



# 2025 Comprehensive Plan

*Somerset County,  
Maryland*

Department of Technical and  
Community Services

READY <sup>SOMER</sup>SET PLAN



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## Table of Contents

	Page Number
CHAPTER 1: INTRODUCTION	1-1
1.1 Maryland Planning Legislation	1-1
1.2 The Twelve Visions	1-1
1.3 Topical Plan Chapters	1-3
1.4 Updating the Plan	1-4
1.5 Somerset County Vision Statement	1-5
1.6 Location	1-6
CHAPTER 2: COMMUNITY PROFILE	2-1
2.1 Population	2-1
2.2 Race & Ethnicity	2-2
2.3 Income & Poverty	2-2
2.4 Employment & Jobs	2-2
2.5 School Enrollment	2-3
2.6 Housing	2-3
2.7 Agriculture	2-4
2.8 Economic Development	2-4
CHAPTER 3: COUNTY & MUNICIPAL PLAN INTEGRATION	3-1
3.1 Municipal Planning	3-1
3.2 Town of Princess Anne Existing Conditions	3-2
3.3 Area Surrounding Princess Anne and Land Use	3-3
3.4 City of Crisfield Existing Conditions	3-5
3.5 Area Surrounding Crisfield and Land Use	3-6
3.6 Proposed Annexation	3-9
3.6.1 Town of Princess Anne	3-9
3.6.2 City of Crisfield	3-9
3.7 Priority Funding Areas	3-10
3.7.1 Priority Funding Areas and Flood Hazard Risk Areas	3-11
3.8 Infill, Redevelopment, and Revitalization	3-14
3.8.1 Town of Princess Anne	3-14
3.8.2 City of Crisfield	3-15
County & Municipal Plan Integration Goals & Implementation Strategies	3-16
CHAPTER 4: ECONOMIC VITALITY	4-1
4.1 Economic Demographics – Labor Force	4-1
4.2 Strategic Economic Opportunities Analysis	4-2
4.2.1 Existing Land Use and Zoning Overview	4-2
4.2.2 Retirement Living and Healthcare Existing Land Use and Zoning	4-3
4.2.3 Aquaculture, Agriculture, Food Processing, and Food Distribution Existing Land Use and Zoning	4-6
4.2.4 Skilled Trades, those related to Construction and Manufacturing Existing Land Use and Zoning	4-9
4.2.5 Alternative Energies	4-11
4.3 Tourism	4-14

4.3.1 Key Hospitality Targets	4-14
4.3.2 Projects	4-15
4.3.3 Tourism Existing Land Use and Zoning	4-15
Economic Vitality Goals & Implementation Strategies	4-16
CHAPTER 5: AFFORDABLE HOUSING	5-1
5.1 State Perspective – Maryland Housing Needs Assessment & 10-Year Strategic Plan	5-2
5.1.1 Vision 2030	5-3
5.1.2 State of Maryland Housing Guiding Principles	5-3
5.1.3 Priority Populations	5-3
5.2 Regional and Local Overview	5-3
5.2.1 Regional and Local Housing Needs	5-4
5.2.2 Somerset County Area Median Income	5-6
5.2.3 Housing Characteristics	5-7
5.3 Existing Housing by Land Use Classification	5-9
5.4 Housing Programs	5-16
5.5 Future Housing Needs & Affordability Analysis	5-16
Affordable Housing Goals & Implementation Strategies	5-17
CHAPTER 6: COMMUNITY FACILITIES	6-1
6.1 Public Schools	6-1
6.1.1 Projected School Enrollment	6-1
6.1.2 Future Plans & Education Strategies	6-2
6.1.3 University of Maryland Eastern Shore	6-3
6.2 Library and Information Services	6-4
6.2.1 Library and Information Services Future Plans	6-4
6.3 Parks & Recreation	6-5
6.3.1 Glenn Ward Ballpark, Crisfield	6-6
6.3.2 Upper Hill Park, Westover	6-6
6.3.3 Centralized Athletic Complex, Westover	6-6
6.3.4 Great Hope Golf Course, Westover	6-7
6.3.5 Raccoon Point Park, Westover	6-7
6.3.6 Princess Anne Little League Complex, Princess Anne	6-7
6.3.7 County Office Complex Indoor Gymnasium, Princess Anne	6-7
6.3.8 Mt. Vernon Park, Princess Anne	6-8
6.3.9 Terrapin Run Recreational Trail, Crisfield	6-8
6.3.10 Janes Island State Park, Crisfield	6-8
6.4 Public Safety	6-8
6.4.1 EMS & Fire Departments	6-9
6.4.2 Law Enforcement	6-10
6.4.3 Corrections	6-10
6.5 Hospital & Public Health	6-10
6.6 Solid Waste and Disposal Sites	6-11
6.6.1 Solid Waste Future Plans	6-12
6.7 Broadband Service	6-12
Community Facilities Goals & Implementation Strategies	6-16
CHAPTER 7: TRANSPORTATION	7-1

7.1 Roads	7-1
7.1.1 Average Annual Daily Traffic	7-2
7.1.2 Road Accident Trends	7-4
7.1.3 Somerset County Roads and Waterways Department	7-4
7.1.4 Repetitive Flooded Roadways	7-5
7.1.5 Electronic Vehicle Charging Locations	7-5
7.1.6 Heritage Areas and Scenic Byways	7-6
7.2 Rail	7-7
7.2.1 Rail Accident Trends	7-7
7.3 Air	7-7
7.3.1 Air Accident Trends	7-8
7.4 Public Transit	7-8
7.4.1 Paratransit	7-9
7.4.2 Public Transportation and Social Equity	7-9
7.5 Active & Pedestrian Transportation	7-15
7.5.1 Walking Trails	7-15
7.5.2 Biking Trails	7-16
7.5.3 Water Trails	7-16
7.5.4 Ferry Services	7-16
7.6 Current and Future Transportation Improvements	7-18
Transportation Goals & Implementation Strategies	7-20
CHAPTER 8: SENSITIVE AREAS	8-1
8.1 Watersheds	8-1
8.1.1 Groundwater	8-1
8.1.2 Saltwater Intrusion	8-3
8.1.3 Stormwater	8-4
8.1.4 Drainage	8-5
8.2 Streams and Their Buffers	8-6
8.3 Special Flood Hazard Area (FEMA Flood Zones)	8-8
8.3.1 Floodplain Management	8-9
8.4 Habitats of Threatened and Endangered Species	8-10
8.4.1 Sensitive Species Project Review Areas	8-12
8.5 Steep Slopes	8-12
8.6 Wetlands	8-13
8.7 Agriculture	8-13
8.8 Forests	8-15
8.9 Chesapeake Bay Critical Area	8-16
8.10 Sea Level Rise	8-17
8.11 Shoreline Erosion	8-17
8.12 Green Infrastructure (Protected Lands and Targeted Ecological Areas)	8-19
8.13 Fisheries	8-20
8.14 Hazard Mitigation Planning	8-21
Sensitive Areas Goals & Implementation Strategies	8-38
CHAPTER 9: WATER RESOURCES	9-1
9.1 County Projects and Growth Scenarios	9-2
9.1.1 Watersheds	9-2

9.1.2 Population Projections	9-2
9.1.3 Future Development Scenarios	9-2
9.2 Drinking Water Assessment	9-3
9.2.1 Public Water Systems	9-3
9.2.2 Other Water Use	9-11
9.2.3 Water Issues	9-14
9.3 Wastewater Assessment	9-18
9.3.1 Public Sewer Systems	9-18
9.3.2 Nutrient Discharges and Assimilative Capacity	9-21
9.3.3 Alternative Wastewater Disposal Options	9-23
9.4 Programmatic Assessment of Nonpoint Source Policies	9-27
9.4.1 Stormwater Management in Somerset County	9-27
9.4.2 Land Preservation, Parks, and Recreation Plan	9-28
9.4.3 Other Nonpoint Source Management Policies and Considerations	9-28
9.5 Total Nutrient Loads and Assimilative Capacity	9-30
9.5.1 Nonpoint Source Nutrient Loading	9-30
9.5.2 Total Nutrient Loading	9-33
9.5.3 Impervious Surface	9-33
9.5.4 Growth Tiers	9-35
9.6 Proposed Water and Sewer Extension areas & Land Use	9-36
9.6.1 Relationship to Local Land Use Goals	9-36
9.6.2 Evaluation of Proposed Water and Sewer Extensions	9-36
9.7 Future Conditions	9-44
9.7.1 Climate Change and Flooding	9-44
9.7.2 Floodplain Management and Comprehensive Flood Control	9-44
9.7.3 Additional Local Planning Efforts	9-45
Water Resources Goals & Implementation Strategies	9-48
CHAPTER 10: LAND USE	10-1
10.1 Existing Land Use	10-2
10.2 Growth Areas	10-4
10.2.1 Primary Growth Areas	10-4
10.2.2 Primary Growth Areas Designation & Implementation	10-6
10.2.3 Secondary Growth Areas (Infill Areas)	10-8
10.2.4 Priority Funding Area Designation	10-8
10.2.5 Statutory Criteria for PFA Designation & Primary Growth Areas	10-9
10.2.6 Growth Area Consideration	10-12
10.2.7 Overlay & Floating Districts	10-14
10.3 Revitalization	10-14
10.4 Community Disaster Resilience Zone	10-15
10.5 Future Land Use Considerations	10-15
10.5.1 Planned Unit Developments	10-15
10.5.2 Municipalities and Villages	10-16
10.5.3 Economic Vitality	10-16
10.5.4 Affordable Housing	10-16
10.5.5 Community Facilities	10-17
10.5.6 Transportation	10-17

10.5.7 Sensitive Areas	10-17
10.5.8 Solar	10-17
10.7 Future Land Use Map Plan	10-18
Future Land Use Goals & Implementation Strategies	10-28
CHAPTER 11: PRIORITY PRESERVATION AREA	11-1
11.1 Maryland's Certification of Local Agricultural Preservation Programs	11-1
11.2 Preserved Land in Somerset County by Programs	11-2
11.3 Existing Agricultural Activities	11-4
11.4 Establishing Priority Preservation Area (PPA)	11-4
11.4.1 Priority Preservation Area Identification – Prime Agricultural Soils	11-5
11.4.2 Priority Preservation Area Identification & Zoning	11-8
11.4.3 Utility Scale Solar Energy Facility Floating District (SEF)	11-9
11.5 Land Preservation, Parks, & Recreation Plan	11-9
11.6 Somerset County Priority Preservation Area	11-9
Priority Preservation Area Goals & Implementation Strategies	11-10
APPENDIX A: COMMUNITY SURVEY RESULTS	A-1
APPENDIX B: COMMUNITY & TECHNICAL COMMITTEE COMMENTS	B-1
APPENDIX C: HOUSING NEEDS ASSESSMENT	C-1
APPENDIX D: PARCEL-BASED LAND USE MAP METHODOLOGY	D-1

## List of Tables

	Page Number
CHAPTER 2: COMMUNITY PROFILE	2-1
Table 2-1: Historic and Projected Total Population for Somerset County, Maryland	2-1
Table 2-2: Historic and Projected Total Population for Somerset County, Maryland - Annualized Growth Rate	2-1
Table 2-3: Average Wage (current Dollars) per Job in Somerset County, Maryland: 2011 to 2021	2-3
Table 2-4: Total Housing Units Authorized for Construction in Somerset County, Maryland: 2011 to 2021	2-4
Table 2-5: Major Employers – Somerset County, Maryland	2-5
CHAPTER 3: COUNTY & MUNICIPAL PLAN INTEGRATION	3-1
Table 3-1: Princess Anne Comprehensive Plan – Existing Conditions Summary	3-2
Table 3-2: City of Crisfield Comprehensive Plan – Existing Conditions Summary	3-5
Table 3-3: Town of Princess Anne – Vacant Parcels	3-14
CHAPTER 4: ECONOMIC VITALITY	4-1
Table 4-1: Zoning Districts for Continuing Care Retirement Community and Parcels	4-4
Table 4-2: Zoning Districts for Aquaculture, Agriculture, Food processing, and Food Distribution and Parcels	4-7
Table 4-3: Zoning Districts for Skilled Trades and Parcels	4-9
CHAPTER 5: AFFORDABLE HOUSING	5-1
Table 5-1: Total Tracts by Maryland Homeowner Stability Index Category, Eastern Maryland	5-5
Table 5-2: Total tracts by Maryland Renter Stability Index Category, Eastern Maryland	5-6
Table 5-3: Somerset County Area Median Income	5-7
Table 5-4: Total Housing Units Authorized for Construction in Somerset County, Maryland: 2011 to 2023	5-8
Table 5-5: Existing Housing by Land Use/Land Cover Classification	5-9
CHAPTER 6: COMMUNITY FACILITIES	6-1
Table 6-1: Current School Enrollment & State Rated Capacity	6-1
Table 6-2: Acreage of Public Recreation and Resource Lands in Somerset County by Owner	6-6
Table 6-3: Emergency Medical Service Facilities	6-9
Table 6-4: Fire Department Facilities	6-9
Table 6-5: Law Enforcement Facilities	6-10
Table 6-6: Solid Waste and Drainage Department Facilities	6-12
CHAPTER 7: TRANSPORTATION	7-1
Table 7-1: AADT for Select Routes in Somerset County, 2016 through 2022	7-2
Table 7-2: AADT for All Segments of Select Routes in Somerset County, 2016 through 2022	7-3
Table 7-3: Total Traffic Accidents in Somerset County, 2018-2022	7-4
	7-8

Table 7-4: Highway-Rail Crossing Accidents in Somerset County, 1975-2023	7-7
CHAPTER 8: SENSITIVE AREAS	8-1
Table 8-1: Public Drinking Water System Characteristics	8-2
Table 8-2: FEMA Flood Zones	8-8
Table 8-3: List of Endangered Animal Species in Somerset County, MD	8-10
Table 8-4: List of Endangered Plant Species in Somerset County, MD	8-11
Table 8-5: Rates of Shoreline Erosion in Somerset County	8-18
CHAPTER 9: WATER RESOURCES	9-1
Table 9-1: Population Projections, 2010 through 2045	9-2
Table 9-2: Public Drinking Water System Characteristics	9-3
Table 9-3: Public Water System Demand, Capacity, and Projections	9-12
Table 9-4: Freshwater Withdrawals in Somerset County, 2000 vs. 2015	9-13
Table 9-5: Sewer System Characteristics	9-18
Table 9-6: Sewer System Demand, Capacity, and Projections	9-20
Table 9-7: Watersheds – Identified Issues	9-21
Table 9-8: Nutrient Caps and Projected Nutrient Discharges	9-24
Table 9-9: Approved TMDLs In Somerset County	9-24
Table 9-10: Approved Nutrient TMDLs for Somerset County Watersheds	9-25
Table 9-11: Total Nonpoint Source Discharge and TMDLs, Shared Watersheds	9-31
Table 9-12: Current and Projected Future Nonpoint Source Loading	9-32
Table 9-13: Total Nutrient Loading, All Scenarios	9-34
Table 9-14: Land Cover – Impervious Surfaces	9-35
CHAPTER 10: LAND USE	10-1
Table 10-1: Existing Land Use	10-2
Table 10-2: Draft 2024 Parcel Based Land Use	10-3
Table 10-3: Primary Growth Area Designation & Implementation	10-6
Table 10-4: Future Land Use Map Plan – Parcel Based	10-18
CHAPTER 11: PRIORITY PRESERVATION AREA	11-1
Table 11-1: Protected Land in Somerset County by Protected Lands Category	11-2
Table 11-2: Somerset County Prime Farmland Soils	11-5

## List of Figures

	Page Number
CHAPTER 1: INTRODUCTION	1-1
Figure 1-1: Plan Update Website	1-4
Figure 1-2: Picture of Public Survey Station located in the lobby of the Somerset County Office Complex.	1-4
Figure 1-3: Picture of Vision Statement Feedback Form - Plan Update Website	1-5
Figure 1-4: Aerial imagery of Somerset County	1-7
CHAPTER 2: COMMUNITY PROFILE	2-1
Figure 2-1: Historic and Projected Population of Somerset County, MD	2-2
Figure 2-2: Race/Ethnicity of Somerset County, MD	2-2
Figure 2-3: Median Residential Sale Price, Somerset County, MD	2-3
Figure 2-4: Market Value of Agricultural Products Sold Per Farm in Somerset County, Maryland	2-4
CHAPTER 3: COUNTY & MUNICIPAL PLAN INTEGRATION	3-1
Table 3-1: Princess Anne Comprehensive Plan – Existing Conditions Summary	3-2
Table 3-2: City of Crisfield Comprehensive Plan – Existing Conditions Summary	3-5
Table 3-3: Town of Princess Anne – Vacant Parcels	3-14
CHAPTER 4: ECONOMIC VITALITY	4-1
Table 4-1: Zoning Districts for Continuing Care Retirement Community and Parcels	4-4
Table 4-2: Zoning Districts for Aquaculture, Agriculture, Food processing, and Food Distribution and Parcels	4-7
Table 4-3: Zoning Districts for Skilled Trades and Parcels	4-9
CHAPTER 5: AFFORDABLE HOUSING	5-1
Table 5-1: Total Tracts by Maryland Homeowner Stability Index Category, Eastern Maryland	5-5
Table 5-2: Total tracts by Maryland Renter Stability Index Category, Eastern Maryland	5-6
Table 5-3: Somerset County Area Median Income	5-7
Table 5-4: Total Housing Units Authorized for Construction in Somerset County, Maryland: 2011 to 2023	5-8
Table 5-5: Existing Housing by Land Use/Land Cover Classification	5-9
CHAPTER 6: COMMUNITY FACILITIES	6-1
Table 6-1: Current School Enrollment & State Rated Capacity	6-1
Table 6-2: Acreage of Public Recreation and Resource Lands in Somerset County by Owner	6-6
Table 6-3: Emergency Medical Service Facilities	6-9
Table 6-4: Fire Department Facilities	6-9
Table 6-5: Law Enforcement Facilities	6-10
Table 6-6: Solid Waste and Drainage Department Facilities	6-12
CHAPTER 7: TRANSPORTATION	7-1
Table 7-1: AADT for Select Routes in Somerset County, 2016 through 2022	7-2

Table 7-2: AADT for All Segments of Select Routes in Somerset County, 2016 through 2022	7-3
Table 7-3: Total Traffic Accidents in Somerset County, 2018-2022	7-4
Table 7-4: Highway-Rail Crossing Accidents in Somerset County, 1975-2023	7-7
CHAPTER 8: SENSITIVE AREAS	8-1
Table 8-1: Public Drinking Water System Characteristics	8-2
Table 8-2: FEMA Flood Zones	8-8
Table 8-3: List of Endangered Animal Species in Somerset County, MD	8-10
Table 8-4: List of Endangered Plant Species in Somerset County, MD	8-11
Table 8-5: Rates of Shoreline Erosion in Somerset County	8-18
CHAPTER 9: WATER RESOURCES	9-1
Table 9-1: Population Projections, 2010 through 2045	9-2
Table 9-2: Public Drinking Water System Characteristics	9-3
Table 9-3: Public Water System Demand, Capacity, and Projections	9-12
Table 9-4: Freshwater Withdrawals in Somerset County, 2000 vs. 2015	9-13
Table 9-5: Sewer System Characteristics	9-18
Table 9-6: Sewer System Demand, Capacity, and Projections	9-20
Table 9-7: Watersheds – Identified Issues	9-21
Table 9-8: Nutrient Caps and Projected Nutrient Discharges	9-24
Table 9-9: Approved TMDLs In Somerset County	9-24
Table 9-10: Approved Nutrient TMDLs for Somerset County Watersheds	9-25
Table 9-11: Total Nonpoint Source Discharge and TMDLs, Shared Watersheds	9-31
Table 9-12: Current and Projected Future Nonpoint Source Loading	9-32
Table 9-13: Total Nutrient Loading, All Scenarios	9-34
Table 9-14: Land Cover – Impervious Surfaces	9-35
CHAPTER 10: LAND USE	10-1
Table 10-1: Existing Land Use	10-2
Table 10-2: Draft 2024 Parcel Based Land Use	10-3
Table 10-3: Primary Growth Area Designation & Implementation	10-6
Table 10-4: Future Land Use Map Plan – Parcel Based	10-18
CHAPTER 11: PRIORITY PRESERVATION AREA	11-1
Table 11-1: Protected Land in Somerset County by Protected Lands Category	11-2
Table 11-2: Somerset County Prime Farmland Soils	11-5

## List of Maps

CHAPTER 1: INTRODUCTION	1-1
Map 1-1: Location Map, Somerset County, MD	1-6
CHAPTER 3: COUNTY & MUNICIPAL PLAN INTEGRATION	3-1
Map 3-1: Princess Anne PFA & SFHA	3-12
Map 3-2: City of Crisfield PFA & SFHA	3-13
CHAPTER 4: ECONOMIC VITALITY	4-1
Map 4-1: Zoning Districts for Continuing Care Retirement Community & Parcels	4-5
Map 4-2: Zoning Districts for Aquaculture, Agriculture, Food Distribution & Parcels	4-8
Map 4-3: Zoning Districts for Skilled Trades & Parcels	4-10
Map 4-4: Zoning Districts for Alternative Energies & Parcels	4-13
CHAPTER 5: AFFORDABLE HOUSING	5-1
Map 5-1: Housing Density in Somerset County, 2010	5-11
Map 5-2: Housing Density in the Northeast Area of Somerset County, 2010	5-12
Map 5-3: Housing Density in the Northwest Area of Somerset County, 2010	5-13
Map 5-4: Housing Density in the Southwest Area of Somerset County, 2010	5-14
Map 5-5: Housing Density in the Southeast Area of Somerset County, 2010	5-15
CHAPTER 6: COMMUNITY FACILITIES	6-1
Map 6-1: Community Facilities Countywide	6-14
Map 6-2: Community Facilities by Quadrant	6-15
CHAPTER 7: TRANSPORTATION	7-1
Map 7-1: Transportation Network, Somerset County, MD	7-10
Map 7-2: Transportation Network – Northwest, Somerset County, MD	7-11
Map 7-3: Transportation Network – Northeast, Somerset County, MD	7-12
Map 7-4: Transportation Network – Southwest, Somerset County, MD	7-13
Map 7-5: Transportation Network – Southeast, Somerset County, MD	7-14
Map 7-6: Pedestrian and Active Transportation, Somerset County, MD	7-17
Map 7-7: Future Transportation Priorities, Somerset County, MD	7-19
CHAPTER 8: SENSITIVE AREAS	8-1
Map 8-1: 8 Digit Watersheds, Somerset County, MD	8-23
Map 8-2: Streams, Somerset County, MD	8-24
Map 8-3: FEMA Special Hazard Flood Areas, Somerset County, MD	8-25
Map 8-4: Targeted Ecological Areas & Sensitive Species Review Areas	8-26
Map 8-5: Steep Slopes, Somerset County, Maryland	8-27
Map 8-6: Wetland Areas, Somerset County, Maryland	8-28
Map 8-7: Cropland and Pasture, Somerset County, Maryland	8-29
Map 8-8: Forested Areas, Somerset County, Maryland	8-30
Map 8-9: Critical Areas, Somerset County, Maryland	8-31
Map 8-10: Northwest Critical Areas, Somerset County, Maryland	8-32
Map 8-11: Northeast Critical Areas, Somerset County, Maryland	8-33
Map 8-12: Southwest Critical Areas, Somerset County, Maryland	8-34
Map 8-13: Southeast Critical Areas, Somerset County, Maryland	8-35
Map 8-14: Sea Level Rise, Somerset County, Maryland	8-36
Map 8-15: Shoreline Erosion Rates Somerset County, Maryland	8-37

CHAPTER 10: LAND USE	10-1
Map 10-1: Somerset County Future Land Use Map Plan	10-19
Map 10-2: Somerset County MDP Draft Existing Land Use	10-20
Map 10-3: Somerset County Draft Parcel Based Existing Land Use	10-21
Map 10-4: Northwest Draft Parcel Based Existing Land Use	10-22
Map 10-5: Northeast Draft Parcel Based Existing Land Use	10-23
Map 10-6: Southwest Draft Parcel Based Existing Land Use	10-24
Map 10-7: Southeast Draft Parcel Based Existing Land Use	10-25
Map 10-8: Somerset County Primary Growth Areas	10-26
CHAPTER 11: PRIORITY PRESERVATION AREA	11-1
Map 11-1: Existing Protected Lands by Category	11-3
Map 11-2: Existing Protected Land and Priority Preservation Area	11-7
Map 11-3: Priority Preservation Area & Zoning	11-8



# CHAPTER 1 INTRODUCTION

## Chapter 1: Introduction

The Somerset County Comprehensive Plan Update is a long-range guide to strengthen our community over the next 20 years through land use planning, preservation, and investment. This plan is an update of the [1996 Somerset County Comprehensive Plan](#). The plan update was drafted by the Department of Technical and Community Services along with their consultant and overseen by the Somerset County Planning and Zoning Commission. Coordination with and input from various stakeholders including members of the Technical Committee and the public were integrated throughout the plan update process. Following the plan review and public comment process, the plan was adopted by the Somerset County Board of Commissioners.

Through the comprehensive planning process, County residents, business owners, and community organizations help shape the future of Somerset County. County-wide planning leads to compatible land uses, as well as transportation networks, public facilities, and parks. In addition, comprehensive planning protects the County's environmental and cultural resources. Planning helps to ensure that Somerset County continues to be attractive, safe, and prosperous. With this in mind, Somerset County developed the 2025 Comprehensive Plan, using traditional plan elements for each of the topical plan chapters. Each plan chapter includes a cover page, displaying information provided by the public and stakeholders that informed each of the plan chapters and associated goals and implementation strategies throughout the plan update.

### 1.1 Maryland Planning Legislation

The Maryland Department of Planning, on behalf of the State, reviews comprehensive plans for consistency with the State's Smart Growth and growth management laws, specifically, the *Land Use Article* including the requirements for Water Resources and Priority Preservation Area Elements, *The State Economic Growth, Resource Protection, and Planning Policy* found in Subtitle 5-7A, commonly known as the 12 Visions, and the *Priority Funding Areas Act* found in Subtitle 5-7B of the *State Finance and Procurement Article*. The Somerset County Comprehensive Plan Update addresses the specific provisions that local comprehensive plan should address based on these Maryland Planning legislative initiatives:

- [Land Use Article](#)
- [Economic Growth Resource Protection and Planning Act of 1992](#)
- [The 1997 Priority Funding Areas Act](#)
- [Requirements of the 2006 Planning Legislation: HB 1141, Land Use-Local Government Planning, and HB2, the Agricultural Stewardship Act](#)
- [Models & Guidelines: The Housing Element in response to HB 1045 \(2019\)](#)
- [2024 Maryland Statutes Agriculture Title 2 - Department of Agriculture Subtitle 5 - Maryland Agricultural Land Preservation Foundation Section 2-518 - Priority Preservation Areas](#)
- [Housing Expansion and Affordability Act HB 538 \(2025\)](#)

### 1.2 The Twelve Visions



The Twelve Visions, outlined in the Maryland Land Use Article, are the guiding principles for developing goals and objectives for comprehensive plans. These twelve visions have been included in the Comprehensive Plan and reflected throughout the topical plan chapters and associated goals and implementation strategies.

**1. Quality of Life and Sustainability:**

A high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment.

*The Somerset County vision statement is reflective of this vision as well as the specific attention to sensitive areas, including high-risk areas and new priority preservation area chapter integrated into this plan update.*

**2. Public Participation:**

Citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals.

*Traditional public meetings were held; however, a project website and community survey were added as part of this plan update to engage citizens in the planning process and foster community buy-in and accessibility.*

**3. Growth Areas:**

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

*Growth areas identified as part of this plan update are concentrated in and around existing development. Maintaining the rural character the county and the preservation of natural resources is a priority of the plan.*

**4. Community Design:**

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

*Identified growth areas, goals, and implementation strategies developed herein are reflective of Community Design that includes mixed-use and walkability, while maintaining and enhancing community character.*

**5. Infrastructure:**

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

*The analysis conducted for the identification of growth areas identified herein was extensive. In addition, to water resources and infrastructure, avoidance of sensitive areas and high-risk hazard areas were a focus.*

**6. Transportation:**

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

*The transportation system and facilities were assessed, and considerations were given specific to proposed conditions, identified needs and future land use.*

**7. Housing:**

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

*While low-density residential has historically been the predominate land use in Somerset County, a range of options, including medium and high-density residential land uses are included as plan goals and strategies.*

#### 8. Economic Development:

Economic development and natural resource–based businesses that promote employment opportunities for all income levels within the capacity of the State’s natural resources, public services, and public facilities are encouraged.

*A new Economic Vitality Chapter was included in this plan. Economic development was an overarching plan theme and was included in various plan chapters, including the land use chapter.*

#### 9. Environmental Protection:

Land and water resources, including the Chesapeake and coastal bays, are carefully managed to restore and maintain healthy air and water, natural systems, and living resources.

*Somerset County boasts miles of tidal bays and rivers, lush woodlands, smog-less skies, and seafood bounty. Maintaining and preserving its natural systems and living resources are evident throughout the plan.*

#### 10. Resource Conservation:

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

*Resource conservation information, goals and implementation strategies were expanded as part of this plan update. A new chapter was added to this plan update, Chapter 11: Priority Preservation Area.*

#### 11. Stewardship:

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

*Stewardship is emphasized and reflective in the various topical plan chapters. The comprehensive and inclusive lens through which the plan was developed promotes sustainability and balanced growth.*

#### 12. Implementation:

Strategies, policies, programs, and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, state, and interstate levels to achieve these Visions.

*Each topical plan chapter culminates with goals and implementation strategies which will employ various policies, programs, and funding sources across local, regional, state, and interstate levels.*

### 1.3 Topical Plan Chapters

Thoughtful and deliberate consideration was employed throughout the development of the Somerset County Comprehensive Plan Update. In addition to the specific provisions based on Maryland Planning legislation integrated throughout the Plan Update, a broad range of topical chapters were included in the Comprehensive Plan. Consideration for future land use were thoughtful and deliberate. Information including goals and implementation strategies from each of the topical plan chapters were integrated into both the land use chapter and the future land use map plan .

- Chapter 2: Community Profile
- Chapter 3: County & Municipal Plan Integration
- Chapter 4: Economic Vitality
- Chapter 5: Affordable Housing
- Chapter 6: Community Facilities
- Chapter 7: Transportation

- Chapter 8: Sensitive Areas
- Chapter 9: Water Resources
- Chapter 10: Land Use
- Chapter 11: Priority Preservation Area

Each of the topical plan chapters are concluded with goals to assist in the achievement of Somerset County's future vision and implementation strategies for this next ten-year planning cycle and beyond.

## 1.4 Updating the Plan

The Department of Technical and Community Services guided the plan development working closely with the contractor, Smith Planning and Design. The Planning and Zoning Commission oversaw the plan update process, with regular comprehensive plan updates during their monthly public meetings.

Working draft topical chapters were uploaded to the [plan update website](http://www.plansomersetmd.org), to encourage review and comment, as the plan was developed, rather than waiting until the end of the planning process. A review and comment form was provided to ensure that the public could easily provide written feedback as the plan was developed. Public comment was also obtained during the various public meetings of the Planning and Zoning Commission.

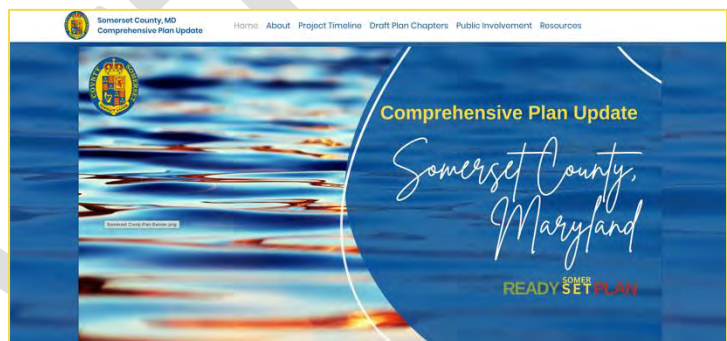


Figure 1-1: Plan Update Website – [www.plansomersetmd.org](http://www.plansomersetmd.org)

As part of the public engagement process a survey was deployed online and at several physical locations including:

- Somerset County Office Complex
- Princess Anne Library
- City of Crisfield Library
- Somerset County Health Department
- University of Maryland Eastern Shore Campus (UMES)

The results of the public survey were documented in the comprehensive plan update. Public Survey results were included on each of the topical plan chapter cover pages. Results include impacts, strengths, areas for improvement, issues, and opportunities. The public's participation was a valuable resource used in the preparation of the plan.

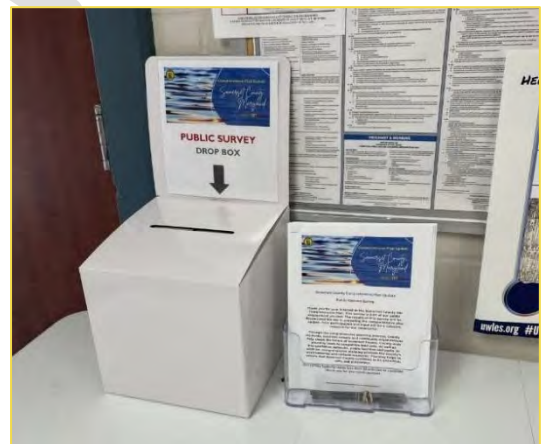


Figure 1-2: Picture of Public Survey Station located in the lobby of the Somerset County Office Complex.

In addition to the plan update website and public survey, a Technical Committee comprised of subject matter experts from various departments, agencies, and organizations. As working draft topical plan chapters were developed, the technical committee met periodically to review, discuss, and provide input to further inform the plan. Notes were distributed following each of the Technical Committee meetings held throughout the plan update.

Departments, agencies, and organizations represented on the Technical Committee are listed below.

- Somerset County Economic Development Commission
- Somerset County Department of Emergency Services
- Somerset County Department of Technical and Community Services
- Somerset County Department of Recreation and Parks
- Somerset County Department of Roads and Waterways
- Somerset County Department of Sanitary District
- Somerset County Department of Solid Waste and Drainage
- Somerset County Department of Tourism
- Somerset County Office of County Engineer
- Somerset County Public Schools
- Somerset County Department of Health
- Somerset County Libraries
- University of Maryland
- City of Crisfield
- Crisfield Chamber of Commerce
- Crisfield Housing Authority
- Salisbury Neighborhood Housing Services
- Shore Up!
- Shore Transit
- Maryland Department of Planning
- Maryland Department of Agriculture
- Maryland Soil Conservation District

Planning contractor staff attended public meetings of both the City of Crisfield and the Town of Princess Anne. Staff presented the plan update process, ideas for plan integration, and opportunities for collaboration. Both the City of Crisfield and the Town of Princess Anne were invited by the Department of Technical and Community Services to the Technical Committee meetings. Working directly with both municipalities informed the overall plan update, and specifically Chapter 3: County & Municipal Plan Integration.

## 1.5 Somerset County Future Vision Statement

Imagining and planning for today will help to ensure the realization of a shared future vision for our community. A vision statement is meant to describe the desired long-term aspirations for Somerset County. A good vision statement is clear, realistic, memorable, and sets the direction and tone for the comprehensive plan.

As part of the plan update, a future vision statement was developed from information obtained from the public survey and the Technical Committee. Somerset County held a Visioning Workshop to empower interested members of the public to help craft a vision statement that is representative of the community.

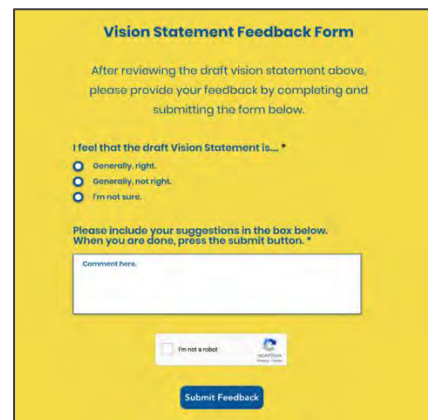
The image shows a screenshot of a web form titled "Vision Statement Feedback Form" on a yellow background. The form contains the following text: "After reviewing the draft vision statement above, please provide your feedback by completing and submitting the form below." Below this is a question: "I feel that the draft Vision Statement is..." with three radio button options: "Generally, right.", "Generally, not right.", and "I'm not sure." Underneath is a text box with the prompt "Please include your suggestions in the box below. When you are done, press the submit button. \*" and a label "Comment Here." at the top of the text box. At the bottom of the form, there is a small "I'm not a robot" checkbox and a "Submit Feedback" button.

Figure 1-3: Picture of Vision Statement Feedback Form - Plan Update Website.

Workshop attendees were asked to review the draft vision statement and make changes as necessary. The vision statement was modified based on feedback from attendees. Thereafter, the modified vision statement was uploaded to project website, along with a feedback form. Information collected from the “Vision Statement Feedback Forms” further informed the visioning process.

The draft vision statement was also reviewed by the Technical Committee and the Planning and Zoning Commission, as well.



Input gathered during the vision statement review process, resulting in the official vision statement below.

### VISION STATEMENT

“Somerset County's rich history and traditions, along with its tidal bays, farm fields, lush woodland, and seafood bounty will be preserved. Affordable housing, meaningful employment opportunities, and emphasis on both technical and higher education will help ensure an excellent quality of life for residents in the years to come.”

## 1.6 Location

Somerset County is the southernmost county on Maryland's Eastern Shore. It lies along the Chesapeake Bay side of the peninsula and its county seat, Princess Anne, is 14 miles south of Salisbury, approximately 120 miles southeast of Baltimore, and 100 miles north of Norfolk, Virginia, via the Chesapeake Bay-Bridge-Tunnel. The county has a land area of some 330 square miles, including several Islands in the Chesapeake Bay. The County's northern and southern boundaries are the Wicomico River and Pocomoke River, respectively. Adjacent counties include:

- Wicomico County, Maryland (north)
- Accomack County, Virginia (south)
- Dorchester County, Maryland (northwest)
- Worcester County, Maryland (east)
- St. Mary's County, Maryland (west) across the Chesapeake Bay





*Princess Anne by Patrick Hendrickson, 2013.*



*Crisfield by Joey Gardner, 2016.*



*Back Creek landscape by Patrick Hendrickson, 2013.*



*Deal Island and Chance by Joey Gardner, 2016.*

Figure 1-4: Aerial imagery of Somerset County. Source: [Somerset 350- Where History Lives, 1666-2016](#)

Somerset County is strategically located to take advantage of opportunities for both development and conservation. The Town of Crisfield is important as a fishing, shipping, and tourism center, while Princess Anne's significance as the historic County seat lies in its potential to attract businesses and tourism. To the north-east and south-west of Princess Anne respectively are the campus of the University of Maryland Eastern Shore and the new State Penitentiary. The County's proximity to Salisbury, Pocomoke and Ocean City is both an advantage in terms of the availability of services, as well as a disadvantage in terms of the net migration of jobs out of the County. For all of its socio-economic, political, and recreational activities Somerset County depends on Routes 13 and 413 as its lifelines. Route 13 channels thousands of regional vehicle trips a day through the County enroute from New York and Philadelphia to Norfolk and the south.

*Note: the County's transportation network is further described and mapped in Chapter 7: Transportation.*

Somerset County has a shoreline of over 600 miles along the Chesapeake Bay, and its character varies from fishing communities and summer homes to marshland and wilderness. Several peninsulas, or 'Necks' extend into the Bay, separated by meandering rivers. From north to south the Necks are Victor Neck, Monie Neck (or Mongrel Neck), Revells Neck, Manokin Neck and the Crisfield Peninsula. The principal rivers are the Wicomico, the Manokin, which has its source in the vicinity of Princess Anne, the Annemessex and the Pocomoke. The Interior of the County is generally flat, with good agricultural soils punctuated by areas of poorly drained wetlands. The smaller settlements include Mount Vernon, Dames Quarter, Deal Island, Chance, and Rumbley which are located on the Bay. Other settlements on the Necks include Oriole, Venton, Manokin and Fairmount, while Route 413 to Crisfield passes through the villages of Kingston, Marlon and Hopewell. At the Intersection of Routes 13 and 413 in the center of the County is the village of Westover.



Photo Source: [MD DNR](#).

Somerset County also Includes South Marsh Island, Smith Island and Janes Island In the Chesapeake Bay. Only Smith Island Is Inhabited, with settlements at Ewell, Rhodes Point and Tylerton.

The State of Maryland [Deal Island Wildlife Management Area](#), a protected area of 13,000 acres, is located in the northwest portion of the county. It incorporates not only Deal Island but the tributaries of the Chesapeake Bay. According to the [Maryland Ornithological Society](#), over 220 different species of birds have been seen within the area.

DRAFT



## CHAPTER 2 COMMUNITY PROFILE

### DEMOGRAPHIC INFORMATION

**0.53%**

#### GROWTH RATE

The County has a total population of 24,618 people according to the 2020 U.S. Census.

The population has remained steady with an average expected growth rate of 0.53% through 2045.



#### AGRICULTURE

Somerset County has a strong rural character largely defined by agriculture.

The total size (in acres) of farm land in the County is increasing at a rate of just under 5%.



#### INDUSTRY

The largest single employer in the County is the University of Maryland (UMES campus), with a total of 889 employees as of 2022.

Other major employers include Sysco Eastern Maryland (390), and Somerset Community Services (360).

## Chapter 2: Community Profile

The 1996 *Somerset County Comprehensive Plan* included a chapter titled *Demographic Patterns and Projections*; the information included therein has been updated and expanded upon for this plan update. The *Community Profile* focuses on demographic data, socioeconomic data, and projections gathered from the U.S. Census Bureau, 2020 Census, and the Maryland Department of Planning, Projections and State Data Center. Analysis of this data informs the comprehensive planning process, demonstrating Somerset's changing nature and anticipating its future conditions.

### 2.1 Population

According to the U.S. Census Bureau, the population of Somerset County totaled 24,618 people in 2020. Excluding the 2% increase from 1980 to 1990 and the less than 1% decrease from 2010 to 2020, the population of Somerset County has experienced an average growth rate of 0.54% since 1970.

Table 2-1.

Historic and Projected Total Population for Somerset County, Maryland								
	Census 1970	Census 1980	Census 1990	Census 2000	Census 2010	Census 2020*	Population Projections	
							2030	2040
<b>Somerset County</b>	18,924	19,188	23,440	24,747	26,470	24,618	27,450	28,310

Source: Prepared by the Maryland Department of Planning, Projections and State Data Center, December 2020  
U.S. Census Bureau, 2020 Census.

The average growth rate of 0.54% experienced in the previous decades is projected to continue through 2045, as indicated on Table 2-2, at an average rate of 0.53%.

Table 2-2.

Historic and Projected Total Population for Somerset County, Maryland - Annualized Growth Rate								
	1970-1980	1980-1990	1990-2000	2000-2010	2010-2020	Growth Rate Projections		
						2020- 2030	2030- 2040	2040- 2045
<b>Somerset County</b>	0.14%	2.02%	0.54%	0.68%	-0.69%	1.15%	0.31%	0.13%
<b>Lower Eastern Shore Region</b>	1.35%	1.16%	1.36%	1.15%	0.25%	0.97%	0.66%	0.51%

Source: Prepared by the Maryland Department of Planning, Projections and State Data Center, December 2020  
U.S. Census Bureau, 2020 Census.

Overall, the historic annual rate of population growth for Somerset County, at less than 1%, is comparable to that of the whole Lower Eastern Shore Region, at just over 1%. Following this trend, the populations of both Somerset County and the Lower Eastern Shore Region are projected to increase through 2045 (Figure 2-1).

Somerset County has 320 square miles of land area, with an average of 60.1 people per square mile, as of July 1, 2021 (according to the [Maryland Statistical Handbook](#)).

## 2.2 Race & Ethnicity

Results of the 2020 U.S. Census indicate that people from White alone (not Hispanic or Latino) and Black alone (not Hispanic or Latino) race comprise the majority of Somerset County's population, at 52.3% and 38.4% respectively (Figure 2-2).

## 2.3 Income & Poverty

The median household income for Somerset County in 2021 was \$47,131. Comparatively, the median household incomes of adjacent counties are: Wicomico County (\$61,846), Worcester County (\$70,952), and the State of Maryland (\$90,129).

Per the Maryland Statistical Handbook, as of 2021, Somerset County's rate of poverty is 23.1% and the State's rate of poverty is 10.3%. The poverty rate for Somerset County is higher than that reported for Worcester County (10.3%) and Wicomico County (14.2%).

## 2.4 Employment & Jobs

The number of full and part-time jobs in Somerset County remained steady from 2011 to 2021. The rate of change was 0.3%, or an additional 30 jobs during that time period. During the same time period, the Lower Eastern Shore Region experienced a 6.7% rate of change or an additional 7,637 jobs. In 2011, the average wage

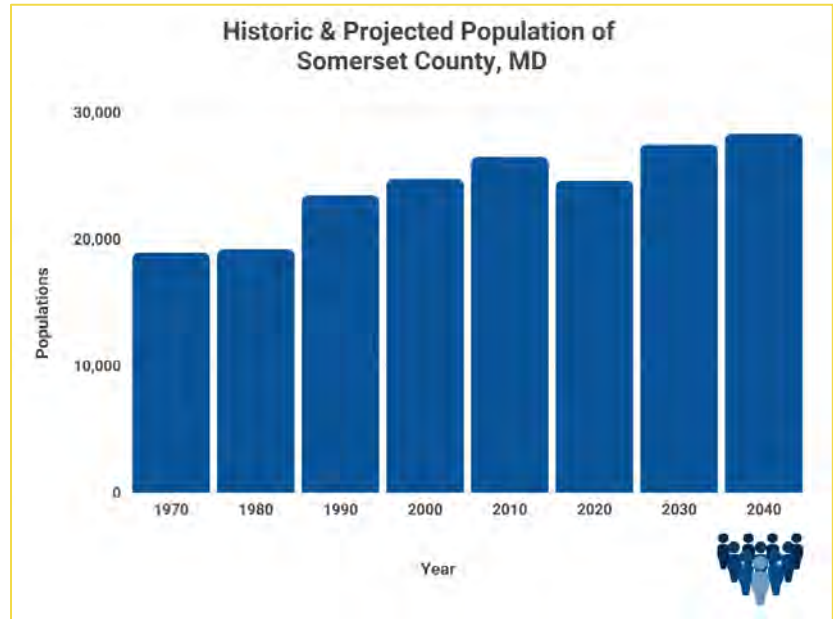


Figure 2-1: Historic and Projected Population of Somerset County, MD.

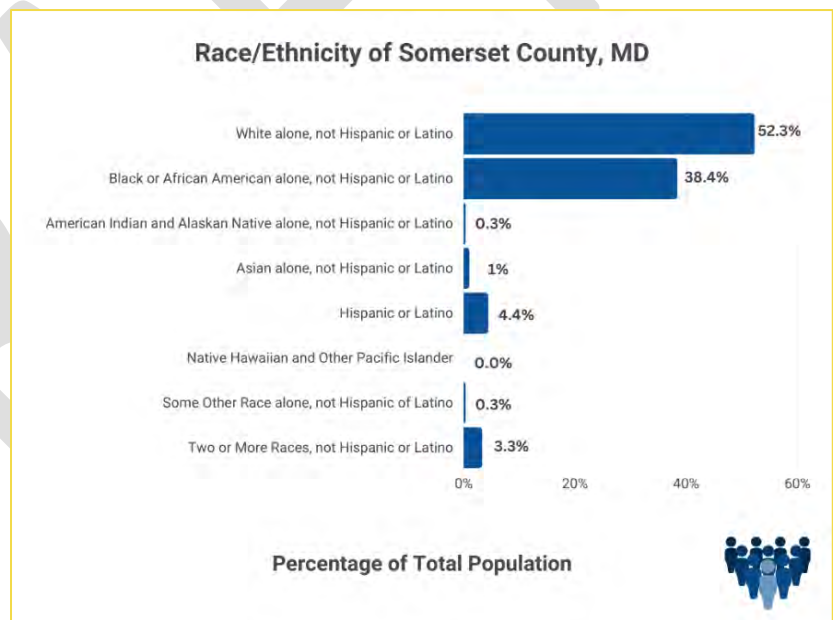


Figure 2-2: Race/Ethnicity of Somerset County, MD.

per job for Somerset County was \$39,652 (in current dollars). The average wage increased to \$54,689 in 2021, which translates to a 37.9% change. This change is depicted in Table 2-3, below.

**Table 2-3.**

Average Wage (current Dollars) per Job in Somerset County, Maryland: 2011 to 2021											
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	% of Change 2011-2021
\$39,652	\$39,853	\$40,744	\$41,802	\$43,397	\$43,575	\$45,997	\$45,416	\$49,184	\$53,714	\$54,689	37.9%

Source: Data extracts prepared by the Maryland Department of Planning, Projections and State Data Center, from U.S. BEA & Table CAINC6N, CAEMP25N, January 2023.

## 2.5 School Enrollment

According to Somerset County's Public Schools' website, total student enrollment in grades K through 12 for the Fall of 2021 was 2,565, compared to 2,681 in 2011. The Maryland Department of Planning projects enrollment to increase 11.1% to 2,850 by 2031. This upward trend is consistent with the projected population increase for Somerset County by 2030 (Section 2.1).

## 2.6 Housing

Total housing units constructed in Somerset County increased significantly in 2014 and 2015 as shown on Table 2-4. This increase resulted from the construction of multi-family housing units which were primarily apartments constructed in proximity to the University of Maryland Eastern Shore (UMES) campus. There were 55 housing units constructed per year on average between 2011 and 2021.

The median residential sale price\* in Somerset County increased by 25.4% overall between 2011 and 2021, from \$147,500 to \$185,000. Values for the years 2019, 2020, and 2021 may indicate an emerging upward trend (Figure 2-3).<sup>1</sup>

\* Arms-length transactions only.



**Figure 2-3: Median Residential Sale Price, Somerset County, MD.**

<sup>1</sup> Maryland Department of Planning, from MD Property View. Prepared by the Maryland Department of Planning, July 2022.

Table 2-4.

Total Housing Units Authorized for Construction in Somerset County, Maryland: 2011 to 2021											
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Residential	60	15	26	48	31	25	16	36	25	20	62
Multi-Family Housing	-	-	2	92	150	-	-	-	-	-	-
Total Housing Units*	62	15	28	140	181	25	16	36	25	20	62

Source: U. S. Bureau of the Census. Manufacturing and Construction Statistics Division. Residential Construction Branch. Prepared by Maryland Department of Planning. Planning Services Division. 2021. <https://planning.maryland.gov/MSDC/Pages/newhh/2020/annual2020.aspx>

\* Includes incorporated and unincorporated areas.

## 2.7 Agriculture

The total number of individual farms in Somerset County decreased from 301 in 2002 to 255 in 2017. However, the number of acres farmed increased from 56,650 to 59,440 over the same time period, an increase of 4.92%.<sup>2</sup>

## 2.8 Economic Development

Since its initial settlement, Somerset County has gone through several phases of economic development: a period of agricultural production during the first two centuries of its existence, a period of water-dependent industry growth and subsequent stability sparked by the Port of Crisfield, and a period of state-sponsored development associated with construction and operation of the University of Maryland Eastern Shore (UMES) and the Eastern Correctional Institution (ECI), both near Princess Anne.

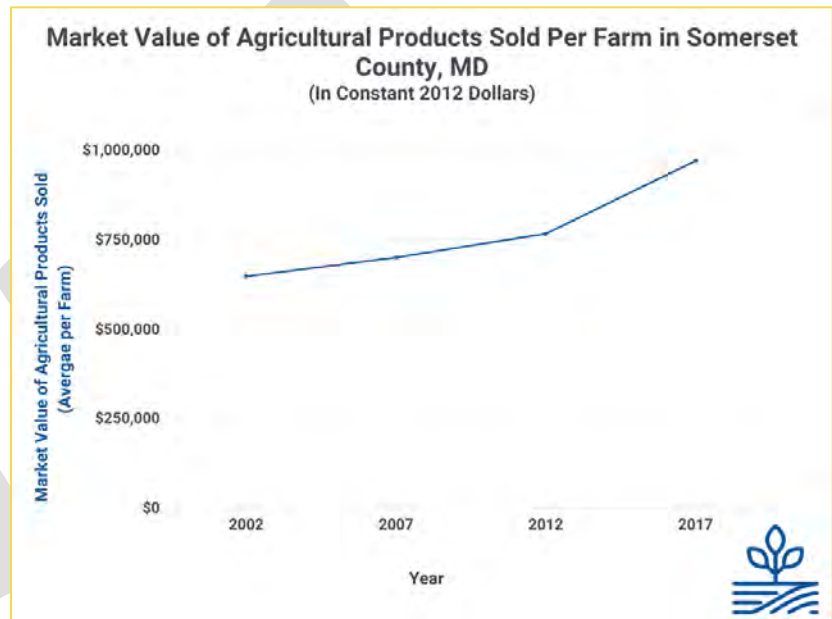


Figure 1-4: Market Value of Agricultural Products Sold Per Farm in Somerset County, Maryland.

Source: Prepared by the Maryland Department of Planning, July 2021. Extracted from 2002, 2007, 2012 and 2017 Census of Agriculture.

Note: Data have been adjusted to 2012 constant dollars using the Producer Price Index (PPI).

As of 2021, Somerset County had an average civilian labor force of 8,824. According to the U.S. Department of Labor, Bureau of Labor Statistics, unemployment in the County decreased from 8.4% in 2020 to 7.5% in 2021. State-wide unemployment rates for those years were 6.7% and 5.8%, respectively. The U.S. Census Bureau's American Community Survey (ACS) results indicate that employees in Somerset County have a shorter commute time (24.2 minutes) than the typical U.S. worker (26.9 minutes). Residents commuting outside of the County to work make up 45.8% of the civilian labor force, as suggested by ACS 5-year Estimates (2016 to 2020).

As of 2021, Somerset County's 414 private sector businesses employ 3,360 workers, which comprises 53.9% of the total civilian labor force.<sup>3</sup> Major employers from 2021 to 2022 included:

<sup>2</sup> USDA National Agricultural Statistics System and prepared by the Maryland Department of Planning, July 2021.

<sup>3</sup> Maryland Department of Commerce, Brief Economic Facts, Somerset County, Maryland. February 2022.

Table 2-5.

Major Employers – Somerset County, Maryland		
Major Employers (2020-2021)	Product/Service	# of Employees
The University of Maryland	Higher Education	889
Sysco Eastern Maryland	Food Products Distribution	390
Somerset Community Services	Services for the Disabled	360
Sherwin Williams/ Rubberset	Painting Supplies	220
Chesapeake Health Care	Medical Services	206
Tidal Health	Medical Services	200
Aurora Senior Living of Manokin	Nursing Case	175
Food Lion	Groceries	101
Southern Connection Seafood*	Seafood Processing & Wholesale Distribution	100
Peraton	Space and Missile Defense	70
Handy International*	Seafood Processing	70
Mountaire Farms	Chicken Egg Hatchery	62
Eastern Shore Drywall	Drywall & Insulation Contractors	60
Metompkin Bay Oyster*	Seafood Processing & Wholesale Distribution	60
McDonald's/Baxter Enterprises	Restaurants	50
Baxter Enterprises	Restaurant	39
Tidewater Express	Trucking Services	36
Hardee's	Restaurant	35
Millenium Microwave Corporation	Electric Sub System Manufacturing	25
PNC Financial Services Group	Banking Services	15
<i>Excludes post offices, state and local governments, national retail, and national foodservice; includes higher education.</i>		
<i>*Includes seasonal workers.</i>		

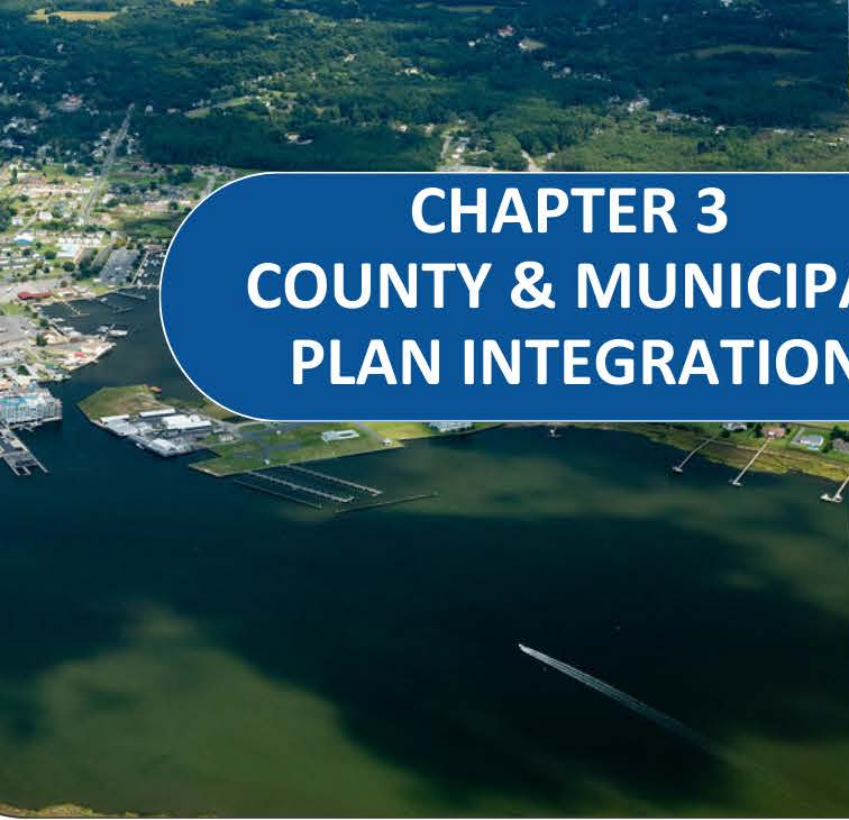
Source: 2022 Brief Economic Facts, Somerset County, Maryland - Maryland Department of Commerce

The Maryland Department of Commerce acknowledges Somerset County as a major seafood processor and poultry producer and commends its rich agricultural harvest. The County has two established Enterprise Zones – the City of Crisfield and the Town of Princess Anne – and participates in the One Maryland Tax Credit Program<sup>i</sup>. The Somerset County Economic Development Commission (EDC) seeks to attract the aerospace industry, consider alternate energy projects, and achieve broadband coverage throughout the County.

The ongoing Eastern Shore Pipeline expansion project brought natural gas service down from Salisbury (Wicomico County) alongside US Route 13. The pipeline continues through Princess Anne, terminating near ECI in Westover. Further expansion, up from Pocomoke City (Worcester County), is slated to serve the southern US Route 13 corridor. Development has begun on a 65-acre site in north Princess Anne on the west side of US Route 13. This site, slated for mixed-used development, is served by a new stoplight on US Route 13 at the intersection of UMES Boulevard.

An example of recent major economic development is the Crisfield-Somerset County Airport Hanger Project. The plan is to replace five hangers with one unit that can house 10 airplanes. AECOM, which is handling the planning and permitting, estimates the cost will be \$1 million for which Somerset County has raised \$850,000 from state sources as of the beginning of 2023. Improvements in the last few years include a self-serve fuel pump, an ADA compliant bathroom and the office was painted and furnished in cooperation with UMES. The airport layout plan was also updated and approved by the FAA.

<sup>i</sup> [The One Maryland Tax Credit Program](#) is an income tax credit for businesses that invest in an economic development project in a Tier 1 County and create a minimum number of qualified jobs. The amount of tax credit a business qualifies for depends on the number of jobs it creates and qualified costs it incurs.



## CHAPTER 3 COUNTY & MUNICIPAL PLAN INTEGRATION

### PUBLIC SURVEY RESULTS

96%

#### RESIDENT STATUS

96% of survey respondents live in Somerset County.

63% of respondents indicated that they did not reside in a municipality. Of those that did indicate they lived in a municipality, 23% live in the City of Crisfield and 14% live in the Town of Princess Anne.

53%

#### CRISFIELD

53% of respondents from Crisfield indicated that they were either "Very Satisfied" or "Satisfied" with their overall quality of life in Somerset County.

Safety and Security, Water Quality (drinking), and Job Opportunities are the most important items to quality of life.

43%

#### PRINCESS ANNE

43% of respondents from Princess Anne indicated that they were either "Very Satisfied" or "Satisfied" with their overall quality of life in Somerset County.

Water Quality, Safety and Security, and Job Opportunities are the most important items to quality of life.

## ISSUES OF IMPORTANCE

**Crisfield:** Most important issues are Job Creation, Homes/Neighborhoods, and Variety of Businesses. In terms of future development, local officials should encourage proximity to emergency services/response time, retail development, and tourism facilities.

**Princess Anne:** Most important issues are Job Creation, Variety of Businesses, and Homes/Neighborhood. In terms of future development, local officials should encourage retail development, tourism facilities, and residential housing.

## Chapter 3: County & Municipal Plan Integration

Collaboration and agreement between the County and municipalities concerning growth areas, specifically on unincorporated areas that municipalities plan to annex into their own jurisdictions, is vitally important. House Bill (HB 1141) adopted in 2011 mandates that jurisdictions meet and confer on this subject before a municipal growth element can be adopted. HB 1141 strengthens land use requirements by necessitating better planning for annexations.

### 3.1 Municipal Planning

The Town of Princess Anne and the City of Crisfield both have adopted comprehensive plans. These plans include policies governing growth, development, sustainability, and conservation.



Figure 3-1: Somerset County & Municipal Map

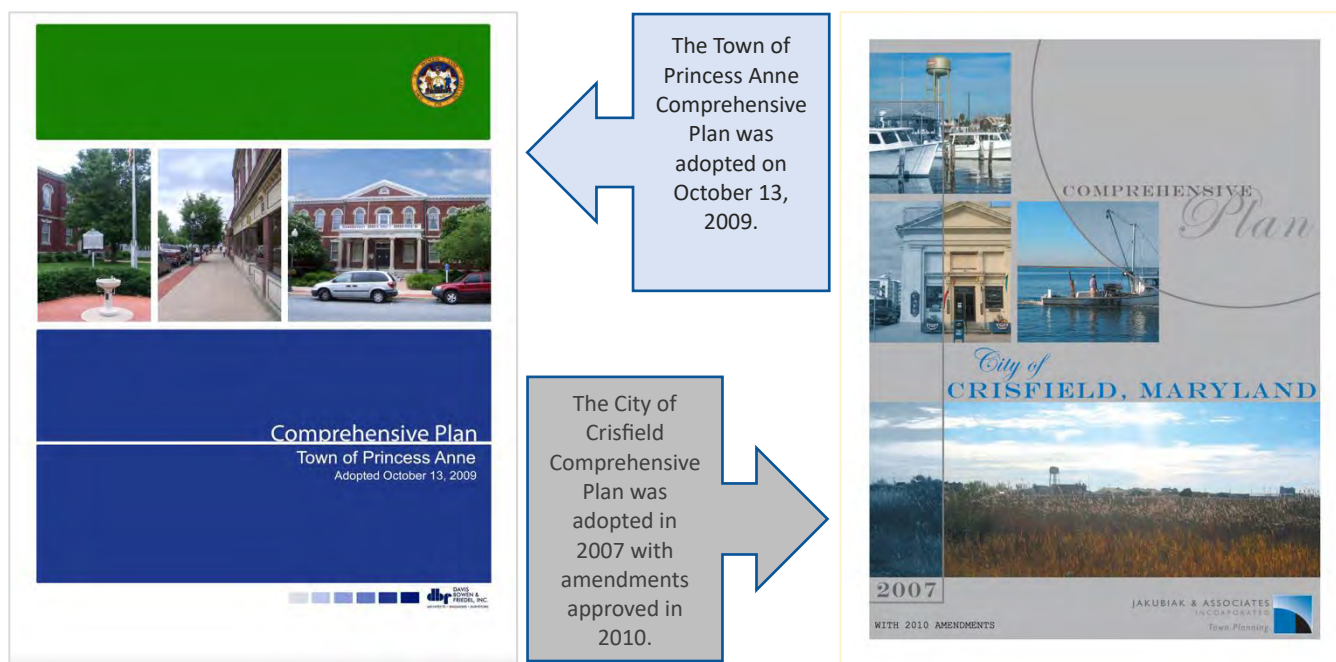


Figure 3-2: Cover photos from the Town of Princess Anne and City of Crisfield's Comprehensive Plans.

The Town of Princess Anne adopted a new zoning ordinance and zoning map in 2015, while the City of Crisfield adopted a new zoning ordinance and zoning map in 2018.







A guiding principle identified in each of the municipal comprehensive plans is as follows:

*Implementation of a municipality's priorities and plans can be advanced when a municipality coordinates the planning of local projects with the broader policy goals of other jurisdictions and agencies of government. Cooperation among jurisdictions is important for long-term plan implementation.*

### 3.2 Town of Princess Anne Existing Conditions

Existing conditions summarized in the town’s comprehensive plan are included in Table 3-1. The plan summary includes land use, natural environment, transportation, and community facilities. While the comprehensive plan was completed more than a decade ago, municipal representatives reviewed this chapter and were provided opportunities to update information extracted from the plan, as applicable. This information was presented during the work session of the Princess Anne Town Commissioners on September 18, 2023.

**Table 3-1.**

Princess Anne Comprehensive Plan – Existing Conditions Summary			
Land Use	Natural Environment	Transportation	Community Facilities
<p>Princess Anne’s historic downtown is surrounded by residential areas, an industrial park, and the campus of the University of Maryland-Eastern Shore (UMES). The historic downtown is centered on Somerset Avenue and Prince William Street. Much of the area surrounding the Town is in woodlands and open space use with pockets of residential use along the main roads into town.</p> <p><b>Princess Anne Historic District</b> National Register Information: 80001834 Architectural Styles: Italianate, Queen Anne, Federal</p>   <p>Somerset County Courthouse, located in the district</p> <p>National Register of Historic Places <a href="https://npqallery.nps.gov/GetAsset/a34299c7-e2e2-467b-b493-7b2cdebdade2e/">https://npqallery.nps.gov/GetAsset/a34299c7-e2e2-467b-b493-7b2cdebdade2e/</a></p>	<p>Princess Anne is located in the Manokin River Watershed. The Manokin River runs through the central part of town. The Town and its surrounding area are located within the Sensitive Species Project Review Area, owing to the presence of three sensitive plant species. Wetlands, 100-year floodplains, forested areas, and steep slopes can also be found within the Town boundary. Wetlands in Princess Anne run along the Manokin River to the southeast of town.</p> <p>Manokin River Watershed</p>  <p>Photo Source: <a href="http://www.cns.psu.edu/docs/Manokin_Watershed_Profile.pdf">http://www.cns.psu.edu/docs/Manokin_Watershed_Profile.pdf</a></p>	<p>U.S. Route 13 connects Princess Anne to regional destinations. Other arterial roads intersect with U.S. Route 13 in Princess Anne. Mount Vernon Road is a major access route into Princess Anne. It connects with Somerset Avenue which provides access to the central part of town. Local roads connect residential areas to Somerset Avenue and, outside of downtown, connect residential areas to U.S. Route 13 and downtown. Public transit service provides on demand responsive and fixed route schedules.</p> 	<p>Many of the Town’s facilities and services are managed in cooperation with Somerset County; including water, sewer, schools, and fire and emergency services. The Town has its own police force.</p> <p>Princess Anne has two parks, Manokin Park and Garland Hayward Park, and is coordinating with other agencies to develop more recreational opportunities.</p>  

Source: [2009 Town of Princess Anne Comprehensive Plan](#)

### 3.3 Area Surrounding Princess Anne and Land Use

The area surrounding the Town of Princess Anne along with current land use and land use patterns as identified in the 2009 Comprehensive Plan include:

- While the Manokin River and other natural resources in Princess Anne provide opportunities for the Town, they also pose physical constraints to future development. The wetlands, floodplains, and forested areas around Princess Anne limit where future development can occur. Under current law, development must undergo special reviews before approval can be granted, in order to ensure that sensitive species are not disturbed.

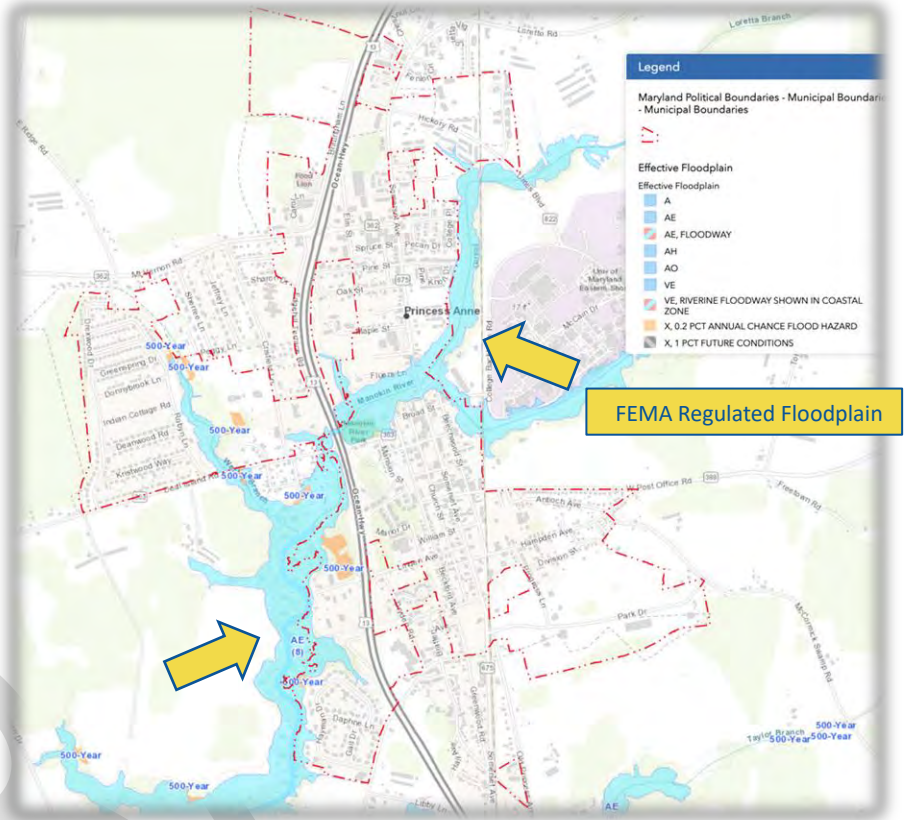


Figure 3-3: Town of Princess Anne Floodplain

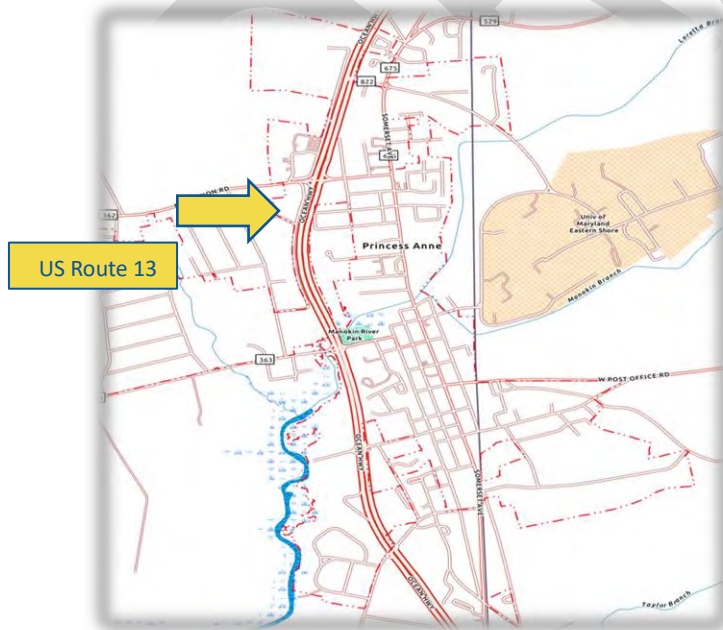


Figure 3-4: Town of Princess Anne & US Route 13

- US Route 13 creates a physical barrier between the west and east sides of Princess Anne. Areas that have developed on the west side of this physical barrier are fragmented and separated from one another, the main part of town, as well as the University. This poses a multi-modal transportation challenge. It is difficult for vehicles, and a major challenge for pedestrians and bicycles to access both sides of town. Also, individual residential subdivisions lack connectivity with one another.

