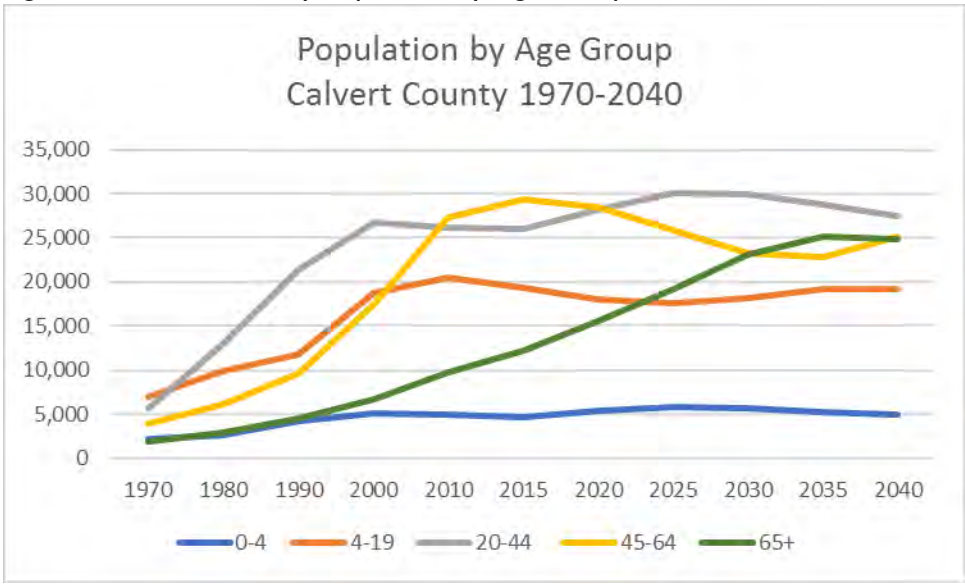
Proximity to jobs, services, and public transportation could reduce automotive costs. Development of walkable and bikeable mixed use Town Centers that provide a wide range of housing types help to reduce transportation costs. Policies that allow home occupations and permit residents to operate small scale business services and offices out of their homes can reduce work-related travel and promote local entrepreneurs.

The county's pattern of development also isolates residents from recreational opportunities. Public transportation is limited, and many people are too far from conveniences to walk or bicycle, and many old roads have no shoulders.

Housing for Seniors

In 1990, about 4,500 people in Calvert County, about 12 percent of the population, were over 65 years of age. By 2010 that number had increased to almost 10,000 individuals, about 11 percent of the population. By 2040, the population over age 65 is projected to increase by about 250 percent over the 2010 number, to about 25,000, which is about 25 percent of the projected population.

Figure 6-2 Calvert County Population by Age Group, 1970-2040



[1] Location Efficiency and Housing Type, Boiling it Down to BTU's, Jonathan Rose Companies, Revised March 2011, https://www.epa.gov/sites/production/files/2014-03/documents/location_efficiency_btu.pdf.
[2] AAA 2015 *Your Driving Costs*

Source: Maryland Department of Planning, August 2017

In 2012, the AARP reached some interesting conclusions about seniors and their expectations about their living circumstances and communities:

- Approximately 90 percent of senior population intends to continue living in the current homes for the next five to 10 years.
- Although 65 percent of Americans between the age of 60 and 70 find it easy to live independently, among those 70 and older, only 43 percent find it very easy.
- Almost 20 percent of Americans aged 70 or older say they cannot live independently.
- More than 25 percent of senior citizens in their 60s are not confident that their communities will have the resources they need to lead a healthy and independent life.
- One in ten seniors have moved in the past ten years to make maintenance easier, that figure increases to 15 percent for those aged 65 to 69. [3]

Combining the county's aging population, the AARP findings, and the current pattern of development suggests that an increase in the demand for new housing and services for seniors is coming. As people age, desire to live near drug stores, doctors' offices, and a hospital increases as their demand for these services increases. Proximity to these services becomes even more important for those who are not able to drive.

There are several options to accommodate seniors as they age in Calvert County:

- Encourage a range of housing options, including senior and co-housing[4], in the Town Centers.
- Construct senior housing complexes in the Town Centers with services provided.
- Encourage universal design in housing units, subdivisions, and multi-family projects.
- Provide services to support seniors who are aging in place in their own homes.
- Accommodate assisted living and nursing home facilities in a variety of settings around the county.

Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability. An environment (or any building, product, or service in that environment) should be designed to meet the needs of all people who wish to use it.

Goals and Objectives

Goal 1: Provide for full range of housing types in Town Centers to attract and retain multi-generational communities.

[3] *2012 United States of Aging Survey, AARP*

[4] "Cohousing communities consist of private, fully-equipped dwellings and extensive common amenities including recreation areas and a common house. Many neighborhoods are planned to keep cars to the periphery, which promotes interacting with neighbors and increases safety for playing children. Shared green space is also a key feature – whether for gardening, playing, or socializing. A final key feature is the common house – the "living room" of the community." The Cohousing Association of the United States, https://www.cohousing.org/creating. Accessed 11/28/2018.

Objective 1: Facilitate the development of a variety of housing types in Town Centers

6.1.1.1 Continue the policy to allow accessory dwelling units on lots with single family dwellings. [P&Z]

6.1.1.2 Continue to allow small clusters of multiple dwelling units (with the appearance of a single dwelling unit) in Town Centers in accordance with the Town Center master plans. [P&Z]

Goal 2: Encourage walkable, mixed use communities in Town Centers.

Objective 1: Accommodate residential uses in areas that are traditionally commercial in character.

6.2.1.1 Allow residential uses in mixed-use buildings in the Town Centers. [P&Z]

6.2.1.2 Explore the potential to incorporate multi-family housing into commercial areas to bring uses closer together and allow for redevelopment and infill housing. [P&Z]

Objective 2: Encourage location of small-scale personal service activities within a walkable distance of residential uses.

6.2.2.1 Accommodate home occupations at an appropriate scale in residential areas. [P&Z]

6.2.2.2 Consider allowing small retail and service uses on the first floor of residential structures along major roads. [P&Z, PC, BOCC]

Goal 3: Provide programs to increase housing affordability.

Objective 1: Support programs that increase the availability of affordable units.

6.3.1.1 Encourage public/private partnerships and/or developer-nonprofit partnerships for the development of affordable housing, elderly housing, or upgrading of substandard housing. [CR, ED]

6.3.1.2 Avoid concentrating subsidized housing. Facilitate affordable housing in all areas. [CR, P&Z]

6.3.1.3 Continue partnerships in support of funding for public/private housing to be used for low-interest loans or grants for affordable housing. [CR]

6.3.1.4 Consider providing tax incentives for retirees. [CR, F&B, BOCC]

6.3.1.5 Consider adopting inclusionary zoning regulations, after reviewing programs in other jurisdictions. [P&Z, CR, PC, BOCC]

Objective 2: Increase financial education opportunities that support home ownership.

6.3.2.1 Encourage training seminars to show how to manage finances to own or rent housing and to increase awareness of first-time home-buyer programs in Maryland. [CR, ED]

Goal 4: Support aging in place through universal design housing units, especially near health and support services.

Objective 1: Support aging in place through universal design.

6.4.1.1 Encourage the use of universal design principles in the housing units and communities. [P&Z]

6.4.1.2 Regularly review parking requirements for housing to serve the disabled and seniors. [P&Z]

6.4.1.3 Provide opportunities to retrofit existing homes to incorporate universal design features so that seniors and the disabled can remain in communities longer, if they so choose. [P&Z]

Objective 2: Locate senior housing near health and other support services.

6.4.2.1 Continue to encourage age-restricted (senior or 55+) housing in Town Centers by reducing the full requirements of the Adequate Public Facilities requirements for schools, school excise taxes, and/or the use of Transferable Development Rights to increase allowable density. [P&Z, BOCC]

6.4.2.2 Develop incentives for assisted living facilities and nursing homes to be constructed in Town Centers. [P&Z, CR, BOCC]

CHAPTER 7. TRANSPORTATION

Vision

Our highways are safe with only moderate congestion and transit is readily available. Walking and bicycling are practical alternatives within and in close proximity of Town Centers.

Goals

Goal 1: Provide a safe and reliable transportation system that complements the overall development of the county and balances use by pedestrians, bicyclists, motorists, and bus riders.

Goal 2: Maintain MD 2, MD 4, MD 2/4, and MD 231 as the main transportation corridors, providing for safe and efficient travel.

Goal 3: Maintain and improve the arterial and non-arterial road systems to provide for safe and efficient travel.

Goal 4: Improve and expand existing public transit services.

Goal 5: Promote transportation alternatives such as buses, carpools, vanpools, bicycling, and walking.

Goal 6: Continue a countywide transportation planning program that is integrated with state and regional planning programs.

State Vision

This chapter supports the Maryland State Visions related to:

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.

Related County Plans

Calvert County Public Transportation Transit Development Plan 2016 – This plan guides public transportation improvements for the short, mid, and long-term and addresses routes.
A Transportation Plan for Calvert County 2010 – This plan was adopted in 1997. It identifies priorities and recommendations on specific improvements.

Background

The transportation network in Calvert County is a function of the county's shape and topography. Because the peninsula is narrow and carved with stream valleys that run east-west, there is limited space for multiple north-south routes.

Historically, Calvert County did not need a complex network of roads given its agricultural nature and reliance on water transportation from its founding through the 19th century.[1] Many of the roads in rural areas of Calvert County developed as farm to market or farm to wharf routes. These roads did not carry heavy traffic volumes.

MD 2/4 is the only major highway that extends for the full length of the county, and at the headwaters of St. Leonard Creek, it is the only road linking the southern end of the county to the rest of the county. Whether commuting out of the county or traveling within the county to Prince Frederick and other locations, many residents travel by car on MD 4 and MD 2/4 at some point. The county's dependence on travel along the MD 4 and MD 2/4 corridor is at the center of the concerns related to transportation.

Calvert County's geography and development patterns have created an automobile-dependent community. The county is situated within the southeastern portion of the larger Washington, D.C. metropolitan area. According to the U.S. Census Bureau, approximately 60% of residents commute out of the county for work. This large percentage of county residents who commute out of the county for work and the long duration of their commutes creates a situation where the residents spend considerable time on the roads. Integrating land use activities that complement daily life - parks, shopping, social and institutional centers - into the pattern of residential living can result in shorter and fewer local automobile trips. The creation of more jobs in the county would reduce the number of people commuting out of the county.

Calvert County's geography limits accessibility and presents challenges to the creation of a robust internal transportation network. There is only one highway crossing to the west into Charles County, MD 231 Benedict Bridge, and one to the south into St. Mary's County, MD 4, Thomas Johnson Bridge, which the Maryland State Highway Administration (SHA) is studying for replacement and widening. There are no highway connections to the east across the Chesapeake Bay.

To provide a transportation system that moves people and goods to, from, and through the community in a way that is safe, convenient, economical, and consistent with the community's historic, scenic, and natural resources, the emphasis is on addressing traffic delays, safety, pedestrian amenities, bicycle facilities, and transit service. The success of

A multi-modal transportation system includes various modes (walking, cycling, automobile, public transit, etc.) and connections among modes.

[1] Calvert County Historic Roads Survey, Environmental Resources Management, 2009, Page 6.

Calvert County's future transportation system depends upon a land use pattern that supports a multi-modal system.

Sustainability Approach

The sustainability of a transportation system depends upon the settlement pattern it serves. Land use patterns determine the spatial distribution of travel as well as the ability of various modes of travel to effectively serve travel demand. The Comprehensive Plan promotes creating a sustainable transportation system that allows for shorter and fewer automobile trips by integrating land use activities that complement daily life into the pattern of residential living. The Plan includes policies and actions that promote alternatives to the single-occupant vehicle, such as walking, bicycling, and public transit, and promote mixed-use development and pedestrian-oriented design.

Trends in Transportation

Beyond vehicular automobile traffic, increasing numbers of travelers are opting to walk and to bicycle for short daily trips. Communities which provide safe and attractive facilities attract residents and businesses interested in healthier and more affordable travel options. The county's residents need to travel throughout the county and within their communities, using a variety of modes, with greater ease. Improving conditions for bicyclists and pedestrians and expanding transit services are becoming more important.

In the long term, the advent of connected and autonomous vehicles is generally anticipated to affect driving patterns in several ways. Commuters may choose to send their cars home or to satellite parking locations rather than paying for daily parking in center cities, like Washington, D.C. This practice would double the number of daily work trips for some cars. Also, these vehicles with their enhanced safety features may encourage individuals who are not drivers or who do not drive frequently to travel more often and further distances than they might in less-sophisticated cars.

Traffic Congestion in Calvert County

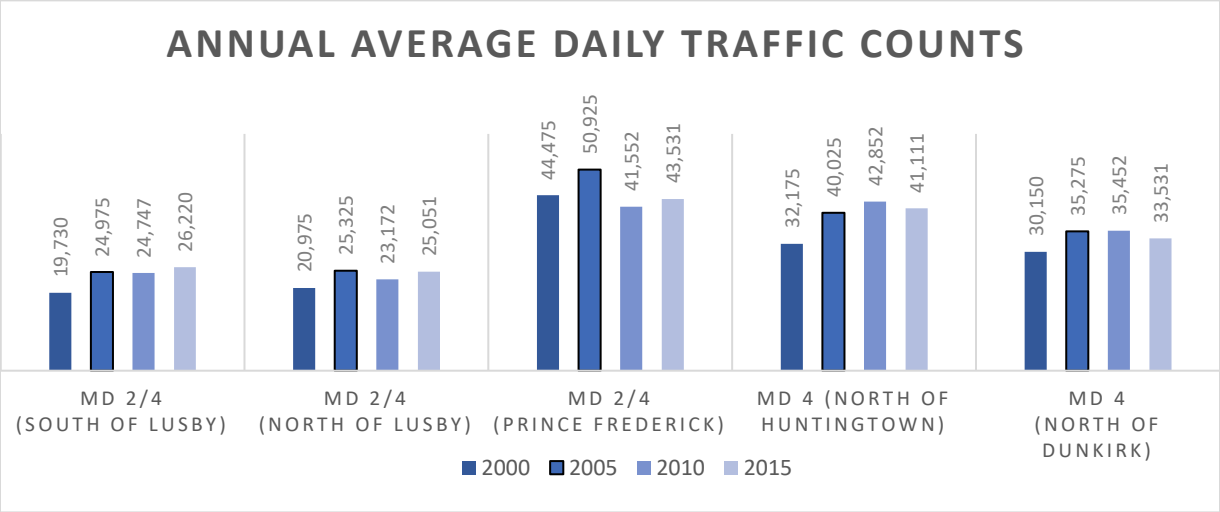
Congestion caused by commuters typically occurs during weekday peak travel periods and is known as recurring congestion. SHA's Traffic Volume Maps by county show that the highest traffic volumes in Calvert County are carried on MD 4-MD 2/4, particularly through Prince Frederick. In general, the highways in Calvert County are operating at a level of service acceptable to the SHA (which is a Level of Service D or better); however, citizens experience peak period congestion at the traffic lights located at some key intersections along MD 2/4, especially those in Huntingtown and at the north end of Prince Frederick, and in Dunkirk and Solomons at the Thomas Johnson Bridge.

The increases in traffic volume during the years of rapid growth still affect the perception of traffic volume changes that Calvert County residents report today. The county has not seen increasing levels of traffic along the primary county arterial road in recent years.

Table 7-1 and Figure 7-1 show annual average daily traffic (AADT) at five points along MD 4 and 2/4 from 2000-2015. The higher counts are in the middle of the county and moving to the north; the south has significantly lower traffic volumes than the rest of the county but has seen the most consistent growth in volumes over time. While some delay at signalized intersections in Prince Frederick is experienced during the peak travel periods, all arterial and collector roads are operating at acceptable levels of service.

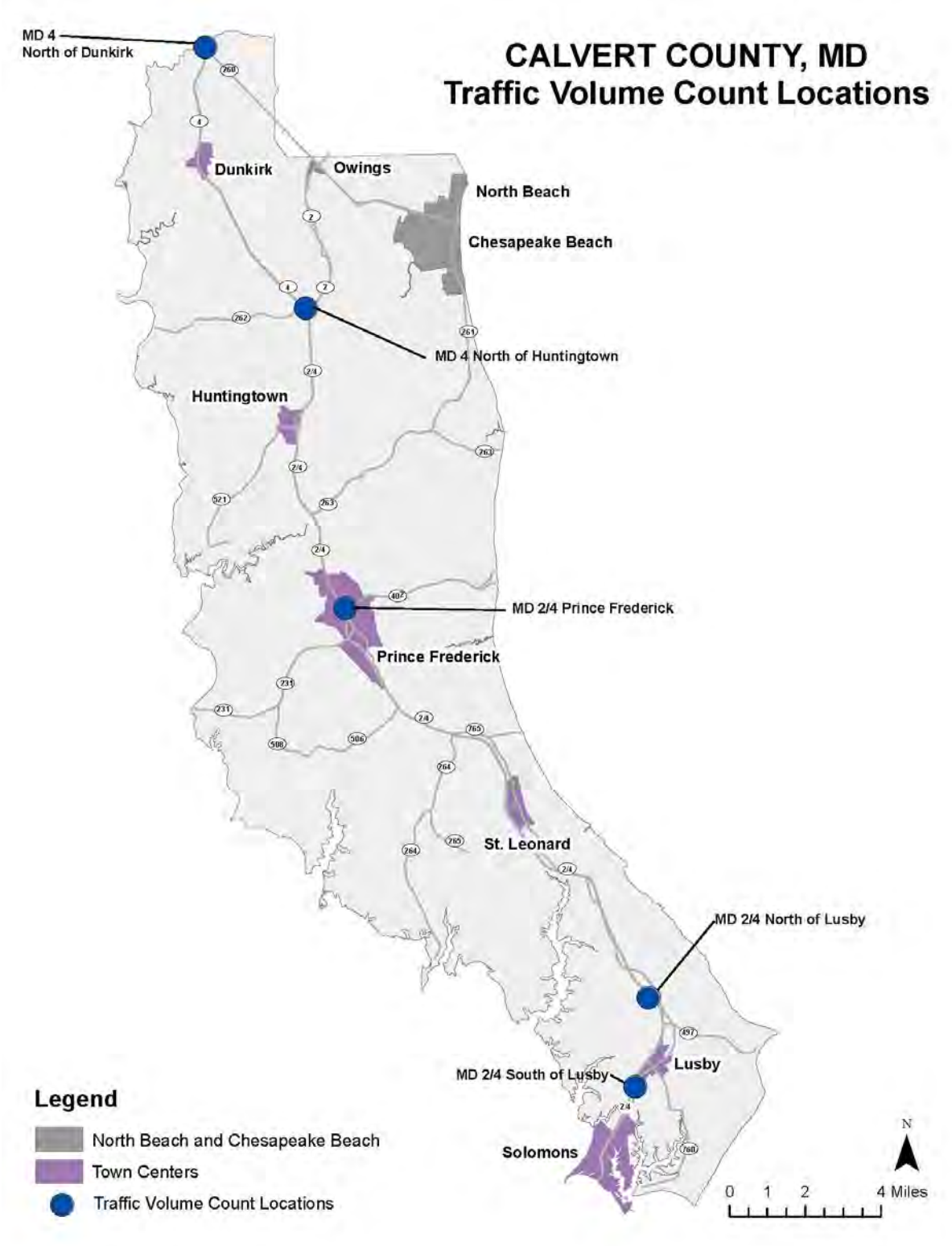
In each case, there was a significant increase in traffic volumes along MD 2/4 or MD 4 from 2000 to 2005. After 2005 the rate of growth in traffic decreased and in several locations overall traffic volume dropped between 2005 and 2010. By 2015 traffic returned to 2005 levels only in the vicinity of Lusby. The sharp traffic volume increase in 2005 at MD 2/4 in Prince Frederick was followed by a significant decrease in 2010 followed by a small increase in 2015. The steep decrease in traffic volumes at the MD 2/4 intersection can be attributed to the completion of Prince Frederick Boulevard from Stoakley Road to MD 231in 2006. Prince Frederick Boulevard is part of the Prince Frederick loop road, an interconnected roadway system designed to relieve pressure on MD 2/4. Prince Frederick Boulevard along with its counterpart, Chesapeake Boulevard, are examples of the county's efforts to reduce congestion on MD 2/4.

Table 7-1 Annual Average Daily Traffic Count, 2000-2015



Source: State Highway Administration, Traffic Volume Maps by County, 2000-2015

Figure 7-1 Annual Average Traffic Count Locations



Highway System

Functional Classification

Functional classification is an important principle underlying transportation planning as well as land use planning in the county. It defines the type of service which any road should provide. The county currently recognizes three functional classes of roads: arterial, collector, and land access (local roads). All roads provide some mixture of mobility and accessibility. Mobility, the movement of through traffic, is primarily needed for the arterial roads and larger collector roads. Accessibility, the connection to immediate property, is needed for smaller collector roads and local roads.

- Arterial highways function primarily to convey heavy volumes of traffic within and through an area, providing a high degree of mobility and limited land access. Arterials should form an integrated system and serve area-wide travel patterns. Direct access onto arterials should be restricted.
- Collector highways function to collect traffic from local roads and to convey that traffic to arterial highways. Direct access onto collectors must be balanced against the role of collectors in providing mobility.
- Land access roads, also known as local roads, function to provide access directly to abutting property. These serve residential subdivisions as well as the least densely populated areas of the county.

The functional classification of highways in Calvert County, shown in Figure 7-2, is created through a comparative evaluation of four major factors: traffic, physical characteristics, system integration, and land use services.

MD 4 and MD 2/4

MD 4 and MD 2/4 carry the heaviest volumes of traffic and serve inter-county travel. The county considers the gradual conversion of MD 4 and MD 2/4 into a controlled through access expressway as key to resolving future traffic congestion. Making that conversion requires primarily five efforts:

- New driveway access points to MD 4 and MD 2/4 are not preferred by the county and the Maryland State Highway Administration.
- New roadway access is coordinated and the rights-of-way of future service roads and overpasses are reserved.
- Rights-of-way are purchased for new overpasses along MD 4 and MD 2/4.
- New traffic signals are minimized through intelligent transportation systems (ITS) and land use planning solutions, and existing traffic signals are better coordinated and synchronized.
- Appropriate highway construction is completed including intersection improvements, the upgrade of the older sections of MD 4 and MD 2/4 that were retained when the highway was dualized, and the addition of acceleration and deceleration lanes and shoulders, where needed.

The Maryland State Highway Administration is working on a phased project to widen MD 2/4 through Prince Frederick. The project has six phases and will add a third through lane and an auxiliary lane on both the northbound and southbound sides. Phase 1 was completed in 2009. The construction of Phase 2 commenced in 2018.

Arterial

Arterial highways such as MD 2, MD 231 and MD 260 serve fast and heavy traffic between subdivisions and urban centers. These arterial highways are connecting Calvert County to neighboring counties. Direct access to property along arterial highways should be managed so that overall highway capacity can be preserved for through traffic.

Arterials should be designed and located to provide fast and convenient travel, to support necessary economic development, and to provide a framework for planned land use development. To ensure that the arterial system functions properly, its physical and operational characteristics must be understood.

The county should continue working diligently with Tri-County Council and MDOT–SHA to make safety improvements to MD 231 and MD 2 top priorities.

Collector

Collector roads are highways and roads serving trips of shorter length, linking residential and agricultural areas to the arterial network. These roads, which are generally county-owned and maintained, collect traffic from local roads and convey it to the arterial highways. In town centers, collector and local roads provide for local circulation and access to businesses.

In rural areas, it is important to provide safe roads; however, conventional roadway design can alter the character of the community and promote higher speeds.

Over-designing rural roads is costly and often makes rural lands more accessible to residential development. Roads that serve rural and natural areas generally have lower traffic volumes and do not warrant the same design improvements required of those serving growth areas. Preserving the look and limiting the capacity of rural roads helps to maintain the rural character of Calvert County and avoids the higher costs that result when roads are over-designed. By coordinating road improvements with land development goals, the county can keep its road construction costs lower and support new growth where it is expected.

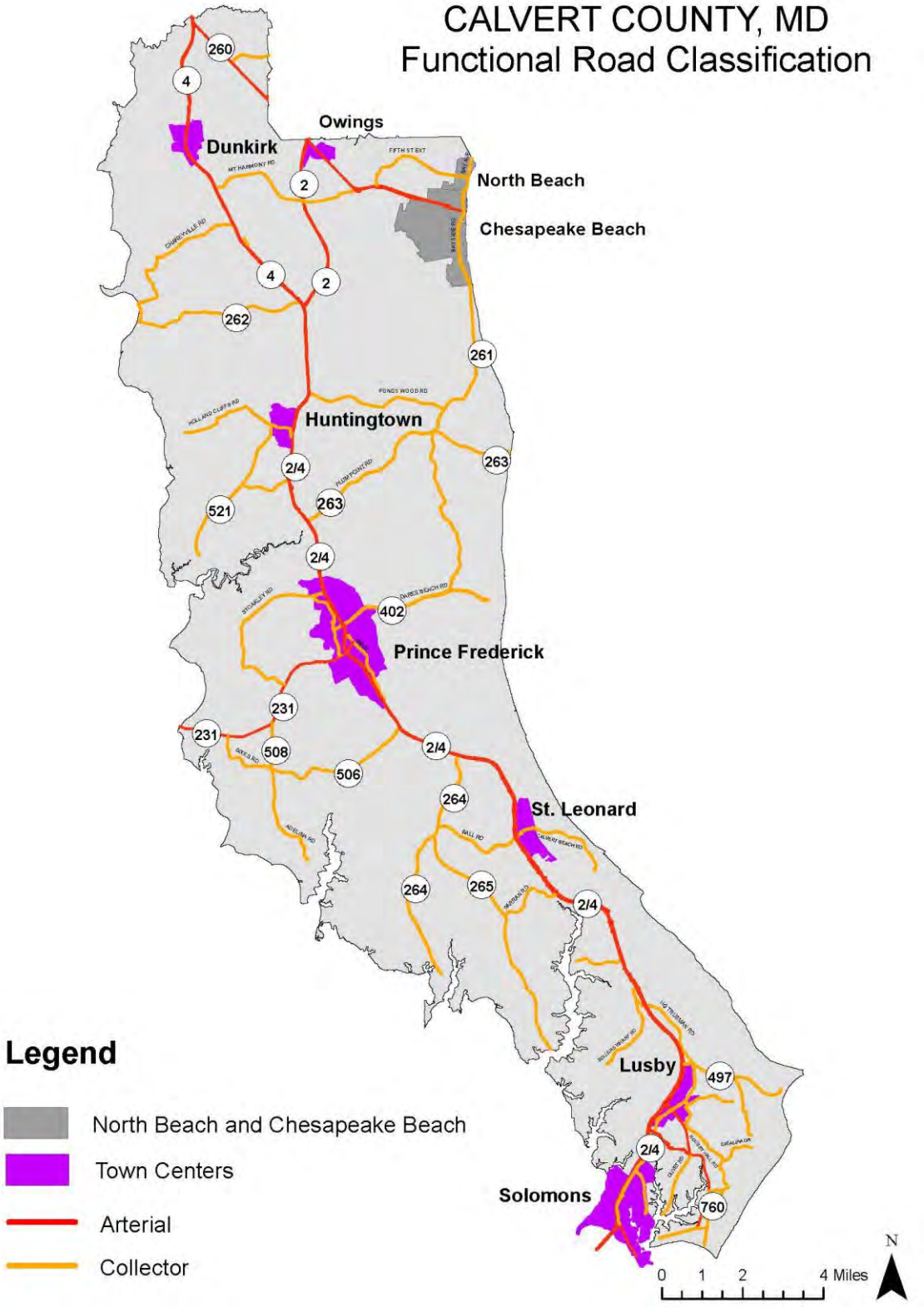
Governor Thomas Johnson Bridge

The Governor Thomas Johnson Bridge is located in the southern end of Calvert County in Solomons. It serves as a major transportation artery providing commuters access to Washington, D.C. and the Patuxent River Naval Station. The bridge connects Calvert County and St. Mary's County via MD 4 and is a key transportation corridor in the Southern Maryland area. The Thomas Johnson Bridge is an essential element in the Southern Maryland tri-county transportation system. Calvert County has been working with Maryland Department of Transportation State Highway Administration (MDOTSHA) for a replacement of this bridge to increase the number of travel lanes from two to four. This project will increase capacity across the Patuxent River.

This project is critical to national homeland security and the Department of Defense and is essential from a Department of Homeland Security/Federal Emergency Management Agency/Maryland Emergency Management Agency capability as a hurricane evacuation asset. The Thomas Johnson Bridge serves as an evacuation route for the large nuclear power generating facility and a regional liquid natural gas facility. The replacement of the bridge will relieve commuter congestion and is also essential to the safety, security and efficient transportation of Southern Maryland. The bridge serves more than 31,100 vehicles per day, with an estimated increase to 38,275 vehicles per day by 2030, far in excess of its two lane bridge capacity.

The replacement of the Thomas Johnson Bridge will continue to remain a top regional transportation priority for the tri-county area.

Figure 7-2 Functional Road Classification



Chesapeake Bay Crossing Study

As of 2018, the State of Maryland is conducting a Chesapeake Bay Crossing Study, led by the Maryland Transportation Authority (MDTA) of the Maryland Department of Transportation (MDOT). The study "will result in the identification of a preferred corridor alternate to address congestion at the Chesapeake Bay Bridge and evaluation of its financial feasibility. The Bay Crossing Study will evaluate current and future traffic demand across the Chesapeake Bay."[2] Locating a bay crossing in Calvert County would result in a tremendous amount of pass-through traffic to MD 4. Constructing a bay crossing in Calvert would likely have a significant impact on the county's rural character. If Calvert were to be chosen as the location for the next Chesapeake Bay bridge crossing, then the county's long-range plans – the Comprehensive Plan and Transportation Plan – would need to be redone to address the significant potential impacts.

Transit

Good transportation planning requires that highway and transit facilities be planned together. Highway capacity can be optimized when a highly accessible and efficient transit system is in place. The county operates two levels of local transit service. A fixed route service serves Town Centers. The fixed route system addresses two types of movements: within Town Centers and between Town Centers.

Commuter transit is provided by the Maryland Transit Administration (MTA) over four bus routes that serve Washington, D.C. While transit riders represent only a small proportion of total county commuters, the commuter buses are typically filled to capacity. Depending on the route, there are between five and 13 trips a day. The bus routes originate in St. Leonard, North Beach, Dunkirk, Huntingtown, and Prince Frederick. The southern part of the county is not served by the commuter bus routes.

Calvert County recently implemented regular route service to the Charlotte Hall area including direct service to the Charlotte Hall Veterans home. This route allows for direct connections with both Charles County transportation and St. Mary's County transportation. Calvert County continues to have a direct transfer with St. Mary's County, in the southern end of Calvert County, allowing residents access to Lexington Park, MD.

Possible Future Transit

An overall framework for public transit service should continue to be implemented by Calvert County. This framework calls for the creation of local transit service areas in the Town Centers and for express bus service between those centers. In addition to providing access to jobs, increasing access to healthcare services needs to be considered for the county's large senior population. Reliable alternative transportation options are needed for people with disabilities and seniors in the county. Calvert County has just completed its five-year Transportation Development Plan and identified numerous service

[2] Maryland Transportation Authority website, https://www.baycrossingstudy.com/, accessed May 7, 2018.

enhancements. The county is working with the MTA to secure funding to implement these service changes.

Ferry service is a form of transit with potential for Calvert County, especially as the southern part of the county becomes more economically integrated with Lexington Park. Calvert and St. Mary's counties have been connected by ferry services in the past. One ferry service operated continuously for almost 60 years, until December 16, 1977. The Thomas Johnson Bridge opened the next day. Prior to then, "Miss Solomons" carried passengers from Solomons to the Patuxent Naval Air Test Center. Vehicle ferry service operated in the 1920s and 1930s.[3] The potential for ferry service must be kept viable. Any ferry service should be properly planned and integrated into the overall transportation system and land use pattern.

Rapid transit is intended to facilitate fast movement along heavily traveled corridors. Rapid transit can be provided by commuter rail, light rail, and buses operating in exclusive rights-of way. This condition is not likely in Calvert County. The rail options require high urban population densities to justify their costs and to operate successfully.

Pedestrian and Bicycle Network

Currently there are few connected trails for bicyclists or pedestrians to use, either for recreation or for transportation between developed areas. Providing these connections is challenging because of east-west stream valleys cutting through the county on either side of the ridgeline that MD 2/4 follows. The volume and speed of vehicles, and in some instances, the lack of shoulders are impediments to pedestrian and bicycle travel. In addition, where the highways bisect developed areas, the lack of signalized pedestrian crossings discourages people from walking. While there are sidewalks, they are limited and not fully connected even in developed areas. The lack of pedestrian and bicycle facilities fosters reliance on automobiles and does not provide alternatives to auto travel.

By 2040, the county intends to create safe and attractive paths that allow people to travel within the Town Centers, connecting residential, commercial, recreation, institutional, and employment areas. In addition, paths would connect the Town Centers to the rural and natural areas and the water, whether to the Chesapeake Bay, Patuxent River, or one the county's creeks. New roads and retrofits of existing roads should accommodate pedestrians and bicyclists. Such infrastructure could include wide sidewalks and median crossing islands for pedestrians and protected or dedicated bicycle lanes for bicyclists, or shared-use paths for both.

Complete Streets and Streetscape Improvements

Complete streets are defined as those that offer balanced use to all modes of transportation. Complete streets enable safe access for all users including pedestrians and bicyclists as well as motorists and transit riders of all ages and abilities. Complete streets consider the needs of motorists but do not exclude the

[3] *Bugeye Times*. Calvert Marine Museum, Spring 1978, Vol. 3 - No. 1. Pages 1-2. https://www.calvertmarinemuseum.com/DocumentCenter/View/1249/Bugeye-Times-Spring-1978. Accessed May 19, 2018.

needs of pedestrians, transit users, bicyclists, and commercial and emergency vehicles. The typical cross-sections for each road classification should address the manner in which various modes of transportation are accommodated based upon the road classification and the surrounding land use.

Streetscape features should be used to establish the character of Town Centers and Residential Areas. Adding street trees, street furniture, and sidewalks along roadways and a planted median in the center improves the driving and pedestrian experiences.

Traffic calming measures such as roadway narrowing, raised and colored intersections, street chokers (also called neckdowns), and traffic circles would improve pedestrian conditions within Town Centers. These features reduce the speed of cars and increase alertness of motorists to enhance the environment for non-motorists.

In 2016, Calvert County adopted a Neighborhood Traffic Management Program for unincorporated areas of the county. The intent of the program is to enhance the safety and livability of residential neighborhoods within Calvert County. The program is available to any homeowner associations or organized group of citizens who wish to reduce vehicle speeding in their neighborhood. If a public street qualifies for the program, it may be necessary for the community residents to fund any traffic calming measures by way of a Special Taxing District if county funds are not available.

Residential Area and Town Center Transportation Networks

Most shopping, medical, and personal business trips in the county will be destined for Town Centers, while most households, even in the future, will be located beyond the borders of Town Centers in a low-density pattern.

Each Town Center master plan proposes road construction projects. In most cases, implementation of these projects would help manage access onto MD 4 and MD 2/4 and provide a framework for higher density residential commercial development. In some cases, these improvements are needed to resolve existing traffic congestion. Because most subdivisions in Calvert County do not interconnect, even short trips require the use of major arterials, contributing to the overload of MD 2/4. Connecting the current roads parallel to MD 2/4 into a complete roadway network that extends the length of MD 2/4 through each of the Town Centers would allow circulation between parcels without the need for additional access points on the through highway.

Additional improvements are needed to limit the increased reliance on cars and to develop a more balanced transportation system. Future road construction in the Town Centers should maximize connectivity within each and with surrounding residential areas. Increasing connectivity promotes activity within the Town Centers and reduces the need to drive for those residents closest to Town Centers. Town Centers need to facilitate walking, bicycling, and transit use. Community design guidelines with these and similar aims should be developed in the revised Town Center master plans.

New land development should be designed to minimize the number of automobile trips. The county should establish road and sidewalk/path connectivity requirements based on block length in designated

areas and for residential and commercial subdivisions above a certain size to help reduce traffic congestion and improve walkability, especially in Town Centers.

Transportation System Management

Financing road improvements is a challenge. The county studied options for raising revenue for new road construction and has opted to use a combination of excise tax revenues from new development, the sale of bonds, and general fund revenues. Road maintenance is also costly. The county relies on the general fund supplemented by a small amount of gasoline tax revenues, which are transferred from the state to the county.

A Transportation System Management (TSM) program is aimed at making the most efficient use of existing roads, highways, and transit services without constructing additional highway capacity. Several measures fall under the TSM heading, including access control and management, intelligent transportation systems, traffic management, and travel demand management. Each has the potential to improve traffic flow and safety, reduce fuel consumption and air pollution, and reduce cost on new construction.

TSM measures with potential in Calvert County include:

- Intelligent transportation systems features such as smart traffic signals and transit system priority that take advantage of the emerging capabilities of connected vehicles.
- Traffic engineering techniques such as traffic signal synchronization, the proper placement of driveways, and exclusive turning lanes and roundabouts at intersections.
- The promotion and marketing of area-wide transit, carpools, and vanpools including expanded carpool lots.
- Town Center and community land use planning and site design aimed at minimizing the need for travel by car.

The MPO

Based on the 2010 Census, the U.S. Department of Transportation, Federal Highway Administration has determined that the combination of the Lexington Park area in St. Mary's County with the Solomons/ Lusby/ Chesapeake Ranch Estates/Drum Point area in Calvert County meets the population criteria for a Metropolitan Planning Organization (MPO). The Calvert-St. Mary's MPO is a federally-mandated and funded organization tasked with planning an integrated regional transportation system between the two counties.

The MPO prepares and maintains several documents.

- The Long-Range Transportation Plan (LRTP) develops and updates the long-range transportation goals for the region.
- The Unified Planning Work Program (UPWP) lists planning studies and evaluations underway in a given year.

- A Transportation Improvement Program (TIP) includes a short-range program of transportation improvements based on the long-range transportation plan. The TIP is designed to achieve the area's goals, using spending, regulating, operating, management, and financial tools.
- The Public Participation Plan (PPP) is designed to involve all appropriate parties of the community in the transportation planning process and to ensure that the public has adequate opportunity to provide input on the transportation issues affecting the region.

Goals and Objectives

Goal 1: Provide a safe and reliable transportation system that complements the overall development of the county and balances use by pedestrians, bicyclists, motorists, and bus riders.

Objective 1: Develop a transportation system that effectively serves the future land use pattern and helps to implement adopted land use and growth management objectives.

7.1.1.1 Achieve a high level of accessibility between residential areas and Town Centers. [P&Z, PW, CR]

7.1.1.2 Give priority to the construction and upgrading of roads that serve Town Centers. Continue to advocate for the Thomas Johnson Bridge replacement as a top priority for state road construction. [BOCC, PW, P&Z]

7.1.1.3 Adopt an access management policy. [BOCC, PW, P&Z]

7.1.1.4 Identify and protect right-of-ways and easements for the long term [PW, P&Z]

7.1.1.5 Continue efforts to secure funding to upgrade the Thomas Johnson Bridge. [BOCC, PW, P&Z]

Objective 2: Establish a road connectivity requirement for new developments.

7.1.2.1 Establish road and sidewalk/path connectivity requirement based on block length in designated areas and for residential and commercial subdivisions above a certain size to help reduce traffic congestion and improve walkability, especially in Town Centers. [P&Z, PW]

7.1.2.2 Promote cross-access between properties and interconnected parking lots to preserve the capacity of the adjacent road. [P&Z, PW]

Objective 3: Continue to update and adopt the county transportation plan.

7.1.3.1 Construct new roads as called for in the Calvert County Transportation Plan and as identified in the adopted Town Center master plans. [PW]

7.1.3.2 Continue to update the Calvert County Transportation Plan, including a Transportation System Management element. [P&Z]

Objective 4: Prepare traffic circulation studies and transportation plans as needed for Town Centers.

7.1.4.1 Continue to monitor traffic conditions and assess the potential for technological solutions to traffic problems. [P&Z, PW, SHA]

Goal 2: Maintain MD 2, MD 4, MD 2/4, and MD 231 as the main transportation corridors, providing for safe and efficient travel.

Objective 1: Improve traffic flow on the county's main transportation corridors.

7.2.1.1 Reduce existing and discourage future direct property access, especially to MD 2, MD 4, MD 2/4, and MD 231. [P&Z, SHA]

7.2.1.2 Require parallel connecting roads along MD 4 and 2/4 during the development and subdivision process, where feasible, with the long-term goal of having driveways served by connecting roads. [P&Z]

7.2.1.3 Continue to develop north-south roadway systems, parallel to MD 2/4 in the Town Centers. [P&Z, PW]

Goal 3: Maintain and improve the arterial and non-arterial road systems to provide for safe and efficient travel.

Objective 1: Maintain the program to renovate road sections and intersections. This includes widening roads, adding shoulders, improving stormwater conveyance, removing dangerous curves, replacing bridges, correcting poor sight distance, and adding turning lanes and roundabouts. Prioritize improvements based on traffic counts, existing conditions, and proximity and service to Town Centers.

7.3.1.1 Address peak-hour congestion on MD 2/4. [SHA]

7.3.1.2 Pursue with SHA the implementation of active traffic management technology to reduce congestion during peak hours. [P&Z, PW, SHA]

7.3.1.3 Pursue as a priority, continued efforts to work with Tri-County Council and MDOT–SHA to improve MD 231 and MD 2 to address safety and reduce congestion. [BOCC, PW, P&Z, SHA, TCC]

7.3.1.4 Continue the program for resurfacing existing roads. Prioritize resurfacing based on traffic counts, structural condition of paving and subsurface conditions, and skid resistance of existing surfaces. [PW]

Objective 2: Complete the network of roads parallel to MD 2/4 in Prince Frederick.

7.3.2.1 Include continuous bike and pedestrian pathways along these roadways. [P&Z, PW]

7.3.2.2 Encourage businesses locating along these roads to have a public entrance facing them. [P&Z]

Goal 4: Improve and expand existing transit services.

Objective 1: Increase the frequency of local transit service between Town Centers, including employment areas and health centers.

7.4.1.1 Explore the demand among local employers and workers for buses commuting to take employees to and from work places. Develop routes likely to encourage transit access for employees, patients, and students from throughout the county. [CR]

7.4.1.2 Review the routes serving Town Centers to include stops at employment centers. Consider extending transit hours to serve employees within the Town Centers and adjacent areas. [CR]

7.4.1.3 Review and increase the number of routes connecting major subdivisions to Town Centers. [CR]

Objective 2: Designate new park and ride locations and key commuter transit routes, when needed.

7.4.2.1 Provide adequate commuter parking lots at key locations throughout the county. [MDOT/MTA]

7.4.2.2 Encourage the shared use of parking lots, especially in Town Centers, as part of coordinated land development plans. [P&Z]

7.4.2.3 Continue to encourage the state to provide expanded commuter bus service. [CR, P&Z]

Objective 3: Expand and improve demand-responsive transit services.

7.4.2.1 Increase availability of demand-response public transportation. [CR]

Goal 5: Promote transportation alternatives such as buses, carpools, vanpools, bicycling, and walking.

Objective 1: Develop a countywide policy for building and maintaining sidewalks and bicycle ways at the time of new road construction.

7.5.1.1 As state and county roads are improved or upgraded, ensure the roads include sidewalks and bikeways; where feasible, construct a bikeway, which is to be a shared-use path, separate from the roadway. [P&Z, PW]

7.5.1.2 Continue to retrofit existing roads with sidewalks connecting communities within the residential areas of Town Centers by an internal network of sidewalks and roads. [PW]

7.5.1.3 Provide safe pedestrian and bicycle routes to all public schools, where practical. [P&Z, PW, SHA]

7.5.1.4 Provide designated crosswalks at all intersections except where the designation would create a safety hazard. [SHA, PW]

7.5.1.5 Review site plans for commercial, business and employment uses to ensure safe pedestrian movements. [P&Z]

Objective 2: Establish bicycle routes to connect residential, commercial, employment, educational, and open space areas.

7.5.2.1 Develop a local bicycle system plan for each Town Center. [P&Z, PW]

7.5.2.2 Designate key bike routes connecting Town Centers, where practical. [P&Z, PW]

7.5.2.3 Establish priorities for the creation of designated bikeways along the state highways operating from east to west or connecting to Town Centers, including MD 2, MD 4, MD 2/4, MD 231, MD 261, MD 262, MD 263, MD 264, MD 265, MD 402, MD 497, and MD 760. [P&Z, PW, SHA]

7.5.2.4 Provide wayfinding on designated bike routes. [PW, SHA]

7.5.2.5 Look for ways to encourage the use of bicycles, including providing bicycle parking and/or storage facilities at public buildings, encouraging it in shopping and employment areas, and providing information on bikeways, such as online maps, to the public. [P&Z, GS, TS]

7.5.2.6 Improve bicycle safety and accommodations, especially in Town Centers. [P&Z, PW, SHA]

7.5.2.7 Encourage the construction of the bikeway/shared-used path as properties develop. [P&Z]
7.5.2.8 Address bicycle and pedestrian accommodations in each Town Center master plan. [P&Z, PW]

Objective 3: Develop a complete streets policy applicable within Town Centers.

7.5.3.1 Install traffic calming measures in select locations in Town Centers. [PW, SHA]
7.5.3.2 Promote multiple modes of transportation to reduce dependence on automobiles within Town Centers and connect Town Centers with adjacent communities through the provision of walking and biking routes. [P&Z, PW]
7.5.3.3 Establish bicycle parking requirements for commercial, employment, and institutional uses in Town Centers and Employment areas. [P&Z]
7.5.3.4 Pursue pedestrian safety and traffic capacity improvements within Town Centers. [PW]
7.5.3.5 Encourage the installation of sidewalks along both sides of all streets in Town Centers. [P&Z, PW, SHA]
7.5.3.6 Install pedestrian crossing signals connected to safe pedestrian networks at signalized intersections within Town Centers. [PW, SHA]
7.5.3.7 Map and implement continuous, ADA compliant sidewalks, and pedestrian facilities in each Town Center. Update small area master plans to include these networks. [P&Z, PW, SHA, TS]
7.5.3.8 Pursue Complete Streets grant opportunities. [PW, P&Z]

Goal 6: Continue a countywide transportation planning program that is integrated with state and regional planning programs.

Objective 1: Develop a sustainable program for financing transportation construction and improvement.

7.6.1.1 Explore potential funding strategies to expedite the planning and construction of needed projects on the State highway system in Calvert County and for county roads. [P&Z, PW, F&B]
7.6.1.2 If amendments are made in federal and/or state standards, amend the county road design requirements. [P&Z, PW]
7.6.1.3 Encourage developer participation in adjacent roadway improvements that become necessary as development progresses. [PW, P&Z]
7.6.1.4 Review Calvert County's adequate public facilities regulations for roads and consider potential changes to ensure the cumulative impacts of development are addressed. [PW, BOCC]

Objective 2: Participate in state and regional transportation planning efforts.

7.6.2.1 Promote regular updates to the regional, MPO, and county transportation plans based upon and designed to serve the land use development goals of Calvert County and the other units of government in the Southern Maryland region. [P&Z, PW, CR]

CHAPTER 8. ECONOMIC VITALITY

Vision

We are building a strong local economy based on renewable resources, agriculture, seafood, high technology, retirement, recreation, and tourism.

Goals

Goal 1: Strengthen economic opportunity in Calvert County.

Goal 2: Direct business growth to Town Centers while preserving agricultural land in the Farm and Forest District.

Goal 3: Expand Calvert County's tourism industry.

Goal 4: Strengthen educational opportunities in Calvert County.

State Vision and Plan

This chapter addresses the following Maryland State Visions:

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

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

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.

Related County Plans

2017-2022 Calvert County Economic Development Strategic Plan Update – The Economic Development Strategic Plan Update provides information and recommendations to guide the county's economic development strategies for the next five years.

Background

Historically, Calvert County's local economy relied on agriculture, fishing, seafood harvesting, and recreation. By early in the 20th century, tourism and recreation played an important role in the county's economy when the Towns of North Beach and Chesapeake Beach were developed. Over the century Solomons and areas along the Patuxent River emerged as attractive places for second homes, boating, and other water-related activities.

Today, Calvert County's economy is based primarily upon its location within the Washington, D.C. metropolitan area. The county's economy is stable compared to other jurisdictions in Maryland and the nation because of several factors including: 1) a strong local business climate; 2) job market stability; 3) proximity to major employment centers in Washington, D.C. and Virginia; and 4) a strong median household income.

Residents earn above average wages as compared to other Southern Maryland counties and the State of Maryland. Calvert is one of the wealthiest counties in Maryland and the wealthiest in Southern Maryland, in part because of the proximity to federal agency and contracting jobs. However, most of those jobs are in the surrounding counties.

The Dominion Cove Point liquefied natural gas import facility is the most recent addition to a growing local energy sector and private sector jobs grew by 1,510 (9 percent) from 2010 to 2015.

The county aims to continue to strengthen business growth by directing development to Town Centers, while preserving agricultural land and the county's rural character.

Sustainability Approach

The Economic Vitality chapter strives to meet the needs of current generations without overburdening future generations. It aims to balance the provision of commercial services and employment with the maintenance of a high quality of life. Sustainable economic development is necessary to ensure the long-term viability of the community. A reasonable rate of diversified economic growth is encouraged and sustained to provide jobs for residents, to increase incomes, and to expand the tax base.

National and Regional Trends

Calvert County is part of the larger Washington, D.C. metropolitan region and is impacted by the conditions across the region. Calvert competes with other parts of the greater Washington, D.C. area, Baltimore and Annapolis, and within Southern Maryland for jobs, workers, and residents.

Regional Employment Growth

The Metropolitan Washington Council of Governments prepares forecasts of growth in population, housing, and employment for each county in the metropolitan area. The most recent projections estimated the total employment in Calvert County in 2015 at 34,000, which is projected to increase to 44,300 (by 30 percent) by 2045. This percentage increase is comparable to the projected growth in the other Maryland counties in the region (Table 8-1).

Table 8-1 Employment Forecasts (Jobs) for Maryland Counties in the Washington Metropolitan Region

Employment Forecasts in Thousands from 2015 to 2045									
County	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**	**Number**	**% Change**
Montgomery	520.2	543.5	572.5	604.5	627.4	653.9	678.7	158.5	30.5%
Prince George's	338.6	349.0	366.3	375.7	385.5	393.3	402.1	63.6	18.8%
Calvert	34.0	36.8	39.5	40.9	41.9	43.1	44.3	10.3	30.3%
Charles	46.6	47.0	49.2	52.2	55.4	58.8	61.5	14.9	32.0%
St. Mary's	66.0	70.4	74.3	76.5	79.1	81.8	84.5	18.5	28.0%
Frederick	106.2	110.6	115.6	121.3	127.8	133.9	140.2	34.0	32.0%
Total	1,045.5	1,087.0	1,143.2	1,194.6	1,237.9	1,283.0	1,326.8	281.3	26.9%

Source: Metropolitan Washington Council of Governments, Round 9.0 Cooperative Forecasts

Economic Base

Local Employment

Calvert County's local economy is based upon agriculture, tourism, construction, energy production, and local-serving retail and service businesses. The county's largest five employers are the Calvert County Public Schools, CalvertHealth Medical Center, Calvert County Government, Exelon/Calvert Cliffs Nuclear Power Plant, and the Arc of Southern Maryland (see Table 8-2). Most of the remaining top ten employers are service and retail businesses.

Table 8-2: Major Employers - Calvert County, 2018

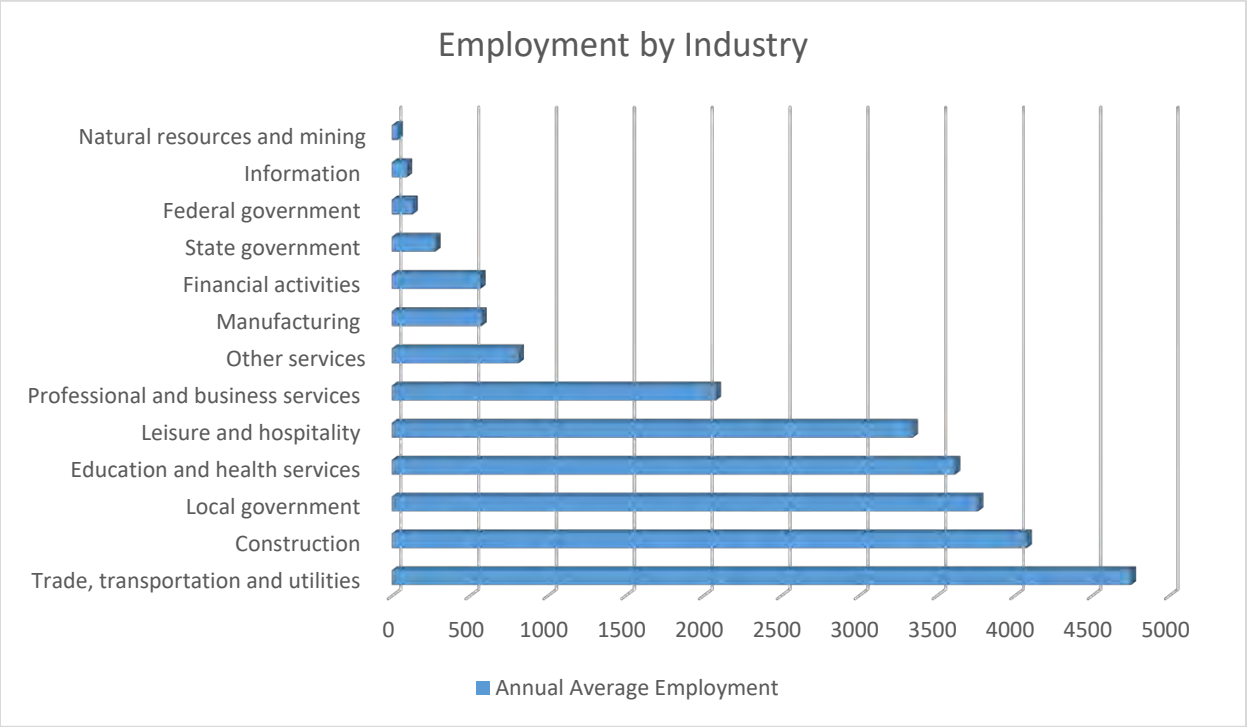
Rank	Employer	Employees
1	Calvert County Public Schools	2,125
2	CalvertHealth Medical Center	1,314
3	Calvert County Government	1,252
4	Exelon/Calvert Cliffs Nuclear Power Plant	825
5	The Arc of Southern Maryland	460
6	Chesapeake Beach Resort & Spa	300
7	DirectMail.com	230
8	Dominion Cove Point	205
9	Safeway – Prince Frederick	200
10	Asbury Solomons	181

Source: Calvert County Department of Economic Development, 2018

Jobs by Industry

Calvert County's largest industries are trade, transportation, and utilities (19.7%), construction (16.9%), local government (15.6%), and education and health services (15%), as shown in Figure 8-1. The next largest sector in the county is leisure and hospitality (13.5%), reflecting tourism's importance in the local economy. While many Calvert County residents work for government agencies outside the county, federal and state government provide only 0.5% and 1.2% of the jobs available in Calvert County, respectively.