- Downtown Princess Anne has become physically separated from other areas of town. The transportation network that has developed over time, combined with the presence of the Manokin River, limits opportunities to make connections to downtown. UMES can be easily accessed without traveling through downtown and residential areas to the west of Princess Anne do not have a direct connection to downtown. This limits downtown's potential as a central point for community interaction. Therefore, future development must focus on making downtown Princess Anne a destination for residents, UMES students and faculty, and tourists.

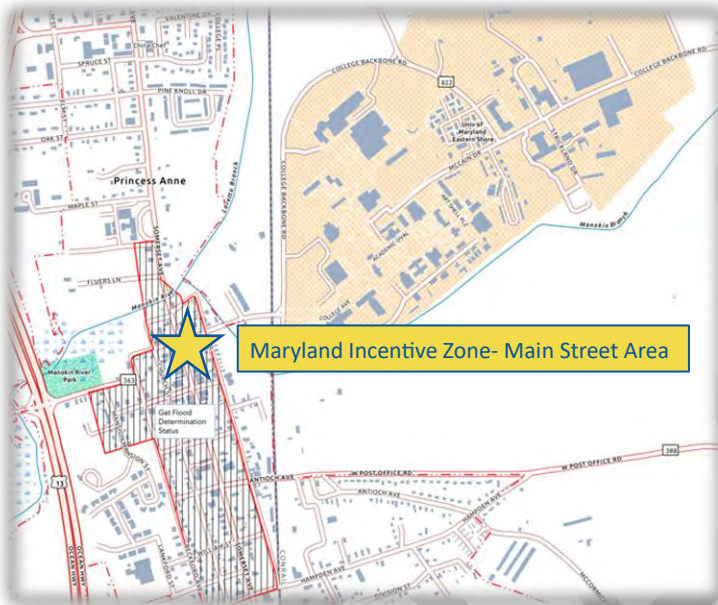


Figure 3-5: Princess Anne Main Street Area

Representatives from the Town of Princess Anne remarked that since the 2009 Comprehensive Plan, student housing has been concentrated around UMES Boulevard, which has improved emergency services response, as student housing is concentrated as opposed to the scattered sites of the past. However, there is an opportunity for additional student housing in the downtown development area. Infill development, specifically upper story development is a priority for the Town of Princess Anne. In fact, the [Main Street Program](#) has been used for historic structure and façade improvements, making this area more attractive for both commercial and residential use.

In addition, since 2019, improved pedestrian access across and along US Route 13, such as walkways and stoplights, have been installed.

- Having UMES in such close proximity to Princess Anne provides the Town with a range of benefits and opportunities. However, it also poses challenges for Princess Anne. Residential development pressures are strong for rental and student housing. The University prefers that this housing be concentrated in proximity to campus. Public safety demands are higher where there are large concentrations of student housing. This can pull town resources from other areas, particularly with respect to public safety services.

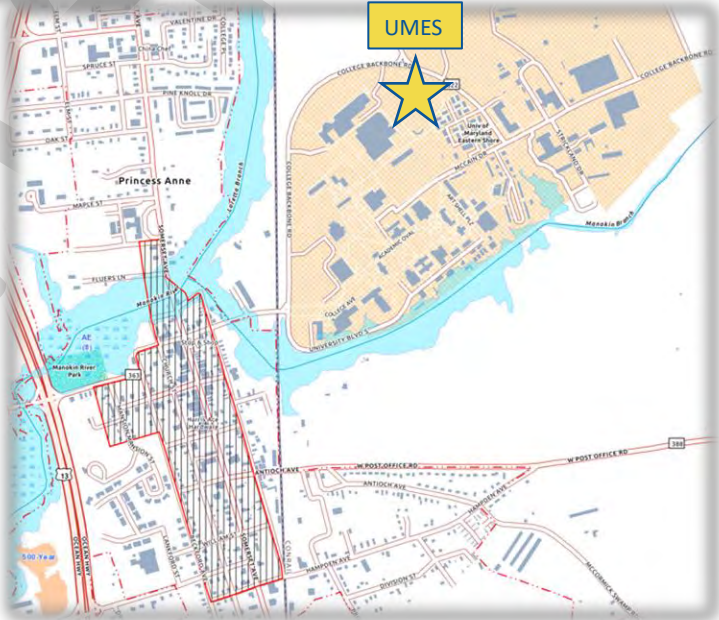



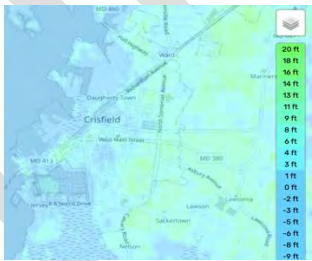

Figure 3-6: Town of Princess Anne, Transportation Network, Floodplain, & UMES

Proposed transportation improvements are outlined annually in Somerset County's [Priority Letter for Recommended Transportation Improvements](#).

### 3.4 City of Crisfield Existing Conditions

Existing conditions summarized in the city's comprehensive plan are included in Table 3-2. The plan summary includes land use, natural environment, transportation, and community facilities. While the municipal comprehensive plan was completed more than a decade ago, municipal representatives reviewed this chapter and were provided opportunities to update information extracted from their plans, as applicable. This information was presented during the City of Crisfield Council meeting on October 11, 2023.

**Table 3-2.**

City of Crisfield Comprehensive Plan – Existing Conditions Summary			
Land Use	Natural Environment	Transportation	Community Facilities
<p>Land use in the City consists of commercial districts along MD Route 413 and the central business district along Main Street, residential neighborhoods, and water-dependent and water related uses in the marina and downtown maritime areas. Much of the shoreline has been devoted to commercial and industrial uses directly related to or in support of the fishing industry, including the Little Boat Harbor. This is beginning to change as multi-family condominium buildings are replacing traditional maritime activities.</p> <p><i>Little Boat Harbor</i></p>  <p>Photo Source: <a href="https://visitsomerset.com/listing/little-boat-harbor">https://visitsomerset.com/listing/little-boat-harbor</a></p>	<p>Chesapeake Bay, the Little Annemessex River, and associated tidal marshes are major natural features. Except for several relatively high points of elevation, the City lies within the 100-year floodplain. Flooding is a regular occurrence. The remaining marshlands and low-lying areas are vital buffers helping to dissipate the energy of storm surge and store floodwaters.</p> <p><i>City of Crisfield Elevation: 3 ft (1 m)</i></p>  <p>Photo Source: <a href="https://en-us.topographic-map.com/map-l9q34s/Crisfield/">https://en-us.topographic-map.com/map-l9q34s/Crisfield/</a></p>	<p>MD Route 413 is the primary access route for the City. Sidewalks capitalize on the traditional street network, which is generally conducive to walking. The existence of a street grid in much of the City allows for a dispersed traffic pattern throughout residential neighborhoods. Much of the City's collector street system is prone to flooding.</p> <p><i>SHA has upgraded all sidewalks along a 1.5-mile stretch of Route 413 (Maryland Avenue/Richardson Avenue/West Main Street) from the Crisfield City Dock to Mill Lane. Work included removal and replacement of sidewalk, curb and gutter and installation of new ramps and detectable warning surfaces.</i></p>  <p>Source: DAILY TIMES STAFF REPORT Published August 21, 2015</p>	<p>Except for parkland, the main public facilities are adequately sized for Crisfield's current situation. A growth in population, however, would necessitate an expansion of capacity of public sewer service. Significant rehabilitation of old sanitary sewer infrastructure is needed. Local schools and a branch of the County library system provides educational resources.</p> <p><i>City of Crisfield Ch C Art IX Water &amp; Sewer § C9-5 Connections</i> <i>The City shall provide a connection with water and sanitary sewer mains for all property abutting on any public way in which a sanitary sewer or water main is laid. When any water main or sanitary sewer is declared ready for operation by the City, all abutting property owners, after reasonable notice, shall connect all fixtures with the water or sewer main.</i></p> <p>Source: <a href="https://ecode360.com/13720146">https://ecode360.com/13720146</a></p>

Sources: [2007 City of Crisfield Comprehensive Plan with 2010 Amendments](#)

### 3.5 Area Surrounding Crisfield and Land Use

The area surrounding the City of Crisfield along with current land use and land use patterns include:

- The Little Annemessex River and Jersey Island lie to the west and south of Crisfield, permanently curbing development in those directions beyond existing City boundaries. Environmental features, such as water bodies and wetlands, restrict development throughout the region.

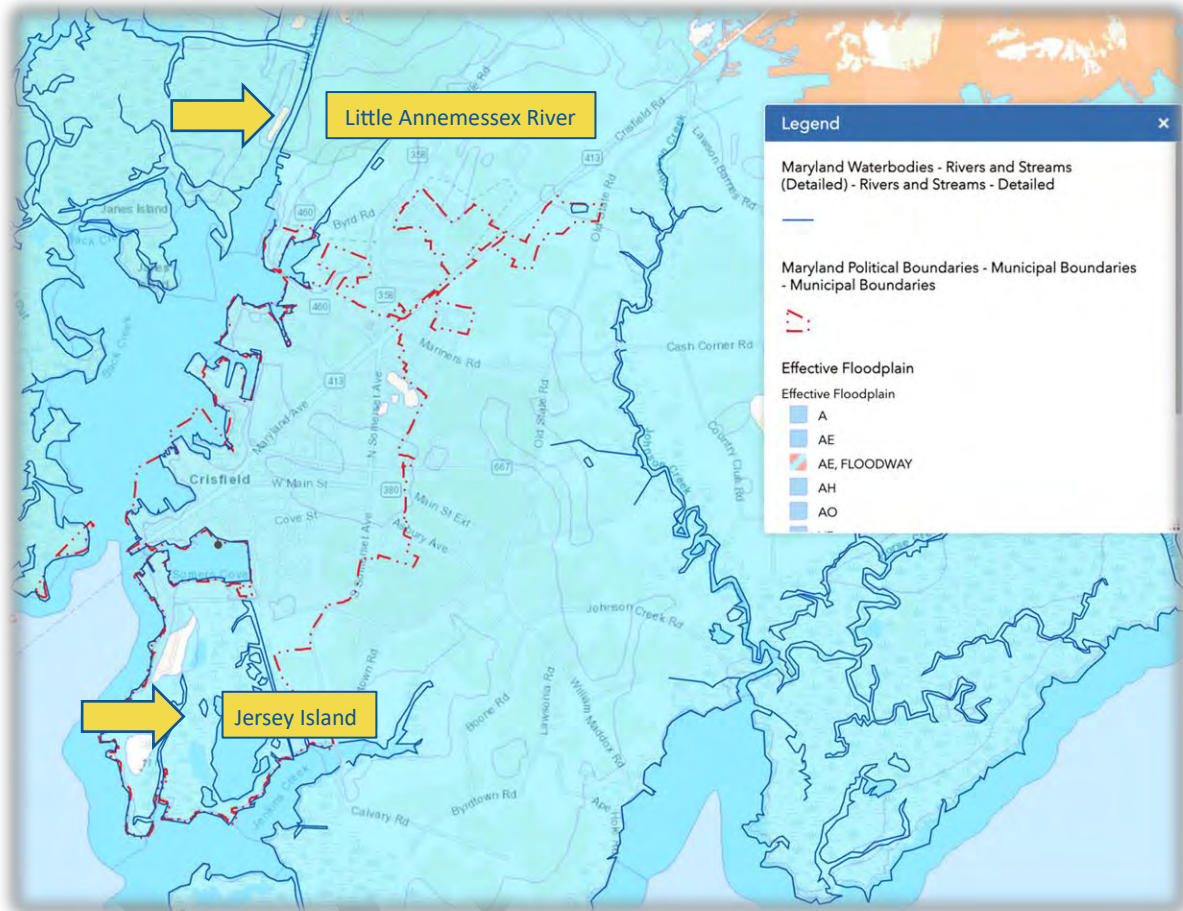


Figure 3-7: City of Crisfield, Little Annemessex River and Jersey Island

- Tidal wetlands on both the north and south of the City are important resources that protect the City against storm surge and excessive flooding. These lands are very close to the City center and their preservation helps protect water quality, wildlife habitat, and the overall environmental health for City residents.

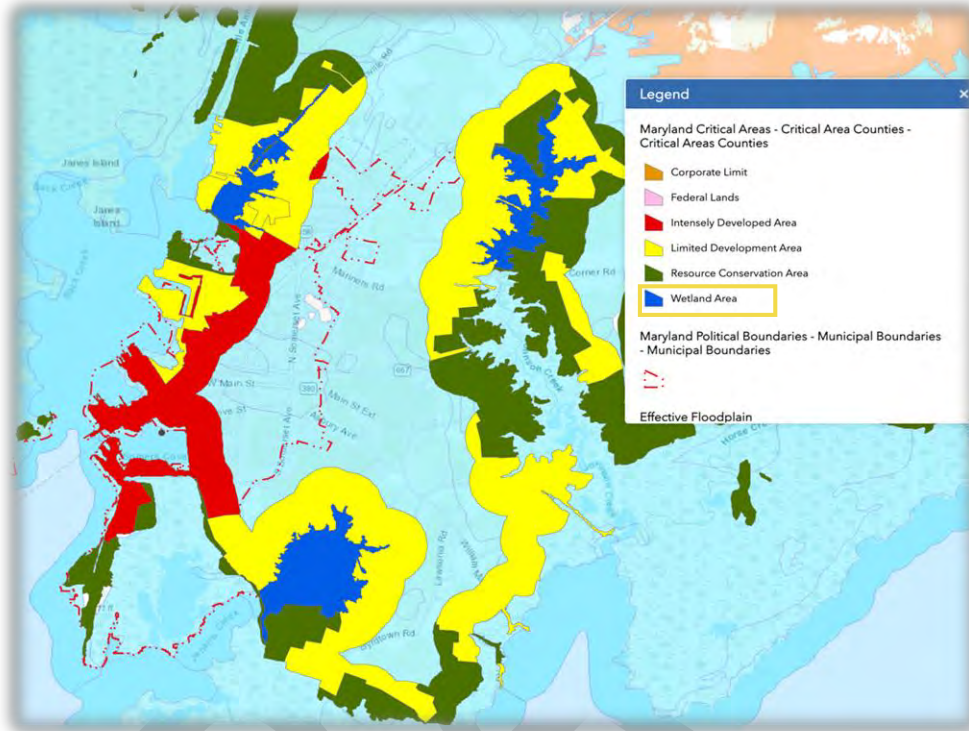


Figure 3-8: City of Crisfield, MD Critical Areas

- Except for small, isolated concentrations, urban development is largely confined to existing centers such as Crisfield. The central business district is located along Main Street. The other commercial concentrations are located at the intersection of Somerset Avenue and MD Route 413 and in the “downtown” area along MD Route 413.

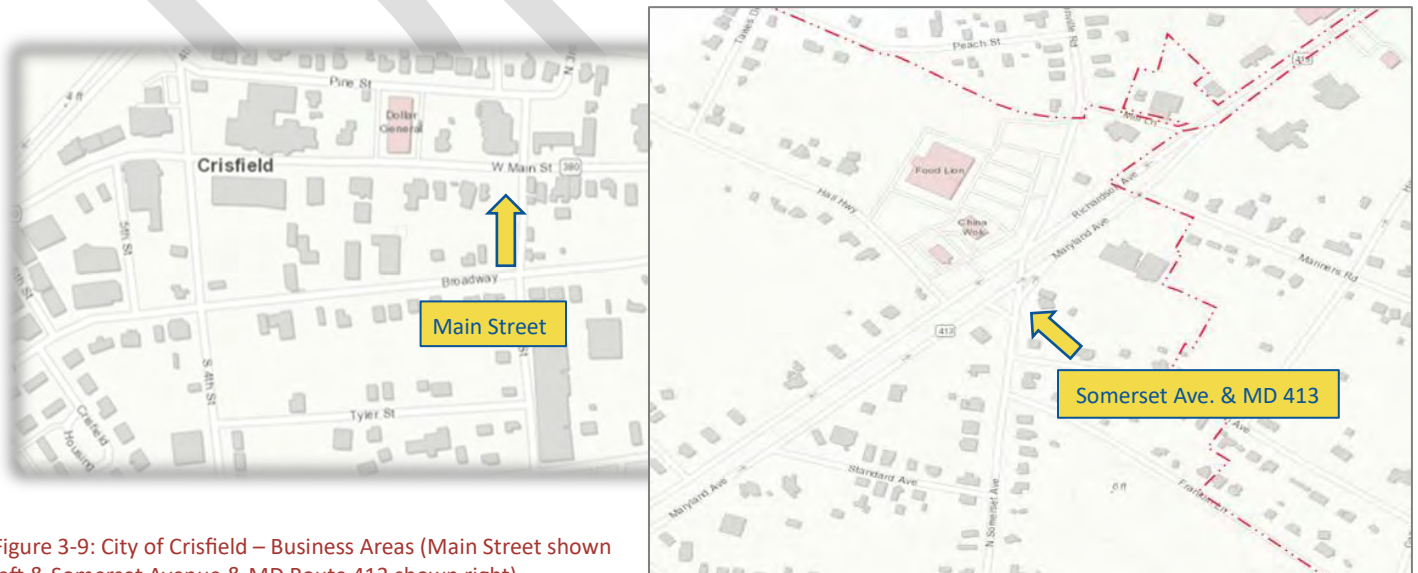


Figure 3-9: City of Crisfield – Business Areas (Main Street shown left & Somerset Avenue & MD Route 413 shown right)

- Most of the land outside of the City is either developed in a very low-density pattern accessible by a network of rural roads, or agricultural or open space use.

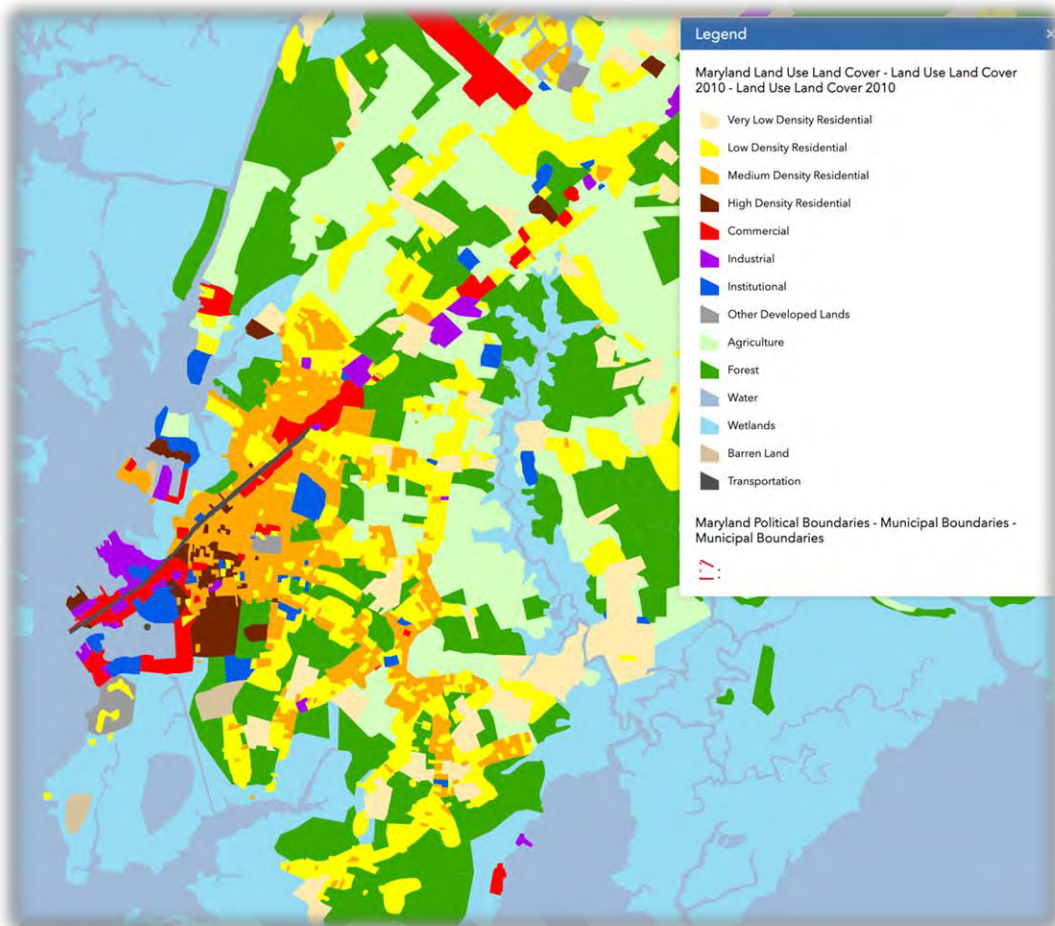


Figure 3-10: City of Crisfield, MD – Land Cover

- Somers Cove Marina is the prominent feature of the waterfront. Excluding the surface water, the marina comprises almost 50 acres of land area.



Photo Source: [www.somerscovemarina.com](http://www.somerscovemarina.com)

## **3.6 Proposed Annexation**

### **3.6.1 Town of Princess Anne**

According to the Town of Princess Anne, no annexations are planned due to various physical constraints. Infill and redevelopment are the Town's priorities.

### **3.6.2 City of Crisfield**

According to the City of Crisfield's Comprehensive Plan, Section 5.5 Annexation Plan, Crisfield's development capacity analysis indicates that the City has sufficient land to support future commercial and light industrial development and maintain the current floor area to population ratios. Although the City currently has no specific annexation plans it will consider annexing additional land for economic development purposes. All annexation will be done consistent with the City's annexation policies. These annexation policies are intended to ensure the extension of corporate boundaries permits the most efficient use of public utilities and services and that costs associated with capacity expansion are fairly allocated among those benefitting. The City's annexation policies are as follows:

- Annexed areas must be contiguous to the corporate limits and create a natural extension of the City's boundaries.
- Proposed annexation areas will be economically self-sufficient and will not result in larger municipal expenditures than anticipated revenues, which could indirectly burden existing city residents with the costs of services or facilities to support the area annexed.
- The costs of providing roads, utilities, parks, and other community services will be borne by those people gaining the most value from such facilities through income, profits, or participation.
- Specific conditions of annexation will be made legally binding in an executed annexation agreement. Such agreements will address, among other things, consistency with the goals, objectives and recommendations of this Plan, city zoning and landowner and city development expectations, responsibility for appropriate studies, and preliminary agreements concerning responsibilities for the cost of facilities and services provided by the City. These preliminary agreements may be further revised in a Developers Rights and Responsibility Agreement (DRRA).
- For annexations involving larger parcels of land, the City may require appropriate impact studies, including a fiscal impact study and an environmental impact assessment that addresses the potential impact of the proposed annexation on the environment of the site and surrounding area.
- If necessary, applicants for annexation underwrite the cost of completing all studies related to expanding capacity in existing public facilities and/or services.

In terms of water resources, the City of Crisfield determined that the City should consider sewer capacity limits before increasing service to areas outside the existing corporate area if it intends to fully utilize its existing development capacity. It also demonstrates that implementation of the SRP Master Plan will require additional sewer treatment capacity beyond that which can be achieved under the limits of the current NPDES permit. Implementation of the SRP Master Plan may also require added water supply.

"Plans for expanding Crisfield's water system include the area between Maryland Route 413, along Old State Road. Long range projections indicate expansion of the water service to the area north of Maryland Route 413,

extending to the Daughtery Road area and properties along the Jones Creek area.” Planned sewer projects include replacement sewer mains on 4th Street and Pine Street.<sup>1</sup>

### 3.7 Priority Funding Areas

Portions of both the Town of Princess Anne and the City of Crisfield contain Priority Funding Areas (PFA’s).

The **Priority Funding Areas** law builds on the foundation of planning visions which were adopted as Maryland policy through 1992 legislation (and updated in 2009). Funding for projects in municipalities, other existing communities, industrial areas and planned growth areas designated by counties receive priority for state funding over other projects. Priority Funding Areas coordinate state and local government efforts to support economic development and new growth.

The following areas qualify as Priority Funding Areas:

- every municipality, as they existed in 1997;
- areas inside the Washington Beltway and the Baltimore Beltway; and,
- areas already designated as enterprise zones, neighborhood revitalization areas, heritage areas and existing industrial land.

The 1997 planning law recognizes the important role of local governments in managing growth and determining the locations most suitable for state-funded projects. Counties may designate areas as Priority Funding Areas that meet guidelines for intended use, availability of plans for sewer and water systems and permitted residential density. Areas eligible for county designation include existing communities and areas where industrial or other economic development is desired. In addition, counties may designate areas planned for new residential communities which will be served by water and sewer systems and meet density standards.

Source: <https://planning.maryland.gov/Pages/OurProducts/pfamap.aspx>

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<sup>1</sup> [2007 City of Cambridge Comprehensive Plan with 2010 Amendments](#)

### 3.7.1 Priority Funding Areas and Flood Hazard Risk Areas

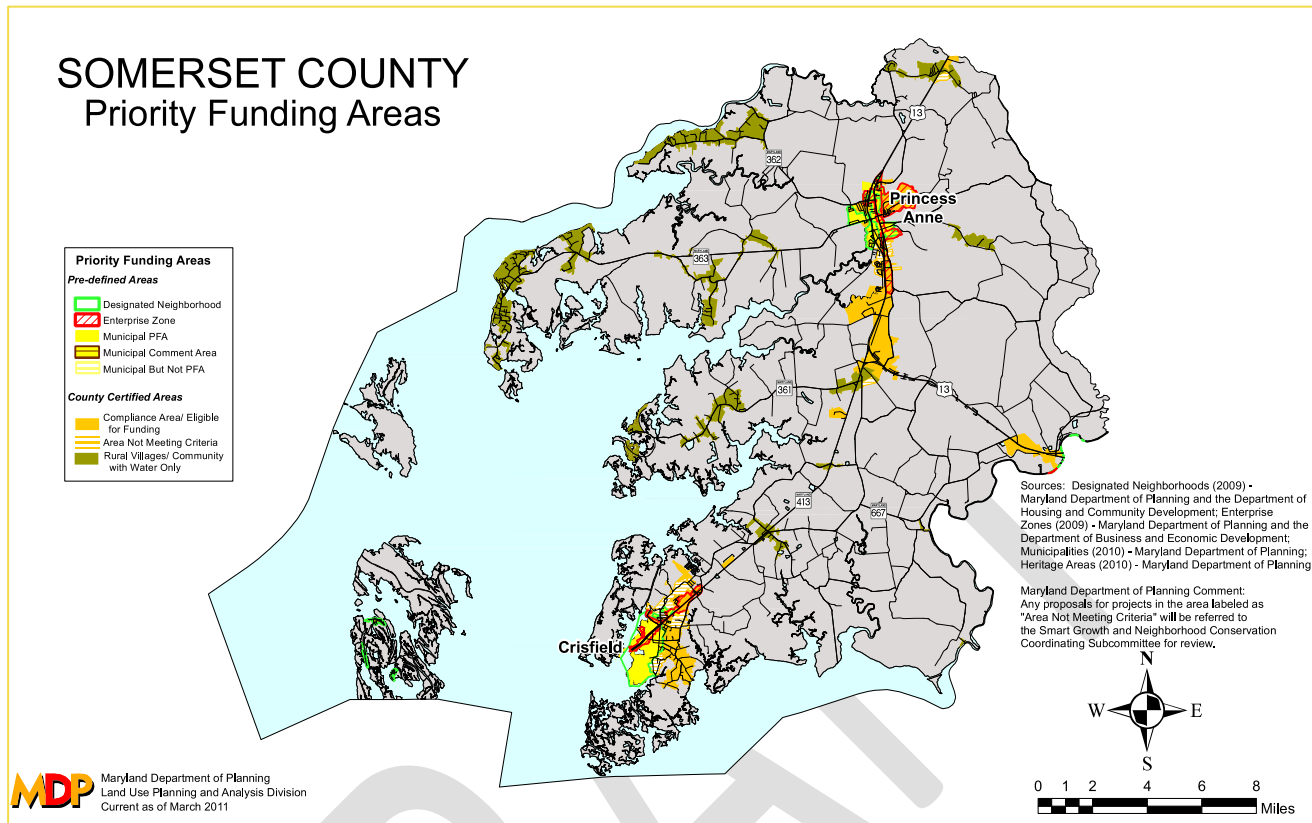
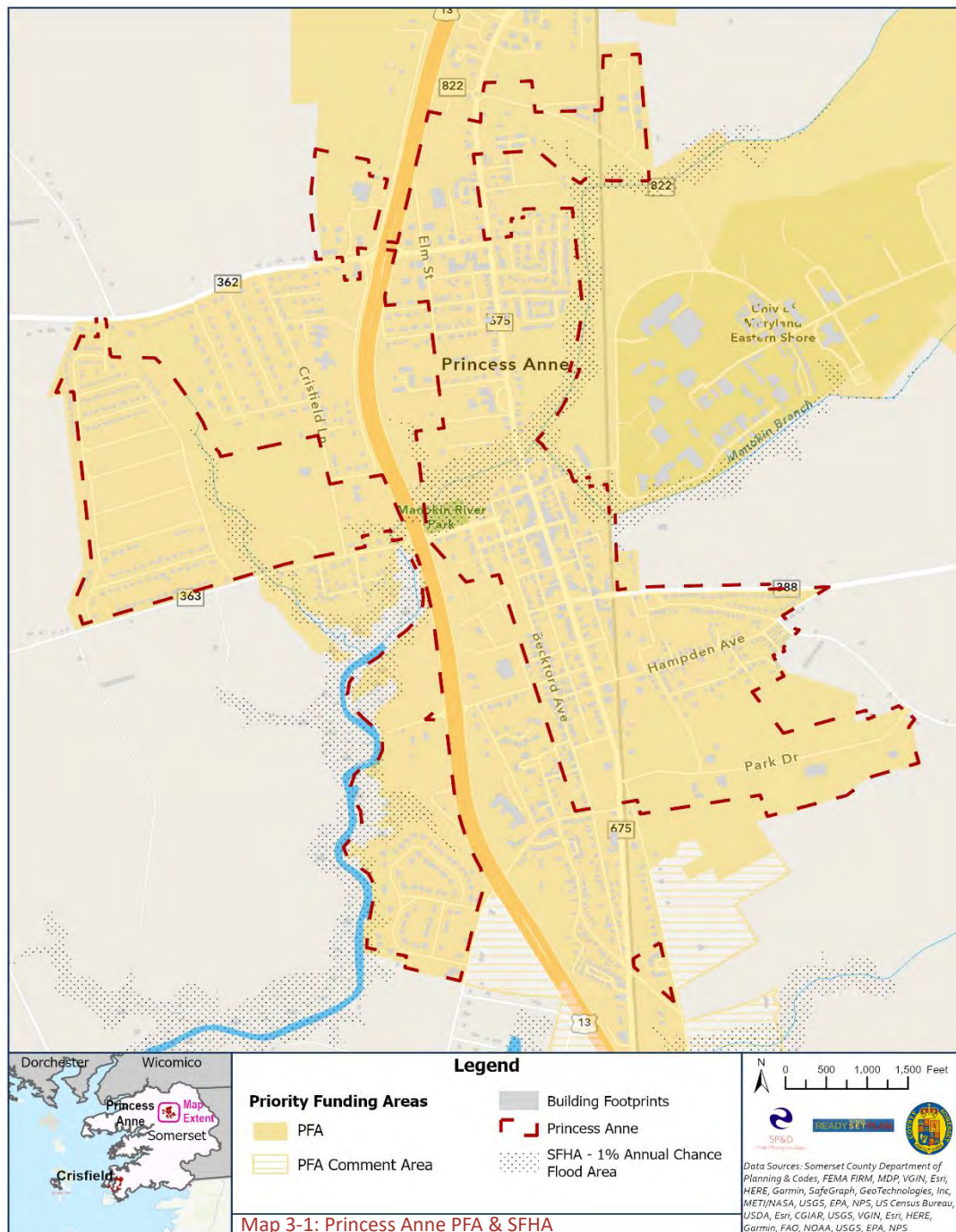
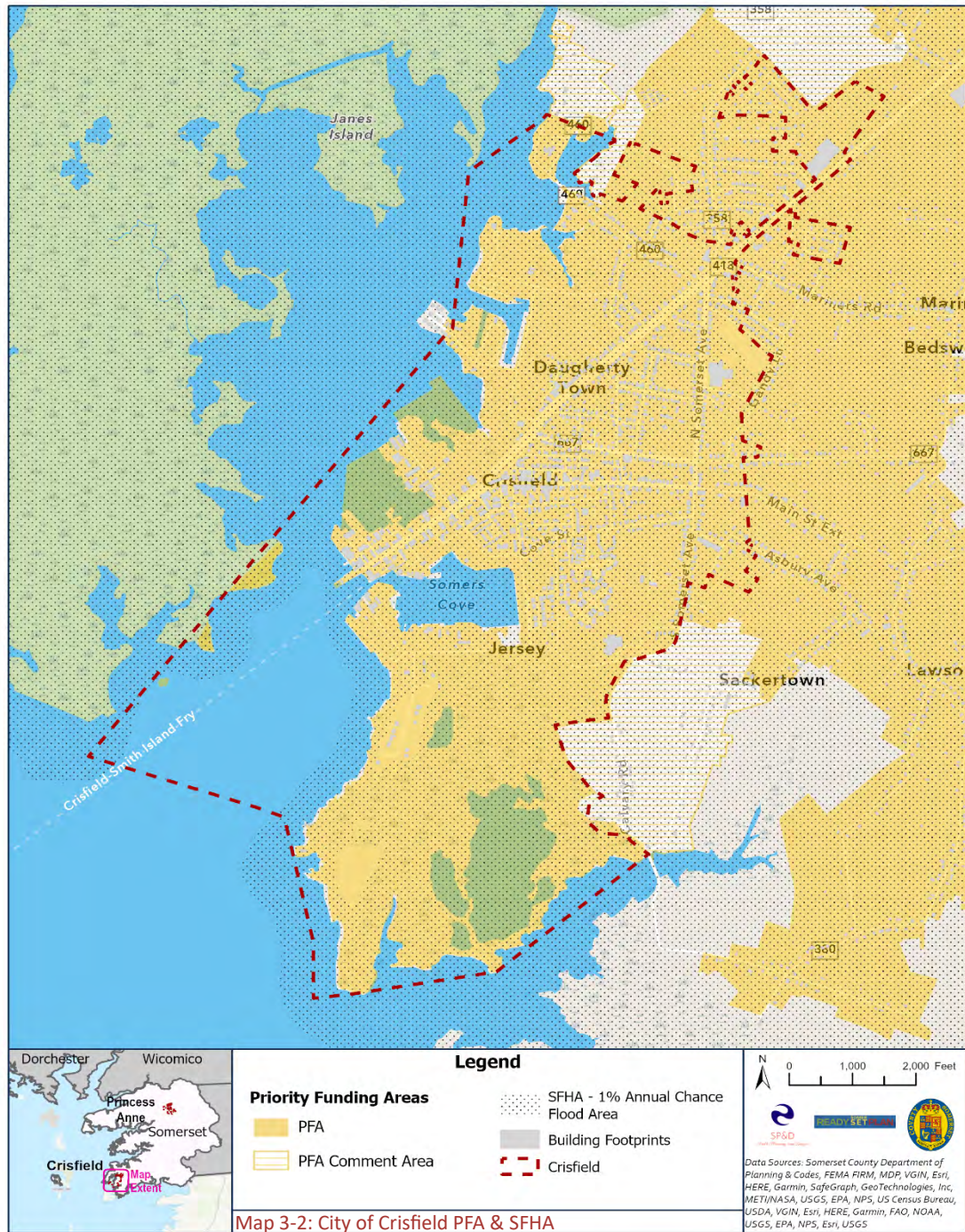


Figure 3-11: Somerset County Priority Funding Areas

In developing hazard maps, FEMA focuses primarily on identifying the 1% annual-chance floodplain (also known as the 100-year floodplain, Special Flood Hazard Area, or SFHA). As a result, FEMA maps the areas with a 1% annual chance of flooding. The SFHA designation is important because it is the basis for floodplain management regulations for communities across the country, and because it decides whether a structure is required to have flood insurance or not. As indicated on Map 3.1, the SFHA overlaps with the Priority Funding Area (PFA) within portions of the Town of Princess Anne.



As indicated on Map 3.2, the SFHA overlaps with the Priority Funding Area (PFA) within the City of Crisfield. Almost the entirety of the City is within the SFHA. Any new development, substantial improvement or redevelopment project should consider both the existing and future flood hazard risk. Both Somerset County and the City of Crisfield have a floodplain ordinance.



### 3.8 Infill, Redevelopment, and Revitalization

#### 3.8.1 Town of Princess Anne

Vacant parcels within the Town of Princess were identified using Maryland Department of Assessments and Taxes database. These parcels present opportunities for infill development.

**Table 3-3.**

Town of Princess Anne – Vacant Parcels	
Land Use Description	# of Parcels
Commercial- retail and wholesale services. Areas used primarily for the sale of products and services, including associated yards and parking areas.	35
Residential- includes low, medium, and high density residential	166
Total	201

*Source: Maryland Department of Planning – MdProperty View Somerset County 2018 Edition. Information contained in the Parcel dataset is current as of early June 2020. Data extracted September 2023.*

Redevelopment and revitalization to the downtown area since the adoption of the Town of Princess Anne Comprehensive Plan in 2009 includes:

- Demolition by Somerset County of the blighted courthouse annex which fronted on Somerset Avenue, between the historic Circuit Court and Washington Inn and Tavern buildings.
- Renovation of an older building at the corner of Somerset Avenue and Prince William Street by a private developer, Davis Strategic Development, as part of a public /private partnership with University of Maryland Eastern Shore.
- Continued renovations (resurfaced parking lot) to Somerset Choice Station, an abandoned gas station along Somerset Avenue that was fully renovated and is now owned by the Somerset County Historical Society.
- Downtown Princess Anne benefits from Department of Housing and Community Development (DHCD) grant funds that help support residential and commercial façade improvements. A recently awarded \$50,000 Community Legacy grant to Main Street Princess Anne will support façade improvements for four additional buildings along Somerset Avenue.
- A streetscape-storm drain project, supported by an \$85,000 DHCD Community Legacy grant, to improve access and drainage along Beckford Avenue and Williams Street. This area is adjacent to Princess Anne Elementary School and students walk this route daily to attend school. The area floods, with frequent standing water, and does not have a sufficient, safe, or ADA-compliant sidewalk system in place. The Somerset County Board of Education agreed to partner on this project and to extend safe access from the town sidewalk onto the elementary school property. This project successfully corrected all drainage and sidewalk deficiencies.

The Somerset County Economic Development Commission updated the Somerset County/Princess Anne Enterprise Zone to include additional commercial enterprises. This update expanded the boundary from 1,206 acres to 1,320 acres. In addition, Princess Anne’s Main Street is designated as Maryland State Main Street, and National Main Street. In fact, reaccreditation as a National Main Street occurred in 2021.

### 3.8.2 City of Crisfield

In January of 2020, a [feasibility study](#) was completed for the City of Crisfield for the downtown area extending along West Main Street between 6<sup>th</sup> Street on the west and the Town Hall Building on the east. This feasibility study resulted in the identification of both high and low priority properties for infill, redevelopment, and revitalization.

High priority properties (shown in **red** on Figure 3-12) may comprise one or more of the following:

- Underutilization (vacancies, large areas of unused land, etc.)
- Poor condition (structural failures, over grown landscaping, etc.)
- Historical or functional significance (high quality construction, large buildings, etc.)
- Inappropriate program for 'Main Street' district (warehouses, etc.)
- High potential for improvements (small improvements will make a large impact)
- Potential to contribute to improving the overall downtown development.

Low priority properties (shown in **yellow** on Figure 3-12) may comprise one or more of the following:

- Good condition
- Few vacancies
- Contributes to downtown development.

**Infill** – the development of vacant parcels within previously built areas.

**Redevelopment** – building or rebuilding on parcels that have been previously developed, with redevelopment aiming for a higher and better use of the area for the community.

**Revitalization** – instilling new life and vitality into a community through infill and redevelopment or other activities, such as building reuse and renovations, façade improvements, beautification efforts, small business loans, and special events.

Source: Reinvest Maryland

<https://apps.planning.maryland.gov/reinvestmd/>

In addition, a density analysis was included in the feasibility study to determine where new structures (shown in **orange** on Figure 3-13) should be provided, and which existing structures should be retained.

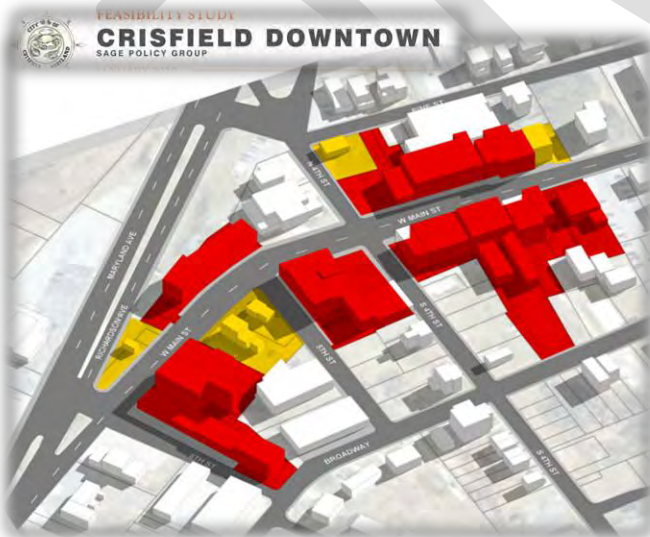


Figure 3-12: City of Crisfield Feasibility Study- Priority Properties



Figure 3-13: City of Crisfield Feasibility Study- Density Analysis

## Chapter 3: County & Municipal Plan Integration Goals & Implementation Strategies

### Goal 3.1

Encourage continued plan integration between Somerset County, Town of Princess Anne, and the City of Crisfield to ensure plan consistency and harmony between local planning mechanisms and community services.

#### Strategies

- A. Review and integrate the most recent versions of the Somerset County Comprehensive Plan and other related planning documents into the update of the 2009 Town of Princess Anne Comprehensive Plan to ensure consistency.
- B. Review and integrate the most recent versions of the Somerset County Comprehensive Plan and other related planning documents into the update of the 2007 City of Crisfield Comprehensive Plan to ensure consistency.
- C. Hold annual plan coordination meetings with municipal representatives, MDP, and key county personnel to discuss demographic data, land use policies, development trends, water and sewer needs, and opportunities moving forward that are consistent with County and municipal comprehensive plans.
- D. Hold a series of strategic planning meetings between the Town of Princess Anne, the City of Crisfield, and the Somerset County Sanitary District Commission to develop strategic actions that will work to address the integrity of water, sewer, and stormwater systems. Problems to address include corrosion, cracking, settling, and damage from tree roots.

### Goal 3.2

Offer infill incentive program to reinvigorate existing historic areas and support new mixed-use development that would promote the historic identity of the area.

#### Strategies

- A. Identify area neighborhoods that contain high vacancy rate and/or large number of older buildings that would benefit. This includes the Town of Princess Anne's downtown, where opportunities exist for mixed-use development with first floor commercial and upper story residential use.
- B. Promote infill and redevelopment with mixed use zoning to increase the number of housing choices and affordability within the municipal limits of Princess Anne. Offer reduced permit fee in targeted infill development areas.
- C. In collaboration with County and municipal key-staff and stakeholders, review and propose adjustments to the Town of Princess Anne's municipal boundary, including anomalies, as appropriate.

### Goal 3.3

Evaluate Priority Funding Areas in the fringe areas of the County adjacent to municipal boundaries.

#### Strategies

- A. Review municipal PFA's in relation to hazard risk and natural resource protection. Consider clearly identifying hazard risk areas and critical areas overlaid with the PFA's during discussion with Somerset County and State agencies. Determine areas where the PFA could be expanded to compensate for losses due to hazard risk, natural resource preservation, and municipal growth areas.
- B. Meet with Maryland Department of Planning representatives to review current municipal and county PFA's and opportunities for revisions.

- 
- C. Review Tier Mapping to adjust fringe areas (i.e., unincorporated areas of the County adjacent to municipal boundaries).

DRAFT



## CHAPTER 4 ECONOMIC VITALITY

### PUBLIC SURVEY RESULTS



#### (+) IMPACTS

The following types of economic development were identified as having a potential **very positive** impact on Somerset County by respondents:

- 1.) Restaurants
- 2.) Entertainment
- 3.) Retail stores
- 4.) Personal services (e.g., salon, bank, law firm)
- 5.) Hotels



#### (-) IMPACTS

The following types of economic development were identified as having a potential **very negative** impact on Somerset County by respondents:

- 1.) Self Storage
- 2.) Warehousing
- 3.) Industrial Parks
- 4.) Suburban Strip Commercial Centers
- 5.) Office/Business Parks

56%

#### DINING

Over half of survey participants (55.8%) believe that new restaurants would have a **very positive** impact on the County's economic vitality.

Results indicate a desire for a wider range of choices, including more culturally diverse cuisines.

## ISSUES AND OPPORTUNITIES

**Issues** identified: Overall commercial and industrial development is lacking. New business attraction is low. Lack of strong working class population to support new businesses.

**Opportunities** identified: Variety of business types, particularly new restaurants, are welcome in the County. Vacant buildings can be repurposed to serve the community. Expand reliable high speed internet for businesses. Availability of land for future development. Potential economic growth industries include aquaculture and cannabis. Continue developing tourism opportunities for travelers.

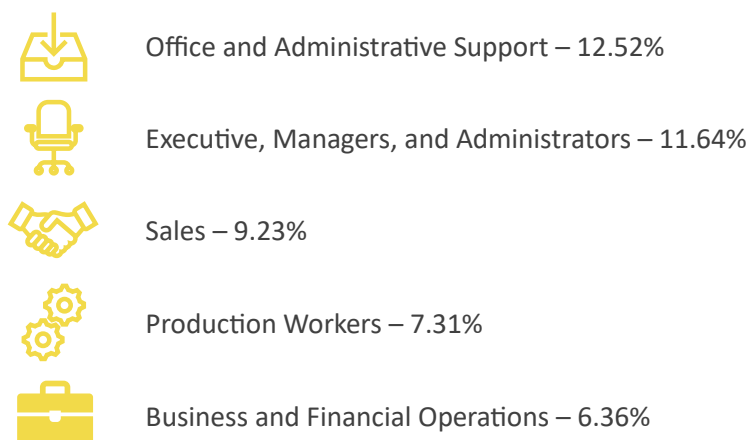
## Chapter 4: Economic Vitality

Economic vitality is the strength, energy, and continuance of Somerset County's wealth and resources. Economic development refers to a program, a group of policies, or activity that seeks to improve the economic well-being and quality of life. The Somerset County Economic Development Commission (SCEDC) was established by the Somerset County Commissioners by resolution on September 30, 1980, to encourage and promote economic vitality and development for the betterment of all County citizens.

### 4.1 Economic Demographics – Labor Force

Somerset County has a labor force of 8,868 people, with an unemployment rate of 6.4%.

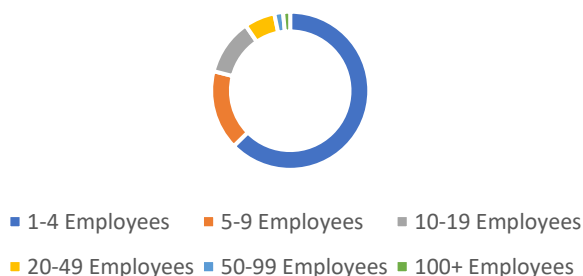
The largest job count percentages by occupation include:



The work distribution of total employees in Somerset County is:



Number of employees at Somerset County businesses are:



Economic Demographics Source: <https://business.maryland.gov/> Data – Applied Geographic Solutions and GIS Planning 2022, TaxFoundation.Org 2021 and GIS Planning research.

The **Somerset County Economic Development Commission's** goal is to increase the economic viability and vitality of the County's business community by creating a positive vision for economic growth. This will be accomplished by attracting new businesses to the county through a dynamic marketing program with business incentives, assisting those businesses already in Somerset County to grow and expand through the various financing programs and workforce development initiatives that are available through the state and local resources, and by encouraging the growth of tourism related activities that will take advantage of the County's water and land terrain natural features.

By developing a concerted effort to work in all three areas of economic development, the Somerset County Economic Development Commission will be able to help improve the employment, personal income, tax base, and quality of life for all the people in Somerset County.

Source: <https://somersectountyedc.org/somerset-county-edcoverview.php>

## 4.2 Strategic Economic Opportunities Analysis

Somerset County Economic Development commissioned Sage Policy Group and Partners to develop a strategic economic opportunities analysis, published in June 2020. The goal of the analysis was to supply policymakers and other stakeholders' guidance and to position the County for more broadly shared prosperity, greater visitation, livelier streetscapes, and fiscal sustainability<sup>1</sup>. The strategic economic opportunities analysis was Part 1 of 3 within the report. One of the key recommendations from Part 1 of the report included focusing particular attention on several promising industries including:

- retirement living and healthcare
- aquaculture, agriculture, food processing, and food distribution
- skilled trades, including those related to construction and manufacturing
- alternative energies
- tourism

As part of the comprehensive plan update process, these promising industries have been evaluated in relation to land use and existing zoning. This examination has assisted in the identification of goals, recommendations, and changes to future land use. Aligning this chapter of the comprehensive plan with economic development planning efforts will advance economic development programs and policies and improve the economic vitality of Somerset County.

### 4.2.1 Existing Land Use and Zoning Overview

Somerset County land use and zoning involve the regulation of use and development of property. The unincorporated area of Somerset County is divided into zoning districts.

Base Zoning Districts include:

- Agricultural Residential (AR)
- Conservation (CO)
- Low-Density Residential (R-1)
- Medium-Density Residential (R-2)
- High-Density Residential (R-3)
- Maritime-Residential-Commercial (MRC)
- Mixed-Use Village (C-1)
- General Commercial (C-2)
- Light Industrial (I-1)
- General Industrial (I-2)

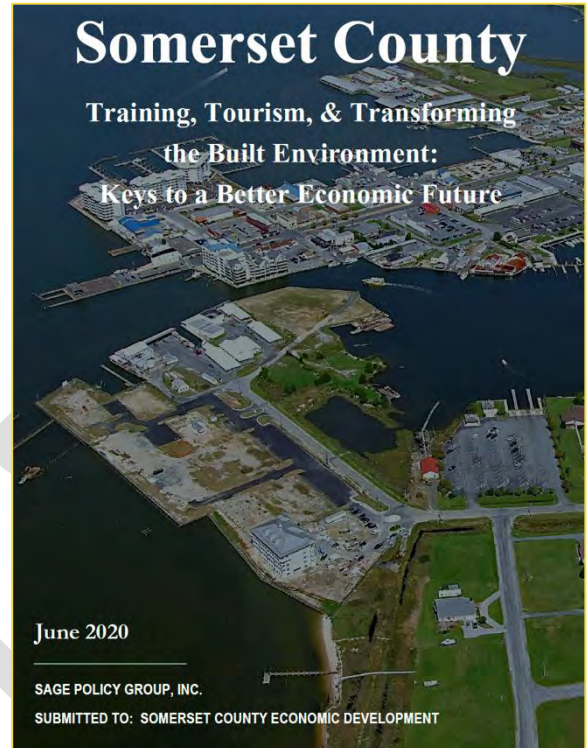


Figure 4-1: Cover photo from the strategic opportunities analysis, Sage Policy Group, Inc., June 2020

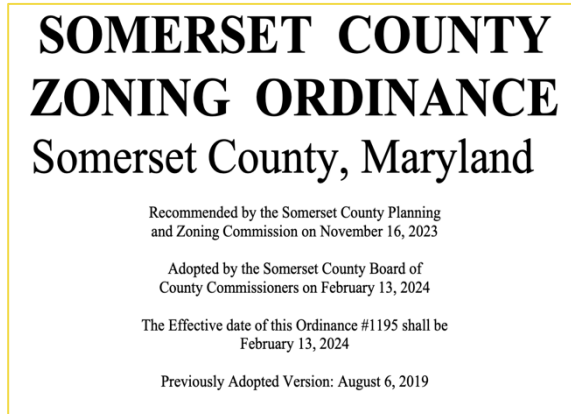


Figure 4-2: Cover photo from the [2024 Somerset County Zoning Ordinance](#)

<sup>1</sup> Sage Policy Group, [Somerset County Training, Tourism, & Transforming the Built Environment](#): A Key to a Better Economic Future, June 2020.

Floating Zones include:

- Planned Unit Development Floating Zone (PUD)
- Utility Scale Solar Energy Facility Floating Zone (SEF)

Overlay Zoning Districts include:

- Airport Overlay (AP)
- Overlay Commercial (O-C)
- Critical Area Overlay (CA-1)

Growth Allocation Floating District (GA) - The Growth Allocation Floating Zone is **not mapped** but is designated for use in areas classified as Resource Conservation Areas (RCA) and/or Limited Development Areas (LDA) within the Critical Area Overlay District (CA-1). Only projects which have been approved by the County Commissioners for award of the Critical Area Growth Allocation are eligible for the floating zone district.

#### 4.2.2 Retirement Living and Healthcare Existing Land Use and Zoning

Retirement living is a residential land use, however a **Continuing Care Retirement Community** with a minimum lot area of 2 acres, is considered public or institutional land use within the 2019 *Somerset County Zoning Ordinance*.

A continuing care retirement community is considered an establishment that primarily engages in providing a range of residential and personal care services with on-site nursing care facilities for:

- The elderly and other persons who are unable to fully care for themselves
- The elderly and other persons who do not desire to live independently

Individuals live in a variety of residential settings with meals, housekeeping, social, leisure, and other services available to assist residents in daily living. Assisted living facilities with on-site nursing care facilities are included<sup>2</sup>.

Zoning districts that allow for Continuing Care Retirement Community include R-3, C-1, C-2, I-1, I-2, and the Overlay Commercial District (O-C). Special exception use may be issued in zoning districts R-1 and R-2 (Approved by Board of Zoning Appeals), typically for Group Domiciliary Home Care, which must have adequate staff supervision for the number and type of residents.

Utilizing Maryland Department of Planning's property view database and Somerset County's zoning data, parcels intersecting with zoning districts R-3, C-1, C-2, I-1, I-2, and the Overlay Commercial District (O-C) were extrapolated. A total of 620 developed parcels are located within these selected zoning districts, while 477 parcels are vacant. These parcels are predominately located along transportation corridors, US Route 13 and MD Route 413, see Map 4-1.

#### Retirement Living & Healthcare

The confluence of waterfront, lower cost of living, McCready Health and the intellectual center that is UMES represents reason to believe that Somerset County could emerge as a significant destination for retirees. There is of course already a population of retirees, but the study team believes that there is room for additional condominium development suitable for retirees, including perhaps along Main Street in Princess Anne and the waterfront in Crisfield. This development would expand the size of the real property tax base, create more demand for local goods and services, support more local employment, create a larger pool of citizens able to volunteer for local boards, stabilize population, and perhaps create opportunities to improve the quality and character of the local housing stock.

*Source: Somerset County Training, Tourism, & Transforming the Built Environment: Keys to a Better Economic Future, Sage Policy Group, June 2020*

<sup>2</sup> 2019 Somerset County Zoning Ordinance, Definition page 17-4.

**Table 4-1.**

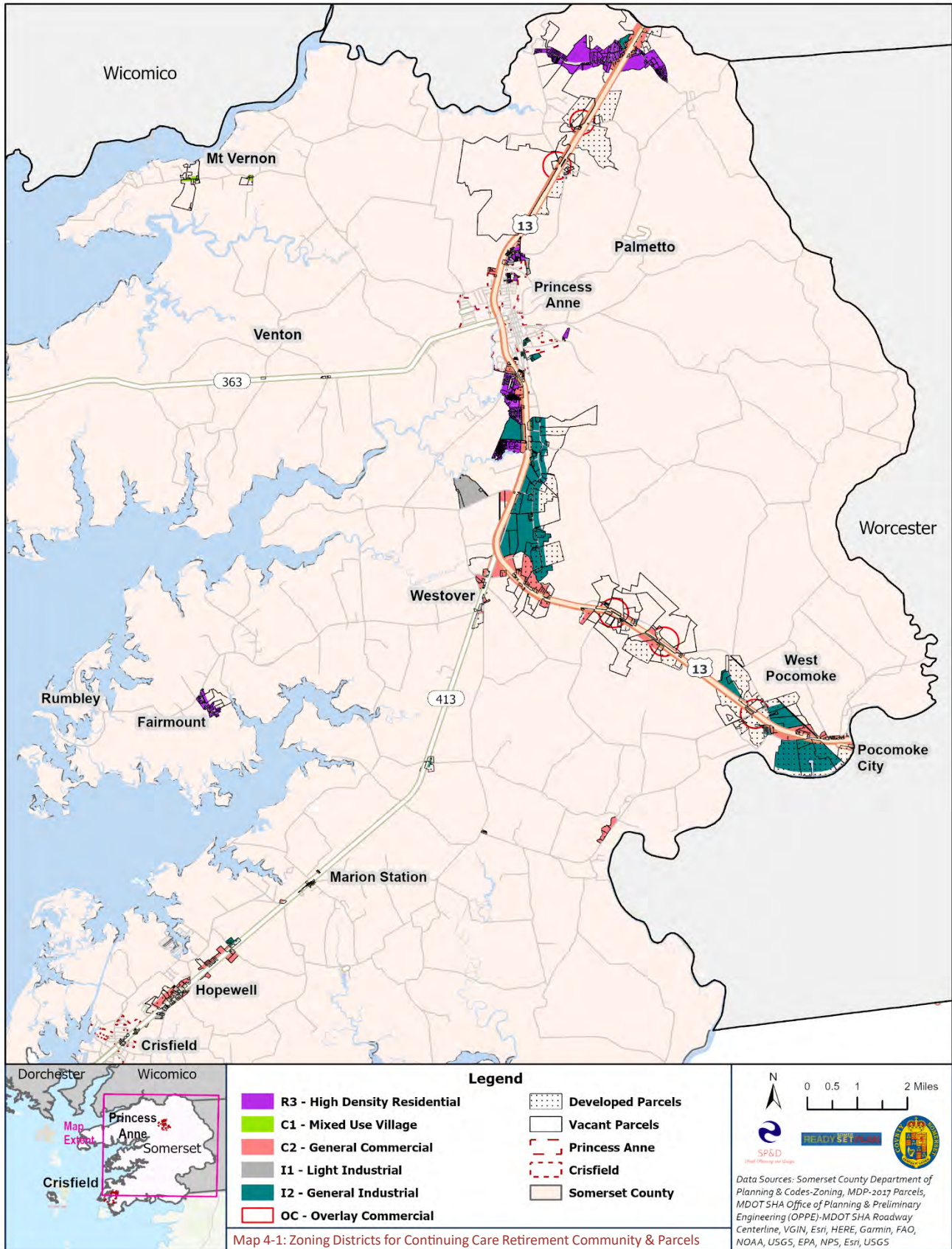
<b>Zoning Districts for Continuing Care Retirement Community and Parcels</b>		
<b>Zoning</b>	<b># of Parcels</b>	
	<b>Developed</b>	<b>Vacant</b>
R3 - High Density Residential	283	191
C1 - Mixed Use Village	25	13
C2 - General Commercial	190	165
I1 - Light Industrial	13	12
I2 - General Industrial	61	48
OC - Overlay Commercial	48	48
Total	620	477

Source: MdProperty View – Somerset County. June 2020. Somerset County Department of Technical and Community Services – Zoning Data.

The following facilities considered part of the Continuing Care Retirement Community are not located in the zoning districts R-3, C-1, C-2, I-1, I-2, and the Overlay Commercial District (O-C):

- Manokin Nursing and Rehab, Manokin Manor, and The Gables at Manokin
  - These facilities are located on a single parcel and zoned R2 Medium Density Residential

Alice B. Tawes Nursing & Rehabilitation Center and Chesapeake Cove Assisted Living are located in the City of Crisfield. In addition, several continuing care retirement facilities are located just outside Somerset County.



#### 4.2.3 Aquaculture, Agriculture, Food Processing, and Food Distribution Existing Land Use and Zoning

Aquaculture is defined as the farming or culturing of finfish, shellfish, other aquatic plants, or animals, or both, in lakes, streams, inlets, estuaries, and other natural or artificial water bodies or impoundments. Activities include the hatching, cultivating, planting, feeding, raising, and harvesting of aquatic plants and animals, and the maintenance and construction of necessary equipment, buildings, and growing areas. Cultivation methods include but are not limited to seed or larvae development and grow-out facilities, fish pens, shellfish rafts, racks and long lines, seaweed floats, and the culture of clams and oysters on tidelands and sub-tidal areas. For this definition, related activities such as wholesale and retail sales, processing and product storage facilities are not considered aquacultural practices<sup>3</sup>.

Aquaculture is considered an agricultural land use, however aquaculture zoning referred to fisheries activities within the *2019 Somerset County Zoning Ordinance*. Zoning districts that allow aquaculture-fisheries activities include AR, CO, MRC, C-1, C-2, I-1, I-2, AP, and the Overlay Commercial District (O-C).

Notably, Aquaculture Research Centers are permitted in all zoning districts except for MRC, which may allow for a special exception if approved by the Board of Zoning Appeals.

#### Aquaculture, Agriculture, Food processing, and Food Distribution

Somerset County is already home to a number of significant food distribution operations. It is also home to several fishing operations. All of these activities are important and bring wealth into the community. It also helps the community preserve its history and rural character.

The study team concludes that aquaculture represents a potentially important complement to ongoing food production activities. Over the past half century, the per capita consumption of fish in the United States has grown by almost half (from 10.3 pounds per capita per year to 14.9 pounds). This growth has been entirely driven by fresh and frozen seafood. While consumption of canned and cured fish and seafood has declined over time, consumption of fresh and frozen seafood has nearly doubled over the past half century, increasing at an average annual rate of 0.7 percent.

The growth in U.S. fish consumption has resulted in an enormous demand for imported fish and seafood. In 2016, the value of domestically harvested fish and seafood was \$5.3 billion; the value of imported fresh and frozen fish and shellfish was \$17.3 billion. Over the past two decades imported fish and shellfish have dominated. The value of the domestic harvest, exports, and aquaculture has been little changed in this period.

*Source: Somerset County Training, Tourism, & Transforming the Built Environment: Keys to a Better Economic Future, Sage Policy Group, June 2020*

<sup>3</sup> 2019 Somerset County Zoning Ordinance, Definition page 17-3.

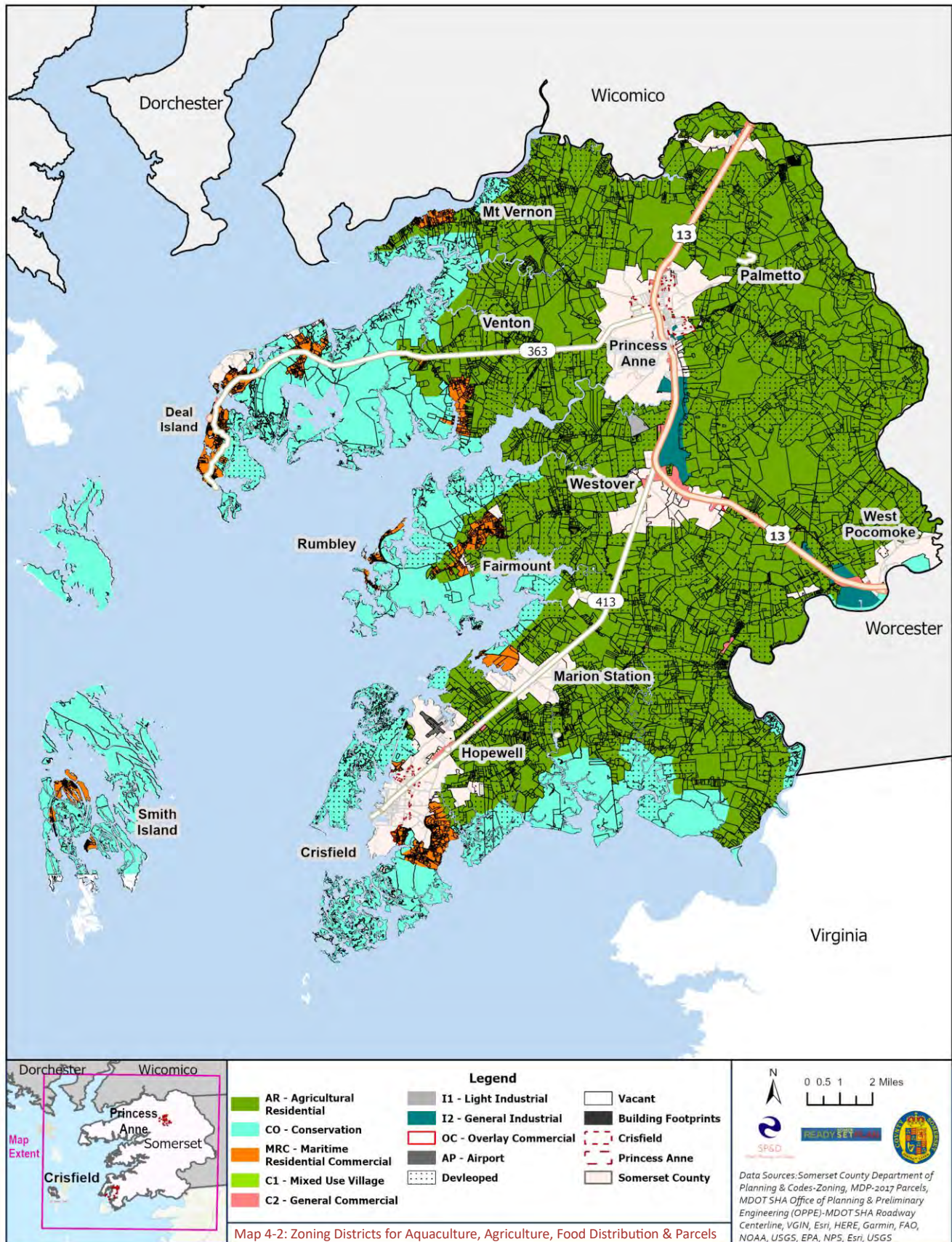
Utilizing Maryland Department of Planning's property view database and Somerset County's zoning data, parcels intersecting with zoning districts AR, CO, MRC, C-1, C-2, I-1, I-2, AP, and the Overlay Commercial District (O-C) were extrapolated. A total of 4,978 developed parcels are located within these selected zoning districts, while 4,702 parcels are vacant.

**Table 4-2.**

<b>Zoning Districts for Aquaculture, Agriculture, Food processing, and Food Distribution and Parcels</b>		
<b>Zoning</b>	<b># of Parcels</b>	
	<b>Developed</b>	<b>Vacant</b>
AR - Agricultural Residential	2,866	3,018
CO - Conservation	106	313
MRC - Maritime Residential Commercial	1,668	1,080
C1 - Mixed Use Village	25	13
C2 - General Commercial	190	165
I1 - Light Industrial	13	12
I2 - General Industrial	61	48
OC - Overlay Commercial	48	48
AP - Airport	1	5
<b>Total</b>	<b>4,978</b>	<b>4,702</b>

*Source: MdProperty View – Somerset County. June 2020. Somerset County Department of Technical and Community Services – Zoning Data.*

As shown on Map 4-2, the County is predominantly zoned for Agricultural Residential comprising a total of 5,884 parcels. More than half of the parcels zoned for Agricultural Residential are vacant.



**4.2.4 Skilled Trades, those related to Construction and Manufacturing Existing Land Use and Zoning**

Industrial land use including construction and manufacturing include both the Light Industrial District (I-1) and the General Industrial District (I-2).

**Light Industrial District (I-1)** - To contain industrial uses, which have limited effects upon surrounding land use. Uses permitted in this district include those related to fabricating, warehousing, and wholesale distributing without obnoxious characteristics. No use is to be permitted which will create offensive noise, vibration, dust, heat, smoke, odor, glare, or other objectionable influences. To also provide for selected commercial uses<sup>4</sup>.

**General Industrial District (I-2)** - In this district are permitted those manufacturing, processing, and storage uses which would be separated from other uses by reasons of characteristics, which may harmfully affect other uses. The exclusion of other uses is intended to promote the economic welfare of the County by reserving especially suited sites for industry and by controlling the mingling of incompatible uses. To also provide for selected commercial uses<sup>5</sup>.

In addition to I-1, and I-2, various types of construction and manufacturing activities are permitted in other zoning districts as specified in the *2019 Somerset County Zoning Ordinance*. These typically include C-1, C-2, O-C, and AP.

Utilizing Maryland Department of Planning’s property view database and Somerset County’s zoning data, parcels intersecting with zoning districts I-1 and I-2 were extrapolated. A total of 74 developed parcels are located within these selected zoning districts, while 67 parcels are vacant.

**Skilled Trades, those related to Construction and Manufacturing**

This is all about training. Both industries suffer from a scarcity of available workers. Many younger workers have eschewed the skilled trades, believing that the path to success is a college education. For many people, it is. However, there continues to be significant demand for electricians, HVAC professionals, pipefitters, welders, machinists, and others. The study team believes that a concerted effort to leverage the Somerset County Technical High School and other secondary schools into a trained, can-do workforce focused on construction, manufacturing, logistics and other technical fields could translate into stepped up firm recruitment, bulked up entrepreneurship, and the creation of scores of living wage positions. One of the keys is to ensure a ready supply of industrially zoned land in the County land that is marketable to manufacturers and other industrial players.

*Source: Somerset County Training, Tourism, & Transforming the Built Environment: Keys to a Better Economic Future, Sage Policy Group, June 2020*

**Table 4-3.**

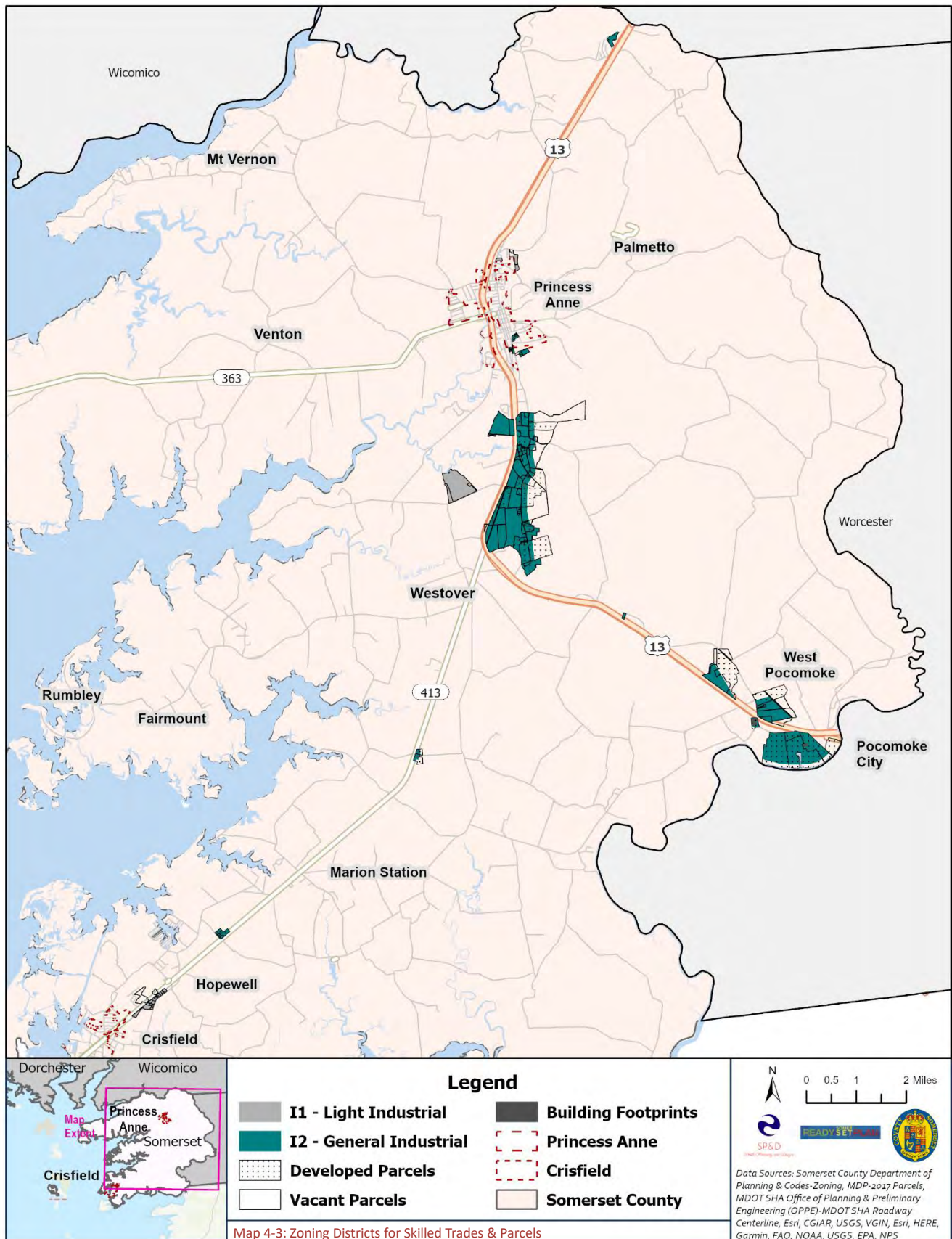
Zoning Districts for Skilled Trades and Parcels		
Zoning	# of Parcels	
	Developed	Vacant
I1 - Light Industrial	13	12
I2 - General Industrial	61	55
Total	74	67

*Source: MdProperty View – Somerset County. June 2020. Somerset County Department of Technical and Community Services – Zoning Data.*

The vacant parcel zoned I-2 Light Industrial on Revells Neck Road was identified by the Technical Committee as an opportunity for a cannabis facility, which could accommodate growing and processing of cannabis products.

<sup>4</sup> 2019 Somerset County Zoning Ordinance, Definition page 5-2.

<sup>5</sup> Ibid 4.



#### 4.2.5 Alternative Energies

Alternative energy facilities are defined in the *2024 Somerset County Zoning Ordinance* as facilities that generate electricity produced by solar, wind, biomass, hydropower, or similar renewable resources. Utility scale solar energy facilities and wind energy systems (as a principal use) are both included under industrial use. Utility scale solar energy facilities are permitted within zoning districts AR and I-2. While wind energy systems (as a principal use) are not permitted in any of the zoning districts.

The Utility Scale Solar Energy Facility Floating Zone (SEF) allows for the orderly development of utility scale solar energy facilities typically generating more than two (2) megawatts in electricity (AC) that are appropriately sited and sized. Furthermore, it is intended that utility scale solar energy facilities are not placed on prime agricultural lands, are aesthetically attractive, are placed so as to protect the commercial viability of the U.S. Route 13 and M.D. Route 413 corridors and are compatible with the surrounding neighborhood. Chapter 11 was added as part of this plan update. This chapter identified Somerset County's Priority Preservation Area (PPA.) The Utility Scale Solar Energy Facility Floating Zone (SEF) is not permitted within the PPA.

In addition, the following are included under accessory use:

- Small Wind Energy System, as an accessory use. This use is permitted within zoning districts AR, R-1, R-2, R-3, and MRC. Definitions for small wind energy systems include:
  - Off Grid System: A Small Wind Energy System that is not connected to the main power grid with the capability of transporting energy back to a commercial power provider.
  - Small Wind Energy System: A single towered wind energy conversion system that is used to generate electricity and which has a total height of one-hundred sixty (160) feet or less. The equipment includes, but is not limited to any base, blade, foundation, generator, nacelle, rotor, tower, transformer, vane, wire, inverter, batteries, guy wire or other component used in the system.
  - Wind Energy System Owner: The individual or ownership entity that owns, or intends to own, the real property upon which a Small Wind Energy System will be operated.
  - Wind Generator: The blades and associated mechanical and electrical conversion components.
  - Wind Tower: The monopole, freestanding or guyed structure that supports a wind generator.
- Small Solar Energy System, as an accessory to a residential use and generating no more than 999kv of electricity. Detached solar energy systems must be visually shielded from public rights of way and occupied dwellings on adjacent lots. This use is permitted within zoning districts AR, CO, R-1, R-2, R-3, and MRC.
- Medium Solar Energy System, as an accessory to a commercial or industrial use, generating no more than 2 MW of electricity, and not connected to the grid. Detached solar energy systems must be visually

#### Alternative Energies

Wind farms, solar farms, and other forms of alternative energy are often land intensive. Somerset County is home to plentiful land that could be used to house solar arrays, which are combinations of several solar panels. Whether solar or wind farms, these facilities would need to be maintained, creating additional demand for Somerset County's technical workforce.

Part of the motivation behind this recommendation is that Maryland is among the nation's most aggressive states in terms of obligating itself to move expeditiously toward the use of renewable energy during the decades ahead. Maryland's legislature recently passed the Clean Energy Jobs Act (May 29, 2019), which creates a mandate that 50 percent of the state's electricity be produced by renewable energy sources by 2030. Somerset County must position itself to help meet that mandate, helping bolster its own economy in the process.

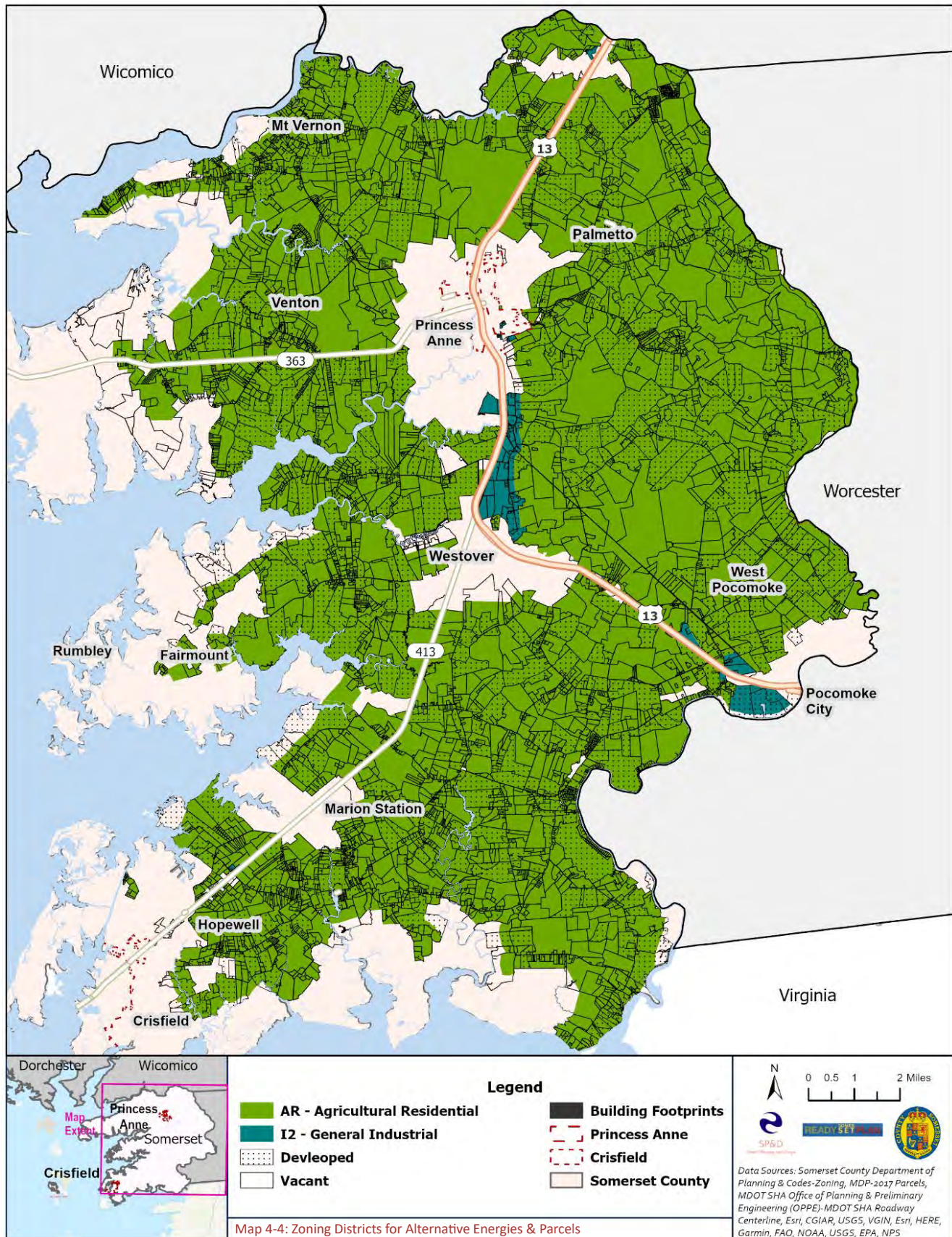
*Source: Somerset County Training, Tourism, & Transforming the Built Environment: Keys to a Better Economic Future, Sage Policy Group, June 2020*

shielded from public rights of way and occupied dwellings on adjacent lots. This use is permitted within zoning districts only by special exception in AR, C-1, C-2, I-1, I-2, and OC.

Availability for alternate energy facilities within Somerset County is permitted in Agricultural Residential (AR), General Industrial (GI) zoning districts, as well as the Utility Scale Solar Energy Facility Floating Zone (SEF) . The General Industrial parcels are located along U.S. Route 13, see Map 4-4.

*Note: Parcels designated as PPA and zoning are depicted on Map 11-3, while Map 11-2 depicts protected lands and designated PPA within Chapter 11.*

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### 4.3 Tourism

Tourism is defined as the act and process of spending time away from home in pursuit of recreation, relaxation, and pleasure, while making use of the commercial provision of services<sup>6</sup>. Tourism businesses depend extensively on each other as well as on other businesses, government, and residents of the local community<sup>7</sup>. Typically, tourists need transportation, food, lodging, amusement, and entertainment. Communities that meet these needs and target their efforts achieve positive results.

Somerset County engaged in strategic planning to further target tourism policy, programs, and recommendations. Part 2 of the strategic economic opportunities analysis, published in June 2020, by the Sage Policy Group and Partners, focused on tourism. Key recommendations put forth in Part 2 of the report included:

- Focus on key hospitality targets: outdoorsy professionals and active families.
- Pursue projects positioning Somerset County as a preferred destination for outdoorsy professionals and active families: e.g., vacation packages; eco cottage development; brew pubs.
- Adopt a strong brand for Somerset County: “Endless Somerset.”
- Implement tourism messaging campaigns designed to appeal to target markets that are firmly wrapped around the “Endless Somerset” brand.

#### 4.3.1 Key Hospitality Targets

Based on the research conducted during the development of the 2020 strategic opportunities analysis by the Sage Policy Group, Inc., there are two target markets that offer the greatest potential for Somerset County’s tourism efforts:

- **Outdoorsy Professionals** – This market has two attributes that make them attractive targets for Somerset County: an enthusiasm for the outdoors and disposable income. They will be attracted to the outdoor activities the County has to offer, as well as the slower pace that makes a nice break from hectic urban and suburban life. Somerset County is a reasonable driving distance from several major metropolitan markets with high concentrations of professionals. Targeting those interested in outdoor recreation is easy through digital ads, social media ads, and ad placements through niche content providers (podcasts, blogs, etc.).
- **Active Families** – This market overlaps somewhat with outdoorsy professionals, but with the added need for family-friendly activities. Also, although people in this group may be relatively affluent, they are more likely to be budget conscious. Somerset County offers a variety of affordable outdoor activities, along with reasonably priced accommodations and restaurants. This makes it an excellent option for active families. Again, targeting this market is relatively easy through digital methods and niche content providers.

One of the most important aspects of both target audiences is that they align well with Somerset County’s culture. They value the natural resources that the County offers, they appreciate the pace of daily life, and they crave authenticity.

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<sup>6</sup> [Arts & Culture-Tourism](#), John K. Walton, September 26, 2023.

<sup>7</sup> *Approaches to Estimating the Economic Impacts of Tourism; Some Examples*, Stynes, Daniel, 2011.

### 4.3.2 Projects

Projects were identified in the 2020 strategic opportunities analysis. These projects were identified to help position Somerset County as a preferred destination for **Outdoorsy Professionals** and **Active Families**.

- **Vacation Packages** – These packages would include lodging and focus on outdoor recreation, but they would also include a variety of other activities. For example, kayak and bicycle rentals could be included, along with a trip to Smith Island where visitors can learn about its history and enjoy a crab feast. The packages would be structured to provide visitors with some pre-determined activities that support local businesses, along with plenty of time to independently explore all that the County has to offer.
- **Eco Cottage Development** – The eco cottages would be highly efficient, architecturally interesting cottages available for rent by visitors to Somerset County. These cottages would be small, but they would incorporate quality finishes that make them feel very comfortable and a bit luxurious. A “rustic glam” aesthetic would tie in with the natural beauty of Somerset County while providing a high-end experience. These types of accommodations are very appealing to younger Gen X and Millennial professionals. They are more likely to book accommodations through websites like Airbnb or VRBO. Amenities specifically geared toward outdoor enthusiasts and active families would make the cottages an obvious choice for these travelers.
- **Brew Pub Attractions** – Although Somerset County is already home to several great dining establishments, there is a void in terms of the type of lively pub that is so appealing to visitors in their 30’s and 40’s. These types of establishments are the type of anchor establishments that bring tremendous energy and increased foot traffic to downtown areas.
- **Branding and Messaging** – Brands that are succinct, unique, and they evoke powerful imagery. By adopting such a brand, Somerset County will be able to differentiate itself within the region and be more memorable to its target markets.

Tourism strategies identified in the 2020 strategic opportunities analysis have been integrated into the goals and recommendations at the end of this chapter. Continuation of economic development investment will further capitalize on what is historically proven to be a sound investment, with a return of \$8 for every \$1 invested by the County.<sup>8</sup>

### 4.3.3 Tourism Existing Land Use and Zoning

Visitor Center or Tourism Information Center land use is permitted in all zoning districts, aside from R-1, however a special exception may be granted, if approved by the Board of Zoning Appeals. Businesses related to tourism are typically categorized under commercial use. These businesses include those associated with food, lodging, amusement, and entertainment. All commercial uses, as applicable, must provide additional parking or storage needed for the maximum number of vehicles stored, displayed, or based at the lot at any point in time. These additional spaces are not required to meet the stall size and parking aisle width requirements of this Ordinance.<sup>9</sup> Zoning districts C-1, C-2, MRC are considered commercial use districts.

Additionally, to provide an avenue for alcohol agritourism in the County, Section 5.12 Farm Breweries, Distilleries, and Wineries, of the ordinance enumerates standards, additional considerations, and regulations. Agritourism is permitted in zoning district AR and by special exception in zoning district CO.

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<sup>8</sup> Sage Policy Group, [Somerset County Training, Tourism, & Transforming the Built Environment](#): A Key to a Better Economic Future, June 2020.

<sup>9</sup> 2024 Somerset County Zoning Ordinance, pages 8-3 and 8-4.

## Chapter 4: Economic Vitality Goals & Strategies

### Goal 4.1

Attract visitors, entrepreneurs, and investors who will appreciate the quality of life, rural character, and heritage of Somerset County, rather than those who would want to change its character.

#### Strategies

- A. Work with the State, UMES, the business community, and technical schools to finalize and implement a cohesive marketing strategy to promote the County and both municipalities as tourist destinations.
- B. Track and report accomplishments, gaps, obstacles, and new opportunities that are reflective of Goal 4.1.

### Goal 4.2

Encourage retirement and healthcare living to expand the size of the real property tax base, create more demand for local goods and services, support more local employment, create a larger pool of citizens able to volunteer for local boards, and stabilize the population.

#### Strategies

- A. A tax break for older newcomers to Somerset County.
  - Incentivize a special retiree tax break for those households headed by an individual age 60 or older moving on a full-time basis to the County and purchasing for owner-occupancy.
  - Eligible individuals would receive a 50 percent reduction in their real estate tax obligation over the course of three years. The intent of such a tax break was to reduce the inventory of unsold housing units and to create an environment more conducive to residential development.

### Goal 4.3

Attract entrepreneurs who embrace cutting-edge food production, distribution, aquaculture, and support enterprise development in the County.

#### Strategies

- A. Incentivize a tax break to anyone with the proper credentials and intellectual property seeking to develop an aquaculture facility.
- B. Partner with UMES and CTE to encourage would-be entrepreneurs to commercialize their ideas in Somerset County.
- C. Encourage the adaptive reuse of vacant commercial and industrial property, by use of zoning or tax incentives.

### Goal 4.4

Promote the adaptive reuse of vacant commercial and industrial property for infill and redevelopment.

#### Strategies

- A. Maintain current database, maps, and photos of all available vacant commercial and industrial property.
- B. Using information gathered from strategy A above, provide this information to prospective developers.

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**Goal 4.5**

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Position Somerset County to help meet Maryland's Clean Energy Jobs Act (May 29, 2019), which mandates that 50 percent of the state's electricity be produced by renewable energy sources by 2030.

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**Strategies**

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- A. Identify and promote potential alternative energy sites.
- B. Encourage careful consideration of potential sites for alternative energy, as wind farms, solar farms, and other forms of alternative energy are often land intensive.

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**Goal 4.6**

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Promote ecotourism for economic vitality and preservation by encouraging travel centered on camping, hiking, agriculture, and wildlife activities that exist in Somerset County.

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**Strategies**

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- A. Encourage establishment of camping and hiking facilities that include water and/or trail access.
- B. Encourage agritourism destinations and provide destination mapping in relation to other ecotourism sites.

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## CHAPTER 5 AFFORDABLE HOUSING

### PUBLIC SURVEY RESULTS



#### ROOM FOR GROWTH

The County can improve:

- 1.) Housing options for 65 years and older
- 2.) Housing that appeals to young professionals
- 3.) Range of housing options
- 4.) Quality of housing
- 5.) Housing that appeals to new families

91%

#### 10-YEARS

90.68% of respondents plan to stay in Somerset County for the next 10 years.

Affordable Housing is **ranked 10th** in order of importance to the quality of life in Somerset County.

Affordable Housing is **ranked 6th** in order of importance in terms of future development.



#### COST OF HOMES

The value and cost of homes was identified as the greatest strength in terms of housing in the County.

The availability of affordable housing was also identified as a strength.

## ISSUES AND OPPORTUNITIES

**Issues** identified: Overall housing costs, including to rent and to own. Lack of appropriate housing for elderly and new families. Abandoned homes. Long waiting lists for senior apartments. Lack of middle income neighborhoods. Existing housing is in hazard areas, such as flood zones.

**Opportunities** identified: Potential removal of blighted homes. Land availability. Home restoration. Condos in waterfront communities. Subsidized, or low income housing availability. Rural beauty is attractive to potential residents.

## Chapter 5: Affordable Housing

Maryland House Bill [\(HB\) 1045 \(2019\)](#) requires jurisdictions with planning and zoning authority to include a housing element as part of its comprehensive plan update. The focus of HB 1045 (2019) focuses on “affordable housing” – both low-income and workforce housing.

HB 1045 requires that housing elements use Department of Housing and Urban Development (HUD’s) Area Median Income (AMI) calculations when planning for workforce and low-income housing. AMI is the commonly used housing industry term reflecting annual calculations of Median Family Income (MFI) for each metropolitan area and non-metropolitan county, called Income Limit Areas. Simply, approximately 50% of families have an annual income above the AMI/MFI level, and 50% below. HUD bases its annual calculations for MFI on the American Community Survey (ACS) - Median Family Income In The Past 12 Months.

In January 2023, [HB 90 \(2021\)](#) requires all housing elements developed for municipalities and non-charter counties to “affirmatively further fair housing” in addition to affordable housing. Furthermore, HB 90 requires the [Department of Housing and Community Development](#) (DHCD) to submit a report on fair housing to the Governor and General Assembly by Dec 1, 2023, and every five years thereafter. The bill mandates that DHCD complete this report in consultation with local governments and housing authorities in Maryland and develop a template that these partners can use to gather and present data on fair housing within their own jurisdictions. The bill intentionally refrained from specifying what actions jurisdictions must implement. Affording jurisdictions with the opportunity to develop their own approach for furthering fair housing in their communities, provided that their chosen approach includes meaningful actions. The completion of goals and strategies included at the end of this chapter will assist in affirmatively furthering fair housing in Somerset County.

On January 1, 2025, the [Housing Expansion and Affordability Act \(HB538\)](#) went into effect in the state of Maryland. Created to make housing more affordable and accessible for Marylanders, the state law made considerable changes to the Land Use Article. This state code serves as the governing framework for how Maryland counties exercise their local planning and zoning authority.

**Affordable Housing** (Housing and Community Development Article Section §4-1801) - Housing costs do not exceed 30% of household income. More than half of all Somerset County renter households (59.8%) pay more than 30% of their income on rent.

**Area Median Income (AMI)** – Median household income, adjusted annually, of area, adjusted for household size (US Department of Housing and Urban Development). The median household income in Somerset County is \$49,661 (based on 2021 American Community Survey 5-Year Estimates data). However, the **2023 AMI for Somerset** [Somerset County, MD HUD Metro] is **\$69,500**.

*Note: the AMI and household payment calculations and data are based on pre-tax and other deductions income.*

**Low-Income Housing** (Land Use Article Sections §1–407 and §3-114) - Affordable to a household with an aggregate annual income below 60% of the Area Median Income (AMI). For Somerset County, a household of four earning less than \$29,796 or less, per year, is considered low income.

**Work Force Housing** (Housing and Community Development Article Section §4-1801)

Rental Housing that is affordable to a household with an aggregate income between 50% - 100% of area median income.

AMI Ownership that is affordable to a household with an aggregate income between 60% - 120% AMI or in target areas for purposes of administering the MD Mortgage Program, an aggregate income between 60% - 150% AMI.

While the requirement for comprehensive plans to include a housing element was not in effect when the previous *Somerset County Comprehensive Plan* was completed in 1996, the plan included a housing element, as Chapter 7. A new affordable housing element has been developed for this plan update.

Understanding **Area Median Income (AMI) and Affordable Housing** can be challenging. Information from [Humanizing Data: Area Median Income \(AMI\) and Affordable Housing Policy](#), written by Andy Marzo and Daniel Stevens, published in March 2023 has been included.

*Area Median Income (AMI) and the associated AMI levels are determined by the US Department of Housing and Urban Development (HUD) every year. Since AMI is used in determining eligibility for affordable housing programs at the federal and sometimes local levels, it's particularly important that decision-makers and community members understand this metric and who, exactly, may be helped by those programs.*

*AMI levels are also used to determine housing needs beyond affordable housing, including workforce housing and market-rate housing. The full spectrum of income levels and housing price points, as shown below, is critical to meeting community housing needs.*

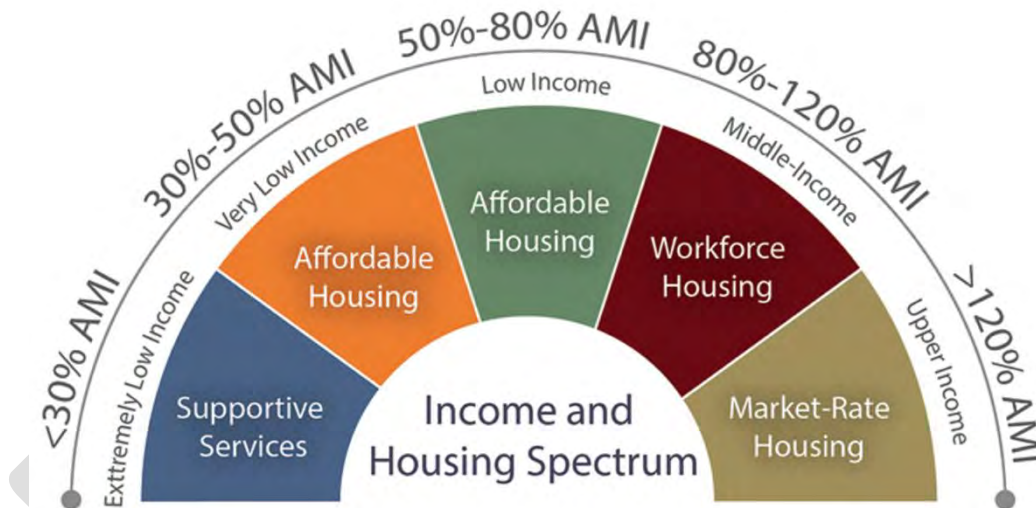
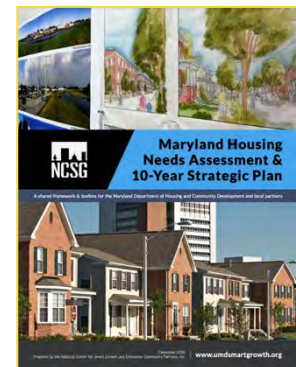


Figure 5-1: Area Median Income (AMI): A Quick Overview. Source: [Humanizing Data: Area Median Income \(AMI\) and Affordable Housing](#)

## 5.1 State Perspective – Maryland Housing Needs Assessment & 10-Year Strategic Plan

According to the [Maryland Housing Needs Assessment & 10-Year Strategic Plan](#), the Maryland Housing Needs Assessment Advisory Group crafted a framework to help guide state and local investments across Maryland over the next 10 years. This framework includes a **vision** and **guiding principles** to unify housing activities and identify priority needs and populations that are common across the state.



### 5.1.1 Vision 2030

By 2030, stakeholders would like Maryland to be a more affordable, equitable place to live. To them, housing affordability means supporting both renters and homeowners through direct assistance; financing more rental properties and for-sale homes; and promoting policies that help encourage a wider range of homes throughout the state. It also means helping the most vulnerable residents of Maryland, who need more flexible requirements to rent a home and higher-quality, accessible units available at a lower cost to maintain a stable home.

### 5.1.2 State of Maryland Housing Guiding Principles

Five guiding principles were outlined in the strategic plan.

- 1. Promote equity in housing.**  
*Actions need to address disparities that have created concentrations of poverty and uneven outcomes and existing practices that do not result in equal access to affordable housing among households of color. It also means future investments should be aligned with policies that protect and promote equity in order to achieve more positive outcomes.*
- 2. Create a balanced housing supply.**  
*Housing investments over the next 10 years should balance the need for new or stabilized homes with projected household growth.*
- 3. Increase access to opportunity.**  
*Closely connect housing investments to high-quality schools, job centers, and public transportation and other services to ensure every Marylander can reach their full potential.*
- 4. Support economic growth.**  
*Housing investments are used to promote economic development and neighborhood revitalization.*
- 5. Create context-specific approaches.**  
*Development of more tailored programs and policies that account for regional and community context to ensure they work in all parts of Maryland and for more people.*

These guiding principles were reviewed and integrated into Somerset County affordable housing goals and strategies included at the end of this chapter.

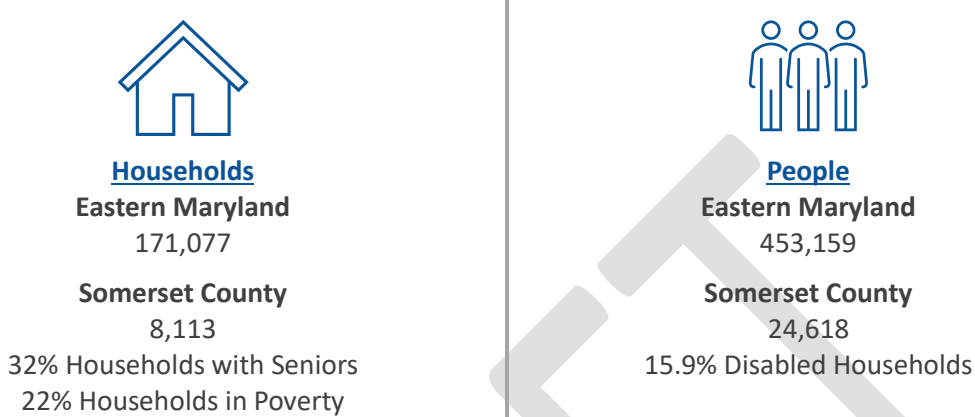
### 5.1.3 Priority Populations

According to the Maryland Housing Needs Assessment & 10-Year Strategic Plan, households earning 30 percent AMI or extremely low-income households are a priority. Additional groups identified to focus on serving over the next 10 years include: seniors; persons with disabilities; and persons experiencing homelessness.

## 5.2 Regional and Local Overview

Both a regional and local overview is provided below. Information from the regional overview is from the Maryland Housing Needs Assessment & 10-Year Strategic Plan, while the local overview contains Somerset County specific information from the most recent U.S. Census, 2020 and [2021 American Community Survey 5-year Estimates](#).

Cost burdens are prevalent in Maryland's third largest region, even though rents and home prices are lower than in other parts of the state. Compared to other Maryland regions, Eastern Maryland's homeownership market shows signs of distress, with the highest mortgage delinquency and foreclosure rates of any region. It's also home to people with unique housing needs. Eastern Maryland has some of the highest shares of seniors (18 percent) and persons living with a disability (13 percent) in the state and the second highest poverty rate (12 percent).<sup>1</sup>



Source: Maryland Housing Needs Assessment & 10-Year Strategic Plan and 2023 ALICE Report County Snapshots MD.

### 5.2.1 Regional and Local Housing Needs

Figure 5-2 shows needs among homeowners by need category in Eastern Maryland and how needs intersect with race and ethnicity and special populations. The information was tabulated and depicted by Census Tract. Specific to Somerset County, **Highest** and **High** Needs Areas were identified, shown in the darker shades of blue. High and Highest Needs Areas include one or more of the following characteristics.

- High cost-burden rates, despite low home prices
- High poverty and low household incomes
- Significant housing quality concerns
- High residential mobility
- Highest share of residents with a disability
- Higher shares of non-white residents

Table 5-1 compares the percentage of Census Tracts within the county that are lowest need to highest need (as described in the Needs Assessment) to the same percentages and categories for other Eastern Shore counties, Maryland Homeowner Stability Index. Somerset County is highlighted in yellow and comprises 7% of the Regional Total.

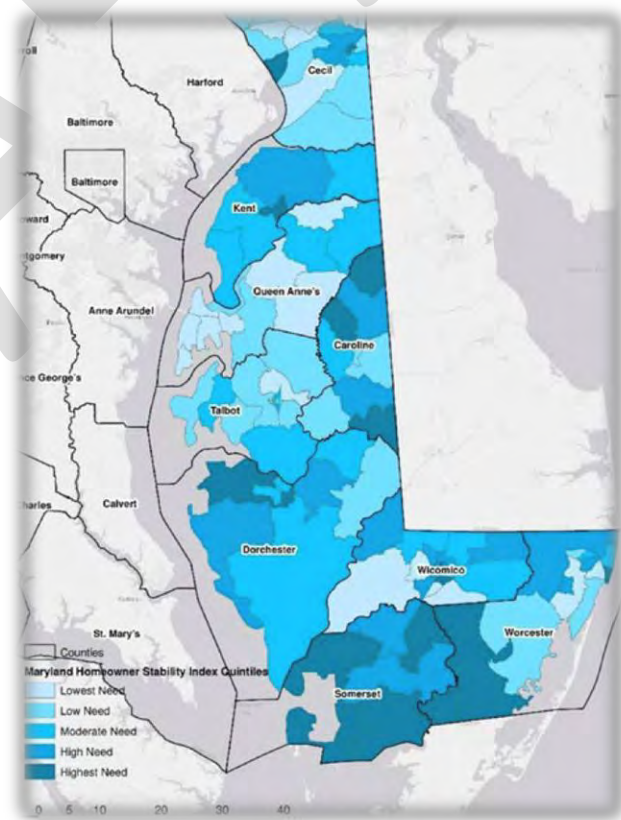


Figure 5-2: Maryland Housing Needs Assessment & 10-Year Strategic Plan - Maryland Homeowner Stability Index, Needs by Category, Eastern Maryland

<sup>1</sup> NCGS, [Maryland Housing Needs Assessment & 10-Year Strategic Plan](#), page 49, December 2020.

Table 5-1.

Total Tracts by Maryland Homeowner Stability Index Category, Eastern Maryland						
	Lowest Need	Low Need	Moderate Need	High Need	Highest Need	Regional Total
Total Census Tracts	21	21	21	21	21	21
Caroline County	0%	14%	5%	10%	14%	9%
Cecil County	29%	33%	10%	10%	10%	18%
Dorchester County	0%	5%	19%	10%	10%	9%
Kent County	0%	0%	14%	5%	5%	5%
Queen Anne's County	38%	10%	10%	0%	0%	11%
<b>Somerset County</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>10%</b>	<b>24%</b>	<b>7%</b>
Talbot County	5%	24%	19%	0%	0%	10%
Wicomico County	19%	0%	14%	38%	19%	18%
Worcester County	10%	14%	10%	19%	19%	14%

Source: 2020 Maryland Housing Needs Assessment & 10-Year Strategic Plan, Page 51, Table 19.

Figure 5-3 shows needs among renters by need category in Eastern Maryland. The intersection of race, ethnicity, and special populations indicate many needs areas.

Specific to the Somerset County, **Highest, High, Moderate,** and **Low** Needs Areas were identified, shown in the graduated shades of green on Figure 5-3.

High and Highest Needs Areas include both the northeast and northwest portions of County, along with the southern portion of the County bordering the Chesapeake Bay, including the City of Crisfield.

**High** and **Highest** Needs Areas include one or more of the following characteristics.

- High cost-burden rates, despite low home prices
- High poverty and low household incomes
- Significant housing quality concerns
- Highest share of residents with a disability
- Higher shares of non-white residents

**Moderate** Needs Areas include one or more of the following characteristics.

- Average & increasing renter cost-burden rate
- Moderate household incomes
- Moderate rent

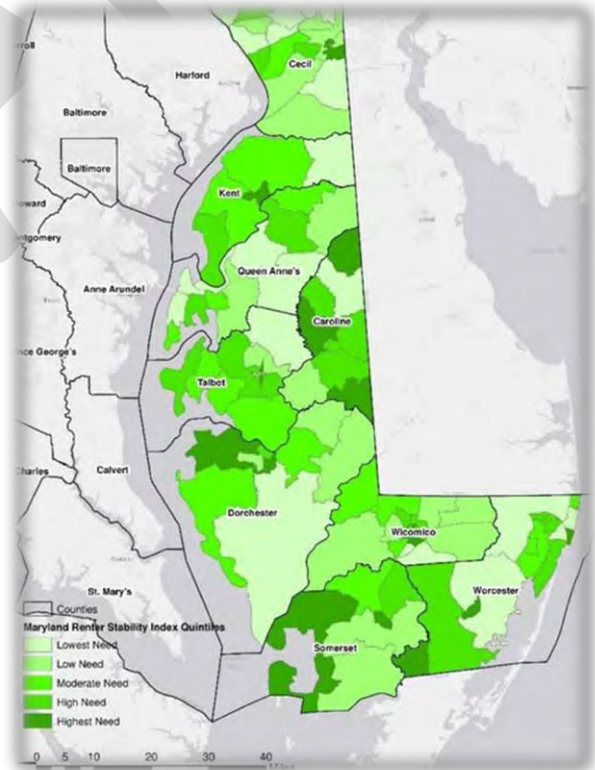


Figure 5-3: Maryland Housing Needs Assessment & 10-Year Strategic Plan - Maryland Renter Stability Index, Needs by Category, Eastern Maryland

- Older than average housing
- Highest increase in median rent from 2011 to 2017
- Highest share of elderly residents

**Low** Needs Areas include one or more of the following characteristics.

- Few housing quality concerns
- Low poverty and high incomes
- Average rents and low rates of renter cost-burden
- Few assisted units
- Few elderly adults and people with a disability
- Low share of non-white residents

Table 5-2 compares the percentage of Census Tracts within the county that are lowest need to highest need (as described in the Needs Assessment) to the same percentages and categories for other Eastern Shore counties, Maryland Renter Stability Index. Somerset County is highlighted in yellow and comprises 7% of the Regional Total.

**Table 5-2.**

Total tracts by Maryland Renter Stability Index Category, Eastern Maryland						
	Lowest Need	Low Need	Moderate Need	High Need	Highest Need	Regional Total
<b>Total Census Tracts</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>21</b>
Caroline County	5%	5%	0%	14%	19%	9%
Cecil County	29%	33%	10%	10%	10%	18%
Dorchester County	5%	14%	10%	5%	10%	9%
Kent County	5%	0%	10%	5%	5%	5%
Queen Anne's County	24%	10%	14%	10%	0%	11%
<b>Somerset County</b>	<b>0%</b>	<b>10%</b>	<b>5%</b>	<b>5%</b>	<b>14%</b>	<b>7%</b>
Talbot County	5%	5%	19%	14%	5%	10%
Wicomico County	10%	24%	19%	14%	24%	18%
Worcester County	19%	0%	14%	24%	14%	14%

Source: 2020 Maryland Housing Needs Assessment & 10-Year Strategic Plan, Page 53, Table 22.

### 5.2.2 Somerset County Area Median Income

Information from the Maryland Department of Planning [Housing Data Dashboard](#) has been incorporated into Table 5-3, Somerset County Area Median Income. While the data within the table is current relative to this plan development process, updated data will be included on the dashboard, as available. This information is specific to HB 1045, which requires that housing elements use HUD's Area Median Income (AMI) calculations when planning for workforce and low-income housing. HUD bases its annual calculations for MFI on the American Community Survey (ACS) table B19113 - Median Family Income In The Past 12 Months.

Table 5-3.

Somerset County Area Median Income	
<b>2023 AMI for Somerset [Somerset County, MD HUD Metro]:</b>	<b>\$69,500</b>
<b>HB 1045 Household Income Levels/Ranges</b>	
Workforce Ownership Range (60% - 120% AMI):	\$41,700 - \$83,400
Workforce Rental Range (50% - 100% AMI):	\$34,750 - \$69,500
Low Income (< 60% AMI):	\$41,700
Very Low Income (<50% AMI):	\$34,750
<b>Affordable Homeowner/Rental Monthly Payments (Based on 30% of Household Income)</b>	
Workforce Ownership Range:	\$1,008 - \$2,016
Workforce Rental Range:	\$840 - \$1,680
Low Income:	\$1,008

Source: Maryland Department of the Environment-[Housing Data Dashboard](#)

Note: The ranges and limits in this table are calculated using 0.29% of income as a measure of cost burden

### 5.2.3 Housing Characteristics

The rental housing burden, which refers to those households spending more than 30 percent of household income on rent, is high in Somerset County. Meaning rent is growing faster than incomes in the area. This is particularly challenging for low-income families, as spending over 30% of your income on housing at \$20,000 annually, is not the same as spending 30% or more on housing if your income is \$200,000 annually.

The affordable monthly workforce rental range is between \$840 to \$1,680 as per 2023 AMI for Somerset County, MD HUD Metro, Affordable Rental Monthly Payments (Based on 30% of Household Income). The low-income amount is \$1,008. As shown in Figure 5-4, 32.7% of renters in Somerset County are paying more than \$1,000 in rent monthly.

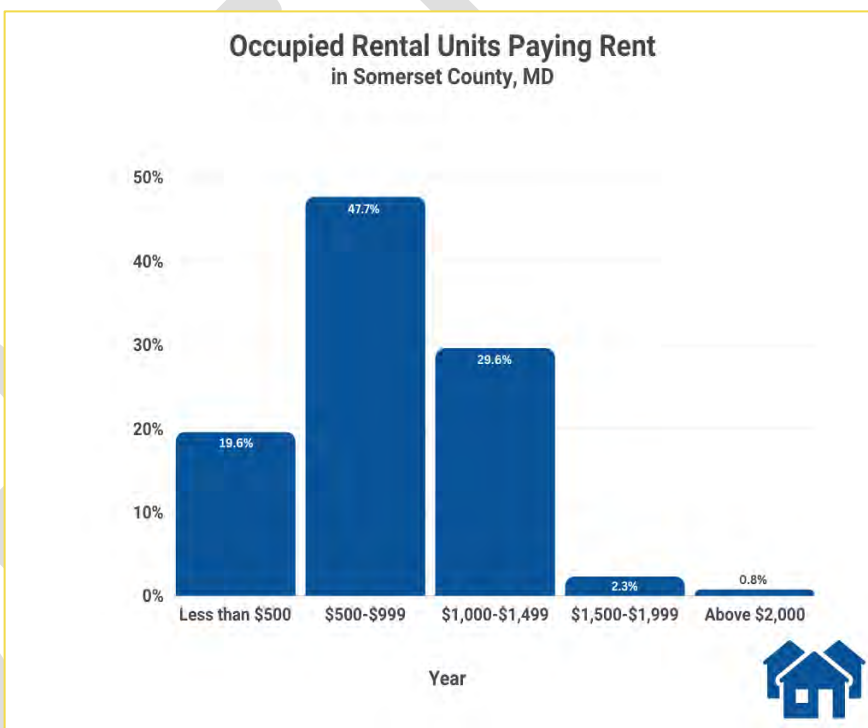


Figure 5-4: Occupied Rental Units Paying Rent. Source: [2021 American Community Survey 5-year Estimates](#)

In terms of housing tenure, the percentage of owner vs. renter occupied units, more housing units are renter occupied than owner occupied, as shown on Figure 5-5.

The percentage of occupied vs. vacant housing units provides a measure of the viability of the local housing market and may infer the condition of housing units. Limited vacancy is good because it allows for new and moving residents to find housing units, but too much vacancy may indicate a weaker market or substandard housing. Too little vacancy may indicate insufficient housing supply.

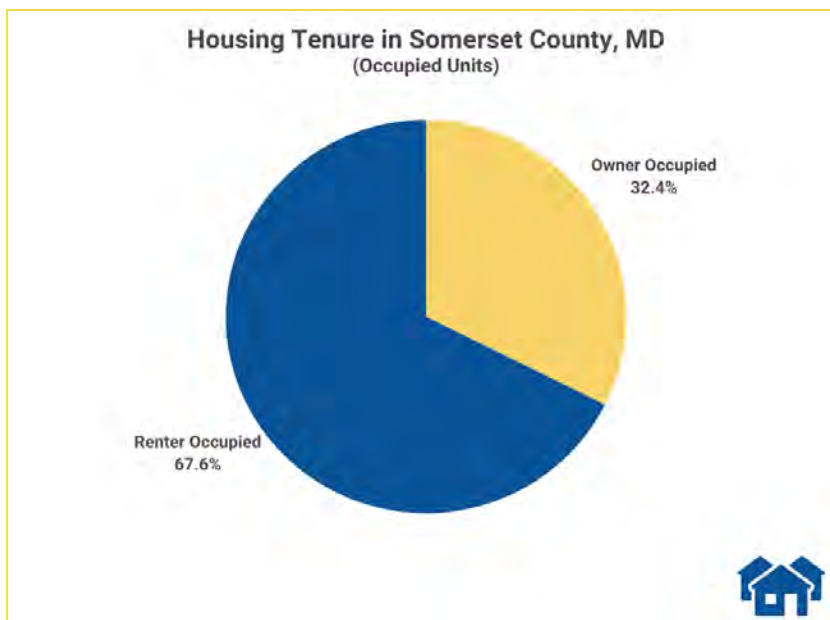


Figure 5-5: Housing Tenure in Somerset County. Source: [Maryland Department of Planning Dashboard](#) – Five Year American Community Survey 2017-2021.

Occupied Housing Units: 8,113 or 74%  
Vacant Housing Units: 2,838 or 26%

Vacancy rates applied to both sales and rental markets are calculated by dividing available units by the total of both occupied and vacant units. The vacancy rate for Somerset County is 3.8 %. However, considering the rate of development in Somerset County, new construction has been limited, as shown on Table 5-4, older housing stock dominates the housing market in Somerset County.

Table 5-4.

Total Housing Units Authorized for Construction in Somerset County, Maryland: 2011 to 2023													
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Residential	60	15	26	48	31	25	16	36	25	20	62	33	43
Multi-Family Housing	-	-	2	92	150	-	-	-	-	-	-	1	4
Total Housing Units*	62	15	28	140	181	25	16	36	25	20	62	34	47

Source: U. S. Bureau of the Census. Manufacturing and Construction Statistics Division. Residential Construction Branch. Prepared by Maryland Department of Planning. Planning Services Division. 2021. <https://planning.maryland.gov/MSDC/Pages/newhh/2020/annual2020.aspx>, [Maryland, Jurisdiction And Permit Issuing Places New Housing Units Authorized For Construction By Building Permits: 2022](#), [Maryland, Jurisdiction and Permit Issuing Places: 2023](#)

\* Includes incorporated and unincorporated areas.

*Years of declining investment in the renovation of existing and construction of new housing in our small towns and farming communities has resulted in a housing deficit. A recent Wall Street Journal article noted, “Fewer homes are being built per household than almost any other time in US history, and it is even worse in rural areas.” As a result, in some rural communities, economic growth is impeded not by the lack of jobs, but by the lack of housing for workers.<sup>2</sup>*

<sup>2</sup> National Rural Housing Coalition, [Housing Need in Rural America](#).

According to 2022 Maryland Property View, the average year built of housing units in Somerset County was 1965. Given the age of Somerset County housing stock, Somerset County administers the Housing Rehabilitation Program, which offers grants and loans.

The percentage of the median residential sale price in Somerset County increased by 25.4% overall between 2011 and 2021, from \$147,500 to \$185,000.

The percentage of units by type, as depicted in Figure 5-6, (Single Family Detached/Attached, Duplexes, Multi-family) provides insight into housing unit diversity in Somerset County.

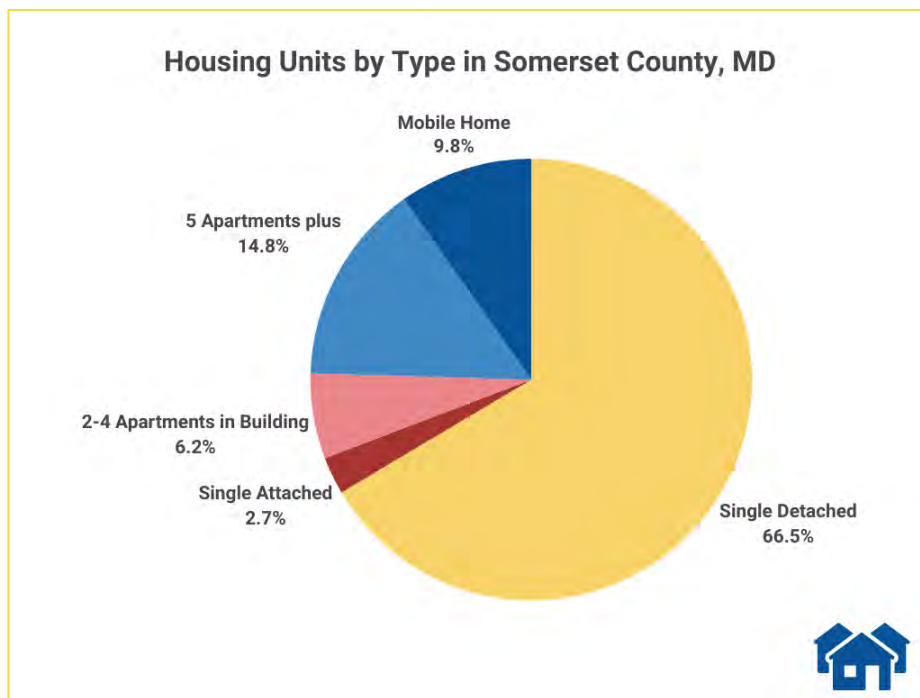


Figure 5-6: Housing Units by Type Somerset County. Source: [Maryland Department of Planning Dashboard](#) – Five Year American Community Survey 2017-2021.

### 5.3 Existing Housing by Land Use Classification

Data from Maryland Department of Planning Land Use/Land Cover has been used to develop mapping and associated data tables specific to Somerset County. Land use classification as identified by the Maryland Department of Planning have been utilized and are defined below.

Low-density residential is the predominate land use/land cover specific to housing in Somerset County, at 50% in the unincorporated area, and 48% of the total land area, which includes the incorporated areas (City of Crisfield and the Town of Princess Anne), as indicated on Table 5-5. In comparison, medium density and high-density residential land use/land cover combined constitute less than 10% of the total land use/land cover specific to housing in the unincorporated area, and just over 10%, of the total in both the unincorporated and the incorporated areas. Maps 5-1 through 5-4 depict existing land use/land cover by housing category.

Table 5-5.

Existing Housing by Land Use/Land Cover Classification				
Land Use/Cover Category (Housing)	Somerset County Unincorporated Area (acreage)	% of Total	Unincorporated & Incorporated Areas (acreage)	% of Total
Low-density Residential	7,481.3	50%	7,649.8	48%
Medium Residential	984.4	7%	1,464.7	9%
High Density Residential	217.9	1%	337.2	2%
Large Lot Subdivision (Agriculture)	4,200.5	28%	4,201.5	26%

Existing Housing by Land Use/Land Cover Classification				
Land Use/Cover Category (Housing)	Somerset County Unincorporated Area (acreage)	% of Total	Unincorporated & Incorporated Areas (acreage)	% of Total
Large Lot Subdivision (Forest)	2,210.4	15%	2,211.2	14%
<b>Total Acreage</b>	<b>15,094.5</b>	<b>100%</b>	<b>15,864.4</b>	<b>100%</b>

Source: 2010 Maryland Department of Planning Land Use/Land Cover Classifications Data

Maps 5-1 through 5-4 on the following pages depict existing housing by land use classifications.

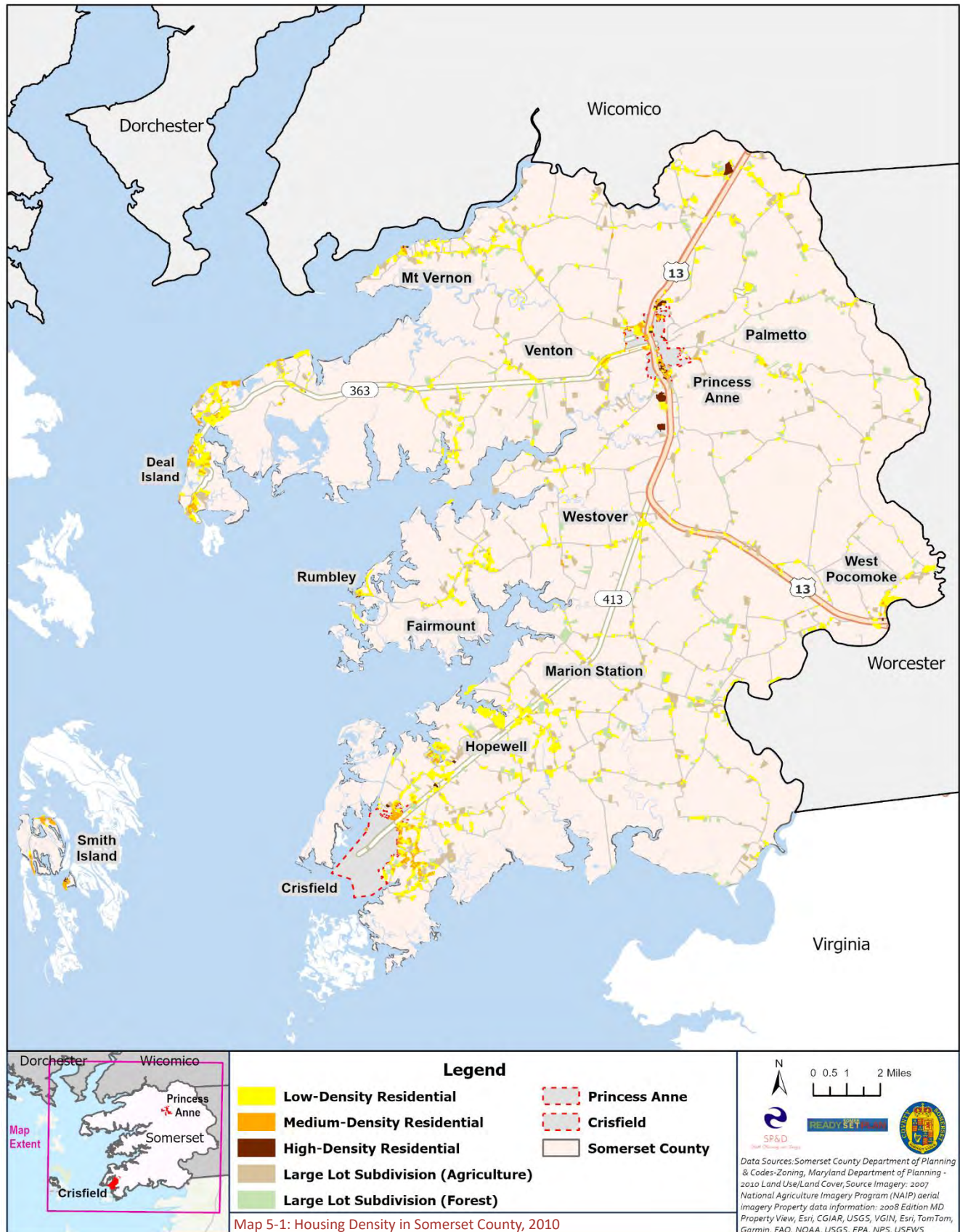
**Low-density Residential** Detached single-family/duplex dwelling units, yards and associated areas. Areas of more than 90 percent single-family/duplex dwelling units, with lot sizes of less than five acres but at least one-half acre (.2 dwelling units/acre to 2 dwelling units/acre).

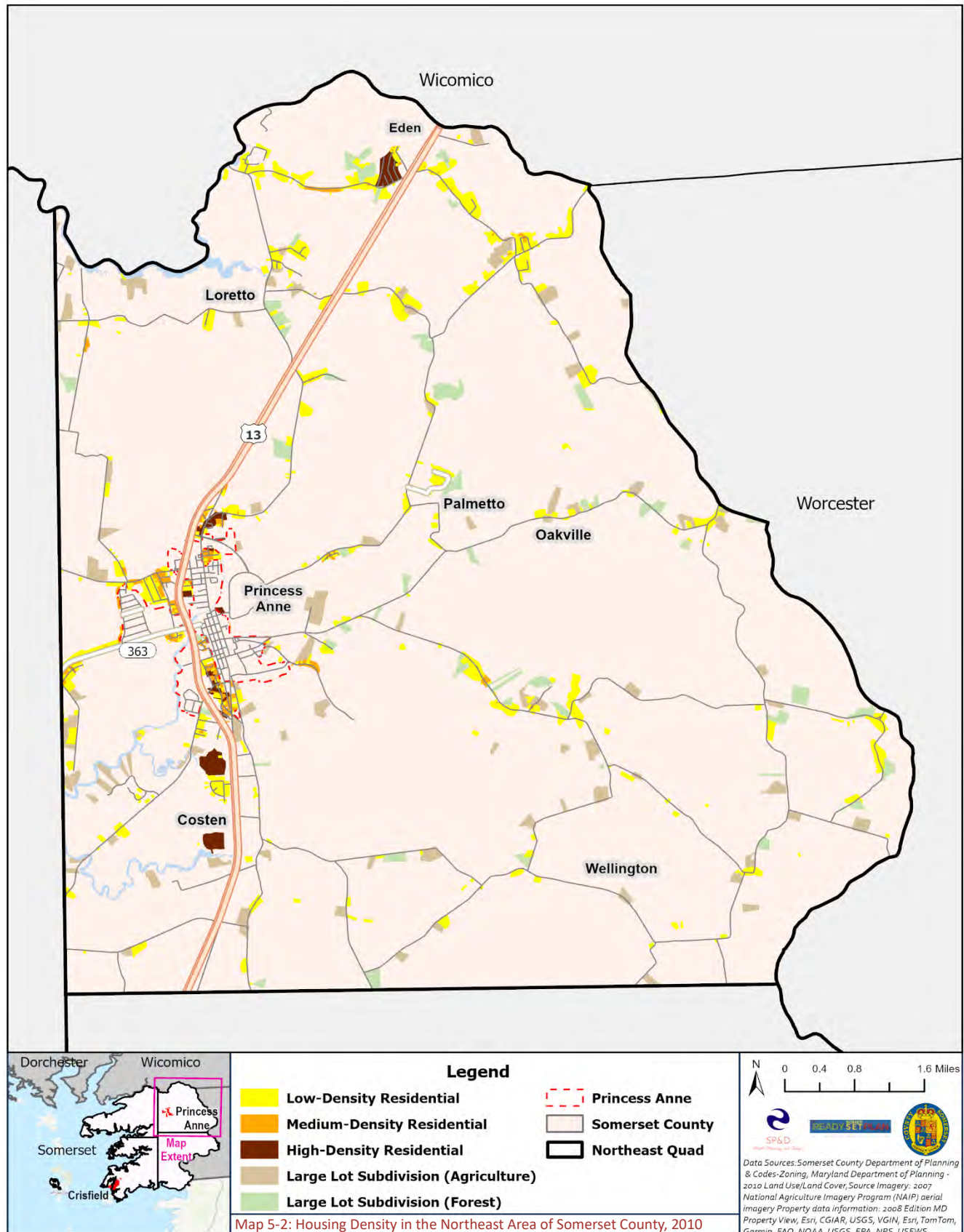
**Medium-density Residential** Detached single-family/duplex attached single-unit row housing, yards, and associated areas. Areas of more than 90 percent single-family/duplex units and attached single-unit row housing, with lot sizes of less than one-half acre but at least one-eighth acre (2 dwelling units/acre to 8 dwelling units/acre).

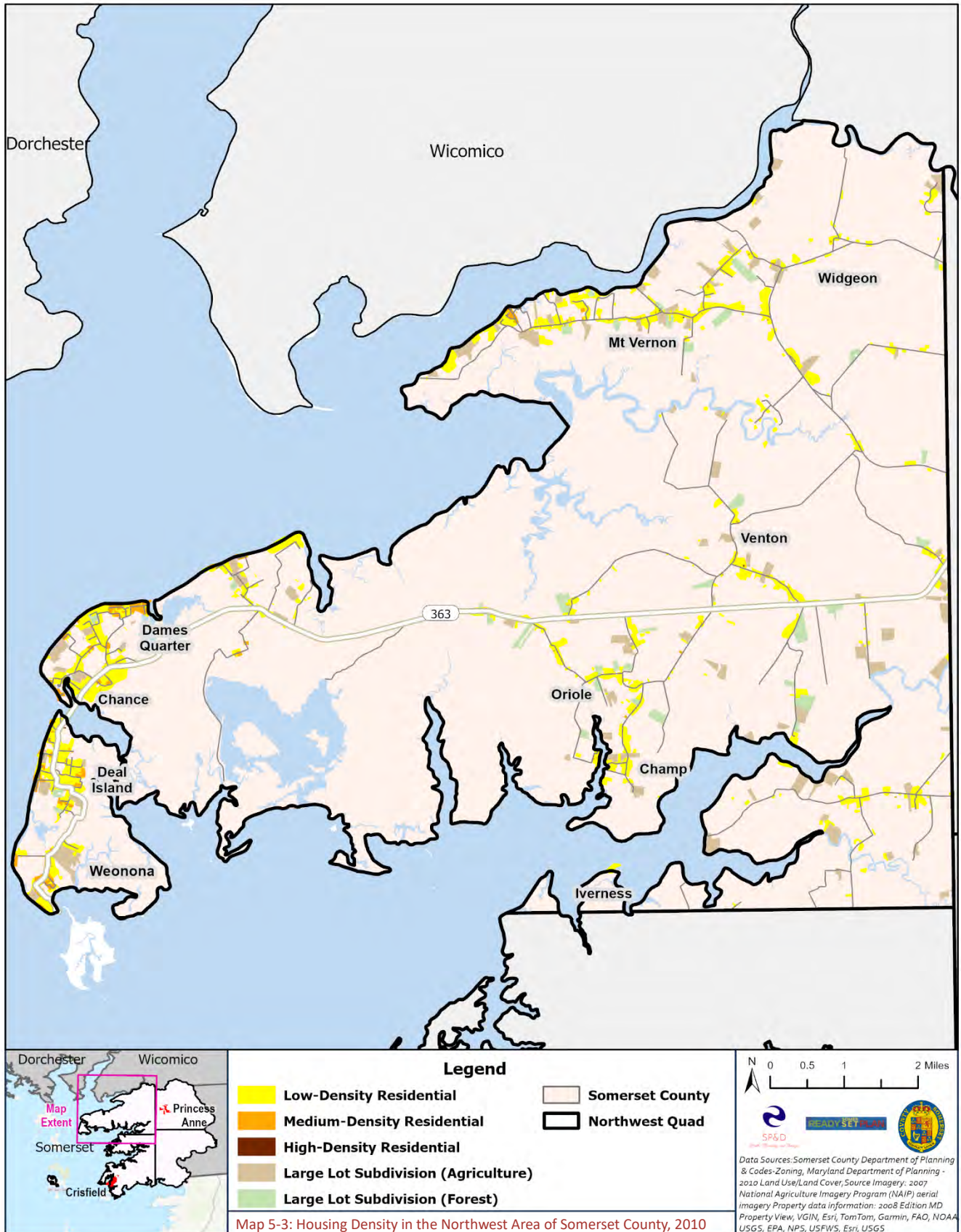
**High-density Residential** Attached single-unit row housing, garden apartments, high-rise apartments/condominiums, mobile home and trailer parks; areas of more than 90 percent high-density residential units, with more than 8 dwelling units per acre. \* subsidized housing

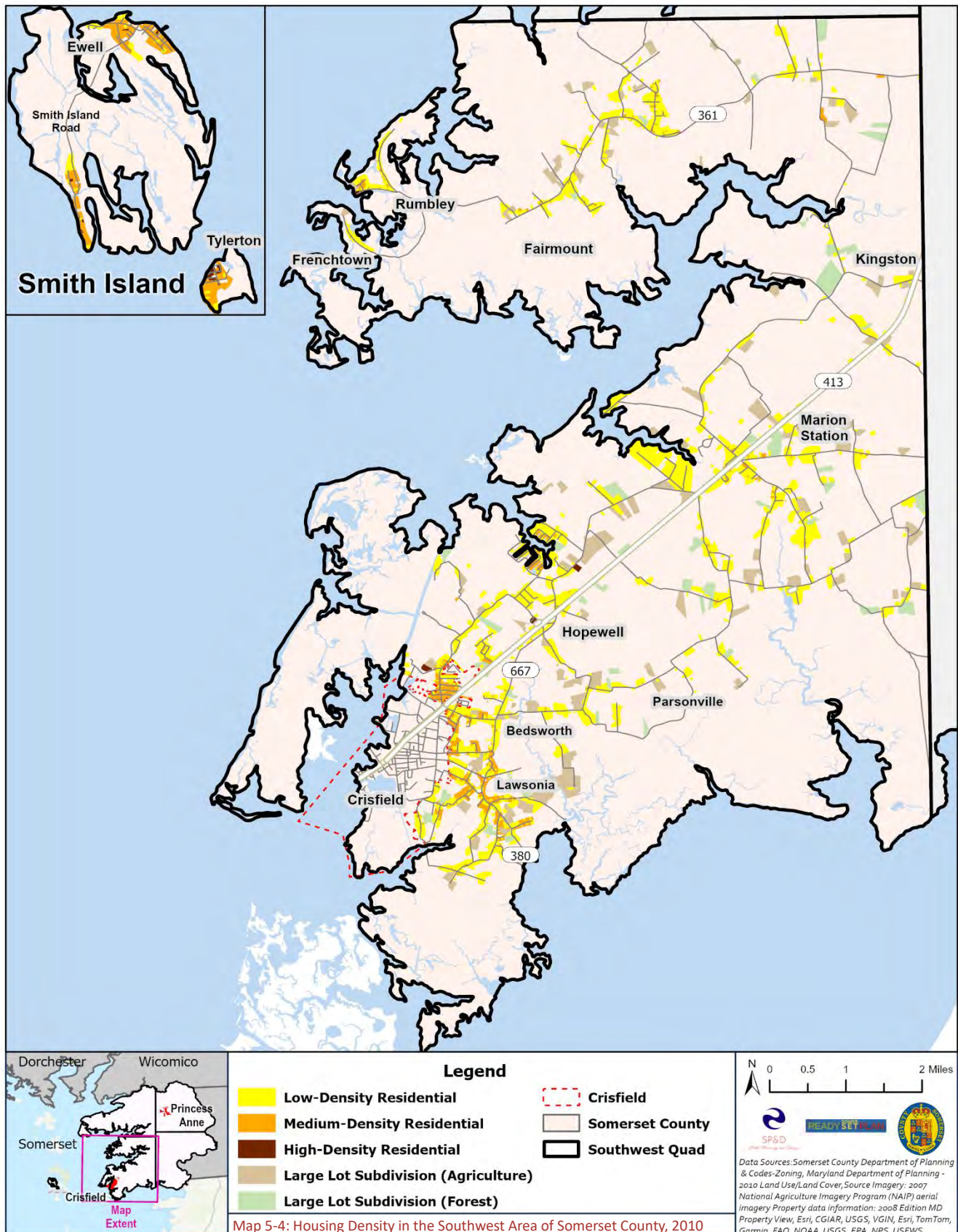
**Large Lot Subdivision (Agriculture)** Residential subdivisions with lot sizes of less than 20 acres but at least 5 acres, with a dominant land cover of open fields or pasture.

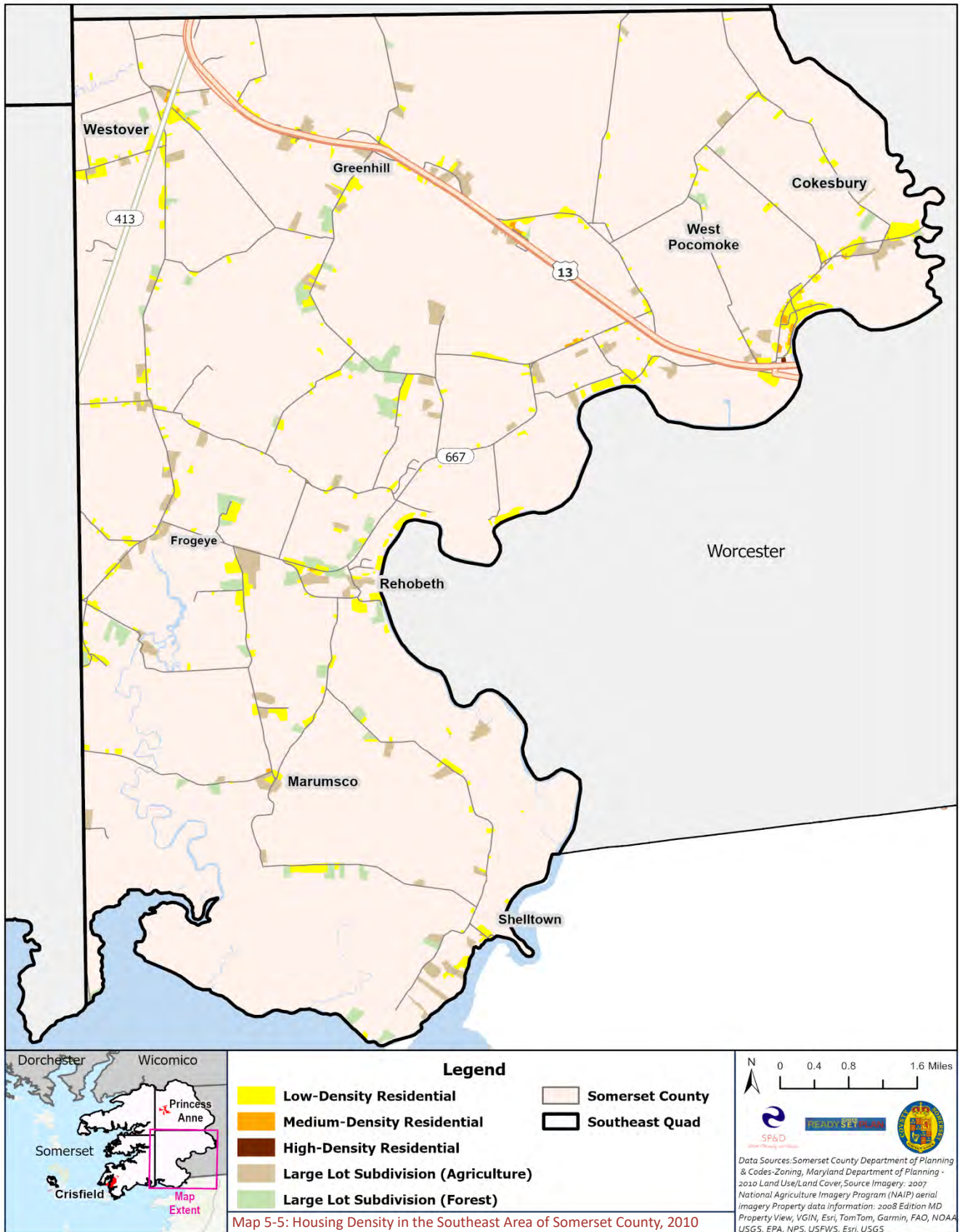
**Large Lot Subdivision (Forest)** Residential subdivisions with lot sizes of less than 20 acres but at least 5 acres, with a dominant land cover of deciduous, evergreen or mixed forest.