Figure 8-1 Calvert County Employment by Industry, 2016



Note: Includes civilian employment only
Source: Maryland Department of Labor, Licensing and Regulation, Office of Workforce Information and Performance

Commuting

Calvert County's location within the Washington Metropolitan Area positions it well for commuting to Washington, D.C. and other employment centers within the region. While Prince Frederick attracts the highest number of local workers, Washington, D.C. provides the second highest number of jobs to county residents. Residents also commute to Waldorf, St. Mary's County, Prince George's County, and Baltimore City.

Table 8-3 shows that the employed labor force in the county remained essentially constant in recent years as did the split between those with jobs in the county and those commuting elsewhere to work. Calvert County experienced an increase in commuting from neighboring jurisdictions from 8,900 workers in 2010 to 9,600 in 2015.

While most Calvert County commuters drive alone, the county is served by four commuter bus routes that travel between Calvert County and Washington, D.C. The commuter bus routes originate in St. Leonard, Town of North Beach, Dunkirk, Sunderland, and Prince Frederick. The southern part of the county is not served by the commuter bus routes.

Table 8-3 Employment In and Out of Calvert County (by County Residents)

Employment In and Out of Calvert County		
	In County	**Out of County**
2007-2011 average	18,033 (39.9%)	27,163 (60.1%)
2012-2016 average	17,110 (38.1%)	27,762 (61.9%)

Source: Commuting Characteristics by Sex 2007-2011 and Commuting Characteristics by Sex 2012-2016, American Community Survey 5-Year Estimates, US Census Bureau

Tax Base

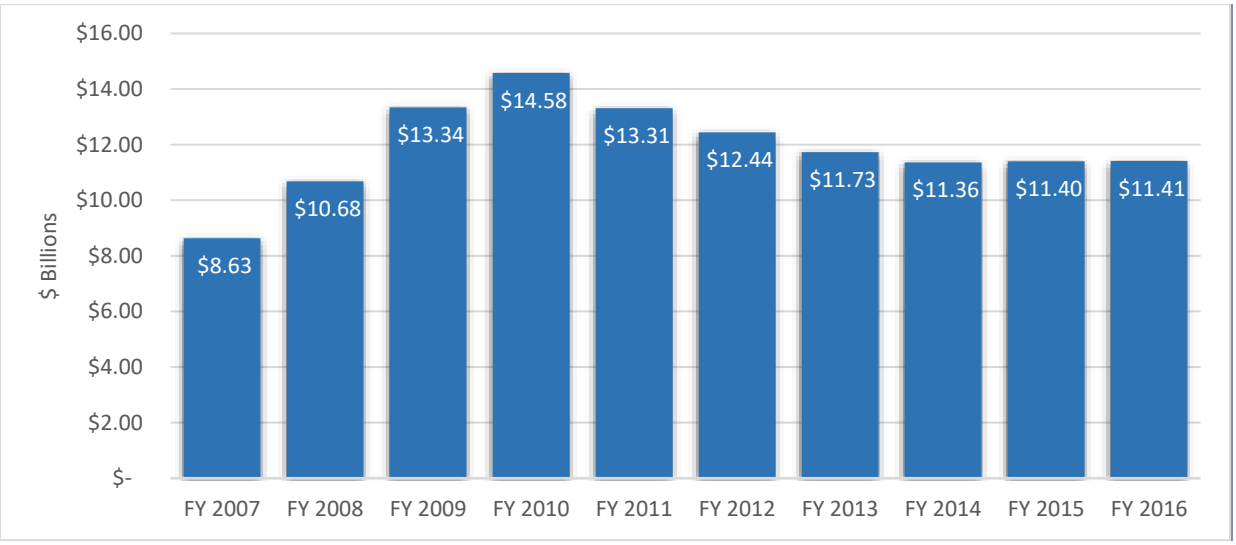
Real property tax is Calvert County's largest revenue source, and while the real estate tax base includes residential, commercial, and utility properties, much of the revenue is generated by residential development. Between 2011 and 2016, the county's residential real property value has experienced a net decrease of $1.95 billion. This decline is not completely offset by the growth in commercial real property value during the same period. (See Figure 8-3 and Table 8-4.)

Residential uses, particularly the single-family detached units common in Calvert County, historically have required more than a dollar in services for each dollar of tax revenue they provide. In contrast, commercial and agricultural uses require considerably less than a dollar in services for each dollar in tax revenue contributed. The recent reduction in housing values has probably made the disparity between revenue collection and cost of services more pronounced for residential uses.

As Table 8-4 demonstrates, the overall assessable base for the county also declined from 2011 through 2016, despite a 17.5 percent increase in the public utility assessment. The completion of the Cove Point Liquefaction Project, a $3.8 billion investment, is expected to generate an estimated $40 million increase in property taxes per year.

To provide for additional, sustainable revenue sources, to protect the county from the negative revenue effect of residential property devaluation, and to reduce the government's direct reliance on its residents for revenue, the Board of County Commissioners seeks to increase the commercial real property tax base to provide revenue and offset reliance on the residential taxpayer.

Figure 8-2 Calvert County, MD: Real Property Assessable Base ($ Billions), FY2007-FY2016



Source: Calvert County Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2016

Table 8-4 Calvert County Assessable Base, FY2011 v. FY2016

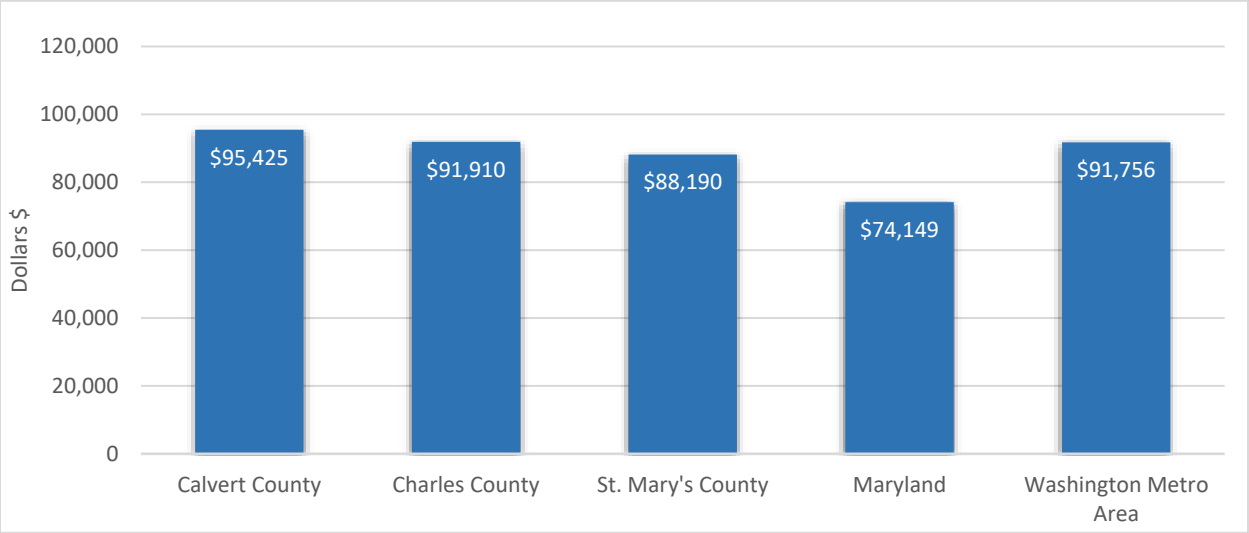
	Assessable Tax Base ($ Millions)		FY 2011 v. FY2016 ($ Millions)	
	FY 2011	**FY 2016**	**Net**	**Percent**
Residential Real Property*	$12,051.74	$10,096.13	-$1,955.61	-16.2%
Commercial Real Property*	$1,260.79	$1,309.00	$48.21	3.8%
Public Utility	$747.96	$878.73	$130.78	17.5%
Personal Property (Including Corporations and Banks)	$126.40	$127.32	$0.93	0.7%
Total Assessable Tax Base	$14,186.88	$12,411.18	-$1,775.70	-12.5%

Source: 1. Calvert County Department of Economic Development, "State of the Economy 2014". 2. Calvert County, Board of County Commissioners "Adopted Operating and Capital Budget Fiscal Year 2017 Volume 1". 3. Calvert County Department of Finance & Budget, "Calvert County, Maryland. Comprehensive Annual Financial Report For the fiscal year ended June 30, 2016". Note: *FY2016 figures are estimates for these categories.

Regional Median Household Income

Calvert County's residents enjoy an above-average wage when compared to the other Southern Maryland counties as well as the State of Maryland. Based upon income and poverty statistics, Calvert County is one of the wealthiest counties in the state. (See Figure 8-3.)

Figure 8-3 Median Household Income, 2014



Source: Income in the Past 12 Months (in 2014 Inflation-Adjusted Dollars), American Community Survey 5-Year Estimates, US Census Bureau, 2014

Economic Outlook

Five-Year Strategic Plan

Calvert County's Economic Development Strategic Plan Update for 2017-2022 establishes economic development priorities for the coming years. The Strategic Plan's central recommendations include accelerating the development of Town Centers and increasing incentives to agribusinesses.

Economic Opportunities

Based on the county's list of top employers, new businesses coming to or starting in Calvert County are likely to be small to mid-size businesses with 200 employees or less. New jobs in Calvert County are most often expansions of existing home-based businesses that outgrow their residential locations or small businesses of 10 to 20 employees.

These smaller-scale, idea-based employers are well-suited to locate in Town Centers. Focusing commercial and employment development in Town Centers is crucial to creating the energy and vibrancy necessary to attract additional businesses. Communities that attract new mid-sized businesses typically offer a variety of housing types and price points, are walkable and attractive and have good schools and recreation opportunities to attract young families and emerging professionals.

Calvert County's Existing Sectors

While many county residents commute to jobs outside of the county, the local economy is anchored by agriculture, seafood, health care, retirement, recreation and tourism, renewable resources, and energy businesses and institutions.

Agriculture and Agribusiness

Agriculture is a vital part of Calvert County's economy and a central aspect of the county's rural identity. Agricultural land accounts for 24 percent of the county's land area, including 32,901 acres of farmland according to the 2012 U.S. Census of Agriculture.

- Farms in Calvert County are smaller than the national average; most are less than 180 acres, with an average size of 122 acres. The average farm size in the United States is 442 acres (USDA National Agricultural Statistics Service).
- In fiscal year 2014, agriculture accounted for $272.5 million, or 2 percent of the total tax base.
- Of the 269 farms reporting in 2012, almost half of the farm operators were full-time operators.
- Over 80 farms were involved in the equine industry.
- Farm operations are shifting from traditional agriculture to specialty agriculture, farm-to-table businesses, and agri-tourism.
- The market value of agricultural products sold rose from $4 million in 2007 to $11.1 million in 2012: 95 percent was from crop sales and 5 percent was from livestock sales.

Calvert County has four farmers markets that connect residents with local agricultural producers: in Barstow, Prince Frederick, Solomons, and North Beach.

Land use regulations are essential to the preservation of farmland in the county. Residential subdivision development has expanded in Calvert County's rural areas in recent decades, reducing the amount of viable agricultural land and increasing conflicts between farmers and their non-farming neighbors. In addition to traditional agricultural activities, farm operators are turning to agri-tourism and specialty agriculture to develop a niche rural market in the county.

The county also has significant potential to expand tourism-related agribusinesses such as farm-to-table restaurants, breweries, wineries, farmers markets, and community-supported agriculture (CSA). These activities can create concern among neighbors. The *Calvert County Economic Development Strategic Update, 2017-2022* recommends providing incentives to support the growth of agribusiness. Balancing the needs of these important contributors to the local economy with the expectations of rural residential neighbors is crucial.

Seafood and Marine Businesses

Fisheries are locations for loading, unloading, and processing finfish and shellfish, and for docking and mooring commercial fishing boats and vessels. These fisheries are located to facilitate the commercial harvesting of finfish and shellfish by ensuring reasonable access to the state waterways by commercial watermen. The waters of the Patuxent River and the Chesapeake Bay have historically supported a strong seafood industry. Watermen harvest blue crabs, oysters, and many types of finfish.

The county's marine commercial facilities are located in Solomons, Lusby, Long Beach, Breezy Point, White Sands, Broomes Island, and Hallowing Point. In addition, there are marine facilities in the Town of Chesapeake Beach. These areas accommodate businesses that supply and cater to marine activities and needs. Calvert County is a destination for boating, both for people who choose Calvert County as a homeport for their boat and for people who visit by water. There are opportunities to enhance these destinations, grow local businesses, and increase outdoor tourism.

The county operates the Solomons Waterman's Wharf, which accommodates watermen in need of a location for off-loading their catch. The Board of County Commissioners established the Waterman's Wharf Oversight Committee, which is responsible for the criteria/procedures for use of the wharf, implementation, and enforcement. The wharf is leased from the Chesapeake Biological Laboratory for use by watermen engaged in commercial fishing.

Charter boat services operate out of Solomons, Breezy Point, and Chesapeake Beach to accommodate visitors looking for the opportunity to fish, crab or cruise the waters of the Chesapeake Bay and Patuxent River. The Calvert County Watermen's Association represents the interests of local commercial operators who make their living harvesting seafood from the nearby waterways. Fresh local seafood can be purchased at businesses in Chesapeake Beach, Solomons, St. Leonard, and Huntingtown. Many county restaurants feature local seafood on their menus.

Despite these efforts, seafood production in the county has decreased significantly since the early 1900s with the decline in stocks due to poor water quality, overfishing, and poor fisheries management. The total weight in seafood production for commercial landings has decreased throughout the state of Maryland since 2010. Both the blue crab and oyster populations in the Chesapeake Bay have declined significantly, which negatively affects the county's seafood industry. In the past decade there has been an effort to diversify into heritage tourism. Watermen Heritage Tours is a partnership that trains watermen and women in conducting heritage tours and helps promote the tours.

Health Care

Health care is a major employer for Calvert County with 3,500 people employed. CalvertHealth Medical Center, a 141-bed acute care facility in the northern end of the Prince Frederick Town Center, is the second largest employer in the county with a work force of 1,314. A concentration of medical services has developed around the hospital complex. The county is also home to about 20 assisted living facilities providing a range of care levels. As the county residents continue to age and the regional demand for health care services continues to grow, the sector can be expected to expand. A specialty health care industry focused on retirees' specific health concerns would have a strong advantage in Calvert County.

Retirement

Over the past several decades Calvert County has attracted retirees drawn to the area's natural beauty, waterfront location and proximity to Washington, DC. In-migration of retirees creates substantial economic impacts such as increased sales, labor income, and part-time employees. The population of people over age 65 increased significantly between 2005 and 2014 and these older residents are increasingly staying in Calvert County. Retiree spending and Medicare spending in the county provide a boost to local businesses and to healthcare providers. Medicare payments to hospitals, doctors, and other medical providers are substantial.

Calvert County is in a strong position to continue attracting retirees, particularly to Town Centers, if those locations provide a range of housing types, access to quality health care, walkable environments that do not require vehicle ownership and activities that entertain and educate.

Energy

Calvert County has two large energy-related facilities that provide a significant tax base for the county: Calvert Cliffs Nuclear Power Plant and the Dominion Cove Point Liquefied Natural Gas facility.

Calvert Cliffs Nuclear Power Plant operates on a 1,500-acre site in Lusby and is the county's fourth largest employer. Its two units can generate 1,757 net megawatts (MW) of energy per year. Most the plant's 850 employees live in communities in Calvert County.

The Dominion Cove Point Liquefied Natural Gas facility, which went into service in April 2018, provides bi-directional service of import and export of liquefied natural gas (LNG). This LNG export project offers substantial benefits to Calvert County, with an estimated tax revenue increase of $40 million annually.

Payments in Lieu of Taxes (PILOTs) from the county's energy industries are a large component of the county's revenues. The Exelon/Calvert Cliffs Nuclear Power Plant provides approximately $20 million each year. The county government and Dominion Cove Point entered a 15-year PILOT and tax credit agreement. In FY18, the county government received a one-time $25 million payment from Dominion Cove Point. The PILOT locks in the existing equipment value at $15.1 for the first 5 years of the PILOT (without the agreement, the existing equipment was projected to decline). A tax credit begins in the sixth year of the PILOT, providing a 42 percent tax credit on new and repurposed equipment. The county will receive an approximate $40 million increase (on average) per year in tax revenue.

Calvert County's Emerging Industries

As Calvert County seeks to expand its economic base and attract residents, it should encourage development of solar energy and growth in its high tech, commercial and retail sectors, with attention to developing incentives and resources for entrepreneurship and innovation.

Renewable Energy

The Maryland Renewable Energy Portfolio Standard Program (RPS) requires that two percent of the state's energy come from solar by 2020. Incentives such as the State of Maryland's Renewable Energy Credit (REC) and the Federal Business Energy Investment Tax Credit have accelerated solar array development in Maryland to meet the state's goal and tap into the accompanying business opportunity. Maryland's agricultural land is well suited for the installation of solar arrays and solar companies have rented rural land throughout the state of Maryland to install solar panels across fields formerly used for agriculture.

While Calvert County does not currently have any large solar arrays, the county's agricultural land area provides an opportunity to consider solar energy production. Depending upon their design, solar arrays may lead to conversion of tillable farmland, but are a source of consistent income. Of particular concern when permitting solar arrays are whether the installation allows for ongoing agricultural uses and provisions for removal of the solar collection equipment when energy production ends. With changing state regulations regarding large-scale solar arrays, Calvert County should actively seek and evaluate potential locations for solar facilities outside of agricultural lands such as examining creative reuse of brownfield sites and locations adjacent to utility corridors.

Wind is a clean, renewable resource that offers alternatives to fossil fuels. The Maryland Energy Administration notes that as of June 1, 2017, Maryland had more than 191 MW of installed land-based wind capacity and in 2016, wind energy accounted for 1.4% of all instate electricity generation. This was

enough to power 49,000 Maryland homes.[1] As Calvert County evaluates alternative energy sources, wind energy options that would not interfere with the Navy's Atlantic Test Range's Inner Test Range or Helicopter Operating Area should be explored.

High Tech Industries

Because Calvert County is a peninsula with limited transportation access and alternatives, it is unlikely to become a major manufacturing, transportation, or logistics hub. However, the county may be successful in attracting new economic industries such as software development or professional services jobs that produce ideas instead of physical goods. Because many of these jobs can locate anywhere, the quality of life and cost of living offered in Calvert County will be key decision points for employers and employees. These businesses and their employees depend upon secure high-speed and uninterrupted, high-capacity internet connections.

Commercial and Retail

A 2011 retail leakage report estimated how much Calvert County residents were spending outside the county in retail and personal service categories (Table 8-5). The report also estimated the additional gross leasable area needed to accommodate the local demand for retail services. Residents frequently request two of the top three categories - food service & drinking places and clothing & clothing accessories - as new businesses in the county. Growth in commercial and retail space should be targeted primarily towards Town Centers.

Table 8-5 Estimated Lost Spending and Additional Retail Space Demand from County Resident Retail Spending Outside of the County, 2011

Retail Category	"Lost" Spending	Additional Retail Space Demand (Square Feet of Gross Leasable Area)
Furniture & Home Furnishings	$30,389,414	202,596
Electronics and Appliances Stores	21,282,271	35,470
Building Materials, Garden Equipment Stores	113,020,637	452,083
Health & Personal Care Stores	27,513,762	29,906
Clothing & Clothing Accessories	73,462,961	222,615
Sporting Goods, Hobby, Book, Musical Instrument Stores	27,386,688	127,380

[1] Maryland Energy Administration. Wind Energy in Maryland. Retrieved June 12, 2019 from https://energy.maryland.gov/Pages/Info/Renewable/WindPrograms.aspx

General Merchandise Stores	55,511,443	170,804
Miscellaneous Store Retailers	23,494,797	78,316
Food Service & Drinking Places	88,665,383	264,673
Total	$460,727,356	1,583,843

Source: Retail Purchase Power Analysis, Calvert County, Maryland (Conducted by Fore Consulting, December 2011)

Recreation & Tourism

Calvert County has many natural, cultural, recreational, and historical resources that draw residents and visitors to the county. The impact of the tourism industry on the county's economy is significant. In 2015 the tourism industry employed 2,071 workers in Calvert County. Total tourism tax receipts were $37.7 million. Calvert County's 2015 visitor counts increased by 109,264 visitors, or 33.4 percent, over 2010. Total tourism industry sales increased from $125 million in 2010 to $146.8 million in 2015. However, there was less spending per visitor in 2015 than in 2010.

Calvert County's prehistoric and colonial history, natural features, waterfront location, and agricultural heritage offer numerous settings and experiences that can attract visitors from throughout the Baltimore-Washington region for day, weekend and overnight adventures. Programs to increase these offerings could include training for hospitality jobs, supporting research into local history and archaeology, creating festival events and locations to showcase local attractions, and appropriately balancing the need to protect residents' quality of life with the demands of running tourist-oriented businesses on sites that may be distant from major roads and commercial centers.

A key goal of expanding Calvert County's tourism industry is to increase the amount of money each visitor is spending while continuing to increase the number of visitors. Expanding the per visitor expenditures is challenging because many of the county's attractions are natural assets, which are relatively inexpensive attractions. In addition, because of Calvert County's location, it is easy for visitors to spend only the day. The county should continue to develop strategies to increase the number of visitor attractions so that a visitor needs more than one day to see them and to create "destination" accommodations and dining so that people spend the night.

Tourism can also be supported in Calvert County by expanding local dining and shopping; creating more walkable, bikeable, and connected Town Centers; attracting travelers who may be visiting the area without cars; and providing more and better access to the water.

"In Heritage Areas individuals, businesses, non-profits and governments form partnerships to preserve the best of Maryland's historic sites and towns, unspoiled natural landscapes and enduring traditions. These tangible links to both place and the past encourage residents to recognize they have a special

piece of the American story to treasure and share with others, and that in doing so they create more livable and economically sustainable communities."[2]

In 1996, the State of Maryland created the *Maryland Heritage Area Preservation and Tourism Areas Development Program*, overseen by the Maryland Heritage Areas Authority. In 1999, the Southern Maryland Heritage Area Partnership was formed to develop a heritage tourism management plan as a prerequisite to receiving official heritage area status under the Maryland program. The Southern Maryland Heritage Area consists of large portions of Calvert, Charles, and St. Mary's Counties. In 2001, the Partnership began the preparation of the Southern Maryland Heritage Area *Heritage Area Tourism Management Plan*. The plan was completed in 2003, and the Southern Maryland Heritage Area became a Certified Heritage Area in 2003. The Southern Maryland Heritage Area Consortium, composed of representatives from local governments, museums, historical sites, educational institutions, and private businesses, replaced the partnership. The consortium's primary responsibility is to implement the management plan. The management plan includes the area's visions and goals, discussion of the heritage area's significance, and recommended implementation actions.

The *Southern Maryland Heritage Area Tourism Management Plan* was adopted and made a part of the comprehensive plans of Calvert, Charles, and St. Mary's Counties in 2003. This update of the Calvert County Comprehensive Plan incorporates by reference all portions of the Southern Maryland Heritage Area Tourism Management Plan, except those portions solely relating to the other jurisdictions within the Heritage Area, as part of the Calvert County Comprehensive Plan. The tourism management plan and other documents and information about the Southern Maryland Heritage Area are available from the Heritage Area's website (https://destinationsouthernmaryland.com/).

Strategies

Town Centers

The Town Centers and incorporated municipalities are the focus of the county's commercial and employment activities. These places are designated for the higher intensity and greater variety of commercial and residential development within the plan boundaries. There is a mix of uses intended to serve a community of all ages, with special attention paid to senior citizens and young adults. Additional retail such as restaurants, clothing stores, and personal service businesses would increase the local tax base and satisfy these residents' currently unmet needs. One approach would be to assign a county staff person to each Town Center with the responsibility to coordinate development activities, to promote special events, and to facilitate cooperation among businesses and residents.

Directing commercial, retail, and housing development to Town Centers is a central element in strengthening economic vitality in Calvert County and an important counterpart to policies designed to preserve the county's rural land.

[2] Maryland Department of Planning, Maryland Historical Trust, Maryland Heritage Areas Program. Retrieved June 10, 2019 from https://mht.maryland.gov/heritageareas.shtml.

The built form plays a significant role in the success of Town Centers as economic centers. A denser pattern of businesses, housing, and office space in Town Centers would reduce the travel time to work and shopping locations and create more vibrant and accessible centers of commerce. Walkable communities with a range of housing opportunities and attractive recreational facilities are important in retaining and attracting young professionals and entrepreneurs. A well-connected road system, public transit, bike connectivity and pedestrian infrastructure between Town Centers and surrounding communities are important links to connect consumers with retail and residents with economic opportunities within the county.

Prince Frederick is the seat of county government and is the logical location for governmental, educational and legal services. Prince Frederick's other attraction is the CalvertHealth Medical Center; many private medical professionals have offices in Prince Frederick. With a location near the geographic center of the county, Prince Frederick also functions as a regional retail center.

Dunkirk has the potential to be one of the county's major employment centers due to its proximity to Washington, D.C. and the area's airports, interstate highways, and metropolitan centers. Dunkirk currently serves as a retail and service center, and additional commercial growth is possible.

In the southern part of the county, Solomons' unique geography, location on the water, and historic atmosphere make it well-suited as a recreation destination. In addition, Solomons continues to be an attractive location for retired persons to locate, both in planned retirement communities and in existing neighborhoods, while Lusby is emerging as a place for growing commercial and office space development.

The incorporated towns of North Beach and Chesapeake Beach are experiencing resurgence in tourism and the development of small businesses. Strong economies in the two municipalities reinforce the county's economy. The county's economic development plans and efforts must coordinate with and reinforce those of the two municipalities.

Education and Workforce Development

The College of Southern Maryland is a hub for career planning, job and life skills training, and internship and job placement services in the fields of Science, Technology, Engineering, and Mathematics (STEM). Encouraging education and training of Calvert County's workforce in these fields provides skills needed by the county's current employers and their possible expansions. New companies, attracted by a quality workforce, may be interested in locating in Calvert County.

The Chesapeake Biological Laboratory, located in Solomons, is a University of Maryland research lab with a team of scientists that focuses on fisheries, environmental chemistry and toxicology, and ecosystem science and restoration ecology. The Chesapeake Biological Laboratory provides educational opportunities for graduate level students, in addition to public education and outreach programs for younger students.

The Patuxent Environmental & Aquatic Research Laboratory (PEARL), located near St. Leonard, was founded in 1967 by The Academy of Natural Sciences and became part of Morgan State University in 2004. Research at the site focuses on coastal ecosystems, especially upon the Chesapeake Bay and its

tributaries. It encourages research by visiting scientists and provides educational opportunities for high school, college and graduate students.

These educational opportunities in STEM fields can provide a foundation for the growth of STEM industries in Calvert County.

Developing Entrepreneurs

Maryland ranks third overall and second among larger population states in the Kauffman Index of Growth Entrepreneurship, which is based on the rate of startup company growth, the density of high-growth scale-up companies among other young companies, and the density of fast-growing companies among the business population. Furthermore, the Washington, D.C. metro, which includes suburban Maryland, ranks first among the 40 largest metropolitan areas.

Over the past several years, the focus has shifted from narrowly-focused programs that address just one element of entrepreneurship, such as funding or training, to more broad-based approaches that aim to create an environment and culture where entrepreneurship can thrive. From cities to small towns, today's policymakers, economic developers, foundations and grant makers are looking for incentives and programs that encourage sustained entrepreneurial activity and collaboration on a local or regional level.

Entrepreneurship drives job creation and makes a city a more attractive place to work and live. In order to encourage more entrepreneurs, Calvert should create an Entrepreneurship ecosystem of support for them.

The Six Domains of Successful Entrepreneurship Ecosystems
1. A conducive culture
2. Supportive policies and leadership
3. Available and appropriate finance
4. High-quality human capital
5. Venture-friendly product markets
6. Institutional and infrastructural supports

Every community is unique, vibrant, and teeming with problem-solvers craving the opportunity to make their impactful mark. The county should spur local economic development by creating a supportive and inclusive environment that fosters innovation and entrepreneurship.

Utility Extension Policies

The availability of water supply and wastewater treatment is a crucial improvement to increase economic activity. Calvert County's lack of sufficient water and sewer infrastructure within the Town Centers limits their development potential and economic growth. To achieve higher intensity and greater variety of commercial development in the Town Centers, the county needs to develop a strategy to finance the expansion of sewer and water service in these locations.

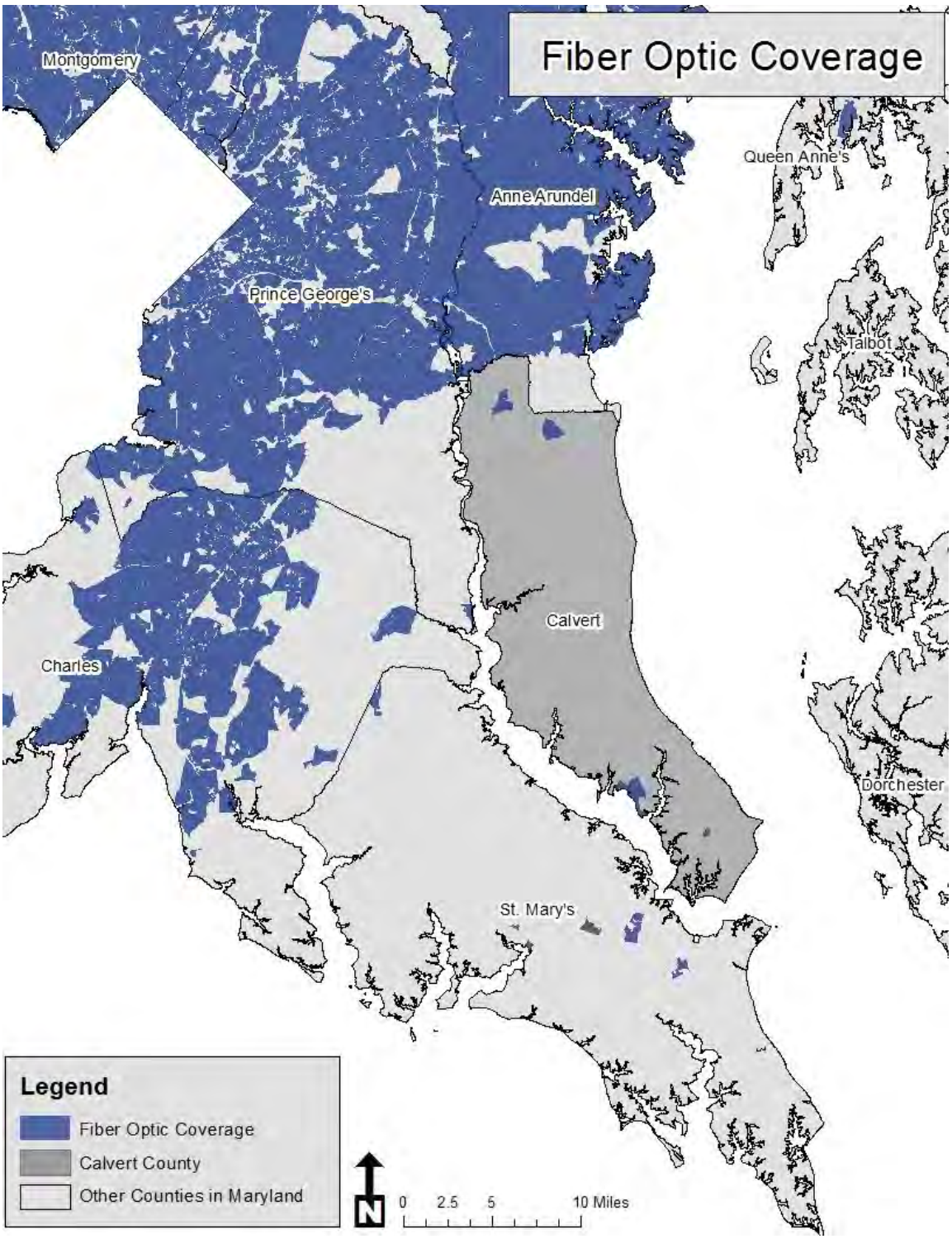
Broadband Infrastructure

Fiber optic infrastructure is as necessary as water and sewer for attracting high tech jobs. Figure 8-6 shows that Calvert County is just outside the regional broadband service area. Anne Arundel, Prince George's, Montgomery counties, and parts of Charles County have an extensive fiber optic network. However, Calvert County has only four isolated locations where fiber optic connections are available, including Owings and Dunkirk Town Centers and two smaller locations in the southern portion of the

county. Fiber optics services are consistently available throughout other areas between Baltimore and Washington, DC. Calvert and St. Mary's Counties are left behind.

More service areas would be needed to start achieving the county's high tech jobs goal. Advanced infrastructure, including fiber optic networks, is extremely important for business development over the next 20 years.

Figure 8-4 Commercially Available Fiber Optic Coverage in Calvert County



Source: MD iMap. Imap.maryland.gov.

Goals and Objectives

Goal 1: Strengthen economic opportunity in Calvert County.

Objective 1: Support and grow agricultural opportunities.

8.1.1.1 Work with farmers and watermen to ensure their industries continue thriving in Calvert County. [ED]

8.1.1.2 Provide incentives for agribusiness. [ED]

8.1.1.3 Provide space and support the operations of farmers markets in Town Centers. [ED]

8.1.1.4 Consider loans, tax reduction, and changes in taxing policies within State designated Priority Preservation Areas (PPAs), grants, infrastructure, and training for agricultural business workers. [BOCC, ED]

Objective 2: Develop a path for growth for new businesses.

8.1.2.1 Encourage entrepreneurship in Calvert County by providing technical and financial support for new businesses. [ED]

8.1.2.2 Allow a broad range of home-based businesses with appropriate limitations on size and number of employees. [P&Z]

8.1.2.3 Consider developing/encouraging incubator and/or co-working spaces for new businesses and encourage businesses to locate in small incubator and/or co-working spaces when their activities are not suitable as a home occupation or have outgrown home-based locations. [ED, P&Z]

8.1.2.4 Clarify provisions for temporary uses (e.g. temporary pop-up businesses, outdoor sales, mobile food service, and farmers markets) on private property. [P&Z]

Objective 3: Attract retirees to Calvert County.

8.1.3.1 Define a specialized Retirement Location brand. [ED]

8.1.3.2 Continue to promote the county's quality of life. [ED]

Objective 4: Consider new renewable energy opportunities.

8.1.4.1 Research and develop land use policies to allow for solar energy production consistent with county preservation, economic development and land use policies. [P&Z]

8.1.4.2 Offer farmers opportunities to lease their land for solar arrays under appropriate conditions. [P&Z]

8.1.4.3 Complete countywide study to analyze and identify potential locations appropriate for development of industrial scale solar. [P&Z]

8.1.4.4 Explore options for wind energy generation. [P&Z]

Objective 5: Provide access to broadband throughout the county.

8.1.5.1 Prioritize the provision of broadband in Town Centers. [BOCC]

Goal 2: Direct business growth to Town Centers while preserving agricultural land in the Farm and Forest District.

Objective 1: Encourage development in Town Centers.

8.2.1.1 Streamline the development review process in Town Centers. Maintain a fast-track permitting process for targeted businesses. [P&Z]

8.2.1.2 Provide for adequate amounts of land zoned for business development in appropriate locations in Town Centers. Provide flexibility in the zoning regulations related to business development. [P&Z]

8.2.1.3 Explore the use of TDRs to increase commercial intensity in Town Centers. [P&Z]

8.2.1.4 Maintain an online presence of tools and resources for county businesses and businesses looking to locate in the county. [ED]

8.2.1.5 Provide county staff designated for each Town Center. [P&Z]

8.2.1.6 Create more walkable, bikeable, and connected Town Centers. [P&Z, PW, BOCC]

Objective 2: Provide incentives for business development in Town Centers and Employment Centers.

8.2.2.1 Consider loans, tax reduction, and changes in taxing policies within State designated Priority Funding Areas (PFAs), grants, infrastructure, and training for workers. [BOCC, ED]

Objective 3: Make improvements to public services and facilities in Town Centers.

8.2.3.1 Direct public investment to infrastructure, services, and support facilities in Town Centers. [BOCC, PW, GS]

8.2.3.2 Develop cost-sharing strategies that leverage private sector investment in water and sewer extensions in Town Centers in order to protect environmental health or support county-identified economic development goals. [PW]

Goal 3: Expand Calvert County's tourism industry.

Objective 1: Increase the number of visitors in Calvert County.

8.3.1.1 Provide expanded and improved access to the Chesapeake Bay and Patuxent River.

8.3.1.2 Support and coordinate marketing of special events and tourist attractions within the county. [ED]

8.3.1.3 Explore options, such as weekend shuttles serving Washington, D.C., to attract visitors without cars. [ED]

Objective 2: Increase the amount of money visitors are spending in Calvert County.

8.3.2.1 Support the establishment of "destination" accommodations and dining to draw overnight tourism. [ED]

8.3.2.2 Encourage development and expansion of small-scale, high-end, retail businesses with a local flavor. [ED]

Objective 3: Work regionally to promote Southern Maryland as a destination.

8.3.3.1 Affirm the Southern Maryland Heritage Area Tourism Management Plan as a strategy to implement heritage education, interpretation, preservation, and promotion goals of the Calvert County Comprehensive Plan. [BOCC, CMM, ED, P&R, P&Z]

Goal 4: Strengthen educational opportunities in Calvert County.

Objective 1: The county's education system should provide general education, vocational and technical training, and retraining to meet the skill requirements for existing and future job trends.

8.4.1.1 Support expansion of the Prince Frederick campus of the College of Southern Maryland's programs to support local businesses, such as The Corporate Center and the Small Business Development Center. [ED]

8.4.1.2 Encourage the College of Southern Maryland to expand partnering with Calvert County health care providers that includes classroom instruction and clinical training at locations in the county. [ED]

8.4.1.3 Strengthen educational programs to support entrepreneurship as well as the existing health care, agri-business, hospitality, and energy industries. [CCPS, CSM, ED]

CHAPTER 9. WATER RESOURCES

Vision

We waste less, consume fewer natural resources, and properly dispose of waste.

Goals

Goal 1: Ensure sufficient drinking water quantity and quality to support projected population growth.
Goal 2: Ensure sufficient wastewater treatment capacity to support development in Town Centers served by public sewer systems.
Goal 3: Protect public health and water quality.
Goal 4: Install or enhance storm water management systems to reduce pollution in the county streams, Patuxent River, and Chesapeake Bay.

State Vision

This chapter addresses the following Maryland State Visions:

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

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

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

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.

Related County Plans

Calvert County Watershed Implementation Plan (WIP) II Strategy, 2011 – This plan contains a strategy to meet Calvert County's 2017 interim watershed target loads for nitrogen, phosphorus and sediment.

Calvert County Comprehensive Water & Sewerage Plan, 2014 Update –This plan provides a framework for the County water supply and sewerage disposal.

Ten-Year Comprehensive Solid Waste Management Plan 2019-2028 – This plan projects future waste generation, and establishes goals to improve the quality of solid waste administration.

Overview

Calvert County's projected population is a key driver for planning future community water and sewerage service. The Maryland Department of Planning projects a population of 100,450 in 2040, an increase of approximately 10,000 residents from the 2015 population of 90,650.

The Land Use policies contained elsewhere in this Comprehensive Plan direct the majority of the county's residential and commercial growth into the Town Centers and minimize future residential development in the Farm and Forest District (FFD). Given these policies, the county must ensure that its water supply and wastewater systems in Town Centers meet current and future needs without jeopardizing the health of local waters, the Patuxent River, and the Chesapeake Bay.

Sustainability Approach

The water resources chapter promotes the safe disposal of wastewater, relative to public health, and in environmentally sound ways so that groundwater and surface water quality remain viable for fisheries/ other aquatic resources and useful to humans in terms of consumption, irrigation, and recreation. Pollutants must be maintained at levels below which they might have significant impacts on human and ecological health and below the assimilative capacity of receiving waters.

Water Quality Regulations

The State of Maryland signed the 2014 Chesapeake Bay Watershed Agreement and has committed to reduce its nitrogen and phosphorus contributions to the Bay through the Total Maximum Daily Load (TMDL) program. To comply, Maryland has set nutrient caps for Calvert County wastewater treatment plants as shown in Table 9-1. The Bay Restoration Fund provides some funding to install enhanced nutrient removal (ENR) technology at wastewater treatment plants so they can achieve an effluent quality of 3.0 mg/l total nitrogen (TN) and 0.3 mg/l total phosphorus (TP). Calvert County's Watershed Implementation Plan (Phase II WIP) sets target loads and reductions for nitrogen and phosphorus. Calvert County's wastewater plants have met the 2017 target loads level.

Table 9-1 Phase II Watershed Implementation Plan Target Loads

Nitrogen (Pounds/Year)	Loadings			Reductions	
	2009	2017 Target	2020 Target	2017	2020
Agriculture	148,669	109,362	92,516	-39,307	-56,153
Urban	195,663	154,264	136,522	-41,399	-59,141
Septic	299,785	215,492	179,366	-84,293	-120,419
Forest	150,410	160,667	150,776	10,257	366
Wastewater	27,893	32,589	30,313	4,696	2,420
Total	822,420	662,374	589,493	-160,046	-232,927
Total Excluding Agriculture	673,751	563,012	496,977	-110,739	-176,774
Phosphorous (Pounds/Year)	**Loadings**			**Reductions**	
	2009	2017 Target	2020 Target	2017	2020
Agriculture	14,020	11,558	10,503	-2,462	-3,517
Urban	20,777	14,164	11,330	-6,613	-9,447
Septic	0	0	0	0	0
Forest	3,881	3,886	3,888	5	7
Wastewater	12,803	6,917	4,740	-5,886	-8,063
Total	51,481	36,525	30,461	-14,956	-21,020
Total Excluding Agriculture	37,461	24,967	19,958	-12,494	-17,503

Source: Calvert County's Watershed Implementation Plan (Phase II WIP)

Drinking Water Assessment

Water Supply

All of Calvert County's drinking water is supplied by ground water aquifers. These aquifers are part of the Coastal Region and have the benefit of being insulated from contamination by layers of low-permeability clay that greatly reduces the chances that surface contaminants will reach the aquifers. Only one surface water impoundment of significant size is located in Calvert County, in the Chesapeake Ranch Estates. This surface water impoundment does not supply drinking water.

Calvert County is located within the Coastal Plain, which has experienced significant decreases in groundwater levels over the past several decades. A 2014 study by the Maryland Geological Survey found that water levels in Calvert County's aquifers have decreased by between 61 and 199 feet. Increases in pumping over the past decades have caused groundwater levels in the aquifers within the Coastal Plain to continually decline which could affect the availability of drinking water throughout Southern Maryland, including in Calvert County.[1]

Calvert County's groundwater is actively monitored through the Calvert County Groundwater-Level Monitoring Network, administered jointly by the County Department of Public Works, Water and

[1]Staley, A.W (2014), Potentiometric surface and water-level difference maps of selected confined aquifers in Southern Maryland and Maryland's Eastern Shore, 1975-2013, *Maryland Geological Survey*.

Sewerage Division, the Maryland Geological Survey, and the U.S. Geological Survey.[2] This network consists of 42 wells throughout the county that are monitored on a real-time, monthly, or twice-yearly basis. The network monitors the Piney Point, Nanjemoy, Aquia, and Magothy aquifers most frequently because they are deeper, confined aquifers that experience the highest local and regional withdrawals.

The Maryland Geological Survey also conducted a study in 2008 for the tri-county area of Southern Maryland (Calvert, Charles and St. Mary's Counties) to study the availability of water in the upper Patapsco and lower Patapsco aquifers and monitor local groundwater recharge and drought conditions[3].

Sources for non-potable water can be expanded beyond the ground water aquifers which supply drinking water. Rainwater and stormwater harvesting, greywater recycling, and water reclamation, are practices which have been successfully employed for the conservation of water resources. These practices can be applied to supply water for uses as varied as irrigation, toilet flushing, fire suppression, and ground water recharge.

Stormwater harvesting encompasses the collection, treatment, storing, and eventual use of stormwater runoff. Rainwater harvesting is similar, but typically involves the collection of rainwater from roofs. Another benefit associated with these practices is reduced runoff volume and downstream pollutant loads. Greywater comprises wastewater produced in buildings from all streams with the exception of wastewater from conventional toilets (with composting toilets, all wastewater is greywater). A greywater system can divert wastewater either to an irrigation or treatment and recycling system. Treated wastewater can be used for industrial processes, groundwater replenishment, and irrigation. Water reclamation is a broad term for the process of converting wastewater into water which can be reused for other purposes.

Drinking Water Capacity

There are 15 privately owned residential community water systems[4], 19 municipally (public) owned water systems, and 24 water systems owned by corporations or institutions (e.g. Board of Education) in Calvert County. The major municipal systems, shown in Table 9-2 are operated by the Calvert County Department of Public Works, Water and Sewerage Division, in the Prince Frederick and Solomons Sanitary districts. The water system in Chesapeake Beach is owned and operated by the Town of Chesapeake Beach, and there is a community water system in the municipality of North Beach. Supplemental maps, including maps of existing water and sewerage systems and maps of water and sewerage planning categories for Calvert County, are available for review in the County Water and Sewerage Division.[5]

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[2] Maryland Geological Survey. (January 18, 2017). *Groundwater Wells in Calvert County, Maryland*. Retrieved May 10, 2018 from https://md.water.usgs.gov/groundwater/calvert/

[3] Calis, N.; Drummond, D.D.; Maryland Geological Survey. (2008). *Hydrogeologic data from six test wells in the Upper Patapsco and Lower Patapsco Aquifers in Southern Maryland*. Retrieved May 10, 2018 from http://www.mgs.md.gov/publications/report_pages/BDR_22.html

[4] "Community water supply system" means a source of water and a distribution system, including treatment facilities and storage facilities, whether publicly or privately owned, serving two or more individual lots." *Calvert County Comprehensive Water & Sewerage Plan, 2014 Update.*

[5] *Calvert County Comprehensive Water & Sewerage Plan, 2014 Update*, p. 53

Table 9-2 Present and Projected County Water Supply Demands and Planned Capacity

Municipal Well Systems in Town Centers	2014 Average Daily Demand Million Gallons per Day (MGD)	2014 Planned Capacity Million Gallons per Day (MGD)	2040 Average Daily Demand Million Gallons per Day (MGD)
Chesapeake Beach	0.413	0.650	0. 529
North Beach	0.185	0.288	0.198
Prince Frederick	0.468	0.717	0.672
Solomons	0.459	0.550	0.510
Total	1.525	2.205	1.909

Source: *Calvert County Comprehensive Water & Sewerage Plan, 2014 Update*

The larger municipally-owned water systems provide fire protection. They include the Beaches area, Prince Frederick and Solomons. Of the 15 privately owned community water systems, five provide fire protection. They include: Beaches Water Company, Chesapeake Ranch Estates, the Naval Research Laboratory at Randle Cliff, and the Calvert Cliffs Nuclear Power Plant. Scientist Cliffs has limited fire protection (five fire hydrants - one at each gate).[6]

The Calvert County Department of Public Works Water and Sewerage Division operates 19 public water systems. Four well systems are operated for industrial sites, and 11 private community well systems provide service for areas outside of the municipal service areas.[7]

Drinking Water Demand

Calvert County's per capita daily water demand is currently at 90 gallons per day and is estimated to remain at this level until at least 2040. Approximately 17 percent of the total water demand in the county is met through the four municipal water systems located in the Town Centers. Based on the county's projected increase in population between 2015 and 2040, the total countywide daily demand for drinking water will increase by approximately one million gallons by 2040.

Table 9-3 Residential Water Demand in Calvert County

Year	1970	1980	1990	2000	2010	2015	2020	2030	2040
County Population	20,682	34,638	51,372	74,563	88,737	90,650	94,600	99,200	100,450
Projected Daily Demand Rate per Capita (gallons per capita per day)	75	80	90	90	90	90	90	90	90
Total Countywide Daily Demand Generated (Millions of gallons per day)	2.77	3.63	4.62	6.71	7.99	8.16	8.51	8.93	9.04

[6] Ibid.
[7] 2016 Water Quality Report

Sources: Population Projections: Maryland Department of Planning, 2017[8]; Daily Demand Generated: *Calvert County Comprehensive Water & Sewerage Plan, 2014 Update*, Table 3A, revised to reflect 2017 MDP Population Projections

The four public water systems serving Town Centers have planned system expansions that will accommodate water service to about 8,500 more residents, as shown in Table 9-4.

Table 9-4 Planned Water System Capacity Increases and Additional Persons Accommodated

Public Well Systems Serving Town Centers	Approximate Persons Served (2014)	Persons Accommodated by Planned Capacity	Increase in Persons Accommodated
Chesapeake Beach	4,600	7,200	2,600
North Beach	2,100	3,200	1,100
Prince Frederick	5,200	8,000	2,800
Solomons	4,100	6,100	2,000
Total	16,000		8,500

The total Calvert County population is projected to grow by 9,800 residents from 2015 through 2040. This growth is projected to occur throughout the county, not only in Town Centers, indicating that the planned water system expansions in Town Centers would accommodate the projected population growth, even if the 50 percent of new residents (4,900) from 2015 to 2040 locate in only these four Town Centers.

Drinking Water Quality

Calvert County's drinking water undergoes regular testing in compliance with the U.S. EPA's requirements and the Federal Safe Drinking Water Act requires public systems to conduct a Source Water Assessment to understand the vulnerabilities of drinking water sources. Source Water Assessments include the Source Water Assessment for 49 Non-Transient Non-Community Water Systems in Calvert County, MD, 2006**,** Source Water Assessment for Community Water Systems in Calvert County, MD, 2005, and Source Water Assessment for Calvert Cliffs, Dominion Cove Point LNG, and Naval Research Lab, 2006.

All of Calvert County's drinking water comes from ground water sources protected by confining layers, it is protected from many sources of surface water contamination. The unconsolidated sediments and soil over the aquifers provide protection from microbiological contamination as water percolates through the overlying soil and aquifer. The most significant sources of ground water pollution are naturally occurring elements, such as arsenic, and contamination from septic systems.

Point source contamination in some of the county's water systems include on-site septic systems, ground water discharge sites, underground storage tanks, and hazardous substance generators in commercial areas. Non-point source contamination is transported primarily through runoff and drainage. Contamination from point source and non-point sources is a primary cause of bacteriological problems, nitrification, and sedimentation in waters in Maryland. Abandoned wells that penetrate the

[8] Population figures are Census numbers 1970 through 2015, while 2020 through 2040 are population projections. Source: Maryland Department of Planning, July 2017

confining layers pose the greatest threat to drinking water quality because they allow surface contaminants direct access to source water.

Natural contaminants are a more common source than land surface contaminants in the aquifers supplying drinking water to Calvert County. Arsenic is naturally occurring in the aquifer material of Maryland's Coastal Plain, which causes elevated arsenic levels in groundwater drawn from aquifers in this area. This presents concerns for the county's drinking water quality, as most of the county's drinking water is supplied from the Aquia aquifer. The Maryland Geological Survey actively monitors the arsenic levels in the Aquia and Piney Point aquifers and reports arsenic levels on an interactive map.[9] Calvert County and central St. Mary's County arsenic concentrations are generally lower than other areas in the Aquia aquifer. Calvert Cliffs, Marley Run, and Chesapeake Ranch Estates water systems have arsenic removal systems installed.

Drinking water in Calvert County has also tested positively for traces of hydrogen sulfide (H2S) odor, iron and other minerals in the water in scattered instances. Chromium, lead and nitrate were the only iodized organic compounds detected at or above 50 percent of their respective maximum contaminant levels (MCLs) in the Source Water Assessments. Groundwater testing found that groundwater systems are not susceptible to synthetic organic compounds, volatile organic compounds, microbiological contaminants, or other inorganic compounds.

Wastewater Assessment

Directing Calvert County's population and employment growth to the Town Centers over the next fifteen years depends upon expansion of the county's publicly-owned wastewater treatment systems. Outside the Town Centers, Calvert County relies heavily on individual septic systems to serve households. Septic systems, particularly those systems that are failing, present significant threats to the quality of the county's drinking water and the health of the county streams, Patuxent River, and Chesapeake Bay.

Directing growth into the Town Centers where households and businesses will be connected to public sewer systems is an important step in minimizing the growth of septic system usage in the county and reducing the associated pollutants.

Land Use and Sewer Systems

No new point source discharge systems have been constructed in Calvert County in the last 33 years. Instead, Calvert County has opted to serve multiple lots with land application systems so that the nutrients from sewerage treatment systems do not make their way into surface water. Most of Calvert County's residents are not served by community sewerage systems [10]and instead use on-site septic systems.

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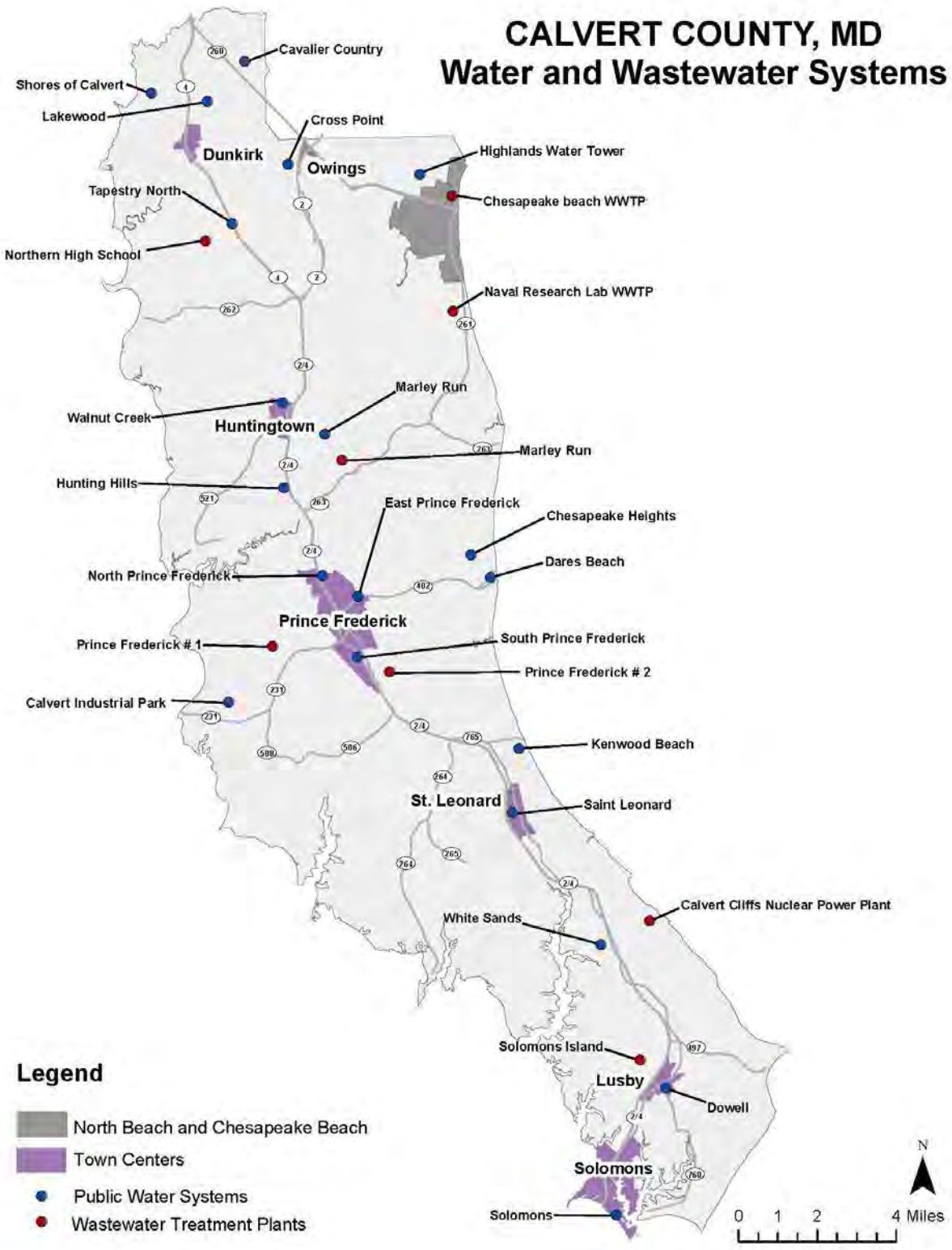
[9]Maryland Geological Survey. (2018). *Arsenic Interactive Map for Aquia and Piney Point aquifers*. Retrieved May 10, 2018 from http://www.mgs.md.gov/groundwater/arsenic%20interactive.html

[10] "Community sewerage system" means any system, whether publicly or privately owned, serving two or more individual lots or parcels for the collection and disposal of sewerage or industrial wastes of a liquid nature, including various devices for the treatment of such sewage and industrial wastes."
Calvert County Comprehensive Water & Sewerage Plan, 2014 Update.

Wastewater Treatment Capacity and Demand

Ten wastewater treatment plants (WWTP) are located in Calvert County, including one inter-jurisdictional system serving Calvert County, Chesapeake Beach, North Beach and Anne Arundel. Four of these systems are publicly-owned municipal systems with a combined capacity of 2.685 MGD: Chesapeake Beach Inter-jurisdictional, Prince Frederick, Solomons, and Marley Run. Calvert County's six additional wastewater treatment plants are smaller-scale operations that only process between 40,000 and 75,000 gallons per day for industrial and private community users. The facilities with their respective capacities and operating agencies are shown in Table 9-5.

Figure 9-1 Calvert County Public Water Systems



Source: *Calvert County Comprehensive Water & Sewerage Plan, 2014 Update*

Table 9-5 Wastewater Treatment Facilities Serving Town Centers in Calvert County

Municipal and County Sewerage Systems	2014 Served EDUs	2014 Existing Capacity (MGD)	2014 Average Demand (MGD)
Chesapeake Beach Inter-Jurisdictional	4,561	1.32	0.63
Prince Frederick WWTP I and II	3,062	0.65	0.429
Solomons	2,325	0.7	0.406
Total	9,948	2.67	1.465

Source: *Calvert County Comprehensive Water & Sewerage Plan, 2014 Update*, Table 9
Note: MGD, Millions of gallons daily; EDU, equivalent dwelling units

Calvert County's wastewater treatment facilities are planned to increase capacity by 3.28 MGD. This increase in sewerage service will provide the capacity to meet the county's growing demand for wastewater treatment, which is projected to increase by 2.9 MGD by 2040. The facilities with their respective capacities and operating agencies are shown in Table 9-6.

Table 9-6 Planned Capacity of Wastewater Treatment Facilities

Municipal and County Sewerage Systems	Planned Capacity (MGD)	2040 Average Demand (MGD)	2040 Served EDUs	2014-2040 Projected Increase (EDU)
Chesapeake Beach Inter-Jurisdictional	1.5	1.4	7,018	2,457
Prince Frederick WWTP I and II	0.75	0.7	4,120	1,058
Solomons	1.03	0.8	4,100	1,775
Total	3.28	2.9	15,238	5,290

Source: *Calvert County Comprehensive Water & Sewerage Plan, 2014 Update*

Effluent Impact to Water Resources

Effluent from wastewater treatment plants (WWTPs) and tanks is a major source of contamination for waterways and present threats to drinking water quality. Calvert County focused on making improvements to its wastewater treatment plants to meet its TMDL target loads for nitrogen and phosphorus through the Phase II Watershed Implementation Plan.

Wastewater Treatment Plants

Effluent from WWTPs in Calvert County has little effect on groundwater resources because of the confining layers protecting aquifers from surface contaminants. WWTPs have a more direct influence on the water quality of the Chesapeake Bay and Patuxent River. Until the past two decades, wastewater effluent was directly discharged into waterways. However, because of the threats WWTPs present to water quality, Calvert County now uses land application systems in most of its major WWTPs rather than directly discharging treated wastewater into waterways. Land application can recharge groundwater supplies, allows recovery and reuse of nutrients, and can be used for agricultural purposes. Land application techniques include irrigation, rapid infiltration, over land flow, landscape irrigation, woodland irrigation, and wetland treatment.

The MDE issues National Pollution Discharge Elimination System (NPDES) permits to WWTPs every five years, establishing discharge limits for each WWTP.

The Prince Frederick, Solomons, and Marley Run land application systems do not discharge any nutrients into the Chesapeake Bay.[11] The county has further reduced contaminants generated from WWTPs by upgrading the Chesapeake Beach WWTP systems to include Enhanced Nutrient Removal (ENR), significantly reducing the nitrogen and phosphorus present in treated wastewater. According to the Phase II Watershed Implementation Plan, Calvert County is on track to meet its 2020 load caps for nitrogen and phosphorus.

Table 9-7 Wastewater Treatment Projected Loading Rates and Target Loads

	2009 Loading Rates	2017 Loading Rates	2017 Target Loads	2020 Loading Rates	2020 Target Loads
Flow (mgd)	1.19	1.79	1.79	1.96	1.96
Nitrogen (lbs)	27,893	32,009	32,589	21,271	21,271
Phosphorus (lbs)	12,802	6,908	6,917	4,899	4,899

Source: Calvert County WIP II Strategy[12]

Wastewater Treatment System Expansion Policies

Calvert County's *Comprehensive Water & Sewerage Plan, 2014 Update*, lays out policies for sewer system expansion based on land use, stressing the establishment or expansion of sewer systems in Town Centers and not permitting sewer service areas in rural and agricultural areas.

Town Centers

Community, multi-use, and shared facility sewer systems will be permitted in Town Centers when needed to support environmental health and/or support county identified economic development goals,

[11] WIP Phase II

[12] Calvert County. (2011). *Calvert County WIP II Strategy*. Retrieved May 10, 2018 fromhttp://www.mde.state.md.us/programs/water/TMDL/TMDLImplementation/Documents/DRAFT_PhaseII_Report_Docs/County_Docs/Calvert_DraftPhIIWIP.pdf

when and if cost effective and economically feasible and when consistent with the respective Town Center master plan.

Interim multi-use systems that propose land (surface or subsurface) application and that have a capacity not exceeding 25,000 gallons per day may proceed without a plan amendment. However, county approval as well as the state's Water and Sewerage Construction Permit and NPDES Permit must be obtained before construction. Systems which are in service during the triennial update of the plan must be discussed in the plan. All community sewerage systems and multi-use sewerage systems that either do not include land treatment or have a capacity to discharge greater than 5,000 gallons per day will require an amendment to the Plan before any State or county permits can be issued.

Sewerage Systems for Residential Areas around Town Centers

Affordable housing agencies may apply to extend sewer lines to serve new development.

Community, Multi-use, and Shared Facility Systems in Rural Areas

New community, multi-use, and shared facility service areas, sewer systems, and system extensions are permitted on land zoned for industrial and marine commercial use.

Community and shared facility service areas are allowed on land zoned for rural residential and waterfront community only if that area is experiencing septic failures and a community sewerage system or shared facility system is deemed by the Calvert County Health Department and Department of Public Works to be the most appropriate and economically feasible method for correcting the problem. No connections for undeveloped lots are permitted.

Multi-use sewerage systems are only allowed if the use is commercial or institutional (for public or quasi-public uses).

Septic System Upgrades

Septic systems produce high levels of nitrogen pollution. Nitrogen leaks out of functioning septic systems at about eleven pounds per household per year. Ninety percent of households in Calvert County use septic systems, presenting environmental concerns.

Part of the county's Phase II WIP includes plans to connect the septic systems of at least 672 equivalent dwelling units (EDUs) to the WWTPs serving Prince Frederick and Solomons, which would generate zero discharge into the Bay.[13]

[13] Phase II WIP

Table 9-8 Proposed Septic System Connections to Wastewater Treatment Plants

Septic System Location	EDUs	Septic System Connection
Dares Beach	121	Prince Frederick WWTP
Bayside Forest	278	Prince Frederick WWTP
Central Village	40	Prince Frederick WWTP
DNR building	33	Prince Frederick WWTP
Cove Point	200	Solomons WWTP
Total	672	

Source: Phase II WIP, updated to reflect connections already completed.

Directing future development away from rural areas and towards Town Centers reduces the need for the installation of septic systems and allows more of the county's population to connect to public sewer.

Calvert County's Phase II Watershed Implementation Plan outlines strategies the county is currently implementing to meet its nitrogen, phosphorus and sediment target load goals.

Septage

Septage is liquid and solid material pumped or removed from chemical toilets, septic tanks, seepage pits, privies, cesspools, or holding tanks when the system is cleaned and maintained[14]. Most of Calvert County's residents use on-site septic systems or tanks, which are serviced by septage haulers that periodically pump out the solid and liquid wastes. The septage haulers dispose of most septage at the Solomons septage off-loading facility at the Solomons WWTP. A small amount of septage is deposited in Washington Suburban Sanitary Commission (WSSC) plants in Prince George's County and facilities in St. Mary's County.

Sludge

Three of Calvert County's wastewater treatment plants produce dewatered sludge that is disposed of in a landfill. These plants are Prince Frederick II WWTP, Solomons WWTP and the Randle Cliff Naval Research Facility. Four other wastewater treatment plants process liquid sludge from their respective facilities through the Solomons WWTP Septage Receiving Station. These include:

- Calvert Cliffs Nuclear Power Plant
- Marley Run
- Northern High School
- Tapestry North Condominium WWTP

The liquid sludge is ultimately processed and dewatered as part of the Solomons WWTP sludge generation and transported to the King George Landfill in Virginia.[15] Wastewater treatment plants are required to have a Sewage Sludge Utilization (Transportation and Disposal) Permit to dewater, transport and dispose of sludge.

[14] Maryland Department of the Environment, Title 26, Subtitle 04, Chapter 02 Sewage Disposal and Certain Water Systems for Homes and Other Establishments in the Counties of Maryland Where a Public Sewage System is Not Available

[15] *Calvert County Comprehensive Water & Sewerage Plan, 2014 Update*

Sewage Problem Areas

Most problems with septic systems in Calvert County are on lots established during the 1960s or earlier. The highest concentrations of failing septic systems due to high groundwater and poor percolation are located in Apple Greene, Breezy Point, Broomes Island, Cavalier Country, Cove Point, Dares Beach, Plum Point and Neeld Estates. While septic system failures can be repaired on individual lots, this method is not sustainable for further development.

Managing Stormwater and Non-Point Source Pollution

Stormwater is a major source of contamination in the Chesapeake Bay and Patuxent River. Calvert County's Phase II Watershed Implementation Plan focuses heavily on addressing stormwater runoff through various methods to meet target loads for nitrogen, phosphorus and sediment.

In response to this plan, the county has focused on planning and implementing stormwater management practices such as bioretention, rain gardens, bioswales, impervious surface reduction, shoreline erosion control, urban stream restoration, infiltration practices, vegetated channels, wet ponds and wetlands.[16]

Calvert County adopted a Stormwater Management Ordinance in 2011, which establishes requirements for managing stormwater runoff and encourages the use of environmental site design (ESD) to the maximum extent practicable in new development. Stormwater management plans are required by the Calvert County Department of Public Works for all development and redevelopment projects in the county. These plans must be submitted at three phases in the development process-concept, site development, and final stormwater management construction. Designs must account for additional stormwater runoff volume attributable to new development.

The Stormwater Management Ordinance requires the use of ESD treatment practices such as disconnection of rooftop runoff, rainwater harvesting, submerged gravel wetlands, infiltration berms, rain gardens, swales, and enhanced filters to satisfy the applicable minimum control requirements. The minimum control requirements state that ESD planning techniques and treatment practices must be exhausted before any structural best management practices are implemented (Calvert County Stormwater Management Ordinance, Article IV, § 123-10).

Goals, Objectives and Strategies

Goal 1: Ensure sufficient drinking water quantity and quality to support projected population growth.

Objective 1: Continuously gather and analyze up-to-date data on the county's water supply.

9.1.1.1 Advocate the state prioritize regional groundwater studies which include Calvert County and take into account forecasts for future growth. [BOCC]

9.1.1.2 If state studies are not conducted, then every six years (or water and sewer comprehensive plan cycle) work with the Southern Maryland counties to update the aquifer study. [BOCC]

[16] Phase II WIP

9.1.1.3 Continue to work with the United States Geological Survey to access data for the purpose of monitoring trends in aquifer levels. [PW]

9.1.1.4 Consider expanding the county's adequate public facilities regulations to include water facilities to ensure the availability of adequate services for new development. [PW, P&Z, HD]

Objective 2: Ensure the safety of the county's drinking water.

9.1.2.1 Continue to monitor water quality issues to provide water that is safe to use. [PW, P&Z]

9.1.2.2 Implement procedures to reduce the naturally occurring arsenic in the public water systems to levels that do not exceed the EPA's maximum contaminant level of 10 ppb. [PW]

9.1.2.3 Develop a wellhead protection plan to address the protection of all municipal and community water systems. [PW]

9.1.2.4 Work with the Health Department to require that the bottom of all septic systems is greater than four feet above groundwater to protect near surface groundwater. [PW]

9.1.2.5 Work with the Health Department to ensure that there are no unused wells within the WHPA. [PW]

9.1.2.6 Water operations personnel inspect and maintain the supply wells and backup wells to ensure their integrity and protect the aquifer from contamination. [PW]

9.1.2.7 Upgrade county government-owned wells drilled prior to 1973 that do not meet current construction standards to protect them from contamination and encourage others to do the same. [PW]

9.1.2.8 Install two-piece insect-proof well caps onto county government-owned wells that have one-piece caps and encourage others to do the same. [PW]

9.1.2.9 Work with the county Health Department to conduct a survey of the WHPA and inventory any potential sources of contamination, including unused wells. Keep records of new development within the WHPA and new potential sources of contamination that may be associated with the new use. [PW, P&Z]

Objective 3: Take steps to decrease water consumption.

9.1.3.1 Continue to urge residents to consume less water. Encourage the capture/reuse of rainwater and reuse of greywater. [PW]

9.1.3.2 Maintain an education program to prevent waste of water. [PW]

9.1.3.3 Consider a tiered rate structure to promote water conservation. [PW]

9.1.3.4 Continue to require the use of water saving equipment in all new development and redevelopment. [P&Z]

9.1.3.5 Continue research and coordination on the subjects of rainwater and stormwater harvesting, greywater recycling, and water reclamation and consider implementation of these practices. [PW, P&Z]

Goal 2: Ensure sufficient wastewater treatment capacity to support development in Town Centers served by public sewer systems.

Objective 1: Manage wastewater system capacity to ensure the systems are able accommodate new development in Town Centers served by public sewer.

9.2.1.1 Continue to update wastewater capacity management plans for all county-owned or operated sewerage systems. [PW]

9.2.1.2 Provide adequate public wastewater treatment facilities to accommodate planned future development in North Beach, Chesapeake Beach, Prince Frederick, Lusby, and Solomons Town Centers. [PW]

9.2.1.3 Be proactive in the development of wastewater collection infrastructure in the Town Centers served by public sewer systems. [PW]

9.2.1.4 Consider expanding the county's adequate public facilities regulations to include wastewater treatment facilities to ensure the availability of adequate services for new development. [PW]

Goal 3: Protect public health and water quality.

Objective 1: Minimize new sewerage service areas for residential use outside of Town Centers.

9.3.1.1 Allow community or shared water and sewer systems in all Town Centers when needed to support environmental health and/or to support county-identified economic development goals, when and if cost effective and economically feasible. [PW, P&Z]

9.3.1.2 Permit new sewerage service areas to serve existing developed lots in septic failure areas. [PW, P&Z]

Objective 2: Minimize pollution from wastewater treatment plants and septic systems.

9.3.2.1 Require new wastewater treatment systems to be land application systems. [PW, P&Z]

9.3.2.2 Require septic systems in Town Centers to connect to public WWTPs when sewage collection systems are available and in the event the septic system fails. [PW]

9.3.2.3 Assure that existing effluent discharges into bodies of water minimize any adverse environmental impacts on oyster beds, spawning areas and fishing areas. [MDE]

9.3.2.4 Develop incentives for the use of nitrogen-removing technologies for new, replacement, and existing septic systems and for shared facilities to reduce nutrient pollution of our waterways. [EH]

9.3.2.5 Continue and expand the educational program to promote regular pumping of septic tanks. [EH, EC]

9.3.2.6 Install more nitrogen-removing septic systems per year through the county's ongoing Bay Restoration Fund (BRF) Grant Program. [EH]

9.3.2.7 Require new septic systems and replacement septic systems in the Critical Area to be nitrogen reducing systems (as required by Maryland Law) [EH]

9.3.2.8 Monitor septage haulers and septage quantities to ensure proper disposal is occurring and that adequate capacity for septage is maintained at the county's WWTP. [PW]

Objective 3: Take steps to minimize sewage discharge in the Chesapeake Bay and Patuxent River.

9.3.3.1 Require existing marinas to provide adequate toilet facilities to eliminate the discharge of raw sewage from water craft. [EH]

9.3.3.2 Continue to require new marinas and expansion of existing marinas (greater than 10 slips) to provide pump-out facilities to receive raw sewage from water craft. [MDE, DNR]

Goal 4: Install or enhance stormwater management systems to reduce pollution in the county streams, Patuxent River, and Chesapeake Bay.

Objective 1: Upgrade existing failing and inadequate stormwater management facilities.

9.4.1.1 Convert dry extended detention ponds and grass swales to wet ponds, wetlands and bioswales where appropriate. [PW]

9.4.1.2 Increase current drainage channel repair and stream restoration implementation. [PW]

9.4.1.3 Provide or upgrade stormwater management facilities on approximately 30 county structures to provide environmentally sensitive design (ESD), to include public schools, the golf course and the County Services Plaza. [PW]

Objective 2: Treat unmanaged impervious surfaces.

9.4.2.1 Convert approximately 200 miles of grass swales to bioswales and install an additional 160 miles of new grass swales along county and private roadways. [PW]

9.4.2.2 Increase current rate of drainage channel repair from 200 feet per year to 715 feet per year, representing a total of 5,000 feet. [PW]

9.4.2.3 Pursue implementation of regenerative stormwater conveyances or other vegetated flow attenuation wherever appropriate. [PW]

9.4.2.4 Construct or upgrade approximately 160 miles of grass swales along currently unmanaged county and privately owned roadways to provide water quality treatment. [PW]

9.4.2.5 Incentivize removal of unused impervious area, green roof retrofits, and expanded use of permeable pavement. [PW]

9.4.2.6 Incentivize the use of microscale environmentally sensitive design practices on approximately 600 existing commercial properties that drain to regional facilities or pre-2000 stormwater management facilities to reduce nutrient loading closer to the source. [PW]

9.4.2.7 Incentivize the construction of bioretention, micro-bioretention, and raingarden facilities on approximately 1,250 single family residential lots, focusing primarily on densely populated areas, such as Chesapeake Ranch Estates, where facilities can treat multiple homes. [PW]

9.4.2.8 Consider expanding the county's adequate public facilities regulations to include stormwater management services to ensure the availability of adequate services for new development. [PW]

CHAPTER 10. GOVERNMENT AND COMMUNITY FACILITIES

Vision

Our communities are safe. We care for the well-being of each other.

Our children are well-prepared for the future. We offer robust and diverse educational opportunities with a variety of post-secondary educational and training opportunities.

We are building a strong local economy based on renewable resources, agriculture, seafood, high technology, retirement, recreation, and tourism.

Our government is efficient, open, and responsive to citizen needs and concerns.

Goals

Goal 1: Establish policies and strategies that provide for high-quality, responsive, and cost-effective services to residents, businesses, and organizations in the county.

Goal 2: Maintain the high quality of educational facilities: public schools, college, and libraries.

Goal 3: Provide access to a variety of quality recreational environments and opportunities.

Goal 4: Ensure Calvert County has adequate healthcare facilities and programs.

Goal 5: Support public safety programs, strategies, and facilities development.

Goal 6: Maintain well-managed and effective solid waste and recyclable materials management systems in Calvert County.

Goal 7: Collectively plan future initiatives, to the greatest extent possible, with internal county departments and regional county jurisdictions, councils, and other potential partnerships.

State Visions

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

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

Related County Plans

Calvert County Public Schools Educational Facilities Master Plan, FY2018 – This plan assesses the current state of Calvert County's educational facilities and needs based on student population projections.

Calvert County Public Schools 2016 Five-Year Comprehensive Master Plan – This plan provides a framework for achieving goals related to increasing student achievement and supporting high quality teaching and learning in Calvert County's public schools.

Calvert County Land Preservation, Parks, and Recreation Plan, 2018 (incorporated by reference) – This plan presents a comprehensive overview of the county's recreation, parks, and open space. It lists potential sites for land acquisition and park expansion.

Calvert County Comprehensive Solid Waste Management Plan, 2019-2028 (incorporated by reference) – This plan explains the county's waste collection and processing system and assesses future needs.

Calvert Library Facilities Master Plan 2017-2027 - This plan assesses the current state of the Calvert Library facilities and makes recommendations for improvements based on community needs and projected demographic information.

Related County Plans

Calvert Library Facilities Master Plan 2017-2037 – This plan assesses the current state of the Calvert Library facilities and makes recommendations for improvements based on community needs and projected demographic information.

Calvert County Senior Center Facilities Master Plan, Final Report, 1999 – This plan assessed the state of the Calvert County senior center facilities, discussed strategic and design issues, and made recommendations on a variety of issues, including program development, transportation, and expansion of the senior center network.

Planning Framework

This chapter provides an overview of Calvert County's government and community facilities. This chapter discusses public, private, and not-for-profit agencies and institutions that provide public services to county residents. It assesses the current state of the schools, parks, recreational facilities, libraries, emergency services, healthcare facilities, and solid waste disposal service available to residents and plans for future needs.

Calvert County's population is projected to grow by 10,000 residents between 2015 and 2040. If this growth occurs according to the land use principles in this Comprehensive Plan, most growth will occur in and around Town Centers. Community facilities and their services such as schools, libraries, healthcare, and recreational facilities are key elements to fostering multi-generational communities.

Sustainability Approach

Sustainable communities provide effective and efficient government services by evaluating trends, identifying future challenges, and providing services that are timely, effective, and designed to implement this Comprehensive Plan. The county's fiscal policies balance the demand for services to support new growth with the growth in revenues needed to provide them, as well as consider the needs of current generations without overburdening future generations, and include citizen input in budget decisions.

Sustainable communities promote public building design that accommodates a variety of uses and is energy-efficient as well as easy to maintain. Public facilities should be prioritized to the Town Centers. There is also a need to ensure that all members of the community and visitors have access to recreational resources, which promote physical and mental health as well as positive social interaction. The plan promotes disposing of solid and hazardous waste in ways that have the least environmental impact and are fiscally responsible.

Sustainable communities have timely inter-jurisdictional coordination that enables them to identify and resolve issues at the earliest possible stage when they are usually easiest to address and manage, including growth management, environmental protection, and economic development strategies.

The Plan aims to create sustainability-focused school facilities that encourage the future generations to be responsible citizens through environmentally-sensitive design. This provides an excellent learning

opportunity that is enhanced by site amenities. These could include water gardens, outdoor laboratories, and preservation of soil that can support native vegetation.

Administration

Form of Government

Calvert County operates under Maryland's county commissioner form of government, which is subject to state laws governing the functions and operating procedures. Under this form, the five-member Board of County Commissioners (BOCC) serves as the administrative branch of county government, while the legislative delegation, through the Maryland General Assembly, serves as the legislative branch. With this form of government, the legislative delegation has considerable influence over county decision-making. Calvert County Government's day-to-day activities are under the direction of a County Administrator, Deputy County Administrator, and a team of eleven department heads.

The state law governing the functions and administration of a county commissioner form of government is found in Article 25 of the Annotated Code of Maryland. Laws pertaining specifically to Calvert County can be found in the Code of Public Local Laws of Calvert County and in resolutions and ordinances passed by the BOCC.

Recent Accomplishments

Highlights of recent accomplishments of county government include:

- Calvert County's financial management approach helped earn top bond ratings from three independent credit ratings agencies. It was the first time in Calvert County's history that it received AAA ratings from all three agencies.
- Recent regulatory reforms support an already growing commercial tax base, positive job growth, and increasing tourism expenditures.
- An increase in public safety spending, providing the Calvert County Sheriff's Office, the fire departments, and rescue squads with a new 800 megahertz digital communications system.
- The Calvert County Government Fiscal Year 2017 budget provided more than $5 million for land preservation, reinforcing Calvert County's commitment to maintain the county's rural character.
- Infrastructure improvements include new or rehabilitated water and sewer pumping stations and systems, a water main extension, and a new $3.9 million well and water tower in east Prince Frederick.
- A new Calvert County animal shelter is under construction in Prince Frederick.
- Building of the new Northern High School is underway and will provide state-of-the-art equipment and accommodations. (Board of County Commissioners, 2016)[1]
- Increased senior housing in Lusby with the development of a second senior housing facility, Southern Pines II.
- Developed a vital public transportation connector route to Charles and St. Mary's counties.

[1] Progress Reports, 2016 Progress Report, BOCC website http://www.co.cal.md.us, accessed April 11, 2018, information updated.

Finance

Fiscal responsibility and transparency are top priorities for county government and Maryland law requires counties to adopt a balanced budget every year. Since 2010, the county has faced new obligations imposed by the state and a slow recovery from a prolonged recession. Calvert lost approximately $5.2 million annually in state highway funds and absorbed a phased-in shift of school system employee retirement costs that reached approximately $5.3 million dollars in Fiscal Year 2017. In 2016, the county implemented a service-based budget that provides citizens with an additional level of detail for the various county services and functions.

The $246.8 million FY 2017 budget was an increase of $7.9 million over FY 2016. This increase is composed of:

- Approximately $2 million in additional funding for paving in order to maintain county roads
- $1.5 million to replace aging vehicles and equipment
- $1.2 million in pay increases for employees
- $1 million for snow removal
- $2.5 million to cover increased costs of pensions and insurance

To meet these financial burdens, the BOCC enacted modest increases to the county property and income tax rates. The local income tax rate increased from 2.8 percent to 3 percent, the first income tax rate increase in 13 years. The new 3 percent rate places Calvert County near the state average and in line regionally with Charles and St. Mary's counties. The property tax increase takes the rate from $0.892 to $0.952 per one hundred dollars of assessed value, the first property tax increase in 29 years. Under the new rate, Calvert County's real property taxes are the ninth lowest among Maryland's 23 counties and Baltimore City. Real property tax is the largest revenue source in the FY 2017 budget posing a $7.8 million increase over FY 2016.

The county's sound financial approach helped earn top bond ratings from three independent credit ratings agencies - Fitch Ratings, Standard & Poor's Rating Service and Moody's Investors Services. All three agencies gave Calvert County AAA ratings in July 2016, the first time in the county's history that it received top ratings from all three agencies. The bond ratings reflect the county's financial strength, much like credit scores rank borrowers. Better bond ratings lead to lower interest rates on the bonds the county uses to finance projects such as schools, roads, and other capital improvements.

The Cost of Sprawl

Sprawl is the spreading of developments (houses and shopping centers) on undeveloped land near a city (Merriam-Webster). Sprawl development results in decreasing investment in urban areas and increasing costs for rural developing areas. Bank of America, a major lending institution, endorsed a study stating sprawl development is not a financially sound land use pattern.

According to the study, sprawl affects taxpayers in a variety of ways, including the costs of:

- Building and maintaining roads and other major infrastructure to serve distant suburbs
- Social problems that remain in older urban communities when the middle class moves out
- Solving environmental problems in newly developed areas

Businesses are affected by sprawl in the following ways:

- Adverse impacts on the region's business climate due to congestion and a reduced quality of life
- A geographical mismatch between workers and jobs, leading to lower worker productivity and higher labor costs (due to long commuting times and inability of some workers to get to jobs)
- Abandoned investments in older communities that become economically uncompetitive

Residents who commute long distances are affected by:

- The cost of transportation
- Lost time commuting to work and other destinations
- Vehicle exhaust pollution
- Increases in tax rates to provide and maintain new facilities and services

Policies that encourage new businesses and jobs and promote more compact development patterns in the Town Centers can help to counter-balance the effects of large lot single family homes in rural areas.

Expand Commercial Tax Base

Common to many counties across the country, a variety of economic barriers and opportunities exist. As the global/macro economy and its industries have become more competitive and complex through technology advancements, labor and infrastructure requirements, so too have local economies. Within these economies exist a variety of factors that hinder or promote private investment. The built environment, available sites, allowable land uses, market forces, labor and infrastructure, along with the needs of residents and businesses within sub-areas of a local economy lead to differing economic development needs and opportunities.

To help capture these opportunities, the county needs to explore ways to increase its commercial base, including a renewed focus on expanding targeted industries to help balance the costs of residential growth.

Calvert County should use more personal outreach to promote the county as an asset to potential investors and site selectors.

While the county's efforts towards investment attraction are encouraged, it should also dedicate a sizeable portion of its resources towards the county's existing industry base. By continually engaging and learning about the existing businesses of the area, the county may identify numerous opportunities for helping the expansion of local industry and promoting mutually beneficial partnerships.

The county should work with the College of Southern Maryland to build and support entrepreneurial and innovation activities that with time will support new business formation and job creation in emerging industries.

The county should commit to ensure the appropriate land use policies are in place to support a Technology/Innovation Park in the northern end of the county.

Locations for Community Facilities

Community facilities represent significant capital expenditures by county government and provide important educational, recreational, emergency, health, and solid waste services. County facilities should be located where residents are most easily able to access them. When planning for community facility

development, the county should consider demographic projections and future land use patterns, taking into account the Comprehensive Plan's goals to concentrate development in Town Centers, while focusing on land preservation in rural areas. The following principles should be used to guide the development of community facilities:

- Community facilities should be located within or in close proximity to Town Centers where infrastructure is available (e.g., public water facilities, public sewer facilities, roads, sidewalks, public transit). These areas are planned to have the future highest population densities that will provide best pedestrian, bicycle, and transit access.
- Community facilities should be sited near other concentrations of civic or commercial buildings.
- Multiple uses should be considered when locating and designing new public buildings, including schools and community centers.
- Development proposals should incorporate community facilities and assist in their construction.

Education

Elementary and Secondary Schools

Calvert County Public Schools (CCPS) is a strong public education system that serves children from pre-kindergarten to high school. CCPS has twenty-five schools, including thirteen elementary schools, six middle schools, four high schools, the Career and Technical Academy, and a special education center. Calvert County's existing public school facilities have sufficient space to accommodate Calvert County's current and future student population until at least 2026.

Table 10-1 Calvert County Public Schools

Grade Level	Number
Elementary	13
Middle	6
High	4
Career and Technical Academy	1
Special Education Center	1

School enrollment in the county is projected to decrease slightly through 2026 despite some countywide population growth.[2]

Table 10-2 Full Time Equivalent (FTE) Enrollment Projections by Grade

Grade	2015 Enrollment	Projection 2026
Kindergarten	982	1050
1st	1077	1080
2nd	1130	1100
3rd	1168	1124
4th	1154	1146

[2] Calvert County Educational Facilities Master Plan for FY2018

5th	1151	1147
6th	1200	1188
7th	1302	1203
8th	1307	1253
9th	1303	1286
10th	1320	1300
11th	1248	1195
12th	1294	1289
Special Education	--	43
Total	15636	15404

While there is no immediate need for construction of additional schools, some of the county's public school buildings are aging and require renovation or replacement. Northern High School was granted funding in FY 2016 for a full building replacement, which began in fall of 2016. A feasibility study for the renovation and expansion of Beach Elementary School is scheduled for FY 2020. Calvert Country School received funding in FY 2018 for remodeling and HVAC replacement. Calvert County Public Schools will undergo smaller facility improvements for many of its school buildings, such as HVAC upgrades, roof replacements, and improvement of stormwater management systems, to keep its facilities up-to-date.[3]

CCPS is pushing to modernize learning environments within schools to make them consistent with 21st century educational best practices. This initiative is designed to model classrooms after college and workplace environments with open space for collaboration, integration of technology into the classroom, reconfigurable shelving and desks, and robust bandwidth to support online learning.

Several of the Town Centers have at least one school within their boundaries. The schools serve as centers of community gathering and identity. Strong connections between the schools, residential areas, and activity centers can foster vibrancy and a sense of community.

Four private schools are located in Calvert County and provide education to four percent of Calvert County's students.

Higher Education

The College of Southern Maryland has a campus in Prince Frederick, which offers Associate degrees in arts, teaching, science, engineering, and applied science. A regional community college serving Calvert, Charles and St. Mary's counties, the College of Southern Maryland (CSM) enhances lives and strengthens the economic vitality of a diverse and changing region by providing affordable post-secondary education, workforce development, and cultural and personal enrichment opportunities. Recognized as one of the 2019 Aspen Prize for Community College Excellence Top 150 Community Colleges, CSM is focused on student progress and completion, providing targeted programming to meet regional needs, developing

[3] Calvert County Adopted Operating and Capital Budget Fiscal Year 2018

the workforce, and functioning as one regional college. CSM provides more than 100 programs, from biological sciences and environmental studies to hospitality and veterinary studies.

CSM recognizes that new approaches and new resources are required for continued growth and future effectiveness. To that end, CSM will remain true to the fundamental principles that have long defined its culture: the deeply felt commitment to diversity, excellence, innovation, integrity, knowledge, respect, and teamwork. CSM will always champion the merits of lifelong learning and the vital importance of education in a civil society. The campus in Prince Frederick is a significant asset to Calvert County that provides higher education opportunities, career development programs, and resources to support local businesses.

The University of Maryland's Chesapeake Biological Laboratory in Solomons leads national research in fisheries, estuarine ecology, environmental chemistry, and toxicology. The research produced at the laboratory informs state and national policy on a range of major environmental issues, such as fisheries management and environmental chemistry. In addition to providing cutting-edge research, the Chesapeake Biological Laboratory provides events and learning opportunities for the public through programs at its visitor center, Science for Citizens seminars, faculty speaking events in the community, and volunteer opportunities for residents.

The Morgan State University Patuxent Environmental & Aquatic Research Laboratory (PEARL) is located in St. Leonard, Maryland. Research conducted at the PEARL is designed to increase the understanding of coastal ecosystems so that they may be properly managed and protected. It has a primary focus on the Chesapeake Bay and its tributaries.[4]

These higher education resources support existing businesses and foster the creation of spin-off entrepreneurial activity and new businesses. Bolstering the programs and activities of these institutions create the sense of a community looking toward the future.

Libraries

The Calvert County library system provides residents with access to physical and downloadable reading and viewing material, public computers and other technologies, classes, and events for all ages to build community, knowledge, understanding, and engagement to support the county's vision. Calvert Library has four locations and a Mobile Services department. The main library is located in Prince Frederick with three branch libraries: Fairview, Twin Beaches, and Southern. In 2016-2017, Calvert Library conducted an analysis of the current library facilities and services and future needs with the assistance of Providence Associates LLC and input from the public. The Calvert Library Facilities Master Plan 2017-2037 (August 8, 2017) recommends a new library in the Twin Beaches area (Chesapeake Beach/North Beach), a permanent, county-owned library for the Southern Branch, and that the Fairview Branch be renovated and expanded.

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[4] http://www.morgan.edu/research_and_economic_development/patuxent_environmental_and_aquatic_research_laboratory/about_pearl.html. Accessed 10-16-2017

Calvert Library provides a variety of resources beyond the traditional role of providing the public with access to information. Calvert Library promotes technological literacy by offering access to computer software and equipment, including 3D printing, Wi-Fi, and computer skills training. The library assists individuals with economic opportunities through the Small Business Resource Center, career and job search help, online databases for taking classes and practice tests for certifications, and financial education.

Older Adult and Senior Facilities

Calvert County's three Senior Centers provide services for older adults, seniors, and persons with disabilities, such as congregate meals, recreation and education programs, and support for enrollment in social services programs. For seniors or residents with disabilities who need a more secure setting with nursing staff for assistance with medication management, Calvert County is home to two nonprofit adult day care facilities.

Parks and Recreation

Parks and recreation planning and acquisition goals are established in Calvert County's Land Preservation, Parks, and Recreation Plan (LPPR Plan). The updated plan was adopted on May 15, 2018. The purpose of the LPPR Plan is to provide key information, goals, and recommendations to guide the county's management and enhancement of its system of public parks, open spaces, and preserved lands over the next five years. Another purpose is to maintain the county's eligibility to participate in Program Open Space, the State of Maryland's program which provides funding and technical assistance for the planning, acquisition, and development of recreation and open space areas. The current and the updated LPPR plans include detailed maps showing the locations of public parks and recreation sites.

Parks and Trails

Calvert County has a robust system of parks and trails that include natural resources and park facilities on a neighborhood, state, and national scale.

As Calvert County continues to develop its park system, certain principles should be followed to align park development with the county's land use goals to concentrate development in Town Centers while preserving rural and natural areas. Each Town Center should serve as the focal point of recreation for residents of the Town Center and their surrounding areas.

Each Town Center should have:

- A town park or "village green"
- An in-town pedestrian and bikeway system that connects residential areas, activity centers, and schools
- An outdoor public facility designed primarily for active team sports
- An indoor community center capable of providing a range of activities for all age groups

Neighborhood recreational facilities, such as pedestrian and bicycle networks, small community centers, and open space should be included in developments with 50 or more units. These facilities would typically be sized to meet the need of the nearby residents and be privately owned and managed.

In addition to park and recreational development within Town Centers, the county seeks to actively expand its rural parkland by acquiring key natural, cultural, and historic sites while they are still available and land banking this land. Calvert County is required to submit a Program Open Space Annual Program to the Maryland Department of Natural Resources and the Maryland Department of Planning each year in order to remain eligible for Program Open Space funds. The county's Open Space Annual Program lists the potential land acquisition and development projects in the county.

Recreation

Calvert County offers a variety of recreational opportunities for residents, spanning from programming at community centers and parks to activities at natural resource areas. Calvert County strives to maintain Town Centers as the focal points for community-based recreation, and is expanding larger-scale nature-based recreation programming throughout the county.

The Department of Parks & Recreation provides opportunities for healthful, enjoyable, lifetime leisure activities to our entire community through a comprehensive program of recreational activities. Community-based recreation is led by the Recreation Division, which plans and implements active recreational programming in Calvert County, such as athletics, community center programming, and therapeutic recreation. The Special Facilities Division coordinates recreational activities at facilities including the Chesapeake Hills Golf Course, aquatic facilities, and Breezy Point Beach and Campground. The Parks & Safety Division focuses on the maintenance of active parkland and capital improvements.

The Natural Resources Division manages passive recreation opportunities, such as nature observation and hiking areas, horseback riding trails, and canoeing and kayaking facilities. The Natural Resources Division maintains many of the county's natural parks, including the Battle Creek Cypress Swamp Sanctuary and parks along the shores of the Chesapeake Bay and Patuxent River. The division focuses on preserving, managing, and operating natural resources areas to provide outdoor recreation and educational opportunities for the public. The county also provides specialized recreation facilities, including public boat access to the Patuxent River and Chesapeake Bay, fishing piers, a skate park, and dog parks.

Calvert County has several local, state, and national trails that extend through the county. These trails include the Captain John Smith Chesapeake National Historic Trail, Star-Spangled Banner National Historic Trail, National Underground Railroad Network to Freedom, Chesapeake Gateways Network, Fossils and Farmscapes Ramble, and Patuxent Wine Trail. Two historic railways provide the potential for creating linear trails: Chesapeake Beach Railway and the Baltimore & Drum Point Railroad. Jefferson Patterson Park & Museum hosts four trails: Riverside, Woodland, War of 1812, and Village.

Calvert County provides support for facilities at Calvert Marine Museum, Chesapeake Beach Railway Museum, and Annmarie Sculpture Garden & Arts Center to offer recreational and enrichment programs, while also serving as popular tourist attractions.

The 2018 Calvert County Land Preservation, Parks, and Recreation Plan identifies a deficit of recreation facilities. These facilities should be prioritized as the Calvert County Department of Parks & Recreation continues to expand recreational opportunities in the county.

Parks and Recreation Funding

Recreational programs and development projects are funded through a recreation excise tax on all new residential dwellings, general obligation bonds, the county's general fund, and the county's local share apportionment from the state's Program Open Space. Program revenue and user fees also support the Department of Parks & Recreation's programs and facilities.

Public Safety

Public Safety Facilities

Public safety facilities are police, animal control, fire, rescue, and EMS facilities that support Calvert County residents in emergency situations. These facilities are distributed throughout the county and sited primarily in Town Centers, where the county's population density is highest. The county has seven fire stations, six police stations, two rescue stations, and two 911 call centers. The county began construction on a new Rescue Squad building in Prince Frederick in 2017. While Calvert currently uses the shared Tri-County Animal Shelter in Hughesville, Charles County, the county is working to open its own animal control center in Prince Frederick. Table 10-3 provides a list of the public safety facilities.

Calvert Emergency Communications receives 911 emergency calls and dispatches the appropriate police, fire, and emergency medical services (EMS).

Police protection is provided by the Calvert County Sheriff's Office and the Maryland State Police, both centrally located in Prince Frederick. The Sheriff's Office also contracts with North Beach and Chesapeake Beach to provide police patrols in the incorporated towns.

The Detention Center maintains custody and control of all committed inmates and through partnerships with the Health Department and the Calvert County Family Network, offers reentry case management and evidence-based programs to address their criminogenic risks and needs. The county uses monitored home detention and offers a variety of treatment and educational opportunities to address the underlying circumstances that contribute to crimes.

The Fire, Rescue, and Emergency Medical Services Division is staffed fully by volunteers, which reduces the burden on taxpayers, but presents challenges in retaining enough volunteers to fulfill the department's needs. EMS faces a key challenge with recruiting and retaining volunteers to provide fire, rescue, and emergency services, particularly with an increased demand for advanced life support in the county. A 2016 memo by the Fire-Rescue-EMS Coordinator highlights the EMS system's challenges with providing basic life support ambulances and advanced life support paramedic services. It states the need to evaluate the use of contracted, career, or private ambulance services, focus on improving daily EMS operations with Advanced Life Support and Basic Life Support, and implement cost recovery strategies. It also stresses evaluating incentives for increasing recruitment and retention of EMS volunteers through strategies such as property tax reduction and offering health insurance.[5] As of 2018, the department is working on implementing career EMS services.

[5] Department of Public Safety Fire-Rescue-EMS Division (2016), Calvert County's Emergency Medical Services-System Challenges, http://www.co.cal.md.us/DocumentCenter/View/14000

Table 10-3 Public Safety Facilities in Calvert County

Name	Type
North Beach Volunteer Fire Department – Company 1	Fire and EMS
Prince Frederick Volunteer Fire Department – Company 2	Fire
Solomons Volunteer Fire Department – Company 3 and Substation	Fire and EMS
Dunkirk Volunteer Fire Department – Company 5	Fire and EMS
Huntingtown Volunteer Fire Department – Company 6	Fire and EMS
Saint Leonard Volunteer Fire Department – Company 7	Fire and EMS
Solomons Volunteer Rescue Squad and Fire Department	Fire and EMS
Solomons Island Police Substation	Police
Chaneyville Police Substation	Police
Calvert County Sheriff's Office	Police
State Police Barrack Prince Frederick	Police
State Police/Fire Marshal Southern Regional Office	Police
Campus Police: College of Southern Maryland	Police
Maryland Department of Natural Resources Police	Police
Prince Frederick Volunteer Rescue Squad Company 4 Prince Frederick	EMS
Calvert Advanced Life Support – Company 10	EMS
Calvert Emergency Communications – Main 911 Dispatch Center	911 Call Center
Calvert County Backup 911 Center	911 Call Center
Emergency Management Division	Office
Public Safety Building	Office

Source: Calvert County Department of Planning and Zoning, May 2018

Health and Human Services

Healthcare Facilities

The Calvert County Health Department is responsible for coordinating all basic public health services in Calvert County.

> Calvert County Health Department is a governmental organization. As an agent of both the state of Maryland and county government, it provides local public health services under the direction of the Health Officer. The Health Officer is authorized to enforce the health laws and regulations of Maryland and the health ordinances of Calvert County. In addition to enforcing health laws, particularly in regard to sanitation and communicable diseases, the health department provides a number of health-related services that directly benefit individuals as well as the community at large.[6]

In addition to traditional medical services, such as flu clinics and vaccinations, the Health Department provides preventative health activities and wellness programs such as nutrition counseling, fitness

[6] Calvert County Health Department. https://www.calverthealth.org/personalhealth/mentalhealth/mhclinic.htm, accessed May 16, 2018.

assessment, and health screening. The Health Department has four mental health clinics, located in Prince Frederick, Barstow, Chesapeake Beach and Lusby.

CalvertHealth Medical Center in Prince Frederick is the central hub of healthcare in the county. Located in the middle of the county and adjacent to MD 4, the medical center is undergoing an expansion and renovation to increase the number of private rooms and to modernize more health services. The hospital is part of a health system that includes an employed physician network, a diagnostic imaging center, urgent care facilities throughout the county, and a mobile health unit that travels to under-served parts of the county.

To serve older and residents with disabilities, the county has three privately owned and operated nursing homes with a total of 278 beds. New nursing home facilities in the county should be located in Town Centers. Other healthcare facilities are located outside of Town Centers and many of them are assisted-living facilities.

Community Support Centers

Community support centers are facilities that provide basic needs or a community benefit including government buildings, food banks, and substance abuse centers. Calvert County has almost 70 community support centers. Over half of the county's community support centers are in Prince Frederick.

Solid Waste Management

The Department of Public Works, Solid Waste Division monitors the operation of the Appeal Landfill, Appeal Transfer Station, seven convenience center locations, recycling activities, a bulk pick-up items program, and environmental monitoring for the Appeal and Barstow landfills.

Calvert County does not provide curbside collection of solid waste or recyclables. Instead, it offers seven Convenience Centers for residents to dispose of their trash and recyclables independently. Approximately 55 percent of the estimated residential waste generated in the county is received at these seven Convenience Centers, while the remaining 45 percent is managed through private waste management companies. Convenience Centers are distributed throughout the county to ensure easy access. The county completed a large-scale expansion project of the Mt. Hope Convenience Center in 2017, which enlarged the center, improved access to waste offloading areas, and reoriented traffic patterns to minimize traffic disruptions around the facility. The relocation of the Lusby Convenience Center to the Appeal Landfill campus began in September 2017. The new Appeal Convenience Center will provide improved waste and recycling disposal services for the residents in the southern end of the county. This facility is scheduled to open in summer 2018.

Commercial waste is not permitted in Customer Convenience Centers; therefore, most businesses hire private solid waste collection contractors. Industrial waste in Calvert County is primarily recycled, reused, self-hauled, or hauled by private hauler to the Appeal Transfer Station or directly to a recycling facility.

Calvert County has one closed and capped landfill, Barstow landfill, which is compliantly monitored. The county has one active landfill, the Appeal Landfill, but very little of the waste generated in Calvert

County is deposited in this landfill. Most waste deposited in the Appeal Landfill is household waste, petroleum contaminated soil, asbestos, and large animals. The bulk of waste collected in Calvert County's Convenience Centers is taken to the Calvert County Transfer Station and subsequently transported to the King George Landfill in King George County, Virginia.

Calvert County also has two permitted land clearing debris landfills:

- Howlin Land Clearing Debris Landfill
- Hance Land Clearing Debris Landfill

Inter-jurisdictional Coordination

Calvert County's relatively small size and location next to the metropolitan areas of Washington, D.C. and Annapolis make understanding the regional context extremely important. The county is part of a dynamic regional economy, transportation network, agricultural land base, and natural resource system. Calvert County is part of the Southern Maryland regional economy comprised of Calvert, Charles, and St. Mary's counties. On some levels, such as jobs and market share, Calvert County competes with these other counties. Nevertheless, the three counties share common interests:

- Common borders with the Patuxent River
- A threatened agricultural economy
- A changing rural lifestyle
- A commuter population

The three counties already participate in a number of regional initiatives and organizations, including the Tri-County Council for Southern Maryland (TCCSMD). Staff from county departments such as Public Safety, Public Works, Planning & Zoning, and Economic Development meet with their counterparts on a regular basis.

The TCCSMD:

- Provides a framework for cooperation and coordination among the elected, civic, and business leaders of the Region
- Undertakes action programs that focus on local, state, and federal resources in a comprehensive strategy to enhance the quality of life of all people in Southern Maryland
- Initiates and coordinates plans and projects which foster the physical, economic, and social development of the region

Key elements of the regional strategy:

- Diversify and broaden the economic base
- Preserve agriculture as a viable industry
- Restore and protect the environment
- Implement highway improvements and expand commuter assistance services
- Manage growth and requirements for public services

This coordination has led to (among others):

- Southern Maryland Heritage Area (SMHA) Partnership

- National Park Service Gateways Program
- Southern Maryland Agricultural Development Commission (SMADC)
- Southern Maryland Regional Infrastructure Advisory Committee (RIAC)
- Southern Maryland Regional Transportation Coordination Program (RTCP)
- Southern Maryland Bicycle and Pedestrian Infrastructure Advisory Committee (BIAC)
- Southern Maryland Economic Development Association

The Calvert-St. Mary's Metropolitan Planning Organization (C-SMMPO) carries out transportation planning activities for the Urbanized Area that encompasses the area defined by the U.S. Census Bureau. The C-SMMPO region includes the Calvert County communities of Chesapeake Ranch Estates, Lusby, Drum Point, and Solomons, and the St. Mary's County communities of California, Lexington Park, Callaway, Great Mills, St. Mary's City, and the Naval Air Station Patuxent River (NAS PAX).

The 2040 goals for the MPO are:

- Goal 1: Manage the Existing Transportation System
- Goal 2: Enhance Access and Mobility
- Goal 3: Support Economic Vitality
- Goal 4: Provide a Connected, Multimodal Transportation System
- Goal 5: Improve Safety and Security
- Goal 6: Conserve the Environment

More information on the MPO and its plans can be found at http://www.calvert-stmarysmpo.com/.

Calvert County has two incorporated municipalities, North Beach and Chesapeake Beach. Both exercise local legislative authority independent of the county. Both have their own municipal tax, planning, and zoning authority.

The county and the municipalities cooperate in many ways. Examples include:

- Revenue sharing (the county shares revenue with the municipalities)
- Coordination of water and sewer
- Police
- Fire and Rescue
- Schools

Existing Coordination Efforts

Staff-level coordination exists among many organizations. In addition, the following formal plans and oversight groups help to coordinate efforts:

- Patuxent River Policy Plan
- Maryland Department of Planning Clearinghouse
- CHESPAX
- Tri-County Council for Southern Maryland
- Calvert-St. Mary's Metropolitan Planning Organization
- Northeast Sector Plan
- Jefferson Patterson Park and Museum Technical Planning Committee
- Calvert Alliance Against Substance Abuse

- Local Management Board

Land Use and Growth Management

The Comprehensive Plan's land use actions direct growth to areas where it can be most efficiently and economically served with existing public services and facilities. Town Centers will accommodate growth that would otherwise occur as scattered suburban development in rural areas. The ongoing implementation of growth and non-growth areas will require much more than a regulatory process on the part of the county. Implementation will require a high degree of coordination and cooperation among all officials in county, state, federal, and special purpose agencies.