## 5.4 Housing Programs

Various agencies and organizations support affordable and workforce housing in Somerset County. The Maryland Department of Planning maintains an affordable housing resource listing on their website. According to the [website](#), the affordable housing resource list is a centralized place to find the best and most applicable funding sources for housing needs. The resource list is divided into the following funding and assistance categories; Federal, State, Local/County, Foundational, and Technical Assistance.

## 5.5 Future Housing Needs & Affordability Analysis

To determine future housing needs specific to Somerset County, a housing capacity and needs analysis was conducted as part of this planning process. The detailed assessment is included in Appendix A, comprised of data tables and methodology. In addition to informing this chapter, the data developed as a result of the housing capacity and needs analysis will inform the Future Land Use Map, included in Chapter 10, Land Use, of this plan.

Housing data for 2020 and housing needs projected for 2030 are included in Table A-3 of the appendix. Household size remains the same at 2.37 people per household in 2020 and 2030 projection, no increase. Total new housing units needed in 2030 is 563, which averages 56 new units needed per year over this period, based on the assessment.

A housing affordability assessment was also conducted and is included in Appendix A. This data driven assessment provides insight into current conditions regarding affordability for both renters and owners. Data utilized for the housing affordability assessment is included for owner-householders and renter-householders in Table A-4 and A-5, respectively.

*Note: Housing affordability by age cohort data from the U.S. Census did not compute 542 householders as indicated in Appendix A, Tables A-4 and A-5.*

The total number of **householders** were calculated using age cohorts. The total number of householders paying more than 30% of their monthly income on mortgage or rent in Somerset County is 2,858. This means that 36.5% of householders in the County are not living in affordable housing.

The affordability analysis indicates that **householders** who rent are more likely to live in unaffordable housing than householders who own their home. On average, 59.8% of householders who rent live in unaffordable housing, while 26.8% of householders who own their home live in unaffordable housing. Data calculated by age cohort indicated that ages 15-24, both renters and owners, are more likely to live in unaffordable housing than others. Additionally, those householders aged 65 and older make up a sizeable portion of those living in unaffordable housing; on average, 29% or one-third of householders aged 65 and older live in unaffordable housing.

**Affordable Housing** - Housing costs do not exceed 30% of household income. More than half of all Somerset County renter households (59.8%) pay more than 30% of their income on rent.

**Householder** - The person, or one of the people, in whose name the home is owned, being bought, or rented.

**Housing Unit** - A house, an apartment, a mobile home or trailer, a group of rooms, or a single room occupied as separate living quarters, or if vacant, intended for occupancy as separate living quarters.

**Age Cohort** - A group of people with a similar age range.

Source: [www.census.gov/glossary/](http://www.census.gov/glossary/)

## Chapter 5: Affordable Housing Goals & Implementation Strategies

### Goal 5.1

Encourage and allow appropriate density increases and a range of unit types to make affordable, workforce, and attainable housing an economically viable development option.

#### Strategy

- A. Revise R2 district to permit 5,000 square foot lots for single family detached units and 1,800 square feet for single family attached units (subject to water/sewer or septic).

### Goal 5.2

Strive to foster a community in which existing affordable housing is preserved and well maintained.

#### Strategies

- A. Provide incentives and encourage providing affordable housing through public, private, and joint ventures, ensuring income-based housing equity.
- B. Provide opportunities to retrofit existing homes with accessible features so seniors and those with disabilities can remain in the community longer.
- C. Maintain and rehabilitate publicly owned infrastructure and facilities in older neighborhoods to promote community investment, establish confidence, and discourage neighborhood decline.

### Goal 5.3

Promote safe, vibrant, and well-maintained neighborhoods that inspire residents and visitors and convey a sense of place.

#### Strategies

- A. Hire code enforcement officer specific for rental housing units in the unincorporated areas of Somerset County.
- B. Review ordinances, codes, regulations, and permitting processes to eliminate or modify conflicting or excessive requirements, and to streamline the regulatory review process.

### Goal 5.4

Support affordable housing opportunities that are accessible to the entire population, without compromising the quality of existing residential neighborhoods.

#### Strategies

- A. Encourage, support the creation of, and partner with non-profit housing development corporations to develop, own, and manage affordable housing.
- B. Support housing projects that provide a mix of housing to serve a range of income levels, integrating traditional market value housing with affordable housing opportunities.
- C. Work with non-profit development organizations to identify and secure financial resources to maintain housing conditions.
- D. Provide incentives and encourage providing affordable housing through public, private, and joint ventures, ensuring income-based housing equity.

**Goal 5.5**

Encourage residential communities that can grow sustainably, are supported by existing and planned infrastructure, and address the housing needs for a variety of income levels.

**Strategy**

- A. Continue and expand programs to help low- and moderate-income homeowners repair and modernize their homes (e.g., remedy health and safety hazards, weatherization, energy conservation, accessibility modifications, lead-based paint remediation.)



## CHAPTER 6 COMMUNITY FACILITIES

### PUBLIC SURVEY RESULTS



#### STRENGTHS

Top 5 community facility **strengths** as identified by the survey:

- 1.) Libraries
- 2.) Electric Utilities
- 3.) Fire protection and emergency response
- 4.) Police protection and public safety
- 5.) Trash removal and recycling services



#### AREAS TO IMPROVE

Community services that need improvement include:

- 1.) Services for veterans
- 2.) Stormwater drainage
- 3.) Services for youth
- 4.) Services for senior citizens
- 5.) Health care and medical services

79%

#### STORM WATER

The community (i.e., 79% of respondents) indicated that stormwater management (flooding) was the most inadequate service within the community. This type of flooding is especially more frequent as the climate changes.

## ISSUES AND OPPORTUNITIES

**Issues** identified: Veterans and youth services are lacking. Increase hours of operation of the MAC (senior center). Facilities are not centralized and therefore not convenient. Healthcare shortage, need more providers. Need funding for emergency responders and fire (slow response time). Repetitive flooded roadways. Upgrade school facilities. High speed internet.

**Opportunities** identified: Expansion of library services. Expansion of school services. Increase MAC senior center hours. Convert empty or vacant buildings to serve new purposes. New youth center. Addition of YMCA. Expansion of high speed internet services to remote areas of the County. Creation of a new multi-use facility.

## Chapter 6: Community Facilities

The community facilities element identifies the location, character and extent of public and semi-public buildings, lands, and facilities.<sup>1</sup> Somerset County supports a broad range of community facilities, including schools, parks and recreation, public safety, libraries, health services, solid waste collection and disposal sites. The majority of these facilities are managed by the County as public amenities. A few, such as the hospital and other medical facilities, are private. Schools and Parks comprise a major portion of the County's budget, and the principal facilities are included herein. Community facilities identified in this chapter are shown on Map 6-1.

### 6.1 Public Schools

The Somerset County Public School (SCPS) system is comprised of one pre-kindergarten (pre-k) through 1<sup>st</sup> grade school, two pre-kindergarten through 5<sup>th</sup> grade schools, second through 5<sup>th</sup> grade schools, one middle school, and two high schools. Altogether Somerset County contains 9 public schools with approximately 2,741 students enrolled. The districts minority enrollment is 60% and 57.2% of students are economically disadvantaged. Table 6-1 provides the 2022 enrollment of the public schools located within Somerset County in relation to the State Rated Capacity (SRC). The SRC is defined as "the maximum number of students that can be reasonably accommodated in a facility without significantly hampering delivery of the educational program".

#### Somerset County Public Schools

"Serving a rural, diverse community rooted in rich traditional values, Somerset County Public Schools empowers all students to become innovative problem solvers and ethical leaders by providing engaging, technology enhanced instruction and balanced extra-curricular programs."

Source: [www.somerset.k12.md.us/](http://www.somerset.k12.md.us/)

*Note: In addition, Somerset County Technical High School offers a wide variety of career and technical education for the residents of Somerset County. Attendance is accounted for at both Crisfield Academy and High School and Washington Academy and High School. Therefore, the Somerset County Technical High School is not included in Table 6-1.*

#### 6.1.1 Projected School Enrollment

Most schools within the SCPS system fall within the 70-85% range in terms of current enrollment to maximum capacity. However, as shown in Table 6.1, the Somerset Intermediate School is nearing maximum capacity as assigned by their SRC.

According to the Maryland Department of Planning, by 2031 SCPS is projected to have 2,850 students enrolled.<sup>2</sup> This increase should not drastically affect the capability of SCPS to provide quality education to its constituents.

Table 6-1.

Current School Enrollment & State Rated Capacity					
School Name	Type	Grades	SRC	Enrollment	Percent of SRC
Princess Anne Elementary	Elementary	PreK-1	399	329	82%

<sup>1</sup> Maryland Department of Planning, *Requirements of a Comprehensive Plan*, © Copyright Maryland.gov., <https://planning.maryland.gov/Pages/OurWork/compplans/requirements.aspx>

<sup>2</sup> [https://planning.maryland.gov/MSDC/Documents/school\\_enrollment/school\\_2022/Final-2022-School-Enrollment-Projections-Report.pdf](https://planning.maryland.gov/MSDC/Documents/school_enrollment/school_2022/Final-2022-School-Enrollment-Projections-Report.pdf)

Current School Enrollment & State Rated Capacity					
School Name	Type	Grades	SRC	Enrollment	Percent of SRC
Deal Island School	Elementary	PreK-5	157	111	71%
Carter G Woodson Elementary	Elementary	PreK-5	636	492	77%
Greenwood Elementary	Elementary	2-5	526	458	87%
Ewell School	Elementary & Middle	2-7	92	5	1%
Somerset Intermediate School	Middle	6-7	404	401	99%
Crisfield Academy & High School	High	8-12	542	379	70%
Washington Academy & High School	High	8-12	787	566	72%

Source: [https://planning.maryland.gov/MSDC/Documents/school\\_enrollment/school\\_2022/Final-2022-School-Enrollment-Projections-Report.pdf](https://planning.maryland.gov/MSDC/Documents/school_enrollment/school_2022/Final-2022-School-Enrollment-Projections-Report.pdf)

Note: No students were enrolled in Ewell Elementary during the 2023-2024 school year.

### 6.1.2 Future Plans & Education Strategies

In 2021 the State of Maryland passed legislation that includes comprehensive changes to nearly every aspect of Maryland's public education system. Named '[The Blueprint for Maryland's Future](#)', the plan includes increasing annual funding by over \$3.8 billion over the next 10 years in order to enrich student experiences, accelerate improvements to student outcomes, and improve the overall quality of education in Maryland. The Blueprint for Maryland's Future is organized into five pillars. These include:

1. Early Childhood Education
2. High Quality and Diverse Teachers and Leaders
3. College and Career Readiness
4. More Resources for All Students to Be Successful
5. Governance and Accountability

Somerset County Public Schools (SCPS) has developed steering committees for each pillar to collaboratively address all components of the legislation, providing better opportunities for students and educators.<sup>3</sup>

In support of Early Childhood Education, Somerset County has increased Pre-K 3 and Pre-K 4 participation among eligible 3- and 4-year-olds.<sup>4</sup> By utilizing expansion grants SCPS expect to continue increasing the inclusion of 3-year-old served within the county. In the 2020-2021 school year, SCPS provided two Pre-K 3 classrooms (one at Princess Anne Elementary and one at Woodson Elementary). In the 2021-2022 school year one additional classroom was added at Princess Anne Elementary School. In the 2022-2023 school year this increased to four classrooms (two at Princess Anne and two at Woodson). For the 2023-2024 school year SCPS plans to continue expansion through an additional Pre-K 3 classroom at Princess Anne Elementary.

All the schools in Somerset County Public Schools, with the exception of Deal Island Elementary and Ewell elementary have an almost even gender complement of 49% female and 51% male. In regard to race the student

<sup>3</sup> <https://www.somerset.k12.md.us/o/scps/page/maryland-blueprint>

<sup>4</sup> Somerset County Public Schools Initial Implementation Plan Template [https://core-docs.s3.amazonaws.com/documents/asset/uploaded\\_file/3497/SCPS/2883137/19-Somerset\\_Count\\_Public\\_Schools\\_3.15.23\\_Updated.pdf](https://core-docs.s3.amazonaws.com/documents/asset/uploaded_file/3497/SCPS/2883137/19-Somerset_Count_Public_Schools_3.15.23_Updated.pdf)

complement is 46% black and 35% white. Other races make up a total of 19%. The district has 79% female and 21% male teachers.<sup>4</sup> *Note: No students were enrolled in Ewell Elementary during the 2023-2024 school year.*

### 6.1.3 University of Maryland Eastern Shore

University of Maryland, Eastern Shore is a public institution that was founded in 1886. It has a total undergraduate enrollment of 2,233 (fall 2023) and total graduate enrollment of 611 (fall 2023). Its setting is rural, and the campus size is 1,100 acres. It utilizes a semester-based academic calendar.<sup>5</sup> The campus is located at 11868 College Backbone Road, Princess Anne, MD 21853.



Figure 6-1: UMES Campus. Source: [www.commonapp.org/explore/university-maryland-eastern-shore](http://www.commonapp.org/explore/university-maryland-eastern-shore).

The primary building and land uses consist of Academic, Research, Residential, Student Services, Administration, Athletic facilities and Support. The rich natural character of UMES is due in large part to the variety and quality of open spaces. Existing open spaces can be categorized as formal campus greens, informal campus greens, athletics fields, and agricultural landscapes. Though the open spaces on the main campus are linked together by a series of pedestrian paths, greenways and smaller quadrangles, presently the east campus is edgeless, and the open spaces are undefined and poorly linked to the main campus. Most of the land is farm and forest. These natural features and rural qualities should be valued and respected as the university grows.<sup>6</sup>

The [UMES Executive Summary](#) gives recommendations for future as follows:

- Concentrate new building development in or near the historic campus core to complete unfinished quads and strengthen the close proximity of human-scaled living and learning spaces, providing more opportunities for interdisciplinary interaction.
- Create new quads, including one adjacent to the new Sciences building, that connect to the historic quad in a meaningful way.
- Plan landscapes that foster outdoor activity.
- Consider future development outside of the core for only strategic or very long-term uses.

<sup>5</sup> <https://www.usnews.com/best-colleges/umes-2106#:~:text=University%20of%20Maryland%2C%20Eastern%20Shore%20is%20a%20public%20institution%20that,a%20semester%2Dbased%20academic%20calendar>.

<sup>6</sup> <https://www.wcp.umes.edu/facilities/wp-content/uploads/sites/66/2023/06/20160524-UMES-Executive-Summary.pdf>

- Strengthen pedestrian connections to existing precincts outside of the campus core, including to off-campus housing.
- Remove and replace temporary structures by infilling their uses within existing or new structures.
- Renovations should address building conditions, functionality, as well as health and safety and environmental constraints (such as the floodplain, ADA access, etc.).
- Land use patterns should properly distribute residential and academic buildings as well as parking to create an active dynamic campus.
- Establish an athletics precinct on campus which is robustly connected with trails, open spaces, and bike paths.



Figure 6-2: UMES Campus Spatial Organization

## 6.2 Library and Information Services

The Somerset County Public Library system consists of the Crisfield, Princess Anne, and Ewell branch libraries. Services include Adult and Children's Services Departments and programming along with public access to computers with internet which includes online databases and word processing programs.

### 6.2.1 Library and Information Services Future Plans

In January 2018, the Somerset County Library initiated a strategic planning process to create a long-term guide for library operations. Because of major changes in library operations since the previous plan was created in 2012 – among them, construction, and the subsequent doubling in usage of the Crisfield Library, formation of the Eastern Shore Library Consortium, and major impacts of technology on both operational matters and public services, this process focused on re-invention of library services.<sup>7</sup>

Future goals include but are not limited to:

- Continuing to develop the range of programs that the library offers the community.
- Bring programming schedules parallel between the Crisfield and Princess Anne Libraries.
- Diversify collections to include non-traditional materials.
- Increase the library's presence in rural areas.
- Increase promotion of library resources.
- Assist in the promotion of community activities.
- Increase partnerships with local schools and other youth services organizations.
- Develop and implement formalized methodology for staff development.
- Address facility and furnishing needs.
- Expand the library's technological capacity and formalize its methodology for acquiring both equipment and expertise.
- Ensure that the library schedule suits the needs of the community.
- Increase the range and scope of youth programs.
- Address the needs of ELL children and parents.
- Build teen patrons' sense of investment in their community.

<sup>7</sup> [http://www.somelib.org/strat\\_plan.pdf](http://www.somelib.org/strat_plan.pdf)

To address facility and furnishing needs Somerset County libraries are set to redeploy spaces to better suit patrons. Princess Anne intends to expand the teen and children’s spaces including furnishings and technologies. Princess Anne also intends to expand the study areas and small group meeting spaces. In addition, Princess Anne is exploring the possibilities for outdoor seating, additional parking, and better user accessibility for the restrooms.

6.3 Parks & Recreation

There are approximately 81,223 acres of preserved land throughout Somerset County. State and Federal land comprise 52,484 acres of the total protected lands acreage. Approximately 792 total acres are preserved for Public Recreational use. The data provided in the pie chart, Figure 6-3 was obtained from the [Maryland Protective Lands Dashboard](#). Various programs were used to protect these lands.

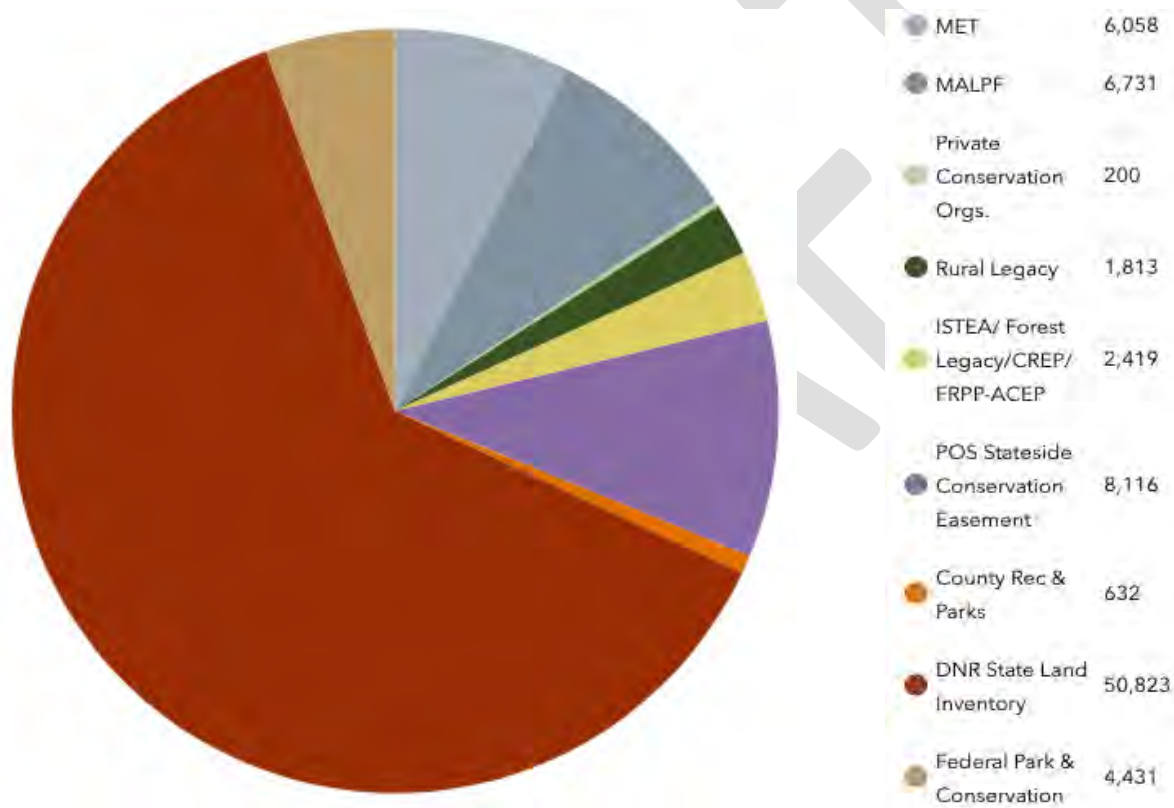


Figure 6-3: Protected Lands Acres by Category. Source: [www.arcgis.com/apps/dashboards/0f3ffd3350b24b17bd3b8e1705af3df5](http://www.arcgis.com/apps/dashboards/0f3ffd3350b24b17bd3b8e1705af3df5)

According to the Somerset County Land Preservation, Parks and Recreation Plan, the largest recreational county sites are the Great Hope Golf Course which holds 213 acres, the Raccoon Point Recreational Area which holds 216 acres, and the “Long” Centralized Athletic Complex which holds 46 acres. The Raccoon Point Recreational Area is used as a regional park for both active and natural resource-based recreation and the Centralized Athletic Complex, which opened in the summer of 2010, contains five multipurpose fields for recreational use.<sup>8</sup> As shown on Table 6-2, various local entities own and operate recreation and resource lands with Somerset County, with the County itself being the largest local owner.

<sup>8</sup> [https://www.playsomersetmd.com/uploads/4/1/3/5/41354753/lpprp\\_formal\\_draft\\_7.15.22\\_.pdf](https://www.playsomersetmd.com/uploads/4/1/3/5/41354753/lpprp_formal_draft_7.15.22_.pdf)

Table 6-2.

Acreage of Public Recreation and Resource Lands in Somerset County by Owner			
Owner	Recreation	Acres Resource	Total
Somerset County	598	-	598
Board of Education	160	-	160
Town of Princess Anne	21	-	21
City of Crisfield	5	-	5
Crisfield Housing Authority	8	-	8
<b>Total Local</b>	<b>792</b>	-	<b>792</b>
State	-	48,053	48,053
Federal	-	4,431	4,431
<b>Total State and Federal</b>	<b>3,794</b>	<b>52,484</b>	-
<b>Grand Total*</b>	<b>4,586</b>	<b>52,484</b>	-

Source: [www.playsomersetmd.com/uploads/4/1/3/5/41354753/lpprp\\_formal\\_draft\\_7.15.22.pdf](http://www.playsomersetmd.com/uploads/4/1/3/5/41354753/lpprp_formal_draft_7.15.22.pdf)

### 6.3.1 Glenn Ward Ballpark, Crisfield

Glenn Ward Ball Field is a recreational area located on Old State Road in Crisfield, MD. Situated nearby is the Mariners Cemetery and the Mariners United Methodist Church. Glen Ward Ballpark contains one softball field with lights and dugouts, a concession stand with restrooms, a small basketball court, and a press box. The field is utilized currently to host recreational girls' softball games and by the Lion's Club for special events such as their annual fundraising tournament.

For future use the county is working with the local Little League Chapter to use the venue for Junior and Senior league competition while also initiating programming to serve adults interested in both Men's and Coed Softball. There are also plans to regrade the ball field surface and parking lot alongside adding a playground.

### 6.3.2 Upper Hill Park, Westover

Upper Hill Park is a recreational area located on Jones Factory Road in Westover, MD. Situated nearby is the United States Postal Service and the Saint Stephens Cemetery. Upper Hill Park contains playground equipment, a pavilion with picnic tables, and one asphalt basketball court.

Future plans of improvement include continued maintenance, a complete overhaul of the playground equipment, resurfacing the basketball court, and the implementation of additional playground equipment. The park is now also included in the Trail Program with hopes to increase exposure and use.

### 6.3.3 Centralized Athletic Complex, Westover

The Centralized Athletic Complex is an athletic recreational facility located on Sam Barnes Road in Westover, MD. Situated nearby is the Six L's Packing company and the Poultry Equip Services. The facility consists of two full sized soccer/field hockey fields, three small sized multi-purpose fields, a concession stand with restrooms, and a pavilion with ten picnic tables.

Future plans include expanding the property to include two more full sized soccer/field hockey fields for a total of four full sized fields for use.

#### **6.3.4 Great Hope Golf Course, Westover**

The Great Hope Golf Course is an 18-hole golf course located on Crisfield Highway in Westover, MD. Situated nearby is the Somerset County Sheriff's Office, Somerset Intermediate School, Somerset Technical High School, and the Board of Education. The facility consists of a pristine 18-hole golf course, a restaurant, and club house with a store, a pavilion with picnic tables, and walking trails alongside the course.

Future plans include the ongoing creation of the nature trail that connects to the adjacent Somerset County Public Schools property, opening the venue to patrons for picnics, walking, concerts, and other non-golf related activities, and a clubhouse renovation which includes a new HVAC system, carpet, and paint.

#### **6.3.5 Raccoon Point Park, Westover**

The Raccoon Point Park is a recreational waterfront park area located on Revells Neck Road in Westover, MD. Situated nearby is the Raccoon Point Studios. This county parks facility includes a strand of bayside beach, kayak/canoe soft launch, a pavilion with a BBQ grill, and portable toilet facilities.

Future plans include the creation of a "Friends of Raccoon Point" group with the intention to police the park and address current issues along with bi-annual cleanup days for the park's maintenance. Raccoon Point has also been included as a destination in the trail initiative.

#### **6.3.6 Princess Anne Little League Complex, Princess Anne**

The Princess Anne Little League Complex is a recreational athletic facility located on Maple Street in Princess Anne, MD. Situated nearby is Ocean Hwy and the Somerset County Office Complex. This athletic facility consists of one junior league baseball field, two minor league fields, and one tee-ball field. There is also a concession stand with bathrooms along with press boxes.

Future plans for the facility include a new turf management plan and large brush/undergrowth removal with tree pruning to increase visibility from the road and the overall attractiveness of the facility. Future plans also include opening the facility to be rented/used by other baseball programs for tournaments and practices, partnering with Somerset County Public Schools for their middle school baseball and softball teams, and partnering with both local little leagues to combine resources for inter-league and all-star level play.

#### **6.3.7 County Office Complex Indoor Gymnasium, Princess Anne**

Also known as the Old Washington High Gymnasium, the County Office Complex indoor gymnasium is a multi-sport indoor recreational facility located on Somerset Avenue in Princess Anne, MD. The Princess Anne Little League Complex is also located near this facility. The facility consists of one multi-sport court that can accommodate indoor soccer, indoor field hockey, basketball, and volleyball. The facility also contains restrooms.

Future plans for the facility include embracing the area as an indoor walking opportunity for walking during the business day for county employees and continuing the implementation of a wide range of rental opportunities to private groups and teams within and outside the county.

### 6.3.8 Mt. Vernon Park, Princess Anne

Mt. Vernon Park is a recreational park and playground area located on Mt. Vernon Road in Princess Anne, MD. Situated nearby is the Asbury United Methodist Church and the Websters Cove Boat Ramp. Mt. Vernon Park is less than one mile from the mouth of the Wicomico River and Webster's Cove Marina boat ramp. This recreational area consists of playground equipment, a pavilion with access to electricity, and picnic tables.

Future plans include the addition of a new basketball court, pavilion upgrades, and new rubber mulch material to be added to the playground areas. There are also plans to include the park within the trail initiative to enhance community usage along with introducing improved workout stations at the park.

### 6.3.9 Terrapin Run Recreational Trail, Crisfield

The Terrapin Run Trail is a recreational trail established in 2021 with two trailheads, one located on Hinman Lane in Crisfield, MD and the other located on Marion Road in Marion, MD. The trail stretches 4.5 miles and is fully paved making it suitable for walking and cycling. Leashed pets are welcomed. Additional project phases are planned, which will ultimately link trails together, eventually creating one long trail alongside of MD Route 413.

*Note: In addition to the parks and recreation information included above, Chapter 7 Transportation, includes active and pedestrian transportation, specifically human powered mobility such as, biking, walking, or rolling.*

### 6.3.10 Janes Island State Park, Crisfield

Janes Island State Park is located just outside of Crisfield, MD. The mainland portion of the park includes 103 campsites, rental cabins, a lodge, picnic areas, pavilions, and the boat ramp and marina. The island portion of the park, Janes Island, includes over 2,900 acres of saltmarsh, over 30 miles of water trails and miles of isolated pristine beaches. This area of the park offers ADA accessible restrooms and four accessible campsites. The park store, nature center, picnic pavilions, recreation area, fish cleaning station and dock area are also ADA accessible.

*Note: In addition to the parks and recreation information included above, Chapter 7 Transportation, includes active and pedestrian transportation, specifically human powered mobility such as, biking, walking, or rolling.*

## 6.4 Public Safety

The Somerset County Department of Emergency Services has the mission of coordinating the resources necessary to respond to an emergency. On a daily basis this occurs through the 9-1-1 Emergency Communications Center. For large scale events the Emergency Operations Center (EOC) coordinates emergency management services. To protect lives and property within Somerset County, it is the responsibility of this office to prepare the County and the public to manage activities before, during, and after the impact of natural and technological disasters.<sup>9</sup>

The EOC is located at 11916 Somerset Avenue, Room 120, Princess Anne, Maryland, 21853. The back-up EOC is located on 8928 Sign Post Rd, Westover, MD 21871. When the Emergency Operations Center is fully activated the EOC staff includes the Director of 911/Emergency Management, County Commissioners President, County Administrator, and representatives from the Board of Education, Health Department, Social Services, Law

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<sup>9</sup> <http://www.somerset911.org/cd.html>

Enforcement, Public Works, County Roads, State Highway Administration, Red Cross, RACES, the United States Coast Guard, National Guard, Fire and EMS providers and many others.

Somerset County utilizes an emergency notification system, Code Red Emergency Alerts. That way, in an emergency, you can be notified by Somerset Emergency Services in the event of emergency situations or critical community alerts. Examples include evacuation notices, bio-terrorism alerts, boil water notices, and missing child reports.<sup>10</sup>

#### 6.4.1 EMS & Fire Departments

Somerset Central dispatches 8 fire companies and two ambulance companies. All are entirely volunteer staffed except for Station 5 - Princess Anne Fire Department/EMS which employs an Advanced Life Support (ALS) provider 24 hours a day. Emergency Service facilities located in Somerset County include the Princess Anne Fire & EMS and the Lower Somerset County Ambulance & Rescue Squad. Station 1, Ewell Fire Department and Station 7, Tylerton Fire Department serving island communities, dispatch EMS personnel to all medical calls and arrange for patient transport by boat or by the Maryland State Police helicopter to either McCreedy Memorial Hospital in Crisfield or Tidal Health in Salisbury on the mainland. Due to the distance from the ambulance station in this largely rural county, Station 3 - Marion Fire Department, Station 4 - Deal Island Fire Department, Station 6 - Mt Vernon Fire Department and Station 9 - Fairmount Fire Department respond an EMS crew on every medical call in their jurisdictions. Table 6-3 lists each Emergency Service facility within the county along with its location.

**Table 6-3.**

Emergency Medical Service Facilities	
Name	Location
Station #5 Princess Anne Fire & EMS Department	11794 Somerset Ave, Princess Anne, MD 21853
Station #6 Lower Somerset County Ambulance & Rescue	2 Mill Lane Crisfield, MD 21817

Source: <https://www.somerset911.org/fireems.html>

Fire Departments located in Somerset County include the Ewell Volunteer Fire Department, the Crisfield Volunteer Fire Department, the Marion Volunteer Fire Department, the Deal Island – Chance Volunteer Fire Company, the Princess Anne Fire & EMS, the Mt Vernon Volunteer Fire Department, the Tylerton Volunteer Fire Department, and the Fairmount Volunteer Fire Department. Table 6-4 lists each Fire Station and its location.

**Table 6-4.**

Fire Department Facilities		
Station #	Name	Location
1	Ewell Fire Department	3994 Smith Island Rd, Ewell MD
2	Crisfield Fire Department	600 West Main St, Crisfield MD
3	Marion Fire Department	28390 Crisfield Marion Rd, Marion MD
4	Deal Island/Chance Fire Department	10090 Deal Island Rd, Deal Island MD
5	Princess Anne Fire & EMS Department	11794 Somerset Ave, Princess Anne MD
6	Mt Vernon Fire Department	27740 Mt Vernon Rd, Princess Anne MD
7	Tylerton Fire Department	21140 Tuff St, Tylerton MD
9	Fairmount Fire Department	27407 Fairmont Rd, Fairmount MD

Source: <https://www.somerset911.org/fireems.html>

<sup>10</sup> [https://www.somersetmd.us/departments/departments - a - m/emergency\\_services.php](https://www.somersetmd.us/departments/departments - a - m/emergency_services.php)

#### 6.4.2 Law Enforcement

Law enforcement facilities in Somerset County include the Crisfield Police Department, the Princess Anne Police Department, the Somerset County Sheriff's Office, and the Maryland State Police – Barrack X. Table 6-5 below lists each law enforcement agency within the county along with its location.

Table 6-5.

Law Enforcement Facilities	
Name	Location
Somerset County Sheriff	30426 A Sam Barnes Road, Westover, MD 21871
Crisfield Police	319-A West Main Street, Crisfield, MD 21817
Princess Anne Police	11780 Beckford Avenue, Princess Anne, MD 21853
University of MD Eastern Shore Police	30737 University Blvd. South Princess Anne, MD 21853
Maryland State Police Barrack X	30581 Perry Rd, Princess Anne, MD 21853

Source: <https://www.somersetmd.us/government/sheriff-s-office.php>

#### 6.4.3 Corrections

The Somerset County Detention Center is responsible for the protection of the citizens of Somerset County, Maryland by providing a safe, secure, and humane place of confinement for those persons committed by any Judicial System. The Detention Center is operated in accordance with applicable Federal, State and local laws. The detention center is located at 30474 Revells Neck Road in Westover, Maryland.

The Department of Public Safety and Correctional Services protects the public, its employees, and detainees and offenders under its supervision. Located in central Somerset County, the Eastern Correctional Institution opened in 1987. The Institution is a medium-security prison for men built as two identical compounds (East and West) on a 620-acre tract. It has a pre-release unit, a minimum-security annex for 610 inmates, and an operating capacity of 2,665 medium security inmates. The facility is located at 30420 Revells Neck Road in Westover, Maryland.

### 6.5 Hospital & Public Health

Located within Somerset County, the Tidal Health McCready Pavilion, formerly known as the Edward W. McCready Memorial Hospital serves as a 24/7 emergency care facility. In addition to emergency care this facility also provides physical medicine and rehabilitation, inpatient skilled nursing care, assisted living, medical imaging, and outpatient laboratory services. The campus itself also houses physician offices including Behavioral Health, Gynecology, and Primary Care. The campus is located at 201 Hall Hwy, Crisfield, MD 21817.<sup>11</sup> In 2019 McCready Health merged with the Tidal Health to combat the overall decline in hospital usage within Somerset County and the facilities deterioration. This merge ensured that healthcare services in Somerset County would continue uninterrupted.<sup>12</sup>

<sup>11</sup> <https://www.tidalhealth.org/our-locations/tidalhealth-mccready-pavilion>

<sup>12</sup> <https://www.healthleadersmedia.com/finance/mccready-health-join-peninsula-regional>



Figure 6-4: Image of Tidal Health – McCready Pavilion. Source: <https://www.tidalhealth.org/our-locations/tidalhealth-mccready-pavilion>

In addition to the hospital, the Somerset County Health Department serves the public by preventing illness, promoting wellness, and protecting the health of our community. The Health Department is located at 8928 Sign Post Road in Westover, Maryland. Programs and services offered by the Health Department include:

- Behavioral Health Authority
- Community Health
- Emergency Preparedness
- Homeless Alliance for the Lower Shore Continuum of Care
- Medical Assistance Transportation
- Preventative Health Services
- Vital Records

Other medical facilities located in Somerset County include:

- Lower Shore Immediate Care (12302 Somerset Avenue, Princess Anne, Md 21853)
- Chesapeake Health Care Complex (12137-12615 Elm Street, Princess Anne, Md 21853)
- Princess Anne Family Practice (30434 Mt. Vernon Road #1400, Princess Anne, Md 21853)

## 6.6 Solid Waste and Disposal Sites

The Somerset County Division of Solid Waste and Drainage is responsible for landfilling, recycling and mulching operations, as well as improving drainage. The Solid Waste & Drainage Complex, which is located on James Ring Road in Westover, includes an administrative office, shop, equipment shed, break room, storage sheds, recycling building, scale house, landfill, borrow pits (BP), leachate storage tank, and mulching center (MC). There are also 6 transfer stations (TS), 4 county dumpsters (D), and an incinerator (I) located throughout the county.

Table 6-6.

Solid Waste and Drainage Department Facilities	
Name	Location
Landfill/Transfer Station	8716 James Ring Road, Westover, MD 21871
Mt. Vernon Transfer Station	29012 Mt. Vernon Road, Princess Anne, MD 21853
Deal Island/Chance Transfer Station	24019 Deal Island Road, Deal Island, MD 21821
Crisfield Transfer Station	4941 Crisfield Highway, Crisfield, MD 21817
Dublin/Costen Transfer Station	8405 Wallace Taylor Road, Pocomoke, MD 21851
Tylerton Transfer Station	Marshall Street (Dock), Tylerton, MD, 21866
Smith Island Incinerator	3780 Smith Island Road, Ewell, MD 21824

Source: Somerset County Solid Waste and Drainage Department, <https://www.somersetmd.us/departments/departments-n-z/solid-waste-and-drainage.php>

Most of these facilities are in the Princess Anne and Westover areas. Accepted recyclables include aluminum cans, anti-freeze, batteries, Bi-metal cans, cardboard, clothing, glass, magazines, newspaper, oyster shells, plastic, scrap metal, waste oil, and yard waste.

According to the [2020 MD Solid Waste Management and Diversion Report](#), the Somerset County Landfill has a permitted capacity of 1,610,000 Cubic Yards (CY). As of 2020, 1,031,764 CY of that space has been used. Therefore, the remaining capacity of the Landfill is 578,236 CY. The MD Solid Waste Management and Diversion Report finds that the maximum capacity of this landfill will be reached by 2032.<sup>13</sup>

#### 6.6.1 Solid Waste Future Plans

In review of the [Solid Waste and Drainage Division Strategic Plan](#), specifically the Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis, several issues and opportunities for the future were identified. One of these issues include capacity limitations of the landfill and borrow pit, therefore potential for landfill and borrow pit expansion was identified.

*Note: Water and wastewater infrastructure is included in Chapter 9 Water Resources of this plan and in the County Water and Sewerage Plan.*

### 6.7 Broadband Service

Broadband is defined as a high-capacity transmission technique using a wide range of frequencies, which enables a large number of messages to be communicated simultaneously. According to the FCC, this transmission must occur at a minimum of 25 Mbps download and 3 Mbps upload.

Over the past several years, Somerset County has undertaken an effort to ensure that all County residents and businesses have access to high-speed, affordable broadband services— but service gaps persist. The FCC’s [National Broadband Map](#) shows areas and addresses in the County in relation to their level of broadband access and level of funding opportunities. The mapping platform includes the extent and availability of both fixed and mobile broadband services. As of June 2023, the County has greater coverage of mobile broadband than fixed broadband; fixed broadband services are still lacking in remote portions of the county. The National Broadband Map is updated twice annually.

<sup>13</sup>

[www.mde.maryland.gov/programs/land/Documents/MD%20Solid%20Waste%20Management%20and%20Diversion%20Report%20CY2020%20281%29.pdf](https://www.mde.maryland.gov/programs/land/Documents/MD%20Solid%20Waste%20Management%20and%20Diversion%20Report%20CY2020%20281%29.pdf)

Unserved portions of Somerset County face the same challenges as other rural communities in attracting broadband infrastructure investment. Nationwide, even in the most affluent rural and semi-rural areas—from the horse farms around Lexington, Kentucky, to the ski communities outside of Aspen and Telluride, Colorado, to the resort areas on the Chesapeake Bay—the economics simply do not exist for rural broadband deployment absent substantial government funding. The private sector will not build costly infrastructure to reach all homes and businesses in low-density areas simply because the potential return on investment is insufficient to justify the investment. The same dynamics apply to virtually all areas of rural infrastructure development. In the case of broadband, the issues are starker because broadband is traditionally thought of as an area of private investment, rather than public investment. The challenging economics result from the lack of density of homes—and, in many cases, the fact that homes are located on large parcels of land; long driveways or setbacks from the road greatly increase the cost to deploy wired infrastructure to those homes.<sup>14</sup>

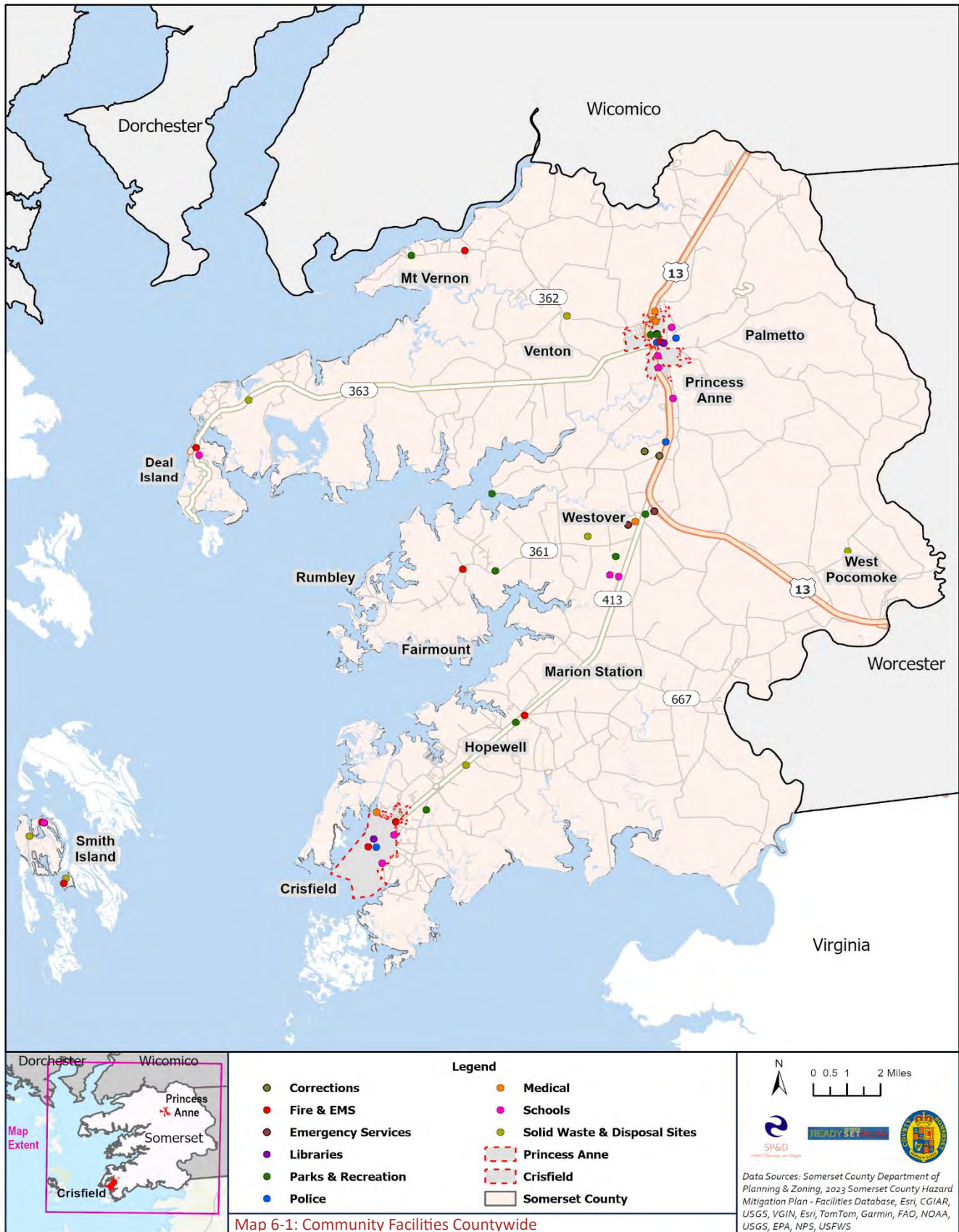
Somerset County is currently in a growth and expansion period of its broadband services and capabilities. The County participates in a Local Government Broadband Collaboration Workgroup, of which County IT Economic Development, and Planning and Zoning are involved with. The point of contact appointed for this workgroup is the county engineer. Historically, the County only had two internet service providers (ISPs) in the area: Spectrum/Charter covered the Crisfield area and Comcast/Xfinity covered the Princess Anne, Deal Island, Mt. Vernon, Eden and Pocomoke areas. In the past, the rest of the County was considered “too rural” to be profitable. However, in recent years there has been interest from the federal and state governments to increase broadband services to underserved areas, and as such, funding opportunities to expand broadband are now available. The existing ISPs have taken advantage of the new funding, and Spectrum/Charter obtained state [Network Infrastructure](#) grant funding to expand from Crisfield toward US Route 13, which focuses on the lower third of the county. Choptank Electric got into the broadband business by creating Choptank Fiber and obtained state Network Infrastructure funding to expand out from Princess Anne, which covers approximately a third of the county. Comcast had little interest in expanding as they already had a third of the county. Simple Fiber, a start-up company that focuses on small municipalities, obtained a Rural Maryland Prosperity Investment Fund (RMPIF) grant from the Rural Maryland Council to expand near downtown Princess Anne. Talkie Fiber, a start-up company on the upper shore, received a federal Rural Digital Opportunity Fund (RDOF) grant to serve extremely remote areas of the county. Verizon has recently applied for a state Network Infrastructure grant to focus on Smith Island.

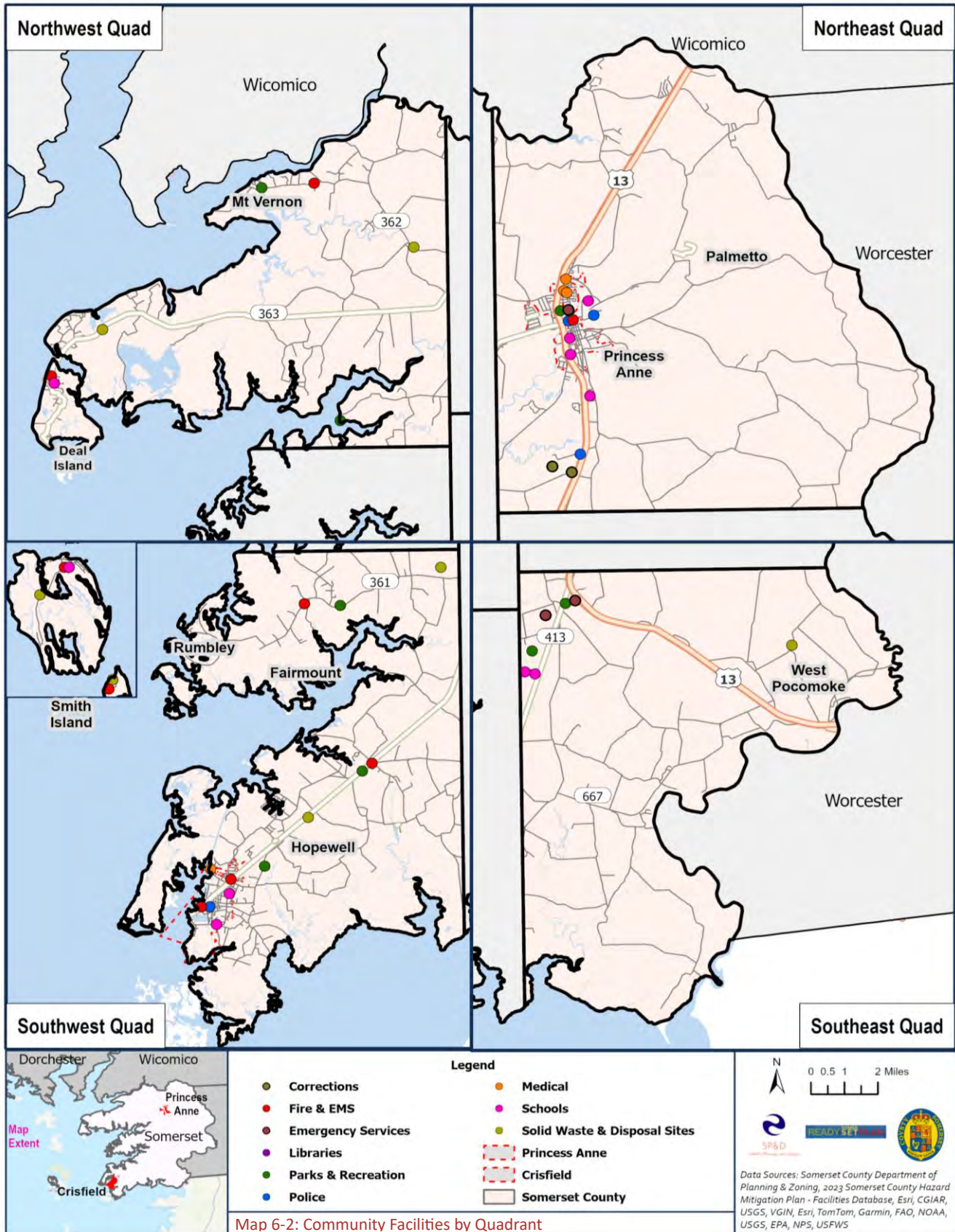
In order to incentivize broadband expansion, the county allocated \$1M of its federal American Rescue Plan Act (ARPA) funds toward broadband. Spectrum/Charter received \$250K and Choptank Fiber received \$750K. Somerset County recently applied for a state Homestretch grant to reach properties with long driveways and are awaiting approval. The county is partnering with a few additional ISPs, and later anticipates applying for a state Broadband Equity, Access and Deployment (BEAD) grant to reach the remaining unserved and underserved properties which will achieve its ultimate goal of serving all county residents.

*Note: Community facilities, not including broadband, as identified in this chapter are, shown on Maps 6-1 and 6-2.*

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<sup>14</sup> <https://cms7files1.revize.com/somersetcountymd/Broadband%20Strategic%20Plan%20-%20Somerset%20County%20-%20Final%20-%2020200717.pdf>





Map 6-2: Community Facilities by Quadrant

## Chapter 6: Community Facilities Goals & Implementation Strategies

### Goal 6.1

Provide appropriate community facilities, services, and amenities.

#### Strategies

- A. Encourage public/private partnerships to support development of community facilities and services.
- B. Provide for the protection and adaptability of public facilities and resources in the face of climate change and sea level rise.
- C. When development or redevelopment occurs, provide public access to waterways where appropriate and feasible.
- D. Promote existing public access to waterways, specifically existing thirteen waterway facilities.
- E. Upgrade existing waterway access locations and facilities, such as boat ramps, docks, and kayak launches.
- F. Add a fishing pier adjacent to existing pier in the Rumbley community.
- G. Identify opportunities for additional public access to waterways at appropriate locations.
- H. Encourage and/or support a new or upgraded Princess Anne Library.
- I. Identify new locations for emergency services EMS and fire substations in areas of the County that lack these services and therefore experience longer response times, on average.
- J. In consideration of landfill capacity, expand landfill.
- K. Establish additional compost site for the collection and processing of yard waste in both the northern and southern areas of the County.
- L. Target demolition waste for recycling to better support LEED building process.
- M. Cooperate with municipal governments to avoid duplication of services and continue to promote the use of shared facilities and services.
- N. In cooperation with the Somerset County Hazard Mitigation Plan, review action items and projects related to public facilities located in high hazard areas.
- O. Identify gaps in existing health care services within Somerset County and identify potential opportunities for regional collaboration and enhancements.

### Goal 6.2

Provide infrastructure and services to support economic development.

#### Strategies

- A. Promotes upgrades to the existing Princess Anne Civic Center to be a state-of-the-art facility.
- B. Look for opportunities to connect trail systems both locally and regionally to create additional ecotourism opportunities.
- C. Identify future trails/paths to connect residential neighborhoods with shopping centers and employment centers.
- D. Strongly support improvement and dedication of lands for public trails and paths as part of development plans.

**Goal 6.3**

Evaluate and implement the strategies and capital improvements in the Land Preservation, Parks, and Recreation Plan (LPPR.)

**Strategies**

- A. Promote the economic, cultural, health, and environmental benefits of outdoor recreation and conservation of natural lands. Seek to increase the public's understanding of these benefits to enhance interest and participation in recreating outdoors in the County.

**Goal 6.4**

Create a connected, county-wide network of greenways, parks, trails, and natural areas.

**Strategies**

- A. Expand and connect forests, farmlands, and other natural lands as a network of contiguous green infrastructure.
- B. Build upon and establish new greenways and trails along waterways.
- C. Develop a county-wide Green Infrastructure Plan. Establish a robust stakeholder group to guide this process.

**Goal 6.5**

Support efforts to identify landfill facility expansion.

**Strategies**

- A. Coordinate efforts with other involved County departments.

**Goal 6.6**

Expand broadband infrastructure to provide coverage throughout Somerset County.

**Strategies**

- A. Continue to support Choptank Fiber with broadband expansion in the northern part of the County with previously awarded grant money.
- B. Continue to support Spectrum with broadband expansion in the southern part of the County with previously awarded grant money.
- C. Continue to support Simple Fiber with broadband expansion in Princess Anne with previously awarded grant money.

# CHAPTER 7 TRANSPORTATION

## PUBLIC SURVEY RESULTS



### STRENGTHS

Top 5 transportation **strengths** as identified by the survey:

- 1.) Access to interstates and highways
- 2.) Traffic flow and congestion
- 3.) Ability of major roadways to handle traffic
- 4.) Condition of roadways
- 5.) Greenways and trails

94%

### AUTOMOBILE

The vast majority of residents (94.29%) use automobile as their primary mode of transportation.

Walking as a primary mode of transportation is a distant second (16.85%). Other modes of transportation people utilize include bicycling, Shore Transit, and carpool.

7%

### OTHER

Some respondents (7.34%) indicated their primary mode of transportation was non-conventional. This included use of boat, golf cart, motorcycle, and ferry. Watercraft are utilized to reach the County's remote islands, such as Smith Island, and golf carts are used to traverse while on the islands.

## ISSUES AND OPPORTUNITIES

**Issues** identified: lack of public transportation (buses), lack of medical transportation, and lack of sidewalks connecting urban areas.

**Opportunities** identified: connecting trails, maintaining green spaces with county partners (such as the U.S. Forest Service), developing with pedestrians and cyclists in mind, expanding the scale and frequency of bus transit to include rural areas, expanding ferry hours, and additional lighting along trails.

## Chapter 7: Transportation

The transportation element describes and presents transportation patterns and includes the entire spectrum of transportation facilities (roads, rail, air, public transit, bicycle and pedestrian amenities, and transit-oriented development) applicable to the jurisdiction.<sup>1</sup> This plan chapter contains a description of the existing transportation system and goals and strategies to address both current and future conditions. While transportation planning has historically focused on the roadway network, specifically the movement of goods, a focus of this update is the mobility of people using a variety of transportation modes.

### 7.1 Roads

The existing roadway system in Somerset County includes US Route 13 (Ocean Highway), MD Route 413 (Crisfield Highway), MD Route 363 (Deal Island Road), and MD Route 361 (Fairmount Road) as main travel roadways. MD Routes 667 (Hudson Corner Road) and 675 (Somerset Avenue) also provide important roadway linkages for county-oriented travel.

- **US Route 13** serves as the County's only principal arterial. It is also a major route used by county and interstate motorists traveling to Norfolk, Virginia, and the Chesapeake Bay Bridge-Tunnel, as well as those traveling north into Delaware. In addition to interstate travel, traffic volumes on US Route 13 area generated by the County's major collector highways, MD Route 362, 363, and 361, and MD Route 413. These major arterial, collectors, and local roadways are depicted in Maps 7-1 through 7-5.
- **MD Route 413** is a main county transportation corridor which connects to US Route 13 at Westover. MD Route 413 extends from the US Route 13 interchange to Crisfield in the southern portion of the County. MD Route 413 provides an important link for the communities of Marion, Hopewell, Crisfield, and Kingston to regions throughout and beyond Somerset County.
- **MD Route 362** (Mount Vernon Road) connects the Town of Princess Anne to Mount Vernon in the northwestern corner of the County. The communities of Jason and Widgeon are also served by MD Route 362, their main access to US Route 13 and surrounding regions.

#### Existing Road Function Classification

Functional classification is the process by which public streets and highways are grouped into classes according to the character of service they are intended to provide. Generally, highways fall into one of four broad categories: principal arterials, minor arterials, collector roads, and local roads.

**Arterial** – include freeways, multilane highways, and other important roadways that supplement the Interstate System. They connect, as directly as practicable, the Nation's principal urbanized areas, cities, and industrial centers. Land access is limited. Posted speed limits on arterials usually range between 50 and 70 mph.

**Collectors** – are major and minor roads that connect local roads and streets with arterials. Collectors provide less mobility than arterials at lower speeds and for shorter distances. They balance traffic mobility with land access. The posted speed limit on collectors is usually between 35 and 55 mph, moderate.

**Local** – roads provide limited mobility and are the primary access to residential areas, businesses, farms, and other local areas. Local roads, with posted speed limits usually between 20 and 45 mph, are the majority of roads in the United States.

Source: U.S. Department of Transportation, Federal Highway Administration, Road Function Classification.

<sup>1</sup> Maryland Department of Planning (.gov) <https://planning.maryland.gov/OurWork/complans>

- **MD Route 363** begins at the Town of Princess Anne and ends at Wenona on Deal Island in the western regions of the County. MD 363 also serves as an important roadway for the communities of Chance, Dames Quarter, Monie, and Oriole.
- **MD Route 361** connects to MD Route 413 just south of the US Route 13/MD Route 413 interchange and extends west to Upper Fairmount, Manokin, Rumbley, and Westover.
- **MD Route 667** provides an important linkage between MD Route 413 to US Route 13. MD Route 667 also serves as a secondary route for motorists traveling from Marion to Crisfield and avoiding MD Route 413.
- **MD Route 675** serves as the “Main Street” for Princess Anne residents, businesses, and the University of Maryland Eastern Shore. It traverses north-south connecting to US Route 13.

### 7.1.1 Average Annual Daily Traffic

MDOT SHA Annual Average Daily Traffic (AADT) is produced from traffic counts used to calculate annual average daily traffic (AADT) for roadways throughout the State. Seven (7) years of historic AADT volume metrics are available for Somerset County. The most recent data is produced for 2022. Table 7-1 shows AADT for major roadways in Somerset County as described in the previous text. Data is included only for the most traveled segments of each route.

Table 7-1.

AADT for Select Routes in Somerset County, 2016 through 2022										
Route	Location	2016	2017	2018	2019	2020	2021	2022	Average	% Change (2016 - 2022)
<b>US 13</b>	MD 362 to Wicomico CO/L	28,350	28,116	28,003	28,504	24,385	27,478	28,158	<b>27,571</b>	<b>-0.68%</b>
<b>MD 361</b>	Clyde Ford Road to MD 413	1,483	1,524	1,525	1,490	1,231	1,462	1,433	<b>1,450</b>	<b>-2.22%</b>
<b>MD 362</b>	Black Road to MD 675	2,753	2,824	2,805	2,950	2,461	2,822	2,843	<b>2,780</b>	<b>0.98%</b>
<b>MD 363</b>	MD 672 to US 13	3,910	4,001	3,972	3,570	2,981	3,412	3,410	<b>3,608</b>	<b>-7.72%</b>
<b>MD 413</b>	MD 413 to Plantation Road	8,194	7,340	7,301	7,392	6,123	7,274	7,095	<b>7,246</b>	<b>-11.57%</b>
<b>MD 667</b>	MD 413 to US 13	2,330	2,381	2,372	2,403	1,994	2,375	2,190	<b>2,292</b>	<b>-1.63%</b>
<b>MD 675</b>	US 13 to MD 362	7,084	7,245	6,930	7,011	5,812	6,913	6,744	<b>6,820</b>	<b>-3.73%</b>

Source: [Maryland Department of Transportation State Highway Administration, Office of Planning and Preliminary Engineering](#) (as of 6/21/2023).

Based on AADT between the years 2016 and 2022, US Route 13 (MD 362 to Wicomico County) experiences the largest volume of daily traffic compared to other roadways in the County by a large margin. MD Route 362 is the only route to have experienced an increase in AADT from 2016 to 2022. MD Route 413 has experienced the largest decrease in AADT (11.57%) of the routes included in Table 7-1.

Table 7-2 shows AADT for **all segments** of select routes in Somerset County between 2016 and 2022. There is a decrease in AADT for all monitored road segments. MD Route 413 has experienced the largest decline in AADT since 2016 of 20.19%.

Table 7-2.

AADT for All Segments of Select Routes in Somerset County, 2016 through 2022									
Route	2016	2017	2018	2019	2020	2021	2022	Average	% Change (2016 - 2022)
US 13	92,873	94,103	93,235	92,687	77,692	91,103	90,848	90,363	-2.18%
MD 361	3,506	3,599	3,592	3,460	2,863	3,406	3,316	3,392	-5.41%
MD 362	4,416	4,528	4,500	4,550	3,792	4,404	4,386	4,368	-0.68%
MD 363	11,206	11,473	11,420	10,693	8,880	10,437	10,266	10,625	-8.39%
MD 413	52,412	52,551	50,140	50,722	42,571	42,784	41,831	47,573	-20.19%
MD 667	3,544	3,626	3,522	3,564	2,956	3,518	3,304	3,433	-6.77%
MD 675	11,999	11,855	11,511	11,653	9,655	11,487	11,209	11,338	-5.51%

Source: [Maryland Department of Transportation State Highway Administration, Office of Planning and Preliminary Engineering](#) (as of 6/21/2023).

The [State's 2040 Transportation Plan](#) maps segments of roadways in the State expected to experience increased congestion by 2040 – this measure is known as Travel Time Index (TTI). A TTI of 2.0 or more means that a trip that takes ten minutes in light traffic would take twenty minutes in heavy traffic. According to the State's Plan, the segment of US Route 13 in Somerset County from Eden to Salisbury is expected to experience an increase in traffic congestion of greater than or equal to 50% by 2040. This area is shown in Figure 7-1. In fact, the entirety of US Route 13 throughout Somerset County is expected to experience some level of increased congestion by 2040.

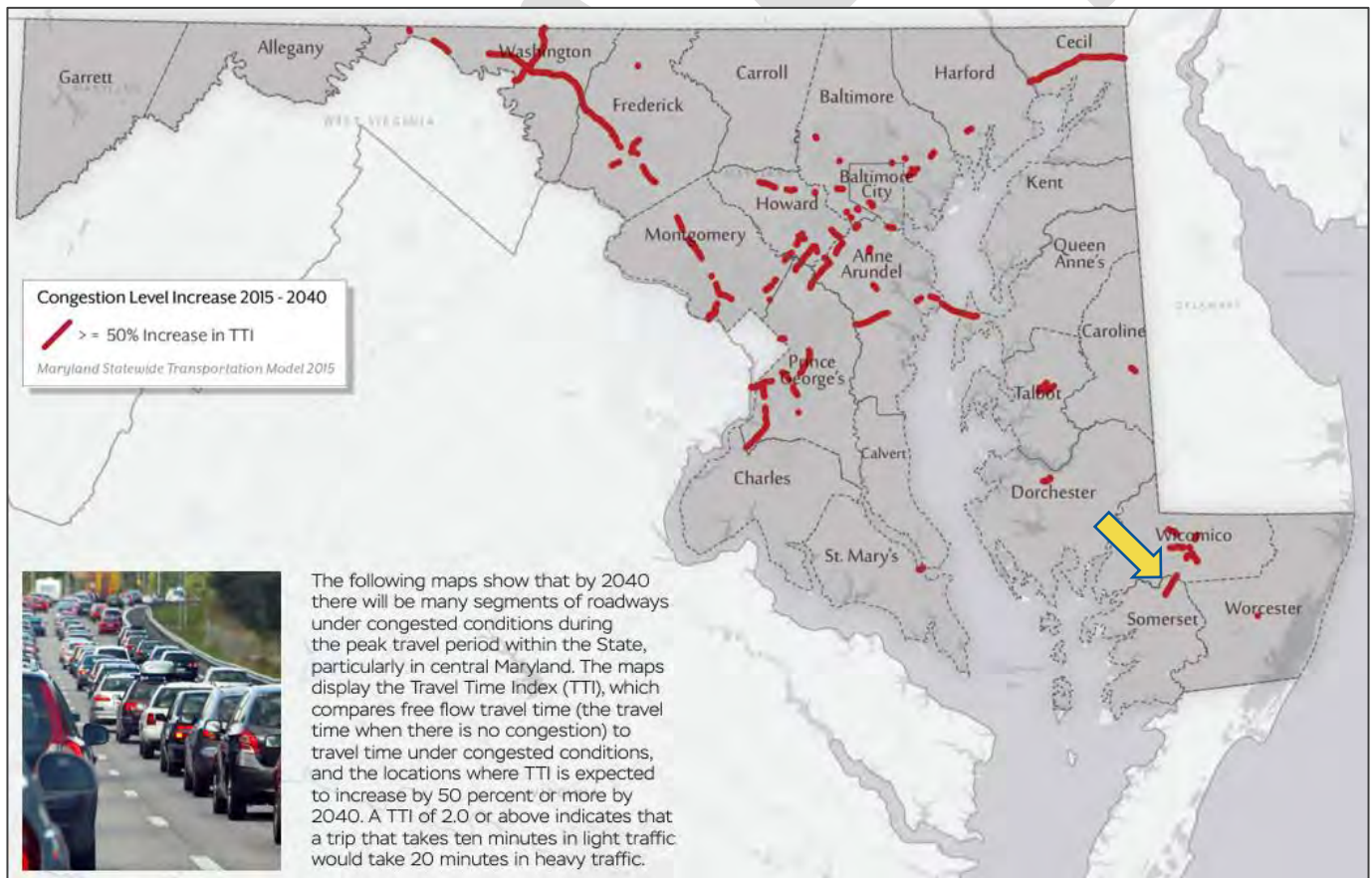


Figure 7-1: Projected Congestion Level Increase by 2040 on State Routes. The area indicated by the yellow arrow is expected to experience an increase in congestion of 50% or more by 2040. Source: 2040 Maryland Transportation Plan.

### 7.1.2 Road Accident Trends

Traffic accidents that have occurred throughout the County are reported by the Maryland Highway Safety Office for the five-year period between 2018 and 2022. This data, as depicted in Table 7-3, is reported annually, and refined by fatal crashes, injury crashes, property damage crashes, and total crashes.

Highway crashes involving property damage make up the majority of all crash types in the County and comprise 70.2% of the total crashes over the reported time period. Crashes involving injuries or fatalities are much less common than those which only cause property damage.

Table 7-3.

Total Traffic Accidents in Somerset County, 2018-2022									
Type of Accident	2018	2019	2020	2021	2022	County 5-year Average	County %	Maryland 5-year Average	Maryland %
Fatal Crashes	7	3	4	4	3	4	1.3	517	0.5
Injury Crashes	99	113	87	77	80	91	28.5	29,677	27.1
Property Damage Crashes	221	214	191	249	247	224	70.2	79,196	72.4
<b>Total Crashes</b>	<b>327</b>	<b>330</b>	<b>282</b>	<b>330</b>	<b>330</b>	<b>320</b>	<b>100.0</b>	<b>109,389</b>	<b>100.0</b>
<b>Total of All Fatalities</b>	<b>7</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>4</b>		<b>549</b>	
<b>Total Number Injured</b>	<b>149</b>	<b>173</b>	<b>125</b>	<b>117</b>	<b>111</b>	<b>135</b>		<b>43,408</b>	

Source: Maryland Highway Safety Office, Statewide Crash Summary, August 10, 2023.

Somerset County has double the rate of average fatal crashes (1.3%) compared to the State (0.5%), and a slightly higher rate of average injury crashes (28.5%) compared to the State (27.1%).

The Highway Safety Office also provides five-year data related to accidents by day of the week and by month. In Somerset County, highway accidents occurred most frequently on Thursdays (14.2% of all accidents between 2018 and 2022), and November had the greatest number of accidents on average during this time period. More data regarding highway accidents is available in the County's [Hazard Mitigation Plan](#). The latest crash data for all Maryland counties, as well as crash data definitions, is available on the [Zero Deaths Maryland](#) website.