Many state and federal agencies operate within Calvert County. Those most predominantly involved in local land use issues include:

Department of Defense*
Federal Communications Commission
Federal Emergency Management Agency
Federal Energy Regulatory Commission
U.S. Army Corps of Engineers
U.S. Coast Guard
U.S. Environmental Protection Agency
Critical Area Commission
Maryland Department of Environment
Maryland Department of Health & Mental Hygiene*
University of Maryland*
Maryland Department of Natural Resources*
Maryland Department of Planning
Maryland Department of Social Services*
Maryland State Police*
Patuxent River Commission
State Board of Education
State Liquor Board
State Highway Administration*
Maryland Department of Housing & Community Development

* Agencies with facilities in Calvert County

The Naval Air Station Patuxent River (NAS PAX) is located at the confluence of the Patuxent River and Chesapeake Bay in St. Mary's County, Maryland. While NAS PAX's main facility is located in St. Mary's County, the Naval Recreation Center is located in Calvert County, in the Solomons Town Center. The impact of the installation resulting from both mission activities and economic value extends throughout the United States. One of the most direct regional impacts extends to communities in Southern Maryland. To protect the missions, viability, and future role of military installations and the health of local economies and industries that rely on them, encroachment must be addressed through collaboration and joint planning between installations and local communities.

The county has participated in the NAS PAX Joint Land Use Study (JLUS) through the Tri-County Council. "The JLUS was undertaken in an effort to develop a set of recommendations that would prevent or mitigate encroachment in the areas surrounding the NAS PAX complex including the Main Station, Webster Outlying Landing (Webster) Field and the Atlantic Test Range (ATR) Inner Test Range. The JLUS recommendations help protect the installations' military missions, and the public's health, safety, welfare, quality of life, and economic stability of the communities."[7]

The JLUS, published in 2015, developed a set of recommendations that will enable stakeholders to make informed decisions about future land use development and economic growth of communities proximate

[7] Naval Air station Patuxent River Joint Land Use Study, Executive Summary, January 2015, p. 2.

to NAS PAX to prevent or mitigate encroachment in the areas. Incompatible development that can disrupt mission activities include solar farms and wind farms and densely developed areas. NAS PAX's Atlantic Test Range's Inner Test Range and Helicopter Operating Area overlie southern Calvert County, including the Solomons Town Center and Lusby Town Center. In an effort of collaboration, Calvert County has incorporated NAS PAX into its review process of towers and power generating facilities in order to prevent encroachments within the JLUS study area. Calvert County will continue to incorporate the JLUS recommendations into the review process and regulations as updates are done to the Zoning Ordinance and Town Center Master Plans.

Goals, Objectives and Strategies

Goal 1: Establish policies and strategies that provide for high-quality, responsive, and cost-effective services to residents, businesses, and organizations in the county.

Objective 1: Support meaningful and informed public participation program in government decisions.

10.1.1.1 Periodically appoint committees, as needed, to review county services. [CA]

10.1.1.2 Make sure that information is readily accessible and understandable to the public through more use of the county website and social media. [All Departments]

10.1.1.3 Implement budget procedures and keep citizens informed of significant trends and information. Continue to make the budgetary process readily accessible to the public with adequate time for public review prior to adoption. [CA, F&B]

10.1.1.4 Provide current information concerning the organization of county government, including the functions and procedures of departments, boards, and commissions. Seek ways to distribute copies, particularly to new residents. [CA, CMR, CR, Calvert Library]

Objective 2: Provide high-quality, responsive, and cost-effective customer service.

10.1.2.1 Streamline permitting processes and periodically review regulations to eliminate unnecessary restrictions and duplications. [CA, P&Z]

10.1.2.2 Provide efficient, courteous services to the citizens. [All Departments, Calvert Library]

10.1.2.3 Periodically review county government structure to ensure that it is the most effective for the current situation. [CA, All Departments]

10.1.2.4 Maintain a high standard of customer service and ethics among county employees. [HR, All Departments, Calvert Library]

10.1.2.5 Consider opportunities for privatizing county services that are cost-effective, competitive, and provide opportunities for local businesses. [CA, BOCC]

Objective 3: Promote continuous review of processes, staffing, and facilities serving the community.

10.1.3.1 Periodically review county rules, regulations, and practices for elimination, combination, or clarification. [CA, All Departments]

10.1.3.2 Continuously evaluate the county use of technology to identify opportunities to innovate and improve service. [CA, All Departments]

10.1.3.3 Periodically review government organization to ensure that it is structured to provide the best service to the public. [BOCC, CA, All Departments]

10.1.3.4 Conduct periodic analysis of county government space needs, pay scales, and positions to determine if they are in line with market conditions. [CA, GS, HR, F&B]

Objective 4: Ensure that the citizens of Calvert County share the cost of services in a fair, equitable, and rational manner.

10.1.4.1 Maintain fiscal policies that require new development to pay its fair share of the costs of new facilities and environmental impacts. [F&B, P&Z]

10.1.4.2 Maintain sound fiscal policies concerning public money investment, taxation, debt limits, and fund reserves. [BOCC, F&B]

10.1.4.3 Encourage the diversification and growth of businesses to broaden the tax base. [ED]

10.1.4.4 Maintain financial models for long-range financial planning, including long-term financial forecasting model, six-year capital improvements program, and the debt affordability model. [F&B]

Objective 5: Exercise careful stewardship of financial resources.

10.1.5.1 Maintain a ratio of debt service to total revenues in accordance with sound business principles. [CA, F&B]

10.1.5.2 Periodically review investment practices and policies and ensure that funds are monitored. [F&B]

10.1.5.3 Maintain a sufficient unreserved fund balance as a means of maintaining strong credit ratings and dealing with lower than expected revenues from income sources. [CA, F&B]

10.1.5.4 Develop and maintain cost-containment measures to ensure that revenues meet expenditures. [CA, F&B]

10.1.5.5 Require a fiscal analysis to be prepared prior to providing financial assistance for any commercial or residential project. [F&B, ED, P&Z]

10.1.5.6 Develop long-term revenue and budget scenarios, including one without the revenues from an operating nuclear power plant. Evaluate ways to deal with long-term revenue shortfalls. [F&B]

Goal 2: Maintain the high quality of Calvert County's educational facilities: schools, colleges, and libraries.

Objective 1: Continue to fund improvements to Calvert County Public Schools to provide facilities that support education programs meeting the needs of the 21st century citizens and workers.

10.2.1.1 Pursue Capital Improvement Program (CIP) funding for facilities upgrades and modernization. [BOCC, F&B]

10.2.1.2 Continuously evaluate the technology used in the schools to keep up with advances in this rapidly changing environment. [BOE, CSM]

10.2.1.3 Periodically review the county's adequate public facilities regulations for schools and adjust, if necessary, to ensure the approval of residential developments to the availability of adequate school capacity. [BOCC, PC, P&Z]

Objective 2: Increase higher education opportunities in the county.

10.2.2.1 Support the College of Southern Maryland in providing affordable post-secondary education, workforce development, and cultural and personal enrichment opportunities. [BOCC, CR, CSM]

10.2.2.2 Encourage the College of Southern Maryland to offer non-degree technical training required by Calvert County businesses. [ED]

Objective 3: Fund construction and renovation of Calvert Library locations to provide 21st century facilities that support public education, accessible to all through multi-modal transportation and communication links. [CR, Calvert Library]

10.2.3.1 Deploy a mobile library to serve underserved populations and neighborhoods in the county. [CR, Calvert Library]

10.2.3.2 Construct a new library in the Twin Beaches area within the Town Centers of Chesapeake Beach and North Beach. [CR, Calvert Library]

10.2.3.3 Renovate and expand the Fairview Library. [CR, Calvert Library]

10.2.3.4 Select a new location for the library serving southern Calvert County within the Town Center of Lusby, in a location accessible by all transportation modes. [CR, Calvert Library]

10.2.3.5 Continuously update available technology to provide citizens with access and expand digital literacy. [CR, Calvert Library]

Objective 4: Connect public schools, the College of Southern Maryland, and libraries to the surrounding residential areas and larger communities through programs and multi-modal transportation links.

10.2.4.1 Support accessible partnership programming among the public schools, College of Southern Maryland, and Calvert Library. [Calvert Library]

10.2.4.2 Develop public transportation links between public schools, College of Southern Maryland, and Calvert Library. [CR]

10.2.4.3 Provide bike racks and safe biking opportunities between public schools, College of Southern Maryland, and Calvert Library. [Calvert Library, CSM, P&Z, PW]

Goal 3: Provide access to a variety of quality recreational environments and opportunities in Calvert County.

Objective 1: Increase the amount of land area dedicated to recreation and natural resources.

10.3.1.1 As the county's population grows, the inventory of parks and recreation assets and programs, as well as resources of the Department of Parks & Recreation should increase in a corresponding manner to ensure the continued delivery of high quality programs, facility maintenance, and infrastructure management. [P&R, P&Z]

10.3.1.2 Target the development of any new indoor and outdoor sports fields or courts, and/or other active recreation components in or near Town Centers. [P&R, P&Z, ED]

10.3.1.3 Plan for the creation and/or expansion of centrally located parks and green spaces in Town Centers. [P&R, P&Z]

10.3.1.4 Select locations for parks that are easily accessible to pedestrians and bicyclists living in the Town Centers. [P&R, P&Z]

10.3.1.5 Continue to evaluate existing linear corridors, rights-of-way, and other potential areas for future trail development. [P&R, PW, P&Z]

10.3.1.6 Seek to acquire rights-of-way and open space through zoning or subdivision entitlement process to utilize for future trail creation. [P&Z]

10.3.1.7 Seek to acquire waterfront property capable of supporting active and passive recreational usage. [P&R, P&Z, ED]

10.3.1.8 When selecting sites for community support centers, parks, and other community facilities, analyze options for restoration and adaptive re-use of historic buildings and sites. [GS, P&R, P&Z]

Objective 2: Ensure that a wide selection of public recreational facilities and programs are provided to meet the interests and needs of all ages, incomes, and abilities.

10.3.2.1 Enhance the network of recreational sites and facilities, including hiker/biker and horseback riding trails, based on the unique natural, cultural, and historical features of the county. [BOCC, Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z]

10.3.2.2 Continue to improve and expand opportunities for public access to the Chesapeake Bay and the Patuxent River. [BOCC, Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z]

10.3.2.3 Continue to create, support, and promote public water trails in Southern Maryland. [Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z]

10.3.2.4 Investigate opportunities to increase access, parking, and comfort features at existing public landings and waterfront park sites to allow for increased boat access and usage, and improved user experience. [Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z]

10.3.2.5 Provide safe access to parks and recreational facilities including, where feasible, pedestrian and bicycle access. [Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z; PW]

10.3.2.6 Create trails and paths within Town Center areas that connect with outlying parks and open spaces. [Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z]

10.3.2.7 Continue to require onsite neighborhood recreational facilities in townhouse and multifamily developments and in single-family detached neighborhoods of 50 or more houses. Require recreation fees collected through the excise tax for all new houses, and use fees to provide recreational sites and facilities at locations convenient to those who paid the fees. [P&Z, F&B]

10.3.2.8 Expand recreational opportunities by establishing an intergovernmental review procedure for the design or renovation of all new public buildings including schools, colleges, and community centers to help promote effective and efficient multiple-use of these facilities. [Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z]

Objective 3: Increase the variety of uses of community facilities.

10.3.3.1 Consider increasing the use of schools as community centers and providing community after-hours access when designing renovations or new schools. [BOE, P&R, P&Z, CR]

10.3.3.2 Encourage cultural celebrations at the neighborhood, community, and county level, particularly those that bring together diverse groups. [Calvert Library]

Objective 4: Expand community involvement in recreational programming.

10.3.4.1 Develop community project and service awards and provide "seed money" for such projects. [CR]

10.3.4.2 Encourage strategies to make it easier for communities to provide recreation and community facilities without an overwhelming insurance burden. [F&B, P&R]

Goal 4: Ensure Calvert County has adequate healthcare facilities and programs.

Objective 1: Provide education and necessary services to improve the county's health and wellbeing.

10.4.1.1 Maintain a central source of information concerning available health and social programs. Use public access TV, the county's website, and social media accounts to present wellness programs. [CR]

10.4.1.2 Encourage health and social services providers to operate at times convenient to those who are unable to make appointments during normal operating hours. [CR]

10.4.1.3 Investigate the need for and economic feasibility of operating multi-agency facilities in community centers. [CR]

10.4.1.4 Investigate the need for and ability to develop a standardized data form for clients. Where appropriate, protecting confidentiality, share data among the agencies. [CR]

10.4.1.5 Encourage the development of supervised teen activities and/or special after-school programs in communities. [CR, Calvert Library]

10.4.1.6 Promote a healthy environment free of alcohol and other drug abuse. [CR]

10.4.1.7 Support the expansion of school-based substance abuse programs. [CR]

10.4.1.8 Expand mental health programs for vulnerable populations. [CR]

10.4.1.9 In collaboration with the Department of Social Services, support an Adult Protective Services Program to prevent elder abuse, neglect and exploitation. [CR]

10.4.1.10 Develop family resource centers, including classes, support groups, information, library, and reference hotline. [CR, Calvert Library]

Objective 2: Provide care options for senior citizens in Calvert County.

10.4.2.1 Encourage the establishment of additional or expanded assisted-living facilities and nursing homes and the related services to meet current and projected needs. [CR, ED]

10.4.2.2 Encourage affordable programs that allow the physically and mentally handicapped to stay in their homes and have adequate care and access to services and programs. [CR]

10.4.2.3 Encourage the development of a long-term care and supportive services plan for Calvert County senior citizens. [CR]

Goal 5: Support public safety programs, strategies, and facilities development.

Objective 1: Ensure the coordination of efforts and services between state and local governments and between local government departments and divisions in developing effective public safety programs and strategies.

10.5.1.1 Plan the expansion of public safety services and facilities to coincide with projected population growth and identified needs. [PS]

10.5.1.2 Focus primary attention on crime prevention. [PS, CR]

10.5.1.3 Ensure adequate space is provided at the Detention Center. [BOCC, PS, CR]

10.5.1.4 Expand marketing of community programs that can help provide after school supervision and/or social services. [CR]

10.5.1.5 Encourage neighborhood crime prevention programs, including community policing. [PS, CR]
10.5.1.6 Maintain a strong, ongoing drug and alcohol abuse prevention program. [CR]
10.5.1.7 Continuously analyze the functionality of the 911 telephone equipment and infrastructure at Calvert Emergency Communications. [PS]
10.5.1.8 Consider expanding the county's adequate public facilities regulations to include law enforcement services to ensure the availability of adequate services for new development. [BOCC, PC, PS, P&Z]

Objective 2: Ensure that the Emergency Medical Services are able to meet the county's needs.

10.5.2.1 Continue to implement and review for adequacy the county Fire-Rescue-Emergency Medical Services Master Plan. [PS]
10.5.2.2 Continue to monitor response times and periodically evaluate the need for additional stations and personnel. [PS]
10.5.2.3 Implement a community awareness campaign. [PS, CMR]
10.5.2.4 Evaluate the use of contracted or private ambulance services. [PS]
10.5.2.5 Consider cost recovery practices for EMS services. [PS]
10.5.2.6 Evaluate incentives for increasing recruitment and retention of EMS volunteers. [PS]
10.5.2.7 Consider expanding the county's adequate public facilities regulations to include fire, rescue, and EMS services to ensure the availability of adequate services for new development. [BOCC, PC, PS, P&Z]

Goal 6: Maintain well-managed and effective solid waste and recyclable materials management systems in Calvert County.

Objective 1: Protect public health and safety and preserve the natural environment.

10.6.1.1 Maintain compliance with all applicable county, state (Maryland Department of Environment (MDE), and federal regulations. [PW]
10.6.1.2 Ensure conformity with the MDE permit conditions for state-permitted solid waste facilities. [PW]
10.6.1.3 Enact a two-year review initiative to develop a matrix to update the Plan of Action. [PW]
10.6.1.4 Follow the current Storm Water Management Plan, reviewing this plan every three years and update if necessary. [PW]
10.6.1.5 Conserve land by minimizing land use for waste disposal through the promotion of solid waste diversion efforts including recycling, waste reduction and reuse of materials as well as through continuing the transfer of solid waste out of the county. [PW]

Objective 2: Implement and maintain programs that promote source reduction, material reuse, and recycling over disposal.

10.6.2.1 Increase promotion and education of recycling, solid waste, source reduction, and reuse of materials, i.e. an alert system, awards program, website, community presence, etc. [PW]
10.6.2.2 Research and implement new ideas for encouraging citizens and businesses to recycle, reduce, and reuse materials and develop a community outreach program to promote them. [PW]

10.6.2.3 Develop a business directory of waste and recycling services offered in areas of Calvert County.

10.6.2.4 Research and potentially implement a mandatory recycling reporting program for businesses. [PW]

10.6.2.5 Develop a construction and demolition recycling and diversion program and evaluate potential incentives, such as asphalt shingles, aluminum siding, etc. [PW]

10.6.2.6 Plan and implement programs to achieve the 30% recycling rate established by the county by December 31, 2028. [PW]

10.6.2.7 Research and potentially implement "pay as you throw" programs and other means of waste diversion. [PW]

10.6.2.8 Explore mandatory curbside recyclables collection, if economically feasible. [PW]

10.6.2.9 Explore and potentially implement food waste composting. [PW]

10.6.2.10 Modify the County Zoning Ordinance to require recycling facilities/centers to recycle and report a minimum-specified percentage of material accepted. [PW]

10.6.2.11 Continue to review existing recycling programs for improvement and explore new recycling markets for opportunities. [PW]

10.6.2.12 Monitor existing recycling contracts to correct for changes in market conditions; and evaluate and implement the most cost-effective delivery of services. [PW]

Objective 3: Ensure cost effective and sustainable municipal solid waste and recyclables management services for residential and commercial customers.

10.6.3.1 Improve the existing Convenience Center collection system for household wastes and recycling. [PW]

1. Explore and potentially implement the use of critical convenience centers in times of inclement weather and emergencies.
2. Explore and apply for federal and state grant funding opportunities for critical infrastructure.

10.6.3.2 Maintain a budget structure that provides the framework to support the solid waste and recycling program as a self-sustaining enterprise. [PW]

1. Analyze the management of Department of Public Works "no-fee" services to government and non-governmental entities.
2. Develop a true cost analysis for solid waste and recycling services.
3. Based on the true cost analysis, evaluate and revise as necessary, the fees assessed for solid waste and recycling services in the county to ensure adequate funding is available to support Department of Public Works programs, such as fluorescent lamps.

10.6.3.3 Explore the expansion of recyclable materials accepted at the convenience centers. [PW]

10.6.3.4 Explore and potentially implement the management of stormwater structure cleanout material and other hard-to-manage wastes. [PW]

Objective 4: Ensure adequate facilities and infrastructure to accommodate current and future residential and commercial municipal solid waste and recyclables.

10.6.4.1 Design, build, and operate safe and efficient facilities for solid waste and recyclables acceptance, processing, and/or disposal. [PW]

10.6.4.2 Conduct regular reviews of existing facilities to ensure continual collection and transfer capacity as the population continues to increase. [PW]

10.6.4.3 Develop a feasibility study for the development of a new transfer station. [PW]

10.6.4.4 Evaluate, plan, and schedule the construction of new public solid waste and recycling facilities according to a six-year capital improvements program. The evaluation shall include but is not limited to: Sensitive Species Project Review Areas, Wetlands of Special Concern, and Environmental Impact Review. [PW]

10.6.4.5 Provide continual disposal capacity for municipal solid waste (MSW) by encouraging the transfer of solid waste generated by residents, commerce, and industry out of Calvert County to ensure future landfill capacity through at least the year 2028. [PW]

10.6.4.6 Explore waste mining at the Appeal Municipal Landfill, if necessary. [PW]

10.6.4.7 Explore the use of waste to energy incineration. [PW]

Objective 5: Collectively plan future initiatives, to the greatest extent possible, with internal county departments and regional county jurisdictions, councils, and other potential partnerships.

10.6.5.1 Promote source reduction by county residents, businesses, and institutions. [PW]

10.6.5.2 Explore contracted and/or franchised curbside waste and recyclables collection, where appropriate and cost-effective. [PW]

10.6.5.3 Explore regional solid waste management facilities and transportation (i.e. "waste to energy" transfer station, composting, etc.). [PW]

10.6.5.4 Explore biosolids management and processing. [PW]

10.6.5.5 Explore the potential for electricity generation through the use of solar panels on county owned solid waste facilities. [PW]

10.6.5.6 Explore the feasibility of material reuse programs and facilities. [PW]

Goal 7: Collectively plan future initiatives, to the greatest extent possible, with internal county departments and regional county jurisdictions, councils, and other potential partnerships.

Objective 1: Ensure coordination and cooperation between Calvert County Government and other public and quasi-public agencies, and elected officials.

10.7.1.1 Maintain close cooperation with all government agencies in establishing consistent and effective decisions relating to issues such as an improved environment, a better business climate, and higher quality of life. [CA, P&Z, ED]

10.7.1.2 Evaluate the impact and cost of changes at the Patuxent River Naval Air Station. [ED]

10.7.1.3 Make intergovernmental cooperation an integral part of planning by developing close working relationships between agencies. [CA, All Departments]

10.7.1.4 Work with the towns of North Beach and Chesapeake Beach, as well as the Tri-County Council of Southern Maryland, and Anne Arundel and Prince George's counties to achieve consensus on regional issues and policies. [BOCC, CA, All Departments]

10.7.1.5 Continue coordination of transportation planning and programs with all appropriate state, federal, and regional agencies. [P&Z, PW, CR]

10.7.1.6 Cooperate with adjoining counties and regional agencies to ensure that zoning and subdivision regulations permit compatible development along boundaries and the Patuxent River. [P&Z]

10.7.1.7 Support state policies that concentrate growth in designated growth centers and policies that protect farm areas. [BOCC, P&Z, ED]

10.7.1.8 Continue regular communication between agency counterparts in local, regional, and state governments. [All Departments]

10.7.1.9 Continue to look for ways to support NAS PAX with land use policies, review processes, and regulations consistent with the JLUS to prevent or mitigate encroachment. [P&Z]

Objective 2: Encourage long-term consistency between the towns and the county's plans.

10.7.2.1 Minimize potential land use conflicts between incorporated towns and the county through coordination and development referrals, including review of proposed developments which are adjacent to or near town borders. [P&Z]

10.7.2.2 Continue coordination of capital improvement programs. [F&B]

10.7.2.3 Share staff and facilities where such sharing will improve public service capabilities and will avoid duplication of services and waste. [CA, P&Z]

10.7.2.4 Develop memoranda of understanding with the municipalities concerning the provision of infrastructure and services in connection with growth management. [BOCC]

CHAPTER 11. IMPLEMENTATION

Overview

This chapter summarizes the actions Calvert County is taking to implement Calvert 2040, the Comprehensive Plan. The Plan is a snap-shot in time of the dynamic process of managing growth in Calvert County.The Board of County Commissioners, the Planning Commission, and county departments are continuously updating functional plans and small area plans, evaluating proposed projects, and deliberating changes to development regulations.

During the development of the Plan, the Board of County Commissioners and the Planning Commission have already taken some actions to implement this Plan including:

- Adoption of the new sign regulations
- Adoption of the Growth Tier Map
- Adoption of the updated Calvert County Land Preservation, Parks and Recreation Plan

They have directed the Department of Planning & Zoning to prepare a new zoning ordinance and conduct a comprehensive review of the zoning maps to make them consistent with this Plan. They have also direct the department staff to prepare an update to the Calvert County Transportation Plan.

Throughout the document, goals, objectives, and actions are listed and assigned to specific county agencies. The Table 11-1 consolidates these list in a single table and categorizes them as short-term (five years or less), mid-term (five to 10 years), long-term (10 plus years), or ongoing.

Tables of Actions, Schedule and Responsible Agencies

Chapter 3 Land Use

Goal 1: Preserve the rural character of the county, its prime farmland, contiguous forests, cultural resources, and environmentally sensitive areas.

Objective 1: Reserve the Farm and Forest District for farming and natural resource-related uses.	**Timeframe**	**Responsible Parties**
3.1.1.1 Review and evaluate the Purchase and Retirement (PAR) and Leveraging and Retirement (LAR) Programs to assess future implementation strategies and consider modifications to improve program operations.	Ongoing	BOCC, P&Z
3.1.1.2 Establish a procedure for collecting voluntary contributions to the PAR fund with payment of property tax.	Mid-term	P&Z, F&B

3.1.1.3 Provide local support to the Maryland Agricultural Land Preservation Program and other state and federal agricultural preservation programs.	Long-term	P&Z
3.1.1.4 Continue to support the goal of permanently preserving a minimum of 40,000 acres of prime farm and forestland through county, state, and federal land preservation programs and land trusts.	Ongoing	BOCC, Agricultural Preservation Advisory Board (APAB), P&Z
3.1.1.5 Continue to limit the types of public and quasi-public uses in the Farm and Forest District based upon their purpose and intensity.	Ongoing	BOCC, P&Z
3.1.1.6 Periodically review and update the Calvert County Growth Tier Map.	Ongoing	BOCC, PC, and P&Z
3.1.1.7 Do not increase highway capacity within the Farm and Forest District.	Ongoing	PW
Objective 2: Promote on-farm processing and provide appropriate locations for the processing of local agricultural products.	**Timeframe**	**Responsible Parties**
3.1.2.1 Permit and market value-added opportunities for farm product sales.	Short-term	P&Z, ED
3.1.2.2 Facilitate the development of an animal processing facility and regional grain depot.	Long-term	P&Z, ED
Objective 3: Protect the scenic quality of existing rural landscapes and vistas.	**Timeframe**	**Responsible Parties**
3.1.3.1 Explore opportunities for developing heritage sites and ecotourism.	Mid-term	P&Z, ED, PR, CMM
3.1.3.2 Look at the potential for linking agricultural and heritage tourism with other economic development activities such as the marketing of locally-grown foods.	Mid-term	P&Z, ED
3.1.3.3 Reduce negative environmental impacts of subdivision roads and make them visually compatible with the rural character of the surrounding area while maintaining road safety.	Mid-term	P&Z, PW
3.1.3.4 Strengthen regulations and incentives governing the preservation of older structures.	Mid-term	P&Z, HDC
3.1.3.5 Look for opportunities to connect designated wetlands with other protected natural areas and preserved agricultural lands to create a network of green spaces (green infrastructure). Where appropriate, this network could include hiking trails to create recreation opportunities for residents and visitors.	Long-term	P&Z, P&R

Goal 2: Use water and sewer policies to direct growth consistent with land use policies.

Objective 1: Make provisions for water and sewer service in Growth Areas consistent with the planned land uses and intensity.	**Timeframe**	**Responsible Parties**
3.2.1.1 Consider options for public financial support for provision of public water and sewer facilities in the Prince Frederick, Lusby, and Solomons Town Centers to promote economic development, encourage multi-family housing opportunities, and protect public health.	Short-term	BOCC, P&Z, PW, F&B
3.2.1.2 Allow privately-funded community sewage treatment facilities to serve commercial, industrial and employment uses located outside Town Centers and Residential Areas, consistent with economic development goals.	Ongoing	BOCC, PW, P&Z
Objective 2: Limit public water and sewer service in Rural Areas.	**Timeframe**	**Responsible Parties**
3.2.2.1 Do not locate public facilities such as sewer or water service areas, schools, and fire and rescue stations within the Farm and Forest areas and Wetlands areas.	Ongoing	BOCC, GS, PW, PS, F&B, BOE
3.2.2.2 Limit public sewer systems to locations where public health is compromised by existing water supply and sewage disposal technologies.	Ongoing	BOCC, PW
3.2.2.3 Allow public water and sewer facilities in locations within a designated Waterfront Communities only when necessary to address public health and safety.	Ongoing	BOCC, PW

Goal 3: Develop Town Centers as attractive, convenient, and interesting places to live, work, and shop.

Objective 1: Continue to promote a broad mix of commercial, office, residential, public, and quasi-public development within Town Centers.	**Timeframe**	**Responsible Parties**
3.3.1.1 Promote Town Centers as community cultural and activity centers by locating schools, colleges, recreational, and cultural facilities there.	Ongoing	BOCC, GS, P&R, BOE
3.3.1.2 Facilitate the creation of farmers markets in all Town Centers.	Mid-term	ED, P&Z
3.3.1.3 Consider ways to strengthen regulations regarding derelict buildings.	Mid-term	P&Z, County Attorney's Office (CAO), BOCC
3.3.1.4 Allow the use of TDRs to increase the density and term of housing types provided in Town Centers.	Short-term	BOCC, P&Z
3.3.1.5 Allow uses that serve both local residents and employees to locate in employment areas.	Short-term	BOCC, P&Z

Objective 2: Review the Transfer of Development Rights Program so that it directs the majority of growth to Growth Areas.	**Timeframe**	**Responsible Parties**
3.3.2.1 Evaluate the use of TDRs within the Farm and Forest areas and the Rural Residential areas.	Short-term	P&Z, APAB
3.3.2.2 Explore the use of TDRs to increase commercial intensity in Town Centers.	Short-term	BOCC, P&Z, ED, APAB
3.3.2.3 Evaluate the funding and administration of the Purchase and Retirement Program for development rights.	Mid-term	P&Z, APAB, F&B
3.3.2.4 Evaluate the policy of using TDRs in the one-mile radius of the Town Centers (Dunkirk, Owings, Huntingtown, and St. Leonard).	Short-term	P&Z, PC, BOCC
Objective 3: Ensure that Town Center Master Plans are updated on a periodic basis.	**Timeframe**	**Responsible Parties**
3.3.3.1 Review and update the Town Center Master Plans to reflect the policies of the Calvert 2040 Plan.	Short-term and Mid-term	BOCC, PC, P&Z
3.3.3.2 Maintain a schedule to review and update Town Center Master Plan.	Mid-term	BOCC, PC, P&Z
3.3.3.3 Use the Prince Frederick Charrette Report as a basis for updating the Prince Frederick Town Center Master Plan.	Short-term	BOCC, PC, P&Z
3.3.3.4 Review Town Center Master Plans to look for additional ways to reduce dependence upon automobiles by promoting "pedestrian-friendly" site design and increasing pedestrian and bicycle circulation within and between residential, commercial, and office uses.	Mid-term	P&Z, PW
3.3.3.5 Continue to improve the appearance of Town Centers by emphasizing Town Center Master Plan Capital Improvements Projects and Architectural Review.	Ongoing	BOCC, PC, P&Z, Architectural Review Committees (ARCs), GS, PW
3.3.3.6 As Master Plans are updated, look for ways to preserve and enhance the unique character of each Town Center.	Mid-term	PC, P&Z, ARCs, HDC

Goal 4: Direct commercial and industrial uses to appropriate locations; provide necessary infrastructure.

Objective 1: Locate Commercial Uses and Employment Areas appropriately in Town Centers.	**Timeframe**	**Responsible Parties**
3.4.1.1 Continue to direct commercial and employment growth to Town Centers.	Ongoing	BOCC, P&Z, ED
3.4.1.2 Identify and implement ways to improve commercial business and employment growth in Town Centers.	Mid-term	ED

3.4.1.3 Interconnect roadways, transit routes, bike routes and pedestrian networks to make the employment area part of the adjacent community.	Long-term	P&Z, CR, PW
Objective 2: Support development in the Industrial and Marine Commercial areas.	**Timeframe**	**Responsible Parties**
3.4.2.1 Develop a long-term infrastructure plan for the Industrial areas.	Mid-term	ED, PW, P&Z
3.4.2.2 Maintain an inventory of Industrial land.	Short-term	P&Z, ED
3.4.2.3 Allow office and business uses in Industrial areas.	Short-term	BOCC, P&Z
3.4.2.4 Monitor the amount of marine commercial zoning needed and the best locations in terms of the following factors: water depths, erosion potential, water quality, and critical navigation areas.	Short-term	P&Z, ED
3.4.2.5 Allow maximum utilization of areas zoned Marine Commercial (MC) without causing significant adverse effects on aquatic resources, visual aesthetics, or neighboring residential uses (e.g., outdoor lighting projecting onto residential property).	Short-term	P&Z
Objective 3: Avoid the potential for strip commercial development along highways.	**Timeframe**	**Responsible Parties**
3.4.3.1 Do not permit additional commercial and retail development along highways outside Town Centers.	Ongoing	BOCC, P&Z
3.4.3.2 Do not allow commercial and retail uses to have direct access onto MD 2/4 in Huntingtown, St. Leonard, or Lusby.	Ongoing	BOCC, P&Z, SHA
3.4.3.3 Require that rural commercial properties meet the same site design and architectural design standards that are required for businesses that locate within the nearest town centers.	Ongoing	BOCC, P&Z
Objective 4: Phase out rural commercial properties.	**Timeframe**	**Responsible Parties**
3.4.4.1 Develop a plan for phasing out Rural Commercial districts that are vacant or under-utilized.	Mid-term	P&Z, ED
3.4.4.2 Restrict the expansion of rural commercial uses and maintain a small-scale rural character.	Ongoing	BOCC, P&Z
Objective 5: Commercial Uses in the Farm and Forest and Rural Residential.	**Timeframe**	**Responsible Parties**
3.4.5.1 Limit commercial uses in the Farm and Forest and Rural Residential areas to help avoid traffic congestion and conflicts with existing residential communities.	Short-term and ongoing	BOCC, P&Z, PW

3.4.5.2 Permit low-impact supplemental income opportunities within the Farm and Forest and Rural Residential areas that support, complement, and promote farming and heritage/ecotourism.	Short-term	BOCC, P&Z

Chapter 4 Environment and Natural Resources

Goal 1: Preserve, protect, and conserve natural resources and environmentally sensitive areas.

Objective 1: Preserve and restore wetlands.	**Timeframe**	**Responsible Parties**
4.1.1.1 Maintain substantial monetary penalties for the unauthorized destruction of wetlands.	Ongoing	P&Z, MDE
4.1.1.2 Restore or create wetlands and wetland buffers in areas that will reduce nutrient pollution runoff from farms and developed areas.	Mid-term and long-term	MDE, DNR
4.1.1.3 Develop regulations to address existing and future development adjacent to wetlands.	Short-term	P&Z, MDE
4.1.1.4 Revise site planning criteria to encourage use of natural features of a site and planting of native vegetation, as well as to prevent disturbance of wetlands and their buffers.	Short-term	P&Z
Objective 2: Preserve and restore floodplains.	**Timeframe**	**Responsible Parties**
4.1.2.1 Consider raising the floodplain protection level.	Mid-term and long-term	BOCC, P&Z
4.1.2.2 For development in the floodplain, ensure that construction practices minimize damage to property and the environment during flooding.	Ongoing	P&Z
4.1.2.3 Prohibit the removal of vegetation in the floodplain.	Short-term	P&Z
4.1.2.4 Create flood management plans for each identified watershed.	Mid-term and long-term	P&Z
Objective 3: Preserve and restore streams and stream buffers.	**Timeframe**	**Responsible Parties**
4.1.3.1 Require and maintain undeveloped buffers containing native vegetation that limit development around perennial streams.	Mid-term and long-term	P&Z, DNR
4.1.3.2 Preserve and restore riparian forests.	Mid-term and long-term	P&Z, DNR
Objective 4: Preserve and protect steep slopes.	**Timeframe**	**Responsible Parties**
4.1.4.1 Develop regulations to address existing and future development on steep slopes. Limit grading and alterations of natural vegetation on steep slopes.	Short-term	P&Z

4.1.4.2 Revise site planning criteria to encourage use of natural features of a site and planting of native vegetation as well as to prevent grading of steep slopes.	Short-term	P&Z
Objective 5: Develop methods to protect the habitats of rare, threatened, and endangered species.	**Timeframe**	**Responsible Parties**
4.1.5.1 Work with the State to map rare, threatened, and endangered species outside the Critical Areas and develop protective measures.	Mid-term	P&Z
4.1.5.2 Limit shore erosion control measures in areas of Calvert Cliffs that have significant Puritan tiger beetle populations.	Ongoing	P&Z, DNR, USFWS
Objective 6: Create greenways throughout the county.	**Timeframe**	**Responsible Parties**
4.1.6.1 Establish greenway systems along stream valleys especially where they connect large tracts of protected agricultural and forest lands.	Long-term	P&Z

Goal 2: Continue a comprehensive approach to environmental planning with special emphasis on watershed planning.

Objective 1: Create, adopt and update watershed plans for each major watershed in the county.	**Timeframe**	**Responsible Parties**
4.2.1.1 Develop guidelines addressing the content and public involvement process for preparing watershed plans.	Short-term	P&Z
4.2.1.2 Establish budgets, a schedule and track the preparation and completion of watershed plans. [P&Z]	Short-term	P&Z
Objective 2: Foster greater public awareness, education, and support of environmental concerns.	**Timeframe**	**Responsible Parties**
4.2.2.1 Maintain, support, and improve the environmental education programs for school-aged children, including the CHESPAX program for the Calvert County Public School System.	Ongoing	BOE, EC, BOCC
4.2.2.2 Develop environmental education programs focused on watershed protection for adults and families, working with the University of Maryland Center for Environmental Science Chesapeake Biological Laboratory and Morgan State University's Patuxent Environmental & Aquatic Research Laboratory.	Mid-term	EC

Goal 3: Preserve, protect, and conserve land-based natural resources.

Objective 1: Preserve and restore forestland.	**Timeframe**	**Responsible Parties**
4.3.1.1 Using the map of the 2010 forested areas map, track and report forest loss and gain.	Ongoing	P&Z

4.3.1.2 Retain 90% of existing forest as of 2010.	Ongoing	P&Z, DNR
4.3.1.3 Require replacement of 100% of forest loss since 2010 outside the Critical Area and Town Centers.	Ongoing	P&Z, DNR
4.3.1.4 Expand land preservation programs that protect forested areas (e.g. local land trusts, county land trusts, easement programs, Forest Stewardship Program, and Department of Defense programs for the Joint Land Use Area).	Mid-term	P&Z, Land Trusts, DNR, DOD
Objective 2: Address mobile sources of air pollution.	**Timeframe**	**Responsible Parties**
4.3.2.1 Develop infrastructure such as bike lanes to facilitate non-vehicular modes of travel.	Mid-term	PW, SHA
4.3.2.2 Encourage telecommuting to reduce miles traveled for commuting.	Short-term	P&Z, ED
4.3.2.3 Encourage land use strategies that reduce the need for daily trips and miles traveled via automobile.	Ongoing	P&Z
Objective 3: Provide Information to the public regarding mineral resources.	**Timeframe**	**Responsible Parties**
4.3.3.1 Require that significant mineral resources be shown on subdivision preliminary plans and on site plans.	Short-term	P&Z
4.3.3.2 Make state maps of mineral resources in Calvert County available to the public.	Short-term	MGS

Goal 4: Mitigate natural and man-made hazards in Calvert County.

Objective 1: Minimize future losses from disasters by reducing the risk to people and property	**Timeframe**	**Responsible Parties**
4.4.1.1 Provide protection of critical facilities/infrastructure vital to disaster response, such as fire and police, and those vital to the continuous operations of the county, such as hospitals and health care facilities, water and sewer facilities, electrical and other utility, and transportation systems.	Ongoing	BOCC, EM, MEMA, FEMA
Objective 2: Provide continuous education and training.	**Timeframe**	**Responsible Parties**
4.4.2.1 Continue to develop and support disaster preparedness education and awareness programs, targeting specific benefits to residents, visitors, businesses, and elected officials.	Ongoing	P&Z, EM
4.4.2.2 Identify and coordinate public information programs and events such as contests and festivals with public and private partners.	Short-term	P&Z, EM, MEMA, FEMA
4.4.2.3 Educate the public on higher standards of protection to structures and facilities from hazards.	Ongoing	P&Z, EM, MEMA, FEMA

4.4.2.4 Continue public education and outreach on the topics of economic vulnerability and recovery through collaborative programs involving government, businesses and community organizations.	Ongoing	P&Z, EM, MEMA, FEMA
4.4.2.5 Identify and seek multiple funding sources that will support hazard mitigation awareness and training programs.	Ongoing	P&Z, EM
Objective 3: Emphasize pre-disaster retrofitting and post-disaster planning.	**Timeframe**	**Responsible Parties**
4.4.3.1 Identify vulnerable critical facilities and infrastructure.	Mid-term	P&Z, EM
4.4.3.2 Promote disaster mitigation features in new building construction and retrofit existing structures.	Long-term	P&Z
4.4.3.3 Continue to develop economic incentive programs for both public and private sectors to promote structural retrofitting.	Ongoing	BOCC, EM, MEMA, FEMA
4.4.3.4 Develop and support public and private projects and programs to retrofit, relocate, or acquire properties susceptible to repetitive flooding.	Ongoing	BOCC, EM, MEMA, FEMA
Objective 4: Minimize losses and institute adequate regulations through land use regulations.	**Timeframe**	**Responsible Parties**
4.4.4.1 Identify and support public and private projects and programs to retrofit, relocate, or acquire properties as well as remove structures susceptible to repetitive flooding.	Ongoing	P&Z, EM, MEMA, FEMA
4.4.4.2 Continue to implement systematic maintenance programs for stormwater management systems.	Ongoing	PW
4.4.4.3 Discourage new development in high hazard areas through appropriate regulations and land use planning.	Ongoing	P&Z
4.4.4.4 Enforce local, state and federal floodplain regulations and building standards for development in flood hazard areas.	Ongoing	P&Z
Objective 5: Protect natural resources and open-spaces that provide flood and other hazard mitigation.	**Timeframe**	**Responsible Parties**
4.4.5.1 Encourage actions that protect natural resources while supporting community resiliency and hazard mitigation efforts.	Ongoing	P&Z
4.4.5.2 Coordinate natural resource preservation and land use planning to ensure that those natural resource areas, that are shown to provide hazard mitigation benefits, remain open spaces, and retain the natural benefits they provide.	Ongoing	P&Z
Objective 6: Protect infrastructure and critical facilities to reduce potential disruption of regular activities during and after hazard events.	**Timeframe**	**Responsible Parties**
4.4.6.1 Efficiently utilize resources to reinforce infrastructure, to withstand potential hazards, and to ensure continued use during and after an event.	Ongoing	PW

4.4.6.2 Coordinate with the Towns of Chesapeake Beach and North Beach to research, secure, and effectively use external or additional sources of funding to help make the infrastructure and critical facilities on which the residents, businesses and visitors of the county and towns depend, more resilient to various hazards and events.	Ongoing	P&Z, EM, PW

Chapter 5 Heritage

Goal 1: Identify, protect, and interpret the buildings, places, and archaeological sites that signify the heritage of the community.

Objective 1: Promote the documentation and protection of Calvert County's heritage.	**Timeframe**	**Responsible Parties**
5.1.1.1 Continue to add undocumented sites to the Maryland Inventory of Historic Properties and update the forms for properties that have been previously surveyed but have inadequate information.	Ongoing	P&Z, HDC
5.1.1.2 Continue to record archaeological sites and add them to the Maryland Archaeological Sites Survey and to update forms for recorded sites when new information is available.	Ongoing	P&Z, HDC
5.1.1.3 Continue preservation of sites and structures through the designation of Historic Districts and the provision of assistance and support to property owners; encourage the designation of multi-property districts.	Ongoing	P&Z, HDC
5.1.1.4 Promote the adaptive reuse of existing building stock.	Ongoing	
5.1.1.5 Adopt an archaeological site protection ordinance that is applicable county-wide.	Short-term	P&Z, PC, BOCC
5.1.1.6 Adopt a historic/scenic roads ordinance.	Short-term	BOCC, PC, P&Z
5.1.1.7 Research and develop strategies to mitigate the effects of environmental threats to cultural resources.	Mid-term	P&Z, GS
5.1.1.8 Ensure adequate support of programs for the documentation of threatened sites and structures and for the publicizing of strategies and incentives that would encourage preservation of threatened resources.	Short-term	BOCC, HDC, P&Z

Goal 2: Document and conserve Calvert County ways of life, the memory of the people.

Objective 1: Support and encourage programs that focus on local history, cultural geography, and folklife.	**Timeframe**	**Responsible Parties**
5.2.1.1 Continue to support and maintain existing archives and repositories of oral histories collected through the Historic District Commission.	Ongoing	BOCC, HDC, CMM, GS

5.2.1.2 Continue to collect oral histories and make them available in electronic format to the Calvert Marine Museum, the Calvert County Historical Society, and the Southern Maryland Studies Center at the College of Southern Maryland.	Ongoing	HDC, P&Z, CMM

Goal 3: Develop heritage resources as cultural capital to connect the past to the future.

Objective I: Celebrate heritage as a means of creating and nurturing a sense of local identity	**Timeframe**	**Responsible Parties**
5.3.1.1 Work with agricultural, environmental, and land trust organizations to promote consideration of historical and archaeological resources in open space, or protection through easements or other preservation strategies.	Ongoing	P&Z, HDC
5.3.1.2 Work with Communications and Media Relations and the tourism office to ensure that information about heritage resources is shared.	Ongoing	P&Z, HDC, CMR, ED
5.3.1.2 Support efforts to interpret and celebrate local heritage at historic sites, in the public schools, and at special events in the community and make information available to assist in those endeavors.	Ongoing	P&Z, HDC, ED, CMR, Heritage Committee

Chapter 6 Housing

Goal 1: Provide for full term of housing types in Town Centers to attract and retain multi-generational communities.

Objective 1: Facilitate the development of a variety of housing types in Town Centers	**Timeframe**	**Responsible Parties**
6.1.1.1 Continue the policy to allow accessory dwelling units on lots with single family dwellings.	Ongoing	P&Z
6.1.1.2 Continue to allow small clusters of multiple dwelling units (with the appearance of a single dwelling unit) in Town Centers in accordance with the Town Center master plans.	Ongoing	P&Z

Goal 2: Encourage walkable, mixed use communities in Town Centers.

Objective 1: Accommodate residential uses in areas that are traditionally commercial in character.	**Timeframe**	**Responsible Parties**
6.2.1.1 Allow residential uses in mixed-use buildings in the Town Centers.	Short-term	P&Z

6.2.1.2 Explore the potential to incorporate multi-family housing into commercial areas to bring uses closer together and allow for redevelopment and infill housing	Short-term	P&Z
Objective 2: Encourage location of small-scale personal service activities within a walkable distance of residential uses.	**Timeframe**	**Responsible Parties**
6.2.2.1 Accommodate home occupations at an appropriate scale in residential areas.	Short-term	P&Z
6.2.2.2 Consider allowing small retail and service uses on the first floor of residential structures along major roads.	Short-term	P&Z, PC, BOCC

Goal 3: Provide programs to increase housing affordability.

Objective 1: Support programs that increase the availability of affordable units.	**Timeframe**	**Responsible Parties**
6.3.1.1 Encourage public/private partnerships and/or developer-nonprofit partnerships for the development of affordable housing, elderly housing, or upgrading of substandard housing.	Ongoing	CR, ED
6.3.1.2 Avoid concentrating subsidized housing. Facilitate affordable housing in all areas.	Ongoing	CR, P&Z
6.3.1.3 Continue partnerships in support of funding for public/private housing to be used for low-interest loans or grants for affordable housing.	Ongoing	CR
6.3.1.4. Consider providing tax incentives for retirees.	Short-term	CR, F&B, BOCC
6.3.1.5 Consider adopting inclusionary zoning regulations, after reviewing programs in other jurisdictions.	Short-term	P&Z, CR, PC, BOCC
Objective 2: Increase financial education opportunities that support home ownership.	**Timeframe**	**Responsible Parties**
6.3.2.1 Encourage training seminars to show how to manage finances to own or rent housing and to increase awareness of first-time home-buyer programs in Maryland.	Short-term	CR, ED

Goal 4: Support aging in place through universal design housing units, especially near health and support services.

Objective 1: Support aging in place through universal design.	Timeframe	Responsible Parties
6.4.1.1 Encourage the use of universal design principles in the housing units and communities.	Short-term	P&Z
6.4.1.2 Reduce parking requirements for housing to serve the disabled and seniors when reliable alternative transportation options are available to residents.	Short-term	P&Z
6.4.1.3 Provide opportunities to retrofit existing homes to incorporate universal design features so that seniors and the disabled can remain in communities longer, if they so choose.	Short-term	P&Z
Objective 2: Locate senior housing near health and other support services.	**Timeframe**	**Responsible Parties**
6.4.2.1 Continue to encourage age-restricted (senior or 55+) housing in Town Centers by reducing the full requirements of the Adequate Public Facilities requirements for schools, school excise taxes, and/or the use of Transferable Development Rights to increase allowable density.	Ongoing	BOCC, P&Z
6.4.2.2 Develop incentives for assisted living facilities and nursing homes to be constructed in Town Centers.	Mid-term	P&Z, CR, BOCC

Chapter 7 Transportation

Goal 1: Provide a safe and reliable transportation system that complements the overall development of the county and balances use by pedestrians, bicyclists, motorists, and bus riders.

Objective 1: Develop a transportation system that effectively serves the future land use pattern and helps to implement adopted land use and growth management objectives.	Timeframe	Responsible Parties
7.1.1.1 Achieve a high level of accessibility between residential areas and Town Centers.	Long-term	P&Z, PW, CR
7.1.1.2 Give priority to the construction and upgrading of roads that serve Town Centers. Continue to advocate for the Thomas Johnson Bridge replacement as a top priority for state road construction.	Ongoing	BOCC, PW, P&Z
7.1.1.3 Adopt an access management policy.	Short-term	BOCC, PW, P&Z
7.1.1.4 Identify and protect rights-of-ways and easements for the long term.	Ongoing	PW, P&Z

7.1.1.5 Continue efforts to secure funding to upgrade the Thomas Johnson Bridge.	Short-term	BOCC, PW, P&Z
Objective 2: Establish a road connectivity requirement for new developments.	**Timeframe**	**Responsible Parties**
7.1.2.1 Establish road and sidewalk/path connectivity requirement based on block length in designated areas and for residential and commercial subdivisions above a certain size to help reduce traffic congestion and improve walkability, especially in Town Centers.	Short-term	P&Z, PW
7.1.2.2 Promote cross-access between properties and interconnected parking lots to preserve the capacity of the adjacent road.	Short-term	P&Z, PW
Objective 3: Continue to update and adopt the county transportation plan.	**Timeframe**	**Responsible Parties**
7.1.3.1 Construct new roads as called for in the Calvert County Transportation Plan and as identified in the adopted Town Center master plans.	Mid-term and long-term	PW
7.1.3.2 Continue to update the Calvert County Transportation Plan, including a Transportation System Management element.	Short-term and ongoing	P&Z
Objective 4: Prepare traffic circulation studies and transportation plans as needed for Town Centers.	**Timeframe**	**Responsible Parties**
7.1.4.1 Continue to monitor traffic conditions and assess the potential for technological solutions to traffic problems.	Short-term and ongoing	P&Z, PW, SHA

Goal 2: Maintain MD 2, MD 4, MD 2/4, and MD 231 as the main transportation corridors, providing for safe and efficient travel.

Objective I: Improve traffic flow on the county's main transportation corridors.	**Timeframe**	**Responsible Parties**
7.2.1.1 Reduce existing and discourage future direct property access, especially to MD 4, MD 2/4, and MD 231.	Ongoing	P&Z, SHA
7.2.1.2 Require parallel connecting roads along MD 4 and 2/4 during the development and subdivision process, where feasible, with the long-term goal of having driveways served by connecting roads.	Ongoing	P&Z
7.2.1.3 Continue to develop north-south roadway systems, parallel to MD 2/4 in the Town Centers.	Ongoing	P&Z, PW

Goal 3: Maintain and improve the arterial and non-arterial road systems to provide for safe and efficient travel.

Objective 1: Maintain the program to renovate road sections and intersections. This includes widening roads, adding shoulders, improving stormwater conveyance, removing dangerous curves, replacing bridges, correcting poor sight distance, and adding turning lanes and roundabouts. Prioritize improvements based on traffic counts, existing conditions, and proximity and service to Town Centers.	**Timeframe**	**Responsible Parties**
7.3.1.1 Address peak-hour congestion on MD 2/4.	Ongoing	SHA
7.3.1.2 Pursue with SHA the implementation of active traffic management technology to reduce congestion during peak hours.	Short-term	P&Z, PW, SHA
7.3.1.3 Pursue as a priority, continued efforts to work with Tri-County Council and MDOT–SHA to Improve MD 231 and MD 2 to address safety and reduce congestion.	Mid-term	BOCC, PW, P&Z, TCCSMD, SHA
7.2.1.4 Continue the program for resurfacing existing roads. Prioritize resurfacing based on traffic counts, structural condition of paving and subsurface conditions, and skid resistance of existing surfaces.	Ongoing	PW
Objective 2: Complete the network of roads parallel to MD 2/4 in Prince Frederick.	**Timeframe**	**Responsible Parties**
7.3.2.1 Include continuous bike and pedestrian pathways along these roadways.	Mid-term	P&Z, PW
7.3.2.2 Encourage businesses locating along these roads to have a public entrance facing them	Ongoing	P&Z

Goal 4: Improve and expand existing transit services.

Objective 1: Increase the frequency of local transit service between Town Centers, including employment areas and health centers.	**Timeframe**	**Responsible Parties**
7.4.1.1 Explore the demand among local employers and workers for buses commuting to take employees to and from work places. Develop routes likely to encourage transit access for employees, patients, and students from throughout the county.	Mid-term	CR
7.4.1.2 Review the routes serving Town Centers to include stops at employment centers. Consider extending transit hours to serve employees within the Town Centers and adjacent areas.	Short-term	CR
7.4.1.3 Review and increase the number of routes connecting major subdivisions to Town Centers.	Long-term	CR
Objective 2: Designate new park and ride locations and key commuter transit routes, when needed.	**Timeframe**	**Responsible Parties**

7.4.2.1 Provide adequate commuter parking lots at key locations throughout the county.	Ongoing	MDOT/MTA
7.4.2.2 Encourage the shared use of parking lots, especially in Town Centers as part of coordinated land development plans.	Short-term	P&Z
7.4.2.3 Continue to encourage the state to provide expanded commuter bus service.	Ongoing	CR, P&Z
Objective 3: Expand and improve demand-responsive transit services.	**Timeframe**	**Responsible Parties**
7.4.2.1 Increase availability of demand-response public transportation.	Mid-term	CR

Goal 5: Promote transportation alternatives such as buses, carpools, vanpools, bicycling, and walking.