### 7.1.3 Somerset County Roads and Waterways Department

The Somerset County Roads and Waterways Department is responsible for maintaining 351 miles of roads, 24 bridges, 16 county highway-rail crossings, 13 boat ramps, 11 docks, 6 marinas, and 3 dredge material placement (DMP) sites. Its fleet consists of 42 tagged vehicles, 33 pieces of specialty equipment, and 31 implements. The department oversees the county's only fuel depot and maintains the fleet of most county departments. The normal workforce is approximately 35 employees but has been scaled back to 23 due to severe budget cuts. The Roads and Waterways Complex, which is located on Signpost Road in Westover, includes an administrative office, shop, equipment shed, dry storage shed, stockpile areas, and fuel depot. There is also a borrow pit on Cedar Drive in Eden.<sup>2</sup>

<sup>2</sup> Copyright © 2022 Somerset County, MD; [https://www.somersetmd.us/departments/departments - n - z/public\\_works/roads\\_division.php](https://www.somersetmd.us/departments/departments - n - z/public_works/roads_division.php)

#### 7.1.4 Repetitive Flooded Roadways

The County acknowledges the impacts of nuisance flooding in tidal areas, specifically regarding roadway accessibility, evacuation concerns, public drainage, and shoreline erosion. As nuisance flood events become more commonplace, negative impacts to transportation infrastructure such as roadways will become more costly. As identified in [Somerset County's Nuisance Flooding Plan](#) and further analyzed in the [Flood Mitigation Plan](#), there are 119 roadways that are impacted by flooding. Of these roadways, 74 experience repetitive flooding. These roadways are identified in *Table 2-8 Repetitive Flooded Roadways* of the Flood Mitigation Plan. These roadways are also mapped for the County and its municipalities.

A total of 28 repetitive flood roadways are owned and maintained by the County. The City of Crisfield identified 25 repetitive flood roadways within their municipal limits, while 7 repetitive flood roadways are within the Town of Princess Anne's municipal limits. The remaining 14 repetitive flooded roadways are maintained by the State. Of the 74 identified roadways, 32 sites are impacted by tidal flooding. 11 repetitive flood roadways that are affected by tidal flooding are evacuation routes.

#### 7.1.5 Electronic Vehicle Charging Locations

The State of Maryland has [regulations in place](#) to aggressively combat climate change, in part by increasing the number of electric vehicles (EVs) sold in the state. According to the Office of the Governor, new regulation requires manufacturers to continuously increase the share of electric vehicles sold, reaching 100% of passenger car and light truck sales by model year 2035.

To help accommodate the results of this regulation – an increase in total electric vehicles – Somerset County will want to consider land use policies that encourage local electric provider, Delmarva Power, to continue increasing the number of public electric vehicle charging stations located within the County. According to [Maryland EV](#), Somerset County currently has 4 public stations provided by Delmarva Power, which include:

- Somerset County Government Office Complex (11916 Somerset Ave. Princess Anne, MD 21853)
- Westover Athletic Complex (30290 Sam Barnes Rd. Westover, MD 21871)
- Somerset County Technical High School (7994 Tawes Campus Dr. Westover, MD 21871)
- Crisfield Library (100 Collins St. Crisfield, MD 21817)

According to the [U.S. Department of Energy \(DOE\) Alternative Fuels Data Center \(AFDC\)](#), while no single policy tool will fit every community, land use policies that encourage or benefit electric vehicle charging stations fall into three primary categories (i.e., Zoning, Codes, and Parking Ordinances), and can include specific actions such as:

- **Zoning for Charging Station Locations:** Communities adopt zoning regulations that designate specific areas for EV charging stations. This approach encourages private entities, utilities, and public agencies to invest in charging infrastructure.
- **Mixed-Use Development Integration:** Zoning policies that support mixed-use development, which combines residential, commercial, and public spaces, can foster the deployment of EV charging stations in urban areas.
- **Reserved Parking Spaces:** Zoning regulations can require the provision of charging infrastructure in new commercial and residential developments, ensuring that EV owners have access to charging options.

By 2026, Delmarva Power plans to install and operate a network of 100 L2 smart chargers and DC Fast Chargers (DCFC) that will be located across the company's Maryland service area (including Somerset County) and are available to all EV drivers. The company is working closely with state, county, and municipal government agencies to determine optimal locations, on government-owned property, to site the chargers.

Finally, [alternative fuel corridors](#) (AFCs) are designated highways within Maryland with enough fuel or charging stations to support travel with a minimum distance between stations based on the fuel type. The portion of US Route 13 that travels between Delaware and Virginia, through Princess Anne and Westover, is designated as a future or pending electric vehicle fuel corridor by the Maryland Department of Transportation (MDOT). A potentially ideal location for a future EV charging location in the county would be the Visitor Center/Rest Stop on US Route 13, located at 11440 Ocean Highway in Princess Anne.

### 7.1.6 Heritage Areas and Scenic Byways

The [Maryland Heritage Areas Program](#) is governed by the Maryland Heritage Areas Authority (MHAA) and administered by the Maryland Historical Trust (MHT). MHAA provides targeted financial and technical assistance within 13 locally designated heritage areas, each of which has a distinct focus or theme that represents a unique aspect of Maryland's character. Local partners operating within Heritage Areas may be eligible for a variety of benefits designed to support economic development through heritage tourism, including grants, tax credits and loans.

In Somerset County the following roadways are designated as the "[Beach to Bay](#)" Heritage Area:

- US Route 13 (from Princess Anne to Westover)
- MD Route 413 (from Westover to Crisfield)
- MD Route 667 (from Marion Station to US Route 13 near Pocomoke City)
- MD Route 361 (Fairmount Road)
- MD Route 388 (from Princess Anne to Worcester County)
- MD Route 362 (from Princess Anne to Wicomico County)
- MD Route 363 (Deal Island Road)

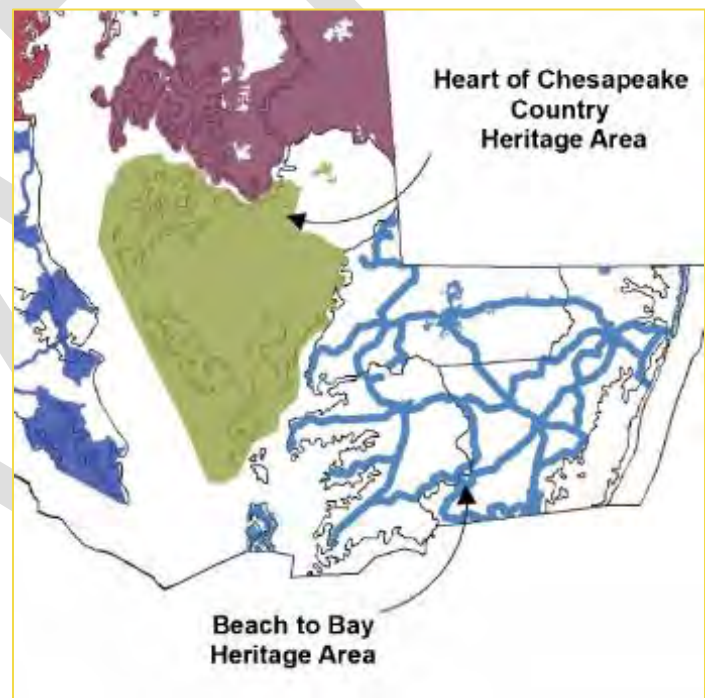


Figure 7-2: Maryland's network of Heritage Areas. The blue road network represents the Beach to Bay heritage area on the Lower Eastern Shore. Source: [mht.maryland.gov/](http://mht.maryland.gov/).

Maryland's Scenic Byways program helps communities along designated routes to enhance their quality of life and pride in their communities. The program adds significantly to the visitor experience by identifying and promoting, as well as encouraging responsible management and preservation of the State's most scenic, cultural, and historic roads along with their surrounding resources. In Somerset County, parts of US Route 13, MD Route 413, Deal Island Road, and MD Route 388 comprise the "Chesapeake Country" scenic byway.

## 7.2 Rail

Rail service in Somerset County was formerly dominated by the Eastern Shore Railroad. The Eastern Shore Railroad began operations in October 1981 on the 96-mile former Virginia and Maryland Railroad line on the Delmarva Peninsula. The line ran between Pocomoke City, Maryland, and Norfolk, Virginia, interchanging with the Norfolk Southern Railway at both ends. Today, the line is solely operated by Norfolk Southern Corporation. There is an active portion of rail line from Salisbury/Fruitland to Princess Anne/Mountaire, which is a valuable asset for the County. The locations of these rail lines are depicted in Map 7-1 through 7-5.

### 7.2.1 Rail Accident Trends

Highway-rail crossing accidents that occur in the County are reported by the Federal Railroad Administration Office Safety Analysis. Table 7-4 details the relevant historical data that applies to highway-rail crossing accidents in the County. In total, only 10 highway-rail crossing incidents have occurred in the County since 1975.

Table 7-4.

Highway-Rail Crossing Accidents in Somerset County, 1975-2023	
Year(s)	Highway-Rail Incidents
1975-1979	2
1980-1984	1
1985-1989	0
1990-1994	0
1995-1999	0
2000-2004	0
2005-2010	1
2011-2016	1
2017-2022	4
2023	1
<b>Total</b>	<b>10</b>

Source: Federal Railroad Administration Office Safety Analysis. (as of end of year 2023).

## 7.3 Air

Somerset County is served by the Crisfield-Somerset Municipal Airport, a public airport located 3 miles from the City of Crisfield. The airport is shown on Maps 7-1 and 7-4.

The airport's mission is "to serve the air transportation and service needs of Somerset County and the regional area by safely **providing, operating, promoting, developing, and maintaining** modern and efficient facilities and amenities for the travel public in accordance with all Federal and State Aviation Regulations and



Figure 7-3: Crisfield-Somerset Municipal Airport.

Source: [www.somersetmd.us/services/crisfield\\_somerset\\_airport](http://www.somersetmd.us/services/crisfield_somerset_airport)

Federal, State, and Local laws.”<sup>3</sup> The airport is classified as a general aviation airport with a design role as a Basic Utility Airport. A Basic Utility Airport can accommodate most single-engine, and many small, twin-engine aircraft which make up about 90% of the general aviation fleet. Somerset County has adopted an Airport Overlay District, which ensures that future land development in the district is compatible with anticipated and projected airport operations and safety.

In addition to the airport, the County is served by heliports in Ewell and in Crisfield at the TidalHealth McCready Pavilion.

### 7.3.1 Air Accident Trends

As a small public airport, combined with air travel being safer than other forms of transportation, the Crisfield-Somerset Municipal Airport does not have a history of aircraft incidents. The only incident to have occurred in the last 25 years at this airport occurred on October 21, 2019, and was non-fatal; the incident occurred during takeoff and resulted in substantial damage to the craft<sup>4</sup>.

## 7.4 Public Transit

One public transit provider operates in Somerset County, Shore Transit. According to their [website](#), Shore Transit, is a division of the Tri-County Council for the Lower Eastern Shore of Maryland, is the public transit agency for the Maryland lower eastern shore counties of Somerset, Wicomico and Worcester. Shore Transit offers public transportation via fixed route and origin-to-destination services. Shore Transit has over 200 bus stops in the tri-county area. Shore Transit operates Monday through Friday. Somerset County bus stops include:



- Crisfield High School - Located opposite the high school on N. Somerset Avenue. This is the last stop before leaving Crisfield.
- Cove Street & Somerset Avenue East - Located on the south corner of Cove Street and Somerset Avenue - this stop is positioned just south of E. Main Street (MD Route 380) in Crisfield.
- Stewart Neck Road - Located at the corner of Stewart Neck Road and Somerset Avenue in Princess Anne.
- Princess Anne Mini-Storage & Rentals - Located on the corner of Somerset Avenue and Spruce Street, right in front of the mini-storage units.
- Princess Anne Transfer Point - Located at Somerset Plaza which is right off Mount Vernon Road on Elm Street in Princess Anne Somerset County District Court and TLC are also located beside this stop.
- Shamrock Gas / Stop n Shop - Located on the corner of Broad Street & Somerset Avenue, right across the street from the Princess Anne Fire Company.
- Somerset County Sheriff's Department \*Former Location of Health Dept.\* - Located on MD Route 413 at 7920 Crisfield Highway in Westover.
- Princess Anne Post Office (South) - Located on Somerset Avenue directly in front of the post office.
- Princess Anne Post Office (North) - Located on Somerset Avenue right in front of Boxwood Gardens. This stop is across the street from the post office.

<sup>3</sup> [https://www.somersetmd.us/services/crisfield\\_somerset\\_airport.php](https://www.somersetmd.us/services/crisfield_somerset_airport.php)

<sup>4</sup> Federal Aviation Administration, Aviation Safety Information Analysis and Sharing (ASIAS Database).

- Manokin Park - The stop at Princess Anne Fire Company was relocated to Manokin Park. This stop is situated on Somerset Avenue at Manokin Park.
- Royal Farms - This stop is situated at the corner of Somerset Avenue and Mount Vernon Road, in Princess Anne.
- Princess Anne Storage - This stop is situated on Somerset Avenue in Princess Anne.
- Somerset Avenue @ Stewart Neck - This stop is situated northbound on Somerset Avenue at Stewart Neck Road in Princess Anne.

Somerset County has one Greyhound Bus stop located in Princess Anne – University of Maryland Eastern Shore (UMES) campus. The greyhound station is shown on Map 7-1 and 7-3.

#### 7.4.1 Paratransit

Paratransit is defined as transportation service that supplements larger public transit systems by providing individualized rides without fixed routes or timetables.<sup>5</sup> Shore Transit offers paratransit services, which is intended as a safety net only for those people whose disabilities prevent them from using the fixed route public transportation system.<sup>6</sup> Shore Access is a curb-to-curb / door-to-door service within the ADA service area (3/4 mile within the Fixed Route System) for persons whose disability prevents them from utilizing the fixed route public transportation services under the Americans With Disabilities Act of 1990.<sup>7</sup> In addition, Medical Assistance Transportation provides no cost transportation to and from medical appointments for county residents who have no other means of transportation. Advance scheduling is required.<sup>8</sup>

#### 7.4.2 Public Transportation and Social Equity

A [2022 CHNA Report](#) by TidalHealth and Somerset County & Wicomico County Health Departments found that the public views a lack of public transportation options as a major barrier to accessing healthcare and social services in the region. The report states:

*“Transportation was identified through this assessment as a major barrier to accessing health and social services in the Tri-County Region and Sussex County, DE. The geographic region is particularly rural which exacerbates the issues of access to healthcare providers and services, especially for low-income populations and older adults who already experience barriers to access. Focus group and key informant participants stressed how important an issue transportation is across the region. They specifically spoke about the lack of public transit options available. Additionally, 47.8% of community survey respondents disagreed or strongly disagreed that transportation is easily accessible if they needed it.”<sup>9</sup>*

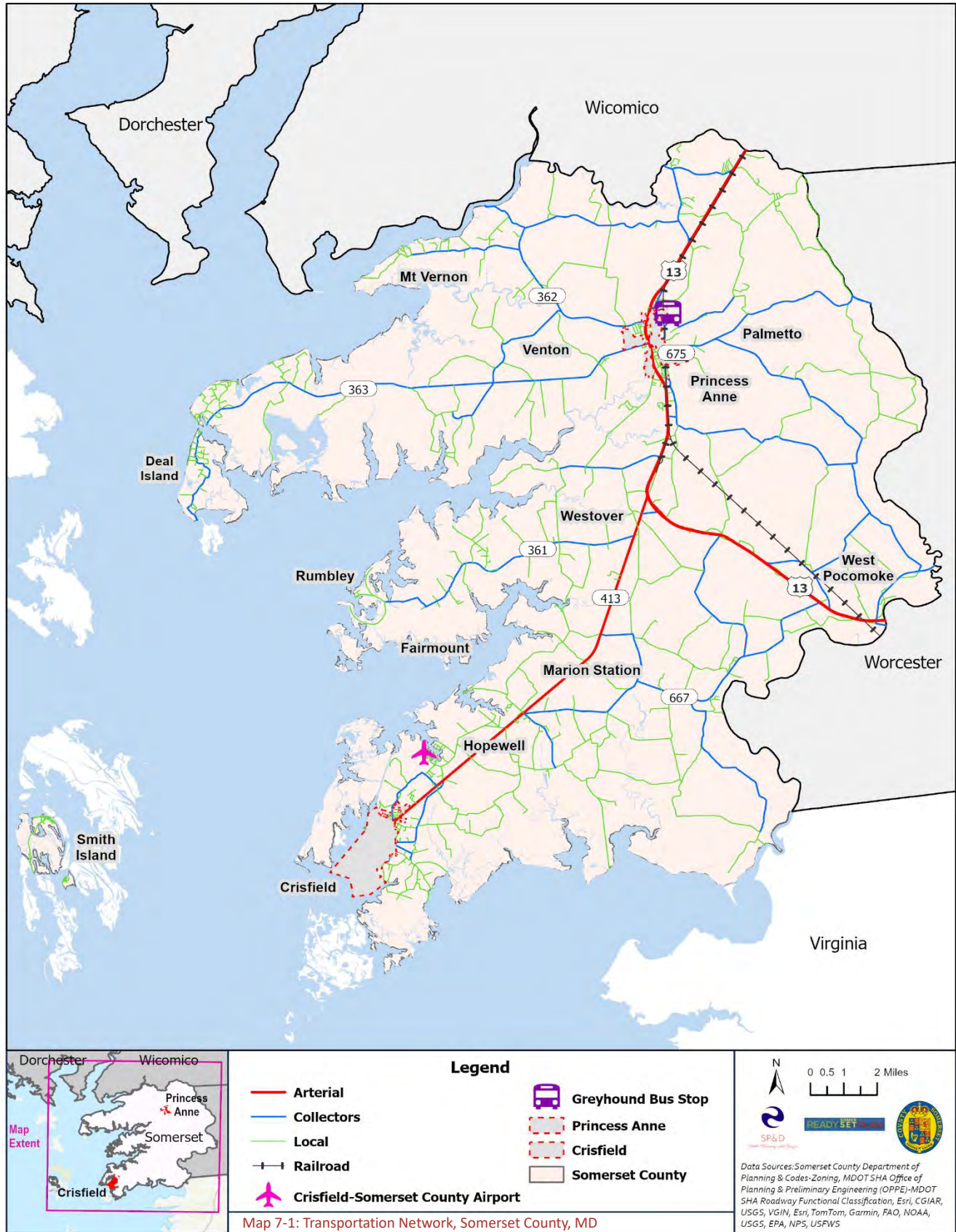
<sup>5</sup> “Paratransit.” Merriam-Webster.com Dictionary, Merriam-Webster, <https://www.merriam-webster.com/dictionary/paratransit>. Accessed 8 Jan. 2024.

<sup>6</sup> ©Copyright 2019 - Tri-County Council for the Lower Eastern Shore of Maryland; [www.shoretransit.org/Paratransit.aspx](http://www.shoretransit.org/Paratransit.aspx)

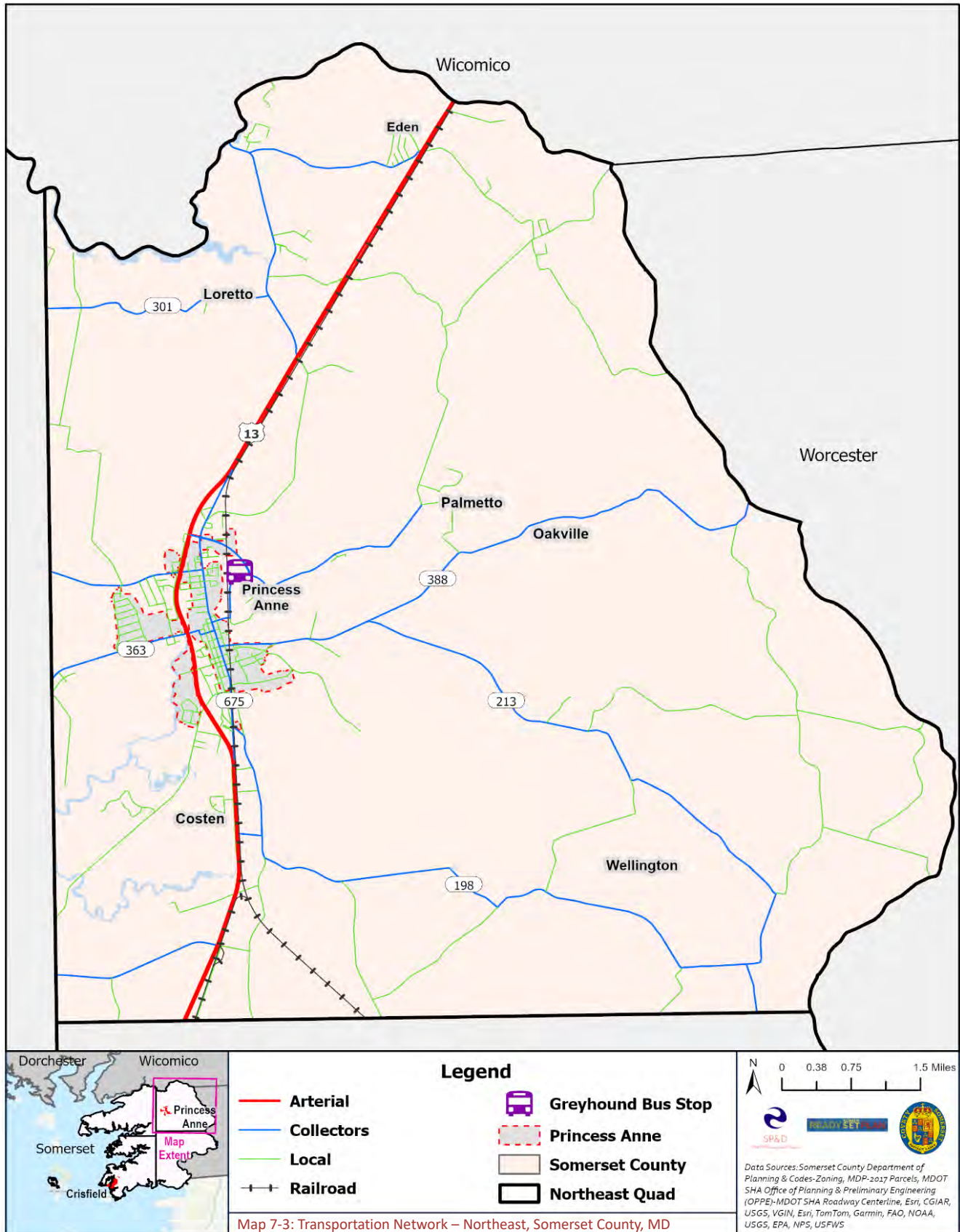
<sup>7</sup> ©Copyright 2019 - Tri-County Council for the Lower Eastern Shore of Maryland; [www.shoretransit.org/Paratransit/ShoreRideShoreAccess.aspx](http://www.shoretransit.org/Paratransit/ShoreRideShoreAccess.aspx)

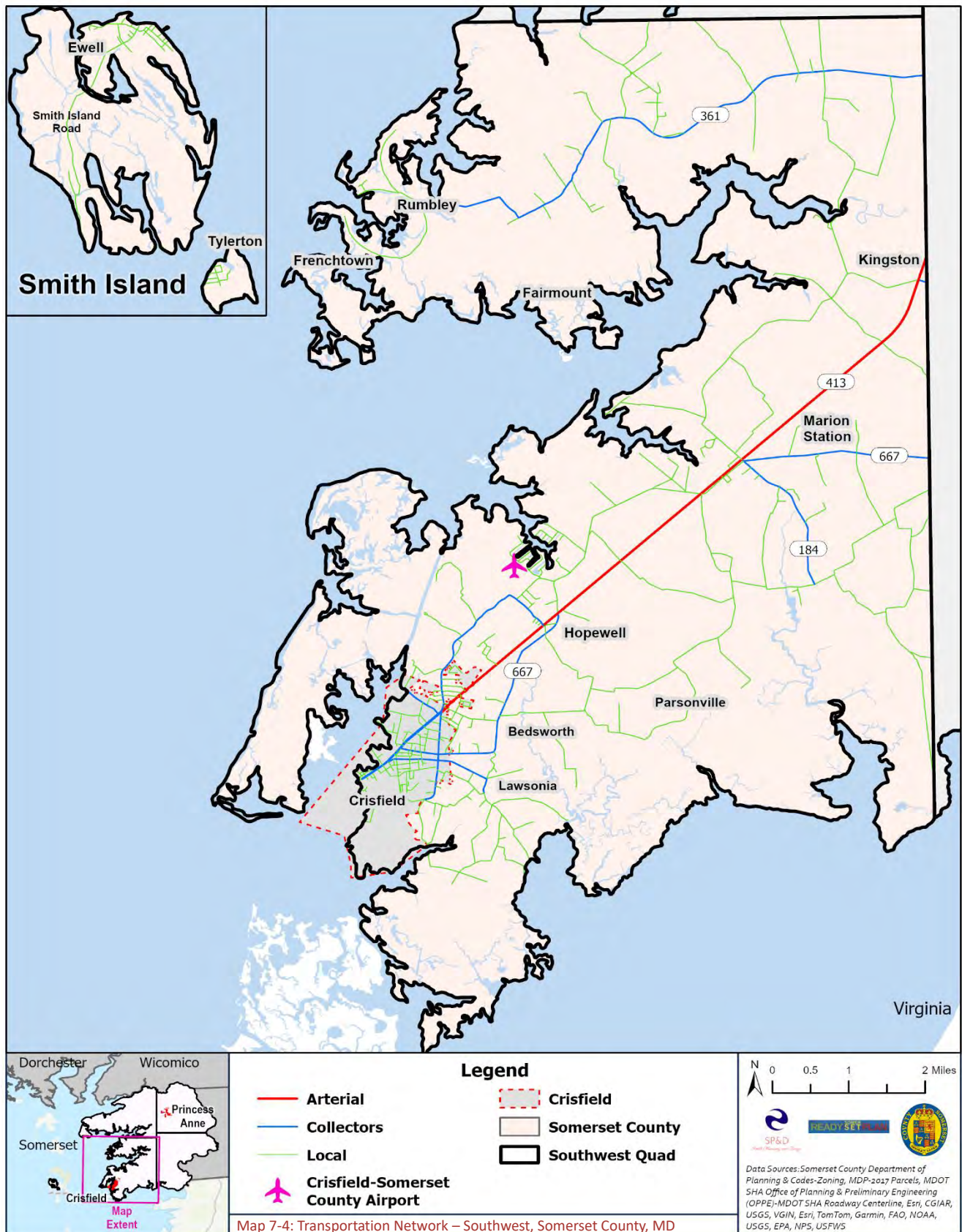
<sup>8</sup> Somerset County Health Department, Website Design by D3 Ocean City, Maryland; [somersethealth.org/medical-assistance-transportation/](http://somersethealth.org/medical-assistance-transportation/)

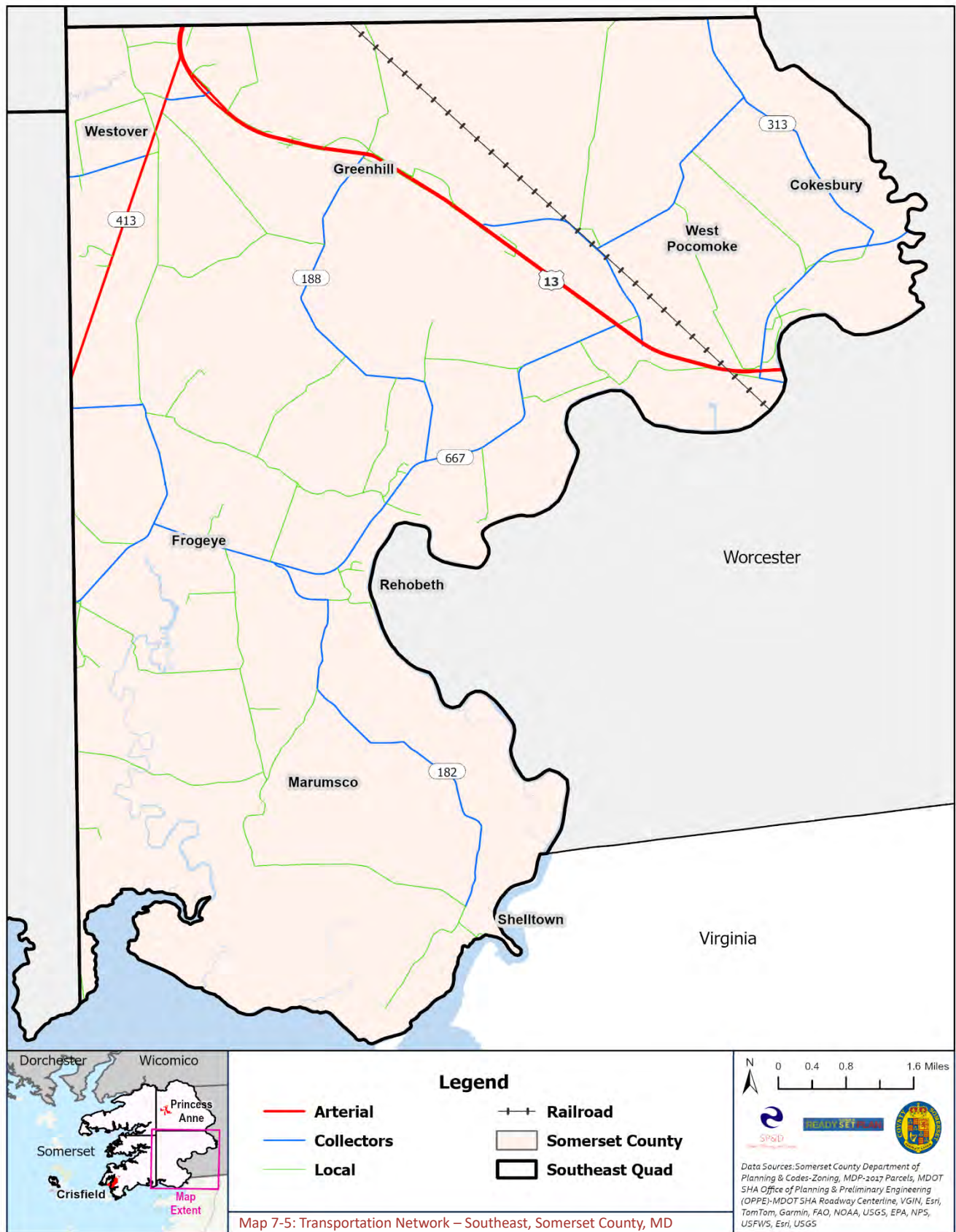
<sup>9</sup> TidalHealth and Somerset County & Wicomico County Health Departments 2022 CHNA Report, available: <https://www.tidalhealth.org/publications> and <http://somersethealth.org/>











## 7.5 Active & Pedestrian Transportation

Pedestrians are defined as people who travel on foot or with assistance of a mobility enhancing device such as a wheelchair, walker, or cane.<sup>10</sup> [Active transportation](#) is human-powered mobility, such as biking, walking, or rolling. Active transportation directly replaces motor vehicle miles traveled, so these modes are effective at conserving fuel, reducing vehicle emissions, bridging the first- and last-mile gap, and improving individual and public health.<sup>11</sup>

Existing pedestrian transportation and recreation amenities in Somerset County include walking trails, biking trails, and water trails. Somerset County Department of Recreation & Parks, in partnership with the County's Health Department, has developed a robust trail program – [Trail Mix](#). The program encourages pedestrian and recreational forms of transportation, both for improving local health and tourism.

These alternative forms of transportation help to connect the County for those residents who may lack access to traditional means of transportation, or for those looking for recreational opportunities – whether residents or visitors.

Walking, biking, and water trails accessible to County residents and visitors include the following. Local biking trails and water trails are shown on Map 7-6. Locations for walking trails, and all additional trail information is available on the County's Trail Mix website.

### 7.5.1 Walking Trails

- Indoor Gym at Old Washington High School
- Terrapin Run Recreation Trail
- Crisfield & Princess Anne Town Loop
- Centralized Facility
- Great Hope Golf Course
- Washington & Crisfield High School Track
- Garland Hayward Youth Center / Princess Anne
- Mount Vernon Loop from County Park
- Janes Island Walking Trails

### Bicycle and Pedestrian Facilities – Land Use Article Requirement

The transportation element describes and presents transportation patterns and includes the entire spectrum of transportation facilities (transit, roads, bicycle and pedestrian amenities, and transit-oriented development) applicable to the jurisdiction. It is important to note that Land Use Article specifically requires jurisdictions to address bicycle and pedestrian facilities in their comprehensive plans.

Source: Maryland Department of Planning & the [MD Land Use Article](#).



Figure 7-4: Map of Mt. Vernon Loop from County Park Trail. Source: Somerset Trail Mix.

<sup>10</sup> Maryland SHA Bicycle Policy & Pedestrian Design Guidelines.

<sup>11</sup> U.S. Department of Energy, Alternative Fuel Data Center.

### 7.5.2 Biking Trails

- Trail Mix – Backroad Bikeride
- Old Town – Mt. Vernon Area – Distance: 8 Miles
- Terrapin Run Recreation Trail
- Blossoms Blooming – Distance: 7 Miles
- 413 Rail to Trail – Distance: 12 Miles
- Bridges Trail – Distance: 10.5 Miles
- Crustacean Causeway – Distance: 13.5 Miles

### 7.5.3 Water Trails

- Wicomico River From Mount Vernon Harbor
- Wellington Beach
- Monie Bay – Dames Quarter
- Tangier Sound & Marshes – Deal Island
- Tangier Sound & Marshes – Wenona
- St. Peter's Creek & Manokin River – Champ
- Manokin River From Raccoon Point
- Manokin River & Marshes – Rumbly
- Coulbourne Creek Boat Ramp
- Accohannock Water Trail – Marion
- Pocomoke River From Rehoboth Boat Ramp
- Pocomoke River From Shelltown Boat Ramp
- Janes Island State Park
- Little Annemessex River Small Boat Harbor – Crisfield
- Jenkins Creek Paddle – Crisfield
- Whitty's Ditch – Crisfield
- Smith Island Water Trail – Smith Island

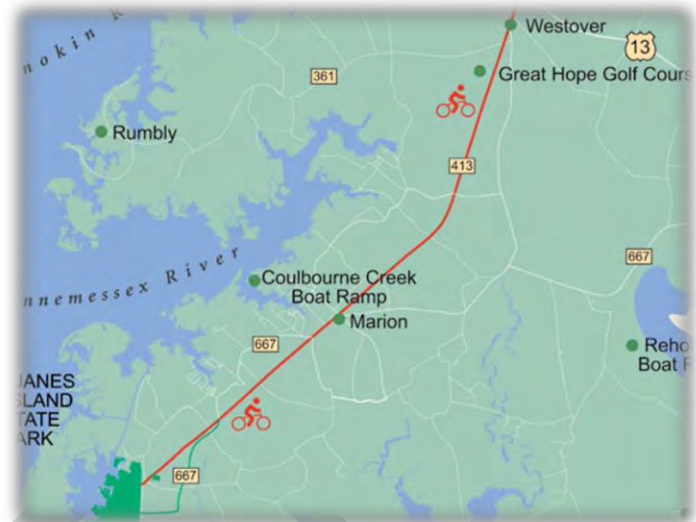


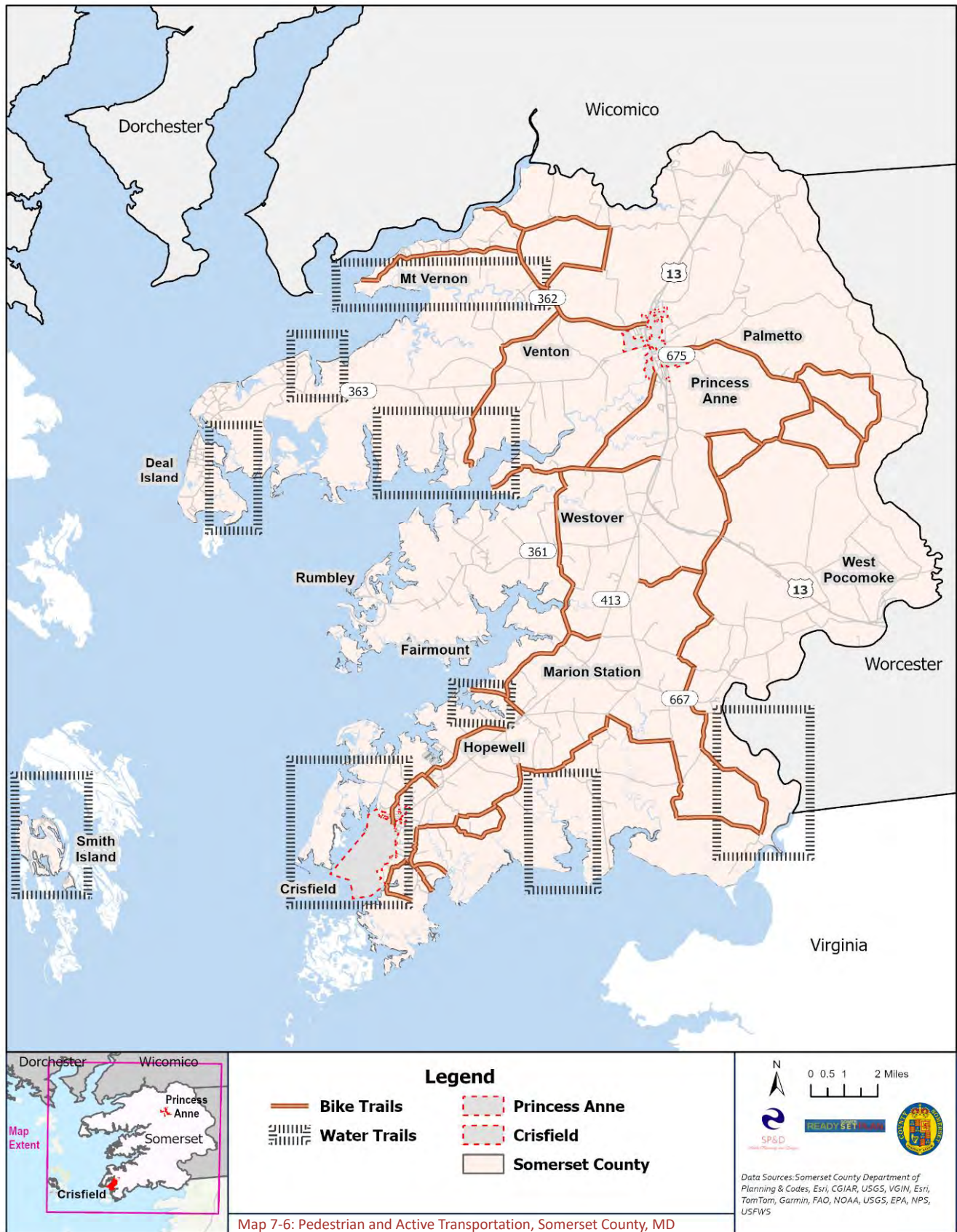
Figure 7-5: Map of 413 Rail to Trail. Source: Somerset Trail Mix.



Figure 7-6: Map of Monie Bay Dames Quarter Water Trail. Source: Somerset Trail Mix.

### 7.5.4 Ferry Services

Somerset County is served by two ferries: the Whitehaven and Upper Ferry. Both ferries are operated by Wicomico County Department of Public Works and cross the Wicomico River into Somerset County. These ferries make approximately 200,000 trips per year transporting passengers and vehicles. According to the department, Wicomico County has been providing ferry services free of charge since its inception. Both ferries have a six-passenger limit and a weight limit of 20,000 pounds. The Whitehaven Ferry is currently in the process of a complete overhaul. A map of these ferry locations is available [here](#), depicted by the yellow point data along the Wicomico River. In addition to these ferries, residents and visitors to Smith Island are served by private passenger ferries operated by several independent local boat captains.



## 7.6 Current and Future Transportation Improvements

Somerset County prepared and submitted their *Priority Letter for Recommended Transportation Improvements* to the Maryland Department of Transportation on April 11, 2023. Both the City of Crisfield and the Town of Princess Anne were given the opportunity to provide their input prior to submittal by the Somerset County Commissioners. These recommendations are included below and are categorized as such: Enhancements, System Preservation, Maintenance Transfers, and Quality of Service. The locations of proposed future transportation priorities are mapped and numbered on Map 7-7, page 7-19.

### Enhancements

1. Westover to Crisfield Bike Trail (adjacent to MD-413)
2. Crisfield - Somerset County Airport Hangars
3. Acceleration Lane Needed at US Route 13 North/MD Route 667
4. Deceleration Lane Needed at MD Route 413 South at Westover
5. Widening of Intersection at MD Route 388/MD Route 675
6. Improved Vehicular Access at US Route 13 North/Stewart Neck Road
7. Dualization of MD Route 413

### System Preservation

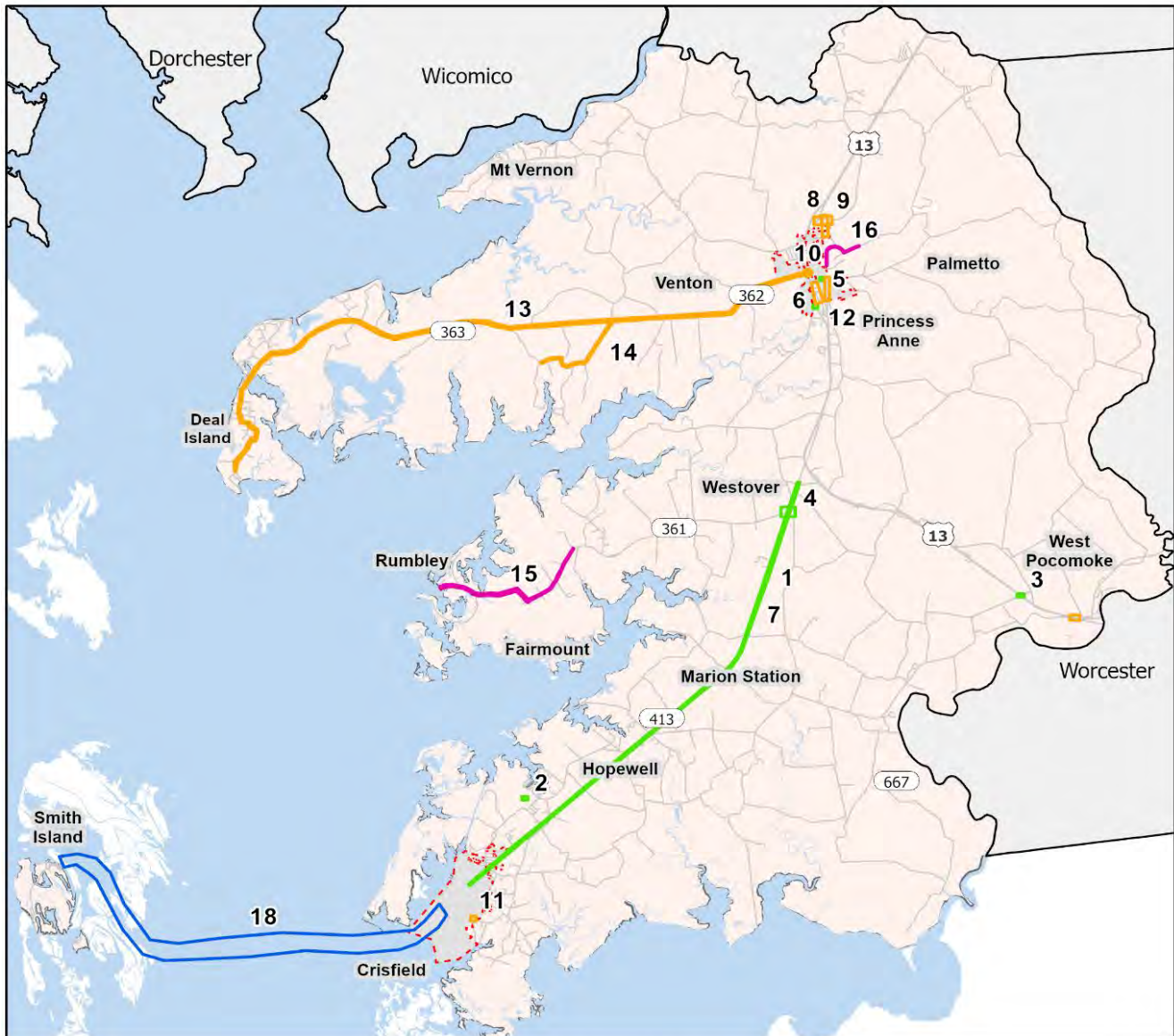
8. Signalization of Railroad Crossings Countywide
9. Sidewalks along MD Route 529
10. Improved Pedestrian/Cyclist Crossing at US Route 13 and MD Route 363 Intersection
11. Woodson Elementary School Safe Routes to School Project
12. Greenwood Elementary School and Princess Anne Elementary School Safe Routes to School Project
13. Widening of Roadway along MD Route 363
14. Repair of Shoulder along MD Route 627

### Maintenance Transfers

15. Extend State Maintenance of MD Route 361 to the end of Rumbley Road
16. Formalize State Maintenance of College Backbone Road on the Campus of UMES

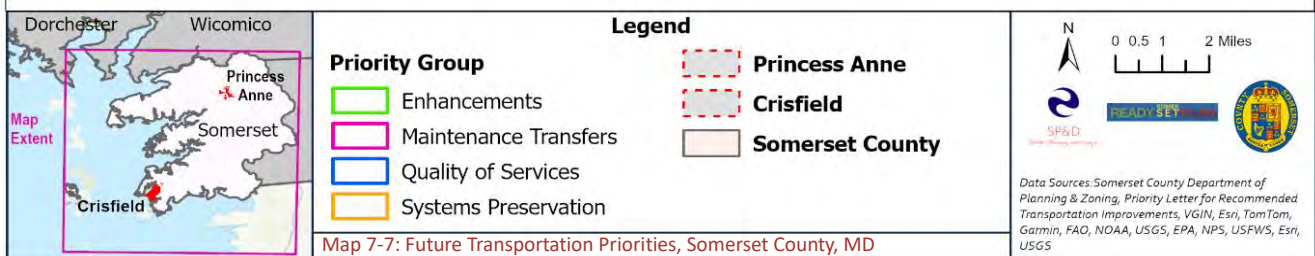
### Quality of Service

17. Chesapeake Bay Passenger Ferry
18. Smith Island Passenger Ferry



### Transportation Future Priorities

- |  |  |
|--|--|
| 1 - Westover to Crisfield Bike Trail               | 10 - Improved Pedestrian/Cyclist Crossing at US 13/MD 363 Intersection |
| 2 - Crisfield-Somerset County Airport Hangars      | 11 - Woodson Elementary School Safe Routes to School Projects          |
| 3 - Acceleration Lane at US 13 North & MD 667      | 12 - Greenwood & Princess Anne Schools Safe Routes to School           |
| 4 - Deceleration Lane at MD 413 South at Westover  | 13 - Widening of Roadway along MD 363                                  |
| 5 - Widening of Intersection at MD 33/MD 675       | 14 - Repair Shoulder along MD 627                                      |
| 6 - Improved Access at US 13 North/Stewart Neck Rd | 15 - Extend State Maintenance of MD 361 to end of Rumbley Road         |
| 7 - Dualization of MD 413                          | 16 - Formalize State Maintenance of College Backbone Rd at UMES        |
| 8 - Signalization of Railroad Crossings Countywide | 18 - Smith Island Passenger Ferry                                      |
| 9 - Sidewalks along MD 529                         |  |



## Chapter 7: Transportation Goals & Implementation Strategies

### Goal 7.1

Coordinate County transportation activities with those of the Maryland Department of Transportation and with the plans of contiguous jurisdictions and counties.

#### Strategies

- A. Overall goals for the State by 2050 include 1) enhance safety and security, 2) deliver system quality, 3) promote environmental stewardship, and 4) serve communities and support the economy.
- B. Proposed transportation projects aim to achieve one or more of the transportation goals for the County as stated in the *Priority Letter for Recommended Transportation Improvements (April 11, 2023)*: Enhancements, System Preservation, Maintenance Transfers, and Quality of Service.
  - a. The County's transportation strategies match overall transportation goals for the State.

### Goal 7.2

Transportation priorities and projects will enhance the safety and security of residents and visitors to Somerset County.

#### Strategies

- A. Improve acceleration lane, which is needed at US Route 13 North/ MD Route 667. (Project 3)
- B. Add a deceleration lane which is needed at MD Route 413 South at Westover. (Project 4)
- C. Work on the widening of intersection at MD Route 388/ MD Route 675. (Project 5)
- D. Improve vehicular access at US Route 13 North/Stewart Neck Road. (Project 6)
- E. Improve the signalization at railroad crossings across the County. (Project 8)
  - a. This priority has also been integrated into the County's Hazard Mitigation Plan as a mitigation strategy.
- F. Develop a safe route for schools at Woodson Elementary School. (Project 11)
  - a. This project also encourages Goal 7.5 of this chapter.
- G. Develop a safe route for schools at Greenwood Elementary School and Princess Anne Elementary School. (Project 12)
  - a. This project also encourages Goal 7.5 of this chapter.
- H. Work on the widening of roadway along MD Route 363. (Project 13)
- I. Repair the shoulder along MD Route 627. (Project 14)
- J. Review County maintained bridges identified as structurally deficient (i.e., in poor condition) by the National Bridge Index for possible corrective action.

### Goal 7.3

Transportation priorities and projects will deliver system quality for residents and visitors of Somerset County.

#### Strategies

- A. Increase connectivity of bike transportation in Westover to Crisfield Bike Trail Adjacent to MD Route 413. (Project 1)
  - a. This project also supports Goal 7.4 of this chapter.
- B. Extend state maintenance of MD Route 361 to the end of Rumbley Road. (Project 15)
  - a. This project also encourages Goal 7.5 of this chapter.
- C. Formalize state maintenance of College Backbone Road on the Campus of UMES. (Project 16)
  - a. This project also supports Goal 7.5 of this chapter.
- D. Continue to support the development of the Chesapeake Bay Passenger Ferry. (Project 17)
  - a. This project also supports Goal 7.5.
- E. Continue to support the development of the Smith Island Passenger Ferry. (Project 18)

#### **Goal 7.4**

Transportation priorities and projects will be sensitive to the environment and promote environmental stewardship.

##### **Strategies**

- A. Encourage additional electric vehicle charging stations to help meet the State's aggressive climate change goals for electric vehicles. This includes working with Delmarva Power to increase its network of public electric vehicle charging stations in Somerset County.
  - a. EV charging stations at trail heads would be a unique and helpful amenity for outdoor recreators. Visitors could charge their vehicle while they are hiking or biking on one of the County's many trails.
- B. Future transportation projects should protect and enhance Somerset County's natural environment through avoidance, minimization, and mitigation of adverse impacts related to transportation infrastructure.
- C. Ensure all waterways stay open and navigable, and that dredge material is used for beneficial purposes. Dredging waterways to keep them navigable is important for transportation, community facilities, and economic development.

#### **Goal 7.5**

Transportation priorities and projects will serve the County's communities and support the local economy.

##### **Strategies**

- A. Enhance and improve the Crisfield-Somerset County Airport hangars. (Project 2)
- B. Accommodate future growth via the dualization of MD Route 413. (Project 7)
  - a. This project also encourages Goal 7.2 of this chapter.
- C. Build accessible sidewalks along MD Route 529 to encourage safe pedestrian travel. (Project 9)
  - a. This project also encourages Goal 7.2 of this chapter.
- D. Improve pedestrian and cyclist crossing at US Route 13 and MD Route 363 Intersection. (Project 10)
  - a. This project also encourages Goal 7.2 of this chapter.
- E. Promote transportation services (public and private) to serve the needs of the elderly.

#### **Goal 7.6**

Investigate the potential for further expansion of existing public transportation services, as well as the potential for new transportation services in the County.

##### **Strategies**

- A. Promote full utilization of Crisfield Airport for private, business, and recreational uses.
- B. Promote regular ground transportation services from Salisbury/Wicomico County airport to Princess Anne and Crisfield.
- C. Develop recommendations for bikeways and sidewalks where warranted to accommodate the demand for pedestrian and bicycle traffic.
- D. Future modifications or additions to sidewalks and curbing should always be designed to be ADA compliant and accessible.
- E. Identify ideal location for a bus station(s) that has EV charging facilities, is accessible, and has pedestrian amenities.
- F. Investigate the opportunity for light transit buses that can run on zero emissions, which would help the County meet the State's emissions goals. Partnership opportunities are available with Shore Transit.
- G. Determine the feasibility for an on-demand mobile transportation system in Somerset County. This transportation style would work similarly to Uber or Lyft and would meet customers where they are at.

## CHAPTER 8 SENSITIVE AREAS

### PUBLIC SURVEY RESULTS

48%

#### OPEN SPACE

Nearly half of survey responses (48%) indicated that “open space” is very important to the overall quality of life in Somerset County.

Respondents would like to see more easy access and connectivity to open spaces.

63%

#### FARM PRESERVATION

Farmland Preservation is ranked 5th in terms of importance to overall future development in the County.

63% of respondents indicate that preserving farmland is very important.



#### POLICY

Additionally, 78% of respondents indicated that local officials should encourage policies and development which promote farmland preservation.

73% of survey respondents indicate that local officials should encourage natural, environmental, and open space preservation.

## ISSUES AND OPPORTUNITIES

**Issues** identified: Concerns over water quality and water safety, both for drinking and recreation. Insufficient activities and programs in public parks. Hazard areas, specifically flood prone areas, are a major concern for residents.

**Opportunities** identified: Flood mitigation measures for Bay-side portion of the County as well as Crisfield and surrounding areas. Development of green spaces to encourage community engagement.

## Chapter 8: Sensitive Areas

The identification and protection of sensitive areas from the adverse effects of development is a vital component of the comprehensive plan. The sensitive areas chapter will meet all requirements set forth in the Land Use Article and will discuss additional topics. Required and additional topics are presented in the following order:

- Watersheds (Groundwater, Stormwater, Drainage)
- Streams and Their Buffers
- 1 Percent Annual Chance Floodplain
- Habitats of Threatened and Endangered Species
- Steep Slopes
- Wetlands
- Agriculture
- Forests
- Chesapeake Bay Critical Area
- Sea Level Rise
- Shoreline Erosion
- Green Infrastructure (Protected Lands, Targeted Ecological Areas)
- Fisheries
- Hazard Mitigation Planning

### Sensitive Areas Requirements

The [Land Use Article](#) requires jurisdictions to protect streams and their buffers; the 100-year floodplain; habitats of threatened and endangered species; and steep slopes, wetlands and agricultural and forest lands intended for resource protection or conservation.”

The article also requires a fisheries element to be included for counties located on tidal waters.

*Source: Maryland Department of Planning*

*Note: due to the abundance of maps included in this chapter, mapping products are included at the end of the chapter and are followed by goals and strategies.*

Somerset County’s environment is governed to a great degree by the ecology of the Chesapeake Bay. The County has over 600 miles of shoreline along the Bay and its tributaries. Almost half of the County’s area is water. Most of the coastal area is marsh or wetlands, and the high-water table underlying the remaining land area places severe restraints on development. Most farmland is dependent on artificial drainage channels.

### 8.1 Watersheds

Land in Somerset County drains to one of ten major watersheds (or “8-digit watersheds,” referring to the numeric classification system used by the Maryland Department of the Environment). These watersheds are the Big Annemessex River, Dividing Creek, Lower Chesapeake Bay, Lower Pocomoke River, Lower Wicomico River, Manokin River, Monie Bay, Pocomoke Sound, Tangier Sound, and Wicomico Creek.<sup>1</sup> Watersheds are shown on Map 8-1.

#### 8.1.1 Groundwater

In Somerset County, groundwater is the sole source of drinking water, and the source of virtually all domestic and industrially consumed water. Table 8-1 summarizes water sources and other characteristics of the public drinking water systems in the County. Approximately 5,223 dwelling units in Somerset County (slightly more than

<sup>1</sup> Somerset County Water Resources Element, March 2010. [https://planning.maryland.gov/Documents/OurWork/complans/10\\_WRE\\_Somerset.pdf](https://planning.maryland.gov/Documents/OurWork/complans/10_WRE_Somerset.pdf)

half of all dwelling units in the County) and a considerable share of businesses receive drinking water from municipal, County, or community water systems.<sup>2</sup> All public water systems are supplied by groundwater wells.

**Table 8-1.**

Public Drinking Water System Characteristics		
Water System	Source Aquifer (number of wells)	Source Concerns and System Issues
Crisfield	Potomac, Paleocene, Piney Point (5 Total)	Fluoride
Princess Anne	Patapsco (1), Manokin (6)	Fluoride (Patapsco); Iron (Manokin)
Fairmount (Rumbley, Frenchtown)	Patapsco (2)	Fluoride, Iron
Midtown	Patapsco	Fluoride, Disinfection
Hill	Patapsco	Fluoride, Disinfection
Field	Patapsco	Fluoride, Disinfection
Ewell (Smith Island)	Patapsco (5)	Fluoride, Disinfection
Rhodes Point (Smith Island)	Patapsco (2)	Fluoride, Disinfection
Tylerton (Smith Island)	Patapsco (1)	Fluoride, Disinfection
Eastern Correctional Institution	Patapsco (2), Manokin (2)	Fluoride, Iron
Eden Mobile Home Park	Manokin	Iron

Source: 2008 Somerset County Water and Sewer Master Plan Notes 1: SCSD operates the systems in Princess Anne, Fairmount, and Rumbley/Frenchtown. The City of Crisfield operates its water system. The Maryland Environmental Service (MES) operates the ECI water system. All other public or community water systems in Somerset County are privately operated.

Groundwater is a critical natural resource for Somerset County. Groundwater serves as a source of drinking water and is also essential for the success of industry and agriculture. The capacity of the County's confined aquifers is increasingly strained by new development throughout the Delmarva Peninsula. According to the U.S. Geological Society (USGS), "withdrawals from Maryland Coastal Plain aquifers have caused ground-water levels in confined aquifers to decline by tens to hundreds of feet from their original levels. Continued water-level declines could affect the long-term sustainability of ground-water resources in agricultural areas of the Eastern Shore."<sup>3</sup>

The Somerset County Sanitary District (SCSD) and Somerset County Health Department administer the County's Groundwater Management program, which governs the protection of the County's aquifers. The program's regulations are based on the Groundwater Protection Report, which defines these Management Areas and associated requirements, and was adopted by reference into the County's 1996 Comprehensive Plan. The Groundwater Management program establishes criteria for septic tank location in three Management Zones, which were created based on the ability of the soil to accept and filter septic effluent without polluting the underlying aquifer.

To the north and east of Princess Anne in Management Area A, current regulations require a two-acre minimum area for a septic field and an adequate treatment zone of 2 to 4 feet between septic field and aquifer unless development is on a central sewer system. Management Area B1, surrounding Princess Anne to the west and extending towards Pocomoke City, requires soil borings and specially designed septic systems as a condition of development approval. The remainder of the County, Management Area B2, is subject to normal septic field testing.

<sup>2</sup> Somerset County Water Resources Element, March 2010. [https://planning.maryland.gov/Documents/OurWork/compplans/10\\_WRE\\_Somerset.pdf](https://planning.maryland.gov/Documents/OurWork/compplans/10_WRE_Somerset.pdf)

<sup>3</sup> USGS. 2006. Sustainability of the Ground Water Resources in the Atlantic Coastal Plain of Maryland. USGS Fact Sheet 2006-3009

### 8.1.2 Saltwater Intrusion

Saltwater intrusion is a significant environmental issue affecting Somerset County and the broader Eastern Shore region. The impacts of saltwater intrusion include:

1. Agricultural Impact:
  - a. Saltwater intrusion renders productive land unsuitable for agricultural activities, leading to reduced crop yields and economic losses.
  - b. In Somerset County, visible salt patches on farm fringes indicate the broader extent of at-risk farmlands. Between 2011 and 2017, visible salt patches almost doubled, and over 8,000 hectares of farmlands converted to marsh.<sup>4</sup>
  - c. The economic losses due to saltwater intrusion were estimated between \$39.4 million and \$107.5 million annually, under 100% soy or corn counterfactuals, respectively.<sup>5</sup>
2. Environmental Changes:
  - a. Coastal waters reaching farther inland cause changes in soil salinity and water quality, leading to permanent land loss and ecosystem alterations.
  - b. Saltwater intrusion is leading to the formation of ghost forests and expansion of salt-tolerant invasive species.
3. Community and Livelihoods:
  - a. Farmers on Maryland's Eastern Shore are rethinking their livelihoods as more saltwater seeps into their land due to rising sea levels.<sup>6</sup>
  - b. The number of impacted plots in Somerset County has increased by 28.6% in recent years, with a total land value of more than \$97 million affected.<sup>7</sup>
4. Drinking Water and Ecosystems:
  - a. Saltwater intrusion threatens drinking water supplies and coastal ecosystems, impacting both human communities and wildlife habitats.
  - b. On Maryland's rural Lower Eastern Shore, saltwater intrusion has led to invasive marsh species, undrinkable water, damaged forests, reduced agricultural crop yields, and salt-stressed soils.



Figure 8-1: Salt patches on a farm in Somerset County, MD, are visible as bare white streaks along the edges of cropland.  
Photo Source: Jarrod Miller, [bayjournal.com](http://bayjournal.com)

<sup>4</sup> <https://www.nature.com/articles/s41893-023-01186-6>

<sup>5</sup> Ibid.

<sup>6</sup> <https://www.cbsnews.com/baltimore/news/saltwater-posing-threats-to-farmers-livelihoods-on-marylands-eastern-shore/>

<sup>7</sup> Ibid.

Efforts to mitigate these issues include research and adaptation strategies to manage the impact of saltwater intrusion on agriculture, water resources, and coastal ecosystems. It is a complex challenge that requires a multifaceted approach involving scientific research, community engagement, and policy development. Somerset County is particularly interested in thin layer placement (TLP) to mitigate the impacts that saltwater intrusion has had on agricultural land. According to National Oceanic and Atmospheric Administration (NOAA) National Centers for Coastal Ocean Science (NCCOS), thin layer placement involves depositing sediment on a marsh using either a high-pressure hose to spray sediments, known as "rainbowing," or as low-pressure slurry delivered through a pipe suspended above the sediment surface. These techniques are designed to emulate natural sediment deposition processes.<sup>8</sup>

### 8.1.3 Stormwater

Stormwater management is a critical environmental concern in Somerset County, as it is in many parts of the state. The primary issues stem from the need to mitigate the impacts of new development and redevelopment activities that introduce impervious surfaces like rooftops, paved streets, and parking lots. These surfaces prevent rainwater from soaking into the ground, leading to increased runoff volume that is funneled into storm drains and discharged into streams and rivers.

To address these challenges, Maryland has implemented stormwater best management practices (BMPs) designed to reduce the amount and velocity of runoff, control pollutants, and prevent local flooding. The state's approach has evolved over time, with the [Stormwater Management Act of 2007](#) emphasizing Environmental Site Design (ESD). ESD aims to capture and treat runoff closer to the source to more closely mimic natural hydrology.

The Maryland Department of the Environment (MDE) is in the process of updating its stormwater management regulations, through the A-StoRM initiative, in an effort to mitigate the effects of stormwater runoff and flooding. These updated design standards and performance criteria will utilize new rainfall data, such as NOAA's Atlas 14 model, to develop effective Best Management Practices (BMPs) to address current and future stormwater management requirements. The County will utilize the new regulations and criteria to inform an updated Stormwater Management Ordinance.

Local options in stormwater management include code changes to require stormwater management reviews before obtaining building permits, maintenance agreements for stormwater solutions, and the creation of long-term plans to address stormwater issues. These measures are part of a broader strategy to ensure that stormwater management in Somerset County effectively protects the environment and the well-being of its residents. Somerset's Stormwater Management Ordinance was last updated September 15, 2020.

Somerset County's [Nuisance Flooding Plan](#), adopted in December of 2019, addresses stormwater impacts and best management practices. The plan catalogues and maps locations of roadways and bridges that experience repetitive flooding due to poor stormwater management and other issues.

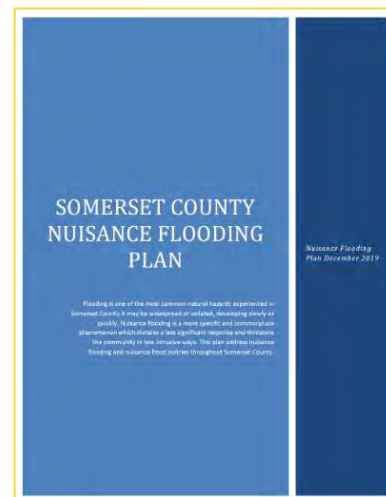


Figure 8-2: Cover of Somerset County Nuisance Flooding Plan, 2019.

<sup>8</sup> Davis, J., Currin, C., and Mushegian, N. 2022. Effective use of thin layer sediment application in *Spartina alterniflora* marshes is guided by elevation-biomass relationship. *Ecological Engineering*, 177; 106566. <https://doi.org/10.1016/j.ecoleng.2022.106566>

Recommendations in the nuisance flooding plan include structural and nonstructural strategies to reduce nuisance flooding associated with stormwater, including:<sup>9</sup>

Structural:

- Improve stormwater management infrastructure to convey water more effectively from flood-prone areas.
- Conduct regular maintenance of drainage and stormwater control systems.
- Consider green infrastructure options rather than conventional stormwater solutions.

Nonstructural:

- Improve stormwater management planning and strengthen policies to reduce runoff.

#### 8.1.4 Drainage

Somerset County is drained by streams and their tributaries that flow into Tangier Sound in the West and Pocomoke Sound to the South. Most of the county is drained by the Pocomoke, Wicomico, Manokin, and Big Annemessex Rivers and their tributaries. Most of the creeks and large rivers are tidal for several miles from their mouth. The Manokin River is tidal as far as Princess Anne.

Because the county is low-lying with fine grained soils, natural drainage is impeded. Only about 10 percent of the county has soil that drains well enough that they can be farmed without artificial drainage. Consequently, to permit human activities in the county, historically there has been much artificial drainage, including stream channelization and construction of drainage ditches. There are four public drainage associations in the county (including one public watershed association). However, most of the drainage ditches are privately owned.

In the past, some residential developments have been approved in the county without adequate drainage provisions. This may result in standing water on low lying properties and roadways.

The Department of Public Works is responsible for the County's [Solid Waste & Drainage Division Strategic Plan](#), which was last updated in 2017. The Solid Waste & Drainage Division is responsible for improving drainage throughout the County. The division's mission as it relates to drainage is to provide a safe, efficient, and comprehensive drainage system to promote economic development while protecting Somerset County's beautiful and unique environment. The plan identifies local knowledge of environmental permitting process for drainage projects as a strength, and flat terrain and high groundwater and hydric soils as a hindrance to properly draining soils in the county. Cooperation with Mosquito Control has been identified as an opportunity to improve drainage.

The [Open Ditch Drainage System Assessment](#)<sup>10</sup> completed in 2020 for the Deal Island Peninsula addressed the existing conditions of the open ditch drainage system on the peninsula and provided both short and long term recommendations for maintenance improvements and

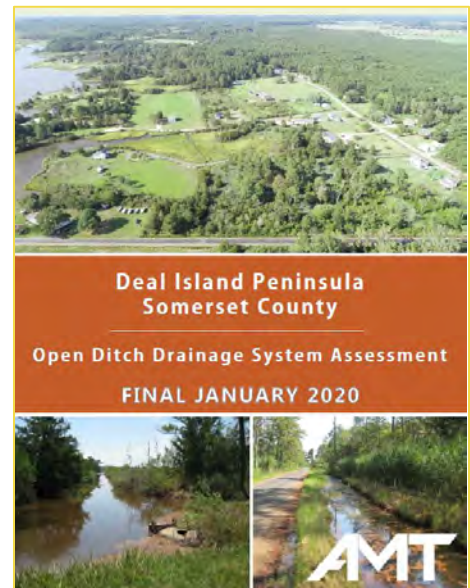


Figure 8-3: Cover of Deal Island Peninsula Open Ditch Drainage System Assessment.

<sup>9</sup> Somerset County, Maryland. 2019. Somerset County Nuisance Flooding Plan. [https://www.somersetmd.us/P&Z/Nuisance Flooding Plan %5b2019%5d.pdf](https://www.somersetmd.us/P&Z/Nuisance%20Flooding%20Plan%202019%5d.pdf)

<sup>10</sup> A. Morton Thomas & Associates, Inc. 2020. Deal Island Peninsula Somerset County Open Ditch Drainage Assessment. <https://www.somersetmd.us/>

conceptual mitigation measures with accompanying cost evaluations to improve the drainage system conditions on the Island.

Fifteen recommendations were provided based on existing conditions for multiple study areas throughout the areas of Dames Quarter and Oriole. The assessment concluded that if the open ditch drainage system is left unattended, standing water and flooding conditions will continue to escalate within the Deal Island Peninsula communities of Dames Quarter and Oriole. This area, with the addition of Oriole, was also identified as an area of concern within the Flood Mitigation Plan. This area has been identified to be susceptible to multiple flood hazards, such as hurricane storm surge, the 1-percent-annual-chance flood, and sea level rise.

The [Smith Island Vision Plan](#) was developed to create a vision for the island that consists of goals such as (1) growing a sustainable watermen's culture, (2) creating a diverse local economy, (3) developing and maintaining infrastructure (4) providing reliable and sustainable transportation, and (5) growing year-round population.

In relation to developing and maintaining infrastructure on the island, the vision plan recommends projects related to shoreline protection, wastewater disposal, stormwater management, drainage ditch maintenance, potable water supply, increasing communication access, and mitigating repetitively flooded roadways and bridges from heavy storms. Local capabilities are established in terms of strengths and weaknesses for each of the goals outlined within the plan.

## 8.2 Streams and Their Buffers

Somerset County contains a variety of streams that provide support for various kinds of wildlife that rely on stream life. Streams also support commercial and recreational activities such as fishing, hunting, canoeing, and birdwatching. For long term sustainability of these streams, it is important to focus on water quality. These streams are depicted on Map 8-2.

Stream buffers are areas along the lengths of stream banks established to protect streams from man-made disturbances. Buffers are a "best management technique" that reduces sediment, nitrogen, phosphorus, and other pollutants by acting as a filter, thus minimizing damage to streams and improving water quality. Stream buffers also improve habitat for fish and other aquatic life.

Development near streams and their buffers may pose a threat to the protection of private property and the environment. In order to protect the ecological sustainability of the riparian environment it is important to emphasize mitigation strategies regarding runoff from developed areas.

The Maryland Department of the Environment (MDE) [Water Quality Assessment Report](#)<sup>11</sup> classifies water quality conditions in the state's watersheds as Excellent, Good, Fair, and Poor. Water quality in Somerset County's River basins is classified as generally "Good" and suited for water contact recreation and aquatic life. Seasonal elevated bacterial and nutrient levels in some locations were due to agricultural runoff. Increased bacterial levels in open tidal water areas were often found to be natural in origin due to marsh runoff.

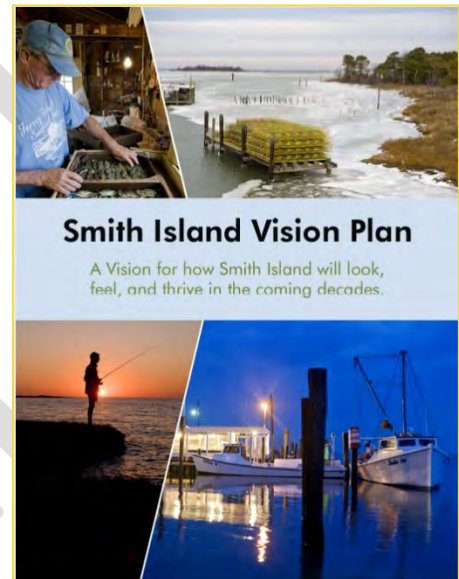


Figure 8-4: Cover of Smith Island Vision Plan.

<sup>11</sup> Maryland Department of the Environment. 2022. Maryland's Final Combined 2020-2022 Integrated Report of Surface Water Quality. Maryland Department of the Environment. [https://mde.maryland.gov/programs/Water/TMDL/Integrated303dReports/Pages/Combined\\_2020\\_2022IR.aspx](https://mde.maryland.gov/programs/Water/TMDL/Integrated303dReports/Pages/Combined_2020_2022IR.aspx)

The Maryland Tributary Strategies initiative resulted from the 1983 Chesapeake Bay Agreement to restore the Chesapeake Bay. The Tributary Strategies describe ways in which nutrient pollution loads can be reduced by 40 percent in many sub-watersheds that drain into the Bay. Somerset County is in the Lower Eastern Shore Watershed. Sub watersheds in Somerset County include the Nanticoke and the Pocomoke. According to the 1995 Tributary Strategies, the Lower Eastern Shore Watershed has sufficient dissolved oxygen levels in most places to support fish, shellfish, and other animals, although one consistent exception is the Pocomoke Sound. In the Sound the low oxygen levels are seasonal, particularly in the summer, but rarely drop below five milligrams per liter. Pocomoke Sound, Tangier Sound, and the Big Annemessex River have among the lowest nitrogen levels of all tidal tributary streams in Maryland.

According to the Maryland Tributary Strategies, nutrient reduction goals can be achieved through the following actions: wastewater treatment plant upgrades; full implementation of erosion, sediment control, and stormwater management programs; reduction of forest loss; and implementation of other nonpoint source pollution control efforts. The Princess Anne wastewater treatment plant is seeking a Wastewater Treatment Plant Enhanced Nutrient Removal Upgrade for \$6 million. Bids are expected in Spring of 2024. The City of Crisfield has the following wastewater projects underway:

- **Inflow and Infiltration (I & I)** - I & I involves cleaning, televising, and lining sewer pipes as needed to repair pipes that have become porous and are allowing too much ground water to enter, impacting the processing of sewage at the City's wastewater treatment plant. The contractor Standard Pipe Services are completing this project out of Newark, Delaware. There are only a few sewer lines remaining to clean and line. It is anticipated the project will be completed by December 31, 2024. This project is funded by MDE & the United States Department of Agriculture (USDA) loans and forgivable loans for a total of \$684,252.

Streams are generally adequately protected in Somerset County under the following existing programs:

- State law requires a minimum 25-foot undisturbed buffer around all non-tidal wetlands.
- Forest Conservation Ordinance requires a stream buffer 50 feet from the top of the stream bank.
- Within the Chesapeake Bay Critical Area (approximately 42 percent of the county) regulations require a 100-foot undisturbed buffer along all tidal waters, tidal wetlands and tributary streams.
- Timber harvest operations within forested areas require a sediment and erosion control plan with, typically, a 50-foot uncut buffer strip along water courses, or a buffer management plan. Logging within the buffer is permitted only in accordance with a buffer management plan.
- For agricultural land, the County's Chesapeake Bay Critical Area program requires a minimum 25-foot filter strip along streams or wetlands, or functional equivalent through best management practices. There is no required buffer for agricultural land outside the Chesapeake Bay Critical Area. However, farmers are encouraged to adopt Soil Conservation and Water Quality Plans. The Somerset Soil Conservation District estimates that adequate stream buffers are currently being provided on between 50 - 75 percent of farmland in the County. The level of participation in the voluntary program is expected to rise through other programs such as the conservation Reserve Program, and the Water Quality Incentive Program.

A 1990 [Anadromous Fish Survey of Somerset County Streams](#) recommended the following measures to encourage anadromous fish spawning: minimum 25- to 50-foot vegetated buffers along streams; limitations on concrete or riprap along stream channels; prohibition on construction or maintenance within the stream during the spawning season (March 1 through June 15); and prohibition on the blockage or diversion of streams.

According to the Somerset Soil Conservation District, buffers would be the most important of the above measures because concrete or riprap are seldom used in Somerset County in upper stream areas, and there is little or no stream blockage or diversion.

Regarding the recommendations by the Anadromous Fish Survey, the County’s Zoning Ordinance requires that the stream buffer meet these recommendations in the following ways:

- The stream buffer “shall be whichever of the following is wider: a) the 25 feet minimum undisturbed buffer required around non-tidal wetlands under State regulations, or b) the 50 feet minimum buffer required from the top of the stream bank under the County Forest Conservation Ordinance.”
- “The buffer shall be maintained in vegetation and should be planted as needed to result in canopy trees and thick understory vegetation.”<sup>12</sup>

The Zoning Ordinance does not prohibit construction or maintenance within the stream during the spawning season, nor does it prohibit the blockage or diversion of streams.

Maintenance of ditches and channelized streams is necessary to permit human activities in Somerset County. On occasion, maintenance may be necessary during the Spring, coinciding with the anadromous fish spawning season. Construction or maintenance of streams or drainage ditches during the spawning season is not allowed under the Public Drainage Association regulations without a permit. However, since many drainage ditches are privately owned and not covered by these regulations, the proposed county wide drainage ordinance should include provisions describing when and under what circumstances maintenance would be permitted.

### 8.3 Special Flood Hazard Area (FEMA Flood Zones)

The 1-percent annual chance flood zone, also referred to as the 100-year floodplain, is used to describe the recurrence intervals of floods. This means that a flood of similar magnitude to that of past occurrences has a one percent chance of occurring in any given year. In other words, the chances that a river will flow as high as the 100-year flood stage this year is 1 in 100.<sup>13</sup> FEMA flood zones are described in more detail in Table 8-2. These zones are mapped for Somerset County on Map 8-3.

Table 8-2.

FEMA Flood Zones	
Flood Zone	Description
<b>SFHA - High Risk Areas</b>	
1% Annual Chance Flood Hazard (Zones A, AE & VE)	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analysis are provided. AE Zones are now used on new format FIRMs instead of A1 -A30 Zones.
	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
<b>Moderate Risk Areas</b>	

<sup>12</sup> Jesien, Roman. 1990. Anadromous Fish Survey of Somerset County Streams: Final Report. <https://repository.library.noaa.gov/view/noaa/2097>

<sup>13</sup> [www.usgs.gov/special-topics/water-science-school/science/100-year-flood#:~:text=The%20term%2022100%2Dyear%20flood%22%20is%20used%20to%20describe,year%20is%201%20in%20100.](http://www.usgs.gov/special-topics/water-science-school/science/100-year-flood#:~:text=The%20term%2022100%2Dyear%20flood%22%20is%20used%20to%20describe,year%20is%201%20in%20100.)

FEMA Flood Zones	
Flood Zone	Description
0.2% Annual Chance Flood Hazard (Zone X shaded)	Areas outside the 1% annual chance floodplain, areas of 1% annual chance sheet flow flooding where average depths are less than 1 foot, areas of 1% annual chance stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 1% annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.
<b>Minimal Risk Areas</b>	
Zone X (Unshaded)	Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone X is the area determined to be outside the 500 -year flood and/or protected by levee from 100-year flood.

Source: FEMA – Definitions of FEMA Flood Zone Designations.

A large portion of western Somerset County lies within the 1-percent annual chance floodplain. The floodplain covers a larger land area than the Chesapeake Bay Critical Area. Most floodplain in the county is tidal. The tidal 1-percent floodplain is the land along or adjacent to tidal waters that is susceptible to inundation by the 1-percent annual chance flood generated by coastal or tidal flooding due to high tides, hurricanes, or steady on-shore winds. Less than 30 square miles of the County are within the Coastal High Hazard Area, as compared to nearly 180 square miles that are within the Special Flood Hazard Area (SFHA). There are small areas of non-tidal or riverine floodplain along streams above the head of tide. The non-tidal 1-percent annual chance floodplain is the land adjacent to non-tidal streams and bodies of water that is susceptible to inundation by flood water as a result of rainfall and runoff from upland areas.

The Coastal Barrier Resource Act of 1982 established the Coastal Barrier Resource System (CBRS). The result was to prohibit issuance of new Federal flood insurance coverage for any new construction or substantially improved structures located on undeveloped coastal barriers. The Act was expanded in 1990, with several boundary revisions adopted subsequently. Most of the CBRS in Somerset County is marsh and not inhabited. However, there are existing homes on fringe areas, notably in Dames Quarter, Deal Island, and Sound Shore on the Pocomoke Sound near Fair Island Canal. Other portions of the CBRS include St. Pierre Island on the Manokin north of Fairmount; south of Fairmount; east of Crisfield, including Lawson and Crisfield Marsh southwest of Daughtery Creek; Marsh Island, Jones Island, and Cedar Island, as well as the Martin National Wildlife Refuge on Smith Island, Little Deal Island and Hazard Point Island.

According to the [U.S. Fish and Wildlife Service](#), a 2019 [study](#) published in the Journal of Coastal Research analyzed the economic benefits from CBRA and found that CBRA reduced federal coastal disaster expenditures by \$9.5 billion between 1989 and 2013, and forecasts that additional savings will range between \$11 and \$108 billion by 2068.<sup>14</sup>

### 8.3.1 Floodplain Management

The County's Floodplain Management Ordinance (1084) was recently amended and made effective as of December 2023. The County's Department of Technical and Community Services is responsible for floodplain management activities in the county which includes issuing permits for proposed development in the SFHA. New development/subdivision lots are prohibited within the SFHA, unless it is demonstrated that new structures cannot be located out of the floodplain. These structures shall be designed in accordance with the floodplain ordinance. Currently, the county's flood protection elevation is the base flood elevation (BFE) plus one foot of freeboard in A Zones; in Coastal Zones (V and Coastal A), the regulation is one foot above BFE.

<sup>14</sup> Andrew S. Coburn and John C. Whitehead "An Analysis of Federal Expenditures Related to the Coastal Barrier Resources Act (CBRA) of 1982," *Journal of Coastal Research* 35(6), 1358-1361, (15 March 2019). <https://doi.org/10.2112/JCOASTRES-D-18-00114.1>

Note: the [Maryland Model Floodplain Management Ordinance](#) recommends flood protection of BFE plus three feet.

## 8.4 Habitats of Threatened and Endangered Species

The primary Maryland law that governs the legal listing of threatened and endangered species is the Nongame and Endangered Species Conservation Act (Annotated Code of Maryland 10-2A-01), enacted in 1975. The Act is supported by regulations (Code of Maryland Regulations, COMAR 08.03.08) that define listing criteria for endangered, threatened, in need of conservation, and endangered extirpated species; lists the species included in each category; establishes the purpose and intent of research and collection permits; and lists prohibited activities. Maryland regulations may be found [online](#).

The [Maryland Natural Heritage Program](#) tracks the status of over 1,250 native plants and animals that are among the rarest in Maryland and most in need of conservation efforts as elements of our State's natural diversity. Of these species, the Maryland Department of Natural Resources officially recognizes 566 species and subspecies as endangered, threatened, in need of conservation, or endangered extirpated. Only 39, or 7% of the total tracked species, are listed by the U.S. Fish and Wildlife Service as nationally endangered or threatened.

Federal and State laws have been put in place to protect the habitats of threatened and endangered species. Somerset County has primary regulatory authority over most development activity as it relates to potentially effected habitats. This means the County plays a key role in ensuring property owners comply with Federal and State laws.

### Threatened and Endangered Species Definitions

**Threatened Species:** means any species of flora or fauna which appears likely, within the foreseeable future, to become endangered including any species determined to be a "threatened species" pursuant to the federal Endangered Species Act of 1973, 16 U.S.C. §§1531-1543.

**Endangered Species:** means any species whose continued existence as a viable component of the State's flora or fauna is determined to be in jeopardy including any species determined to be an "endangered species" pursuant to the federal Endangered Species Act of 1973, 16 U.S.C. §§1531-1543.

Source: COMAR 08.03.08

Table 8-3 lists endangered animals residing within Somerset County along with their scientific name, common name, state rank, state status, and federal status.

**Table 8-3.**

List of Endangered Animal Species in Somerset County, MD				
Scientific Name	Common Name	State Rank	State Status	Federal Status
Acantharchus Pomotis	Mud Sunfish	S3	-	-
Ambystoma Tigrinum	Eastern Tiger Salamander	S1	E	-
Ammodramus Caudacuta	Saltmarsh Sparrow	S2B, S1N	I	-
Botaurus Lentiginosus	American Bittern	S1B	T	-
Callophrys Hesseli	Hessel's Hairstreak	SH	X	-
Circus Hudsonius	Northern Harrier	S2B	I	-
Cistothorus Platensis	Sedge Wren	S1B	E	-

List of Endangered Animal Species in Somerset County, MD				
Scientific Name	Common Name	State Rank	State Status	Federal Status
Egretta Caerulea	Little Blue Heron	S3B	-	-
Enneacanthus Obesus	Banded Sunfish	S3, S4	-	-
Etheostoma Fusiforme	Swamp Darter	S3	-	-
Falco Peregrinus Anatum	American Peregrine Falcon	S2B	I	-
Fundulus Luciae	Spotfin Killifish	SU	-	-
Gallinula Galeata	Common Gallinule	S2, S3B	I	-
Gastrophryne Carolinensis	Eastern Narrow-Mouthed Toad	S2,S3	E	-
Habroscelimorpha Dorsalis	Eastern Beach Tiger Beetle	S1	E	LT
Haliaeetus Leucocephalus	Bald Eagle	S3, S4	-	-
Ischnura Kellicotti	Lilypad Forktail	S3, S4	-	-
Ixobrychus Exilis	Least Bittern	S2, S3B	I	-
Laterallus Jamaicensis	Black Rail	S1	E	LT
Limnothlypis Swainsonii	Swainson's Warbler	S1B	E	-
Podilymbus Podiceps	Pied-Billed Grebe	S2, S3B	-	-
Porzana Carolina	Sora	S2B	-	-
Problema Bulenta	Rare Skipper	S1	T	-
Pterourus Palamedes	Palamedes Swallowtail	S1	E	-
Rynchops Niger	Black Skimmer	S1B	E	-
Sternula Antillarum	Least Tern	S2B	T	-

Source: [https://dnr.maryland.gov/wildlife/Documents/Somerset\\_County\\_RTEs.pdf](https://dnr.maryland.gov/wildlife/Documents/Somerset_County_RTEs.pdf)

Note: State Status: (E) Endangered, (I) In Need of Conservation, (T) Threatened, Federal Status: LT (Threatened) [Explanation of Rank and Status Codes](#)

Table 8-4 lists endangered plant species living within Somerset County along with their scientific name, common name, state rank, state status, and federal status.

**Table 8-4.**

List of Endangered Plant Species in Somerset County, MD				
Scientific Name	Common Name	State Rank	State Status	Federal Status
Aeschynomene Virginica	Sensitive Joint-Vetch	S1	E	LT
Alnus Maritima	Seaside Alder	S3.1	-	-
Ammannia Latifolia	Koehne Ammannia	S2	-	-
Axonopus Furcatus	Big Carpetgrass	S2	-	-
Bidens Mitis	Small-Fruit Beggarsticks	S1	E	-
Bidens Trichosperma	Tickseed Sunflower	S3, S4	-	-
Boltonia Asteroides Var. Glastifolia	Aster-Like Boltonia	S1	E	-
Cardamine Longii	Long's Bittercress	S2	E	-
Carex Bullata	Button Sedge	S3	-	-
Carex Gigantea	Giant Sedge	S3	-	-
Carex Hyalinolepis	Shoreline Sedge	S2, S3	-	-
Carex Joorii	Joor's Sedge	S3	-	-
Carex Mitchelliana	Mitchell's Sedge	S2	-	-
Chamaecyparis Thyoides	Atlantic White Cedar	S3	-	-
Cirsium Horridulum	Yellow Thistle	S3	-	-
Desmodium Laevigatum	Smooth Tick-Trefoil	S3	-	-
Diphasiastrum Tristachyum	Deep-Root Clubmoss	S3	-	-
Dryopteris Celsa	Log Fern	S3	-	-
Dryopteris Clintoniana	Clinton's Woodfern	S1	E	-
Eleocharis Albida	White Spikerush	S2, S3	-	-

List of Endangered Plant Species in Somerset County, MD				
Scientific Name	Common Name	State Rank	State Status	Federal Status
Geranium Robertianum	Herb-Robert	S1	-	-
Hypericum Adpressum	Creeping St. John's-Wort	S1	E	-
Hypericum Gymnanthum	Clasping-Leaf St. John's-Wort	S3	-	-
Lechea Maritima	Virginian Beach Pinweed	S3	-	-
Linum Intercursum	Sandplain Flax	S2	T	-
Lobelia Elongata	Elongated Lobelia	S3	-	-
Ludwigia Glandulosa	Cylindric-Fruit Seedbox	S3	-	-
Mecardonia Acuminata	Purple Mecardonia	S2	E	-
Oldenlandia Uniflora	Clustered Bluets	S3	-	-
Paspalum Dissectum	Walter's Paspalum	S2	T	-
Persea Palustris	Red Bay	S1	E	-
Platanthera Cristata	Crested Yellow Orchid	S3	-	-
Polygala Cruciata	Crossleaf Milkwort	S2	T	-
Polygonum Glaucum	Seabeach Knotweed	S1	E	-
Potamogeton Foliosus	Leafy Pondweed	S2	-	-
Rhynchospora Glomerata	Clustered Beakrush	S3	-	-
Saccharum Contortum	Bent-Awn Plume Grass	S3, S4	-	-
Sagittaria Engelmanniana	Engelmann's Arrowhead	S2	T	-
Scleria Reticularis	Reticulated Nutrush	S2, S3	-	-
Sesuvium Maritimum	Puerto Rico Sea-Purslane	S1	E	-
Stachys Aspera	Gritty Hedge-Nettle	S1	E	-
Suaeda Linearis	Narrowleaf Seepweed	S3	-	-
Triglochin Striata	Three-Ribbed Arrow Grass	S1	E	-

Source: [https://dnr.maryland.gov/wildlife/Documents/Somerset\\_County RTEs.pdf](https://dnr.maryland.gov/wildlife/Documents/Somerset_County RTEs.pdf)

Note: State Status: (E) Endangered, (I) In Need of Conservation, (T) Threatened, Federal Status: LT (Threatened) [Explanation of Rank and Status Codes](#)

#### 8.4.1 Sensitive Species Project Review Areas

The Maryland Department of Natural Resources (DNR) [Sensitive Species Project Review Areas \(SSPRA\)](#) is a digital map layer that represent the general locations of documented rare, threatened, and endangered species. The data layer incorporates several types of regulated areas under the Critical Area Criteria and other areas of concern statewide, including Natural Heritage Areas, Listed Species Sites, Other or Locally Significant Habitat Areas, Colonial Waterbird Sites, Nontidal Wetlands of Special State Concern, and Geographic Areas of Particular Concern.

This data layer provides an overview of nearly all state-regulated and designated areas involving sensitive and listed species. However, it does not supersede, and should not be used instead of, the State's Nontidal Wetlands Guidance maps. These areas are depicted on Map 8-4.

Areas include Federal lands, State lands, and No Status lands. Federal lands make up 29,104.4 acres, State Lands make up 73,208.97 acres, and No Status lands make up 3,115.21 acres.

## 8.5 Steep Slopes

Steep Slopes are defined as hillsides having a 15 foot, or greater, vertical rise over 100 feet of horizontal run, or 15% slope. They are often described as undesirable areas for development due to the difficulty of building on steep grades.<sup>15</sup> Overall Somerset County is very flat. Only 10% of the county's land area is higher than 20 feet above sea level. Slopes are shown on Map 8-5, including steep slopes. According to the County Soil Survey there are 204 acres of "Sandy Loam" soil units that are over 15 percent slope, mostly along streams within the Critical Area. There are 156 acres of soil units with 10 to 15 percent slopes. There are currently no protections in place for steep slopes outside of the Critical Area. The Planning Commission should consider the implications of 15 percent slopes in its review of project design. This is already required for plans requiring forest stand delineations.

## 8.6 Wetlands

According to the United States Fish and Wildlife Service, 81,563 acres, or 38% of Somerset County, is described as wetlands. Wetlands are areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils.<sup>16</sup>

Of the 81,563 acres of wetlands in Somerset County, 62,408 acres are estuarine or tidal wetlands. An estuarine or tidal wetland is a brackish habitat where freshwater meets the saltwater.<sup>17</sup> Wetlands of special state concern comprise 1,054.78 acres and National Wetlands Inventory (NWI) and DNR wetlands comprise 90,347.05 acres or 141.12 square miles. These wetlands are mapped on Map 8-6.

The County's zoning ordinance includes regulations that govern development on wetlands. These regulations are designed to protect these sensitive areas and ensure that any development activities comply with environmental standards. Ordinance 1193 was adopted to establish a revised Floodplain Management Program consistent with Federal and State regulatory programs concerned with the management of floodplain resources. The Forest Conservation Act (FCA) requires the identification of forested areas during the site planning process, which includes areas adjacent to wetlands. High priority is given to these areas for retention and protection. Areas adjacent to streams or wetlands, on steep slopes or erodible soils, or adjacent to large contiguous blocks of forest habitat are considered high priority.

The Maryland Nontidal Wetlands Protection Act requires a state nontidal wetlands permit or letter of authorization for activities in a nontidal wetland or within a 25-foot buffer or 100-foot expanded buffer around a nontidal wetland.

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<sup>15</sup> [https://cms5.revize.com/revize/nrpc/Document\\_Center/Publications/iTRaC/2007/FS12\\_Slopes.pdf](https://cms5.revize.com/revize/nrpc/Document_Center/Publications/iTRaC/2007/FS12_Slopes.pdf)

<sup>16</sup> United States Environmental Protection Agency. "What is a Wetland?" May 4, 2023. <https://www.epa.gov/wetlands/what-wetland>

<sup>17</sup> <https://www.filson.com/blog/field-notes/what-is-an-estuarine-wetland/#:~:text=An%20estuarine%20wetland%20is%20a,plants%2C%20animals%2C%20and%20invertebrates>

## 8.7 Agriculture

Agriculture is important to the aesthetic and economic value of Somerset County and is one of Maryland's largest and most important industries. However, runoff from cropland and livestock activities can carry nutrients, sediments, and pollutants from manure, fertilizers, and other sources into waterways. On Maryland's Eastern Shore as a whole, agriculture is the largest contributor of nitrogen and phosphorus to the Chesapeake Bay and its tributaries. Somerset County's agricultural community has always recognized the economic and historical importance of the jobs and products provided by the local seafood industry. As a result, farmers in Somerset County have historically led local efforts to restore the Bay and its tributaries—particularly Tangier Sound. Throughout the years, the agricultural community has proactively used federal, state, and local funds to implement Best Management Practices to minimize or eliminate runoff and pollution from cropland and livestock production.

Approximately 26% of the land-base in Somerset is classified as agricultural and agriculture is the largest industry in the County. Per the [2022 Census of Agriculture](#) approximately 244 farm businesses encompass 63,019 acres of farmland with the average farm size of 258 acres. Production of corn, soybeans, broilers, vegetables, and livestock rank Somerset County 3<sup>rd</sup> in agriculture value for the State of Maryland. Somerset County ranks 1<sup>st</sup> in the state for broiler production, making it a leader in broiler poultry production.<sup>18</sup> Agricultural land and pasture is depicted on Map 8-7 at the end of this chapter.

Nearly one-third of the County's land is preserved and/or owned by federal and state government, and more than 80 percent of the County's cropland is dedicated to no-till or minimum-till crops—which have lower nutrient impacts than high-till crops. For several years, the County's agricultural community has taken part in research into the proper application of fertilizer, chemicals, and poultry manure handling and storage, in cooperation with the Somerset County Soil Conservation District, the University of Maryland, and the University of Delaware. Every agricultural producer in Somerset County has a nutrient management plan, monitored by Maryland Department of Agriculture (MDA). Agriculture continues to be a substantial source of nutrients throughout the Bay watershed, and Somerset County should continue to work with MDE and MDA to reduce nonpoint source nutrient loads from all sources. However, Somerset County's agricultural community has demonstrated that productive agriculture and a healthy Bay can go hand in hand.<sup>19</sup>

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<sup>18</sup> <https://extension.umd.edu/locations/somerset-county/agriculture-and-food-systems/>

<sup>19</sup> Somerset County Water Resources Element, March 2010. [https://planning.maryland.gov/Documents/OurWork/compplans/10\\_WRE\\_Somerset.pdf](https://planning.maryland.gov/Documents/OurWork/compplans/10_WRE_Somerset.pdf)

Aquaculture is also a significant part of the local economy, especially concerning shellfish farming. Aquaculture reflects a blend of tradition and modern practices, contributing to the sustainability and economic vitality of Maryland's seafood industry.

The DNR oversees shellfish aquaculture in the state, including Somerset County. Shellfish leaseholders are required to submit annual reports and invoices, and the DNR provides online tools to track shellfish aquaculture lease applications. Oyster farming is a prominent part of aquaculture with two main production methods: submerged land and water column leases. The industry has seen significant growth since 2010, contributing millions to the state's economy and utilizing thousands of acres of Maryland waters for shellfish leases. Recently, Hoopers Island Oyster Co. launched an oyster restoration project in the Bay. The company floated 10 million spat-on-shell diploid oysters raised at Horn Point Laboratory and the Hoopers hatchery and planted them at Evans Reserve off Dames Quarter in Somerset County, Maryland. The project was for the Somerset County Watermen's Association through a contract with DNR and managed by Oyster Recovery Partnership (ORP).

### Aquaculture

The Zoning Ordinance defines aquaculture as "the farming or culturing of finfish, shellfish, other aquatic plants or animals, or both, in lakes, streams, inlets, estuaries, and other natural or artificial water bodies or impoundments. Activities include the hatching, cultivating, planting, feeding, raising, and harvesting of aquatic plants and animals and the maintenance and construction of necessary equipment, buildings, and growing areas. Cultivation methods include, but are not limited to, seed or larvae development and grow-out facilities, fish pens, shellfish rafts, racks and long lines, seaweed floats and the culture of clams and oysters on tidelands and sub-tidal areas. For the purpose of this definition, related activities such as wholesale and retail sales, processing and product storage facilities are not considered aquacultural practices."

*Source: Somerset County Zoning Ordinance*

## 8.8 Forests

Somerset County recognizes the fundamental importance of forests and aims to balance development activity with forest protection. Approximately [83,000 acres or 40%](#) of the land in Somerset County is described as Forest. Most of this is privately owned by either farmers or industrial forest companies. As of 1990, the main recorded forest types were loblolly pine (30,000 acres), oak-pine (25,000 acres), and oak-hickory (25,500 acres). Within the Chesapeake Bay Critical Area, commercial timber harvesting programs must be conducted in accordance with a plan approved by the County Forestry Board. Outside the Critical Area, a sediment and erosion control plan are required. To protect forest resources from land development, the county adopted its forest conservation program in 1994, as required by the State. The forest conservation plan can require afforestation and/or reforestation. Afforestation is the action of planting trees where forest cover has been absent while reforestation is the replacement of existing trees, or greater, outside of the Critical Area. In certain situations, the program allows for off-site planting. Forest land within the Critical Area is protected and increased through provisions of the county's Critical Area Protection Program. The forest conservation ordinance applies to any application for site plan review, subdivision, project plan, grading, or sediment control approval on a land area of 40,000 square feet or greater outside the Chesapeake Bay Critical Area. Forested areas are shown on Map 8-8 at the end of this chapter.

### Forests

The Zoning Ordinance defines forests as "a biological community where at least one-half of the land area is covered by tree crown and other woody plant cover or at least 200 trees per acre and covering a land area of one acre or more. This also includes forests that have been cut but not cleared."

*Source: Somerset County Zoning Ordinance*

Development within the Chesapeake Bay Critical Area must comply with guidelines administered by the State in order to protect these habitats. In 1991 the Maryland Forest Conservation Act was enacted to minimize the loss of Maryland's forest resources during land development by making the identification and protection of forests and other sensitive areas an integral part of the site planning process. Identification of priority areas prior to development makes their retention possible. Of primary interest are areas adjacent to streams or wetlands, those on steep or erodible soils or those within or adjacent to large contiguous blocks of forest or wildlife corridors.<sup>20</sup> In addition, most development projects require a Forest Stand Delineation (FSD).

FSD is a catalogue of a site's environmental features. Basically, it is a list of all the "green stuff" (vegetation), "wet stuff" (wetlands) or "steep stuff" (terrain) that might be disturbed during construction. The elements that determine whether an area is considered "sensitive" include specimen trees (trees larger than 30 inches in diameter), champion trees (largest individual of a species in the state); streams, steep slopes, and endangered species. If these features are impacted during development, it could have a negative effect on the surrounding ecosystem. In Maryland, the Act requires the FSD and/or the Forest Conservation Plan for "any activity requiring an application for a subdivision, grading permit, or sediment control permit on areas 40,000 square feet (approximately one acre) or greater." The county in which the delineation is being performed determines how stringent the specific requirements will be. Each delineation must be prepared by a licensed forester, licensed landscape architect, or a qualified professional who meets the requirements set by the DNR.<sup>21</sup>

## 8.9 Chesapeake Bay Critical Area

The Chesapeake and Atlantic Coastal Bays Critical Area Protection Program was established by the State of Maryland in 1984 to reduce environmental consequences associated with development within the fragile bay ecosystems. Creation of the State legislation focused on preservation, conscious development, and restoration within what was deemed as "critical area."

### Critical Area

The Zoning Ordinance defines the critical area as "all lands and waters defined in Section 8-1807 of the Natural Resources Article, Annotated Code of Maryland. They include:

- a. All waters of and lands under the Chesapeake Bay and its tributaries to the head of tide as indicated on the state wetlands maps, and all state and private wetlands designated under Title 9 of the Natural Resources Article, Annotated Code of Maryland;
- b. All land and water areas within 1,000 feet beyond the landward boundaries of State or private wetlands and the heads of tides designated under Title 9 of the Natural Resources Article, Annotated Code of Maryland; and
- c. Modification to these areas through inclusions or exclusions proposed by Somerset County and approved by the CBCA as specified in Section 8-1807 of the Natural Resources Article, Annotated Code of Maryland."

*Source: Somerset County Zoning Ordinance*

The Critical Area is described as the land within 1,000 feet of the mean high-water line for waters under the tidal influence of the Chesapeake Bay and the Atlantic Coastal Bays. Thus, in Somerset County, the Critical

<sup>20</sup><https://dnr.maryland.gov/forests/Pages/programapps/newfca.aspx#:~:text=The%20main%20purpose%20of%20the,integral%20part%20of%20the%20site>

<sup>21</sup> <https://www.ecslimited.com/what-forest-stand-delineation/>

Area consists of shores along the Bay and parts of its tributary rivers: Wicomico, Manokin, Big Annemessex, and Pocomoke.<sup>22</sup> For the State's full legal definition, see [§8-1807](#) of the Natural Resources Article, Annotated Code of Maryland.

There are three designations within the Critical Area: IDA (Intensely Developed Area), LDA (Limited Development Area), and RCA (Resource Conservation Area). These designations stipulate the kinds and intensities of development allowed.

- IDAs are densely built areas where residential, commercial, or industrial land uses predominate. The focus here is on improving water quality through best practices in stormwater management.
- LDAs are low-to-moderately built areas that also contain natural plant and animal habitats. The focus here is on maintaining that balance – allowing certain levels of development while requiring mitigation in the form of establishing new habitat.
- RCAs are sparsely developed areas dominated by agricultural uses, wetlands, forest, barren land, surface water, or open space. The focus here is on protecting important habitats and water quality by limiting new development to residential uses and resource-utilization activities.

The County's Critical Areas, including these three development designations are shown on Maps 8-9 through 8-13.

The Critical Area Program also includes special rules for the land area immediately adjacent to tidal waters, tidal wetlands, and tributary streams -- the Buffer. The Buffer has a minimum width of 100 feet and may be wider in areas with steep slopes, wetlands, or sensitive soils. This ribbon of land has been distinguished from the rest of the Critical Area due to its importance in acting as a buffer between developed areas and sensitive aquatic resources and shoreline habitat. Proper establishment and maintenance of the Buffer may help decrease shoreline erosion, slow runoff, and absorb excess water -- potentially decreasing the severity of flooding.

## 8.10 Sea Level Rise

As the climate continues to warm, global sea levels rise as a result. Increasing temperatures cause the melting of ice on land, such as mountain glaciers and polar ice sheets, and thermal expansion as the ocean water takes up more space. As a whole Maryland experiences higher rates of relative sea level rise than the global average due to several factors including Maryland's geographic position in relation to melting polar ice sheets and land subsidence.<sup>23</sup>

Land subsidence is defined as a gradual settling or sudden sinking of the Earth's surface owing to subsurface movement of earth materials. The principal causes of land subsidence are aquifer-system compaction, drainage of organic soils, underground mining, hydro compaction, natural compaction, sinkholes, and thawing permafrost.<sup>24</sup>

According to the sea level measurement from the Annapolis area tide gauge, sea levels in Maryland have risen 10 inches since 1950. Sea levels are projected to rise another 1-2 feet by 2050. According to the [2008 Rising Sea Level Guidance for Somerset County](#) – the most recent County-level report of its kind – Dames Quarters, Janes

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<sup>22</sup> [https://www.somersetmd.us/departments/departments - n - z/planning\\_and\\_zoning/critical\\_area/about.php](https://www.somersetmd.us/departments/departments - n - z/planning_and_zoning/critical_area/about.php)

<sup>23</sup> <https://extension.umd.edu/programs/environment-natural-resources/program-areas/coastal-climate-program/sea-level-rise/>

<sup>24</sup> <https://www.usgs.gov/mission-areas/water-resources/science/land-subsidence#:~:text=collapse%2C%20or%20subsidence,-Land%20subsidence%20is%20a%20gradual%20settling%20or%20sudden%20sinking%20of,%2C%20sinkholes%2C%20and%20thawing%20permafrost>

Island State Park, and Smith Island are predicted to be almost completely underwater by 2100 as the Bay’s average surface elevation increases nearly one-foot.<sup>25</sup>

Furthermore, groundwater is Somerset County’s sole source for drinking water. Two primary aquifers are utilized for public water and private wells: Manokin Aquifer and Patapsco Aquifer. Increasing sea level rise and shoreline erosion could affect these aquifers by causing intrusion of salt water, therefore limiting the water that can be utilized.

Map 8-14 shows how sea level rise is expected to impact Somerset County by the end of the century. Areas highlighted in red are expected to be almost completely underwater by 2100.

8.11 Shoreline Erosion

According to Somerset County’s [Multi-Hazard Mitigation Plan](#), characteristics of shoreline erosion in Maryland reflect a unique combination of natural and man-made conditions affecting the State’s shorelines. The natural factors influencing erosion rates include soil composition, weather, topography, water depth, fetch and surface and groundwater conditions. Regarding man-made structures, over 1,000 miles of man-made structures have been incorporated into Maryland’s shorelines. Currently, the preferred method for erosion control is Living Shorelines; this is a method that provides habitat while offering shoreline protection. However, when necessary other man-made methods are utilized, such as: wooden or concrete bulkheads, stone revetment, beach replenishment and segmented breakwaters.

Living Shorelines

"Living shorelines are the result of applying erosion control measures that include a suite of techniques which can be used to minimize coastal erosion and maintain coastal process. Techniques may include the use of fiber coir logs, sills, groins, breakwaters or other natural components used in combination with sand, other natural materials and/or marsh plantings. These techniques are used to protect, restore, enhance or create natural shoreline habitat."

Source: Maryland Department of Natural Resources

Approximately 260 acres of tidal shoreline are lost each year to shoreline erosion. This degrades water quality in the Bay by adding approximately 5.7 million pounds of nitrogen and 4.2 million pounds of phosphorus, as well as sediment, into Bay waters. Shoreline erosion rate information was requested from the U.S. Army Corps of Engineers (USACE), Baltimore District; shoreline erosion rates for Somerset County are presented in Table 8-5, following.

Table 8-5.

Rates of Shoreline Erosion in Somerset County					
Somerset County			Maryland*		
Erosion Category	Average Erosion Rate (ft/yr)	Shoreline Length (Miles)	Erosion Category	Average Erosion Rate (ft/yr)	Shoreline Length (Miles)
Accretion	+0.5	18.33798	Accretion	+0.5	294
Protected	0	21.4271	Protected	0	978
No Change	0	646.4702	No Change	0	3,851

<sup>25</sup> Somerset County, Maryland. September 2008. Somerset County, Maryland Rising Sea Level Guidance. [https://dnr.maryland.gov/ccs/Publication/SeaLevel\\_Somerset.pdf](https://dnr.maryland.gov/ccs/Publication/SeaLevel_Somerset.pdf)

**Table 8-5.**

Rates of Shoreline Erosion in Somerset County					
Somerset County			Maryland*		
Slight	-1	93.14462	Slight	-1	1,157
Low	-3	26.24806	Low	-3	182
Moderate	-6	7.275717	Moderate	-6	59
High	-11	0.356062	High	-11	11
Unknown	0 or -1	0	Unknown	0 or -1	65
<b>Total</b>	<b>-</b>	<b>813.2595</b>	<b>Total</b>	<b>-</b>	<b>6,597</b>

Source: U.S. Army Corps of Engineers, 2016.

\* Note: Includes the 16 coastal counties and Baltimore City, excluding Smith Island, South Marsh Island, Poplar Island, Bloodsworth Island, and several other large Bay Islands).

According to the U.S. Army Corp of Engineers Planning Division, the erosion categories have been changed, and due to different mapping techniques, the measured shoreline has changed. The Virginia Institute of Marine Science (VIMS) produced the updated shoreline and erosion rates based on Maryland Geological Survey (MGS) data.

In addition, approximately 67% of the houses in Somerset County were constructed prior to 1981 which is the date when the County adopted floodplain maps and began administering the floodplain ordinance. A high percentage of those homes were constructed near the water. Therefore, those structures could be more susceptible to the effects of shoreline erosion. Moreover, within the low-lying areas closer to the shores, the infrastructure located in these areas could be significantly damaged. With shorelines eroding further inland, flooding could also extend further inland and cause damage to roads, bridges, railroads, septic systems, water distribution systems and electric, cable and telephone distribution systems.<sup>26</sup>

Finally, the County Health Department estimates that over 5,072 homes utilize septic tanks, with 1.5% of these residents requesting replacement systems annually. As shoreline erosion increases causing above average high tides, the number of septic tanks failing will increase.

Map 8-15 shows areas of shoreline erosion from low to high risk. Areas of particularly high erosion rates include Smith Island, Janes Island, and Cedar Island. These areas are circled in red on the map.

## 8.12 Green Infrastructure (Protected Lands and Targeted Ecological Areas)

Green infrastructure refers to systems, both natural and engineered, that function as living infrastructure. Per Maryland's DNR Green Infrastructure Assessment ([GreenPrint](#)), green infrastructure includes targeted ecological areas, DNR owned properties, conservation reserve enhancement programs, forest legacy, rural legacy properties, land easements, local protected lands, coastal and estuarine land conservation programs, private conservation lands, protected federal lands, and transfer development rights and purchase development rights.

Green infrastructure delivers environmental, social, and economic benefits, improves water and air quality, reduces stormwater, and provides necessary habitat for wildlife. Green infrastructure can also include local and small-scale solutions, such as rain gardens, bioswales, planter boxes, and permeable pavement. These neighborhood-level options primarily help manage stormwater runoff. Per the County's [2022 Land Preservation](#),

<sup>26</sup> Somerset County, Maryland. 2022. Somerset County Multi-Hazard Mitigation Plan.

[Parks and Recreation Plan](#) (LPPRP), the State’s goals for natural resources land conservation specific to green infrastructure includes:

- *Conserve and restore species of concern and important habitat types that fall outside the green infrastructure: rock outcrops, karst systems, caves, shale barren communities, grasslands, shoreline beach and dune systems, mud flats, non-forested islands, etc.*
- *Assess the combined ability of State and local programs to expand and connect forests, farmlands, and other natural lands as a network of contiguous green infrastructure.*

In previous years, the County’s goal for green infrastructure was to work with the State to complete protection of green infrastructure in the northeast area of the county. As of 2022, progress towards this goal is as follows:

- The County’s protected lands and designated conservation areas closely correlate with the Targeted Ecological Areas in GreenPrint. The State can assist the County by identifying specific priority lands that should be considered for protection. Once priority areas are identified, the County can consider options for protection which might include:
  - Incorporating protection criteria into the zoning and subdivision regulations.
  - Working with private land trusts and others in protecting such areas.

### 8.13 Fisheries

Counties located on tidal waters must include a fisheries element, which focuses on the designation of areas for loading, unloading, and processing finfish and shellfish, and for docking and mooring commercial fishing boats and vessels. The following commercial fisheries are in the county: MeTompkin Bay Oyster Company, Southern Connection Seafood, Handy Seafood, Somerset Seafood Company, and Marshall’s Seafood & Farming.

In Somerset County, commercial fisheries play a role in the local economy and culture in the following significant ways:

1. Blue Crabs and Oysters
  - Somerset County is known for its Chesapeake Bay blue crabs. Crabbing is a vital part of the local seafood industry. The City of Crisfield is known as the “Crab Capital of the World.”<sup>27</sup>
  - Oysters are another essential resource. The MeTompkin Bay Oyster Company and Marshall’s Seafood & Farming, Inc. participate in oyster harvesting and processing.<sup>28</sup>
2. Fishing and Watermen
  - The county has a rich tradition of fishing and watermen’s activities. Water activities in the County include watersports, crabbing and fishing, boating, and scenic cruises.
3. Commercial Reporting:

#### Fisheries Activities

The Zoning Ordinance defines fisheries activities as “commercial water dependent fisheries facilities including structures for the packing, processing, canning, or freezing of finfish, crustaceans, mollusks, and amphibians and reptiles and also including related activities such as wholesale and retail sales, product storage facilities, crab shedding, off-loading docks, shellfish culture operations, and shore-based facilities necessary for aquaculture operations.”

Source: Somerset County Zoning Ordinance

<sup>27</sup><https://fishandhuntmaryland.com/species/crabs#:~:text=Maryland%20and%20the%20Chesapeake%20Bay,Crab%20Capital%20of%20the%20World.>

<sup>28</sup> [Fresh Seafood | Somerset County, MD | Eastern Shore Crabs \(visitsomerset.com\)](#)

- The Maryland Department of Natural Resources oversees commercial fisheries. Fishermen are required to submit regular reports on their catches.<sup>29</sup>
  - The DNR also maintains a Commercial Reporting Hotline for inquiries and assistance.
4. Economic Impact:
- Somerset County's seafood industry contributes to the local economy, providing jobs and supporting businesses.
  - The county's focus on commercial/industrial development includes efforts to enhance the seafood sector.

Commercial coastal regulations are included in the Code of Maryland Regulations (COMAR) and Natural Resources Article of the Annotated Code of Maryland. The Exclusive Economic Zone (EEZ) is all waters from the seaward boundary of coastal states (3 miles from shore) out to 200 nautical miles. Maryland waters are from the shore to 3 miles.

County [Roads & Waterways](#) maintains 14 marine facilities, which includes the following locations:

- |                           |                 |
|---------------------------|-----------------|
| • Coulbourn Creek         | • Rehobeth      |
| • Crisfield County Dock   | • Rhodes Point  |
| • Dames Quarter           | • Rumbley       |
| • Deal Island             | • Shelltown     |
| • Ewell                   | • Tylerton      |
| • Janes Island State Park | • Websters Cove |
| • Jenkins Creek           | • Wenona Harbor |

Boat slips are available at the following 6 marinas:

- |                  |                     |
|------------------|---------------------|
| • Deal Island    | • Wenona Harbor     |
| • Webster's Cove | • Tylerton          |
| • St. Peter's    | • Jenkins Creek Doc |

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<sup>29</sup> [Commercial Fisheries \(maryland.gov\)](https://maryland.gov/commercial-fisheries/)

## 8.14 Hazard Mitigation Planning

Hazard Mitigation is sustained action taken to reduce or eliminate the long-term risk to life and property from hazards. Resilience is the capacity of individuals, communities, businesses, institutions, environmental systems, and governments to adapt to changing conditions and to prepare for, withstand, and rapidly recover from disruptions to everyday life, such as hazard events. Hazard Mitigation Plans are required to be updated every five years, must be approved by FEMA, and adopted by local officials.

Somerset County's [Multi-Hazard Mitigation Plan](#) (2022) assesses the risk and vulnerability of people, infrastructure, and critical facilities to natural hazards such as flooding, shoreline erosion, and sea level rise. The plan determines risk for each identified hazard based upon the following factors:

- Historical impacts, in terms of human lives and property
- Geographic extent
- Historical occurrence
- Future probability
- Community perspective

Natural hazards ranked as “**high**” risk within the multi-hazard mitigation plan include Coastal Hazards, Flood, Shoreline Erosion, and Sea Level Rise.

The Plan includes recommendations in the form of mitigation strategies to reduce hazard risk and vulnerability. Ideally, the County will strive to prevent new development in known hazard areas, as identified by the hazard mitigation plan. Mapping products and some information from this plan has been integrated into Chapter 8. Mitigation strategies related to protecting sensitive areas from hazards include:

- Project D Natural Resources Planning: implement measures that protect people, property, and natural resources including planting native vegetation, vegetated swales, and buffer strips on parcels within critical areas that presently lack vegetation. Prioritize parcels that are also experiencing high rates of shoreline erosion<sup>30</sup>.

It is an overall goal of the multi-hazard mitigation plan to integrate hazard mitigation into the County's comprehensive plan. More information on this planning document can be found at [www.somersetmdhazardplan.org](http://www.somersetmdhazardplan.org).



Figure 8-5: Cover of Somerset County Multi-Hazard Mitigation Plan, 2022.

<sup>30</sup> Somerset County, Maryland. 2022. Somerset County Multi-Hazard Mitigation Plan.

In addition to the multi-hazard mitigation plan, The County has developed and adopted a [Flood Mitigation Plan](#) (2021). The purpose of the flood mitigation plan is to frame flood risk and vulnerability within the County, evaluate areas of concern, and develop strategies to lessen risk and vulnerability to flooding. Flood hazards evaluated in the plan include hurricane storm surge, 1% annual chance flood, projected sea level rise, nuisance flooding, and flash flooding.

Strategies proposed in the flood mitigation plan relating to sensitive areas include:

- Action Item #10: Identify stormwater management issues and the most vulnerable properties affected in the county. Review area(s) to determine cause of issues, specifically lack of natural vegetation, if applicable. Adopt similar building regulations (such as those in the Chesapeake Bay critical area) to these properties. This would include a buffer zone with natural vegetation.
- Objective 2.2: Enact and enforce regulatory measures to ensure that new development will not increase hazard threats from coastal and riverine flooding, storm surge or the threat of sea level rise.
- Objective 3.1: Establish open space parks and recreational areas in flood hazard areas.
- Objective 3.2: Provide for the conservation and preservation of natural resources.
- Objective 3.3: Limit additional housing (especially elderly and high density) in areas of high hazard risk.

*Note: due to the abundance of maps included in this chapter, mapping products are included at the end of the chapter and are followed by goals and strategies.*

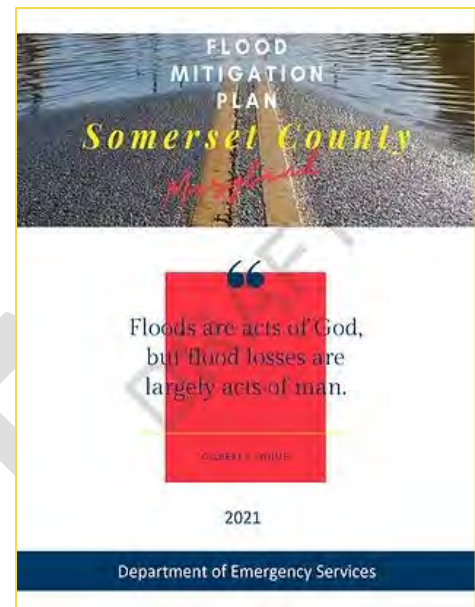
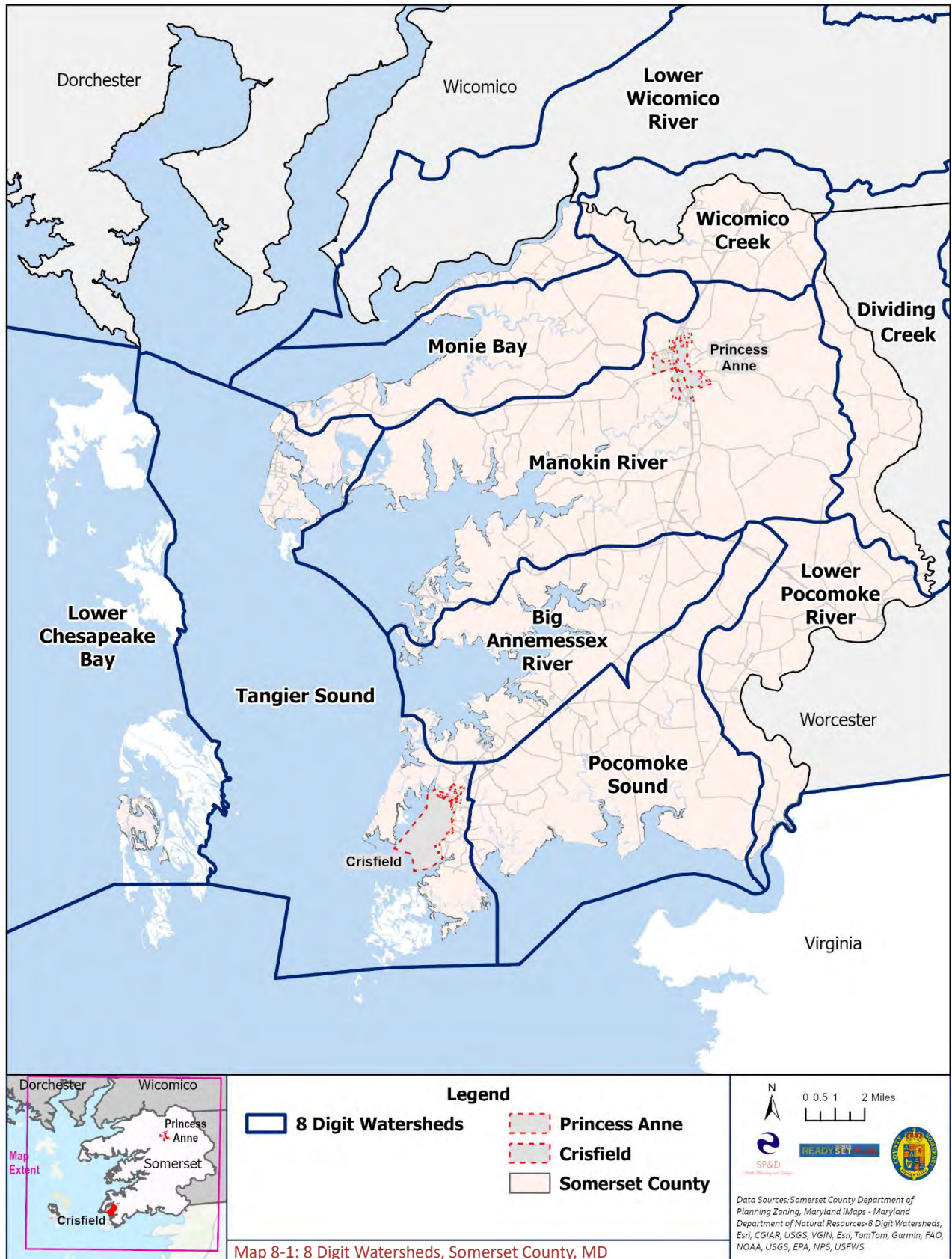
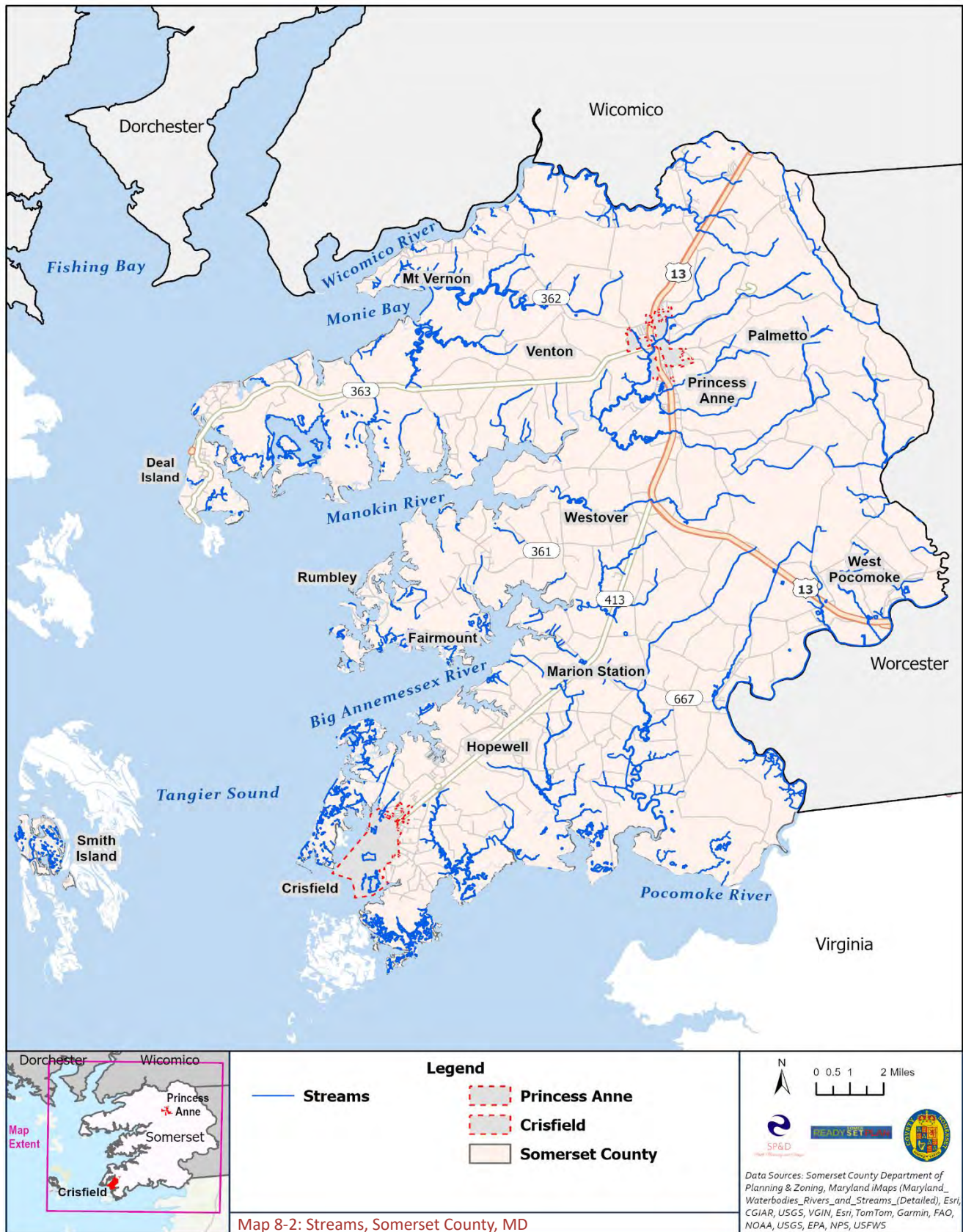
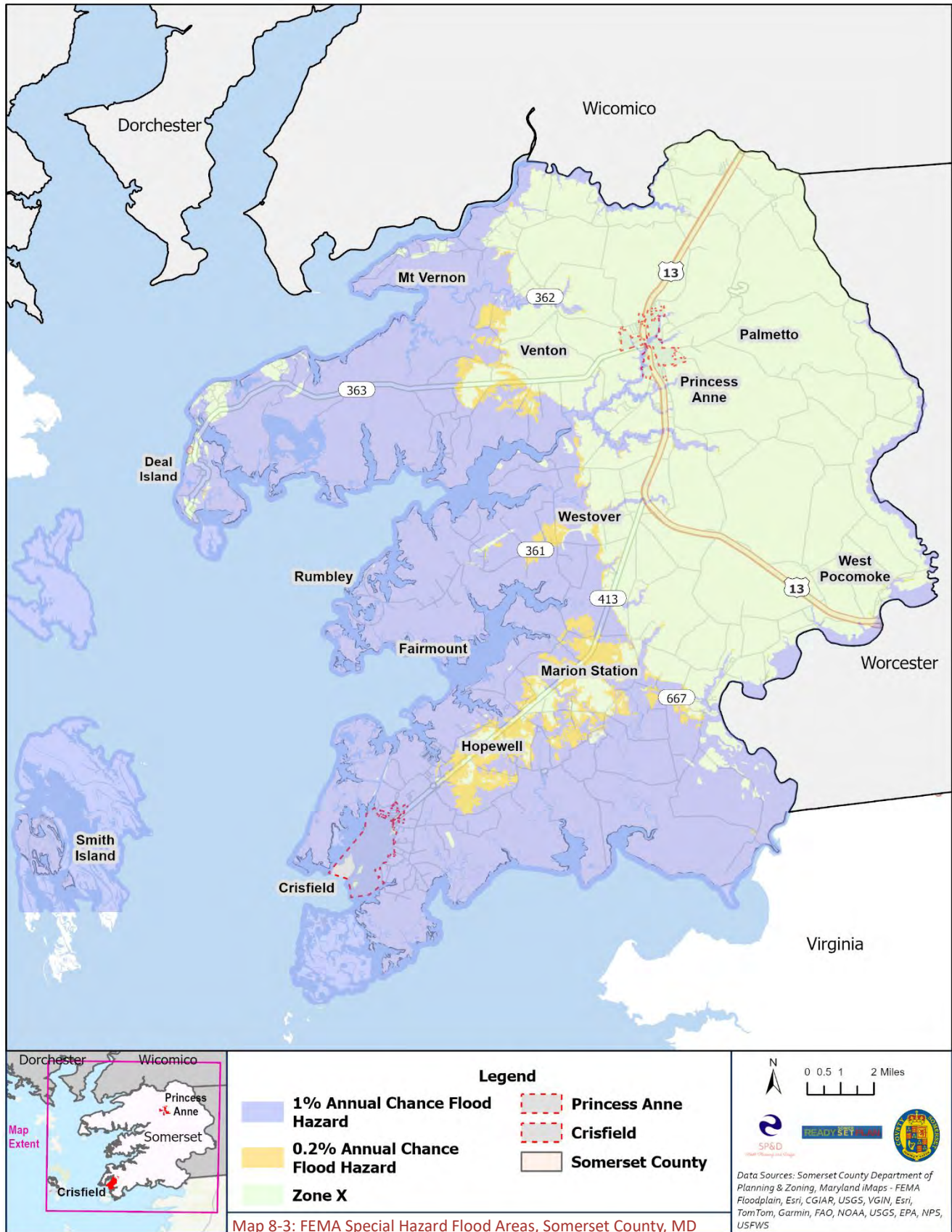
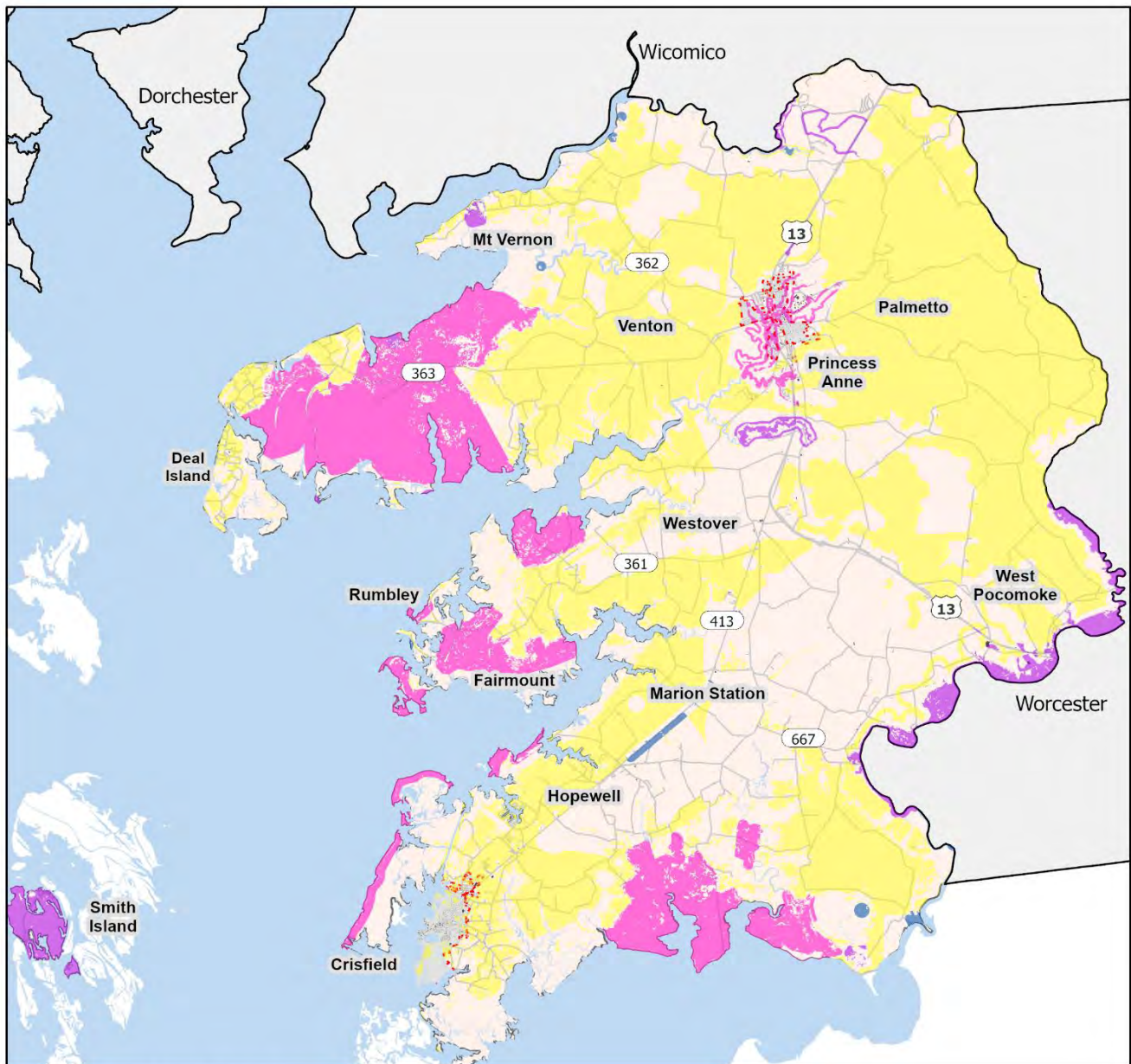


Figure 8-6: Cover of Somerset County Flood Mitigation Plan, 2021.







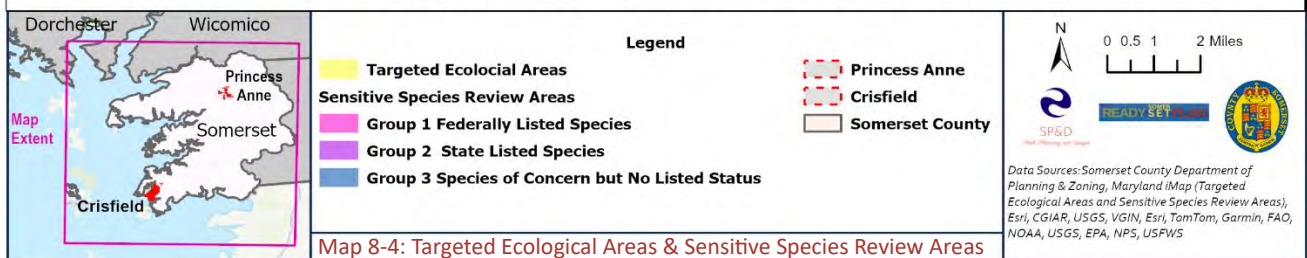


### Targeted Ecological Areas

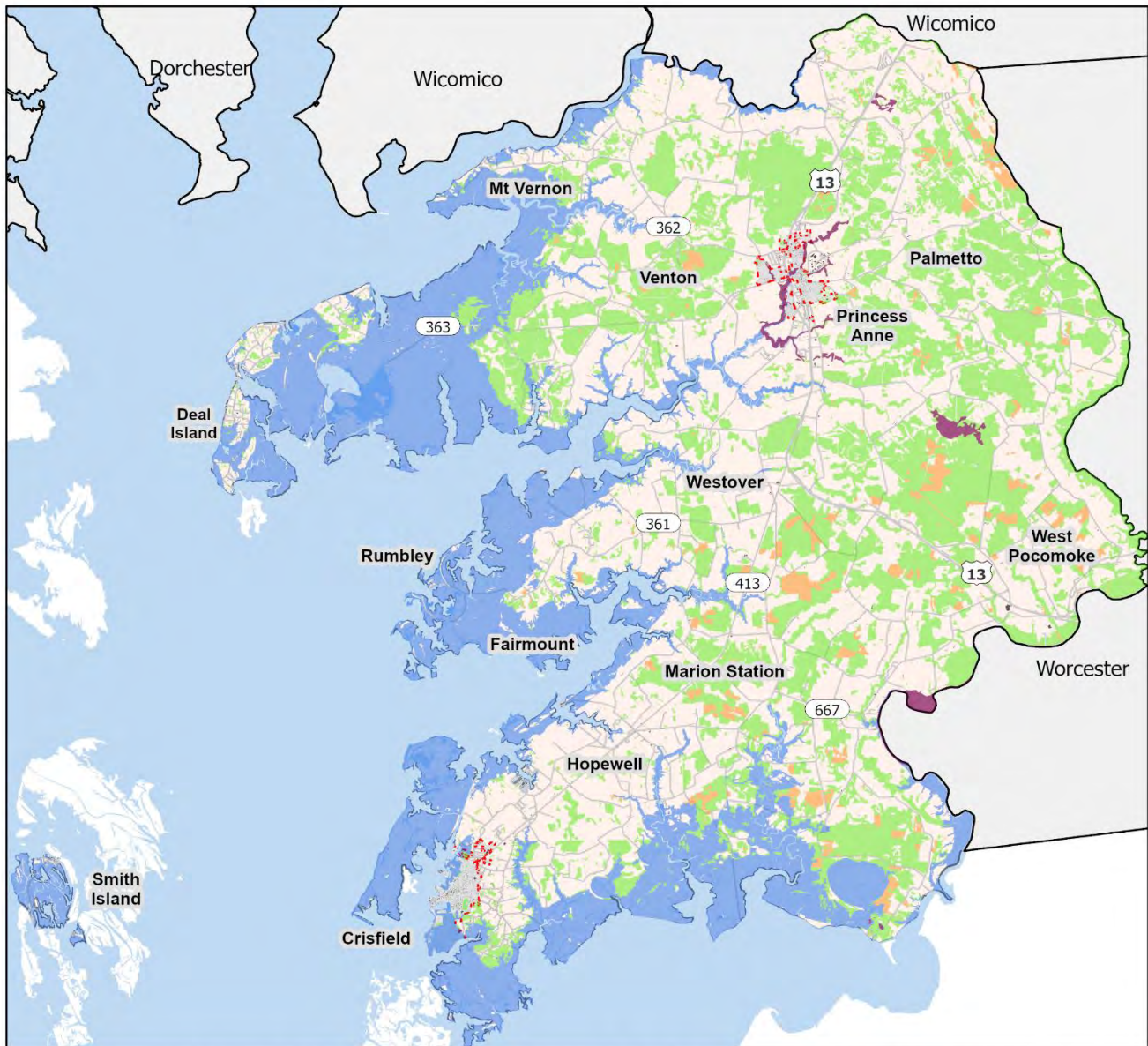
Lands and watersheds of high ecological value, identified as conservation priorities by DNR. These lands include large blocks of forests and wetlands, rare species habitats, aquatic biodiversity hotspots, and areas important for protecting water quality.

### Sensitive Species Review Areas

Primarily represents the general locations of documented rare, threatened, and endangered species per the Wildlife & Heritage.