Objective 1: Develop a countywide policy for building and maintaining sidewalks and bicycle ways at the time of new road construction.	**Timeframe**	**Responsible Parties**
7.5.1.1 As state and county roads are improved or upgraded, ensure the roads include sidewalks and bikeways; where feasible, construct a bikeway, which is to be a shared-use path, separate from the roadway.	Ongoing	P&Z, PW
7.5.1.2 Continue to retrofit existing roads with sidewalks connecting communities within the residential areas of Town Centers by an internal network of sidewalks and roads.	Ongoing	PW
7.5.1.3 Provide safe pedestrian and bicycle routes to all public schools, where practical.	Mid-term and long-term	P&Z, PW, SHA
7.5.1.4 Provide designated crosswalks at all intersections except where the designation would create a safety hazard.	Mid-term	SHA, PW
7.5.1.5 Review site plans for commercial, business and employment uses to ensure safe pedestrian movements.	Ongoing	P&Z
Objective 2: Establish bicycle routes to connect residential, commercial, employment, educational, and open space areas.	**Timeframe**	**Responsible Parties**
7.5.2.1 Develop a local bicycle system plan for each Town Center.	Long-term	P&Z, PW
7.5.2.2 Designate key bike routes connecting Town Centers, where practical.	Mid-term	P&Z, PW
7.5.2.3 Establish priorities for the creation of designated bikeways along the state highways operating from east to west or connecting to Town Centers, including MD 2, MD 4, MD 2/4, MD 231, MD 261, MD 262, MD 263, MD 264, MD 265, MD 402, MD 497, and MD 760.	Mid-term	P&Z, PW, SHA
7.5.2.4 Provide wayfinding on designated bike routes.	Short-term and mid-term	PW, SHA
7.5.2.5 Look for ways to encourage the use of bicycles, including providing bicycle parking and/or storage facilities at public buildings, encouraging it in shopping and employment areas, and providing information on bikeways, such as online maps, to the public.	Short-term and ongoing	P&Z, GS, TS

7.5.2.6 Improve bicycle safety and accommodations, especially in Town Centers.	Short-term and ongoing	P&Z, PW, SHA
7.5.2.7 Encourage the construction of the bikeway/shared-used path as properties develop.	Short-term, then ongoing	P&Z
7.5.2.8 Address bicycle and pedestrian accommodations in each Town Center master plan.	Short-term and mid-term	P&Z, PW
Objective 3: Develop a complete streets policy applicable within Town Centers.	**Timeframe**	**Responsible Parties**
7.5.3.1 Install traffic calming measures in select locations in Town Centers.	Mid-term	PW, SHA
7.5.3.2 Promote multiple modes of transportation to reduce dependence on automobiles within Town Centers and connect Town Centers with adjacent communities through the provision of walking and biking routes.	Ongoing	P&Z, PW
7.5.3.3 Establish bicycle parking requirements for commercial, employment, and institutional uses in Town Centers and Employment areas.	Short-term	P&Z
7.5.3.4 Pursue pedestrian safety and traffic capacity improvements within Town Centers.	Mid-term	PW
7.5.3.5 Encourage the installation of sidewalks along both sides of all streets in Town Centers.	Ongoing	P&Z, PW, SHA
7.5.3.6 Install pedestrian crossing signals connected to safe pedestrian networks at signalized intersections within Town Centers.	Short-term and mid-term	PW, SHA
7.5.3.7 Map and implement continuous, ADA compliant sidewalks, and pedestrian facilities in each Town Center. Update small area master plans to include these networks.	Short-term and mid-term	P&Z, PW, SHA, TS
7.5.3.8 Pursue Complete Streets grant opportunities.	Ongoing	PW, P&Z

Goal 6: Continue a countywide transportation planning program that is integrated with state and regional planning programs.

Objective 1: Develop a sustainable program for financing transportation construction and improvement.	**Timeframe**	**Responsible Parties**
7.6.1.1 Explore potential funding strategies to expedite the planning and construction of needed projects on the State highway system in Calvert County and for county roads.	Mid-term	P&Z, PW, F&B
7.6.1.2 If amendments are made in federal and/or state standards, amend the county road design requirements.	Ongoing	P&Z, PW
7.6.1.3 Encourage developer participation in adjacent roadway improvements that become necessary as development progresses.	Ongoing	P&Z, PW
7.6.1.4 Review Calvert County's adequate public facilities regulations for roads and consider potential changes to ensure the cumulative impacts of development are addressed.	Short-term	PW, BOCC

Objective 2: Participate in state and regional transportation planning efforts.	Timeframe	Responsible Parties
7.6.2.1 Promote regular updates to the regional, MPO, and county transportation plans based upon and designed to serve the land use development goals of Calvert County and the other units of government in the Southern Maryland region.	Ongoing	P&Z, PW, CR

Chapter 8 Economic Vitality

Goal 1: Strengthen economic opportunity in Calvert County.

Objective 1: Support and grow agricultural opportunities.	Timeframe	Responsible Parties
8.1.1.1 Work with farmers and watermen to ensure their industries continue thriving in Calvert County.	Ongoing	ED
8.1.1.2 Provide incentives for agribusiness.	Mid-term	ED
8.1.1.3 Provide space and support the operations of farmers markets in Town Centers.	Mid-term	ED
8.1.1.4 Consider loans, tax reduction, and changes in taxing policies within State designated Priority Preservation Areas (PPAs), grants, infrastructure, and training for agricultural business workers.	Long-term	BOCC, ED
Objective 2: Develop a path for growth for new businesses.	**Timeframe**	**Responsible Parties**
8.1.2.1 Encourage entrepreneurship in Calvert County by providing technical and financial support for new businesses.	Ongoing	ED
8.1.2.2 Allow a broad term of home-based businesses with appropriate limitations on size and number of employees.	Short-term	P&Z
8.1.2.3 Consider developing/encouraging incubator and/or co-working spaces for new businesses and encourage businesses to locate in small incubator and/or co-working spaces when their activities are not suitable as a home occupation or have outgrown home-based locations.	Long-term	ED, P&Z
8.1.2.4 Clarify provisions for temporary uses (e.g. temporary pop-up businesses, outdoor sales, mobile food service, and farmers markets) on private property.	Short-term	P&Z
Objective 3: Attract retirees to Calvert County.	**Timeframe**	**Responsible Parties**
8.1.3.1 Define a specialized Retirement Location brand.	Short-term	ED
8.1.3.2 Continue to promote the county's quality of life.	Ongoing	ED
Objective 4: Consider new renewable energy opportunities.	**Timeframe**	**Responsible Parties**

8.1.4.1 Research and develop land use policies to allow for solar energy production consistent with county preservation, economic development and land use policies.	Short-term	P&Z
8.1.4.2 Offer farmers opportunities to lease their land for solar arrays under appropriate conditions.	Short-term	P&Z
8.1.4.3 Complete countywide study to analyze and identify potential locations appropriate for development of industrial scale solar.	Short-term	P&Z
8.1.4.4 Explore options for wind energy generation including land-based and community wind project.	Short-term	P&Z
Objective 5: Provide access to broadband throughout the county.	**Timeframe**	**Responsible Parties**
8.1.5.1 Prioritize the provision of broadband in Town Centers.	Mid-term	BOCC

Goal 2: Direct business growth to Town Centers while preserving agricultural land in the Farm and Forest District.

Objective 1: Encourage development in Town Centers.	**Timeframe**	**Responsible Parties**
8.2.1.1 Streamline the development review process in Town Centers. Maintain a fast-track permitting process for targeted businesses.	Short-term	P&Z
8.2.1.2 Provide for adequate amounts of land zoned for business development in appropriate locations in Town Centers. Provide flexibility in the zoning regulations related to business development.	Short-term	P&Z
8.2.1.3 Explore the use of TDRs to increase commercial intensity in Town Centers.	Short-term	P&Z
8.2.1.4 Maintain an online presence of tools and resources for county businesses and businesses looking to locate in the county.	Ongoing	ED
8.2.1.5 Provide county staff designated for each Town Center.	Short-term	P&Z
8.2.1.6 Create more walkable, bikeable, and connected Town Centers.	Long-term	BOCC, P&Z, PW
Objective 2: Provide incentives for business development in Town Centers and Employment Centers.	**Timeframe**	**Responsible Parties**
8.2.2.1 Consider loans, tax reduction, and changes in taxing policies within State designated Priority Funding Areas (PFAs), grants, infrastructure, and training for workers.	Long-term	BOCC, ED
Objective 3: Make improvements to public services and facilities in Town Centers.	Long-term	
8.2.3.1 Direct public investment to infrastructure, services, and support facilities in Town Centers.	Mid-term	BOCC, PW, GS
8.2.3.2 Develop cost-sharing strategies that leverage private sector investment in water and sewer extensions in Town Centers in order to protect environmental health or support county-identified economic development goals.	Short-term	PW

Goal 3: Expand Calvert County's tourism industry.

Objective 1: Increase the number of visitors in Calvert County.	**Timeframe**	**Responsible Parties**
8.3.1.1 Provide expanded and improved access to the Chesapeake Bay and Patuxent River.	Mid-term	CMM, ED, F&B, GS, P&R, P&Z
8.3.1.2 Support and coordinate marketing of special events and tourist attractions within the county.	Ongoing	ED
8.3.1.3 Explore options, such as weekend shuttles serving Washington, D.C., to attract visitors without cars.	Long-term	ED
Objective 2: Increase the amount of money visitors are spending in Calvert County.		
8.3.2.1 Support the establishment of "destination" accommodations and dining to draw overnight tourism.	Mid-term	ED
8.3.2.2 Encourage development and expansion of small-scale, high-end, retail businesses with a local flavor.	Short-term	ED
Objective 3: Work regionally to promote Southern Maryland as a destination.		
8.3.3.1 Affirm the Southern Maryland Heritage Area Tourism Management Plan as a strategy to implement heritage education, interpretation, preservation, and promotion goals of the Calvert County Comprehensive Plan.	Ongoing	BOCC, CMM, ED, P&R, P&Z

Goal 4: Strengthen educational opportunities in Calvert County.

Objective 1: The county's education system should provide general education, vocational and technical training and retraining to meet the skill requirements for existing and future job trends.	**Timeframe**	**Responsible Parties**
8.4.1.1 Support expansion at the Prince Frederick Campus of the College of Southern Maryland programs to support local businesses, such as The Corporate Center, the Small Business Development Center.	Mid-term	ED
8.4.1.2 Encourage the College of Southern Maryland to expand partnering with Calvert County health care providers that includes classroom instruction and clinical training at locations in the county.	Mid-term	ED
8.4.1.3 Strengthen educational programs to support entrepreneurship as well as the existing health care, agri-business, hospitality, and energy industries.	Ongoing	CCPS, CSM, ED

Chapter 9 Water Resources

Goal 1: Ensure sufficient drinking water quantity and quality to support projected population growth.

Objective 1: Continuously gather and analyze up-to-date data on the county's water supply.	**Timeframe**	**Responsible Parties**
9.1.1.1 Advocate the state prioritize regional groundwater studies which include Calvert County and take into account forecasts for future growth.	Ongoing	BOCC
9.1.1.2 If state studies are not conducted, then every six years (or water and sewer comprehensive plan cycle) work with the Southern Maryland counties to update the aquifer study.	Mid-term	BOCC
9.1.1.3 Continue to work with the United States Geological Survey to access data for the purpose of monitoring trends in aquifer levels.	Ongoing	PW
9.1.1.4 Consider expanding the county's adequate public facilities regulations to include water facilities to ensure the availability of adequate services for new development.	Short-term	PW, P&Z, HD
Objective 2: Ensure the safety of the county's drinking water.	**Timeframe**	**Responsible Parties**
9.1.2.1 Continue to monitor water quality issues to provide water that is safe to use.	Ongoing	PW, P&Z
9.1.2.2 Implement procedures to reduce the naturally occurring arsenic in the public water systems to levels that do not exceed the EPA's maximum contaminant level of 10 ppb.	Ongoing	PW
9.1.2.3 Develop a wellhead protection plan to address the protection of all municipal and community water systems.	Ongoing	PW
9.1.2.4 Work with the Health Department to require that the bottom of all septic systems is greater than four feet above groundwater to protect near surface groundwater.	Ongoing	PW
9.1.2.5 Work with the Health Department to ensure that there are no unused wells within the WHPA.	Ongoing	PW
9.1.2.6 Water operations personnel inspect and maintain the supply wells and backup wells to ensure their integrity and protect the aquifer from contamination.	Ongoing	PW
9.1.2.7 Upgrade county government-owned wells drilled prior to 1973 that do not meet current construction standards to protect them from contamination and encourage others to do the same.	Ongoing	PW
9.1.2.8 Install two-piece insect-proof well caps onto county government-owned wells that have one-piece caps and encourage others to do the same.	Ongoing	PW

9.1.2.9 Work with the county Health Department to conduct a survey of the WHPA and inventory any potential sources of contamination, including unused wells. Keep records of new development within the WHPA and new potential sources of contamination that may be associated with the new use.	Ongoing	PW, P&Z
Objective 3: Take steps to decrease water consumption.	**Timeframe**	**Responsible Parties**
9.1.3.1 Continue to urge residents to consume less water. Encourage the capture/reuse of rainwater and reuse of greywater.	Ongoing	PW
9.1.3.2 Maintain an education program to prevent waste of water.	Ongoing	PW
9.1.3.3 Consider a tiered rate structure to promote water conservation.	Ongoing	PW
9.1.3.4 Continue to require the use of water saving equipment in all new development and redevelopment.	Ongoing	P&Z
9.1.3.5 Continue research and coordination on the subjects of rainwater and stormwater harvesting, greywater recycling, and water reclamation and consider implementation of these practices.	Ongoing	[PW, P&Z]

Goal 2: Ensure sufficient wastewater treatment capacity to support development in Town Centers served by public sewer systems.

Objective 1: Manage wastewater system capacity to ensure the systems are able accommodate new development in Town Centers served by public sewer.	**Timeframe**	**Responsible Parties**
9.2.1.1 Continue to update wastewater capacity management plans for all county-owned or operated sewerage systems.	Ongoing	PW
9.2.1.2 Provide adequate public wastewater treatment facilities to accommodate planned future development in North Beach, Chesapeake Beach, Prince Frederick, Lusby, and Solomons Town Centers.	Ongoing	PW
9.2.1.3 Be proactive in the development of wastewater collection infrastructure in the Town Centers served by public sewer systems.	Ongoing	PW
9.2.1.4 Consider expanding the county's adequate public facilities regulations to include wastewater treatment facilities to ensure the availability of adequate services for new development.	Short-term	PW

Goal 3: Protect public health and water quality.

Objective 1: Minimize new sewerage service areas for residential use outside of Town Centers.	**Timeframe**	**Responsible Parties**
9.3.1.1 Allow community or shared water and sewer systems in all Town Centers when needed to support environmental health and/or to support county-identified economic development goals, when and if cost effective and economically feasible.	Long-term	PW, P&Z

9.3.1.2 Permit new sewerage service areas to serve existing developed lots in septic failure areas.	Ongoing	PW, P&Z
Objective 2: Minimize pollution from wastewater treatment plants and septic systems.	**Timeframe**	**Responsible Parties**
9.3.2.1 Require new wastewater treatment systems to be land application systems.	Ongoing	PW, P&Z
9.3.2.2 Require septic systems in Town Centers to connect to public WWTPs when sewage collection systems are available and in the event the septic system fails.	Ongoing	PW
9.3.2.3 Assure that existing effluent discharges into bodies of water minimize any adverse environmental impacts on oyster beds, spawning areas and fishing areas.	Ongoing	MDE
9.3.2.4 Develop incentives for the use of nitrogen-removing technologies for new, replacement, and existing septic systems and for shared facilities to reduce nutrient pollution of our waterways.	Mid-term	EH
9.3.2.5 Continue and expand the educational program to promote regular pumping of septic tanks.	Ongoing	EH, EC
9.3.2.6 Install more nitrogen-removing septic systems per year through the county's ongoing Bay Restoration Fund (BRF) Grant Program.	Ongoing	EH
9.3.2.7 Require new septic systems and replacement septic systems in the Critical Area to be nitrogen reducing systems (as required by Maryland Law)	Ongoing	EH
9.3.2.8 Monitor septage haulers and septage quantities to ensure proper disposal is occurring and that adequate capacity for septage is maintained at the county's WWTP.	Ongoing	PW
Objective 3: Take steps to minimize sewage discharge in the Chesapeake Bay and Patuxent River.	**Timeframe**	**Responsible Parties**
9.3.3.1 Require existing marinas to provide adequate toilet facilities to eliminate the discharge of raw sewage from water craft.	Ongoing	EH
9.3.3.2 Continue to require new marinas and expansion of existing marinas (greater than 10 slips) to provide pump-out facilities to receive raw sewage from water craft.	Ongoing	MDE/DNR

Goal 4: Install or enhance stormwater management systems to reduce pollution in the county streams, Patuxent River, and Chesapeake Bay.

Objective 1: Upgrade existing failing and inadequate stormwater management facilities.	**Timeframe**	**Responsible Parties**
9.4.1.1 Convert dry extended detention ponds and grass swales to wet ponds, wetlands and bioswales where appropriate.	Mid-term	PW
9.4.1.2 Increase current drainage channel repair and stream restoration implementation.	Ongoing	PW

9.4.1.3 Provide or upgrade stormwater management facilities on approximately 30 county structures to provide environmentally sensitive design (ESD), to include public schools, the golf course and the County Services Plaza.	Mid-term	PW
Objective 2: Treat unmanaged impervious surfaces.	**Timeframe**	**Responsible Parties**
9.4.2.1 Convert approximately 200 miles of grass swales to bioswales and install an additional 160 miles of new grass swales along county and private roadways.	(To Be Determined)	PW
9.4.2.2 Increase current rate of drainage channel repair from 200 feet per year to 715 feet per year, representing a total of 5,000 feet.	(To Be Determined)	PW
9.4.2.3 Pursue implementation of regenerative stormwater conveyances or other vegetated flow attenuation wherever appropriate.	Ongoing	PW
9.4.2.4 Construct or upgrade approximately 160 miles of grass swales along currently unmanaged county and privately owned roadways to provide water quality treatment.	(To Be Determined)	PW
9.4.2.5 Incentivize removal of unused impervious area, green roof retrofits, and expanded use of permeable pavement.	Ongoing	PW
9.4.2.6 Incentivize the use of microscale environmentally sensitive design practices on approximately 600 existing commercial properties that drain to regional facilities or pre-2000 stormwater management facilities to reduce nutrient loading closer to the source.	Long-term	PW
9.4.2.7 Incentivize the construction of bioretention, micro-bioretention, and raingarden facilities on approximately 1,250 single family residential lots, focusing primarily on densely populated areas, such as Chesapeake Ranch Estates, where facilities can treat multiple homes.	Mid-term	PW
9.4.2.8 Consider expanding the county's adequate public facilities regulations to include stormwater management services to ensure the availability of adequate services for new development.	Short-term	PW

Chapter 10 Government and Community Facilities

Goal 1: Establish policies and strategies that provide for high-quality, responsive, and cost-effective services to residents, businesses, and organizations in the county.

Objective 1: Support meaningful and informed public participation program in government decisions.	**Timeframe**	**Responsible Parties**
10.1.1.1 Periodically appoint committees, as needed, to review county services.	Ongoing	CA
10.1.1.2 Make sure that information is readily accessible and understandable to the public through more use of the county website and social media.	Ongoing	All Departments

10.1.1.3 Implement budget procedures and keep citizens informed of significant trends and information. Continue to make the budgetary process readily accessible to the public with adequate time for public review prior to adoption.	Ongoing	CA, F&B
10.1.1.4 Provide current information concerning the organization of county government, including the functions and procedures of departments, boards, and commissions. Seek ways to distribute copies, particularly to new residents.	Ongoing	CA, CMR, CR, Calvert Library
Objective 2: Provide high-quality, responsive, and cost-effective customer service	**Timeframe**	**Responsible Parties**
10.1.2.1 Streamline permitting processes and periodically review regulations to eliminate unnecessary restrictions and duplications.	Ongoing	CA, P&Z
10.1.2.2 Provide efficient, courteous services to the citizens.	Ongoing	All Departments, Calvert Library
10.1.2.3 Periodically review county government structure to ensure that it is the most effective for the current situation.	Ongoing	CA, All Departments
10.1.2.4 Maintain a high standard of customer service and ethics among county employees.	Ongoing	[HR, All Departments, Calvert Library
10.1.2.5 Consider opportunities for privatizing county services that are cost-effective, competitive, and provide opportunities for local businesses.	Ongoing	CA, BOCC
Objective 3: Promote continuous review of processes, staffing, and facilities serving the community	**Timeframe**	**Responsible Parties**
10.1.3.1 Periodically review county rules, regulations, and practices for elimination, combination, or clarification.	Ongoing	CA, All Departments
10.1.3.2 Continuously evaluate the county use of technology to identify opportunities to innovate and improve service.	Ongoing	CA, All Departments
10.1.3.3 Periodically review government organization to ensure that it is structured to provide the best service to the public.	Ongoing	BOCC, CA, All Departments
10.1.3.4 Conduct periodic analysis of county government space needs, pay scales, and positions to determine if they are in line with market conditions	Ongoing	CA, GS, HR, F&B
Objective 4: Ensure that the citizens of Calvert County share the cost of services in a fair, equitable, and rational manner.	**Timeframe**	**Responsible Parties**
10.1.4.1 Maintain fiscal policies that require new development to pay its fair share of the costs of new facilities and environmental impacts.	Ongoing	F&B, P&Z
10.1.4.2 Maintain sound fiscal policies concerning public money investment, taxation, debt limits, and fund reserves.	Ongoing	BOCC, F&B
10.1.4.3 Encourage the diversification and growth of businesses to broaden the tax base.	Ongoing	ED

10.1.4.4 Maintain financial models for Long-term financial planning, including long-term financial forecasting model, six-year capital improvements program, and the debt affordability model.	Ongoing	F&B
Objective 5: Exercise careful stewardship of financial resources	**Timeframe**	**Responsible Parties**
10.1.5.1 Maintain a ratio of debt service to total revenues in accordance with sound business principles.	Ongoing	CA, F&B
10.1.5.2 Periodically review investment practices and policies and ensure that funds are monitored.	Ongoing	F&B
10.1.5.3 Maintain a sufficient unreserved fund balance as a means of maintaining strong credit ratings and dealing with lower than expected revenues from income sources.	Ongoing	CA, F&B
10.1.5.4 Develop and maintain cost-containment measures to ensure that revenues meet expenditures.	Ongoing	CA, F&B
10.1.5.5 Require a fiscal analysis to be prepared prior to providing financial assistance for any commercial or residential project.	Ongoing	F&B, ED, P&Z
10.1.5.6 Develop long-term revenue and budget scenarios, including one without the revenues from an operating nuclear power plant. Evaluate ways to deal with long-term revenue shortfalls.	Short-term	F&B

Goal 2: Maintain the high quality of Calvert County's educational facilities: schools, colleges, and libraries.

Objective 1: Continue to fund improvements to Calvert County Public Schools to provide facilities that support education programs meeting the needs of the 21st century citizens and workers.	**Timeframe**	**Responsible Parties**
10.2.1.1 Pursue Capital Improvement Program (CIP) funding for facilities upgrades and modernization.	Ongoing	BOCC, F&B
10.2.1.2 Continuously evaluate the technology used in the schools to keep up with advances in this rapidly changing environment.	Ongoing	BOE, CSM
10.2.1.3 Periodically review the county's adequate public facilities regulations for schools and adjust, if necessary, to ensure the approval of residential developments to the availability of adequate school capacity.	Ongoing	BOCC, PC, P&Z
Objective 2: Increase higher education opportunities in the county.	**Timeframe**	**Responsible Parties**
10.2.2.1 Support the College of Southern Maryland in providing affordable post-secondary education, workforce development, and cultural and personal enrichment opportunities.	Mid-term	BOCC, CR, CSM
10.2.2.2 Encourage the College of Southern Maryland to offer non-degree technical training required by Calvert County businesses	Short-term	ED

Objective 3: Fund construction and renovation of Calvert Library locations to provide 21st century facilities that support public education, accessible to all through multi-modal transportation and communication links. [CR, Calvert Library]	**Timeframe**	**Responsible Parties**
10.2.3.1 Deploy a mobile library to serve underserved populations and neighborhoods in the county.	Ongoing	CR, Calvert Library
10.2.3.2 Construct a new library in the Twin Beaches area within the Town Centers of Chesapeake Beach and North Beach.	Short-term	CR, Calvert Library
10.2.3.3 Renovate and expand the Fairview Library.	Mid-term	CR, Calvert Library
10.2.3.4 Select a new location for the library serving southern Calvert County within the Town Center of Lusby, in a location accessible by all transportation modes.	Mid-term	CR, Calvert Library
10.2.3.5 Continuously update available technology to provide citizens with access and expand digital literacy.	Ongoing	CR, Calvert Library
Objective 4: Connect public schools, the College of Southern Maryland, and libraries to the surrounding residential areas and larger communities through programs and multi-modal transportation links.	**Timeframe**	**Responsible Parties**
10.2.4.1 Support accessible partnership programming among the public schools, College of Southern Maryland, and Calvert Library.	Short-term	Calvert Library
10.2.4.2 Develop public transportation links between public schools, College of Southern Maryland, and Calvert Library.	Mid-term	CR
10.2.4.3 Provide bike racks and safe biking opportunities between public schools, College of Southern Maryland, and Calvert Library.	Short-term	Calvert Library, CSM, P&Z, PW

Goal 3: Provide access to a variety of quality recreational environments and opportunities in Calvert County.

Objective 1: Increase the amount of land area dedicated to recreation and natural resources.	**Timeframe**	**Responsible Parties**
10.3.1.1 As the county's population grows, the inventory of parks and recreation assets and programs, as well as resources of the Department of Parks & Recreation should increase in a corresponding manner to ensure the continued delivery of high quality programs, facility maintenance, and infrastructure management.	Ongoing	P&R, P&Z
10.3.1.2 Target the development of any new indoor and outdoor sports fields or courts, and/or other active recreation components in or near Town Centers.	Mid-term	P&R, P&Z, ED
10.3.1.3 Plan for the creation and/or expansion of centrally located parks and green spaces in Town Centers.	Mid-term	P&R, P&Z
10.3.1.4 Select locations for parks that are easily accessible to pedestrians and bicyclists living in the Town Centers.	Mid-term	P&R, P&Z

10.3.1.5 Continue to evaluate existing linear corridors, rights-of-way, and other potential areas for future trail development.	Ongoing	P&R, P&Z
10.3.1.6 Seek to acquire rights-of-way and open space through zoning or subdivision entitlement process to utilize for future trail creation.	Ongoing	P&Z
10.3.1.7 Seek to acquire waterfront property capable of supporting active and passive recreational usage.	Ongoing	P&R, P&Z, ED
10.3.1.8 When selecting sites for community support centers, parks, and other community facilities, analyze options for restoration and adaptive re-use of historic buildings and sites.	Ongoing	GS, P&R, P&Z
Objective 2: Ensure that a wide selection of public recreational facilities and programs are provided to meet the interests and needs of all ages, incomes, and abilities.	**Timeframe**	**Responsible Parties**
10.3.2.1 Enhance the network of recreational sites and facilities, including hiker/biker and horseback riding trails, based on the unique natural, cultural, and historical features of the county.	Ongoing	BOCC, Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z
10.3.2.2 Continue to improve and expand opportunities for public access to the Chesapeake Bay and the Patuxent River.	Ongoing	BOCC, Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z
10.3.2.3 Continue to create, support, and promote public water trails in Southern Maryland.	Ongoing	Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z
10.3.2.4 Investigate opportunities to increase access, parking, and comfort features at existing public landings and waterfront park sites to allow for increased boat access and usage, and improved user experience.	Short-term	Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z
10.3.2.5 Provide safe access to parks and recreational facilities including, where feasible, pedestrian and bicycle access.	Ongoing	Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z; PW
10.3.2.6 Create trails and paths within Town Center areas that connect with outlying parks and open spaces.	Mid-term	Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z
10.3.2.7 Continue to require onsite neighborhood recreational facilities in townhouse and multifamily developments and in single-family detached neighborhoods of 50 or more houses. Require recreation fees collected through the excise tax for all new houses, and use fees to provide recreational sites and facilities at locations convenient to those who paid the fees.	Ongoing	P&Z, F&B

10.3.2.8 Expand recreational opportunities by establishing an intergovernmental review procedure for the design or renovation of all new public buildings including schools, colleges, and community centers to help promote effective and efficient multiple-use of these facilities.	Short-term	Open Space Committee: CMM, ED, F&B, GS, P&R, P&Z
Objective 3: Increase the variety of uses of community facilities.	**Timeframe**	**Responsible Parties**
10.3.3.1 Consider increasing the use of schools as community centers and providing community after-hours access when designing renovations or new schools.	Ongoing	BOE, P&R, P&Z, CR
10.3.3.2 Encourage cultural celebrations at the neighborhood, community, and county level, particularly those that bring together diverse groups.	Ongoing	Calvert Library
Objective 4: Expand community involvement in recreational programming.	**Timeframe**	**Responsible Parties**
10.3.4.1 Develop community project and service awards and provide "seed money" for such projects.	Short-term	CR
10.3.4.2 Encourage strategies to make it easier for communities to provide recreation and community facilities without an overwhelming insurance burden.	Short-term	F&B, P&R

Goal 4: Ensure Calvert County has adequate healthcare facilities and programs.

Objective 1: Provide education and necessary services to improve the county's health and wellbeing.	**Timeframe**	**Responsible Parties**
10.4.1.1 Maintain a central source of information concerning available health and social programs. Use public access TV, the county's website, and social media accounts to present wellness programs.	Ongoing	CR
10.4.1.2 Encourage health and social services providers to operate at times convenient to those who are unable to make appointments during normal operating hours. [CR]	Ongoing	CR
10.4.1.3 Investigate the need for and economic feasibility of operating multi-agency facilities in community centers.	Mid-term	CR
10.4.1.4 Investigate the need for and ability to develop a standardized data form for clients. Where appropriate, protecting confidentiality, share data among the agencies.	Short-term	CR
10.4.1.5 Encourage the development of supervised teen activities and/or special after-school programs in communities.	Ongoing	CR, Calvert Library
10.4.1.6 Promote a healthy environment free of alcohol and other drug abuse.	Ongoing	CR
10.4.1.7 Support the expansion of school-based substance abuse programs.	Ongoing	CR
10.4.1.8 Expand mental health programs for vulnerable populations.	Long-term	CR

10.4.1.9 In collaboration with the Department of Social Services, support an Adult Protective Services Program to prevent elder abuse, neglect and exploitation.	Ongoing	CR
10.4.1.10 Develop family resource centers, including classes, support groups, information, library, and reference hotline.	Ongoing	CR, Calvert Library
Objective 2: Provide care options for senior citizens in Calvert County.	**Timeframe**	**Responsible Parties**
10.4.2.1 Encourage the establishment of additional or expanded assisted-living facilities and nursing homes and the related services to meet current and projected needs.	Ongoing	CR, ED
10.4.2.2 Encourage affordable programs that allow the physically and mentally handicapped to stay in their homes and have adequate care and access to services and programs.	Ongoing	CR
10.4.2.3 Encourage the development of a long-term care and supportive services plan for Calvert County senior citizens.	Ongoing	CR

Goal 5: Support public safety programs, strategies, and facilities development.

Objective 1: Ensure the coordination of efforts and services between state and local governments and between local government departments and divisions in developing effective public safety programs and strategies.	**Timeframe**	**Responsible Parties**
10.5.1.1 Plan the expansion of public safety services and facilities to coincide with projected population growth and identified needs.	Ongoing	PS
10.5.1.2 Focus primary attention on crime prevention.	Ongoing	PS, CR
10.5.1.3 Ensure adequate space is provided at the Detention Center.	Ongoing	BOCC, PS, CR
10.5.1.4 Expand marketing of community programs that can help provide after school supervision and/or social services.	Short-term	CR
10.5.1.5 Encourage neighborhood crime prevention programs, including community policing.	Ongoing	
10.5.1.6 Maintain a strong, ongoing drug and alcohol abuse prevention program.	Ongoing	CR
10.5.1.7 Continuously analyze the functionality of the 911 telephone equipment and infrastructure at Calvert Emergency Communications.	Ongoing	PS
10.5.1.8 Consider expanding the county's adequate public facilities regulations to include law enforcement services to ensure the availability of adequate services for new development.	Short-term	BOCC, PC, PS, P&Z
Objective 2: Ensure that the Emergency Medical Services is able to meet the county's needs.	**Timeframe**	**Responsible Parties**
10.5.2.1 Continue to implement and review for adequacy the county Fire-Rescue-Emergency Medical Services Master Plan.	Ongoing	PS

10.5.2.2 Continue to monitor response times and periodically evaluate the need for additional stations and personnel.	Ongoing	PS
10.5.2.3 Implement a community awareness campaign.	Short-term	PS, CMR
10.5.2.4 Evaluate the use of contracted or private ambulance services.	Short-term	PS
10.5.2.5 Consider cost recovery practices for EMS services.	Short-term	PS
10.5.2.6 Evaluate incentives for increasing recruitment and retention of EMS volunteers.	Short-term	PS
10.5.2.7 Consider expanding the county's adequate public facilities regulations to include fire, rescue, and EMS services to ensure the availability of adequate services for new development.	Short-term	BOCC, PC, PS, P&Z

Goal 6: Maintain well-managed and effective solid waste and recyclable materials management systems in Calvert County.

Objective 1: Protect public health and safety and preserve the natural environment.	**Timeframe**	**Responsible Parties**
10.6.1.1 Maintain compliance with all applicable county, state (Maryland Department of Environment (MDE)), and federal regulations.	Ongoing	PW
10.6.1.2 Ensure conformity with the MDE permit conditions for state-permitted solid waste facilities.	Ongoing	PW
10.6.1.3 Enact a two-year review initiative to develop a matrix to update the Plan of Action.	Short-term	PW
10.6.1.4 Follow the current Storm Water Management Plan, reviewing this plan every three years and update if necessary.	Ongoing	PW
10.6.1.5 Conserve land by minimizing land use for waste disposal through the promotion of solid waste diversion efforts including recycling, waste reduction and reuse of materials as well as through continuing the transfer of solid waste out of the county.	Ongoing	PW
Objective 2: Implement and maintain programs that promote source reduction, material reuse, and recycling over disposal.	**Timeframe**	**Responsible Parties**
10.6.2.1 Increase promotion and education of recycling, solid waste, source reduction, and reuse of materials, i.e. an alert system, awards program, website, community presence, etc.	Ongoing	PW
10.6.2.2 Research and implement new ideas for encouraging citizens and businesses to recycle, reduce, and reuse materials and develop a community outreach program to promote them.	Ongoing	PW
10.6.2.3 Develop a business directory of waste and recycling services offered in areas of Calvert County.	Short-term	PW

10.6.2.4 Research and potentially implement a mandatory recycling reporting program for businesses.	Short-term	PW
10.6.2.5 Develop a construction and demolition recycling and diversion program and evaluate potential incentives, such as asphalt shingles, aluminum siding, etc.	Mid-term	PW
10.6.2.6 Plan and implement programs to achieve the 30% recycling rate established by the county by December 31, 2028.	Long-term	PW
10.6.2.7 Research and potentially implement "pay as you throw" programs and other means of waste diversion.	Short-term	PW
10.6.2.8 Explore mandatory curbside recyclables collection, if economically feasible.	Long-term	PW
10.6.2.9 Explore and potentially implement food waste composting.	Mid-term	PW
10.6.2.10 Modify the County Zoning Ordinance to require recycling facilities/centers to recycle and report a minimum-specified percentage of material accepted.	Short-term	PW
10.6.2.11 Continue to review existing recycling programs for improvement and explore new recycling markets for opportunities.	Ongoing	PW
10.6.2.12 Monitor existing recycling contracts to correct for changes in market conditions; and evaluate and implement the most cost-effective delivery of services.	Ongoing	PW
Objective 3: Ensure cost effective and sustainable municipal solid waste and recyclables management services for residential and commercial customers.	**Timeframe**	**Responsible Parties**
10.6.3.1 Improve the existing Convenience Center collection system for household wastes and recycling.		PW
1. Explore and potentially implement the use of critical convenience centers in times of inclement weather and emergencies.	Ongoing	
2. Explore and apply for federal and state grant funding opportunities for critical infrastructure.	Ongoing	
10.6.3.2 Maintain a budget structure that provides the framework to support the solid waste and recycling program as a self-sustaining enterprise.		PW
1. Analyze the management of Department of Public Works "no-fee" services to government and non-governmental entities.	Short-term	
2. Develop a true cost analysis for solid waste and recycling services.	Short-term	
3. Based on the true cost analysis, evaluate and revise as necessary, the fees assessed for solid waste and recycling services in the county to ensure adequate funding is available to support Department of Public Works programs, such as fluorescent lamps.	Short-term	

10.6.3.3 Explore the expansion of recyclable materials accepted at the convenience centers.	Short-term	PW
10.6.3.4 Explore and potentially implement the management of stormwater structure cleanout material and other hard-to-manage wastes.	Short-term	PW
Objective 4: Ensure adequate facilities and infrastructure to accommodate current and future residential and commercial municipal solid waste and recyclables.	**Timeframe**	**Responsible Parties**
10.6.4.1 Design, build, and operate safe and efficient facilities for solid waste and recyclables acceptance, processing, and/or disposal.	Ongoing	PW
10.6.4.2 Conduct regular reviews of existing facilities to ensure continual collection and transfer capacity as the population continues to increase.	Ongoing	PW
10.6.4.3 Develop a feasibility study for the development of a new transfer station.	Short-term	PW
10.6.4.4 Evaluate, plan, and schedule the construction of new public solid waste and recycling facilities according to a six-year capital improvements program. The evaluation shall include but is not limited to: Sensitive Species Project Review Areas, Wetlands of Special Concern, and Environmental Impact Review.	Short-term	PW
10.6.4.5 Provide continual disposal capacity for municipal solid waste (MSW) by encouraging the transfer of solid waste generated by residents, commerce, and industry out of Calvert County to ensure future landfill capacity through at least the year 2028.	Long-term	PW
10.6.4.6 Explore waste mining at the Appeal Municipal Landfill, if necessary.	Long-term	PW
10.6.4.7 Explore the use of waste to energy incineration	Short-term	PW
Objective 5: Collectively plan future initiatives, to the greatest extent possible, with internal county departments and regional county jurisdictions, councils, and other potential partnerships.	**Timeframe**	**Responsible Parties**
10.6.5.1 Promote source reduction by county residents, businesses, and institutions.	Ongoing	PW
10.6.5.2 Explore contracted and/or franchised curbside waste and recyclables collection, where appropriate and cost-effective.	Long-term	PW
10.6.5.3 Explore regional solid waste management facilities and transportation (i.e. "waste to energy" transfer station, composting, etc.).	Long-term	PW
10.6.5.4 Explore biosolids management and processing.	Mid-term	PW

10.6.5.5 Explore the potential for electricity generation through the use of solar panels on county owned solid waste facilities.	Mid-term	PW
10.6.5.6 Explore the feasibility of material reuse programs and facilities.	Mid-term	PW

Goal 7: Collectively plan future initiatives, to the greatest extent possible, with internal county departments and regional county jurisdictions, councils, and other potential partnerships.

Objective 1: Ensure coordination and cooperation between Calvert County Government and other public and quasi-public agencies, and elected officials.	**Timeframe**	**Responsible Parties**
10.7.1.1 Maintain close cooperation with all government agencies in establishing consistent and effective decisions relating to issues such as an improved environment, a better business climate, and higher quality of life.	Ongoing	CA, P&Z, ED
10.7.1.2 Evaluate the impact and cost of changes at the Patuxent River Naval Air Station.	Ongoing	ED
10.7.1.3 Make intergovernmental cooperation an integral part of planning by developing close working relationships between agencies.	Ongoing	CA, All Departments
10.7.1.4 Work with the towns of North Beach and Chesapeake Beach, as well as the Tri-County Council of Southern Maryland, and Anne Arundel and Prince George's counties to achieve consensus on regional issues and policies.	Ongoing	BOCC, CA, All Departments
10.7.1.5 Continue coordination of transportation planning and programs with all appropriate state, federal, and regional agencies.	Ongoing	P&Z, PW, CR
10.7.1.6 Cooperate with adjoining counties and regional agencies to ensure that zoning and subdivision regulations permit compatible development along boundaries and the Patuxent River.	Ongoing	P&Z
10.7.1.7 Support state policies that concentrate growth in designated growth centers and policies that protect farm areas.	Ongoing	BOCC, P&Z, ED
10.7.1.8 Continue regular communication between agency counterparts in local, regional, and state governments.	Ongoing	All Departments
10.7.1.9 Continue to look for ways to support NAS PAX with land use policies, review processes, and regulations consistent with the JLUS to prevent or mitigate encroachment.	Ongoing	P&Z
Objective 2: Encourage long-term consistency between the towns and the county's plans.	**Timeframe**	**Responsible Parties**

10.7.2.1 Minimize potential land use conflicts between incorporated towns and the county through coordination and development referrals, including review of proposed developments which are adjacent to or near town borders.	Ongoing	P&Z
10.7.2.2 Continue coordination of capital improvement programs.	Ongoing	F&B
10.7.2.3 Share staff and facilities where such sharing will improve public service capabilities and will avoid duplication of services and waste.	Ongoing	CA, P&Z
10.7.2.4 Develop memoranda of understanding with the municipalities concerning the provision of infrastructure and services in connection with growth management.	Ongoing	BOCC

Workshops Held on Key Issues

To provide an opportunity for public discussion of the five key topics in the update to the Comprehensive Plan, the Department of Planning & Zoning, along with the consultant team, conducted a series of five public Issue Identification Workshops on behalf of the Planning Commission. Each workshop covered one of the key topics identified though public discussions held in 2016.

Prior to the Issue Identification Workshops, an issue paper for the topic was published on the county website. The issue papers provided background information on the topic. The first three issue papers were qualitative in nature, asking for perceptions of the preferred features and appearance of the areas of the county designated for growth. The final two papers provided more quantitative information on the recent and projected levels of growth in residential and commercial development in the county.

At each Issue Identification Workshop, attendees participated in facilitated small group discussions guided by questions related to the specific key issue.

Total attendance at the five workshops was 365 people. The date, topic, and number of people signing in at each meeting, not including Planning Commission members or staff working at the workshops, is listed.

Date	Topic	Attendees
Monday, February 6, 2017	Providing an Efficient and Multi-modal Transportation System	74
Wednesday, February 22, 2017	Supporting Options in Community Character: Developing a Place-type Strategy	66
Monday, March 27, 2017	Fostering Vibrant, Walkable Communities with Multi-generational Opportunities	50
Thursday, April 20, 2017	Preserving Rural Character and Directing Growth to Designated Areas	132
Tuesday, May 16, 2017	Strengthening Economic Vitality	43

Source: Memo to Calvert County Planning Commission from Jacquelyn Seneschal, AICP; June 14, 2017; Comprehensive Plan – Outcomes of Key Issue Discussions. The department's name was updated to reflect subsequent change.

Calvert County Comprehensive Plan

Summary of Key Outcomes from the Issue Identification Workshops and Surveys
February – May, 2017

Providing an Efficient and Multi-modal Transportation System

Overall, the participants believe that private automobiles will remain the primary mode of travel in the county for the foreseeable future. Sidewalks to serve local communities enjoyed considerable support with interest in improving local bus service also receiving support. Improved bicycle facilities to serve local travel and recreation demands received some interest.

In addition to the discussion of specific travel modes, there were additional themes that emerged from the evening. Many conversations referred to the importance of the destinations points. Participants stated their travel included destinations throughout the county. Major routes for in county travel were: Dunkirk to Prince Frederick, Plum Point to Prince Frederick, and Huntingtown to Prince Frederick.

Some participants said there were few stores to go to and the creation of new shopping destinations were necessary. Other participants argued the idea that since more people are shopping online, trips to stores might slow down and a focus on transportation directed to retail may not be necessary in the future.

Participants place the highest priority on improvements to numerous state and local roads, most notably to MD 2/4. There is considerable expectation that MD 2/4 is to be widened throughout the county, although SHA only has construction funding to support widening for a short distance in Prince Frederick. The need for more sophisticated tools for understanding how traffic flows in the county and what future conditions might look like was clear from the public comment. Available forecasts from SHA were out-of-date and it was not clear that they were responsive to local land use policies.

The *2010 Comprehensive Plan* includes completion of the network of local roads parallel to MD2/4 in Prince Frederick and the charrette report builds the Town Center land use upon these roads. Similar parallel roads systems are in place or should be included in the plans for each designated growth area along MD 2/4.

The participants believe there need to be more safe and comfortable pedestrian and bicycle connections from housing locations to commercial areas. There is considerable support for pedestrian improvements and continuous sidewalk networks in the communities of Dunkirk, Huntingtown, Prince Frederick, and Lusby. Participants believe walking around Town Centers is dependent upon where one is going and

what one has to do. The participants concluded that having more things to do in Town Centers would enhance walkability and bikeability.

While the existing local transit service is generally not perceived as meeting the needs of the participants, there is support for improving service within the currently designated Town Centers and for travel throughout the county.

The preference for addressing automobile travel also dominated among those responding to the online survey. There were a number of comments supporting improvements for walkers and bicyclists, especially in the Town Centers.

Supporting Options in Community Character

The paper proposed a range of place-types that might be used in a future land use map for the county. Five types of communities were proposed, based upon the variety of development patterns in Calvert County. The initial list included Town Centers, Villages, Hamlets, Waterfront Communities, and Residential Transition Zones. The intent of the paper was to seek out suggestions for locations that might fit into each category as a means for developing more specific definitions to reflect Calvert County concerns.

Currently, there are seven designated Town Centers with a wide variety of characters, sizes and development potentials. By grouping similar communities together, the county would be able to develop shared sets of zoning standards that could be applied across multiple locations. Similarly, the rural areas of the county contain both areas designated as priority funding areas in recognition of their small lot sizes and potential need for public facilities as well as other areas with large lot zoning and a very different character and appearance.

Interestingly, some participants expressed immediate concern that the effort to categorize communities as particular place-types would encourage additional growth in all such places. The point was clearly made that some place-types are suited for additional growth, while other place-types are not. Town Centers are suitable for the greatest level of growth. Villages are suited for some growth but not as much as Town Centers. The name “Hamlets” is clearly rejected and the future of isolated rural commercial sites is questionable. Waterfront communities are not places for additional growth. Commercial uses, especially along the water, are acceptable in a few of waterfront communities, but not at all in most. There was not much discussion of the Residential Transition Areas, although some attendees expressed disapproval of that place-type as well.

Each breakout group was asked to classify various locations as place-types. Figure 1 below shows the results of those discussions.

Figure 1. Place-type Results, Public Workshop #2

Locations	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Dunkirk	Town Center	Village/Hamlet*	Town Center	Town Center	Town Center	Town Center/Village
Huntingtown	Village	Village	Village	Town Center	Village	Village
Lusby	Town Center	Town Center	Town Center	Town Center	Town Center	Town Center
Prince Frederick	Town Center	Town Center	Town Center	Town Center	Town Center	Town Center
St. Leonard	Village	Village	Village	Town Center	Village	Village
Solomons	Town Center	Town Center	Town Center	Town Center	Town Center	Town Center
Owings						Hamlet
Barstow	Hamlet	Hamlet	No Designation	No Designation	Village	Hamlet
Chaneyville	Hamlet		No Designation	No Designation	Village	Hamlet
Sunderland/Mt. Harmony	Hamlet		No Designation	No Designation	Village	Hamlet
Broomes Island	Waterfront	Waterfront	No Designation	No Designation	Waterfront	Waterfront
Cove Point	Waterfront		No Designation	No Designation	Waterfront	Waterfront
Dares Beach	Waterfront		No Designation	No Designation	Waterfront	Waterfront
Plum Point	Waterfront		No Designation	No Designation	Waterfront	Waterfront
White Sands						Waterfront

* Village could be an agreed upon designation if sewer is not required under the specifications of a Village place-type

Responses to the online survey were also conflicting. There was a strong consensus in favor of Town Centers and a moderate amount of respondents who were in favor of Villages. However, there was much disagreement on the favorability of Hamlets, Waterfront Communities, and Residential Transition Areas. Many were either confused about the logistics of Hamlets, Waterfront Communities, and Residential Transition Areas or were opposed to them altogether. While some strongly advocated for additional retail, others advocated strongly against adding any areas that could increase retail development. Additionally, there were people who suggested more research be conducted before implementing these place-types. Some research suggestions included environmental impact studies and research on how taxes and property values could be affected. Overall, there was much passion from many sides of the proposal, but little consensus on what should be done.

Fostering Vibrant, Walkable Communities with Multi-Generational Opportunities

This meeting offered a second opportunity to discuss how county residents perceive various types of places in the county and to envision how they might look in the future. The paper proposed more specific definitions for each place-type and a set of characteristics that might be applied to each.

Discussion during the evening provided additional insight into how participants view their own communities and other in the county. Following the workshop, residents of Dunkirk and Huntingtown and Lower Marlboro submitted additional thoughts about how their communities should look in the future.

Take-aways from the conversations included:

- Prince Frederick is a Town Center and the recommendations of the charrette should inform the goals for this community in the Comprehensive Plan.
- In general, established waterfront communities are not locations for residential or business growth.
- Hamlets are not a popular concept; continuation of the current rural community designation is preferred.
- Currently there are two-levels of designated growth centers. The 2010 Comprehensive Plan calls them major and minor Town Centers. There is some acceptance of the use of Villages as an alternative to minor Town Center. Some residents from both Huntingtown and Dunkirk prefer this designation for their communities.
- Availability of water and sewer service, building scale and whether multi-family units are permitted are seen as key distinctions between Town Centers and Villages.
- There are some concerns among commercial property owners that restricting the range or intensity of uses in Villages may have a negative effect on their property values.

Place-type Definitions as refined after the workshop:

Town Center – These places are designated as Town Centers in the current Comprehensive Plan with a higher intensity and greater variety of commercial and residential development within the plan boundaries. Each has nearby single-family residential development, typically within a one-mile radius of the Town Center.

Village – These places are designated as Town Centers in the current Comprehensive Plan but have a lower intensity and more limited variety of commercial and residential development. These locations are suitable for additional commercial development and various forms of single family dwellings. They typically have single-family detached residential development within one mile.

Waterfront Community – These mature, built-out residential communities typically pre-date zoning and subdivision regulations. They are not planned for expansion; designation as waterfront communities would preserve the current development pattern and allow redevelopment that complies with

provisions for environmental protection and climate adaptation. Some waterfront communities have had flood mitigation plans prepared.

Figure 2 is a summary of characteristics of place-types based upon discussions at Workshops #2 and #3.

Figure 2. Characteristics and Potential Features of Place-types in Calvert County

	Town Center	Village	Waterfront Community
Priority Funding Area	Yes	Yes	Yes
Jobs	Yes	Yes	No
Water service	Yes	Public health only	Public health only
Sewer system	Yes	Public health only	Public health only
Health care facilities	Yes	Yes	No
Public safety station	3 or more	Yes	Yes
Library	Yes	Maybe	No
Schools	Yes	Yes	No
Multi-family units, large (4+ units)	Yes	No	No
Multi-family units, small (less than 4 units)	Yes	Yes	No
Lot sizes for new development	Varies, 1 acre max	Varies, 1 acre max	Use existing lot sizes
Building height (max. stories)	5	3	2 occupied
Places of assembly (community center, churches, etc.)	Yes	Yes	Yes
Small commercial building, size to be determined	Yes	Yes	No
Large commercial buildings size to be determined	Yes	No	No
Manufacturing, warehousing, industrial, etc.	Yes	No	No
Central business area	Yes	Yes	No
Sidewalks, pedestrian network	Yes	Yes	No
Waterfront commercial (marinas, restaurants)	Yes	Yes	Existing only

Preserving Rural Character and Directing Growth to Designated Areas

This paper included a review of the policies outlined in the 2010 Comprehensive Plan, recent and projected growth in population and housing, construction approvals, the results of a build-out analysis and descriptions of the current land preservation programs. At the workshop, staff presented an

overview of the county's planning efforts. Following the presentation, participants developed and ranked proposals for preserving rural character and directing growth by answering two open-ended questions. The ten most popular answers to each question are shown below.

Question 1: Preserving farm and forest land has been a priority of Calvert County for 30 years. What actions would you support the county taking to preserve even more land? How should those actions be paid for?	
Comments	**Votes**
Commercial TDRs	33
Use TDRs to create greenways (defined greenways)	21
Use TDR to buy more Land, strengthen TDR market	16
Nothing (there is enough preservation)	15
Limit build-out to 37,000 households	14
"Rural" Character – Let's own that, claim, and communicate it	14
Do not raise taxes	13
Increase lot size in rural areas and decrease inside Town Centers	10
BOCC consistently budget money for the Purchase and Retirement fund (Do not place a limit on the number of TDRs that can be purchased from an individual.)	10
Promote high value crops and help farmers produce products	9
Progressive impact fees	9
Allow opt out of TDR program if farmer cannot sell all TDRs	9

Question 2: One way to protect farm and forest land is to direct growth away from them and into designated areas. What incentives would you support the county providing to encourage/attract/direct growth to designated areas?	
Comments	**Votes**
Build a "Center" in the Town Center; focus on building a sense of community that is walkable and bike-able; high quality amenities	36
Mixed use residential on top of retail in Town Center; affordable and denser housing in Town Center; density bonus (More density in Town Center)	30
Resurrect the charrette (increase attractiveness of Town Centers)	30
Strengthen public process before BOCC can take action - zoning changes transparency	23
Use a cost/benefit analysis for comprehensive review to guide decisions (Target county's spending)	20
Build infrastructure before overcrowding	18
Non-retail employment	15
Expand sewer in Town Centers (subsidizing utilities)	14
Take existing enterprise zones and ease regulations to encourage growth there. Streamline review process	13
Incentives to build in Town Centers and disincentives outside of Town Centers	12

In addition to attending the workshop, people had the option to respond to the questions online. In these responses, there was a large consensus over the importance of preserving the county's rural character and directing growth to designated areas. Many of the respondents voiced suggestions for preserving land. Some suggested increasing the amount of preservation districts, while others suggested deflecting development from rural areas by attracting the development to Town Centers. It was also suggested to have a farmers market in each Town Center farming and direct growth to Town Centers. In regards to directing growth to designated areas, many suggested making the Town Centers more pedestrian and biker friendly, either through the layout of the Town Center or by adding a bypass. Many suggestions also included improving or adding infrastructure in the Town Centers. While there was not a consensus on how to pay for incentivizing the preservation of land, there was agreement throughout the responses that advocated for preserving the county's rural character and directing growth to designated areas.

Strengthening Economic Vitality

This paper provided information on commuting patterns, large employers, county tax base, tourism, lost retail and service sales, and household income. Following a summary presentation on the paper, participants responded to two open-ended questions about their hopes and concerns for future economic growth in the county. The ten most popular answers to each question are shown below.

Question 1: What are the best actions Calvert County could take to increase the number of well-paying jobs in the county?	
Comments	**Votes**
Improve internet access throughout the county, especially to support telecommuting	11
Economy should be based on natural assets (e.g. Bay, river, agriculture, fisheries, etc.)	9
Attract small tech companies and green energy jobs	7
Attract more technical training and trade skills in high schools and colleges	7
Educate public officials about the importance of small businesses	6
Increase tourism in Calvert County, focusing specifically on agri-tourism and ecotourism	6
Use local models to inform economic development (e.g. Leonardtown)	6
Develop Patuxent Business Park Plan to encourage businesses, especially research + development, to come to Calvert County	4
Support creation of more mid-level $30-50,000 jobs, instead of solely high-paying jobs. ("Based on population median salary of $95,000, do we need more high paying jobs?")	4
Support local agriculture: increase smaller/cooperative types of farms and farm business/agribusiness	4
Food hubs for distribution	4
Food-based tourism: Local food, fine dining, casual seafood (MD charm)	4
Build a conference center with lodging	4
Simplify and speed up building permit process and assign one person to assist through entire process	4

Question 2: What concerns you most about proposals to expand Calvert County's economy?	
Comments	**Votes**
Lack of infrastructure/Infrastructure is not suitable	15
Too many variances to zoning laws	13
Development should not occur at the expense of the environment	11
"Pleasant Peninsula"	11
Progress has been made but need more attention to water quality, water access, boat rentals, and marine pump out	10
The county should focus on small business development, not expansion of large retail companies	8
Do not lump Town Centers together in the Comprehensive Plan and zoning ordinance so as to avoid cookie cutter towns	8
BOCC and government officials should adhere to guidelines instead of changing them. BOCC needs to be accessible and accountable and respond to residents' concerns	8
Developers are still focused on building more shopping centers, which haven't worked in the past. Why will they work now?	6
Liquefied Natural Gas should not be expanded	6
Need to think about quality vs. quantity of business type, especially industrial	6
Economic growth seems to conflict with "Keep Calvert Country" theme and residents will not embrace business risk for ROI (return on investment)	6
Based on the charrette, the public wants creative, unique, and ecofriendly community design, while builders want generic design	6

The county also provided an opportunity to respond to the same questions online. Many of those respondents expressed concern about the long-term viability of retail businesses, especially "big box"

stores, in light of the ease of online shopping. They generally favored smaller, local businesses including farm-based enterprises.

Calvert County Comprehensive Plan Update
Providing an Efficient and Multi-modal Transportation System

Concerns about traffic delays, pedestrian amenities, bicycle facilities, and transit service pervade every discussion of the County's condition and future. Calvert County's geography limits accessibility to the county and presents challenges to the creation of a robust internal transportation network. The county is surrounded on three sides by water. The primary road access is in the narrow north end of the county. There is only one highway crossing to the west into Charles County, MD 231 Benedict Bridge, and one to the south into St. Mary's County, MD 4 Thomas Johnson Bridge, which is being studied for replacement and widening. There are no highway connections to the east.

The transportation network in Calvert County is a function of the county's shape—a long narrow peninsula. The long length of the peninsula and large water bodies along it encourage north-south movements. Because the peninsula is narrow, there is limited space for multiple north-south routes. MD 2/4 is the only road that extends for the full length of the county, and at the headwaters of St. Leonard's Creek, it is the only road linking the northern and southern ends of the county. Whether commuting out of the county to the north or south or traveling within the county to Prince Frederick and the other Town Centers, the vast majority of residents travel by car on MD 4 and 2/4 at some point. The county's dependence on auto travel along MD 4 and MD 2/4 corridors is at the center of the concerns related to transportation.

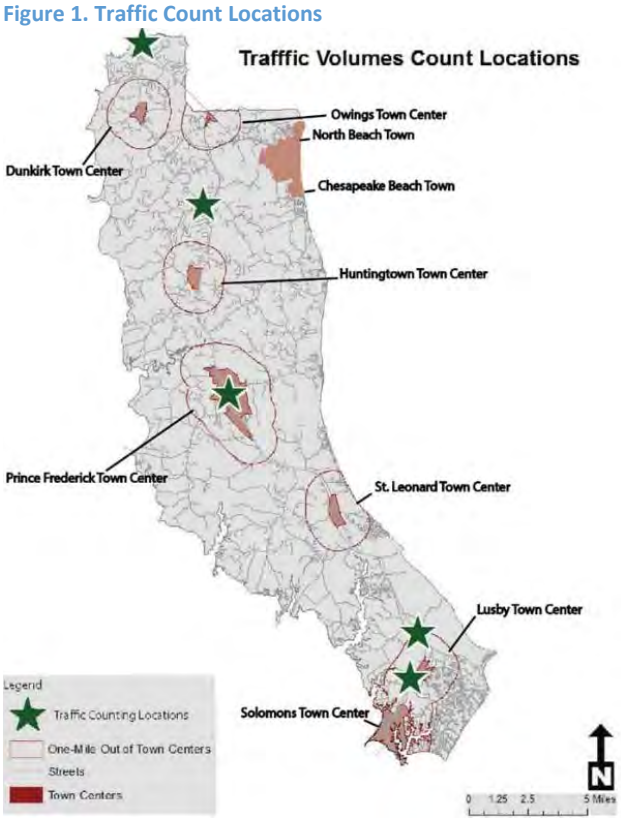
This issue paper proposes strategies for providing a multi-modal transportation network within these limitations. It also discusses the different types of travel movements that occur: within the county, through the county, and within a Town Center. While there is overlap between these categories, it is important to recognize the differences and develop approaches to addressing the needs of each.

Current Conditions

Highways

Highway traffic is a product of Calvert County's car-centric transportation network, and traffic on MD 4 and 2/4 is the most frequently-mentioned transportation issue. However, despite its dominance as an issue, Calvert County has not seen increasing levels of traffic along the primary county arterial road in recent years. Figures 1 and 2 show annual average daily traffic (AADT) at five points along MD 4 and 2/4 from 2000-2015. Aside from one sharp increase in 2005 at MD 2/4 in Prince Frederick, traffic volumes have been fairly stable. The higher counts are in the middle of the county and moving to the north; the south has significantly lower traffic volumes than the rest of the county, but has seen the most consistent growth in volumes over time.

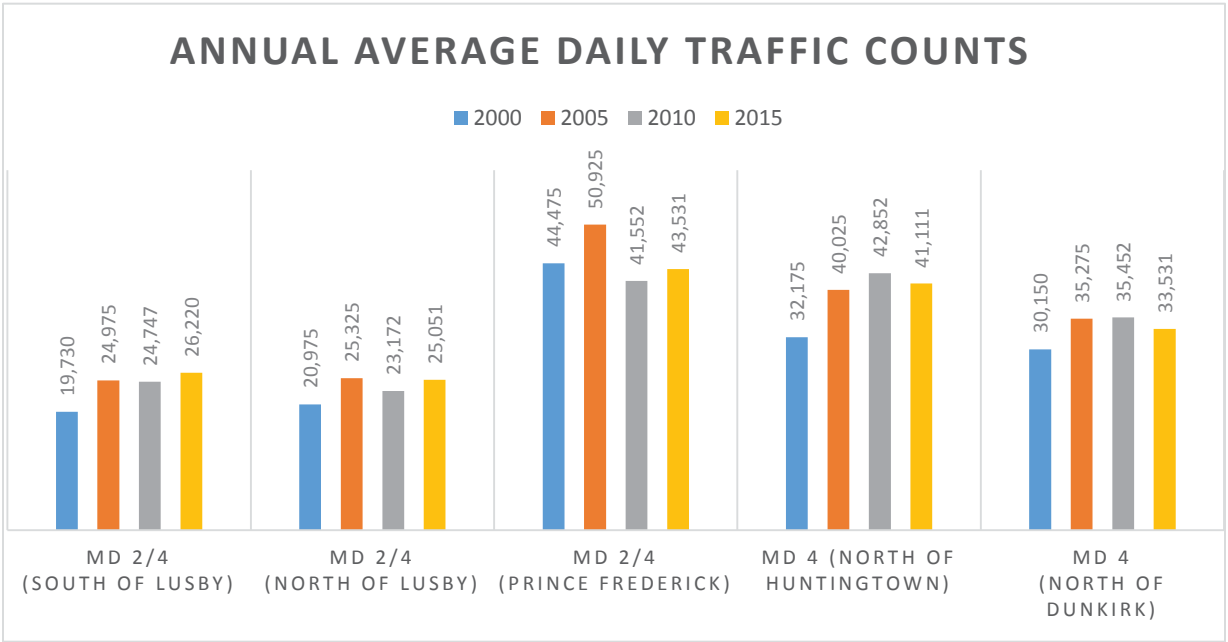
Figure 1. Traffic Count Locations



Planned Highway improvements

The Maryland State Highway Administration has begun a six-phase project to upgrade and widen MD 2/4 in Prince Frederick from north of Stoakely Road to south of MD 765A to a six-lane divided highway. This project will accommodate bicycles and pedestrians as appropriate. The second phase of the project, from Fox Run Boulevard to Commerce Lane is scheduled for completion in 2021.

Figure 2. Traffic Counts 2000-2015



The state is also studying the replacement and widening of the Thomas Johnson Bridge, which carries MD 4 over the Patuxent River at the south end of the county. The improved bridge is slated to include accommodations for pedestrians and bicyclists.

Transit

The County Government provides seven bus routes in and between the Town Centers: two routes provide service within Prince Frederick, two routes provide service to the northern part of the county, one route serves the middle section of the county, one route serves in the south part, and one route provides service through Lusby and Chesapeake Ranch Estates. Depending on the route, there are between five and 13 trips a day.

There are five daily commuter routes into Washington, DC, and the commuter buses are typically filled to capacity.

Pedestrian and Bicycle Facilities

There are few connected trails for bicyclists or pedestrians to use, either for recreation or for transportation between developed areas. Providing these connections is challenging because of east-west stream valleys cutting through the county on either side of the ridgeline that MD 2/4 follows.

The volume and speed of vehicles, and in some instances, the lack of shoulders make MD 2, MD 4, and MD 2/4 impediments to pedestrian and bicycle travel. In addition, where the highways bisect developed areas, the lack of signalized pedestrian crossings discourages people from walking, most notably in the Prince Frederick Town Center. While there are sidewalks, they are limited and not fully connected even in developed areas. The lack of pedestrian and bicycle facilities fosters reliance on automobiles and does not provide alternatives to auto travel.

National Trends

Several national and regional current trends could lead to increased traffic in the county in the future. First, the Federal Highway Administration has identified a national increase in total vehicle-distance traveled along highways starting in 2014. Washington, DC is consistently ranked as one of the worst metropolitan areas in the country for congestion. In the 2015 Urban Mobility Scorecard produced by Texas A&M Transportation Institute, the Washington, DC Metro Area is ranked first in three of the four categories for congestion. Since 61 percent of county residents commute outside of the county, commuters can expect to deal with increased congestion on their way to work.

Second, the advent of connected and autonomous vehicles is generally anticipated to affect driving patterns in several ways. Commuters may choose to send their cars home rather than paying for daily parking. This practice would double the number of daily work trips for cars whose owners decided to do this. Also, these vehicles with their enhanced safety features may encourage individuals who are not

drivers or who do not drive frequently to travel more often and further distances than they might in less-sophisticated cars.

Beyond auto traffic, increasing numbers of travelers are opting to walk and to bicycle for short daily trips. Communities which provide safe and attractive facilities attract residents and businesses interested in healthier and more affordable travel options.

Perspectives on Transportation

Board of County Commissioners and Planning Commission

Both the County Commissioners and the Planning Commission consider traffic an issue that must be addressed in the Comprehensive Plan. With only one major road in and out of Calvert County, they are pursuing highway improvements and are seeking viable alternatives to driving such as teleworking, transit and rideshare, and improved bicycle and pedestrian facilities. Specific transportation improvements suggested included additional park-and-ride lots to handle future needs, a new Thomas Johnson Bridge, expanded transit including consideration of light rail, bicycle paths, sidewalks, and trails.

Comments from public

Residents consider the future of MD 4 and 2/4 and its traffic a major issue with little consensus. Congestion on MD 4 and 2/4 and the difficulty of getting onto these highways from side streets were often raised as a concern at the workshops. Residents' concerns about the car-centric travel in the county revolve around the perception that congestion has worsened throughout the county, particularly through Prince Frederick and Dunkirk and on the Thomas Johnson Bridge and MD 231.

Residents recognize that there are limited transportation options in Calvert County, but do not have consensus on solutions. Proposed solutions for MD 2/4 range from "it shouldn't be widened" to "it should be widened properly at appropriate places." Many workshop participants noted that the rural landscape of Calvert County presents challenges for a well-connected and efficient bus network. However, some felt that public transportation system was great for the elderly while others argued that transit service is in need of dire repair for all users.

Pedestrian and bicyclists access issues are a growing concern for residents. Workshop participants felt that there are poor walking conditions throughout the county, and called out Solomons as needing improvement. Some residents noted that millennials and seniors prefer walking and biking for daily errands as well as other trip destinations and stressed the importance of bicycle and pedestrian accommodations, not just in rural areas but also in more built-up areas with an on-road and side-path network. Residents suggested filling in missing links to the county's trail network and better promoting the county's current transportation alternatives through biking and trails maps.

Sidewalk improvements and bicycle facilities along parts of MD 2/4 and MD 231 were also mentioned. Limited pedestrian crossings of MD 4 and 2/4 are raised as a particular concern in the Town Centers. Moreover, it was felt that Dunkirk Town Center has great pedestrian improvements, but limited bicycle accommodations. The area around Cove Point was felt to be unsafe for pedestrians.

Desired Outcomes

Calvert County residents would like to be able to travel throughout the county and within their communities, using a variety of modes, with greater ease. Improving conditions for bicyclists and pedestrians was also expressed, as was a desire to see expanded transit service.

There are several different types of travel needs. There is a need to travel through the county, for example, long distance travel primarily on MD 4 and 2/4). There is a need to travel within the county, that is, shorter distance travel that likely includes some travel on MD 4 or MD 2/4, for example getting from one Town Center to another or from a residential area to a Town Center. There is also a need to travel within a Town Center. While there is some overlap among these categories, it is important to recognize the differences and develop different approaches to fulfilling the needs of each.

The 2010 Comprehensive Plan indicates that preventing severe congestion on MD 4 and 2/4 is important, and the Plan recommends the gradual conversion of MD 4 and 2/4 into a controlled access expressway as a key to resolving future traffic congestion.

With regard to transit, the 2010 Comprehensive Plan calls for the creation of local transit service areas within major Town Centers and express bus service between the Town Centers. The Comprehensive Plan notes that rapid transit, defined as buses or trains traveling in an exclusive right of way, requires higher population densities than Calvert County has today and is unlikely achievable given the county's desire to promote a rural development pattern with the Town Centers offering relatively small urban concentrations.

The 2010 Comprehensive Plan suggests that waterborne commuter ferry has potential in Calvert County to connect the southern portion of Calvert County across the Patuxent River to Lexington Park.

One of the 10 Visions of the 2010 Comprehensive Plan is that walking and bicycling are practical transportation alternatives. The Plan notes that sidewalks and bikeways should remain a top priority, in accordance with Town Center master plans. Promoting walking and bicycling is one of the objectives of the Plan. There are several actions associated with requiring sidewalks to be constructed and establishing bicycle routes to create connections to residential, commercial, employment, educational, recreational, and open space areas, and specifically enhancing opportunities for walking and bicycling in Town Centers.

A successful transportation element of the Comprehensive Plan will identify transportation concerns at all three levels (through the county, within the county, and within the Town Centers) and recommend short-term and long-term actions for roadways, transit services, bicycle facilities and pedestrian improvements that improve the overall travel experience in the county.

Possible Strategies

The Calvert County Transportation Plan was adopted 1998. An update to this plan should develop a coordinated program of roadway, transit, bicycles and pedestrian improvements to serve needs throughout the county and within designated areas. The Transportation Plan should establish a hierarchy of county roads with appropriate Complete Streets features[1], identify locations for new or expanded transportation facilities, and set standards for the adequacy of the transportation system to guide development approvals and the capital improvements program.

Through County Movements

MD 2/4

- Convert MD 4 and MD 2/4 within designated areas like Prince Frederick and Dunkirk to a Complete Street facility with shared access and parallel access roadways and convert MD 4 and MD 2/4 outside designated areas to a managed access highway with new access limited to streets and at-grade intersections.

Transit

- Option 1: Expand commuter bus service into Washington, DC and St. Mary's County.
- Option 2: Continue to plan for transit stations, where passengers can transfer from commuter buses to local buses.
- Option 3: Improve daily transit connections with Charles County and St. Mary's County.

Within County Movements

Roadways

- Option 1: Improve roadways to address coastal and stormwater flooding.
- Option 2: Improve MD 231 to address safety and reduce congestion.

[1] The National Complete Streets Coalition, a coalition of transportation officials and advocates, defines "Complete Streets" as those that "are designed and operated to enable safe access for all users**,** including pedestrians, bicyclists, motorists and transit riders of all ages and abilities." (Accessed 1/24/2017, https://smartgrowthamerica.org/program/national-complete-streets-coalition/what-are-complete-streets/).

- Option 3: Promote travel demand management such as ridesharing options, preferential parking for carpooling, and expanded park and ride lots.

Transit

The County Transit system configures its service to address the two types of movements—three routes run between Town Centers and four routes operate within a single Town Center. All the routes begin or end at a community or senior center and operate between 7 a.m. and 8 p.m., serving the needs of those attending the senior centers and running daily errands.

- Option 1: Explore the demand among local employers and workers for buses to take employees to and from work places within the county.
- Option 2: Work with Calvert Hospital and the College of Southern Maryland to develop routes likely to encourage transit access for employees, patients and students from throughout the county to include the new College of Southern Maryland campus in Hughesville.
- Option 3: Explore the potential for dedicated bus lanes to expedite transit movements between and through Town Centers during congested traffic periods.
- Option 4: Improve wayfinding (the system that underlies the design of a signage program) and bring to people's attention the option of public transportation in a creative and inviting way.

Bicycling

While there may be limited demand for bicycle travel extending the entire length of the county from north to south, the geography of the county does support shorter movements between adjacent Town Centers and development and from east to west across the county.

- Option 1: Establish priorities for the creation of marked bike lanes or separate bike facilities along state and county highways connecting to MD 2, MD 4, and MD 2/4 and connecting Town Centers.
- Option2: Develop a bicycle master plan for the county, to include both on road and off road routes and include priorities to expand or create opportunities for bicycling.
- Option 3: Promote bicycle events around the county to increase awareness of bicycles as a regular means of transportation and to encourage tourism.
- Option 4: Create a wayfinding signage system for bicycle routes.

Local and Town Center Movements

In order to increase the vibrancy of Town Centers, Calvert County needs to create a transportation network within the Town Centers that support vibrancy and vitality. This means prioritizing county transportation dollars toward constructing a transportation network that is more balanced—and focus more on walking and biking—within the Town Centers. A vibrant place is one with people out and about, not one full of speeding cars. In order to help draw people out of their vehicles, it is necessary to create an environment that is pedestrian-friendly. This includes a roadway network made up of short

block lengths with wide sidewalks, pedestrian-scaled lighting, on-street parking buffered from roadways designed to promote slower traffic, destinations to walk to and from, amenities, and street furnishings.

Streets and Roads

Develop north-south roadway systems, parallel to MD 2/4 in Prince Frederick and Dunkirk

- Option 1: Connect the current roads parallel to MD 2/4 into a complete roadway network that extends the length of MD 2/4 through the Prince Frederick and Dunkirk Town Center areas.
- Option 2: Focus commercial on parallel roads not MD 2/4.

Establish a Road Connectivity Requirement for New Development

- Option 1: Establish road and sidewalk/path connectivity requirement based on block length in designated areas and for residential and commercial subdivisions above a certain size to help reduce traffic congestion and improve walkability, especially in Town Centers. Because most subdivisions in Calvert County do not interconnect, even short trips require the use of major arterials, contributing to the overload of MD 4 and MD 2/4.

Transit

- Option 1: Review the routes serving Town Centers to include stops at employment centers, consider extending transit hours to serve employees within the Town Centers and adjacent areas.
- Option 2: Review routes connecting major subdivisions to Town Centers. Housing in higher densities, but still outside of the Town Center has the potential to be utilized stops in a transit network.
- Option 3: Increase availability of demand-response public transportation. This call-by-call public transportation would be used to connect the low density areas of the county.

Bicycle and Pedestrian Facilities

- Option 1: Develop and implement a Complete Street program in each Town Center.
- Option 2: Set aside funding in the capital budget to install sidewalks along both sides of all streets in Town Centers.
- Option 3: Develop a local bicycle system plan for each Town Center.
- Option 4: Establish bicycle parking requirements for commercial, employment, and institutional uses in Town Centers and Employment Centers.
- Option 5: Install traffic calming measures such as roadway narrowing, raised and colored intersections, street chokers (also called neckdowns, they narrow the street by extending the sidewalk), and traffic circles in select locations in Town Centers. These processes focus on reducing the speed of cars and increase alertness of motorists in order to enhance the environment for non-motorists.

Share Your Ideas:

Thank you for reviewing this paper, which is intended to get you thinking about how Calvert County should plan for the future of transportation. You are invited to the public workshop to discuss transportation issues and to share your thoughts via the County Comprehensive Plan website: http://www.co.cal.md.us/futureCalvert.

Use these questions to prepare for the workshop and to provide comments on the website.

1. Think about where and how you currently travel through and around the county. What would need to change for you to use a different method (such as taking transit, walking, or biking) to make those trips?

2. What steps could be taken to create more walkable, bikeable Town Centers? What particular Town Centers or sections/areas of Town Centers should be prioritized for improvement? Why?

3. How can the county make it easier to get between Town Centers and other population centers in the county? What are the ways to encourage more of these trips be by bus or bicycle?

4. How should MD 4 and MD 2/4 be treated when they bisect a Town Center? What improvements, if any, could be/should be made to turn MD 4 and MD 2/4 into a connection rather than a barrier between the different parts a Town Center?

5. Allocate 100 points across the following five areas where Calvert County should invest its time and funding. The more desirable the approach, the more points should be allocated to it.

___ Improve through county movements on MD 4 and MD 2/4 by limiting access along it and building over/under passes and interchanges

___ Improve local roads that connect residential areas to Town Centers

___ Continue/improve bus service that connects the Town Centers

___ Make the Town Centers more walkable/bikeable

___ Improve/expand transit services that circulate within the Town Centers

___ Total (100)

Calvert County Comprehensive Plan Update
Supporting Options in Community Character

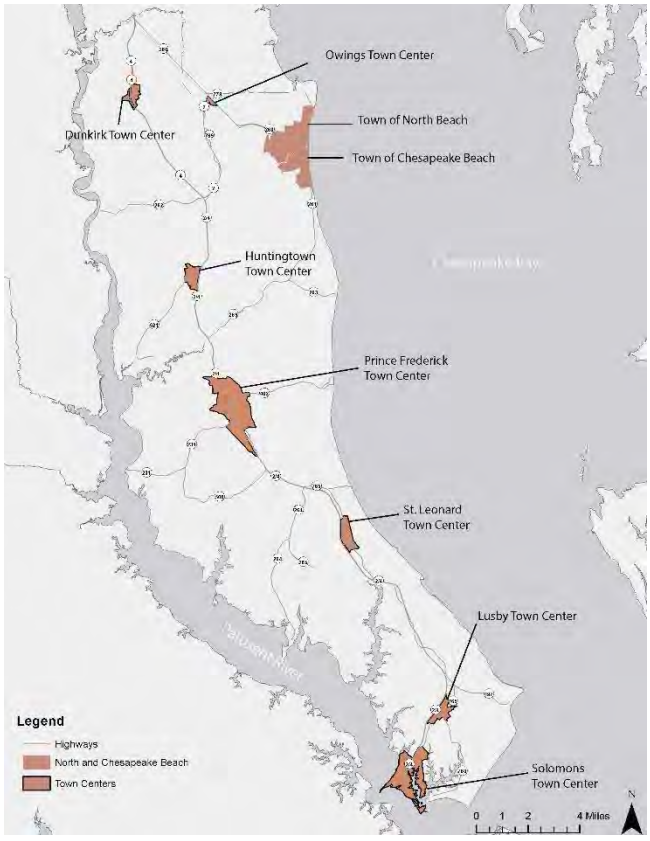
Developing a Place-type Strategy

Calvert County citizens favor directing growth to the designated Town Centers. However, the definition of Town Center means different things to different people, and many residents believe that there are several types of Town Center communities in the county. The categories of major and minor "Town Center" may not be sufficient to address the locations suitable for growth in the county. Nor are all population centers appropriate for additional growth. However, these existing communities need to be recognized. This issue paper examines the county's various population centers and proposes a range of place-types for these population centers. This approach would preserve and enhance sense of place and community character across Calvert County and within the specific population centers.

This paper provides an overview of current conditions for the county and for each of the Town Centers and discusses places in the county with strong identities that are not designated as Town Centers. Finally, it proposes using a hierarchy of place types to recognize and categorize the desirable community characters of the county's various population centers.

Background

There are nine designated Town Centers in Calvert County. Seven are unincorporated and regulated by the county government: Dunkirk, Huntingtown, Lusby, Owings, Prince Frederick, St. Leonard, and Solomons. Two designated Town Centers are incorporated municipalities with their own regulatory powers: Chesapeake Beach and North Beach.



The Town Centers are where the majority of commercial, civic, and employment activities take place. The county's *Comprehensive Plan* provides that Town Centers should be attractive, pleasant, and convenient places to live, work, and shop. The *Comprehensive Plan* goals include directing growth to appropriate locations, ensuring a wide range of housing opportunities for all incomes and ages, and maintaining and enhancing the quality of residential communities.

Based on feedback from the community during the Fall 2016 workshops, it appears that the designated Town Centers are not meeting residents' expectations

and are not providing a range of housing options, commercial and retail amenities, transportation infrastructure, pedestrian connectivity, public facilities, and public space.

Current Conditions

This section provides a baseline understanding of existing conditions and current extent of growth, and provides the current development "snapshot." This snapshot is important to determining an appropriate framework for how the county can better adjust its policies for these areas.

Town Center Master Plans

Each Town Center has an adopted master plan that describes its development goals and objectives. Many of the Town Centers share a similar vision of the future, but there are some notable differences. The following summary presents the main goals and objectives of each of the adopted Town Center master plans and offers an overview of the key points relevant to community character.

Economic Development

The Town Center master plans focus on attracting appropriate types of retail and designating adequate areas for commercial use. Most Town Center master plans promote a broad mix of commercial, office, and public and institutional uses. Commercial development has the potential to shape the aesthetics and community character of an area. The Town Center master plans encourage commercial and economic development that is compatible with the environmental, cultural, historical, and aesthetic character of each specific Town Center.

Preserve and Expand Residential Areas

Overall, the Town Center master plans focus on protecting existing residential neighborhoods, while encouraging new residential development in appropriate locations. They recommend a variety of housing types to meet the needs of a diverse population. For example, the Prince Frederick Master Plan seeks to retain the residential character of existing neighborhoods through adaptive reuse of existing residential buildings. The Prince Frederick Master Plan also promotes higher density residential development adjacent to existing neighborhoods and good design to ensure privacy and space. The Owings Town Center Master Plan calls for providing the necessary zoning and infrastructure for single-family and multi-family development, including low-to moderate-income and senior housing.

Community Character

Accommodating future growth within Town Centers while maintaining community character is central to many Town Center master plans. The Huntingtown Town Center and Solomons Town Center master plans focus on promoting community character. Huntingtown's master plan promotes a distinctive identity through the establishment of a community focal point and preservation of visual integrity. The Solomons Town Center Master Plan focuses on water-based activities and enhancing *"a mix of uses in the Solomons Island Village Core that are family-friendly, encourage year round activity, and are visually compatible with Solomons architectural heritage."*[1] Solomons could be used as a reference for envisioning the potential for future Town Centers as denser, pedestrian-oriented places.

[1] *Solomons Town Center Master Plan. (2009) Master Plan Goals & Objectives.*

Transportation and Connectivity

Generally, the master plans promote balanced, complete transportation systems that reduce dependency on personal automobiles and enhance mobility. In addition, Town Center master plans aim for a well-connected, safe, and functional road system to improve traffic safety. The Prince Frederick Master Plan outlines two specific transportation-focused objectives that have county-wide impacts: (1) stage the development of a transportation system to complement the overall development of the county, and (2) maintain MD 2/4 as the main transportation corridor providing for safe and efficient travel.[2] These two objectives complement a more comprehensive transportation vision for the county by developing connections within and between population and employment centers. Mobility connections, such as better public transit within and between communities, sustain and promote development and growth.

Undesignated Population Centers

In addition to the policies and recommendations made in the Calvert County Comprehensive Plan, there are county, state and federal government policies that recognize specific population and employment centers in the county. Maryland's Priority Funding Areas (PFA) are designated by local governments as places for future growth. Being designated as a PFA makes the areas eligible for state investment including highways, sewer and water construction, economic development assistance, and state leases or construction of new state office facilities.[3]

In Calvert County there are many areas outside the Town Centers that are designated as Priority Funding Areas. These population centers are mostly areas with clustered residential uses and some commercial, civic, and/or other uses. Examples of these areas include Broomes Island, Barstow, and the area around the Chaneyville Road/MD 4 intersection. As discussed in the *Potential Strategies* section, "place- type" designations for these population centers would help preserve and enhance the unique qualities of these centers based on their established community character.

The federal government maps Census Designated Places (CDP) for which data from the decennial census is reported and interim forecasts of population are developed as part of the American Community Survey. Calvert County's unincorporated Town Centers are included with CDPs. However, the CDP boundaries do not necessarily match the Town Center boundaries and can include areas outside the Town Centers. For example, the CDP that includes the Owings Town Center includes a larger area than just the Owings Town Center. Chesapeake Ranch Estates and Drum Point are well-established residential areas outside Lusby Town Center. These communities are designated as a CDP, but are not a Town Center. From 2000 to 2009, the population of this CDP has increased from approximately 11,500 to 13,030 or 13 percent.[4]

Land Use and Current Development Patterns

Development within Calvert County is largely dispersed. In general, residential development occurs along the major roads and corridors rather than clustered in and around Town Centers.

[2] *Prince Frederick Master Plan. (1989)*
[3] *Maryland Department of Planning. (2017) Priority Funding Areas. (http://www.mdp.state.md.us/OurProducts/pfamap.shtml)*
[4] *U.S. Census Bureau, 2005-2009 American Community Survey and Census 2000 Summary File 1 (SF 1) 100-Percent Data*

Much of Calvert County's residential development is located north of Prince Frederick, and approximately 20 percent of existing residential land uses in the county is concentrated within one-mile of the Town Centers. Residential development in the south is more concentrated whereas residential development in the north is more dispersed. In addition, 85 percent of residential development is categorized as low or very low density.

Commercial development is mainly focused inside Town Centers with some additional commercial development located in Rural Commercial Zoning Districts, most of which are located along the main roadways: MD 2, MD 4, MD 2/4, MD 231, MD 260 and MD 765. The Calvert County Comprehensive Plan promotes a broad mix of commercial, office, residential, public, and quasi-public development within Town Centers. However, based on observations of the area and community input, the Town Centers have not developed into compact areas as envisioned. Solomons is the only Town Center that that has a pedestrian-oriented street network and a diverse array of smaller shops and uses. This historic core of Solomons was developed in the late 19th century.

Population Growth

Calvert County has gone from one of the fastest growing counties in Maryland to one of the slowest growing. This dramatic shift in Calvert County's growth rate is a response to a downturn in the national economy, changing preferences in the housing market, and the county's policies and stated goals. Some portion of the change could be attributed to the long-term effects of the transfer of development rights program in combination with the two downzonings that took place in 1999 and 2003. Another contributing factor is Maryland's Sustainable Growth and Agricultural Preservation Act of 2012 (also known as the "Growth Tiers" or "Septic Bill" Act). Calvert County has not yet adopted a Growth Tier map, so the subdivision activity in many parts of the county is restricted.

The following table represents the growth, and in some cases, decline of population in Calvert County's CDPs that contain Town Centers.

Table 1: Population Change in Census Designated Places that contain Town Centers

Population Averages	***Town Centers***						
	Dunkirk	*Huntingtown*	*Lusby*	*Owings*	*Prince Frederick*	*St. Leonard*	*Solomons*
2005 to 2009	2,782	3,412	2,859	1,846	1,834	986	1,736
2010 to 2014	2,334	3,840	1,504	2,745	3,213	574	1,822
Population Change	**- 448**	**428**	**- 1,355**	**899**	**1,379**	**- 412**	**86**
Percent Change	**- 16.1%**	**12.5%**	**- 47.4%**	**48.7%**	**75.2%**	**- 41.8%**	**5%**

Notes: Population data is provided for Census-Designated Places (CDP); the Town Center boundaries, as provided by the county, are slightly smaller than the CDPs. Source: U.S. Census American Community Survey

Connectivity

Limited growth within Calvert County and within some of the Town Centers could be attributed to the lack of sufficient connectivity both within and between Town Centers. Public transportation is necessary in order to provide a means of access into central commercial and employment districts for populations that may not have access to a personal automobile. Although the county is served by seven public transit routes in and between Town Centers, the predominate mode is auto-oriented, with a lack of pedestrian and bicycle infrastructure and public transit service gaps, such as limited hours and frequency.

Community Character

Every population center has unique physical features. Residential areas are developed in ways that respond to the surrounding environment, whether that be the waterfront, farmland, or a nearby Town Center. The Town Centers contain most of the county's commercial and employment activity. Prince Frederick is the largest Town Center and the location of state and county government offices, Calvert Memorial Hospital and adjacent private medical offices, and large retail shopping centers. In general, Lusby, Solomons, and Dunkirk are made up of large commercial centers set back from main roadways in strip centers. Solomons contains a cluster of local retail shops and restaurants on Solomons Island that creates a small waterfront village character. Huntingtown, St. Leonard, and Owings are Town Centers that have the least commercial or employment activity.

Documented Opinions

Based on feedback during recent public workshops, commercial centers within the county are generally not meeting the needs of residents and visitors. The common perception is that the Town Centers are not developed to their full potential in terms of economy, housing and affordability, street network, pedestrian connectivity, recreational opportunities, or population. Many county residents complain that the Town Centers lack specific uses and amenities. These include a walkable center with a variety of places, parks, plazas, and pedestrian and bicycle connections. There is also concern that the Town Centers do not have enough local retail. There is an interest in living and working in well-connected mixed-use, commercial centers, but residents do not perceive the Town Centers as having these features. The community has a vision for the way Town Centers and other place-types should be developed, which is not being achieved.

Desired Outcomes

During the public workshops, residents of Calvert County demonstrated a consensus on focusing growth in currently-designated Town Centers. The public envisions more walkable, developed, mixed-use central commercial and employment centers. They seek additional public spaces, parks, and community amenities that would improve quality of life. Residents would like more attention paid to streetscape design and walking paths, and they requested additional opportunities for pedestrian and bicycle connections between commercial establishments. In addition, they wanted site design standards to improve commercial development in the Town Centers. Furthermore, the community would like Town Centers to include additional employment opportunities beyond the larger retail establishments in shopping centers along the major roadways.

Housing is a key issue that the community would like addressed. There is strong support for creating additional housing options in Town Centers that serve a diversifying population: attracting a younger population and accommodating the existing senior population.

The lack of pedestrian and bicycle infrastructure disconnects residents from recreational opportunities and services. It poses a challenge to linking future housing in population centers to the county's recreational resources.

Finally, it remains important to the community to identify where new development should and should not be concentrated. There is a consensus to limit sprawl, direct growth to Town Centers, and support mixed-use, infill development, and necessary infrastructure improvements.

Potential Strategies

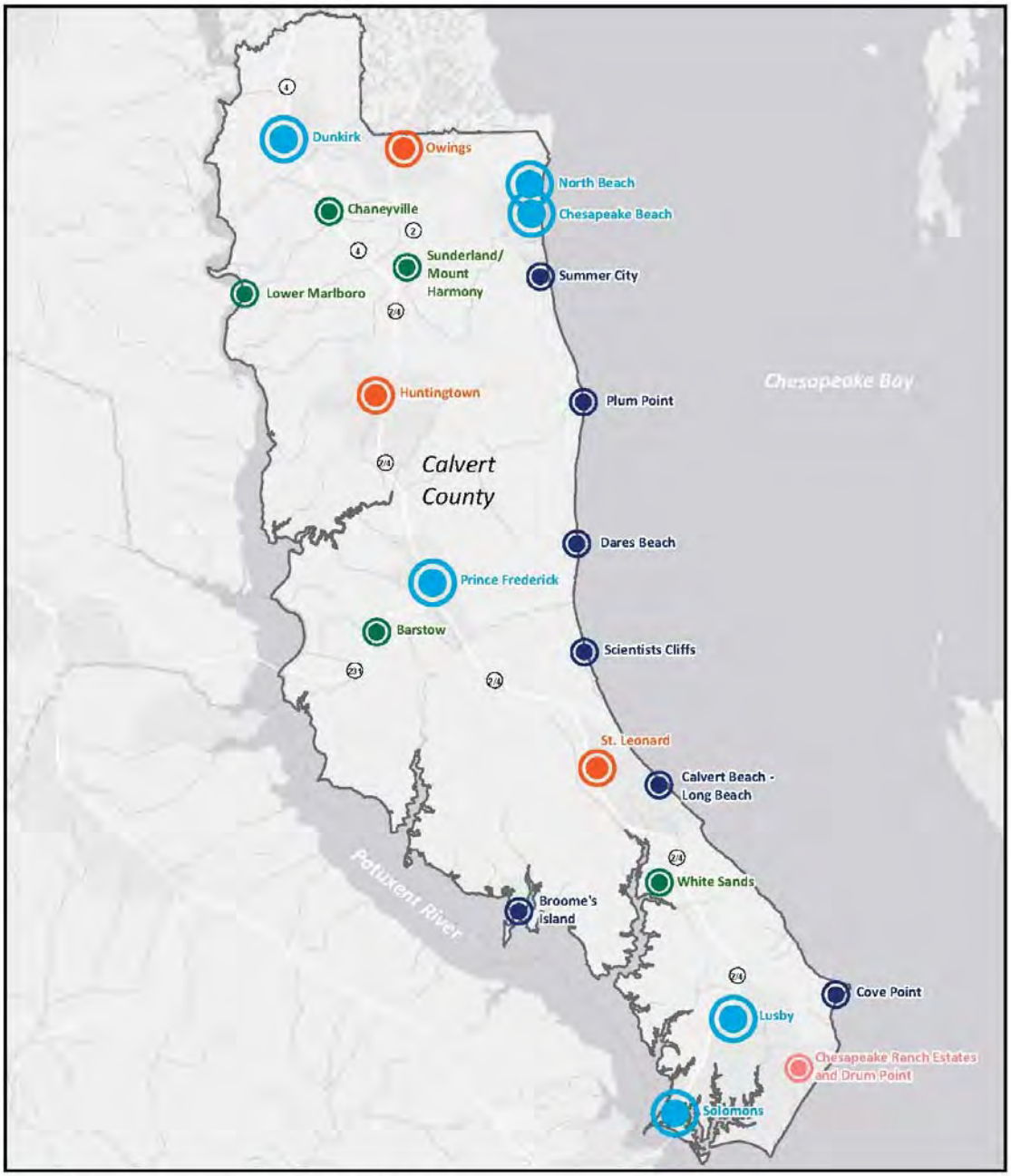
Since the same development intensity is not appropriate for all population centers, the updates to the new Calvert County Comprehensive Plan and Zoning Ordinance should preserve the on-the-ground conditions and, if desirable, develop population centers through the establishment of a hierarchical system of place-types. The strategies proposed below would preserve and strengthen the unique community character in Town Centers and other population centers throughout the county. The strategies are proposed as ways to ensure that future development in the county's population centers is reflective of the surrounding area and the community's aspirations and vision.

Potential Strategy #1: Establish a hierarchical system of "place-types" that better define the character of various population centers and provide a clear policy direction for their preservation and growth.

Calvert County could adopt a place-type community planning strategy that defines various types of population centers and creates development strategies that are more precisely calibrated to their community characters. A place-type designation is a community design tool used to guide building design and function as well as land use and development patterns. To that end, the following five place types are proposed and are reflective of the current distinct character types found the county:

1. Town Center
2. Village
3. Hamlet
4. Waterfront Community
5. Residential Transition Area

The following map illustrates where each place-type designation would be designated throughout Calvert County. Descriptions following the county overview map outline the identifying characteristics of each place type and begin to assign the designations to existing population centers within Calvert County.



PROPOSED PLACE TYPE DESIGNATIONS

Proposed Town Center

Proposed Village

Proposed Hamlet

Proposed Waterfront Community

Residential Transition Area

County Boundary

0 2.5 5 Miles

N

Town Centers

Town Centers contain a mixture of residential, commercial, and institutional uses. The main role of Town Centers is to accommodate the most intense development in the county, mixing and blending housing, public facilities, employment, and commercial uses together. The most prominent Town Centers are along MD 4 and MD 2/4. These Town Centers would serve a community of all ages, with special attention given to senior citizens and young adults. A traditional plan radiates out from a central point with streets lined with sidewalks and a pedestrian-oriented design of blocks that maintains short walking distances.[5]

Town Centers typically have an associated residential area on the outskirts that provides the market for the core commercial development.

Of the seven currently-designated Town Centers controlled by the Calvert County Government, four are large enough to support this type of development.

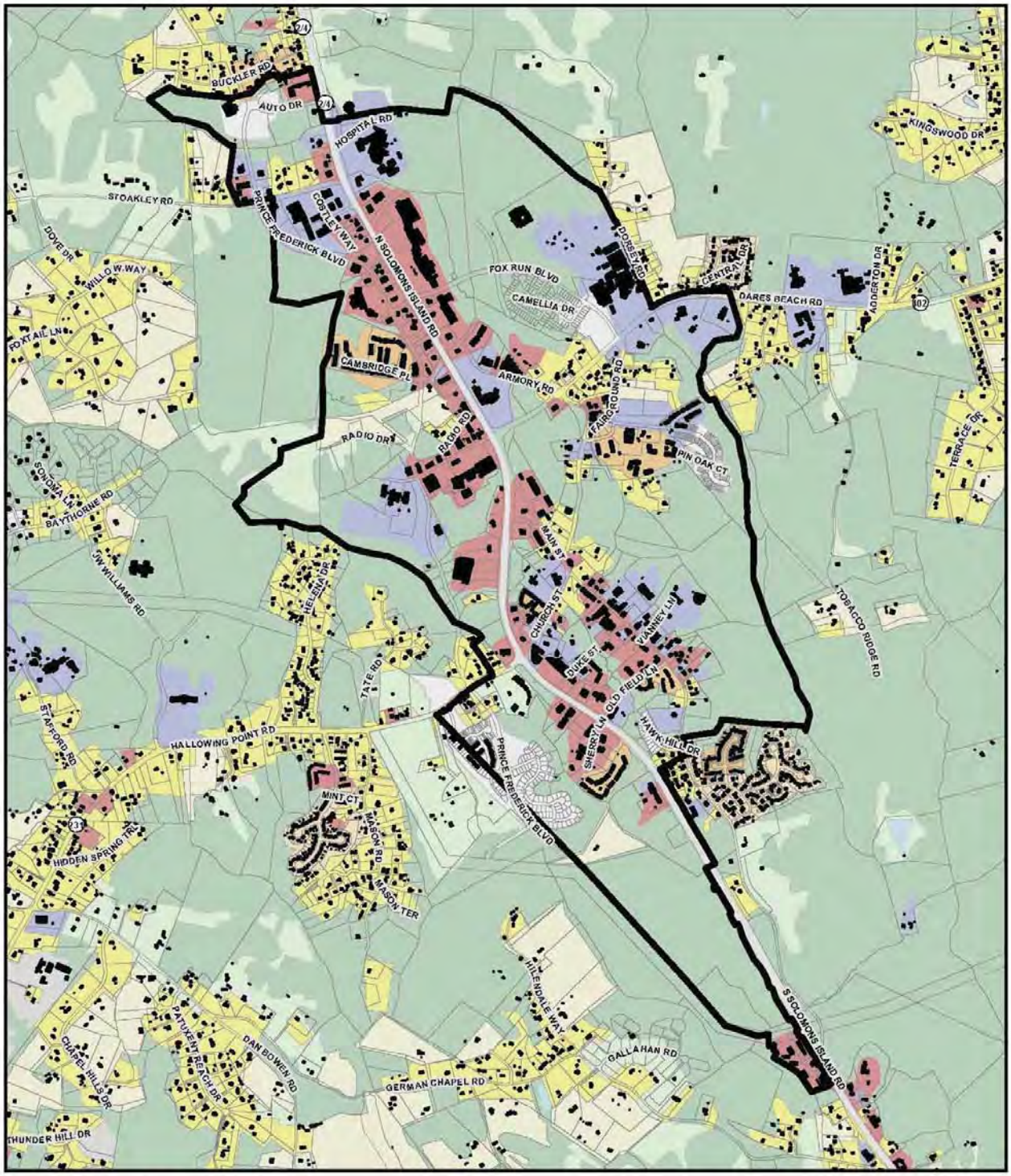
Population centers proposed as a Town Center place-type include:

1. Prince Frederick
2. Lusby
3. Solomons
4. Dunkirk
5. Chesapeake Beach
6. North Beach

The municipalities of Chesapeake Beach and North Beach are proposed to continue to be designated Town Centers, under their own planning and zoning authority.

The following map of Prince Frederick has been chosen to illustrate the current land use conditions that make this an appropriate population center for Town Center designation. Prince Frederick is the largest master plan-designated Town Center in the county and contains a mix of commercial and institutional uses concentrated along North Solomons Road and Dares Beach Road. Prince Frederick could support the level and intensity of development proposed under the Town Center place type. Through the Town Center place-type designation it is anticipated that Prince Frederick could potentially expand and through infill development, be more commercially dense in the core.

[5] Duany, A. and Plater-Zyberk, E. (1991) *Towns and Town-Making Principles*.



PRINCE FREDERICK

Existing Town Center Boundary
Building Footprints

Land Use

- Agriculture
- Barren Land
- Commercial
- Forest
- High Density Residential
- Industrial
- Institutional
- Low Density Residential
- Medium Density Residential
- Other Developed Lands
- Transportation
- Very Low Density Residential
- Water
- Wetlands

0 0.25 0.5 Miles

N

Villages

Villages are residential communities with less development intensity than Town Centers. Villages contain a mix of uses, with concentrations of commercial, retail, and civic and/or community uses. Villages, like Town Centers, have a central point from which development extends. However, villages have more local commercial uses whereas Town Centers may serve a larger geography and contain greater opportunities for employment. Similar to the minor town center designation in the Calvert County Comprehensive Plan, the village place-type would serve as a local convenience center. Villages typically have an associated residential area on the outskirts that provides the market for the core commercial development.

Population centers proposed as a Village place-type include:

1. Huntingtown
2. Owings
3. St. Leonard

Based on a comparison of developed areas within the county, three of the currently-designated Town Centers, Huntingtown, Owings, and St. Leonard, could be reclassified as a Village place-type. These places contain smaller developable areas, which would be better served by smaller scale development.

The following map of St. Leonard has been chosen to illustrate the current conditions that make this an appropriate area for a Village place-type designation. St. Leonard is currently designated as a minor Town Center by the current Calvert County Comprehensive Plan. Based on the current level of commercial and institutional development, St. Leonard has the potential to be developed into a village place-type with additional commercial uses that serve the local community. The street network allows for a concentrated commercial area surrounded by varying levels of residential density.

ST. LEONARD

Existing Town Center Boundary
Building Footprints

Land Use

- Agriculture
- Barren Land
- Commercial
- Forest
- High Density Residential
- Industrial
- Institutional
- Low Density Residential
- Medium Density Residential
- Other Developed Lands
- Transportation
- Very Low Density Residential
- Water
- Wetlands

0 750 1,500 Feet

N

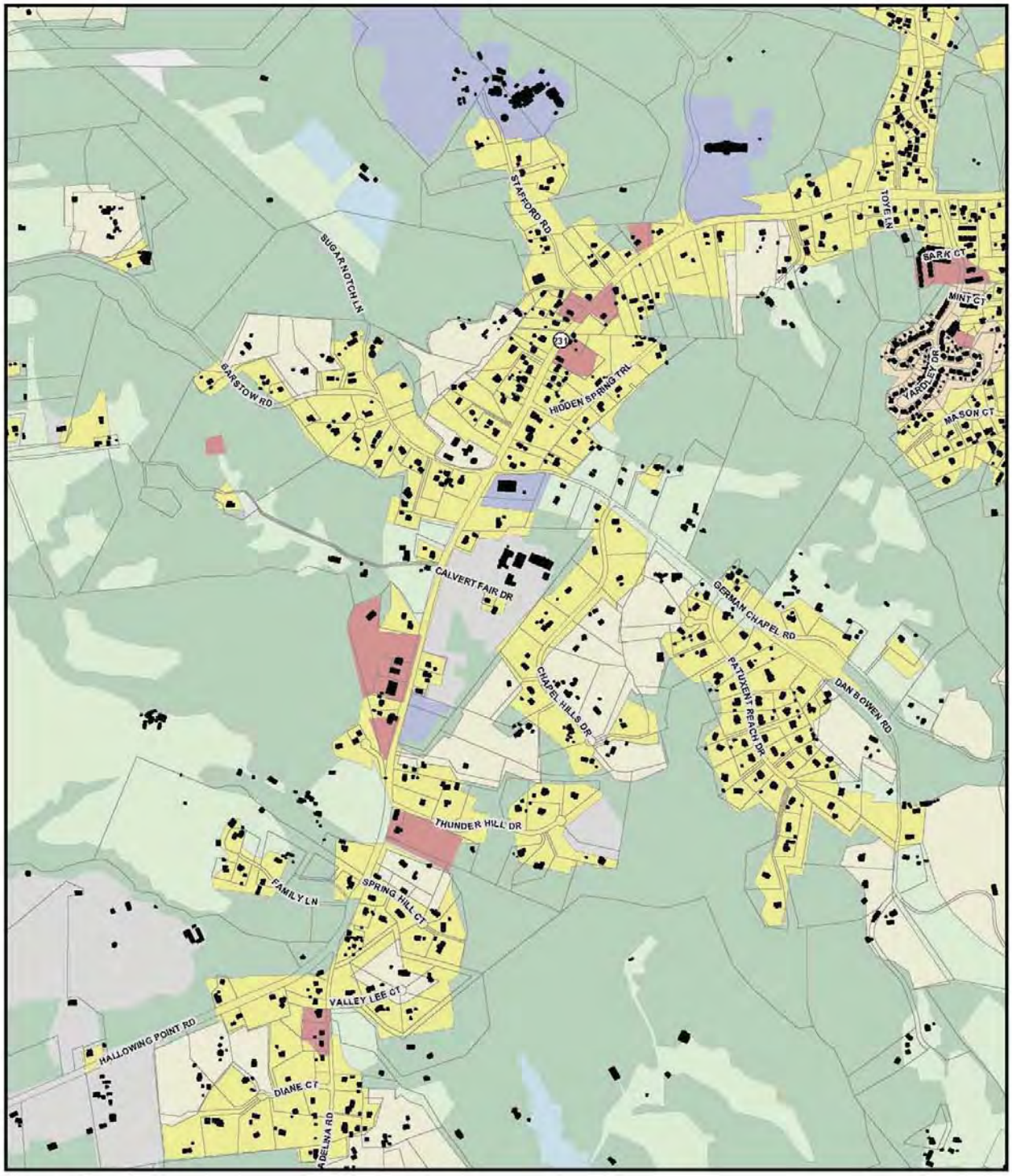
Hamlets

Hamlets are smaller than villages and are categorized as clustered communities that contain several significant commercial or civic uses; the remainder of development is low-to-mid density residential. It is not anticipated that these hamlets would undergo much development or future growth.

Population centers proposed as a Hamlet place-type include:

1. Sunderland/Mount Harmony
2. Chaneyville
3. Barstow
4. Lower Marlboro
5. White Sands

The following map of Barstow has been chosen to illustrate the current conditions that make this an appropriate area for a hamlet place-type designation. Barstow is an undesignated population center south west of Prince Frederick. Barstow represents a smaller clustered community of low-density residential uses and select commercial and institutional uses along Hallowing Point Road. Based on Barstow's proximity to Prince Frederick, there does not seem to be a demand or need for much more commercial development in this population center.