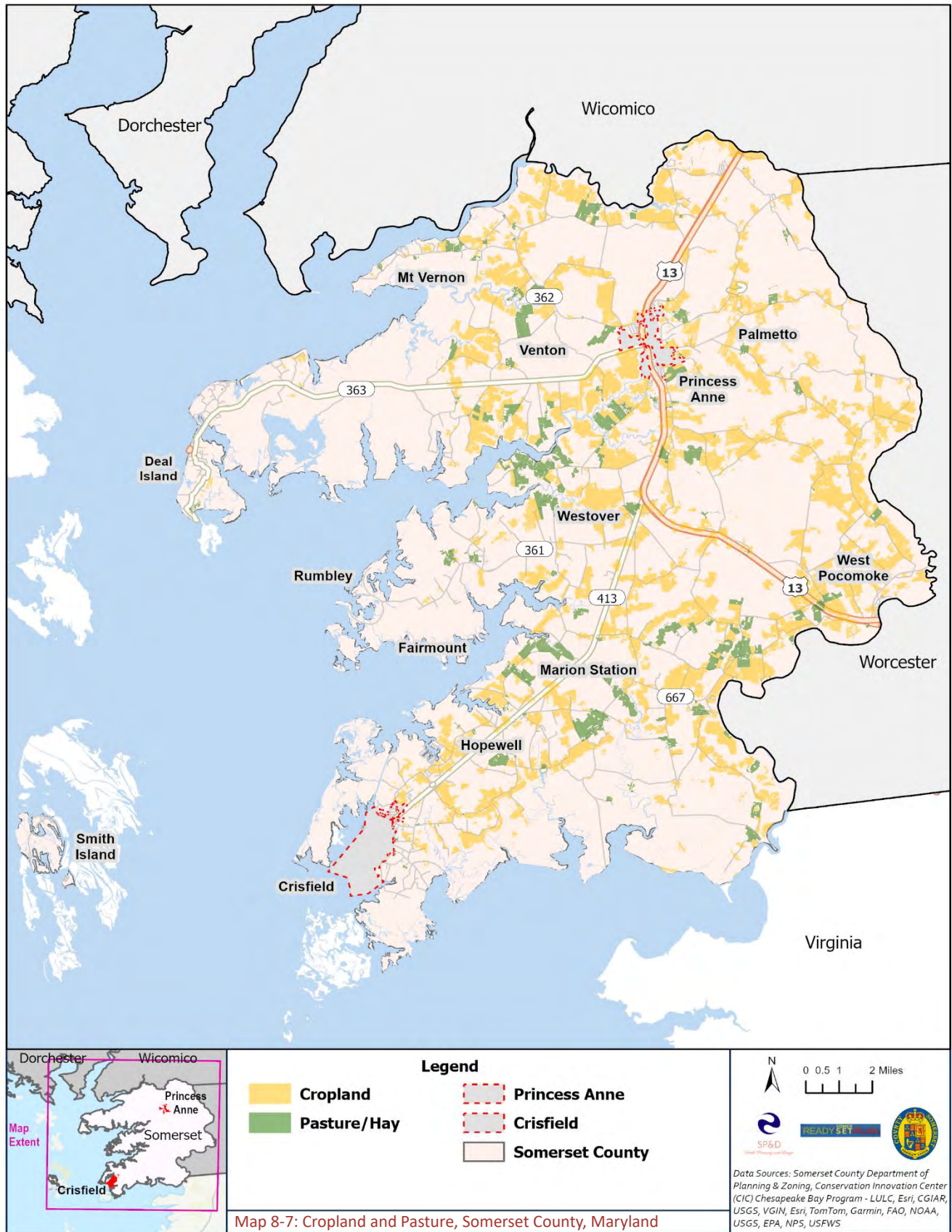
**Special State Concern Wetlands** - Identified by MDE based on the "Prioritizing Sites for Wetland Restoration, Mitigation & Preservation in Maryland" Report.

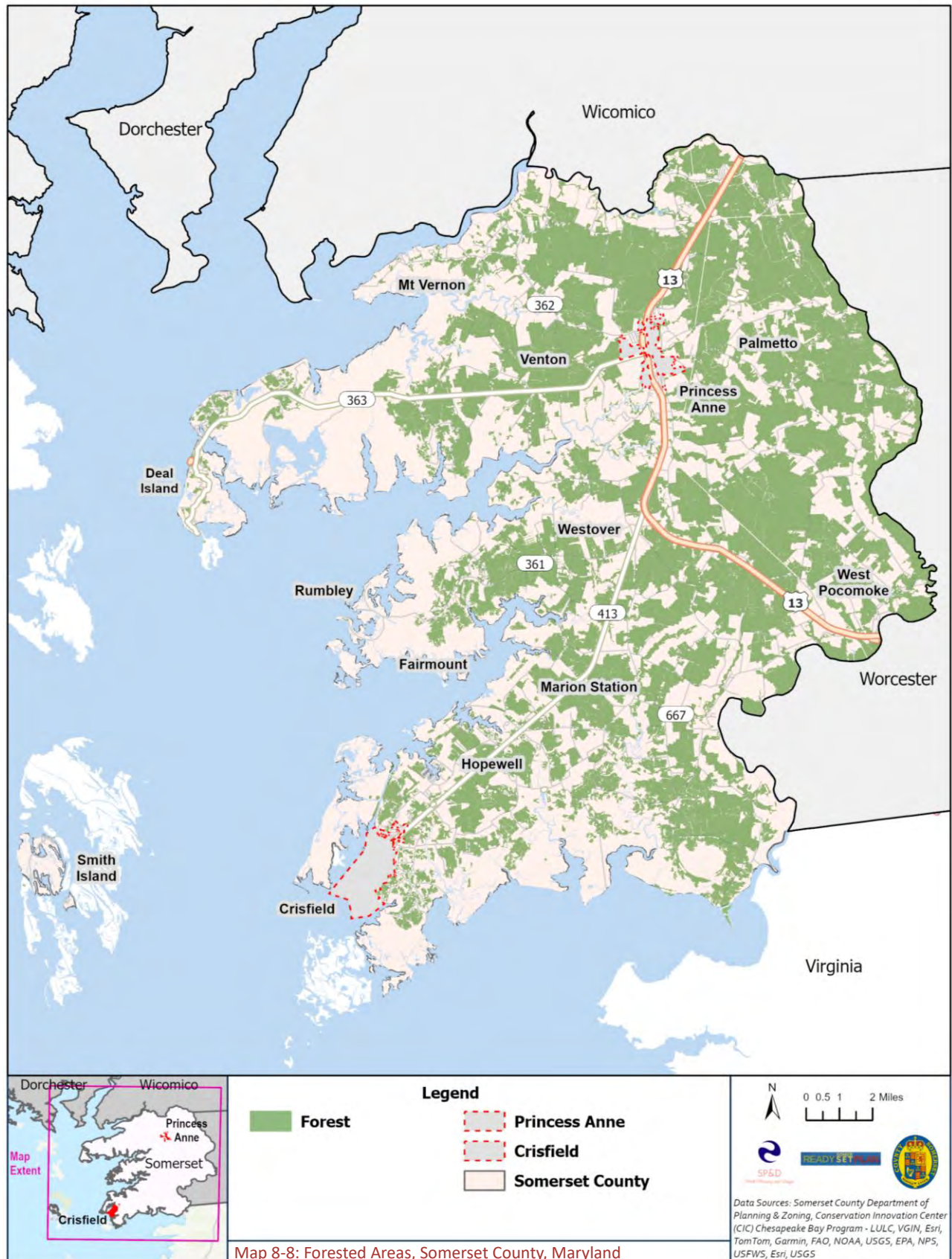
**National Wetlands Inventory (NWI)** - Includes wetlands identified by the US Fish & Wildlife Service. Typically, these include wetlands 5+ acres in size. Additional wetlands may exist.

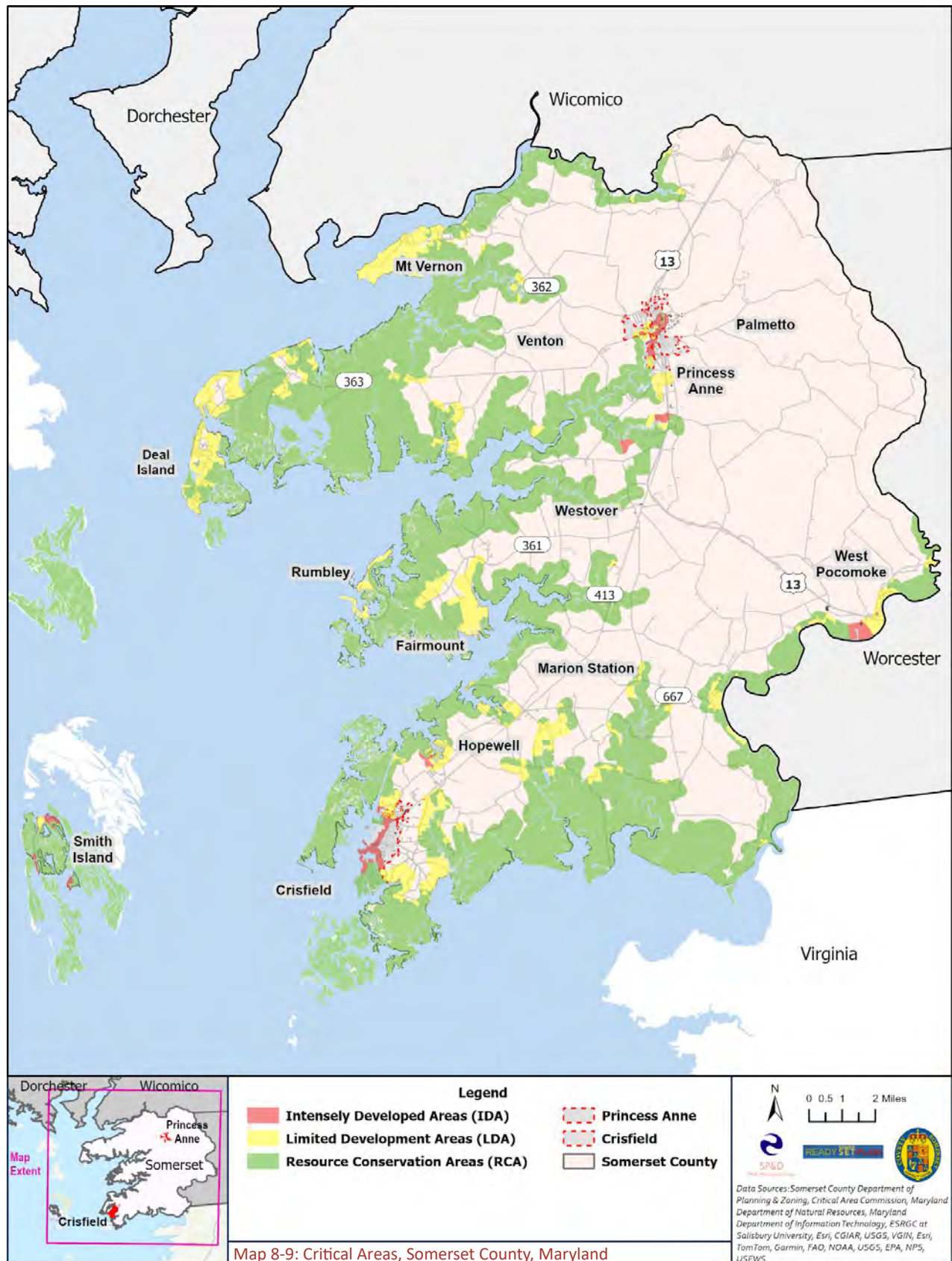
**DNR Wetlands** - Wetlands identified by the Maryland Department of Natural Resources, which supplement NWI datasets.

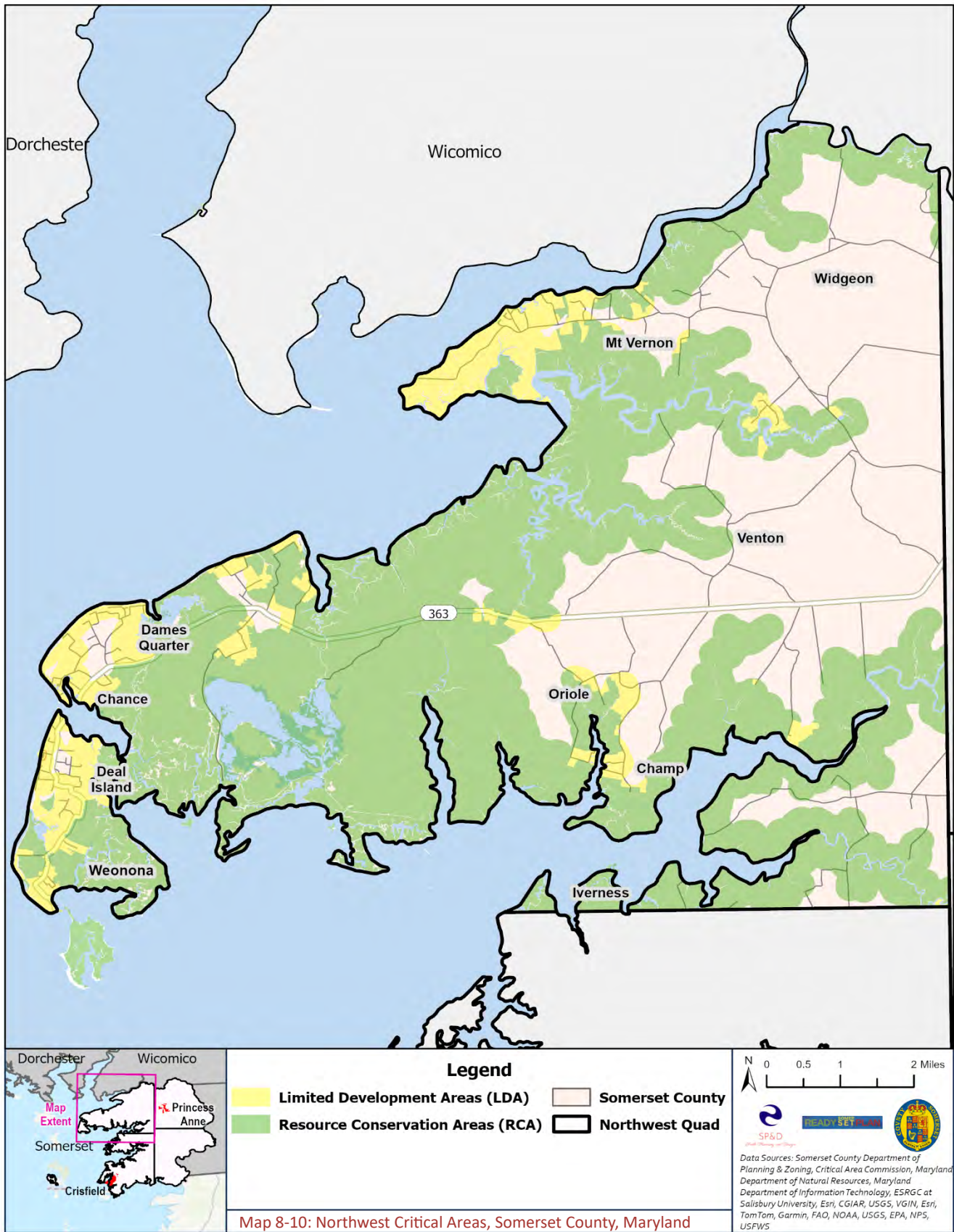


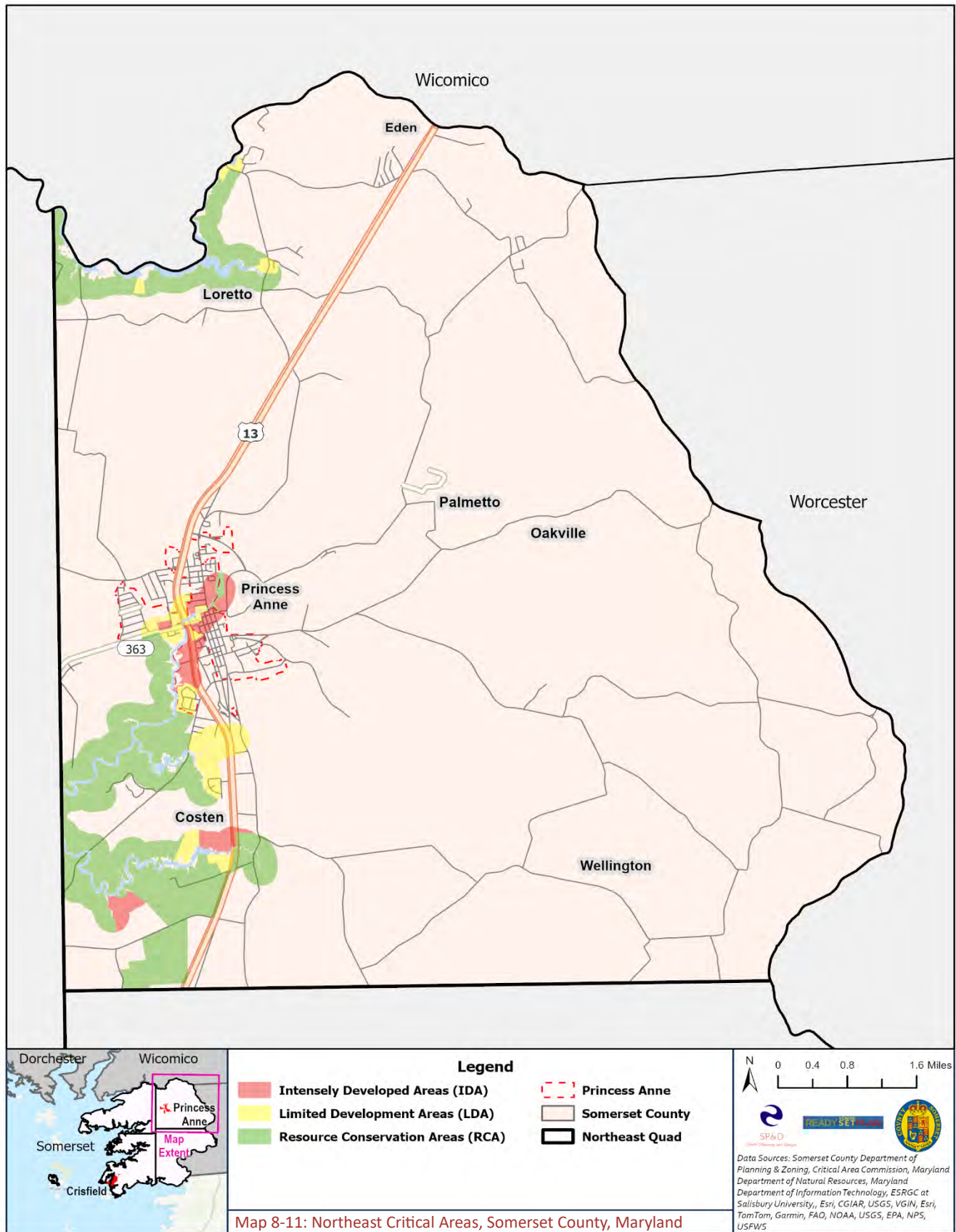
Map 8-6: Wetland Areas, Somerset County, Maryland

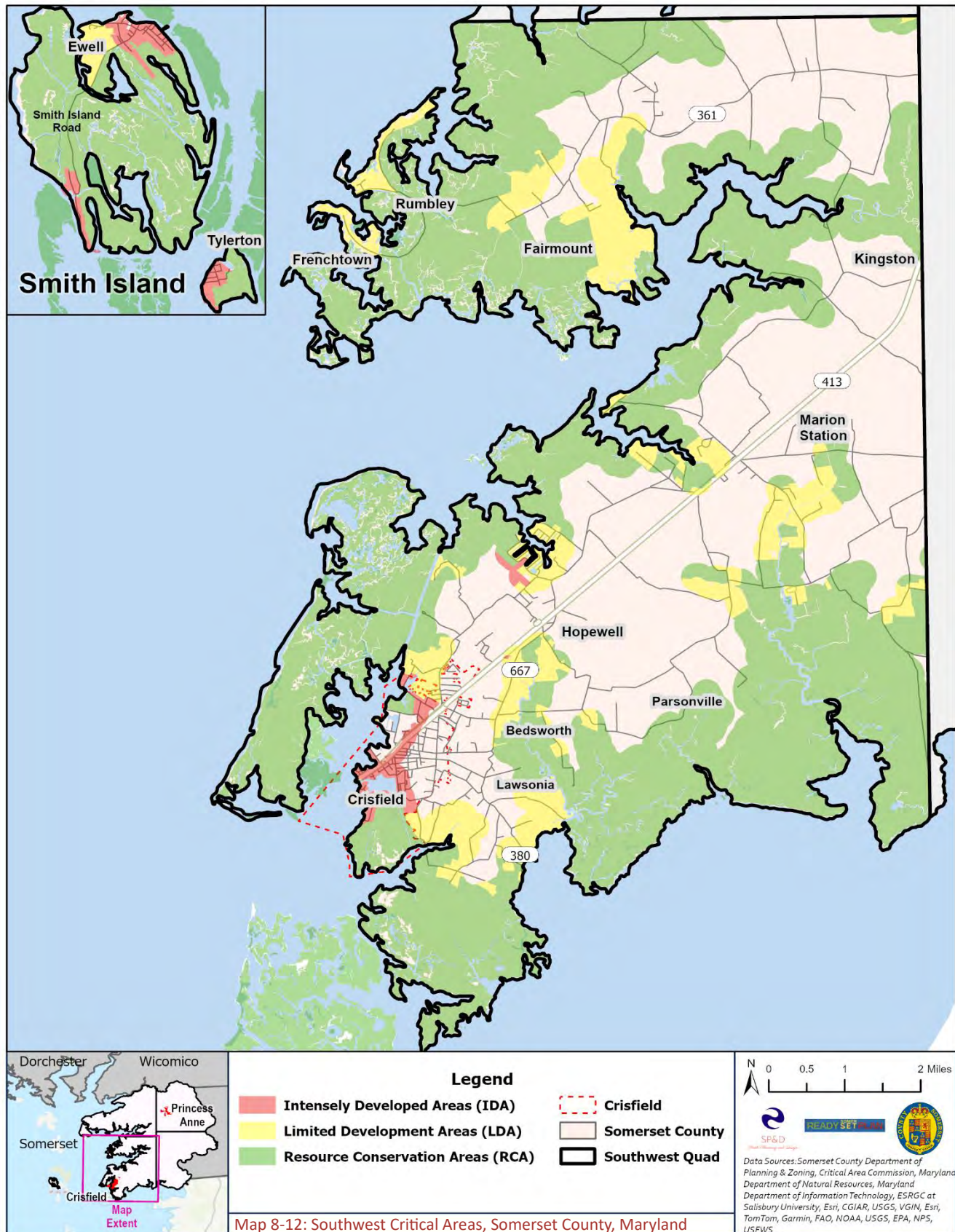


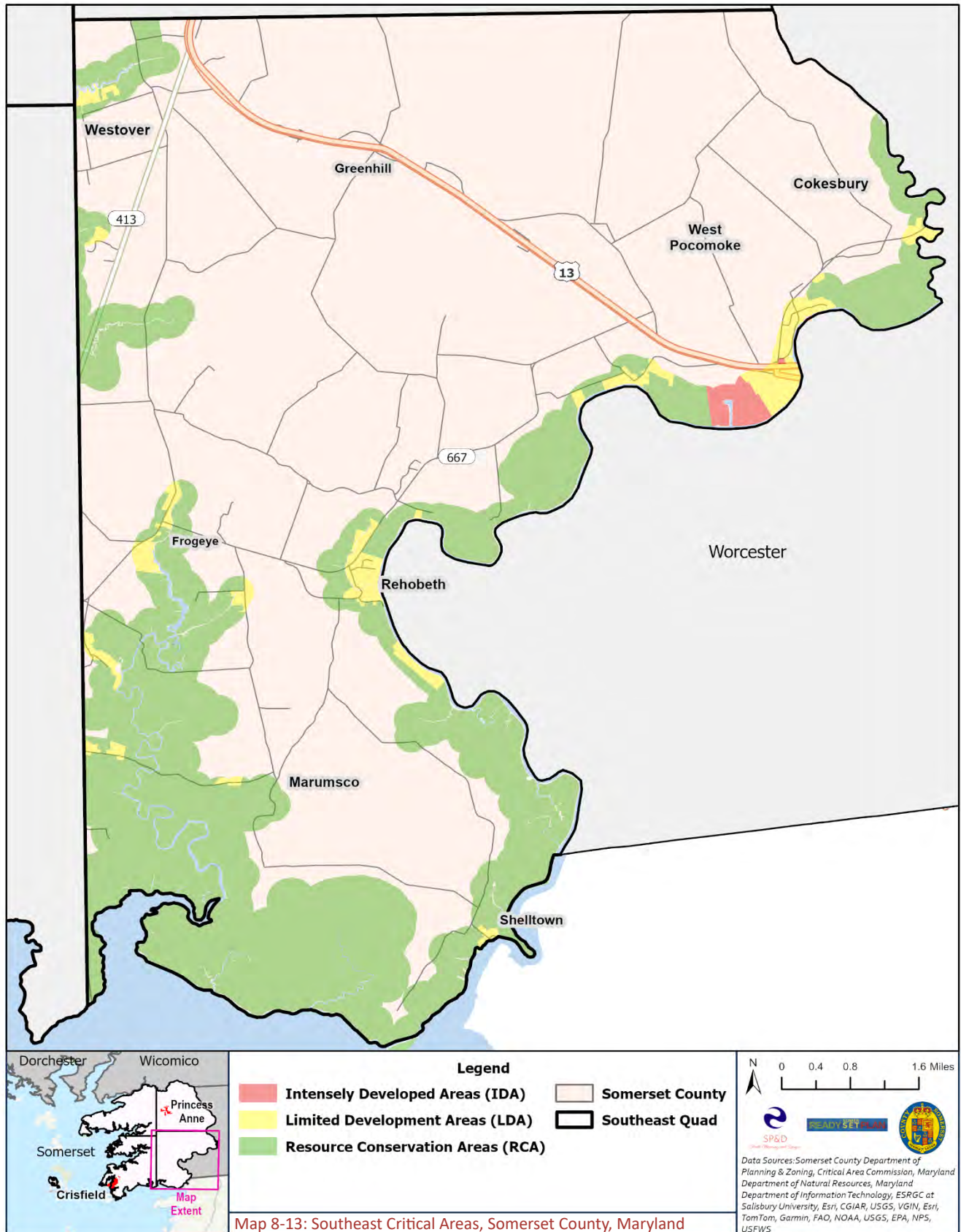


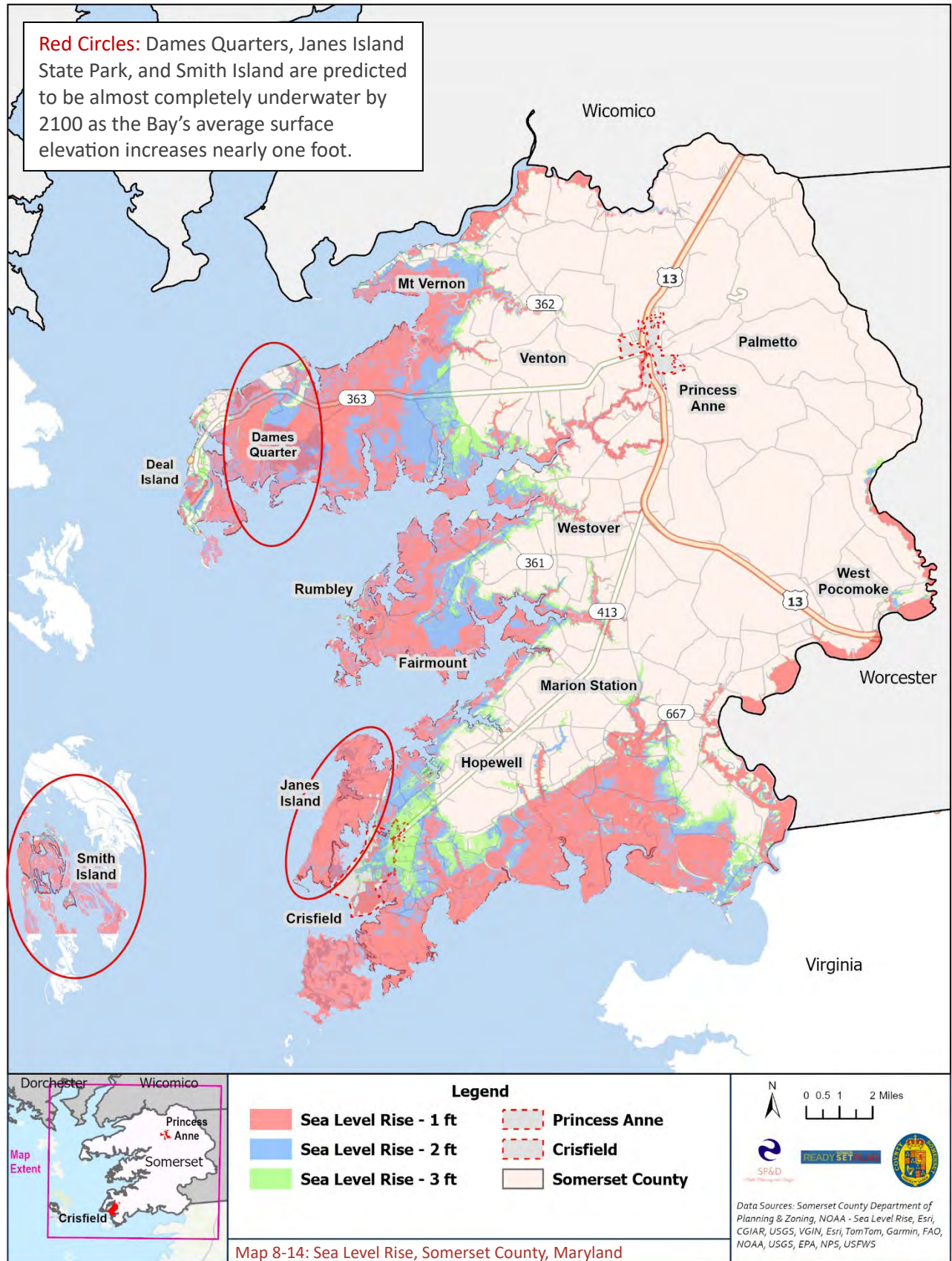


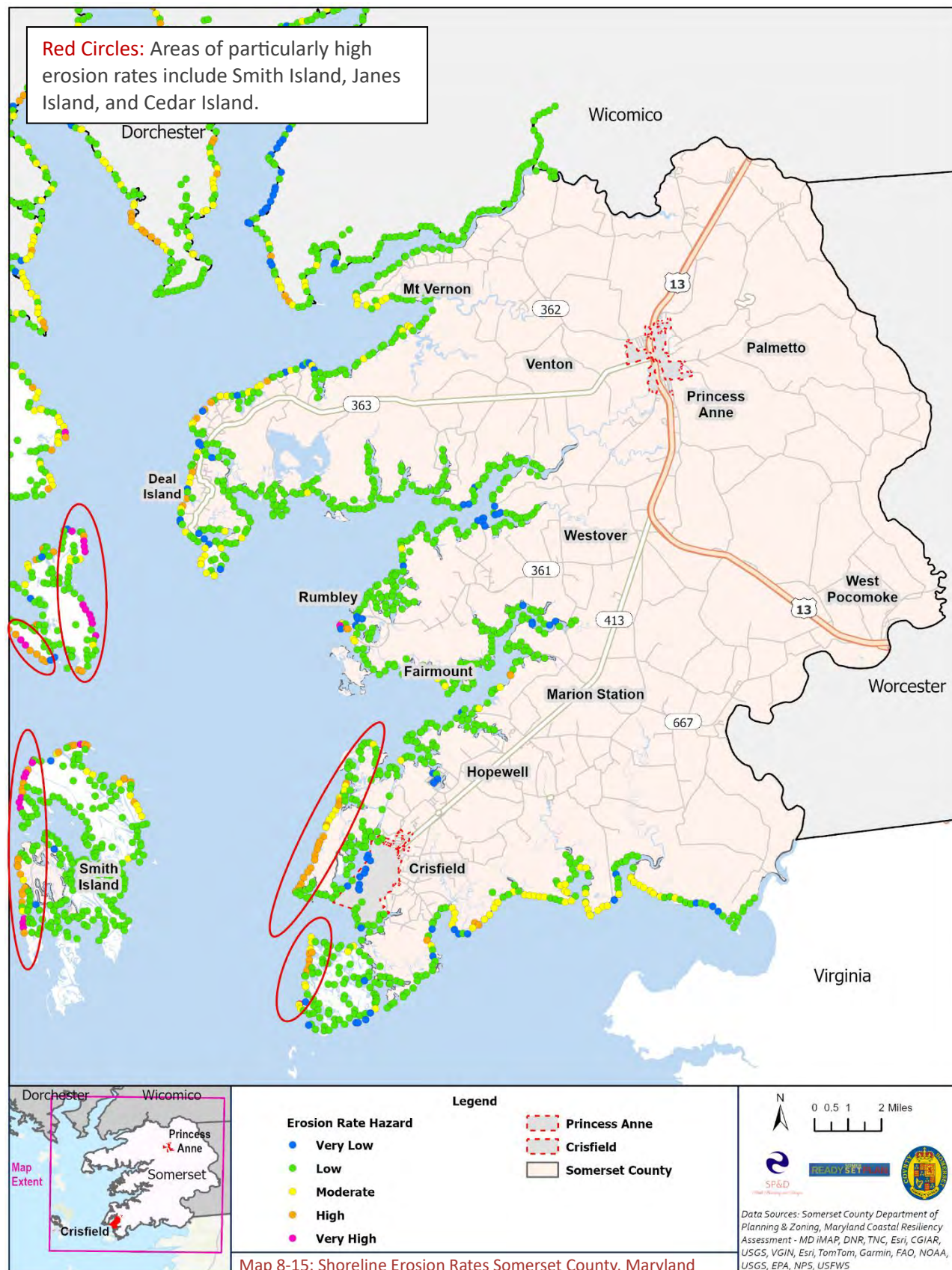












## Chapter 8: Sensitive Areas Goals & Implementation Strategies

### Goal 8.1

Work with the State to complete protection of green infrastructure primarily in the northeast area of the county.

#### Strategies

- A. The State can assist the County by identifying specific priority lands that should be considered for protection. Once priority areas are identified, the County can consider options for protection which might include:
  - a. Incorporating protection criteria into the zoning and subdivision regulations
  - b. Working with private land trusts and others in protecting such areas.

### Goal 8.2

Implement water quality improvement projects and initiatives and protect aquatic life.

#### Strategies

- A. Collaborate with government and non-profit partners to identify opportunities for water quality improvement projects and initiatives.
- B. Develop and implement strategies to reduce pollutant loads on a watershed basis in accordance with Watershed Improvement Plans (WIP). Update impervious surface analyses Countywide. Explore areas for opportunities to replace with pervious materials and possibly combine with bioretention areas.

### Goal 8.3

Protect sensitive areas by implementing conservation, preservation, and regulation strategies.

#### Strategies

- A. Continue to implement the County's wetland and stream buffer protection within existing ordinances.
- B. Consider revising the zoning ordinance to prohibit construction or maintenance within the stream during the spawning season and to prohibit the blockage or diversion of streams.
- C. Continue to implement the Chesapeake Bay Critical Area Program to minimize adverse effects of human activities on water quality and natural habitat and allow for development in a sensitive manner.
- D. Investigate utilizing shoreline restoration as a future way to achieve restoration and address sea level rise vulnerability, particularly if dedicated funding sources become available.
- E. Continue to regulate development in mapped flood zones and evaluate the appropriateness of going beyond FEMA requirements to consider additional restrictions based on projected sea level rise.
- F. Support the goals and action items identified in both the Somerset County Hazard Mitigation and Flood Mitigation Plans.
- G. Encourage future development where infrastructure exists. Discourage development near sensitive areas and other environmental resources protection areas.
- H. Update the County's Critical Area Ordinance based on the 2024 adopted Critical Area maps.
- I. Through outreach and education efforts, promote land and water stewardship to guide individual and group actions.
- J. Encourage replacement of engineered shoreline structures with adaptive, resilient shoreline stabilization measures such as living shorelines, marsh edging and living breakwaters, where feasible.
- K. Continue to support the efforts of State, Federal and non-profit organizations to preserve natural resources, including productive agricultural land.
- L. Collaborate with Economic Development Department and leaders to develop assistance programs for the agricultural and forest product industries.

- M. Explore the possibility of making the County Maryland Agricultural Land Preservation Foundation (MALPF) Certified to maximize funding.
  - a. Support the LPPRP goal of preserving 25,000 acres of agricultural land.
- N. Continue to promote the Transfer of Development Rights (TDR) program.
- O. Prioritize and support preservation efforts in Rural Legacy Areas.
- P. Promote the natural recolonization or reestablishment of habitat and benthic species using thin layer placement (beneficial use of dredge material).
- Q. Review for those areas outside of the Critical Area, which are not protected, the Planning Commission should consider the implications of 15 percent slopes in its review of project design. This is already required for plans requiring forest stand delineations.
- R. Partner with Mosquito Control on beneficial drainage projects in order to improve drainage systems throughout the County.

#### **Goal 8.4**

Limit development in high hazard areas as identified in the Multi-Hazard Mitigation Plan and the Flood Mitigation Plan.

#### **Strategies**

- A. Enact and enforce regulatory measures to ensure that new development will not increase hazard threats from coastal and riverine flooding, storm surge or the threat of sea level rise.
- B. Establish open space parks and recreational areas in flood hazard areas.
- C. Provide for the conservation and preservation of natural resources.
- D. Limit additional housing (especially elderly and high density) in areas of high hazard risk.



## CHAPTER 9 WATER RESOURCES

### PUBLIC SURVEY RESULTS

80%

#### WATER QUALITY

Drinking water quality is the second most important contributor to overall quality of life in the County. 80% of survey respondents indicated that water quality is very important to them. Recreational water quality was also rated highly as very important (64%) to quality of life.

65%

#### PUBLIC UTILITIES

A majority of respondents (65%) indicate that “upgraded public utilities”, including wastewater and stormwater utilities, are very important to future development in the County.

79%

#### STORM WATER

Stormwater drainage is viewed as the least adequate public utility in the County.

79% of respondents indicate that stormwater drainage is inadequate.

## ISSUES AND OPPORTUNITIES

**Issues** identified: Saltwater intrusion. Septic failures in some areas, including Annemessex. Water quality for fishing. Stormwater drainage. Drinking water quality. Assuring adequate water and wastewater supply for future UMES growth.

**Opportunities** identified: Water quality for swimming. Access to water features.

## Chapter 9: Water Resources

During the 2006 legislative session, House Bill 1141 was codified into law requiring that a Water Resources Element (WRE) be included in local land use plans. The purpose of the WRE is to identify:

- “Drinking water and other water resources that will be adequate for the needs of existing and future development proposed in the land use element of the plan; and,
- Suitable receiving waters and land areas to meet stormwater (SW) management and wastewater treatment and disposal needs of existing and future development proposed in the land use element of the plan” (Land Use Article §1-410 and §3-106).<sup>1</sup>

The Water Resources chapter of the Somerset County Comprehensive Plan creates a policy framework for sustaining public drinking water supplies and protecting the County’s waterways and riparian ecosystems by effectively managing point and nonpoint source water pollution. This chapter is an update to the 2010 Water Resources Element, which was an amendment to the 1996 Comprehensive Plan.

The Water Resources Element identifies opportunities to manage existing water supplies, wastewater effluent, and stormwater runoff, in a way that balances the needs of the natural environment with the County’s projected growth, including the growth projected for the County’s municipalities. In this way, the Water Resources chapter helps to protect the local and regional ecosystem while ensuring clean drinking water for future generations of Somerset County residents.

There are two incorporated municipalities in Somerset County: Princess Anne and Crisfield. Residents and businesses of six areas of the County (Princess Anne, Crisfield, Fairmount, and the communities of Rhodes Point, Ewell, and Tylerton on Smith Island) are served by community water and/or sewer service. The City of Crisfield manages its own, while the Somerset County Sanitary District (SCSD) operates the Princess Anne system.

The County recognizes the importance of interjurisdictional water resources planning. This Countywide Water Resources Element compiles, to the greatest degree possible, up-to-date information from the municipalities, in order to coordinate water resources, growth, and land use planning. In particular, the Municipal Growth Elements (MGE) and WRE from the comprehensive plans for the County’s two municipalities—Crisfield (2010) and Princess Anne (2009)—were reviewed in the preparation of this chapter. The future water and sewer system

In 2007, Maryland issued its first Water Resource Element Models and Guidelines to assist local governments with planning and zoning authority in developing their WREs.

In 2022, Maryland issued [Water Resources Element \(WRE\) Guidance Update](https://planning.maryland.gov/Pages/OurWork/envr-planning/water-resources-mg/2022/01/update-introduction.aspx). The update to the state’s WRE Guidance provides best practices regarding analyses and approaches for:

- Ensuring receiving waters are protected as the local land use plan is developed and implemented, reflecting changes to the Maryland Department of the Environment’s (MDE) water resources programs over the past decade; and
- Integrating climate change considerations, particularly flooding risks, into the drinking water, wastewater and stormwater assessments of the WRE.

Source: Maryland Department of Planning - <https://planning.maryland.gov/Pages/OurWork/envr-planning/water-resources-mg/2022/01/update-introduction.aspx>

<sup>1</sup> Maryland Department of Planning, 2022 Water Resources Element Update, <https://planning.maryland.gov/Pages/OurWork/envr-planning/water-resources-mg/2022/01/update-background.aspx>

boundaries reflect MGE boundaries. Where possible, the County has also obtained data and information on water resources from adjoining Counties, in order to create the fullest possible picture of future impacts to the Wicomico, Manokin, Big Annemessex, and other rivers and streams that drain the County. Additional data resources utilized for this element include, but are not limited to, the County’s draft Water and Sewer Master Plan, Maryland Department of Planning, Maryland Department of the Environment, and the Environmental Protection Agency’s “How’s My Waterway?” mapping tool. Prior to the start of this comprehensive plan, Somerset County along with their contractor were engaged in the update of the 2024 Water and Sewer Master Plan. With that said, the 2024 draft Water and Sewer Master Plan was used for herein, as the update had not been completed as of February 2025. Updates to tables 9.3, 9.6, 9.8, 9.11, and 9.13 will be necessary once the Master Water and Sewer Plan is completed. Projections and proposed conditions in this plan, including designated growth areas, priority preservation areas, future land use and the Future Land Use Map Plan should be integrated, at a minimum, into the updated Master Water and Sewer Plan.

### 9.1 County Projections and Growth Scenarios

#### 9.1.1 Watersheds

This Element takes a watershed-based approach in analyzing the impact of future growth on Somerset County’s water resources—particularly in relation to nutrients discharged to the County’s streams. Land in Somerset County drains to one of ten major watersheds (or “8-digit watersheds,” referring to the numeric classification system used by the Maryland Department of the Environment). These watersheds are mapped in Chapter 8 Sensitive Areas and include: the Big Annemessex River, Dividing Creek, Lower Chesapeake Bay, Lower Pocomoke River, Lower Wicomico River, Manokin River, Monie Bay, Pocomoke Sound, Tangier Sound, and Wicomico Creek.

#### 9.1.2 Population Projections

The Water Resources Element uses Countywide population projections developed by the Maryland Department of Planning (MDP), shown in Table 9-1. These projections indicate that the County’s population will reach approximately 28,500 by the year 2045, which is an increase of 2,030 people total, or an average of 58 additional people annually.

Table 9-1.

Population Projections, 2010 through 2045										
Year								Change, 2010-2045		
2010	2015	2020	2025	2030	2035	2040	2045	Number	Percent	Annual Increase
26,470	25,710	25,760	26,750	27,450	28,100	28,310	28,500	2,030	+7.67%	58

Sources: Prepared by the Maryland Department of Planning, Projections and State Data Center, December 2020.

#### 9.1.3 Future Development Scenarios

To gauge the impacts of alternative land use and water resources policies, this Water Resources Element uses three scenarios for the distribution of future growth. These scenarios are:

- Trends:** Continues past trends whereby approximately half of all new residential and non-residential growth is directed to existing Priority Funding Areas (PFAs), or to areas identified for future public water and sewer service by the County’s Water and Sewer Master Plan. Remaining development would occur in areas outside of public water and sewer service. This scenario represents the 1996 Comprehensive

Plan, as expressed through current zoning.

- **PFA Focus:** All new growth would be directed to existing PFAs, including Princess Anne, Crisfield, and areas surrounding the two municipalities that have been identified for future public water and sewer service by the County's Water and Sewer Master Plan.<sup>1</sup> A negligible amount of new development would occur in areas outside of public water and sewer service.
- **Hybrid:** This scenario is a middle ground between the Trends and PFA Focus scenarios. Approximately three-quarters of new development would be directed to existing PFAs, or to areas identified for future public water and sewer service by the County's Water and Sewer Master Plan. Remaining development would occur in areas outside of public water and sewer service.

Because water and sewer service are often measured in terms of Equivalent Dwelling Units (EDU)<sup>2</sup>, the Water Resources Element uses housing units as the basis for its water, sewer, and nonpoint source pollution analyses. The Housing Needs Assessment conducted for Somerset County in Chapter 5 shows that average household size will remain the same at 2.37 people per household by 2030, which accounts for no increase from 2020. Total new housing units needed by 2030 is 563, which averages 56 new units needed per year over this period, based on the assessment. The rate of housing growth outpaces population growth due to projected declines in household size through 2030.

## 9.2 Drinking Water Assessment

This section describes existing conditions and projected future demand for drinking water in Somerset County.

### 9.2.1 Public Water Systems

In Somerset County, groundwater is the sole source of drinking water, and the source of virtually all domestic and industrially consumed water. Historically, some far outreaches in western and southern portions of the County may have somewhat marginal access to groundwater. Water supplies in the Princess Anne area may be exhibiting the early signs of aquifer stress. To protect the long-term availability of the County's drinking water resources, Somerset County has reserved the Manokin aquifer for meeting domestic drinking water demands.

Table 9-2 summarizes water sources and other characteristics of the public drinking water systems in the County. Figures 9-1 through 9-6, beginning on page 9-5, show the extent of water and sewer service areas in the County. More detailed information on existing and proposed future water service areas can be found in the County's Water and Sewer Master Plan, which has been updated as of 2024.

Approximately 5,223 dwelling units in Somerset County (slightly more than half of all dwelling units in the County) and a considerable share of businesses receive drinking water from municipal, County, or community water systems.

Table 9-2.

Public Drinking Water System Characteristics			
System Name	Aquifer	Pumping Capacity/Day	Water Quality Issues
Crisfield	Patapsco	600,000	Fluoride
Princess Anne	*Revell's Neck Patapsco*	564,000	Fluoride, TDS
	*Industrial Park Patapsco	51,840	Fluoride
	Manokin	624,200	Iron
Ewell Waterworks	Patapsco	15,000	Fluoride, Disinfection

<sup>2</sup> <https://mde.maryland.gov/programs/water/BayRestorationFund/Documents/www.mde.state.md.us/assets/document/BRF-DraftRegulation.pdf>

**Table 9-2.**

Public Drinking Water System Characteristics			
System Name	Aquifer	Pumping Capacity/Day	Water Quality Issues
Midtown Waterworks	Patapsco	3,500	Fluoride, Disinfection
Hill Waterworks	Patapsco	2,000	Fluoride, Disinfection
Field Waterworks	Patapsco	-	Fluoride, Disinfection
Rhodes Point South Waterworks	Patapsco	300	Fluoride, Disinfection
Tylerton Waterworks	Patapsco	7,500	Fluoride, Disinfection
Fairmount	Patapsco	60,000	Fluoride, Iron
Eastern Correctional Institution	Manokin & Patapsco	Manokin 10,000 Patapsco 567,000	Fluoride, Iron
Eden Mobile Home Park	Manokin	20,000	Iron

Source: Draft 2024 Somerset County Water and Sewer Master Plan

1: SCSD operates the systems in Princess Anne, Fairmount, and Rumbley/Frenchtown. The City of Crisfield operates its water system. The Maryland Environmental Service (MES) operates the Eastern Correctional Institution (ECI) water system. All other public or community water systems in Somerset County are privately operated.

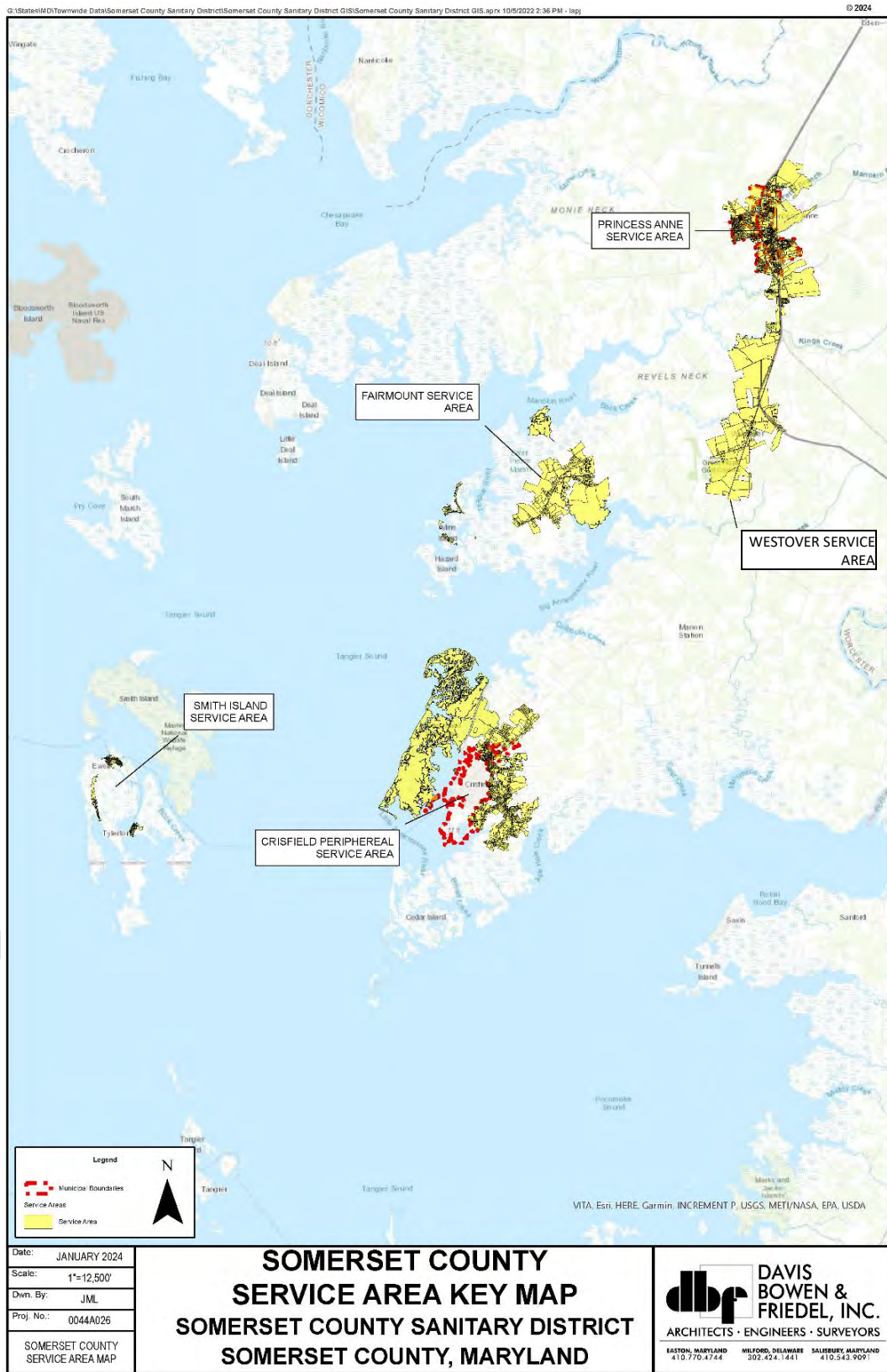


Figure 9-1: Somerset County Service Area Key Map. Source: Somerset County Water & Sewer Master Plan, 2024.

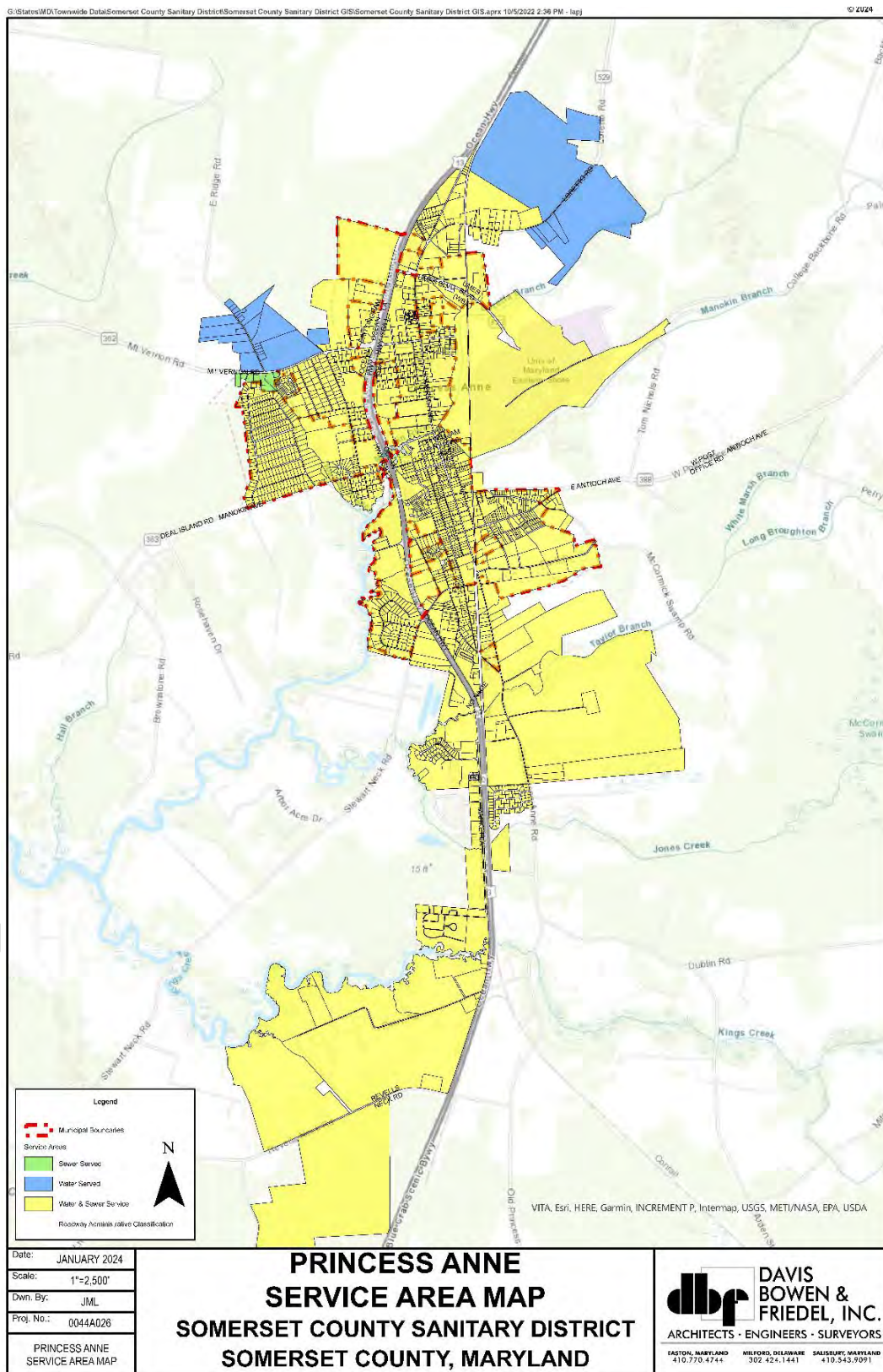
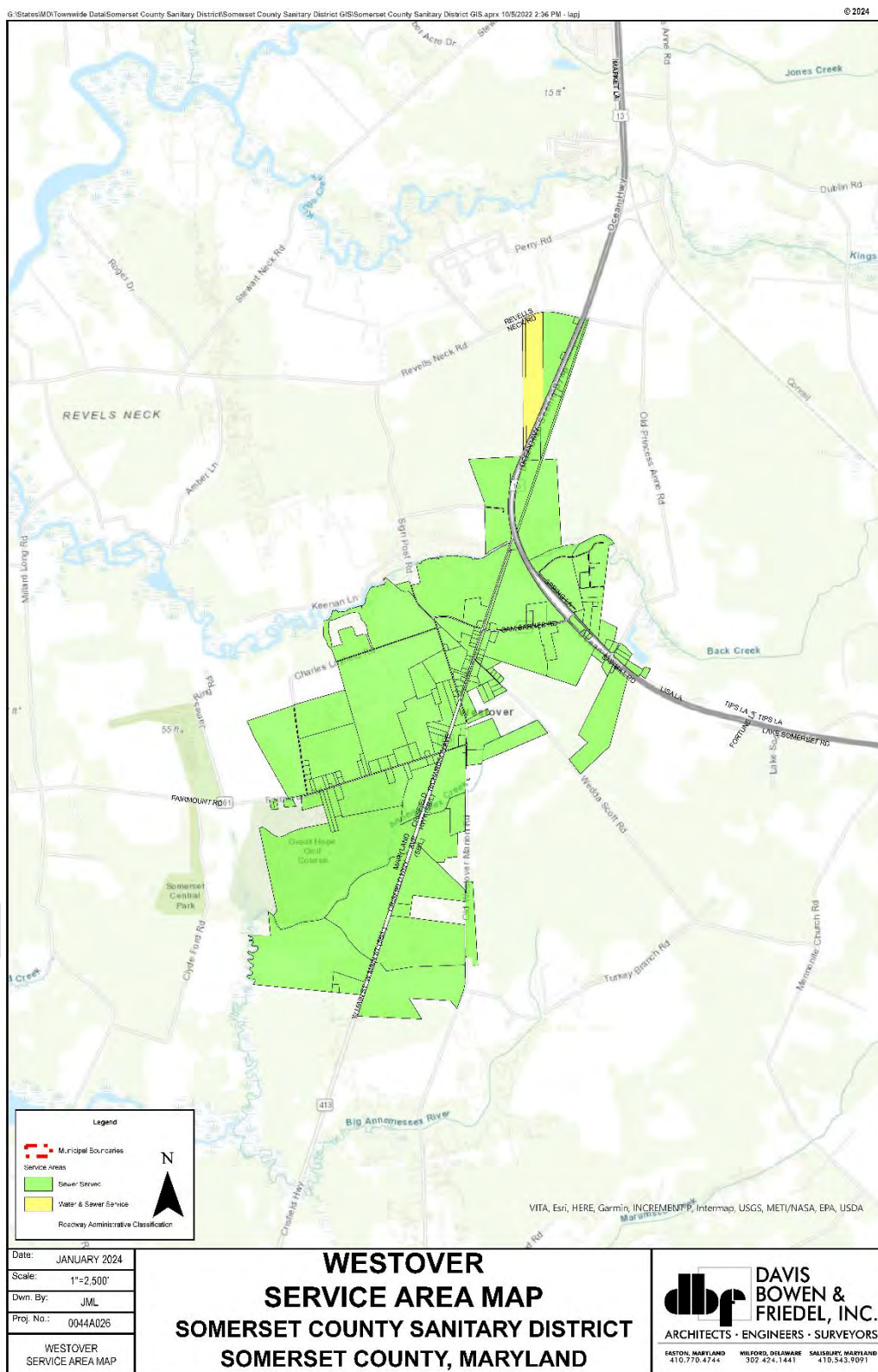


Figure 9-2: Princess Anne Service Area Map. Source: Somerset County Water & Sewer Master Plan, 2024.



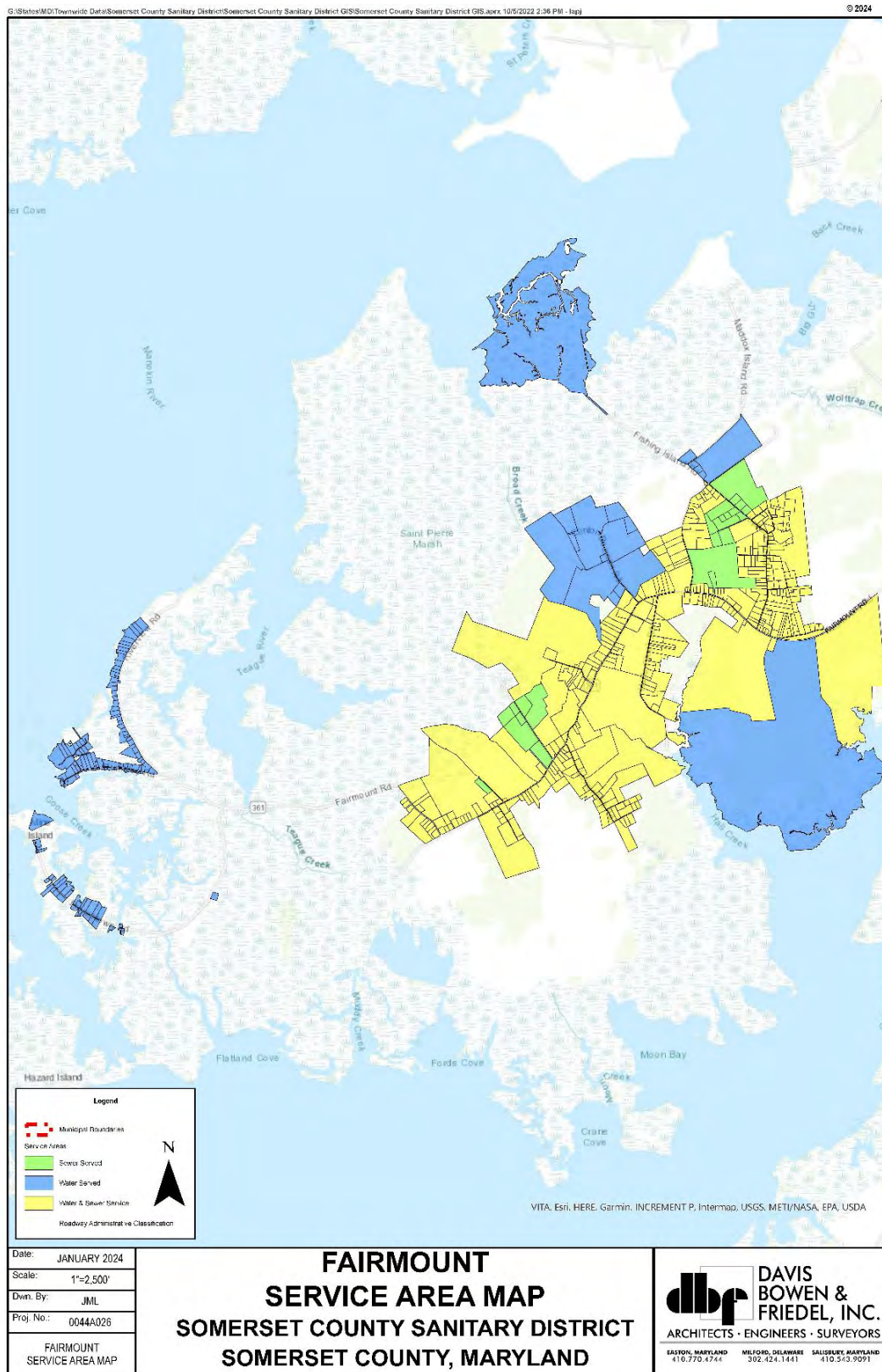


Figure 9-4: Fairmount Service Area Map. Source: Somerset County Water & Sewer Master Plan, 2024.

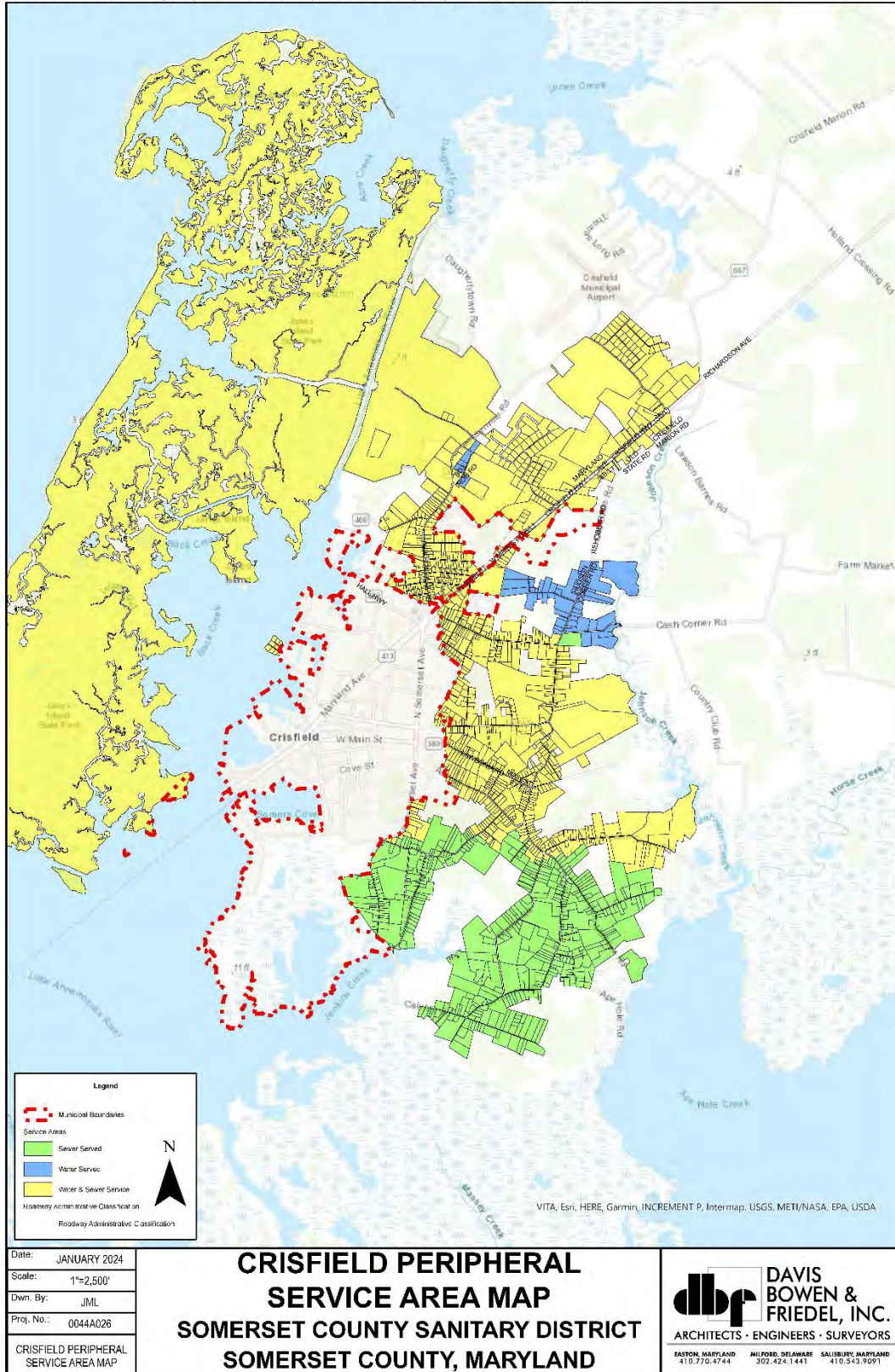


Figure 9-5: Crisfield Service Area Map. Source: Somerset County Water & Sewer Master Plan, 2024.

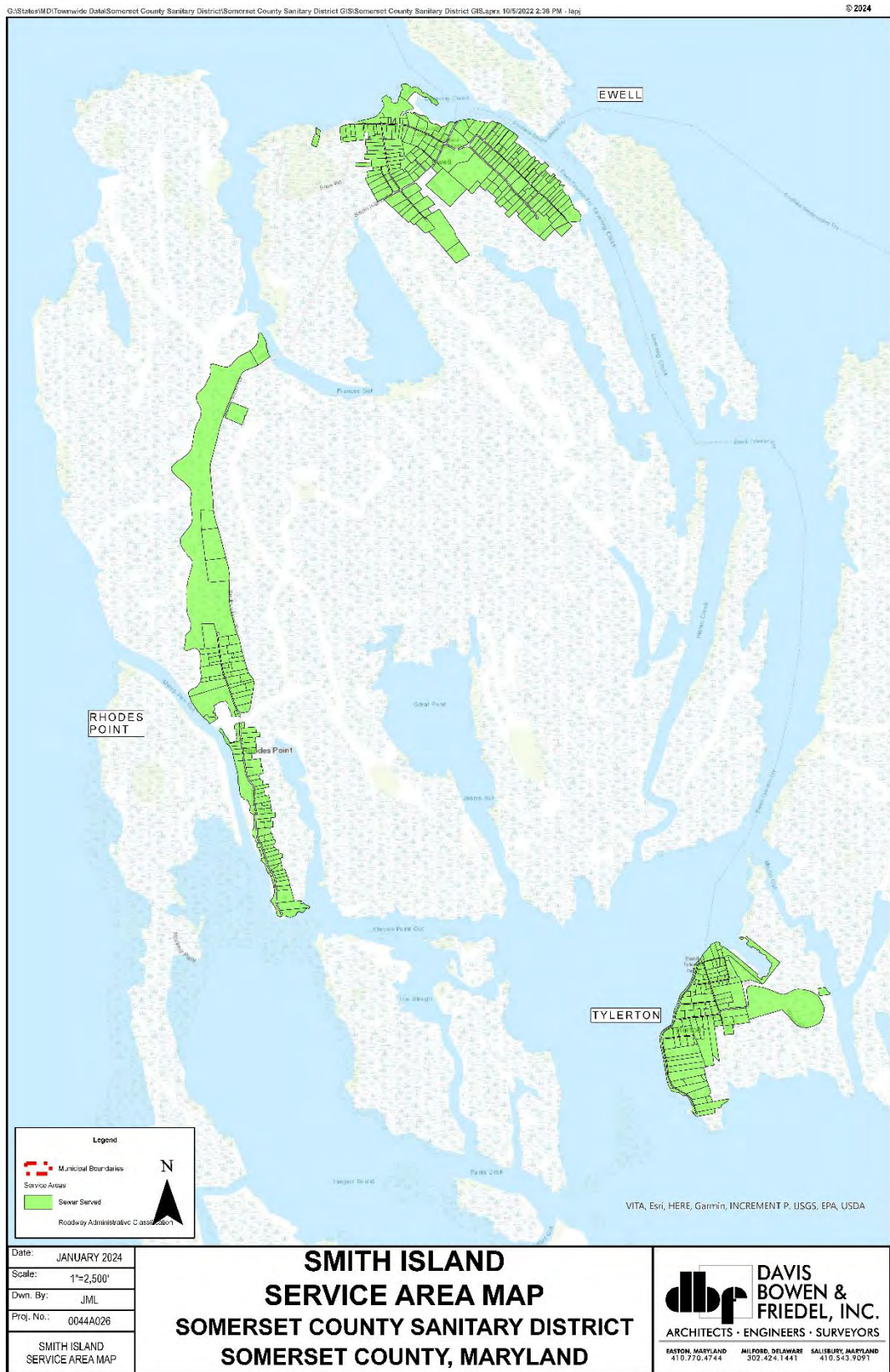


Figure 9-6: Smith Island Service Area Map. Source: Somerset County Water & Sewer Master Plan, 2024.

Table 9-3 shows existing and projected future drinking water supplies, demands, surpluses, and deficits for major public water systems under each of the three scenarios described above.<sup>3</sup> Crisfield and Princess Anne will have adequate capacity to support growth and development through 2030 (and beyond), regardless of scenario.

The Princess Anne Subdistrict Expansion (PASE) project was created with the goal of servicing the potential industrial area in the vicinity of the Eastern Correctional Institution (ECI) and U.S. Route 13 and to supplement the Princess Anne Sub-district existing water supply and storage capabilities. A secondary objective was to increase the ability to provide water service to the Westover area in the future. The water from the PASE project wells is treated by the reverse osmosis system at ECI by an agreement between Maryland Environmental Service, the operator, and the Sanitary District. The agreement was reached as a result of the Maryland Department of the Environment (MDE) requirement for reverse osmosis treatment to remove fluoride from drinking water in the Patapsco aquifer. The PASE project was completed in May 2015.