BARSTOW

Building Footprints

Land Use

- Agriculture
- Barren Land
- Commercial
- Forest
- High Density Residential
- Industrial
- Institutional
- Low Density Residential
- Medium Density Residential
- Other Developed Lands
- Transportation
- Very Low Density Residential
- Water
- Wetlands

0 0.25 0.5 Miles

N

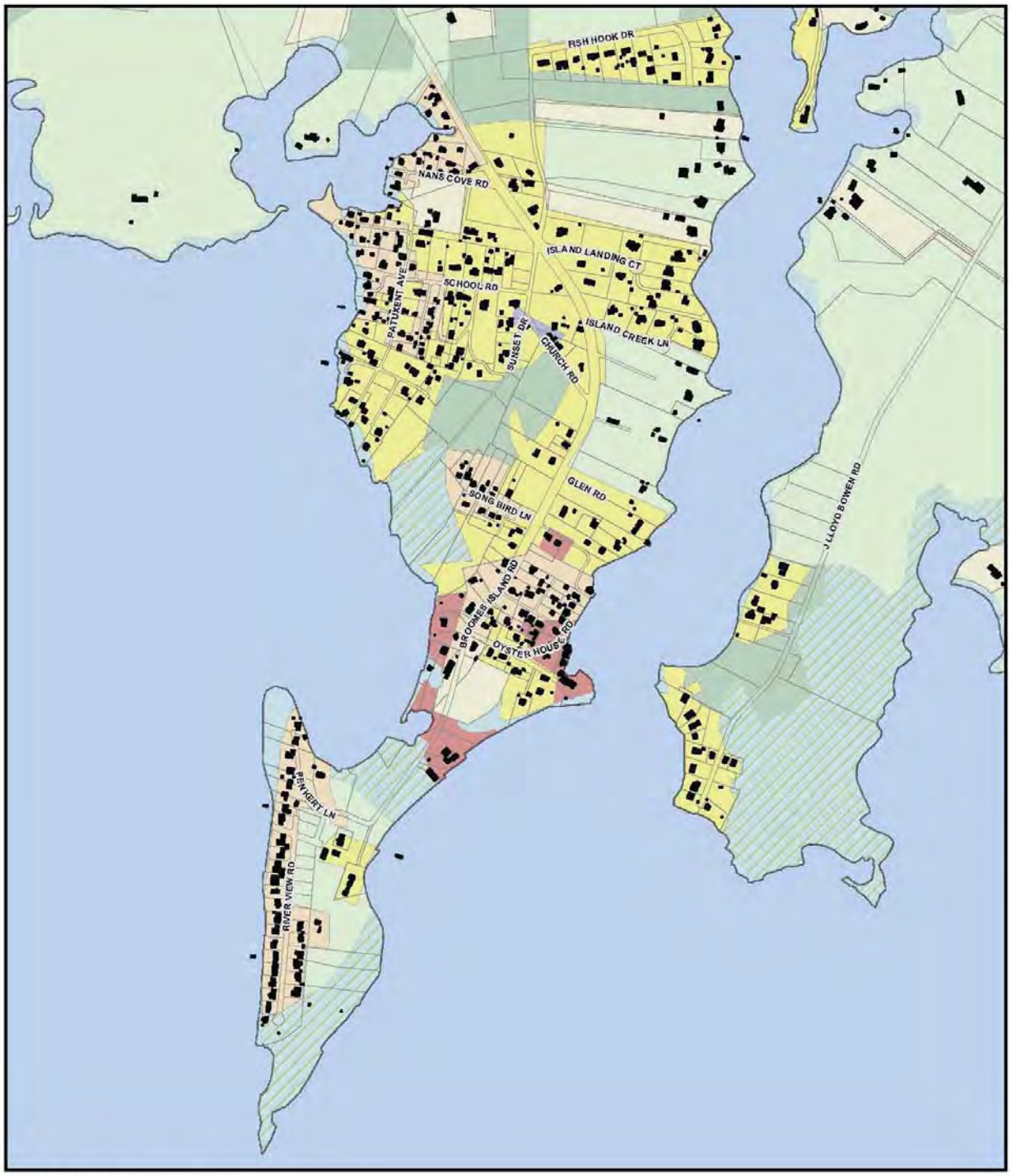
Waterfront Communities

Waterfront communities are clustered small population centers located along Calvert County's waterfront. This place type recognizes these population centers as unique places within the county. Future development within these population centers would be limited.

Population centers proposed as a Waterfront Communities place type include:

1. Plum Point
2. Dares Beach
3. Cove Point
4. Summer City
5. Scientists Cliffs
6. Calvert Beach - Long Beach
7. Broomes Island

The following map of Broomes Island has been chosen to illustrate the current conditions that make this an appropriate area for a Waterfront Community place-type. Broomes Island is an undesignated population center that contains water-focused commercial uses that are typical of other waterfront communities along the county's Chesapeake Bay shoreline.



BROOME'S ISLAND

Building Footprints

Land Use

- Agriculture
- Barren Land
- Commercial
- Forest
- High Density Residential
- Industrial
- Institutional
- Low Density Residential
- Medium Density Residential
- Other Developed Lands
- Transportation
- Very Low Density Residential
- Water
- Wetlands

0 750 1,500 Feet

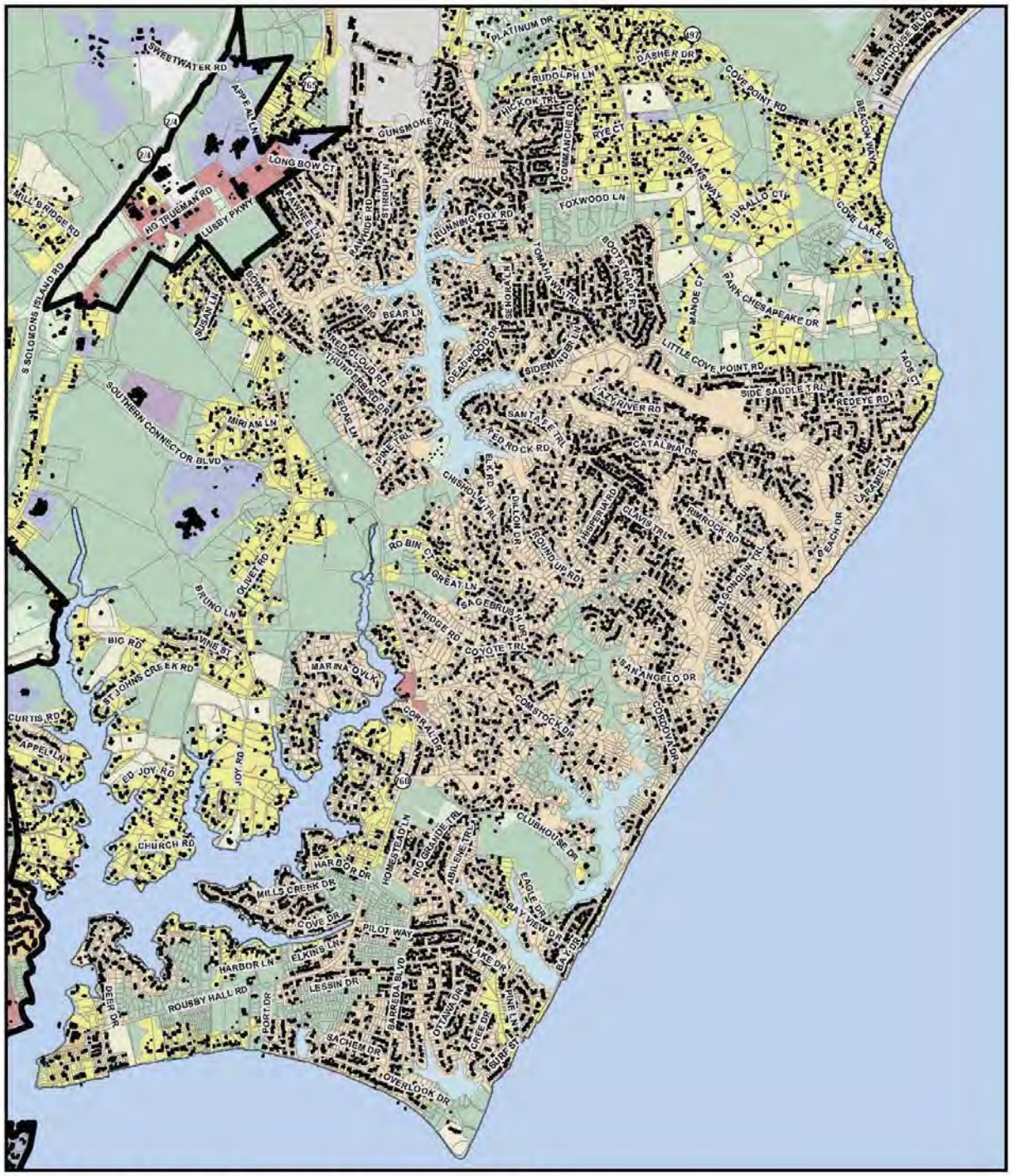
N

Residential Transition Area

Residential Transition Areas are intended to ensure that the physical transition from higher intensity population centers outward to rural areas is of an appropriate and graduated scale. These areas would be more clearly defined by a step down of residential density from the Town Center or village to agricultural land. The proposed Residential Transition Areas would be defined and regulated as zoning districts in the Zoning Ordinance, would have use and dimensional standards, and be mapped along the periphery of the Town Centers and villages.

Specific locations for proposed Residential Transition Areas have not be identified. However, Chesapeake Ranch Estates and Drum Point are a good illustration of a population center appropriate for this designation. The area is dominated by low-density residential uses, is directly adjacent to the Town Center of Lusby, and supports the more intense commercial development there.

The following map of the Chesapeake Ranch Estates and Drum Point area shows its adjacency to the Lusby Town Center and the character of the residential development that make this an appropriate area for a Residential Transition Area place-type designation.



CHESAPEAKE RANCH ESTATES AND DRUM POINT

Potential Strategy #2: Develop land use and design guidelines for each place type and incorporate in the *Calvert County Comprehensive Plan* and Zoning Ordinance.

The revised comprehensive plan would set out principles for each place-type to guide development and to foster community character. These principles would be translated into regulations in the zoning ordinance.

In the future, it may be appropriate to develop more detailed small areas plans for those places selected to accommodate future growth. These small area plans could provide land use and design guidelines concerning the location of uses and site design, and the relationship between residential, commercial, civic, and institutional development. In addition, land use and design guidelines could be responsive to the surrounding rural nature of the county and the vision of the community. The land use and design guidelines could describe the kind of development, its placement on a lot, and its relationship to surrounding uses and include illustrations.

Conclusion

The potential strategies outlined above would create a framework for targeting future growth and development into more concentrated areas within the county. In combination, these strategies would provide more precise tools to preserve, enhance, and maintain community character and appearance within and around Calvert County's population centers.

Share Your Ideas

- Do you agree with the place types proposed: Town Centers, Villages, Hamlets, Waterfront Communities, and Residential Transition Areas? What are your thoughts on these types? If not, what place-types would you suggest?

- Do you agree with the places proposed for each place-type?
    - Town Centers: Dunkirk, Prince Frederick, Lusby and Solomons
    - Villages: Huntingtown, Owings, and St. Leonard
    - Hamlets: Sunderland/Mount Harmony, Barstow, Chaneyville, Lower Marlboro, and White Sands
    - Waterfront Communities: Plum Point, Dares Beach, Cove Point, Summer City, Scientists Cliffs, Calvert Beach, Long Beach, and Broomes Island

- What changes would you make to the proposed designations?

- What characteristics would a Town Center or Village need to have for you to live and/or work there?

- What areas would you suggest for the Residential Transition Area?

Fostering Vibrant, Walkable Communities with Multi-Generational Opportunities

Introduction

The Calvert County Department of Community Planning & Building Department staff and the WSP | Parsons Brinckerhoff consultants are working on behalf of the Planning Commission and the Board of County Commissioners to update the Comprehensive Plan and Zoning Ordinance.

The intent of the Calvert County Comprehensive Plan update is to ensure the visions for Calvert County are still valid, including the twin overarching visions of preserving the rural character while directing new growth to appropriate locations, along with the vision of building a strong local economy. The update will address the county's changing demographics and issues, including land use, environment, economy, housing, and transportation. In addition, the update will address new state land use requirements, including plan elements and the Sustainable Growth and Agricultural Preservation Act.

In the summer of 2016, informational meetings were held where the public could learn about the update process and share their ideas about the challenges facing Calvert County. In September and October four interactive workshops were held where citizens, staff, and the consultants discussed issues in small groups. The discussions at workshops helped set the stage for the current phase, discussing key issues that should be addressed in the updated Comprehensive Plan. Five workshops are being held in the winter and spring of 2017. *Fostering Vibrant, Walkable Communities with Multi-Generational Opportunities* is the third in the series of issue papers and workshops.

The *Supporting Options in Community Character* issue paper proposed a series of place-types to characterize both the designated Town Centers and other existing population centers for the purpose of preserving and enhancing the sense of place in each community and across Calvert County. Participants at the workshop on February 22 provided reactions to the initial concepts and suggested how various population centers should be classified. This follow-up paper further defines each place-type and proposes principles for making these places vibrant, walkable communities serving the multi-generational population of Calvert County.

Current Policy Direction

The *Calvert County Comprehensive Plan* (adopted in 2004, amended in 2010) outlines the goals, vision, and objectives that direct growth, development, and conservation in the county. The goals of the *Comprehensive Plan* are to:

1) Promote sustainable development,
2) Encourage a stable and enduring economic base,
3) Provide for safety, health, and education, and
4) Preserve the natural, cultural, and historic assets of Calvert County.

The vision of the *Comprehensive Plan* is to create Town Centers that are attractive, convenient, and interesting places to live, work, and shop, with a benchmark goal of attracting 35 percent of all new households to Town Centers or areas immediately surrounding Town Centers.

The current Calvert County Comprehensive Plan describes major and minor Town Centers:

> "Major town centers are to serve as regional centers, providing goods and services that attract visitors from the entire County and/or from outside the County (as in tourism). Minor town centers are to serve as local convenience centers unless individual town center master plans determine otherwise." (Page 9)

In the time since the adoption of Calvert County's Town Center concept in the 1983 *Comprehensive Plan*, the State of Maryland authorized counties and municipalities to designate Priority Funding Areas (PFA) appropriate for growth for targeting state investment in infrastructure. These locations include not only growth areas but also areas designated as enterprise zones, neighborhood revitalization areas, heritage areas and existing industrial land. Calvert County in consultation with the State of Maryland, designated Priority Funding Areas that include a wide range of places outside designated Town Centers. These areas are further recognized in the draft Growth Tier Map currently under consideration in Calvert County. The place-type strategy provides a policy framework for recognizing these locations in the updated comprehensive plan and supporting zoning ordinance.

Priority Funding Areas (PFAs) are existing communities and places designated by local governments as locations suitable for state investment to support future growth. In addition, PFAs include areas designated as enterprise zones, neighborhood revitalization areas, heritage areas and existing industrial land.

Growth-related projects covered by the legislation include most state programs that encourage or support growth and development such as highways, sewer and water construction, economic development assistance and state leases or construction of new office facilities.

Source: Maryland Department of Planning, (http://planning.maryland.gov/OurProducts/pfamap.shtml)

The proposed place-type strategy is consistent with the overall goals and objectives for growth in the county and promotes compact, walkable communities that provide high quality of life along with economic and recreational opportunities for all generations. The place-type strategy builds upon and refines the original Town Center concept by proposing

development and preservation strategies to allow appropriate growth, redevelopment and preservation strategies to each place-type.

Feedback from February 22 Workshop

The *Supporting Options in Community Character* issue paper proposed five place-types for developed areas of the county:

- Town Center
- Village
- Hamlet
- Waterfront Community
- Residential Transition Area

The community provided reactions to the *Supporting Options in Community Character* issue paper at a workshop on February 22, 2017, and through comments submitted via an online survey. The structured discussion and most comments focused on the first four place-types, leaving discussion of the residential transition area until after the initial places types are more clearly defined. Summaries of the workshop and the survey results are available on the Calvert 2040 website (www.co.cal.md.us/futureCalvert).

Participants generally agreed to a narrower list of Town Centers, agreeing that it includes Dunkirk, Prince Frederick, Lusby, and Solomons. These places are the most intensely developed of the designated Town Centers in the current Comprehensive Plan. Each has nearby single-family residential development typically within the one-mile radius described in the Comprehensive Plan.

Most participants in the workshop accepted the village place-type and most applied it to Huntingtown and St. Leonard. One group preferred to retain the designation of these two places as Town Centers. Two groups suggested designating Barstow and Sunderland/Mt. Harmony as Villages. One group also designated Chaneyville as a Village.

One group saw no need to change the current designation of Town Center.

Hamlet was the designation with the greatest variety of response. Only three groups applied the place-type to one or more locations in the county. Barstow and Chaneyville were identified as hamlets by two groups of participants. Notably, Owings, an existing minor Town Center, was classified by two groups as a Hamlet. Sunderland/Mt. Harmony was identified as a hamlet by one group. Several groups did not like the term itself, and there is confusion about the intent or potential to create growth in these communities. Alternative names for this place-type include rural crossroads communities and rural activity centers.

The waterfront community place-type was applied by four groups to a total of five locations: Broomes Island, Cove Point, Dares Beach, Plum Point (including the Breezy Point and Neeld Estates communities), and White Sands. These mature, built-out communities typically pre-date zoning and subdivision regulations. Several groups saw potential for marina and restaurant development in these communities.

Two groups concluded that there is no need for the new designations of hamlet and waterfront community.

Table 1 provides a high-level summary of the place-type classification of population centers during the February workshop.

Table 1. Proposed Place-Type Designation, Workshop on February 22, 2017

Locations	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Dunkirk	Town Center	Village/Hamlet*	Town Center	Town Center	Town Center	Town Center/Village
Huntingtown	Village	Village	Village	Town Center	Village	Village
Lusby	Town Center	Town Center	Town Center	Town Center	Town Center	Town Center
Prince Frederick	Town Center	Town Center	Town Center	Town Center	Town Center	Town Center
St. Leonard	Village	Village	Village	Town Center	Village	Village
Solomons	Town Center	Town Center	Town Center	Town Center	Town Center	Town Center
Owings						Hamlet
Barstow	Hamlet	Hamlet	No Designation	No Designation	Village	Hamlet
Chaneyville	Hamlet		No Designation	No Designation	Village	Hamlet
Sunderland/ Mt. Harmony	Hamlet		No Designation	No Designation	Village	Hamlet
Broomes Island	Waterfront	Waterfront	No Designation	No Designation	Waterfront	Waterfront
Cove Point	Waterfront		No Designation	No Designation	Waterfront	Waterfront
Dares Beach	Waterfront		No Designation	No Designation	Waterfront	Waterfront
Plum Point	Waterfront		No Designation	No Designation	Waterfront	Waterfront
White Sands						Waterfront

*Village could be an agreed upon designation if sewer is not required under the specifications of a Village place-type.

Table updated to match 3/27/18 presentation handout.

Defining Place-Types in Calvert County

Based upon the reactions to the initial description of place-types, the definitions are refined to better fit the vision of Calvert County. The place-type approach is proposed to preserve existing community character and allow for growth in the designated Town Centers and Villages. Two of the new proposed place-types focus on preservation of the current development patterns and land use types, while permitting redevelopment: Hamlet and Waterfront Community. Expanded definitions and descriptions for each place-type are provided below.

Definitions

Town Center – These places are designated as Town Centers in the current Comprehensive Plan with a higher intensity and greater variety of commercial and residential development within the plan boundaries. Each has nearby single-family residential development, typically within a one-mile radius of the Town Center.

Village – These places may be designated as Town Centers in the current Comprehensive Plan but have a lower intensity and more limited variety of commercial and residential development. These locations are suitable for additional commercial development and various forms of single family attached and detached dwellings. They typically have single-family detached residential development within one mile.

Hamlet – These traditional settlements provide limited commercial services and may include residential and commercial development that is not consistent with current zoning provisions. These places would recognize the existing uses and development patterns, would retain local serving businesses and would restrict expansion of residential and non-residential development.

Waterfront Community – These mature, built-out communities typically pre-date zoning and subdivision regulations. They are not planned for expansion; they preserve these communities and allow redevelopment that complies with provisions for environmental protection and climate adaptation. Some waterfront communities have potential for additional marina and restaurant development. Some waterfront communities have had flood mitigation plans prepared.

Table 2 summarizes some of the key features envisioned for each place-type. Following the table are principles applicable to each place-type to inform updates to the comprehensive plan and zoning ordinance. The principles are organized into three primary planning elements: Land Use and Development Patterns, Circulation, and Building Form.

Table 2. Characteristics and Potential Features of Place-types in Calvert County

	Town Center	Village	Hamlet	Waterfront Community
Priority Funding Area	Yes	Yes	No	Yes
Jobs	Yes	Yes	Retail and business services	Maybe
Water service	Yes	Maybe	No	Maybe
Sewer system	Yes	Maybe	No	Maybe
Health care facilities	3-5	Yes	Maybe	Maybe
Public safety station	3 or more	Yes	Maybe	Maybe
Library	Yes	Maybe	No	No
Schools	Yes	Yes	Maybe	No
Multi-family units, large (4+ units)	Yes	Yes	No	No
Multi-family units, small (less than 4 units)	Yes	Yes	Maybe	No
Lot sizes	Varies, 1 acre max for new residential	Varies, 1 acre max for new residential	2 or more acres for new lots	Varies
Building height (max. stories)	5	3	2	2 occupied
Places of assembly (community center, churches, etc.)	Yes	Yes	Yes	Yes
Small commercial building, less than 5,000 square feet	Yes	Yes	Yes	Maybe
Commercial buildings of more than 5,000 square feet	Yes	Yes	No	No
Manufacturing, warehousing, industrial, etc.	Yes	Maybe	No	No
Central business area	Yes	Yes	No	No
Sidewalks, pedestrian network	Yes	Yes	Maybe	No
Waterfront commercial (marinas, restaurants)	Yes	Yes	No	Maybe

Town Center

Town Centers exhibit the greatest mix of land uses, higher development densities, stronger connectivity, and a variety of building types.

Land Use and Development Patterns

- There is a well-defined center of activity that is nodal or linear;

- There is a mix of uses intended to serve a community of all ages, with special attention paid to senior citizens and young adults;
- There is a variety of lot sizes and housing stock that cater to an economically diverse population;
- Commercial uses include destination retail uses and services, and tend to be clustered within the central business area or along a commercial corridor;
- Commercial uses are more diverse with a focus on large scale retail sales and have a regional draw;
- A mix of housing types is provided in proportionate quantities throughout the community by:
    - Intermixing single-family attached and detached units of similar appearance but different in size;
    - Providing apartments over commercial uses; and
    - Allowing garage apartments and the conversion of large existing structures into rental units;
- There is one or more major employment center (e.g., governmental employment, institutional employment, and retail employment);
- There are parks, civic and institutional uses that serve large portions of the county, and
- Higher-density housing is incorporated into the central business area and transitions to lower-density residential at the Town Center fringes.

Circulation

- There is a street and block system that provides a favorable physical framework for private redevelopment;
- A grid street network that provides connections from the urban center to rural edges;
- Rectilinear blocks (ideally less than 600 feet) that create a walkable pedestrian environment in the central business area;
- Sidewalks are provided, ideally at least 6-foot wide in commercial areas to allow for higher pedestrian volumes;
- Streets are wide enough to include dedicated 5-to-6 foot bicycle lanes for each travel direction;
- Connections through parks and public squares and mid-block pedestrian passageways exist or are planned to provide additional pedestrian routes;
- Pedestrian infrastructure at intersections, including pedestrian signals and striped cross walks;
- Transit within the Town Center and to areas outside the Town Center; and
- On-street parallel or angled parking where possible to control traffic speed, improve pedestrian safety, and evenly distribute parking spaces.

Building Form

- Building heights are between one and five stories;
- Buildings create a comfortable pedestrian scale on the street through the use of varied building facades;

- Active ground floor uses are located on key segments of the commercial corridor or surrounding a public space;
- Commercial and mixed-use buildings have some setback from the sidewalk;
- Multi-family housing is located along retail corridors;
- Appropriate building types include:
    - Apartments above shops (multi-level mixed-use building);
    - Apartment buildings;
    - Townhouses;
    - Semi-detached houses;
    - Detached house with rental apartments;
    - Detached single-family house;
    - Single-story or multi-level civic buildings; and
    - Light industrial buildings/warehouses; and
    - Multi-tenant retail buildings.
- Public spaces are provided and sized appropriately to break up long building walls;
- Small parking lots or garages are located in the interiors of the block in order to maintain the street wall; and
- Parking is sited alongside and behind buildings.

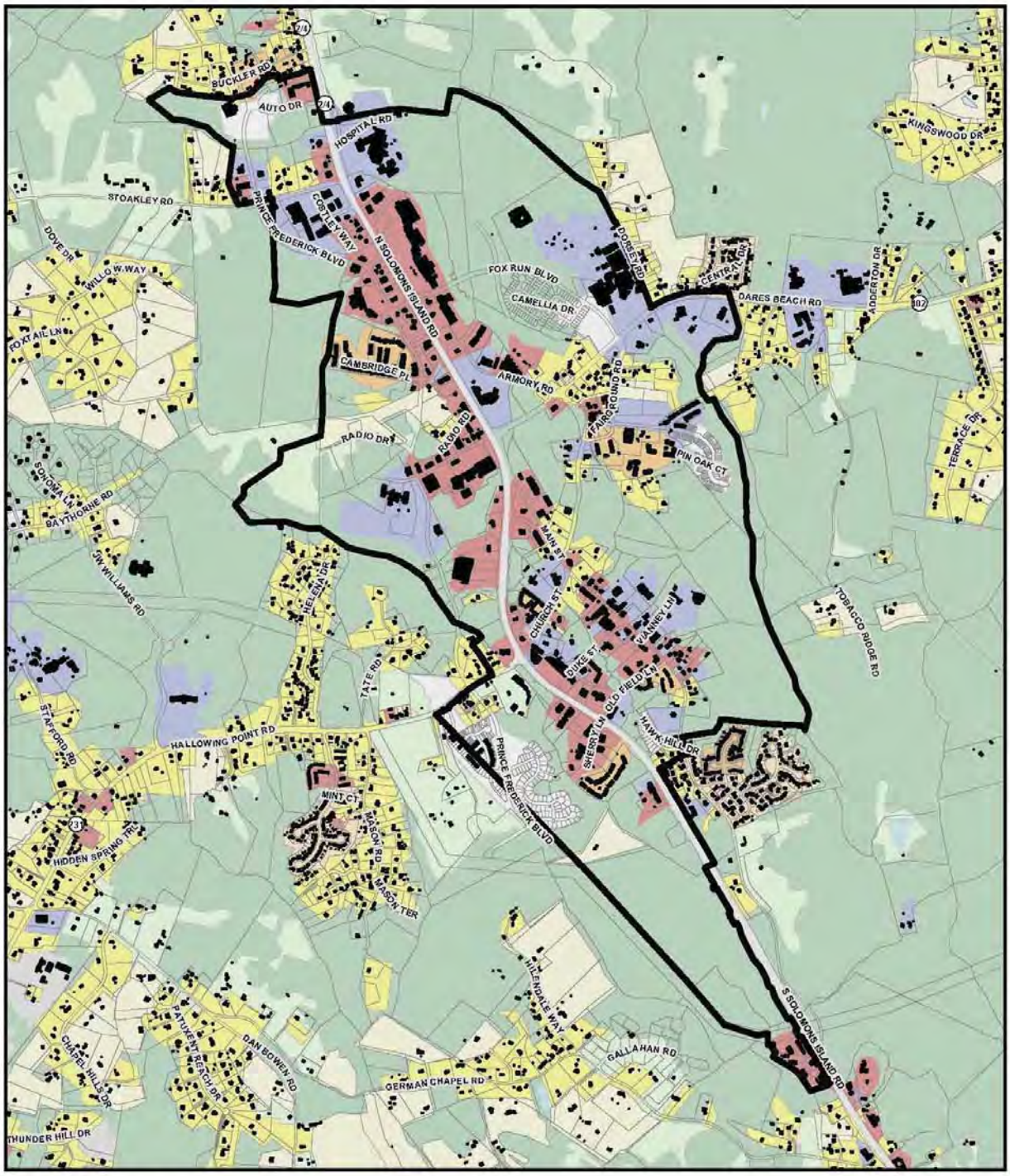
Town Center Place-type Example - Prince Frederick

The Prince Frederick Town Center contains a central business area oriented along a commercial corridor, which provides a relatively high concentration of employment and civic uses. Most of Prince Frederick is auto-dependent and not easily accessible by walking or bicycling. There are provisions for multiple travel modes, including transit options; however, a stronger multi-modal network could be provided through future redevelopment to improve pedestrian and bicycle access for a range of age and income groups. A denser mixed-use commercial center could be developed with a focus on multi-family housing and publicly accessible open space.

There is a small historic downtown area with pedestrian connections through parks and public squares and mid-block pedestrian passageways. The sidewalk network is limited to a few blocks before it becomes intermittent or nonexistent.

The greatest challenge in Prince Frederick is the modification of the current street grid to foster compact, mixed-use development. The creation of a system of parallel local roads intended to draw local travelers off the larger through highway has the potential to assist in development of a more robust grid pattern of streets. However, community resistance to interconnection of separate subdivisions and limitations on new access points to the highway make development of the grid challenging.

Another challenge is addressing the scattered pattern of low-density residential development surrounding the Town Center. This pattern results in a poor definition of the boundaries of the “Town Center” development.



PRINCE FREDERICK

Existing Town Center Boundary
Building Footprints

Land Use

- Agriculture
- Barren Land
- Commercial
- Forest
- High Density Residential
- Industrial
- Institutional
- Low Density Residential
- Medium Density Residential
- Other Developed Lands
- Transportation
- Very Low Density Residential
- Water
- Wetlands

0 0.25 0.5 Miles

N

Village

Villages are envisioned to be residential communities with less development intensity than Town Centers. Villages contain a mix of uses, with small concentrations of commercial, retail, and civic and/or community uses.

Land Use and Development Patterns

- Villages are similar to Town Centers, but are typically smaller and oriented around an activity center rather than a commercial corridor;
- The central business area is smaller than that of a Town Center, with active ground floor uses typically lining a main square or along two to three main intersections;
- There is a variety of lot sizes and housing stock that cater to an economically diverse population;
- Smaller housing units are provided in proportionate quantities throughout the community by:
    - Providing apartments over commercial uses; and
    - Allowing garage apartments and conversion of large structures into rental units;
- There are one or two small to medium-size employment centers (e.g., institutional, retail, and service employment);
- Higher density residential tends to be integrated into a central business area and is gradated to lower density housing at its fringes; and
- Open space and public spaces may be provided.

Circulation

- The street system has less interconnectivity than a Town Center;
- Sidewalks are provided on blocks and there is on-street parking within the central business area;
- Bicycle infrastructure is provided in the form of shared lanes;
- There is pedestrian infrastructure at intersections, including striped crosswalks;
- Transit is available, but less frequent and less convenient than in a Town Center; and
- On street parallel parking or angled parking to control traffic speed, improve pedestrian safety, and evenly distribute parking spaces.

Building Form

- Building heights are between one to three stories;
- Buildings create a comfortable pedestrian scale on the street through the use of varied building facades;
- Active ground floor uses are located in the central business area;
- Commercial and mixed-use buildings are setback from the sidewalk;
- Appropriate building types include:
    - Apartments above shops (multi-level mixed-use building);
    - Townhouses;

    - Detached houses with rental apartments;
    - Detached single-family houses;
    - Single-story or multi-level civic buildings; and
    - Small industrial buildings.
- Parking is sited alongside and behind buildings.

Village Place-type Example – St. Leonard

Although St. Leonard is currently designated as a Town Center, its physical characteristics are more representative of a Village. St. Leonard has an activity center and is laid out on a modified street grid. Commercial uses are concentrated at the intersection of Calvert Beach Road and St. Leonard Road where there is a mix of restaurants, retail, and community facility uses. Most commercial uses are single-story and setback from the sidewalk. Residential uses surrounding commercial uses are predominately clustered single family housing on small parcels.

The commercial center of St. Leonard is centered at the intersection of St. Leonard Road (MD 765) and Calvert Beach Road with a small cluster of local businesses extending one or two blocks in each direction. The types of businesses able to flourish in St. Leonard are constrained by the limited visibility of the commercial core from MD 2/4. The commercial area contains a mix of one-story buildings with no unifying theme. There is a common decorative lamp post along St. Leonard Road.

Since the adoption of the St. Leonard Town Center Master Plan, the Maryland State Highway Administration and the Calvert County government have worked together to create a sidewalk network along St. Leonard and Calvert Beach Roads. These sidewalks serve the commercial area, except for an area with parking directly in front of businesses. There are also sidewalks available in some of the nearby residential areas. A sidewalk on the east side of St. Leonard Road extends from the roundabout at the intersection of St. Leonard and Calvert Beach roads north to the post office beside Woods Road. There are no sidewalks connecting St. Leonard Elementary School to the commercial core, a distance of about 0.7 mile.

As indicated by the road name, Calvert Beach Road serves as the principle access to the waterfront communities of Calvert Beach and Long Beach. There are no sidewalks or paths connecting these residential areas with the commercial core of St. Leonard, and there are there no shoulders along Long Beach Road and Calvert Beach road east of the powerlines.

ST. LEONARD

Existing Town Center Boundary
Building Footprints

Land Use

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- Other Developed Lands
- Transportation
- Very Low Density Residential
- Water
- Wetlands

0 750 1,500 Feet

N

Hamlet

Hamlets are smaller than Villages and contain a few commercial and/or civic uses; the remainder of development is low-to-mid density housing. Community character preservation is a focus of the planning principles applied in these locations.

Land Use and Development Patterns

- A Hamlet is a small cluster of commercial uses at a central intersection surrounded by a residential community of small single family housing.
- Hamlets include locally-serving and convenience retail services, and small offices.
- There is minimal to no perceptible density transition between residential neighborhoods and adjacent agricultural land;
- Residential parcels are relatively small and primarily developed with single family housing; and
- Public spaces, if provided, are in the form of small public squares or passive recreational open space near commercial uses.

Circulation

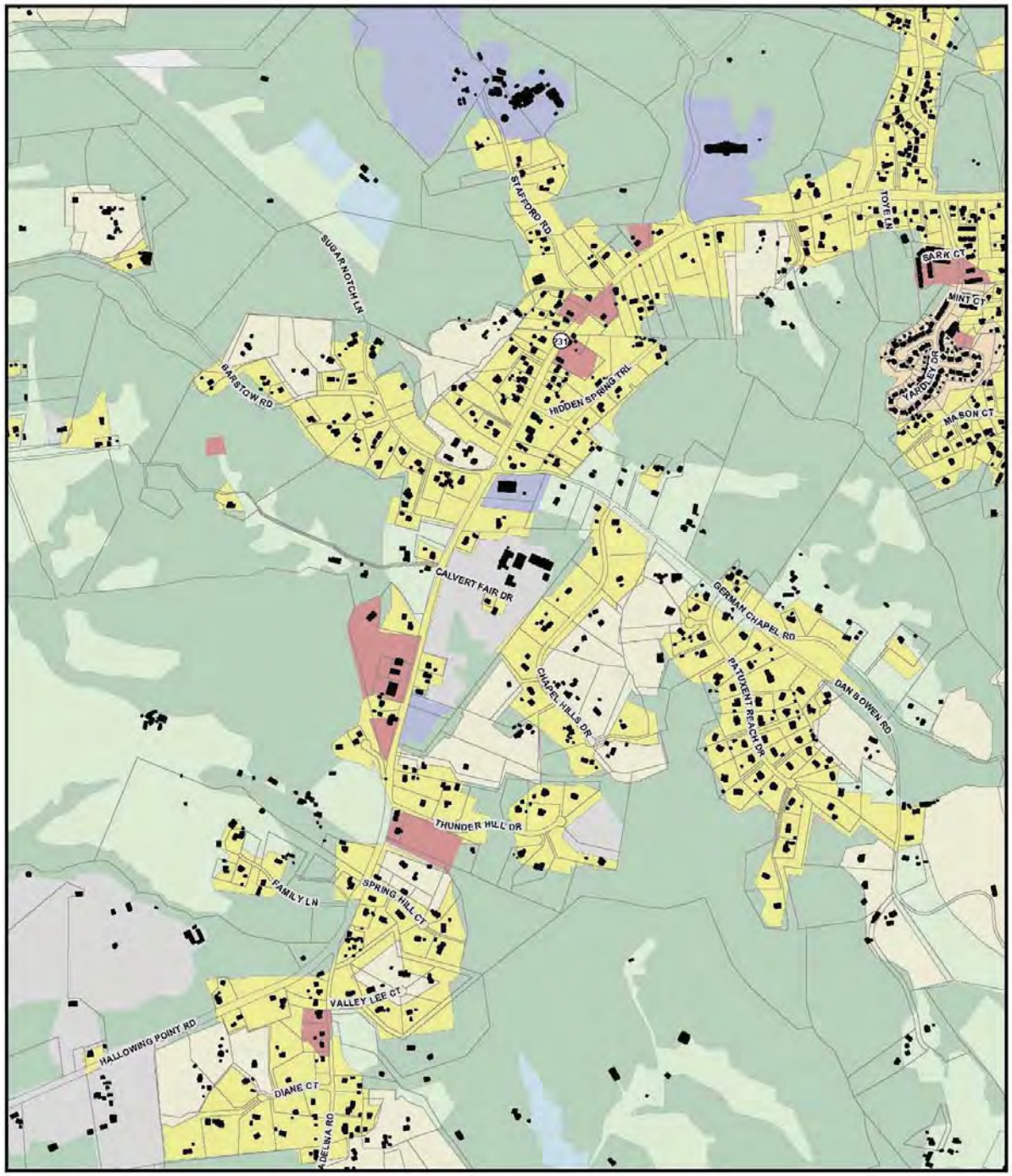
- The commercial areas and surrounding residential development may be organized on a modified street grid system with limited through streets and block connectivity;
- Transit is generally not easily available to the community; and
- Bicycle infrastructure is provided in the form of shared roads or dedicated lanes, where feasible.

Building Form

- Building heights are between one and two stories;
- Appropriate building types include:
    - Apartments above shops (multi-level mixed-use building);
    - Detached single-family house; and
    - Single-story or multi-level civic buildings; and
- Mixed-use commercial buildings in the central business area tend to be setback from the street.

Hamlet Place-type Example – Barstow

Barstow is a predominately residential and agricultural area with a few commercial uses located along Hallowing Point Road. The existing commercial uses are not clustered around a single intersection. Barstow could create a focal point where future public space and commercial uses could be clustered. Pedestrian infrastructure in the form of sidewalks and marked crossings could be developed to support a more walkable area.



BARSTOW

Building Footprints

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- Transportation
- Very Low Density Residential
- Water
- Wetlands

0 0.25 0.5 Miles

N

Waterfront Community

Waterfront Communities are clustered small population centers located along Calvert County's Chesapeake Bay, Patuxent River and tidal creek shorelines. These population centers are unique places within the county and need to be preserved. New development within these population centers is not encouraged, but redevelopment is likely due to the risk of damage to structures due to age and weather events.

Land Use and Development Patterns

- The street grid system runs parallel to the shoreline;
- If provided, commercial uses are oriented along a corridor or the waterfront and mixed with small-scale civic uses;
- The waterfront is primarily in private ownership, and includes private residences and may include commercial marinas and restaurants;
- Open space, if provided, is in the form of small shoreline parks;
- The mix of uses serves a multi-generational community;
- There are water-dependent uses, such as enhanced docking facilities and kayak launches; and
- There is no employment district, but rather smaller local service or sales retail that accommodates the local population and/or tourists.

Circulation

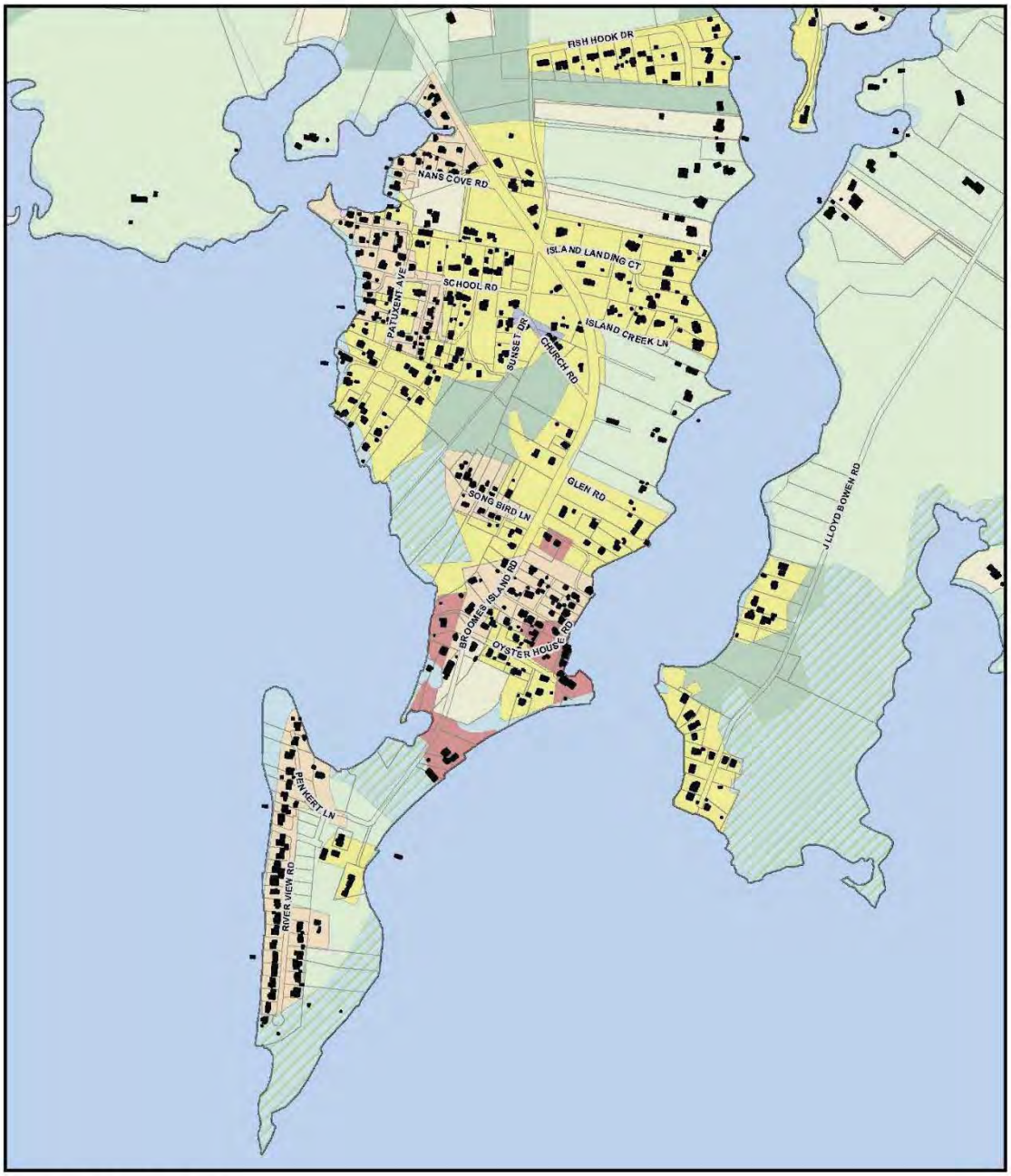
- Development is organized on a modified street grid system with limited thru streets and block connectivity;
- Sidewalks;
- There are lower traffic volumes compared to Town Centers, Villages, and Hamlets;
- Transit is not easily available; and
- Bicycle infrastructure, if provided, is on shared roadways, where feasible.

Building Form

- Building heights are between 1 and 2 occupied stories;
- A few mixed-use buildings may provide apartments above ground-floor retail uses;
- Mixed-use commercial buildings have some setback from the street; and
- Detached single family residential buildings, and small-scale mixed use or retail buildings are the most prevalent building types.

Waterfront Community Place-type Example – Broomes Island

Broomes Island's street grid is parallel to the shoreline. Broomes Island Road runs north-south and contains commercial uses and some water-related uses in its mid-section. The remaining area is rural with low-density residential development concentrated along the shoreline. Broomes Island could develop a more centralized commercial core to serve local needs and water-related uses. A more defined pedestrian and bicycle infrastructure would better support local travel options.



BROOMES ISLAND

Building Footprints

Land Use

Agriculture	High Density Residential	Medium Density Residential	Water
Barren Land	Industrial	Other Developed Lands	Wetlands
Commercial	Institutional	Transportation	
Forest	Low Density Residential	Very Low Density Residential	

0 750 1,500 Feet

N

Conclusion and Next Steps

The place-type principles described above can begin to shape updates to the Comprehensive Plan Update and countywide zoning ordinance. This community planning approach can address the need to preserve community character and guide future growth by providing development standards aligned to the built characteristics of the county's designated Town Centers and population centers.

The following steps would need to be taken to integrate this place-based approach to community planning and zoning in the county.

For the Comprehensive Plan update:

- Determine which locations in Calvert County are appropriate for each place-type.
- Finalize guiding principles for future growth in each place-type and incorporate them in the draft updated *Comprehensive Plan*.
- Establish place-type boundaries in the draft updated *Comprehensive Plan*, including changing the boundaries of the existing Town Center proposed to continue as Town Centers.

For the Zoning Ordinance update:

- Review existing zoning to determine which zoning districts are consistent with the principles applicable to each place-type and which require modification.
- Develop zoning text with size, height, and area regulations, site design, and landscape design standards that reflect the on-the-ground conditions and expectations of the communities and the vision of the county for the new place-types and refine the Town Center regulations.
- Prepare a series of graphics that convey dimensional regulations and design standards stipulated by the new zoning text.
- Identify, draft, and map zoning districts within each place-type.

Preserving Rural Character and Directing Growth to Designated Areas

Introduction

The Calvert County Department of Community Planning & Building Department staff and the WSP|Parsons Brinckerhoff consultants are working on behalf of the Planning Commission and the Board of County Commissioners to update the Calvert County Comprehensive Plan and Zoning Ordinance.

The intent of the Comprehensive Plan update is to ensure the visions for Calvert County are still valid, including the twin overarching visions of preserving the rural character while directing new growth to appropriate locations, along with the vision of building a strong local economy. The update will address the county's changing demographics and issues, including land use, environment, economy, housing, and transportation. In addition, the update will address new state land use requirements, including plan elements and the Sustainable Growth and Agricultural Preservation Act.

In the summer of 2016, informational meetings were held where the public could learn about the update process and share their ideas about the challenges facing Calvert County. In September and October four interactive workshops were held where citizens, staff, and the consultants discussed issues in small groups. The discussions at workshops helped set the stage for the current phase, discussing key issues that should be addressed in the updated Comprehensive Plan. Five workshops are being held in the winter and spring of 2017. Preserving Rural Character and Directing Growth to Designated Areas is the fourth in the series of issue papers and workshops.

For a history of Calvert County's planning efforts to preserve the rural character and to direct growth, see the appendix.

Current County Policies

Calvert County has worked to preserve its rural character through a combination strategies intended to preserve agricultural, forest, and sensitive lands and to direct growth to suitable locations, promoting economic growth, and practicing stewardship of the Chesapeake Bay and the land for over 30 years.

2010 Calvert County Comprehensive Plan

The 2010 Calvert County Comprehensive Plan includes several visions, benchmarks, and strategies related to these ongoing goals. The visions were initially adopted in the 1997 Comprehensive Plan, reaffirmed in the 2004 plan, and retained when the plan was amended in 2010.

Visions, Benchmarks and Objectives Related to Rural Preservation and Directing Growth:

Our landscape is dominated by forests and fields. Related benchmarks:

- At least 40,000 acres of farm and forestland are preserved.
- 90% of existing forest is retained.

Our Town Centers are attractive, convenient, and interesting places to live, work and shop. Related benchmarks:

- 35% of all new households are located in Town Centers or immediately around Town Centers.
- One ECTC [Employment Center/Town Center] office park is established in each election district by 2008.

The Plan includes the following Land Use and Growth Management Objectives:

- As an alternative to functioning primarily as a "bedroom community", adopt policies that will promote the county as a desirable location for high-technology industries, vacation destination, farming and aquaculture region, resource protection area (i.e., "greenbelt"), and retirement community.
- Manage the amount, location and rate of residential growth.
- Preserve the rural character of the county, its prime farmland, contiguous forests, historic resources, and environmentally sensitive areas.
- Develop Town Centers as attractive, pleasant, and convenient places to live, work, and shop.
- Direct commercial and industrial uses to appropriate locations; provide necessary infrastructure.
- Direct residential growth to appropriate locations; ensure a wide range of housing opportunities for all incomes and ages; maintain and enhance the quality of residential communities.

Town Centers, Priority Funding Areas, and Priority Preservation Areas

The 1983 Calvert County Comprehensive Plan called for the creation of Town Centers in order to accomplish several goals:

- Avoid scattered and/or strip commercial development along MD 2/4.
- Expand the choice of housing options by providing zoning and infrastructure for multifamily development, including low- and moderate-income and elderly housing.
- Reduce dependence on vehicles.
- Reduce growth within agricultural and forest areas.[1]

Town Centers are the county's primary designated growth areas, and they are also designated Priority Funding Areas.

Priority Funding Areas (PFAs) as defined by the Maryland Department of Planning are existing communities and places designated by local governments where they want state investment to support future growth or to maintain the character of the community.

In 2010, the county adopted amendments to the 2004 Comprehensive Plan and designated Priority Preservation Areas. This element was required in order for local jurisdictions to remain certified under Maryland's Agricultural Certification Program. The plan included the action to "Reserve the Farm and Forest District (Priority Preservation Areas) for farming and natural resource-related uses and direct residential growth away from these areas." (Action I-4, Page 6)

Priority Funding Areas, Priority Preservation Areas, and Town Centers are shown in Figure 1.

[1] *Calvert County Comprehensive Plan, Adopted 2004, Amended 2010, Page 7*

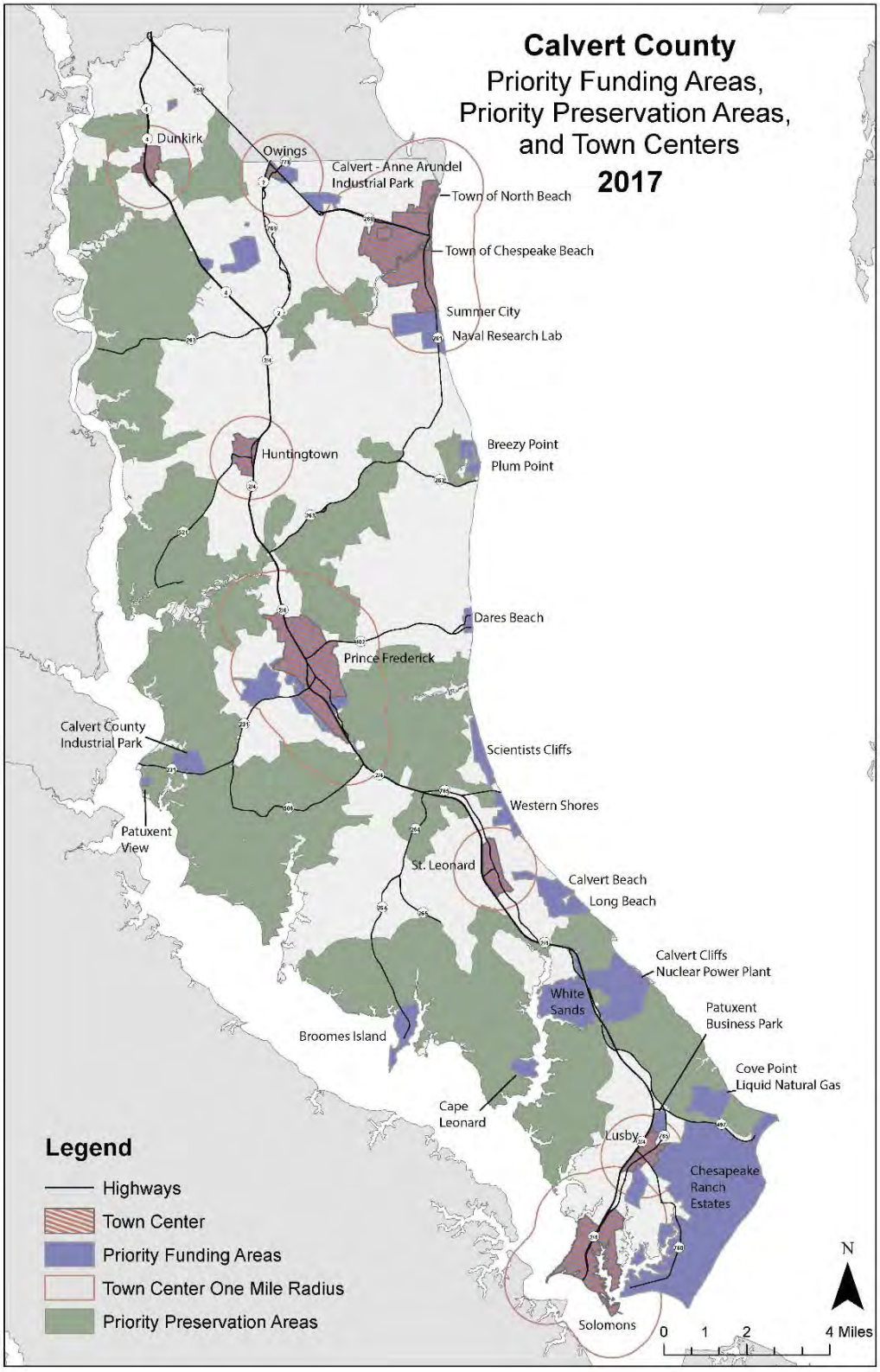


Figure 1 Calvert County Priority Funding Areas, Priority Preservation Areas, and Town Centers
Source: Calvert County Department of Community Planning and Building

After the adoption the 1997 Comprehensive Plan that called for reducing the total build-out, the county adopted a program in 1999 to reduce the build-out that included a combination of zoning ordinance changes with new funding and new incentives for voluntary land preservation. The program set a target to reduce the build-out to 37,000 households, or approximately 100,000 people. This target required reducing the county's then-current growth rate, which was the highest of any county in the state. To meet the build-out target, the county adopted policies intended to slow residential growth and reduce overall housing potential. Additional build-out reductions were adopted in 2003. Figure 2 shows the projected growth in population and households included in the 2010 Comprehensive Plan.

Population & Households Projected in 2010 Comprehensive Plan[2]							
Year	**1970**	**1980**	**1990**	**2000**	**2010**	**2020**	**Projected Build-out**
Persons	20,682	34,638	51,372	74,563	90,700	96,000	100,000
Households	5,540	10,731	16,986	25,447	31,300	35,500	37,000
Persons Per Household	3.70	3.21	3.01	2.91	2.85	2.71	2.7

Figure 2 Total Population in Calvert County by Decades
Source: Calvert County Department of Community Planning and Building

Recent and Projected Growth

Implementation of the Comprehensive Plan policies has successfully reduced the county's growth rate, which has continually decreased since its peak in the 1970's. The growth rate is projected to continue to slow into the future (Figure 3 and Figure 4). As a result, Calvert County has gone from being the fastest growing county in Maryland to one of the slowest.

Total Population in Calvert County								
1930	**1940**	**1950**	**1960**	**1970**	**1980**	**1990**	**2000**	**2010**
9,528	10,484	12,100	15,826	20,682	34,638	51,372	74,563	88,737
Percent Change (By Decade)								
1930's	**1940's**	**1950's**	**1960's**	**1970's**	**1980's**	**1990's**	**2000's**	**2010's**
10.0%	15.4%	30.8%	30.7%	67.5%	48.3%	45.1%	19.0%	12.9% *

Figure 3 Total Population in Calvert County by Decades
Source: Maryland Department of Planning, 2014 ** Projected*

Population Projections for Calvert County			
2015	**2020**	**2030**	**2040**
91,650	95,600	100,200	101,450
Percent change			
2010-2015	**2015-2020**	**2020-2030**	**2030-2040**
3.3%*	4.3%	4.8%	1.2%

Figure 4. Population Projections for Calvert County

[2] Comprehensive Plan, Calvert County, Maryland, 2010, page v.

Source: Maryland Department of Planning, 2014 ** Actual percent change*

Construction

In recent decades, Calvert County has constructed fewer residential units and fewer multi-unit residential buildings than surrounding counties. Housing construction in Charles and St. Mary's counties has recently begun to increase while Calvert County's construction has remained unchanged as shown in Figure 5.

The three Southern Maryland counties are constructing different types of housing. In Calvert County, almost all of the new residential construction has been single family homes. In comparison, Charles and St. Mary's counties have developed more multi-unit housing structures.

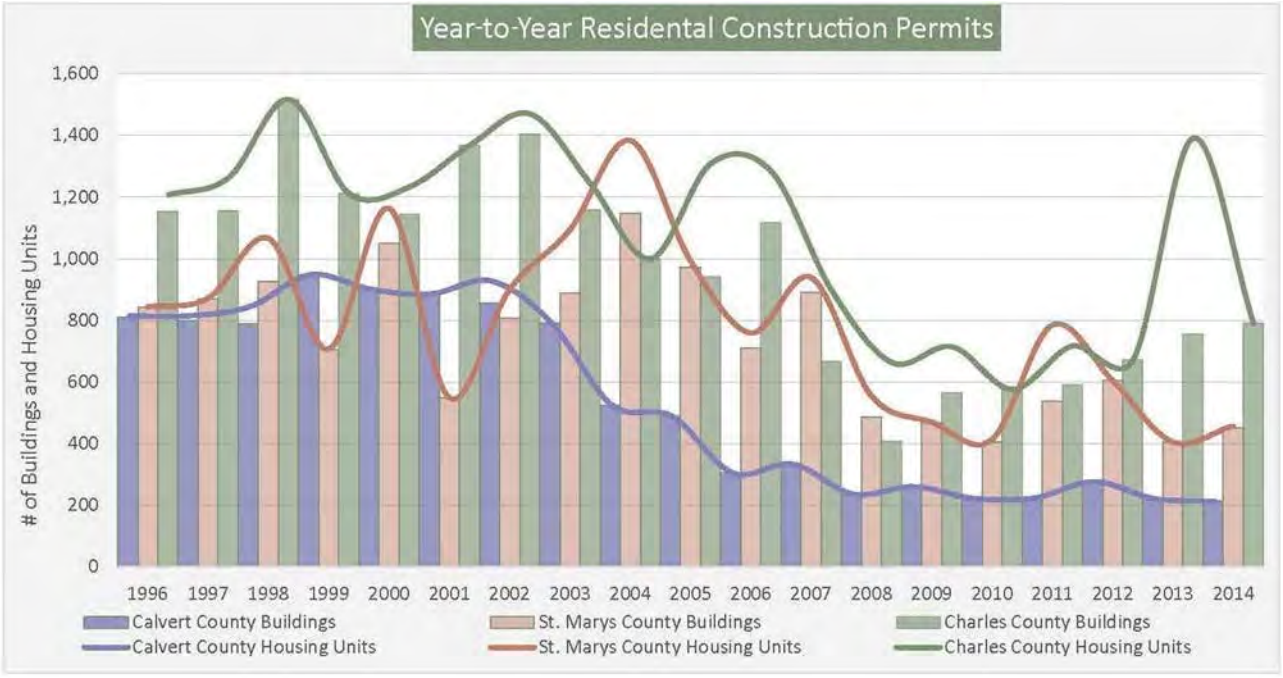


Figure 5. Year to Year Residential Construction Permits Building and Total Housing Units
Source: U.S. Census

Existing Residential Land Use

In Calvert County 20 percent of all residential development is inside the Town Centers or within their one mile radii. Figure 6 shows that residential development use is more scattered north of Prince Frederick, while residential development to the south is more concentrated, leaving larger areas with an open and rural character. Overall, 85 percent of the residential development in the county is categorized as low or very low density development (large lot single family housing).

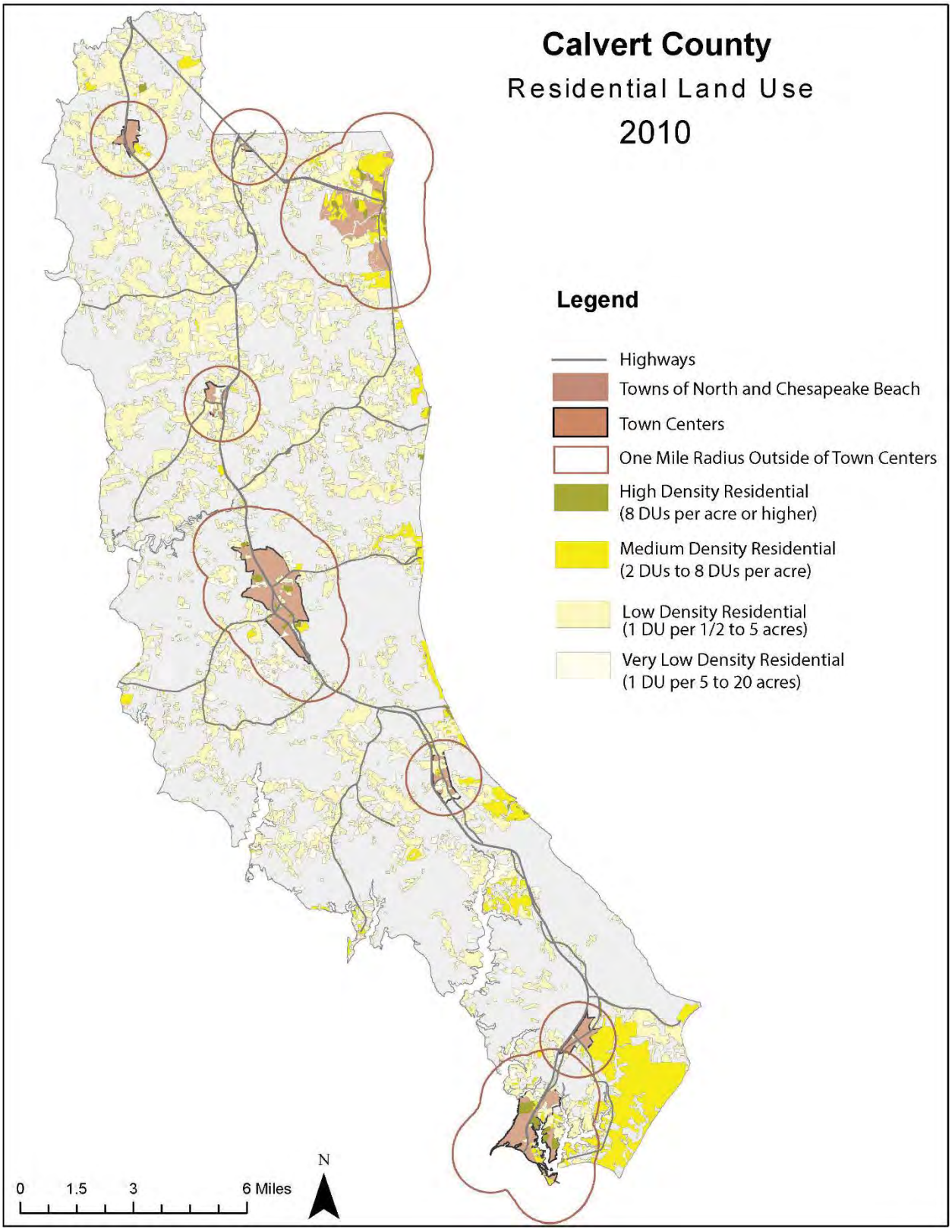


Figure 6. Residential Areas in Calvert County Map
Source: Maryland Department of Planning

The 2010 Comprehensive Plan set a benchmark that 35 percent of new households locate in Town Centers or immediately around Town Centers. The county is achieving this goal. While the geographic areas of Town Centers and the one-mile radii are not exactly comparable to the Priority Funding Areas (PFAs), Figure 7 shows over the last five years, 41 percent of permits for new residential units have been constructed inside Priority Funding Areas.

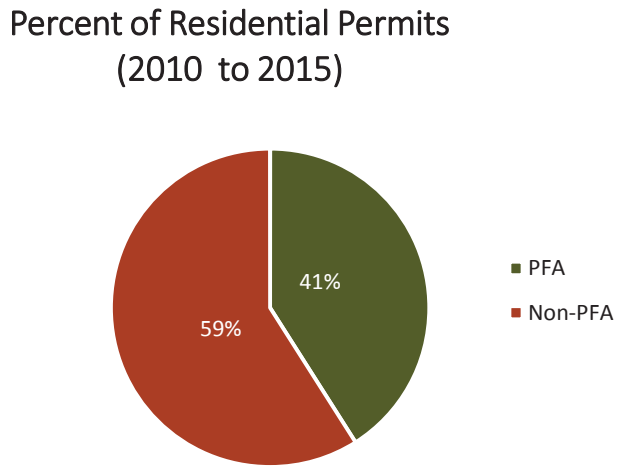


Figure 7. Percent of Residential Permits (PFA or Non-PFA)
Source: Calvert County Planning Commission Annual Reports

While this distribution of new households is consistent with the 2010 benchmark, it has not produced the development patterns envisioned in the Comprehensive Plan or by the Town Center Master Plans.

Build-out Capacity Analysis

The Maryland Department of Planning prepared a preliminary analysis of the build-out for the existing zoning pattern in Calvert County coupled with recent provisions in state law. The analysis projected that the current zoning can accommodate approximately 9,000 additional housing units, without the use of transferable development rights (TDRs) and approximately 15,000 additional housing units with the use of TDRs.

Year	2015	2020	2030	2040	Projected Buildout without TDRs	Projected Buildout with TDRs
Persons	91,650	95,600	100,200	101,450	108,000*	124,000*
Households	32,225	34,325	37,350	38,125	41,000	47,000
Persons Per Household	2.82	2.76	2.66	2.63	2.63*	2.63*

Figure 8. Projected Population and Households
Source: Maryland Department of Planning
** Estimated based upon 2.63 Persons per household with no other considerations (vacancy rate, group quarters, etc.)*

Land Preservation Activities

Ever since the first Calvert County Comprehensive Plan was adopted, one of the county's primary goals has been the preservation of its rural character. In 1978, the Agricultural Preservation Advisory Board set a goal of preserving 20,000 acres. In 1997, Calvert County celebrated the enrollment of 20,000 acres of prime farm and forestland in County and State land preservation programs. A goal to preserve an additional 20,000 acres was adopted that year.

Calvert County uses several strategies to preserve agricultural, forest, and natural resource land. Almost 30,000 acres of land have been preserved through the combined efforts of state and local governments and land trusts.

Land in Preservation	Acres
County Agricultural Preservation Program	21,839
Maryland Agricultural Land Preservation Foundation (MALPF)	4,542
Rural Legacy	1,636
Maryland Environmental Trust (MET)	713
Total	**28,730**

Figure 9. Land in Preservation
Source: Calvert County Department of Community Planning and Building, March, 2017

Calvert County Agricultural Land Preservation Program

Calvert County adopted the first Transferable Development Rights program in the state in 1978. The county does not "acquire" easements but requires that covenants be recorded prior to the initial sale of developments rights. Property owners voluntarily apply for Agricultural Preservation District (APD) designation. The designation remains in effect for a minimum of five years.

Once the district is established, the owner may petition for the certification development rights, which can be sold to another party and transferred to a receiving area to increase the number of residential lots/units or to satisfy forest conservation requirements via a "forest" TDR. Owners of parcels of land enrolled in districts from which no development options have been conveyed may withdraw their land after five or more years by giving a one-month notice of such intent. There are three mechanisms for preserving properties in the county program: Transferable Development Rights (TDRs), Purchase and Retirement (PAR), and Leveraging and Retirement (LAR).

The County Department of Community Planning and Building estimates that there are approximately 9,500 TDRs currently certified and available for purchase and approximately another 3,000 TDRs that could be certified in APDs. In 2013 the county placed a moratorium on the creation of new APDs.

The market for TDRs has varied over time. Between 1978 and 2013, 14,442 TDRs were sold.

In 2013 a Calvert County Community Department Planning & Building review of the county's TDR program concluded that TDR sales had averaged between 500 and 600 per year but that the Great Recession had a profound impact on the use of TDRs and "total sales went from 716 in 2003 to 72 in 2012…."[3] The same report recommends that the county purchase and retire about 200 TDRs per year while encouraging developer usage of approximately 300 TDRs per year.

By 2015, sales had rebounded, and 647 TDRs were sold for development. Zoning ordinance amendments adopted in November 2015 modify the TDR ratio in the Prince Frederick, Lusby, and

[3] *Proposal to Improve the Calvert County Land Preservation Program*, 2013

Solomons Town Centers, which have public water and sewer service. The changes are intended to increase the market for purchase and use of TDRs.

The most notable of the recent changes is that the number of TDRs required to increase density on a site varies based upon the location and the type of unit. Five TDRs are needed for each additional residential lot or dwelling unit in most areas of the county. In the Prince Frederick, Lusby, and Solomons Town Centers, three TDRs are required for additional small-lot single family dwellings, two TDRs for each attached dwelling, and one TDR for each apartment unit.

Purchase and Retirement (PAR) Program

Currently the county has a Purchase and Retirement (PAR) Fund. Its purpose is to purchase and permanently remove ("retire") development rights from the transferable development rights market. The development rights are retired rather than sold to transfer development elsewhere. Funding for the purchase of development rights has come from the agricultural land transfer tax, the recordation tax, local government funds, and matching funds from the Southern Maryland Agricultural Development Commission and the Tobacco Buyout Fund. Owners may apply through PAR to sell a limited number of development rights from land in an Agricultural Preservation District. Owners of any APD from which no development rights have been sold to others may apply to sell additional development rights.

Since 1993 the County has purchased and retired 2,379 development rights through PAR at a total cost of $9.7 million. The most recent data available is for 2015 when 265 development rights were purchased at a cost of $993,750.

Leveraging and Retirement (PAR) Program

The county also has a Leveraging and Retirement (LAR) Fund. The Leveraging Program is similar to the PAR Fund in that the Board of County Commissioners buys development rights from APD owners and permanently retires the development rights. The primary differences between the two programs include the amount of development rights that may be sold and the method of payment. The number of development rights that may be sold is not limited. The owner receives annual tax-free interest payments and a lump sum payment constituting the principal at the end of a 10, 15, or 20 year term. An installment purchase agreement is signed between the county and the seller.

Since the LAR Program began in 1999, the county has purchased and retired 2,597 development rights.

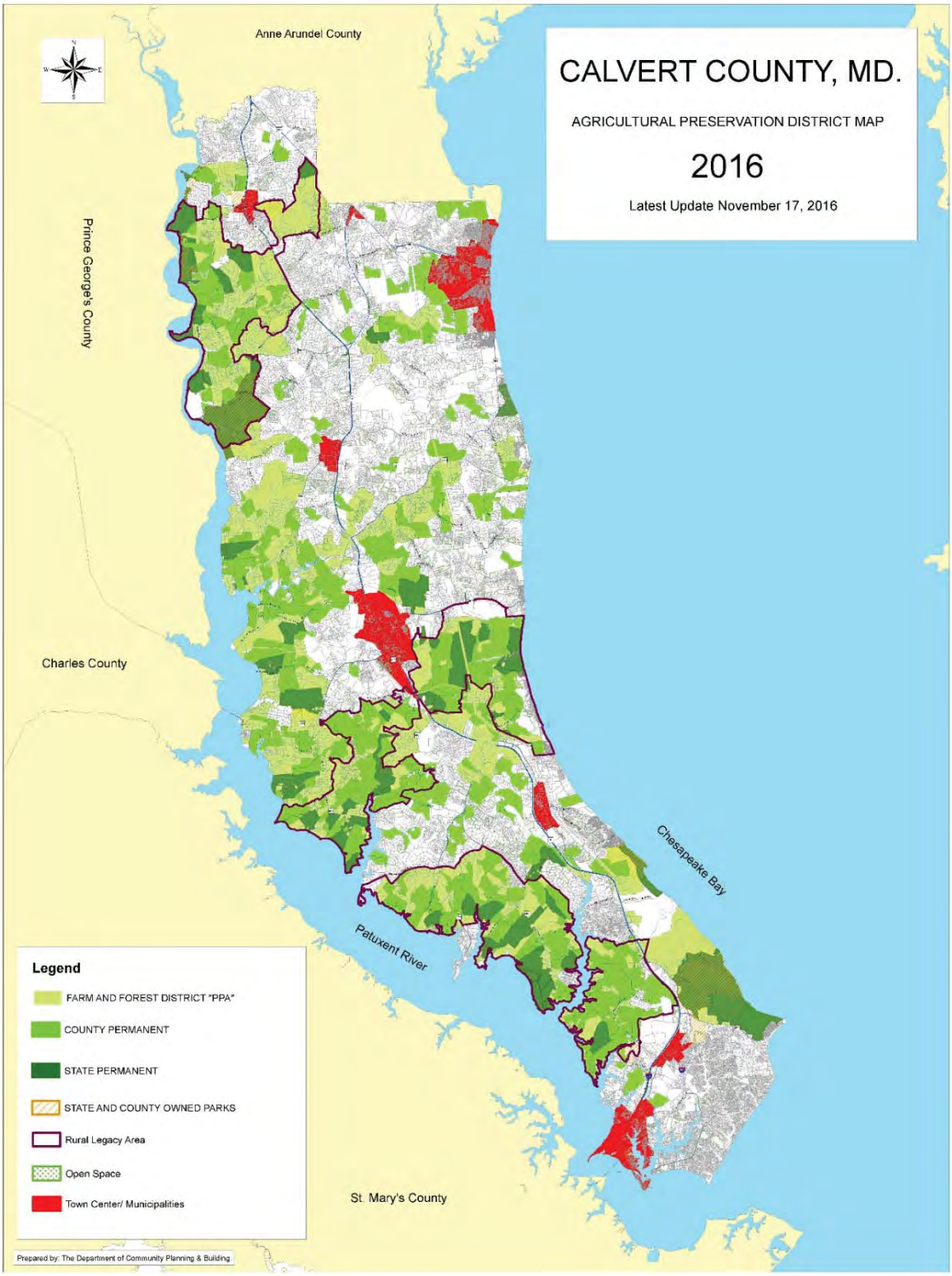


Figure 10 Calvert County, MD Agricultural Preservation District Map, 2016
Source: Calvert County Department of Community Planning and Building

Community-Expressed Desired Outcomes

During public workshops, participants listed the following items as elements of Calvert's rural landscape and character: family farms; tobacco barns; beach communities; waterfront heritage; watermen; making a living from farming; forested and wooded areas; peace and quiet; Chesapeake Bay and Patuxent River access; Calvert Cliffs; and the county's history, heritage, and historical sites.

The participants strongly support retaining the rural character of Calvert County. Some recommended connecting preserved properties together to create a more consistent, non-interrupted rural landscape. They believed that protecting the most productive farms should be the preservation priority. Participants recognized that there is value in maintaining sensitive natural areas. It was noted that a rural lifestyle can be more expensive in both personal and government costs. Participants recognized the potential conflict between the preservation of rural character and continued economic growth and wondered how farm and forest could be saved while still maintaining economic viability.

Part of the discussion about preserving Calvert's rural character included the desire to make the Town Centers more attractive for development. Town Centers should be attractive so that individuals would want to live and shop there and businesses would want to locate there. Many participants said that infrastructure was needed to develop the Town Centers as dense and walkable. Participants said that additional Town Centers should not be designated until the existing Town Center areas are filled in. It was suggested that Town Centers not straddle MD 2/4 because it limits their walkability and accessibility.

Some participants thought that it was important to encourage the younger generation to stay. These citizens promoted affordable housing and a variety of housing types to keep young adults and households in the county. Others thought it was acceptable for young adults to leave during their early working years and return when they are able to afford market rate housing in the county.

Discussions about the TDR program focused on concern that it has slowed down and whether there is a need to re-incentivize it. Some participants felt that there are limited areas to sell TDRs, making it difficult for land owners who want to preserve their property. Some participants thought that requiring the purchase of TDRs to increase residential development raises the cost of housing, making it unaffordable.

Participants suggested that regulations be changed and incentives provided (infrastructure such as roads and sewer) so that developers build within the Town Centers rather than in the rural landscape. That is, make it easier for them to build what the County wants and where the county wants it built.

Possible Strategies

Directing Growth into Designated Areas

For over forty years, Calvert County has had policies to preserve its rural character by direct growth away from the rural areas. Existing policies to direct future growth to designated growth areas could be strengthened and new ones adopted. This section outlines possible strategies to consider for directing development and establishing clear boundaries between rural and developed areas. These strategies could encourage development in the designated areas, restrict development in rural areas, and buffer rural areas from growth areas in order to limit scattered residential development.

Define Growth Boundaries More Clearly

The 2010 Comprehensive Plan designates Town Centers and their one-mile radius as growth areas. In practice there is little visible distinction between the designated growth areas and the surrounding rural

land. Better defining the limits of the growth areas through zoning designations, site selection for public buildings, utility extension policy, and road construction standards could create a greater sense of difference between areas proposed for development and those intended for preservation and protection.

Redefine Growth Areas around Designated Town Centers

The 2010 Comprehensive Plan defines a one-mile radius around each Town Center as a location for additional growth, limited primarily to single-family detached homes on private well and septic systems. These boundaries could be better defined based upon existing land use patterns, the size of the core community, the roadway network, utility extension policies, preservation priorities and environmental constraints. Redefining these boundaries would make future development in these locations more predictable and better identified with the associated Town Center. If the place-type Village is adopted in the Comprehensive Plan update, define growth areas for them.

Use Wastewater Infrastructure to Direct Development

Encouraging investment in sewer service inside Town Centers would allow the construction of new housing types and, possibly, more affordable housing that would better serve the needs of young and senior adults. The areas with existing capacity could be prioritized to support additional growth. This strategy can be effective at accommodating new development within existing systems and could increase the use of TDRs.

Create Appropriate Densities in the Town Centers

A strong course of action would be to require minimum densities in areas designated for growth where public water and sewer are available. This strategy could encourage development at the higher densities preferred in Town Centers.

Permit Increases in Commercial Intensity through the Use of TDRs

Allowing construction of larger or taller commercial structures if the developer uses TDRs would encourage the protection of rural land as a trade-off for more intense development.

Cluster Development to Transition from Town to Countryside

Clustering new lots created on parcels at the periphery of the Town Centers could help establish a clear distinction between growth and rural areas. Clustering would allow the property owner to concentrate development on one part of a site, the part nearest to the Town Center or Village (if Villages are adopted in the updated Comprehensive Plan). When the owner permanently restricts the rest of the property to open space or farmland, it contributes to the visual boundary at the edge of the growth area.

Preserving Rural Character

Rural preservation strategies can protect the rural landscape, give preference to active agricultural operations and provide predictability for residents and landowners. The following strategies can be continued or initiated.

Continue to Fund the Purchase and Retirement (PAR) Program

Funding and pursuing the purchase and retirement of development rights in locations where there are active farms or in locations with particular value as open space would advance a number of policy goals. This strategy might include removing the restrictions on the number of development rights the county purchases from a single property. The greater challenge for this program is identifying funding. Sources could include county transfer taxes or similar local sources, the Maryland Agricultural Land Preservation Foundation (MALPF), local and state land trusts as well as the Department of Defense in order to reduce development that may negatively impact the Patuxent Naval Air Station and its operational mission.

Require Development Rights be Used for Family Conveyance Lots

The family conveyance exception allows property owners to create additional lots over and above the current zoning limit as long as the lot is intended for a member of the owner's family. The number of conventional lots may be doubled through the use of family conveyance lots up to a total maximum of seven lots if the minimum lot size requirements can be met. Lots may be transferred out of the family after seven years; lots may be transferred out of the family sooner if five TDRs are applied to each lot. The creation of family conveyance lots allows creation of more lots in the rural area without any offsetting reduction in potential build-out of the county.

Review Design Standards for Rural County Roads

Preserving the look and limiting the capacity of the rural roads may help to maintain the rural character of Calvert County. While still providing safe roads, people in many rural areas want to avoid conventional roadway design that can alter that character of the community and promote higher speeds. By using standards for local rural roads, engineers for the county and developers can respond to design standards that accommodate autos, bikes and, where appropriate, pedestrians, in a way that also recognizes the visual impact of roads on the rural character of select parts of the county.

Create Green Corridors

Natural areas such as wetlands, wildlife habitat, beaches, and steep slopes are important from an environmental perspective, and they also help create the special character of rural areas. The county should look for opportunities to connect protected natural areas to create a connected network of green spaces (green infrastructure). Where appropriate, this network could include hiking trails to create recreation opportunities for residents and visitors. These greenways could provide real benefits to the local economy by bringing more tourism to the county while still supporting the environment, working farmlands, forests, and fisheries.

Support Productive Agriculture

Identifying and supporting working agricultural lands can help reduce the financial pressure for conversion of farmland. Calvert County's ongoing efforts to support agri-tourism and to develop new markets for local produce could continue to protect a connected rural landscape.

Share Your Ideas

1. Preserving farm and forest land has been a priority of Calvert County for over 40 years. What actions would you support the county taking to preserve even more land? How could those actions be paid for?

2. One way to protect farm and forest land is to direct growth away from them and into designated areas. What incentives would you support the county providing to encourage/attract/direct growth to designated areas?

APPENDIX

History of Calvert County Planning

First Comprehensive Plan. Calvert County's first Comprehensive Plan was adopted in 1967. A central focus of the plan was to retain the rural character of the County. Utilizing one of the few planning tools available at the time, the county adopted 3 acre zoning in an effort to minimize the impact of residential development on nearby farm operations and direct growth toward areas that were already developed.

Pleasant Peninsula Plan. In 1974, the County adopted its first update to the Comprehensive Plan. Referred to as the Pleasant Peninsula Plan, this plan emphasized the need to protect the natural environment, maintain the county's rural lifestyle and limit the demand for public services. A primary goal was to promote planned slow growth. Minimum lot sizes in rural areas were increased from three acres to five acres in a further effort to discourage development in these areas. This plan set a standard for encouraging strong public participation in the county planning process.

Farm Preservation Programs. By the late 1970's, Calvert residents recognized that while large lot zoning effectively reduced the number of households located within rural areas, it destroyed prime farm and forest land by taking it out of production permanently. To address this concern, Calvert led the state and much of the country in adopting the use of Transferable Development Rights (TDRs) to protect prime farms and forest land. The law enabled owners of prime land to sell their development rights on the open market. Shortly after the county adopted its Transferable Development Rights program, the State of Maryland adopted a Purchase and Retirement Program (PAR). This allowed property owners of prime land to sell their development rights to the State. In 1993, the County adopted its own PAR fund to supplement the TDR program.

1983 Comprehensive Plan. The County updated its Comprehensive Plan in response to two seemingly contradictory public mandates: to "protect rural character" and to "promote economic development". The primary means of fulfilling this mandate was to establish a series of Town Centers for the purpose of directing both commercial and higher density residential growth away from farms, environmentally sensitive areas, and highways and toward areas that could be provided with adequate infrastructure and services.

Environmental Regulations. During the 1980's, the county instituted strong conservation techniques to protect wetlands, flood plains and steep slopes. In 1989, the state mandated the establishment of the Critical Area, all land within 1,000 feet of the mean high tide line of tidal water or tidal wetland. The allowable density within most of this area was reduced to 20 acres per dwelling unit. The Forestry Management Act, adopted in 1993 and designed to protect large contiguous forested areas, was also mandated by the state.

Adequate Public Facilities. In 1988, the county adopted adequate Public facilities regulations to help ensure that schools and roads would be able to accommodate rapid growth. During the early 1990's, this ordinance effectively stopped the approval of most new subdivisions until new schools could be built to accommodate the growth in student population. An impact fee was imposed on all new developments to help pay for new school construction.

Mandatory Clustering. In 1992, large lot zoning again came under intense public review. Despite strong efforts and considerable success at preserving prime farms and forests, the county was leading the state in

the amount of farm and forest land being converted to residential use. To address the problem, the county adopted mandatory clustering together with the designation of three zoning overlay categories: 1) Farm Communities, 2) Resource Preservation Districts, and 3) Rural Communities. This new provision required that lots be clustered onto 50% of any given parcel within a Rural Community and 20% of any given parcel within a Farm Community or Resource Preservation District. Design standards were included to protect productive fields, forests and scenic vistas.

Employment Districts. In 1993, a new zoning category called Employment District was adopted. Employment Districts were designated for non-retail related uses and were required to be adjacent to Town Centers in order to avoid commercial sprawl.

1997 Comprehensive Plan. The central focus of the 1997 Plan was to establish measurable benchmarks to determine appropriate residential build-out. The Plan also established a set of visions with benchmarks to monitor progress on implementing the visions. The land preservation goal was increased from 20,000 acres to 40,000 acres.

1999 Build-out Reduction. After conducting a thorough analysis of the costs and benefits of reducing build-out and developing options for public review and comment, the county adopted a program to reduce build-out that included a combination of zoning ordinance changes with new funding and new incentives for voluntary land preservation. One of these incentives was the Leveraging and Retirement Program (LAR), which provided an additional means for the county to purchase and retire development rights.

2003 Build-out Reduction. The residential build-out issue was revisited in 2003 and further reductions were made to meet the build-out goals established in 1999. Changes were also made to the adequate public facilities regulations to further slow residential growth.

2004 Comprehensive Plan. After a two-year period of analysis and review of the progress in implementing the 1997 Comprehensive Plan and assessing the need for course corrections and additions, the revised Comprehensive Plan was adopted. All 10 visions from the 1997 plan were retained, with a slight modification to the environmental vision, and the benchmarks were updated.

2010 Comprehensive Plan Amendments.
Amendments to Chapter I of the 2004 Comprehensive Plan were adopted in 2010 to address changes in state planning law. The adoption was the culmination of a public review process initiated in 2008. The amendments addressed three state laws: Agricultural Stewardship (House Bill 2), Water Resources (House Bill 1141), and Smart, Green, and Growing (Senate Bill 273). The first two laws, adopted by the Maryland General Assembly in 2006, required new and expanded elements in all comprehensive plans, specifically a water resources element and a Priority Preservation Area element, which was required in order for local jurisdictions to remain certified under Maryland's Agricultural Certification Program. The third law, adopted in 2009, replaced the State of Maryland's eight planning visions with 12 new visions.

Calvert County Comprehensive Plan Update

Strengthening Economic Vitality

Introduction

The Calvert County Department of Community Planning & Building staff and the WSP | Parsons Brinckerhoff consultants are working on behalf of the Planning Commission and the Board of County Commissioners to update the Calvert County Comprehensive Plan and Zoning Ordinance.

The intent of the Comprehensive Plan update is to ensure the visions for Calvert County are still valid, including the twin overarching visions of preserving the rural character while directing new growth to appropriate locations, along with the vision of building a strong local economy. The update will address the county's changing demographics and issues, including land use, environment, economy, housing, and transportation. In addition, the update will address new state land use requirements, including plan elements and the Sustainable Growth and Agricultural Preservation Act.

In the summer of 2016, informational meetings were held where the public could learn about the update process and share their ideas about the challenges facing Calvert County. In September and October of 2016 four interactive workshops were held where citizens, staff, and the consultants discussed issues in small groups. The discussions at workshops helped set the stage for the current phase, discussing key issues that should be addressed in the updated Comprehensive Plan. Five workshops are being held in the winter and spring of 2017. Strengthening Economic Vitality is the fifth in the series of issue papers and workshops.

Current County Policies

Strengthening Calvert's economic vitality is a theme present throughout numerous cycles of adopted county comprehensive plans. The current Calvert County Comprehensive Plan goal states this explicitly:

> "The goal of the Comprehensive Plan is to maintain and/or improve the overall quality of life for all citizens of Calvert County by:
>
> a. promoting sustainable development,
> ***b. encouraging a stable and enduring economic base,***
> c. providing for safety, health, and education, and
> d. preserving the natural, cultural, and historic assets of Calvert County."[1] (emphasis added)

[1] Comprehensive Plan, Calvert County Maryland, Adopted 2004, Amended 2010, p. iii.

The current County Comprehensive Plan includes 10 visions. One of the visions states, "We are building a strong local economy based upon renewable resources, high technology, retirement, recreation, and tourism." This vision, originally adopted in the 1997 Calvert County Comprehensive Plan, was retained in the 2004 Plan. The vision's benchmarks call for expanding the commercial real property tax base, increasing the number of in-county jobs, and increasing the number of visitors.

Today, Calvert County's economy is stable and has exhibited limited, but steady, upward growth. Residents earn above average wages as compared to other Southern Maryland counties and the State of Maryland. Based upon median household income, Calvert is one of the wealthiest counties in Maryland and the wealthiest in Southern Maryland, in part because of the proximity to federal agency and contracting jobs. However, many of those jobs exist in the surrounding counties, and the share of residents commuting out of Calvert County to work has increased in the past decade, but the county has also experienced an influx of individuals from other neighboring jurisdictions that commute to jobs in Calvert County.

The Calvert County Department of Economic Development is charged with the task of promoting growth in the local economy. The Department, in cooperation with the Economic Development Commission, has two activities underway that will need to be considered in developing the updated Comprehensive Plan. Those activities are the Five-Year Strategic Plan and the targeted market analysis, which is being conducted for the Southern Maryland region in cooperation with the Maryland Department of Commerce. The first Economic Development Strategic Plan was adopted in 1997.

Current Conditions

The economy of Calvert County is largely dependent on the economies of both the State of Maryland and the Washington metropolitan area. While the Great Recession has ended, recovery from its effects has been slow and the Metropolitan Washington Council of Governments projects that federal employment in the region will continue to shrink in coming years. Nevertheless Calvert has seen some economic growth between 2010 and 2015, with strong business growth in the county, the development of liquefied natural gas import facility at Dominion Cove Point, the current expansion of the Dominion LNG liquefaction export project also at Dominion Cove Point scheduled for completion in 2017, and expansion among local employers. Private sector jobs in the county grew by 1,510 (9 percent) in the five-year period.

Commuting

Prince Frederick is 30 miles from the Capital Beltway and 40 miles from the U.S. Capitol Building. This proximity to Washington, D.C., and to Baltimore and Annapolis, influences employment locations for residents of Calvert County. As shown in Table 1, approximately 60 percent of Calvert County residents commute out of Calvert County for their jobs. The percentage of people commuting out of the county has increased over the past ten years.

Table 1: Number and percentage of Calvert County residents who work in and out of the county

	In County	Out of County
2005 to 2009 average	19,315	27,349
2010 to 2014 average	17,899	27,136
	In County	**Out of County**
2005 to 2009 average	41.4%	58.6%
2010 to 2014 average	39.7%	60.3%

Source: American Community Survey, US Census Bureau, 2014 Five-year Estimates

Local Employment

Historically, Calvert County's local economy is based upon agriculture, tourism, construction, energy production, and local-serving retail and service businesses. Major energy-related activities include Exelon/Calvert Cliffs Nuclear Power Plant and Dominion Cove Point's liquefaction export project. Calvert County's largest five employers are the Calvert County Public Schools, Calvert County Government, Calvert Memorial Hospital, Exelon/Calvert Cliffs Nuclear Power Plant, and the Arc of Southern Maryland (see Table 2). Most of the remaining top ten employers are service and retail businesses.

Table 2: Top Ten Calvert County Employers (as of November 2016)

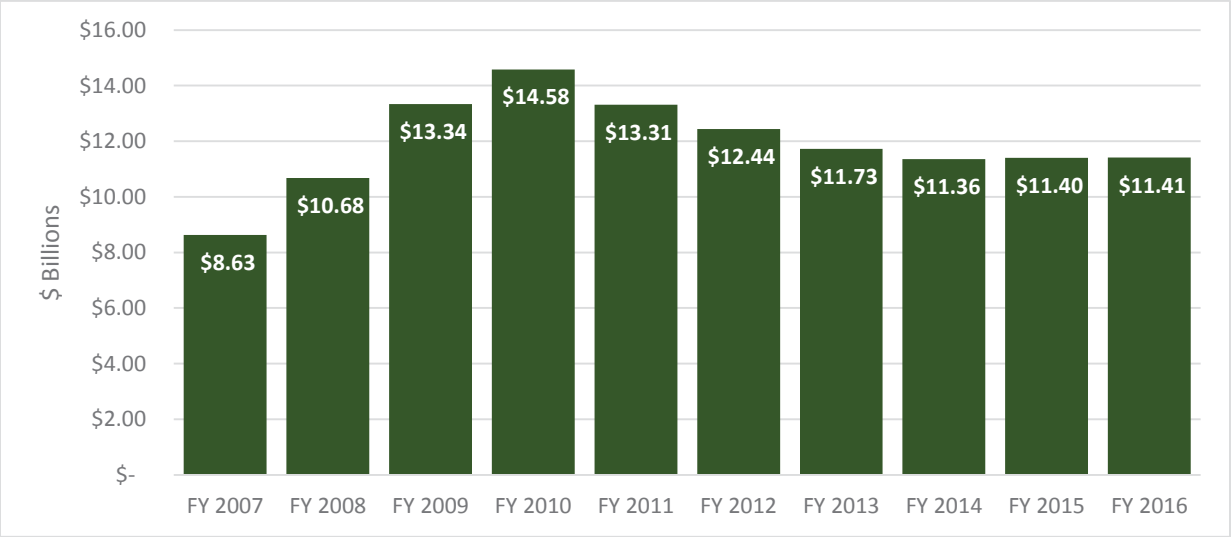
Rank	Employer	Employees
1	Calvert County Public Schools	2,133
2	Calvert County Government	1,226
3	Calvert Memorial Hospital	1,200
4	Exelon/Calvert Cliffs Nuclear Power Plant	850
5	The Arc of Southern Maryland	360
6	Asbury Solomons	250
7	Chesapeake Beach Resort & Spa	220
8	DirectMail.com	200
9	Safeway – Prince Frederick	200
10	Calvert County Nursing Center	179

Source: Calvert County Department of Economic Development, 2017
http://md-calvertcountyed.civicplus.com/180/Major-Employers (accessed 4/26/2017)

Tax Base

Calvert County is heavily dependent on real property taxes as a source of revenue. However, between 2011 and 2016, the county's real property assessable base has experienced a decrease in value of $3.18 billion. Figure 1 shows that the greatest decreases in the assessable base occurred between 2010 and 2013. Since 2013 the assessable base has stabilized and begun to rise slowly.

Figure 1: Calvert County, MD: Real Property Assessable Base ($ Billions), FY2007-FY2016



Source: Calvert County Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2016

The greatest portion of the assessable tax base is residential real property as shown in Table 3. Between 2011 and 2016, the county's residential real property value has experienced a net decrease of $1.9 billion, and growth in commercial real property value has not completely off-set this loss.

Table 3: Calvert County Assessable Base, FY2011 v. FY2016

	Assessable Tax Base ($ Millions)		FY 2011 v. FY2016 ($ Millions)	
	FY 2011	FY 2016	Net	%
Residential Real Property*	$12,051.74	$10,123.57	-$1,928.18	-16.0%
Commercial Real Property*	$1,260.79	$1,281.56	$20.77	1.6%
Public Utility	$747.96	$878.73	$130.78	17.5%
Personal Property (Including Corporations and Banks)	$126.40	$127.32	$0.93	0.7%
Total Assessable Tax Base	$14,186.88	$12,411.18	-$1,775.70	-12.5%

Source: Calvert County Department of Finance & Budget

Another factor to consider in the discussion of the real property tax base is the comparison of revenue from various land use types to the costs of services required to support those uses. Residential uses, particularly single-family detached units, historically have required more than a dollar in services for each dollar of tax revenue they provide. In contrast, commercial and agricultural uses require considerably less than a dollar in services for each dollar in tax revenue contributed. The recent reduction in housing values has probably made the disparity between revenue collection and cost of services more pronounced for residential uses. Calvert County's housing stock is comprised predominately of single-family detached units.

Tourism

Calvert County has many natural, cultural, recreational, and historical resources that appeal to residents and visitors alike. The impact of the travel/visitor industry on the county's economy is significant.

In 2015 the tourism industry employed 2,071 workers in Calvert County. Total tourism tax receipts were $37.7 million. Calvert County's 2015 visitor counts increased by 109,264 visitors, or 33.4 percent over 2010. Total tourism industry sales increased from $125 million in 2010 to $146.8 million in 2015. (See Table 5.)

Table 5: Impact of Travel and Tourism on Calvert County (CY 2015)

Tourism Industry Sales	$ 146.8 million
Tourism Labor Income	$ 79.7 million
Total Tourism Tax Receipts	$ 37.7 million
Tourism Employment	2,071 workers

Source: Tourism Economics, An Oxford Economics Company

Agriculture

Farms comprised 32,901 acres or 24 percent of the land area in Calvert County, according to the 2012 Census of Agriculture by the U.S. Department of Agriculture. Also according to the 2012 census, most farms in Calvert County were less than 180 acres, with an average size of 122 acres. In fiscal year 2014, agriculture accounted for $272.5 million, or 2 percent of the total tax base.

Of the 269 farms reporting in 2012, 121 of the farm operators were full-time operators. There were a significant number of farms raising cattle, other livestock and horses: over 80 farms were involved in the equine industry. Farm operations have shifted away from tobacco to commodity crops, specialty crops, like fruit and vegetables, and value-added products, such as meat processing, plus farm-to-table businesses and agri-tourism. In 2012, the market value of products sold was $11.1 million, an increase of

175 percent from the previous census in 2007 when the market value of products sold was $4 million. Of the 2012 value, 95 percent was from crop sales and 5 percent was from livestock sales.
The County Commissioners have directed the Department of Economic Development to enhance agricultural marketing operations. As a result, a new position dedicated to support the agricultural community was added in FY17.

National and Regional Trends

Calvert County does not exist in a vacuum. It is part of the larger Washington, D.C. metropolitan region and is influenced and impacted by the conditions across the region. In addition, Calvert County competes with other parts of the greater Washington, D.C. area, Baltimore and Annapolis, and within Southern Maryland for jobs, workers, and residents.

Regional Employment Growth

The Metropolitan Washington Council of Governments prepares forecasts of growth in population, housing and employment for each county in the metropolitan area, including Calvert County. The most recent projections (Round 9.0, approved in November 2016) estimated the total employment in Calvert County in 2015 at 34,000, which is projected to increase to 44,300 or 30 percent by 2045. This percentage increase is comparable to the projected growth in the other Maryland counties in the region. (See Table 4.)

Table 4: Employment Forecasts for Maryland Counties within the Washington Metropolitan Region

				Thousands				2015 to 2045	
JURISDICTION	2015	2020	2025	2030	2035	2040	2045	Number	% Change
Montgomery County	520.2	543.5	572.5	604.5	627.4	653.9	678.7	**158.5**	**30.5%**
Prince George's County	338.6	349.0	366.3	375.7	385.5	393.3	402.1	**63.6**	**18.8%**
Calvert County (1)	34.0	36.8	39.5	40.9	41.9	43.1	44.3	**10.3**	**30.3%**
Charles County	46.6	47.0	49.2	52.2	55.4	58.8	61.5	**14.9**	**32.0%**
St. Mary's County (1)	66.0	70.4	74.3	76.5	79.1	81.8	84.5	**18.5**	**28.0%**
Frederick County	106.2	110.6	115.6	121.3	127.8	133.9	140.2	**34.0**	**32.0%**
	1,045.5	**1,087.0**	**1,143.2**	**1,194.6**	**1,237.9**	**1,283.0**	**1,326.8**	**281.3**	**26.9%**

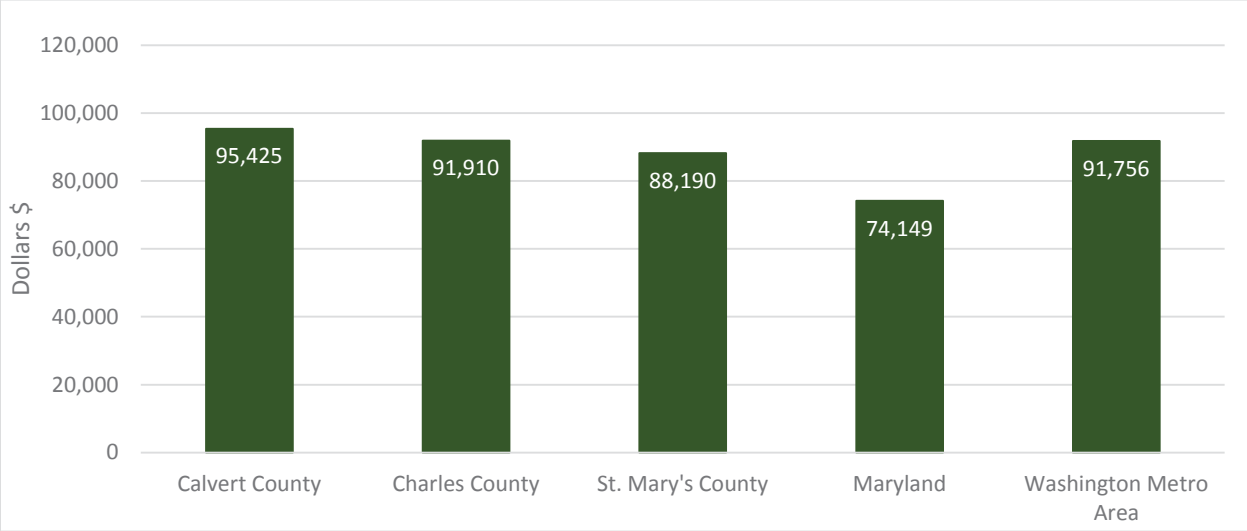
(1) Projections from 2015 to 2040 prepared by the Maryland Department of Planning, Historical and Projected Total Jobs by Place of Work, January 2015

Source: Metropolitan Washington Council of Governments, Round 9.0 Cooperative Forecasts, https://www.mwcog.org/documents/2016/11/16/cooperative-forecasts-employment-population-and-household-forecasts-by-transportation-analysis-zone-cooperative-forecast-demographics-housing-population/ (accessed 4/26/2017)

Regional Median Household Income

Calvert County residents enjoy an above-average wage when compared to the other Southern Maryland counties as well as the State of Maryland. Based upon income and poverty statistics, Calvert County is one of the wealthiest counties in the state. (See Figure 1.)

Figure 1: Median Household Income 2014



Source: Income in the Past 12 months (in 2014 Inflation-Adjusted Dollars), American Community Survey 5-Year Estimates, US Census Bureau, 2014

Demand for Retail and Personal Services

In 2011, the county completed a retail leakage report for Calvert County. The study demonstrated how much Calvert County residents are spending outside the county in different retail and personal service categories. Two of the top three categories (foodservice & drinking places and clothing & clothing accessories) are those residents frequently express a desire to see more represented in Calvert County. The report also estimates the additional gross leasable area needed to accommodate the local demand for retail services. (See Table 5.)

Table 5: Estimated Lost Spending and Additional Retail Space Demand from County Resident Retail Spending Outside of the County

Retail Category	"Lost" Spending	Additional Retail Space Demand (Square Feet of Gross Leasable Area)
Furniture & Home Furnishings	$ 30,389,414	202,596
Electronics and Appliances Stores	$ 21,282,271	35,470
Building Materials, Garden Equipment Stores	$ 113,020,637	452,083
Health & Personal Care Stores	$ 27,513,762	29,906
Clothing & Clothing Accessories	$ 73,462,961	222,615
Sporting Goods, Hobby, Book, Musical Instrument Stores	$ 27,386,688	127,380
General Merchandise Stores	$ 55,511,443	170,804
Miscellaneous Store Retailers	$ 23,494,797	78,316
Foodservice & Drinking Places	$ 88,665,383	264,673
Total	$ 460,727,356	1,583,843

Source: Retail Purchase Power Analysis, Calvert County, Maryland (Conducted by Fore Consulting, December 2011)

Perspectives on Economic Vitality

Board of County Commissioners and Planning Commission

A long-standing Comprehensive Plan objective has been to increase the commercial tax base and broaden Calvert County's economy by strengthening the existing business base and generating new business opportunities. Calvert County's elected officials would like to expand and diversify the county's tax base. Real property tax is the county's largest revenue source, and while it includes residential, commercial, and utility properties, much of the revenue is generated by residential development. To provide for additional, sustainable revenue sources, to protect the county from the negative revenue effect of residential property devaluation, and to reduce the government's direct reliance on its residents for revenue, the Board of County Commissioners would like to increase the commercial real property tax base to provide revenue and offset reliance on the residential taxpayer. It is important to note, however, that commercial, in general across the United States, cannot keep pace with residential tax base growth.

Increasing commercial development and the associated real estate tax base can also reduce the county's reliance upon income taxes, the second largest revenue source for Calvert County. Income taxes are paid by residents, including those who do not own property.

Payments in Lieu of Taxes (PILOTs) from the county's energy industries are another large component of the county's tax revenues. The Exelon/Calvert Cliffs Nuclear Power Plant provides approximately $20 million each year via a PILOT payment. Additionally, Calvert County government and Dominion Cove Point entered into a 15-year PILOT and tax credit agreement. In FY18, the county government will receive a one-time $25 million pre-payment from Dominion Cove Point. PILOT payments will begin in FY19 and locks in the existing equipment value at $15.1 million for the first 5 years of the PILOT (without the agreement, the existing equipment was projected to decline). A tax credit begins in the sixth year of the PILOT, providing a 42 percent tax credit on new and repurposed equipment. The county will receive approximately $40 million (on average) per year in tax revenue once the facility is operational.

Whenever a jurisdiction relies on a few large sources of revenues, it is appropriate for it to seek out opportunities to diversify its portfolio and spread the revenue risk and responsibility across a larger group of sources. The Board of County Commissioners recognizes this and would like to expand the county's economic opportunities and create new and sustainable revenue sources.

A key concern of the Board of County Commissioners is ensuring that Calvert County offers a regulatory environment that is conducive to economic growth. This means creating opportunities for local businesses to open or expand and making Calvert County an attractive option to businesses looking to enter the Southern Maryland market.

Desired Outcomes

Calvert County residents and elected officials want to accommodate employment and business growth in a manner that respects the environment and is sensitive to the fiscal and social needs of the county. In addition to satisfying the retail needs and desires of residents, Calvert County is interested in expanding its job base. Ideally, those jobs would be higher paying, professional service jobs and could build upon the existing professional service opportunities already located in the community and continuing to target industries that reflect the existing labor force. Focusing commercial and employment development in a limited number of Town Centers is crucial to creating the energy and vibrancy necessary to attract additional businesses. Communities that attract new mid-sized businesses offer a variety of housing types and price points, are walkable and attractive and have good schools and recreation opportunities to attract young families and emerging professionals.

One of the 2010 Comprehensive Plan's 10 Visions is for the Town Centers to be attractive, convenient, and interesting places to live, work, and shop. The implication of this vision is to focus growth in well-planned Town Centers instead of in strip malls and business parks scattered throughout the county. Measurable goals for assessable tax base, floor area ratios, jobs, affordable housing units and office space could be used to measure economic progress.

Comments from Public

During the public workshops, many people expressed interest in economic development. In particular, they see the designated Town Centers as focal points which should provide increased shopping, dining, and entertainment opportunities. As one attendee put it, "keep more money home in Calvert." However, other attendees like the county's rural character and say that people who choose Calvert County do so knowing that the services and amenities may not match those available in more developed areas.

Workshop participants recognized the link between housing affordability and economic development, but reached no consensus. Some participants felt that more housing choices would provide housing options for young people and those who work at retail and personal service jobs. However, others said that it would be better to focus on highly-paid residents who could afford higher priced homes.

There was some discussion at the workshops about increasing professional service jobs and other types of non-retail jobs within the county. Suggestions included providing improved workforce development skills through the schools and providing assistance to local entrepreneurs.

Growing Calvert County's agricultural industry was also mentioned as an important part of the county's economic development activities. This included expanding associated businesses such as wineries and breweries and creating opportunities for increased demand for agricultural products (for example, farm-to-table restaurants, farmers markets, and community-supported agriculture (CSAs)).

Workshop participants felt that the different parts of the county lend themselves to different economic development approaches. Dunkirk and the northern part of the county, with their proximity to the Washington, DC area and the best access to areas outside the county, could develop into more of a gateway into Calvert County with commercial and residential development. The middle part of the county, with Prince Frederick at its heart, is the administrative, educational, and medical hub of the county and could capitalize on these resources. Armory Square is ripe to be developed as a walkable, mixed-use area filled with shops and housing. The southern part of the county, Solomons especially, has a more waterfront-focused feel. Expanding water-themed, retirement, and relaxation activities could be the emphasis here.

Tourism is another important tool in Calvert County's economic development toolbox. The Comprehensive Plan can focus on the policies, programs, and infrastructure necessary to create a place attractive to visitors and to support an environment that allows the attractions to thrive. The zoning ordinance regulates where and under what circumstances tourist-centered businesses are permitted. The regulations typically address the potential impacts that tourist-oriented agricultural business uses, museums, and historic sites may have on rural residential and agricultural preservation areas.

When workshop attendees were asked about tourism, they expressed support for expanded promotion of existing attractions and mentioned a number of strategies for increasing the attractiveness of Calvert County to visitors. Suggested strategies included improving and expanding local dining and shopping; creating more walkable, bikeable, and connected Town Centers; offering weekend shuttles serving Washington, DC to attract travelers who may be visiting the area without cars; and providing more and better access to the water. Expanding agricultural activities, such as festivals and cooking classes where local farmers provide the produce and chefs teach people how to prepare it, that attract visitors was also discussed.

Share Your Ideas

This paper was prepared to provide background information for discussion of possible strategies for strengthening Calvert County's economic vitality that could be included in the updated Calvert County Comprehensive Plan. You are invited to the public workshop to discuss economic vitality issues and to share your thoughts via the County Comprehensive Plan website: http://www.co.cal.md.us/futureCalvert.

1. What are the three to five best actions Calvert County could take to increase the number of well-paying jobs in the county?

2. What concerns you most about proposals to expand Calvert's economy?