### **9.2.2 Other Water Use**

All residential units and businesses in Somerset County outside of the above public water systems (Table 9-2) rely on individual or community wells. These wells are drilled in a variety of water-bearing formations, particularly the Pleistocene (surficial aquifer), Manokin, Piney Point, and Pocomoke aquifers.

Table 9-4 shows the distribution of Countywide fresh water use from 2000 versus 2015. Although not a precise representation of current water use, Table 9-4 does highlight the County's major water users: public systems, private residential users, commercial users, and livestock. The remainder of this section discusses those major categories of non-public water users in greater detail.

Table 9-3.

Public Water System Demand, Capacity, and Projections <sup>9</sup>														
		Crisfield <sup>5</sup>			Princess Anne			Fairmount/Rumbley/ Frenchtown <sup>6, 7</sup>			Smith Island (Combined) <sup>6</sup>			ECI <sup>8</sup>
		Trend	PFA	Hybrid	Trend	PFA	Hybrid	Trend	PFA	Hybrid	Trend	PFA	Hybrid	
Existing Water Production <sup>1</sup>	gpd <sup>2</sup>	1,500,000			896,000			60,000			191,000			500,000
	EDU <sup>2</sup>	5,415			3,584			240			764			2,000
Demand, 2007	gpd	800,000			733,000			61,000			199,250			500,000
	EDU	2,888			2,932			244			797			2,000
Net Available Capacity, 2007	gpd	700,000			163,000			(1,000)			-8,250			0
	EDU	2,527			652			(4)			-33			0
Total New Projected Demand <sup>3</sup>	gpd	190,337	311,702	251,020	195,873	282,747	239,310	23,212	2,750	9,741	1,922	0	961	210,000
	EDU	687	1,125	906	783	1,131	957	93	11	39	8	0	4	0
<b>Grand Total Demand, 2030</b>	<b>gpd</b>	<b>990,337</b>	<b>1,111,702</b>	<b>1,051,020</b>	<b>928,873</b>	<b>1,015,747</b>	<b>972,310</b>	<b>84,212</b>	<b>63,750</b>	<b>70,741</b>	<b>201,203</b>	<b>199,250</b>	<b>200,227</b>	<b>710,000</b>
	<b>EDU</b>	<b>3,575</b>	<b>4,013</b>	<b>3,794</b>	<b>3,707</b>	<b>4,055</b>	<b>3,881</b>	<b>337</b>	<b>255</b>	<b>283</b>	<b>805</b>	<b>797</b>	<b>801</b>	<b>2,840</b>
Future Capacity, 2030 <sup>4</sup>	gpd	1,481,540			1,346,000			60,000			191,000			710,000
	EDU	5,349			5,384			240			764			2,840
Net Available Projected Capacity, 2030	gpd	491,203	369,838	430,520	417,127	330,253	373,690	(24,212)	(3,750)	(10,741)	(10,172)	(8,250)	(9,211)	0
	EDU	1,773	1,335	1,554	1,669	1,321	1,495	(97)	(15)	(43)	(41)	(33)	(37)	0

## Notes:

1: Indicates the more restrictive of either the district's permitted withdrawal or the water treatment plant's treatment capacity. Sources: SCSD, City of Crisfield, Town of Princess Anne.

2: gpd = gallons per day; EDU = An Equivalent Dwelling Unit (EDU), equal to 250 gpd. This figure represents the average amount of water used by one household and is also used to calculate residential and non-residential (e.g., businesses) water demand. For Crisfield, one EDU equals 277 gpd.

3: Includes all existing and projected new residential and nonresidential demand, as well as new demand from system extensions. Assumes that new nonresidential development is 10% of residential development, based on existing ratios of nonresidential EDUs to residential EDUs.

4: Reflects all potential or planned system upgrades and expansions. Sources: 2008 Somerset County Water and Sewer Master Plan, County Staff, Crisfield and Princess Anne WREs, and Maryland Environmental Service (MES) for ECI.

5: For Crisfield, the Trends Scenario reflects the City's Draft WRE (28 July 2009)

6: For systems other than Princess Anne and Crisfield, it is assumed that the public system growth rate in system equals growth rate in underlying watershed.

7: The withdrawal permit for the combined Fairmount system is 60,000 gpd. However, the County believes that this limit was issued in error, given the permitted capacities of the previously separate Frenchtown, Rumbley, and Fairmount systems. The pumping capacity of the Fairmount well alone is in excess of 122,400 gpd, and other wells are available.

8: MES did not report ECI's future water demand; this figure is presumed to match the system's future capacity.

9: The data in this table used the 2008 Somerset County Water and Sewer Master Plan, which was the best available information as the 2024 Draft Water & Sewer Plan was still under development as of February 2025, and did not include updated data specific to Public Water System Demand, Capacity, and Projections.

**Table 9-4.**

<b>Freshwater Withdrawals in Somerset County, 2000 vs. 2015</b>						
<b>Type of Withdrawal</b>	<b>2000</b>			<b>2015</b>		
	Surface Water (MGD)	Groundwater (MGD)	% of County Withdrawals	Surface Water (MGD)	Groundwater (MGD)	% of County Withdrawals
Commercial	0.00	0.78	16.5%	-	-	-
Industrial	0.00	0.02	0.4%	0.78	0.01	14.16%
Mining	0.00	0	0.0%	0.00	0.27	4.84%
Livestock Watering	0.02	0.64	14.0%	0.03	0.88	16.31%
Aquaculture	0.00	0	0.0%	0.00	0.00	0.00%
Irrigation	0.00	0.4	8.5%	0.09	0.33	7.53%
Domestic Self-supplied	0.00	1.16	24.5%	0.00	1.11	19.89%
Public Supply	0.00	1.71	36.2%	0.99	1.09	37.28%
<b>Total</b>	<b>0.02</b>	<b>4.71</b>	<b>100.00%</b>	<b>1.89</b>	<b>3.69</b>	<b>100.00%</b>

Source: USGS National Water Information System, 2015, most recent data available as of February 2025, [https://waterdata.usgs.gov/md/nwis/water\\_use](https://waterdata.usgs.gov/md/nwis/water_use)

### **Private Residential Wells**

Approximately 5,555 residential units in Somerset County (more than half of the County total) rely on individual wells (or, in a few cases such as mobile home parks, community wells) for drinking water supply, as do most businesses in rural portions of the County. These residential and small commercial uses accounted for approximately 1.11 MGD of groundwater withdrawal in 2015. The Piney Point aquifer is frequently used in the western and southern portions of the County, while the Manokin and Piney Point aquifers are most frequently used in the central portion of the County. Residents in the southern and southeastern portions of the County draw a limited amount of water from the Pocomoke aquifer. Individual wells near Crisfield, Rumbley, Frenchtown, and on Smith Island also use the Pocomoke aquifer.

### **Major Commercial, Industrial, and Institutional Users**

As shown in Table 9-4, commercial and industrial activities outside of public systems account for approximately one-third (30.6%) of all water withdrawals in Somerset County. Industry has greatly increased its use of water since 2000. Commercial water withdrawal data was not available for 2015, but the 2000 data indicates it comprises 15.5% of water withdrawals in the County. The largest concentrations of commercial water use are found in the Princess Anne and Crisfield areas, as well as along the western coast. The majority of industrial users are located in the Princess Anne and Pocomoke City areas, including the Smurfit, Lankford Sysco, and Perdue, which currently use approximately 77,000 GPD.

### **Agricultural Water Users**

As is the case throughout the Eastern Shore, Somerset County's farmers use surface water and primarily groundwater for crop irrigation and livestock (primarily poultry) watering. One concentrated area of irrigation is the southeastern corner of the County, along Shelltown Road, where drip irrigation supports crops such as tomatoes and peppers. Groundwater for irrigation is generally drawn from the surficial aquifer. Irrigation accounts for 7.53% of total water withdrawals, and livestock watering accounts for 16.31% of total water withdrawals.

### 9.2.3 Water Issues

#### Water Supply Concerns

The Manokin aquifer, which is by far the most commonly used aquifer in the County, has seen substantial drawdowns in the past few years. A fairly large drawdown of the aquifer (referred to as a “cone of depression”) recently formed in the Princess Anne area and the area surrounding the Eastern Correctional Institution (ECI). This resulted in problems for some domestic and commercial wells in the Manokin and has made it difficult to attract new businesses to the area, particularly around ECI. Some individual wells have also had to be replaced. A similar cone of depression has also been observed in northern Somerset County, in the vicinity of Allen, MD.

To address water supply concerns in the Manokin, two new Patapsco aquifer wells will produce a total of 800 GPM to supplement the Princess Anne Manokin wells. Due to the alternating nature of the wells, only 510 GPM will be available at a given time. Because the reverse osmosis system has 15% waste, the instantaneous capacity into the distribution system will be 433 GPM, which equates to 415,000 GPD. The well facility is located on Revells Neck Road on a property adjacent to ECI.

Beyond the [Manokin’s capacity concerns](#), the Smith Island water systems (which rely on the heavily used Patapsco aquifer) still have inadequate capacity to support potential growth through 2030. The County should work with MDE to determine whether additional withdrawals to support these communities could be obtained. Expanded withdrawals, along with concerted water conservation efforts (see below), may be the only options for serving populations on Smith Island.

#### Groundwater Recharge

The capacity of the County’s confined aquifers is increasingly strained by new development throughout the Delmarva Peninsula and the larger Atlantic Coastal Plain geographic area. The U.S. Geological Society (USGS) reports that “withdrawals from Maryland Coastal Plain aquifers have caused ground-water levels in confined aquifers to decline by tens to hundreds of feet from their original levels. Continued water-level declines could affect the long-term sustainability of ground-water resources in agricultural areas of the Eastern Shore.”<sup>3</sup> In most cases, the recharge areas for these aquifers (particularly the Piney Point), are not necessarily found on the Eastern Shore.

#### **Groundwater Recharge**

Groundwater recharge, or aquifer recharge, is a hydrologic process, where water moves downward from surface water to groundwater. Recharge is the primary method through which water enters an aquifer.

Source: [USGS](#).

Groundwater and surface water resources are also linked. Water from surficial aquifers can comprise a significant amount of the base flow of streams and rivers. While groundwater withdrawn through wells is typically returned to the ground or surface via point source discharges, septic systems, and absorption of runoff from outdoor water uses (such as watering of lawns), large withdrawals can potentially impact the quality and quantity of flows in nearby surface water bodies.

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<sup>3</sup> [https://mde.maryland.gov/programs/water/water\\_supply/Documents/Coastal\\_Plain\\_Aquifer\\_Study\\_Fact\\_Sheet.pdf](https://mde.maryland.gov/programs/water/water_supply/Documents/Coastal_Plain_Aquifer_Study_Fact_Sheet.pdf)

MDE, the Maryland Geological Survey (MGS), and the US Geological Survey (USGS) have completed a [Coastal Plain Aquifer Study, 2016](#) (completed in 2013). The County should use the data and recommendations of the Coastal Plain Aquifer Study to shape its own water use policies and ordinances—particularly those that relate to groundwater appropriations and protection of aquifer recharge areas. However, the County also recognizes the need for and supports the development of broader regional water policies to protect already scarce resources.

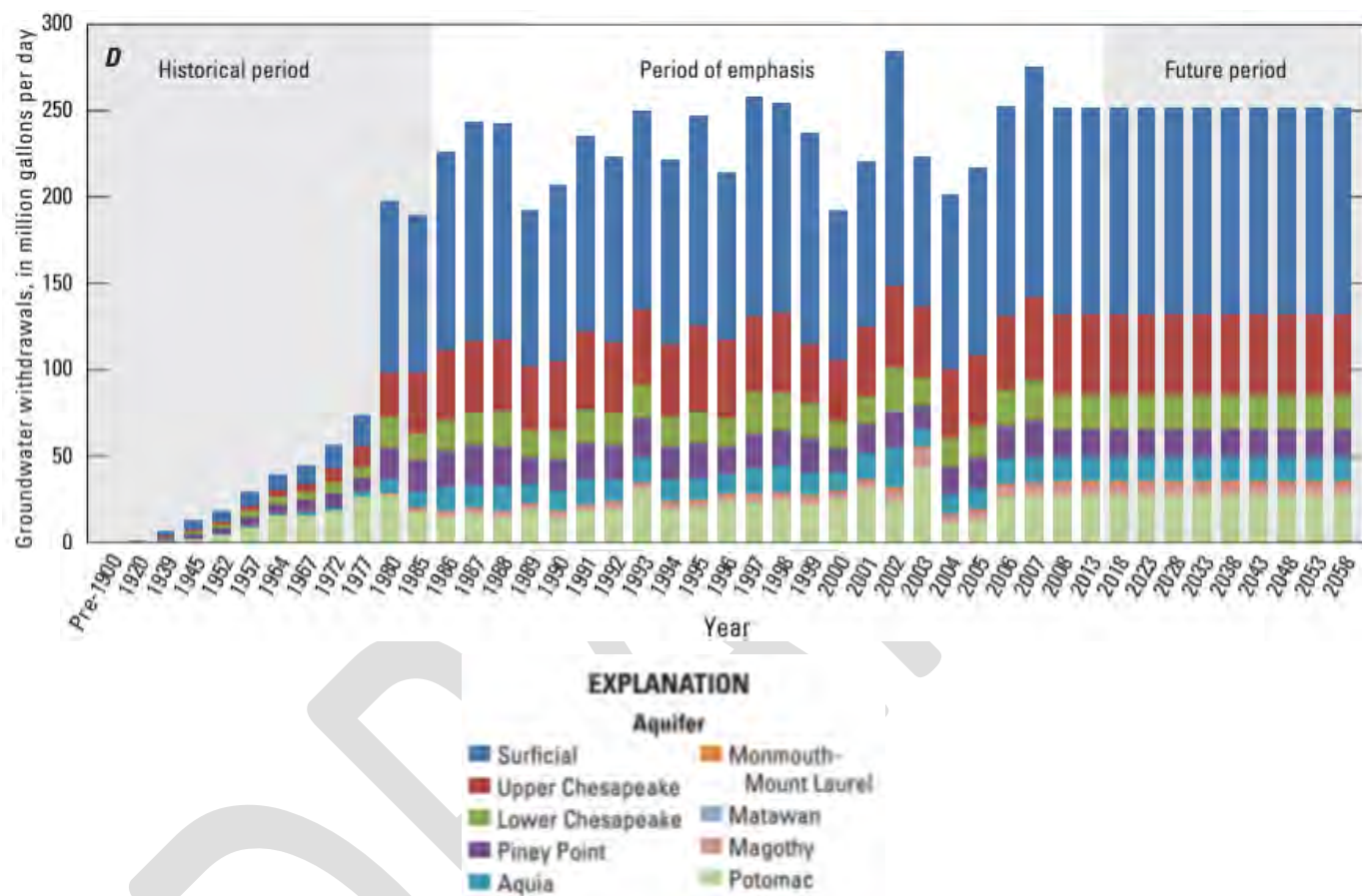


Figure 9-7: Groundwater Withdrawals for the Delmarva regional aquifer. Source: Coastal Plain Aquifer Study, 2016.

Figure 9-7 depicts groundwater withdrawals for the Delmarva regional aquifer, which includes Somerset County, during the historical period (1900–1985), the period of emphasis (1986–2013), and a future period (2014–2058). Withdrawals for the Upper Chesapeake, which includes the County, are shown in dark red. Groundwater withdrawal is projected to stay relatively constant in the future period, 2014-2058. Groundwater withdrawals in this figure are for the Delmarva region, which includes Somerset County. The Delmarva region is projected to have a higher groundwater withdrawal rate per day than both Maryland and Virginia through 2058.

For purposes of this Water Resources Element, it is presumed that the MDE groundwater permit issued for each public drinking water system reflects the safe yield of the aquifer(s) used by that system. However, given the status of groundwater resources on the Delmarva Peninsula, the County should take a more proactive approach to managing water supplies by establishing a water supply allocation system. Such systems are used in other jurisdictions with water supply concerns.

It should be noted that the 2016 aquifer study was completed at a regional level, therefore not all conclusions made by the study may be relevant or true for Somerset County at a local level.

### Climate Change Impacts to Groundwater Recharge

According to the Coastal Plain Aquifer Study, 2016, “most climate models (Coulson and others, 2010) forecast warmer future temperatures with more variable and less predictable precipitation patterns. Therefore, predictions of potential changes in the amount of aquifer recharge are very uncertain. However, increases in temperatures potentially may have several effects, including increasingly more severe drought conditions that could act as drivers to increase summertime water demand. Increased evapotranspiration coupled with more highly variable precipitation patterns during the growing season months will likely prompt agricultural producers to rely more heavily on irrigation from groundwater sources to minimize the effects of droughts. Livestock producers will likely demand more water for consumption and stock cooling. Increased demand for domestic and commercial cooling is likely to require increased electricity production and commensurate water use by thermoelectric powerplants (Legesse and others, 2003). Coastal communities in the northern Atlantic Coastal Plain province also are faced with the potential consequences of sea-level rise on coastal aquifer systems.”

The study further states “groundwater levels are affected by droughts both from the decrease in recharging precipitation and from increased pumping to meet irrigation needs. Water levels in the surficial aquifer would be most affected by drought in the Delmarva geographic area because the unconfined, surficial aquifer is the most susceptible of all the aquifers in the NACP aquifer system to changes in recharge and nearly 75 percent of the increase in water withdrawn for irrigation in the Delmarva geographic area is from the surficial aquifer, Figure 9-8.

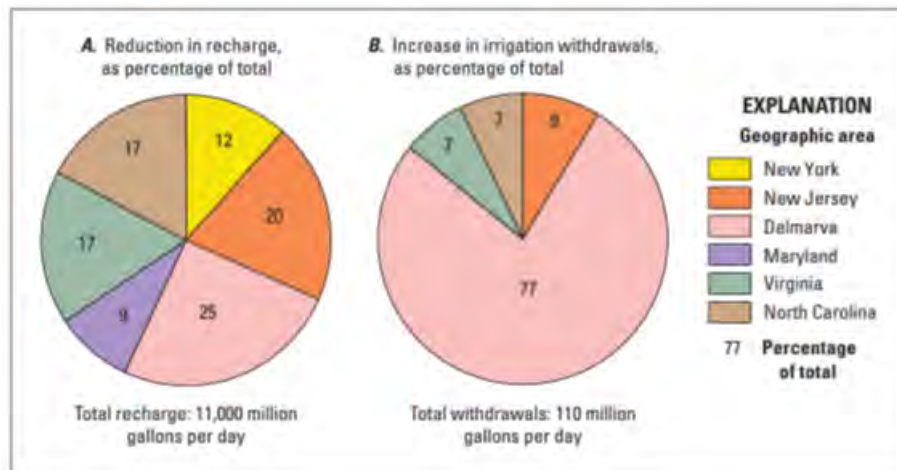


Figure 9-8: Reduction in Groundwater Recharge versus Increase in Irrigation Withdrawal. Source: Coastal Plain Aquifer Study, 2016  
Source: Assessment of groundwater availability in the Northern Atlantic Coastal Plain aquifer system From Long Island, New York, to North Carolina. <https://doi.org/10.3133/pp1829>.

### Groundwater Protection

The primary water quality concern for some public systems in Somerset County is elevated fluoride levels, particularly in systems that draw water from the Patapsco aquifer, but fluoride concentrations do not exceed US EPA safety thresholds. However, MDE requires the County to remove fluoride via reverse-osmosis (a requirement that will apply to the upgraded ECI WTP). A Source Water Assessment completed in March of 2005 found that due to the protected nature of confined aquifers the water systems were not susceptible to

contaminants originating at the land surface. In addition, three public systems are susceptible to iron (Eden mobile home park, Princess Anne, and ECI).

High concentrations of chloride and sodium are common problems for individual wells in the western and southern neck areas of the County. In other areas, high iron concentrations limit water use. High nitrate concentrations are a problem in a few isolated areas where shallow unconfined aquifers have become contaminated from septic effluent, chicken manure stockpiles, or the over-application of fertilizer.

The SCSD and Somerset County Health Department administer the County's Groundwater Management program, which governs the protection of the County's aquifers. The program's regulations are based on the Groundwater Protection Report, which defines these Management Areas and associated requirements. The Groundwater Management program establishes criteria for septic tank location in three Management Zones, which were created based on the ability of the soil to accept and filter septic effluent without polluting the underlying aquifer.

To the north and east of Princess Anne in Management Area A, current regulations require a two-acre minimum area for a septic field and an adequate treatment zone of 2 to 4 feet between septic field and aquifer unless development is on a central sewer system. Management Area B1, surrounding Princess Anne to the west and extending towards Pocomoke City, requires soil borings and specially designed septic systems as a condition of development approval. The remainder of the County, Management Area B2, is subject to normal septic field testing.

### **Water Conservation**

The MDE requires a [Water Conservation Plan](#) from jurisdictions that provide public water to populations of greater than 10,000 and produce more than 100 gallons of water per capita per day. These plans are also required for systems that have received financial assistance from the State for infrastructure improvements. The County does not currently have a Water Conservation Plan, as it does not meet the population requirements. Somerset County has established as a goal the development of an official water conservation program to formalize its current conservation policies.

Somerset County currently has no policy for ensuring compliance with the Maryland Water Conservation Plumbing Fixtures Act (MWCPFA), which requires that new plumbing fixtures sold or installed as part of new construction are designed to conserve water. The Water and Sewer Master Plan identifies the need to establish such a policy, a recommendation that this Water Resources Element endorses.

The Eastern Correctional Institute has installed water meters to monitor water usage and implemented its own water conservation procedure. The County should follow suit by making a concerted effort to understand water usage in major public systems, and to educate citizens about water conservation. In particular, the County should contact UMES to investigate opportunities to develop a public information campaign on water conservation, or to develop a broader Water Resources curriculum at the college.

### **Potential New Water Supplies**

To accommodate long term growth, the County and its municipalities should begin to investigate the feasibility of other new and expanded sources of drinking water, including different aquifers and surface water bodies.

Surface water cannot be ruled out as a potential new source of drinking water and should be included in any

comprehensive study of new drinking water sources. However, many factors discourage the use of surface water as a potable water source. In particular, the County’s flat topography makes the construction of surface impoundments impractical. Contamination of surface waters (particularly with bacteria and biological materials), intrusion of salt water from the Chesapeake Bay, and long-distance conveyance are also impediments to the use of surface water impoundments.

To address concerns about water supplies, many Maryland counties have begun to investigate the feasibility of withdrawing and treating brackish tidal waters for public water supplies. While the desalinization technology necessary for such systems is extremely expensive and energy-intensive, it should not be ruled out over the very long term. In particular, Somerset County should examine opportunities to participate in regional consortiums (perhaps with neighboring counties) intended to promote desalinization.

9.3 Wastewater Assessment

This section describes existing conditions and projected future demand for public wastewater treatment capacity in Somerset County.

9.3.1 Public Sewer Systems

Approximately 5,297 dwelling units in Somerset County (slightly less than half of all dwelling units in the County) and a considerable share of businesses discharge wastewater to one of the seven County, municipal, or private (community) wastewater treatment plants (WWTP) described in Table 9-5. Maps 9-1 through 9-6 show the location of public sewer service areas as of 2024, as well as the areas that are expected to be served within this planning period.

Table 9-5.

Sewer System Characteristics			
Wastewater Treatment Plant	Discharge Location (Watershed)	Treatment Technology	Planned/Potential Upgrades or Expansions
Crisfield	Little Annemessex River	Biological Nutrient Removal (BNR) & Enhanced Nutrient Removal	Extend to Annemessex Ridge area
Princess Anne	Manokin River	BNR	ENR upgrade
Ewell/Rhodes Point	Francis Gut	Advanced-Extended Aeration	Planned to be an Enhanced Nutrient Removal (ENR) facility with a proposed discharge of 40,000 GPD
Tylerton	Merlin Gut	Extended Aeration	Upgrade planned, awaiting funds
ECI	Manokin River	BNR	Expand to 0.72 MGD
Eden MAP	Wicomico Creek	Spray Irrigation	None planned

Somerset County owns and/or operates the Princess Anne, Ewell/Rhodes Point, and Tylerton plants. The County previously operated the Fairmount WWTP. However, the County decommissioned the existing Fairmount WWTP in 2019 and installed a duplex sewage pumping station to pump to the Westover sewer collection system, constructed in 2009. The Westover sewer system conveys sewage to the Princess Anne WWTP, which has sufficient capacity to accept the wastewater from Fairmount. This course of action was a recommendation in the previous iteration of the Water Resources Element adopted in 2010.

*Note: The Fairmount Sanitary Sub-district includes the Fairmount Election District.*

Table 9-6 shows the projected public sewer supplies, demands, surpluses, and deficits for public wastewater systems in 2030. All public systems will have enough capacity to support growth through 2030. Both the Princess Anne and Crisfield systems have infiltration/inflow (I/I) problems which, if minimized, would reduce the hydraulic flows to these wastewater treatment plants and make more capacity available. Once I/I is addressed, a plan to connect failing septic systems to these systems could be implemented.

The City of Crisfield owns and operates their wastewater treatment plant. ECI is operated by the Maryland Environmental Service (MES). Approximately two-thirds of the County population on community sewer systems is served by the Crisfield and Princess Anne systems. All of the County's major sewer systems have available capacity to support some additional growth and development.

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Table 9-6.

Sewer System Demand, Capacity, and Projections <sup>7</sup>											
		Crisfield <sup>5</sup>			Princess Anne			Smith Island (Combined) <sup>6</sup>			ECI
		Trend	PFA	Hybrid	Trend	PFA	Hybrid	Trend	PFA	Hybrid	
Existing Treatment Capacity <sup>1</sup>	gpd <sup>2</sup>	1,000,000			1,260,000			85,000			480,000
	EDU <sup>2</sup>	3,610			5,040			340			1,920
Average Daily Flow, 2007	gpd	680,000			480,000			40,000			480,000
	EDU	2,455			1,920			160			1,920
Net Available Capacity, 2007	gpd	320,000			780,000			45,000			0
	EDU	1,155			3,120			180			0
<b>Total Projected Demand, 2030<sup>3</sup></b>	<b>gpd</b>	<b>870,337</b>	<b>991,702</b>	<b>931,020</b>	<b>675,873</b>	<b>762,747</b>	<b>719,310</b>	<b>41,922</b>	<b>40,000</b>	<b>40,961</b>	<b>720,000</b>
	<b>EDU</b>	<b>3,142</b>	<b>3,580</b>	<b>3,361</b>	<b>2,703</b>	<b>3,051</b>	<b>2,877</b>	<b>168</b>	<b>160</b>	<b>164</b>	<b>2,880</b>
Future Capacity <sup>4</sup>	gpd	1,000,000			1,260,000			85,000			720,000
	EDU	3,610			5,040			340			2,880
<b>Net Available Projected Capacity, 2030</b>	<b>gpd</b>	<b>129,663</b>	<b>8,298</b>	<b>68,980</b>	<b>584,127</b>	<b>497,253</b>	<b>540,690</b>	<b>43,078</b>	<b>45,000</b>	<b>44,039</b>	<b>0</b>
	<b>EDU</b>	<b>468</b>	<b>52</b>	<b>271</b>	<b>2,337</b>	<b>1,989</b>	<b>2,163</b>	<b>172</b>	<b>180</b>	<b>176</b>	<b>0</b>

Notes:

1: Indicates the more restrictive of either the facility's permitted discharge or its treatment capacity.

2: gpd = gallons per day; EDU = An Equivalent Dwelling Unit (EDU), equal to 250 gpd. This figure represents the average amount of water used by one household and is also used to calculate residential and non-residential (e.g., businesses) water demand. For Crisfield, one EDU equals 277 gpd.

3: Includes all existing and projected new residential and non-residential demand, as well as new demand from system extensions. New nonresidential demand is assumed to be 10 percent of new residential demand.

4: Reflects all potential or planned system upgrades and expansions. Sources: 2008 Somerset County Water and Sewer Master Plan, County Staff, Crisfield and Princess Anne WREs, and Maryland Environmental Service (MES) for ECI.

5: For Crisfield, the Trends Scenario reflects the City's WRE (28 July 2009)

6: For systems other than Princess Anne, Crisfield, it is assumed that the public system growth rate in system equals growth rate in underlying watershed.

7: The data in this table used the 2008 Somerset County Water and Sewer Master Plan, which was the best available information as the 2024 Draft Water & Sewer Plan was still under development as of February 2025, and did not include updated data specific to Sewer Demand, Capacity, and Projections.

### 9.3.2 Nutrient Discharges and Assimilative Capacity

Nitrogen and phosphorus (more generally referred to as “nutrients”) from WWTPs and from stormwater and other “non-point sources” are the primary contributors to degraded water quality in the Chesapeake Bay and its tributaries. As a result of Maryland’s participation in the Chesapeake Bay 2000 Agreement and resulting state policies designed to help restore the Bay, water and sewer planning must consider the “assimilative capacity” of a receiving body of water—the mass of nutrients that the stream can receive while still maintaining acceptable water quality. This section describes the key limits on assimilative capacity as they apply to the County’s WWTPs.

Table 9-7 examines identified issues by watershed and lists the total amount of permitted dischargers per watershed. Permitted discharges are industrial facilities that have been issued a permit by MDE to discharge to State surface waters.

**Table 9-7.**

Watersheds – Identified Issues		
Watershed	Issue (Percentage of Assessed Area)	# of Permitted Dischargers
Big Annemessex R.	Bacteria and Other Microbes (63%), Murky Water (27%)	1
Dividing Creek	Bacteria and Other Microbes (86%), Salts (14%), Abnormal Flow (14%), Degraded Habitat (14%)	15
Lower Chesapeake Bay	-	-
Lower Pocomoke R.	Salts (99%), Abnormal Flow (99%), Degraded Habitat (99%), Murky water (32%), Nitrogen and/or Phosphorus (32%), Bacteria and Other Microbes (<1%), PCBs (<1%), Low Oxygen (<1%)	38
Lower Wicomico R.	Polychlorinated Biphenyls (PCBs) (55%), Low Oxygen (55%), Nitrogen and/or Phosphorus (44%), Bacteria and Other Microbes (42%), Murky Water (4%)	3
Manokin R.*	-	-
Taylor Branch	Bacteria and Other Microbes (30%), Murky Water (29%)	25
Broad Creek	Murky Water (88%), Bacteria and Other Microbes (26%)	2
Monie Bay	Bacteria and Other Microbes (51%)	4
Pocomoke Sound*	-	-
East Creek	Murky Water (46%), PCBs (29%), Aquatic Weeds (29%), Bacteria and Other Microbes (8%), Low Oxygen (2%)	10
The Prong	PCBs (89%), Low Oxygen (89%), Aquatic Weeds (89%), Murky Water (11%)	0
Marumsco Creek	Bacteria and Other Microbes (28%), Murky Water (26%), PCBs (17%), Aquatic Weeds (13%), Low Oxygen (4%)	8
Tangier Sound	-	-
Upper Tangier Sound	None	0
Lower Tangier Sound	PCBs (100%), Low Oxygen (100%), Aquatic Weeds (100%)	0
Little Annemessex River	Murky Water (87%), PCBs (13%), Low Oxygen (13%), Aquatic Weeds (13%)	5
Wicomico Creek	PCBs (2%), Low Oxygen (2%)	17
<b>Total Permitted Discharges Across all Watersheds</b>		<b>128</b>

Source: U.S. Environmental Protection Agency “How’s My Waterway” mapping and data tool.

\*Watershed is comprised of two or more sub-watersheds that are within and adjacent to Somerset County.

### **Point Source Caps and Discharges**

To address nutrient loads from point sources such as WWTPs, the state has established Chesapeake Bay Tributary Strategy point source caps. These caps are numerical limits on the amount of nitrogen and phosphorus that WWTPs can discharge to the Bay and its tributaries (expressed as pounds per year of nitrogen and phosphorus). Nitrogen and phosphorus point source caps have been established for the Crisfield and Princess Anne WWTPs. Caps have also been calculated for the Smith Island WWTP but will only be formally established upon expansion of those facilities. Table 9-8 compares these nutrient caps against existing and projected nutrient discharges at the County's largest WWTPs.

### **Total Maximum Daily Load**

One measure of assimilative capacity is the Total Maximum Daily Load (TMDL), a series of calculations required by the Clean Water Act. A TMDL is the maximum amount of pollutant that a water body, such as a river or a lake, can receive without impairing water quality. Water bodies are classified as "impaired" when they are too polluted or otherwise degraded to support their designated and existing uses. The TMDL is typically expressed as separate discharge limits from point sources such as WWTPs, as well as non-point sources such as stormwater or agricultural runoff.

The impaired waters list is called the 303(d) list, named after the section in the Act that establishes TMDLs. All of Somerset County's 8-digit watersheds are impaired for either nutrients (nitrogen and/or phosphorus) or bacteria. The Manokin River TMDL is the only such limit that impacts significant point sources (e.g., public WWTPs) in Somerset County. However, as is shown in Table 9-9, the nitrogen TMDL for the Manokin River does not appear to be as restrictive as the existing point source cap for the Princess Anne WWTP (although the TMDL also applies to discharges from the ECI WWTP). As the more restrictive limit, the point source cap therefore governs the Princess Anne system. Table 9-10 shows the approved nutrient TMDLs for the County's watersheds.

### **Antidegradation**

Maryland's antidegradation policy significantly limits new discharge permits and expansions of existing discharges that would degrade water quality in Tier II (high quality) waters, as defined by the US Environmental Protection Agency (EPA). In these areas, new nutrient discharges can be permitted, as long as they do not degrade existing water quality. Somerset County has one stretch of Tier II waters – a segment of Dividing Creek in the northeastern portion of the County along the border with Worcester County. None of the WWTPs listed in Table 9-5 discharge to this Tier II stream.

### **9.3.3 Alternative Wastewater Disposal Options**

A number of other opportunities exist to protect and improve water quality while still accommodating projected growth and development. This section summarizes key concepts that the County and its municipalities may wish to consider.

### **Nutrient Trading**

Under the state's [Policy for Nutrient Cap Management and Trading](#) (updated in April of 2017), an ENR-enabled WWTP on the Eastern Shore can agree to forego a certain amount of development in exchange for payment, and then send or "trade" that excess treatment capacity to another WWTP on the Eastern Shore in need of capacity. The receiving WWTP would then be allowed to expand beyond its current permitted capacity, provided that such expansion does not exacerbate existing water quality impairments or violate TMDLs.

With a large existing and projected capacity surplus, the Princess Anne WWTP (which has received an ENR upgrade recently) may be in a position to sell excess capacity to another WWTP. However, given the County's and Princess Anne's emphasis on concentrating growth in and around existing public services, the County may not wish to sell this capacity.

WWTPs with ENR technology may also be able to expand their facilities by accepting effluent from other WWTPs without BNR or ENR technology, and then by retiring those WWTPs and their outfalls; the Fairmount WWTP was retired in 2019. Although the cost of sewer infrastructure (specifically new wastewater collection lines) is considerable, such an arrangement may be the most preferable way to address potential nutrient cap overages in areas.

Table 9-8.

Nutrient Caps and Projected Nutrient Discharges <sup>4</sup>											
		Crisfield			Princess Anne			Smith Island			ECI
		Trends	PFA	Hybrid	Trends	PFA	Hybrid	Trends	PFA	Hybrid	
Projected Capacity, 2030	MGD	1.00			1.26			0.09			0.72
Existing Nutrient Loads <sup>2</sup>	TN <sup>1</sup>	6,151			11,681			803			11,681
	TP <sup>1</sup>	615			2,920			37			2,920
Likely Nutrient Caps, 2030 <sup>3</sup>	TN	12,182			15,350			1,538			23,268
	TP	914			1,151			257			3,878
Projected ADF, 2030	MGD	0.86	0.99	0.93	0.67	0.76	0.72	0.04	0.04	0.04	0.72
Assumed Treatment Technology, 2030	-	ENR			ENR			Secondary			BNR
Estimated Nutrient Discharges, 2030, lbs/year <sup>3</sup>	TN	7,888	8,995	8,441	6,150	6,942	6,546	2,295	2,190	2,243	11,681
	TP	789	900	844	615	694	655	765	730	748	2,920
Remaining Discharge Capacity (overage)	TN	4,294	3,187	3,741	9,200	8,408	8,804	(757)	(652)	(705)	11,587
	TP	125	14	70	536	457	496	(508)	(473)	(491)	958

Notes:

1: TN = Total Nitrogen (lbs/year); TP = Total Phosphorus (lbs/year)

2: Source: SCSD. Crisfield (ENR) assumes 3 mg/L TN and 0.3 mg/L TP.

3: Sources: MDE's ENR Fact Sheets for Crisfield and Princess Anne ([http://www.mde.state.md.us/Water/CBWRF/pop\\_up/enr\\_status\\_map.asp](http://www.mde.state.md.us/Water/CBWRF/pop_up/enr_status_map.asp)); other systems: MDE (2009). Caps for systems other than Crisfield and Princess Anne will only become effective upon expansion of the WWTP.

4. The data in this table used projection and scenarios from 2008 Somerset County Water and Sewer Master Plan, which was the best available information as the 2024 Draft Water &amp; Sewer Plan was still under development as of February 2025, and did not include updated data specific to projections.

Table 9-9.

Approved TMDLs In Somerset County			
BASIN NAME	SUB-BASIN	TMDL	VALUE
Tangier Sound	Laws Thorofare & Upper Thorofare	Median Fecal Coliform	3.434 X 10 <sup>11</sup> counts/day
		90 <sup>th</sup> Percentile Fecal Coliform	1.202 x 10 <sup>12</sup> counts/day
Manokin River	Manokin River	Median Fecal Coliform	6.21 x 10 <sup>11</sup> counts/day
		90 <sup>th</sup> Percentile Fecal Coliform	2.17 x 10 <sup>12</sup> counts/day
		Total Nitrogen (low flow) (5/1-10/31)	1,610 LB/month
		BOD (low flow) (5/1-10/31)	4,420 LB/month
	St. Peters Creek	Total Nitrogen (Average Annual)	353,680 LB/year
		Medial Fecal Coliform	4.11 x 10 <sup>10</sup> counts/day
		90 <sup>th</sup> Percentile Fecal Coliform	1.44 x 10 <sup>11</sup> counts/day

Table 9-9.

BASIN NAME	SUB-BASIN	TMDL	VALUE
Wicomico Creek	Wicomico Creek	Total Nitrogen (low flow) (5/1–10/31)	1,017 LB/month
		Total Phosphorus (low flow) (5/1-10/31)	38 LB/month
		Total Nitrogen (Average Annual)	104,584 LB/year
		Total Phosphorus (Average Annual)	6,008 LB/year
Lower Wicomico River	Main Stream	Median Fecal Coliform	$1.513 \times 10^{12}$ counts/day
		90 <sup>th</sup> Percentile Fecal Coliform	$4.821 \times 10^{12}$ counts/day
		Total Nitrogen (low flow) (5/1-10/31)	22,900 LB/month
		Total Phosphorus (low flow) (5/1-10/31)	5,764 LB/month
		BOD (low flow) (5/1-10/31)	80,114 LB/month
		Total Nitrogen (Average Annual)	1,266,530 LB/year
		Total Phosphorus (Average Annual)	103,480 LB/year
Monie Bay	Monie Bay	Median Fecal Coliform	$3.889 \times 10^{12}$ counts/day
		90 <sup>th</sup> Percentile Fecal Coliform	$1.753 \times 10^{13}$ counts/day

Notes:

1: The Lower Wicomico River watershed includes substantial portions of Wicomico County, including the entire City of Salisbury, MD, as well as a small portion of Sussex County, Delaware. Approximately 94 percent of the Lower Wicomico River watershed is outside of Somerset County, as are all major nutrient point sources.

2: The Wicomico Creek watershed includes portions of Wicomico County. Approximately 40 percent of the Wicomico Creek watershed is outside of Somerset County.

Table 9-10.

Approved Nutrient TMDLs for Somerset County Watersheds			
Watershed	Impairing Nutrient	Nonpoint Source TMDL (lbs/year)	Point Source TMDL (lbs/year)
Lower Wicomico River <sup>1</sup>	Nitrogen	832,460	409,130
	Phosphorus	33,850	68,190
Manokin River	Nitrogen	301,890	42,730
Wicomico Creek <sup>2</sup>	Nitrogen	101,538	0
	Phosphorus	5,833	0

Source: Approved TMDLs - Maryland Department of the Environment.

Notes:

1: The Lower Wicomico River watershed includes substantial portions of Wicomico County, including the entire City of Salisbury, MD, as well as a small portion of Sussex County, Delaware. Approximately 94 percent of the Lower Wicomico River watershed is outside of Somerset County, as are all major nutrient point sources.

2: The Wicomico Creek watershed includes portions of Wicomico County. Approximately 40 percent of the Wicomico Creek watershed is outside of Somerset County.

The connection of houses and businesses on septic systems to sewer systems (and the subsequent retirement of those septic systems) can also generate nutrient credits. The amount of credit depends on the location of these septic systems. Under the [state policy](#), Princess Anne or any other WWTP could receive permanent nitrogen credits by converting on-site septic systems to a permanent hookup to an ENR wastewater treatment plant, as follows:

- a) 9.28 pound per year in Critical Area;
- b) 5.8 pound per year within 1,000 feet of any perennial surface water; or
- c) 3.48 pound per year in all other areas of the Chesapeake Bay watershed.

In addition, MDE and the Maryland Department of Agriculture (MDA) have released a [Trading and Offset Policy and Guidance Manual](#) (2017) that addresses trading between nonpoint sources (such as agriculture) and point sources (wastewater and stormwater).

### **Land Application of Treated Wastewater**

The application of treated wastewater effluent directly to the soil can allow pollutants to be absorbed before the effluent reaches receiving streams. Spray irrigation is the most common form of land application, although other options (such as drip irrigation or subsurface discharge) can also be considered. Spray irrigation is already used as a disposal method for the Eden Mobile Home Park. Any future land application system would likely be paired with an existing surface discharge to maximize system capacity without exceeding nutrient caps or TMDLs.

Factors such as slope, soil depth and granularity, water table depth and behavior, and buffers from streams and developed areas are important in determining true suitability.<sup>4</sup> Other important considerations for land application include storage and seasonal restrictions. Land application systems typically require large storage lagoons capable of holding several months' worth of effluent. Land application may not be permitted during winter months, when frozen soil cannot accept effluent, or during other months when water tables rise. Based on County discussions with MDE, the amount of land in Somerset County that is suitable for spray irrigation is extremely limited.<sup>5</sup>

### **Tertiary Treatment Wetlands**

In this system, effluent is treated at a WWTP (either BNR or ENR) and then discharged into a series of constructed, vegetated (typically, forested) wetlands. These wetlands purify the effluent to the point where the eventual discharge is essentially free of nutrients and other pollutants. An excellent example of the application of this technology occurs in [Clayton County, Georgia](#). In this system (which can treat up to 38.4 million gallons of wastewater per day), the wetland-treated effluent is pure enough to be used for drinking water.<sup>6</sup>

Other smaller applications of tertiary treatment wetlands can be found throughout Maryland. These facilities are typically used at schools and other institutional uses. Implementation of such a facility would depend heavily on soil characteristics and other conditions. The Tylerton WWTP uses constructed wetlands that are

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4 <https://msa.maryland.gov/megafile/msa/speccol/sc5300/sc5339/000113/020000/020259/unrestricted/20141354e-008.pdf>

5 The Preliminary Spray Irrigation Site Capacity Estimate for Somerset County, included in the 2010 Water Resources Element Appendix, likely overestimates the amount of land that is suitable for spray irrigation.

6 <https://www.ccwa.us/what-we-do/#::~:~:text=After%20the%20initial%20phase%20of,man%2Dmade%20constructed%20treatment%20wetlands.>

equivalent to secondary treatment (higher per-liter nutrient loads than BNR).

### **Wastewater Reuse**

In some cases, treated wastewater effluent can be used to recharge groundwater aquifers. As with tertiary treatment wetlands, effluent is treated to potable (or better) standards before being injected into the aquifer. One such large-scale system is in place in Orange County, California. In that system, treated effluent is used not only to recharge the aquifer (and to provide some drinking water as a result), but also to halt and even reverse saltwater intrusion from the Pacific Ocean into the aquifer. Given the documented drops in aquifer levels on the Eastern Shore, and the presence of saltwater intrusion in some areas, this approach may have merit in Somerset County, and particularly for the Manokin aquifer which has documented well failures. The County should work with MDE in future investigations of the feasibility of such a system.

### **Additional Issues**

In the Deal Island/Wenona area, population densities average 340 persons per square mile, which exceeds the currently required County health standard of two acres per septic tank. However, due to a lack of community interest, Deal Island is not listed as a recommended service area for sewerage in the Water and Sewer Plan. In light of nutrient impairments and an eventual nutrient TMDL for the Tangier Sound watershed, which includes Deal Island, it may be necessary to revisit this recommendation.

## **9.4 Programmatic Assessment of Nonpoint Source Policies**

Nonpoint sources of nutrient pollution include agricultural runoff, erosion and sediment from development, stormwater runoff from roads, atmospheric deposition, and any other source other than an outfall pipe. These sources are called nonpoint because they involve widely dispersed activities, and hence are difficult to measure. All non-point sources of pollution eventually reach the waters of the Chesapeake Bay unless filtered or retained by some structural or nonstructural technique.

Various technologies reduce nutrients from agricultural and developed lands. Nutrient reduction technologies for nonpoint source pollution are generally referred to as "Best Management Practices" (BMPs). Examples of these technologies include animal waste storage, agricultural nutrient management planning, stormwater settling ponds, and erosion controls. Natural controls or "low-impact development" techniques are extremely effective in reducing the number of pollutants that reach waterways. Woodlands and wetlands release fewer nutrients into the Bay than any other land use. For these reasons, forests, grasslands, and wetlands are critical to restoring and maintaining the health of the aquatic environment.

This section characterizes the policies and procedures in place to manage nonpoint source pollution in Somerset County.

### **9.4.1 Stormwater Management in Somerset County**

The [Maryland Stormwater Design Manual, Volumes I & II \(October 2000, Revised May 2009\)](#) is incorporated by reference into the Somerset County Code, and serves as the official guide for stormwater methods, principles, and practices.

The [2007 Maryland Stormwater Management Act](#) mandated substantial revision of the Stormwater Design Manual. The most notable provision of the 2007 Act was the requirement that new development use

Environmentally Sensitive Design (ESD) techniques, which are intended to “maintain pre-development runoff characteristics” on the site. ESD emphasizes the minimization and treatment of stormwater on each parcel through a variety of small-scale techniques that mimic natural stormwater absorption and dispersal processes.

Stormwater management in Somerset County is guided by the County’s Stormwater Management Ordinance, last adopted in September of 2020. The ordinance is coordinated and enforced by the Office of County Engineer.

The County’s Roadside Drainage Program, administered by the Roads and Waterways Department, is responsible for the County’s ~350 miles of roadway, which often have drainage ditches on both sides. These ditches help carry stormwater away from the roadways and into drainage bodies nearby. Many of these drainage systems fall within environmentally sensitive areas and are subject to additional regulations such as critical area, floodplain, stormwater management, sediment control, tidal wetlands and non-tidal wetlands. Maintenance often requires permitting and also partnering with other agencies.

In parts of the County that experience regular stormwater management issues or flooding, drainage assessments are conducted to help identify the causes of the stormwater. Drainage assessments have recently been completed for the [Deal Island Peninsula](#), the Princess Anne neighborhood of Somerset Landing, and Smith Island; the City of Crisfield is in the process of completing an assessment.

#### **9.4.2 Land Preservation, Parks, and Recreation Plan**

Somerset County’s 2022 Land Preservation, Parks, and Recreation Plan (LPPRP) contains goals and recommendations, many of which address issues similar to those analyzed as part of this WRE. The LPPRP supports land use goals that are compatible with protecting water resources in the following ways:

- Continued protection and preservation of green infrastructure.
- Zoning will continue to be supportive of natural resource land conservation and protect the County’s rural character.
- Continued efforts to promote watershed protection as part of the State’s Tributary Strategies program.
- Increase tourism and eco-tourism opportunities that are true to the County’s rural character. New tourism should be consistent with recommendations from the [Lower Eastern Shore Heritage Area Management Plan](#).

#### **9.4.3 Other Nonpoint Source Management Policies and Considerations**

##### **Failing Septic Systems**

The Somerset County Health Department estimates that there are approximately 5,072 homes with individual septic systems installed throughout the County, of which approximately 1.5% annually apply for replacement systems. Based on the rate of applications, the County assumes that nearly 3% of all septic systems may not be operating properly. Areas with noticeably higher rates of septic failures include Annemessex Road (near Crisfield-Somerset Airport), Manokin (northeast of Crisfield), and the Oriole area.

The County should work with the municipalities to evaluate ways to address these areas of failing septic systems, either by connection to public sewer systems, or through the alternative wastewater disposal options discussed above. The Water and Sewer Plan suggests that collection systems be installed to eliminate these septic systems, with pump stations and denied access force mains used to convey wastewater to one of the County’s existing wastewater treatment plants.

### **Septic Denitrification**

Denitrification units can reduce the nitrogen loading from septic systems by approximately 50%. A negligible number of Somerset County's existing septic systems currently utilize denitrification units, and the County does not currently require denitrification units for new septic systems.

[Maryland regulation](#) requires all new development on septic systems in the Chesapeake Bay Critical Area to include Best Available Technology (BAT) for nitrogen removal, as defined by MDE. The County may wish to consider similar requirements in other areas, such as near perennial waterways, or in watersheds that are impaired by nitrogen. Indeed, septic denitrification can be one approach to meeting TMDL requirements.

The nonpoint source analysis (section 9.5) assumes that one-quarter of all new residential and non-residential development outside of public sewer systems will utilize denitrification units; this level of implementation is reasonably foreseeable during this planning period.

### **Agriculture**

Agriculture is important to the aesthetic and economic value of Somerset County and is one of Maryland's largest and most important industries. Agriculture represents nearly one-third of all land area in the County. According to the most recent [Census of Agriculture](#) (2022), Somerset County has 244 farms which comprise 63,019 acres of land, for an average of 258 acres per farm. Since 2012, the county's total number of farms has decreased by 15, but the average size of farms has increased by 27 acres. These agricultural lands produce runoff which can carry nutrients, sediments, and pollutants from manure, fertilizers, and other sources into waterways. On Maryland's Eastern Shore as a whole, agriculture is the largest contributor of nitrogen and phosphorus to the Bay and its tributaries.

In Somerset County the agricultural community has always recognized the economic and historical importance of the jobs and products provided by the local seafood industry. As a result, farmers in Somerset County have historically led local efforts to restore the Bay and its tributaries—particularly Tangier Sound. Throughout the years, the agricultural community has proactively used federal, state, and local funds to implement Best Management Practices to minimize or eliminate runoff and pollution from cropland and livestock production.

For several years, the County's agricultural community has participated in research into the proper application of fertilizer, chemicals, and poultry manure handling and storage, in cooperation with the Somerset County Soil Conservation District, the University of Maryland, and the University of Delaware. Every agricultural producer in Somerset County has a nutrient management plan, monitored by MDA.

Agriculture continues to be a substantial source of nutrients throughout the Bay watershed, and Somerset County should continue to work with MDE and MDA to reduce nonpoint source nutrient loads from all sources. However, Somerset County's agricultural community has demonstrated that productive agriculture and a healthy Bay can go hand in hand.

### **Stormwater Retrofits**

Stormwater retrofits can help to reduce nonpoint source pollution, particularly in more densely developed areas. The County should identify locations where such retrofits could address concentrations of nonpoint source pollution ("hot spots"), or where retrofits can help to protect environmentally sensitive areas. Future

retrofit funds and implementation activities should be targeted to these priority areas. This recommendation is in addition to ESD requirements for new development, as required by the 2007 Maryland Stormwater Management Act.

### **Sedimentation and Erosion**

Sedimentation and other impacts resulting from construction activity, and increased stormwater flows to streams and rivers from development are also a potential threat to water quality. Most new non-agricultural development in Somerset County requires a sedimentation and erosion control plan.

### **Marina Sewage Pumpout Stations**

Boats pumping human sewage directly overboard also contribute to the nutrient problem and can be a significant source of bacteria in areas where they gather and where there is little flushing of the waters. To combat this, the DNR has developed a sewage disposal program through which sewage disposal stations for boats are installed at marinas. This program also provides information that boaters need in order to help, regardless of the size of their boat. A list of [pumpout station locations](#) is available on DNR's website. Lower eastern shore locations include:

- Goose Creek Marina
- Cedar Hill Park and Marina
- Nanticoke Harbor Marina
- Deal Island Marina
- Janes Island State Park
- Somers Cove Marina
- Port of Salisbury Marina
- Webster's Cove Boat Ramp
- Wicomico Yacht Club
- Wikander's Marine Services

## **9.5 Total Nutrient Loads and Assimilative Capacity**

Nutrient loads from point sources (WWTPs), stormwater, and other nonpoint sources are major contributors to degraded water quality in the Chesapeake Bay and its tributaries. This section evaluates existing and projected point and nonpoint source pollution loads.

### **9.5.1 Nonpoint Source Nutrient Loading**

Nonpoint source nutrient loads (including septic systems) were estimated using methodology developed by the Maryland Department of the Environment, as modified by the County to reflect revised nutrient loading rates. Table 9-11 shows total nonpoint source discharge versus TMDLs of shared watersheds in Somerset County. Table 9-12 provides current and projected future nonpoint source loading for each of the County's 8-digit watersheds.

Future nutrient loads would decrease significantly in all watersheds, compared to current levels. This is due largely to the nonpoint source model's assumption that nutrient-reducing Best Management Practices (BMPs) for urban stormwater and agricultural runoff would be more widely implemented by 2030. The PFA scenario would result in the lowest nonpoint source discharges, but the differences between the scenarios are relatively minor (varying by less than of existing discharges).

All three future land use scenarios would achieve the nutrient reductions required by the completed TMDLs for the Lower Wicomico River, Manokin River, and Wicomico Creek watersheds. Because the Manokin River

watershed is entirely within Somerset County, the available assimilative capacity reflects all discharges within the watershed. The Lower Wicomico River and Wicomico Creek watersheds are shared with Wicomico County.

**Table 9-11.**

<b>Total Nonpoint Source Discharge and TMDLs, Shared Watersheds<sup>2</sup></b>					
<i>(all data in lbs/year)</i>		<b>Lower Wicomico River</b>		<b>Wicomico Creek</b>	
		<b><i>TN</i></b>	<b><i>TP</i></b>	<b><i>TN</i></b>	<b><i>TP</i></b>
<b>TMDL</b>		832,460	33,850	101,538	5,833
<b><i>Nutrient Discharges</i></b>					
<b>Somerset County</b>	<i>Existing</i>	27,805	2,043	76,868	5,816
	<i>Trends</i>	19,667	1,337	50,648	3,744
	<i>PFA</i>	19,265	1,328	50,818	3,708
	<i>Hybrid</i>	19,498	1,333	50,184	3,726
<b>Wicomico County</b>	<i>Existing</i>	390,997	25,096	35,975	3,021
	<i>Future<sup>1</sup></i>	356,344	22,172	36,742	2,840
<b>Total</b>	<i>Existing</i>	418,802	27,139	112,843	8,837
	<i>Trends</i>	376,011	23,509	87,390	6,584
	<i>PFA</i>	375,609	23,501	87,560	6,547
	<i>Hybrid</i>	375,842	24,833	86,926	6,565
<b><i>Available Assimilative Capacity (Overage) vs. TMDL</i></b>					
<b>Total Nonpoint Source Discharges</b>	<b><i>Existing</i></b>	<b>413,658</b>	<b>6,711</b>	<b>(11,305)</b>	<b>(3,004)</b>
	<b><i>Trends</i></b>	<b>456,449</b>	<b>10,341</b>	<b>14,148</b>	<b>(751)</b>
	<b><i>PFA</i></b>	<b>456,851</b>	<b>10,349</b>	<b>13,978</b>	<b>(714)</b>
	<b><i>Hybrid</i></b>	<b>456,618</b>	<b>9,017</b>	<b>14,612</b>	<b>(732)</b>

Notes:

1: Future discharges for Wicomico County represent the average of the three scenarios evaluated as part of the August 20, 2009, draft of the Wicomico County Water Resources Element.

2. The projected capacity data in this table was obtained from the Draft 2024 Water & Sewer Plan and is the best available as of February 2025.

Table 9-12.

Current and Projected Future Nonpoint Source Loading <sup>1</sup>													
(all data in lbs/year)			Big Annemessex River	Dividing Creek	Lower Chesapeake Bay	Lower Pocomoke River	Lower Wicomico River	Manokin River	Monie Bay	Pocomoke Sound	Tangier Sound	Wicomico Creek	Total
Existing	Nonpoint Source Discharge	TN	127,659	60,974	52,695	144,105	27,805	369,955	99,300	192,907	129,876	76,868	1,282,142
		TP	8,970	4,530	1,051	11,185	2,043	27,219	6,440	13,510	4,882	5,816	85,645
	Nonpoint Source TMDL	TN					832,460	301,890				101,538	
		TP					33,850					5,833	
	Available Assimilative Capacity (Overage) vs. TMDL <sup>2</sup>	TN					See Table 9-11	(68,065)				See Table 9-11	
		TP											
	Nonpoint	TN	124,529	40,793	51,356	93,809	19,667	251,798	72,693	135,416	119,450	50,648	960,158
		TP	9,065	2,922	995	7,050	1,337	17,641	4,266	8,879	3,835	3,744	59,735
Trends	Available Assimilative Capacity (Overage) vs. TMDL <sup>2</sup>	TN					See Table 9-11	50,092				See Table 9-11	
		TP											
PFA	Nonpoint	TN	123,154	39,932	51,348	91,188	19,265	248,691	71,459	133,954	118,602	50,818	948,410
		TP	8,967	2,856	994	7,026	1,328	17,512	4,206	8,796	3,849	3,708	59,242
	Available Assimilative Capacity (Overage) vs. TMDL <sup>2</sup>	TN					See Table 9-11	53,199				See Table 9-11	
		TP											
Hybrid	Nonpoint	TN	138,985	40,314	51,352	93,305	19,498	249,794	72,133	134,568	118,677	50,184	953,502
		TP	9,016	2,889	995	7,038	1,333	17,577	4,236	8,838	3,842	3,726	59,488
	Available Assimilative Capacity (Overage) vs. TMDL <sup>2</sup>	TN					See Table 9-11	52,096				See Table 9-11	
		TP											

Notes:

1: Includes septic systems

2: Reflects Load Allocation (LA) limits set by adopted TMDLs for each watershed. Where no TMDL has been adopted, or where the watershed is not impaired, no numerical standards are shown.

Based on these data, TMDLs would be met in all cases except for phosphorus in the Wicomico Creek watershed. In this case, the per-acre phosphorus contributions from Wicomico and Somerset Counties are approximately equal, implying that both jurisdictions should make concentrated efforts to implement phosphorus-reducing nonpoint source BMPs in this watershed.

### 9.5.2 Total Nutrient Loading

Table 9-13 shows the total combined point and nonpoint source discharge in each 8-digit watershed in Somerset County. As with the nonpoint source loadings alone, all three scenarios would considerably reduce nutrient loading compared to existing levels. The PFA growth scenario results in the lowest levels of nonpoint source nitrogen and phosphorus discharges, but the differences between scenarios are minimal.

### 9.5.3 Impervious Surface

Impervious surfaces are primarily human-made surfaces that do not allow rainwater to enter the ground. Impervious cover creates runoff that can cause stream bank erosion, sedimentation of streams, and adverse effects on water quality and aquatic life. The amount of impervious surface in a watershed is a key indicator of water quality. Water quality in streams tends to decline as watersheds approach 10% impervious coverage and drops sharply when the watershed approaches 25% impervious coverage. Table 9-14 summarizes existing and potential impervious coverage in Somerset County by watershed.

According to land use data gathered from the [Chesapeake Bay Conservancy Land Use/Land Cover Data Project](#), just 2.15% of all land area in Somerset County is impervious<sup>7</sup>. Even in Somerset County's most developed watersheds—Tangier Sound and Manokin River—impervious surface coverage is under 5%. Under the land use and development scenarios considered in this Element, countywide impervious coverage would increase slightly by 2030, with most 8-digit watersheds experiencing some increase in impervious coverage.

While none of the County's major watersheds would approach 10% impervious—the first tipping point with regard to water quality—some smaller sub-watersheds (particularly those in and around municipalities) may already approach or exceed such thresholds. In these cases, stormwater management retrofits can help to reduce the impact of large amounts of impervious surface.

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<sup>7</sup> <https://www.chesapeakeconservancy.org/conservation-innovation-center/high-resolution-data/lulc-data-project-2022/>

Table 9-13.

Total Nutrient Loading, All Scenarios													
(all data in lbs/year)			Big Annemessex River	Dividing Creek	Lower Chesapeake Bay	Lower Pocomoke River	Lower Wicomico River	Manokin River	Monie Bay	Pocomoke Sound	Tangier Sound	Wicomico Creek	Total
Existing	Nonpoint	TN	127,659	60,974	52,695	144,105	27,805	369,955	99,300	192,907	129,876	76,868	1,282,142
		TP	8,970	4,530	1,051	11,185	2,043	27,219	6,440	13,510	4,882	5,816	85,645
	Point	TN	642		803			23,362			6,205		31,013
		TP	29		37			5,840			621		6,527
	Total	TN	128,301	60,974	53,498	144,105	27,805	393,317	99,300	192,907	136,081	76,868	1,313,155
		TP	8,999	4,530	1,088	11,185	2,043	33,059	6,440	13,510	5,503	5,816	92,172
Trends	Nonpoint	TN	124,529	40,793	51,356	93,809	19,667	251,798	72,693	135,416	119,450	50,648	960,158
		TP	9,065	2,922	995	7,050	1,337	17,641	4,266	8,879	3,835	3,744	59,735
	Point	TN	2,520		2,295			17,849			7,942		30,589
		TP	840		765			3,537			794		5,935
	Total	TN	127,049	40,793	53,651	93,809	19,667	269,647	72,693	135,416	127,392	50,648	990,747
		TP	9,905	2,922	1,760	7,050	1,337	21,178	4,266	8,879	4,629	3,744	65,670
tPFA	Nonpoint	TN	123,154	39,932	51,348	91,188	19,265	248,691	71,459	133,954	118,602	50,818	948,410
		TP	8,967	2,856	994	7,026	1,328	17,512	4,206	8,796	3,849	3,708	59,242
	Point	TN	1,752		2,190			18,642			9,050		31,616
		TP	584		730			3,616			905		5,834
	Total	TN	124,906	39,932	53,538	91,188	19,265	267,333	71,459	133,954	127,652	50,818	980,026
		TP	9,551	2,856	1,724	7,026	1,328	21,128	4,206	8,796	4,754	3,708	65,076
Hybrid	Nonpoint	TN	138,985	40,314	51,352	93,305	19,498	249,794	72,133	134,568	118,677	50,184	953,502
		TP	9,016	2,889	995	7,038	1,333	17,577	4,236	8,838	3,842	3,726	59,488
	Point	TN	2,136		2,243			18,245			8,496		31,102
		TP	712		748			3,577			850		5,884
	Total	TN	141,121	40,314	53,595	93,305	19,498	268,039	72,133	134,568	127,173	50,184	984,604
		TP	9,728	2,889	1,743	7,038	1,333	21,154	4,236	8,838	4,692	3,726	65,372

Source: Draft 2024 Water &amp; Sewer Plan and is the best available as of February 2025

Table 9-14.

Land Cover – Impervious Surfaces									
Watershed	Total Acreage <sup>1</sup>	Existing Conditions		Trends		PFA		Hybrid	
		Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Big Annemessex R.	22,206	360	1.6%	380	1.7%	365	1.6%	372	1.7%
Dividing Creek	10,497	55	0.5%	66	0.6%	55	0.5%	60	0.6%
Lower Chesapeake Bay	9,472	45	0.5%	45	0.5%	45	0.5%	45	0.5%
Lower Pocomoke R.	19,048	301	1.6%	324	1.7%	301	1.6%	312	1.6%
Lower Wicomico R.	3,704	82	2.2%	83	2.2%	82	2.2%	82	2.2%
Manokin R.	59,388	1,182	2.0%	1,264	2.1%	1,234	2.1%	1,249	2.1%
Monie Bay	21,480	151	0.7%	160	0.7%	151	0.7%	156	0.7%
Pocomoke Sound	34,198	389	1.1%	415	1.2%	408	1.2%	412	1.2%
Tangier Sound	15,217	609	4.0%	621	4.1%	633	4.2%	627	4.1%
Wicomico Creek	11,780	263	2.2%	276	2.3%	263	2.2%	270	2.3%
<b>Total</b>	<b>206,988</b>	<b>3,438</b>	<b>1.7%</b>	<b>3,634</b>	<b>1.8%</b>	<b>3,537</b>	<b>1.7%</b>	<b>3,585</b>	<b>1.7%</b>

Notes: 1: Excludes areas of open water within County boundaries.

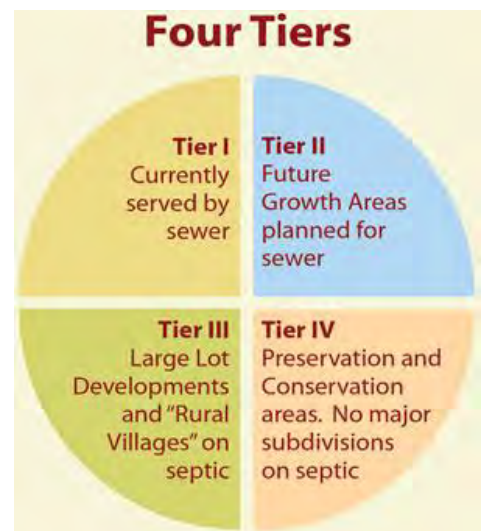
Because implementation of the Tributary Strategies (refer to Section 9.3.2 Nutrient Discharges and Assimilative Capacity) will be challenging, the County should pursue a future land use plan that minimizes the nutrient impacts of development. The PFA Focus scenario has consistently lower nutrient loads than other scenarios. However, the PFA Focus scenario—in which essentially no new development occurs outside of PFAs— could not realistically be implemented in Somerset County, even with robust growth controls outside of PFAs. While also ambitious, the Hybrid Scenario represents a more feasible approach. It acknowledges the likelihood of some development in rural areas, while focusing the majority of growth (i.e., significantly more than past trends) into PFAs, where investments in sewer and stormwater management infrastructure are more cost-effective and can help to minimize impacts on the County's waters.

#### 9.5.4 Growth Tiers

[The Sustainable Growth & Agricultural Preservation Act of 2012](#) (i.e., the septic law) limits the spread of septic systems on large-lot residential development to reduce the last unchecked major source of nitrogen pollution into Chesapeake Bay and other waterways. By mapping future growth in "tiers," the law seeks greater accountability and predictability. "The goal of the law is to limit the disproportionate impacts of large subdivisions on septic systems on our farm and forest land, streams, rivers and Chesapeake and Coastal Bays."

Growth Tiers in Somerset County meet one of the following criteria:

1. **Tier I:** Areas already served by public sewerage systems and mapped as a locally designated growth area or is 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.



Growth Tiers. Source: Maryland Department of Planning.

2. **Tier II:** Areas proposed to be served by public sewerage systems or mapped as locally designated growth areas.
3. **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.
4. **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.

The locations of Growth Tiers were considered during the analysis and selection of proposed water and sewer extension areas. Growth Tier mapping for Somerset County is [available here](#).

## **9.6 Proposed Water and Sewer Extension Areas & Land Use**

### **9.6.1 Relationship to Local Land Use Goals**

In 2009, the [Senate Bill 276](#) (i.e., SB 276/HB 295) was signed into law. The law amended [Article 66B](#), and established a statewide goal for increasing the amount of development within PFAs and decreasing development outside of PFAs. As part of this law, jurisdictions must also establish local land use goals that increase development inside of PFAs. Each of the three scenarios evaluated in this Element would impact Somerset County's ability to address these state and local goals. Any growth scenario must also consider the amount of public land in Somerset County. Public lands are discussed and mapped in the County's LPPRP; these lands are mostly comprised of forest and agriculture, such as protected agricultural land. The LPPRP recommends an agricultural land preservation goal of 25,000 acres – the County currently has over 14,000 acres. Chapter 10 Land Use maps these public lands.

Future growth scenarios considered within this element include the Trends Scenario, PFA Scenario, and the Hybrid Scenario; these scenarios are defined in Section 9.1.3 Future Development Scenarios. The Trend Scenario would continue existing development patterns, in which approximately half of all new development would occur outside of the PFAs. The PFA Scenario would significantly increase the amount of development within the PFA. The Hybrid Scenario would act as a compromise between the Trends and PFA Scenarios and would direct about 75% of new development to the PFAs while the remaining development would be outside the PFA. Compared to the Trend Scenario, the Hybrid Scenario directs significantly more development within the PFA, which supports both State and local goals.

Therefore, it is recommended that the Hybrid Scenario be utilized to achieve the future land use recommendations and strategies included in this Comprehensive Plan.

### **9.6.2 Evaluation of Proposed Water and Sewer Extensions**

During the Comprehensive Plan Update, the Technical Committee reviewed four existing water and sewer service areas as included in the (draft) Water & Sewer Master Plan; these areas are included in this chapter on Figures 9-1 through 9-6. Service areas included: Greater Crisfield, Greater Princess Anne, Fairmount, and Westover. These maps include areas of present water service, sewer service, or both water and sewer service.

In addition to present service areas, proposed water and/or sewer extension areas were mapped based upon recommendations within the draft W&S Plan (provided April 29, 2024). These proposed areas are depicted in Figures 9-9 through 9-12, at the end of this section. Supplementary mapping was provided to TC members for this mapping exercise, including current and proposed extension areas mapped alongside:

- PFA Areas
- Growth Areas
- Special Flood Hazard Areas
- Development Density
- Critical Areas
- Wetlands
- Sea Level Rise
- Existing Land Use
- Zoning

The goal of this review was to identify locations in the County where additional water and/or sewer service might be needed due to planned future growth and development. While reviewing current and proposed water and/or sewer extension service, the following questions were considered for each service area:

1. Do you agree with the proposed water and/or sewer extension areas?
2. If not, what are your suggestions?
3. Do you see other connections or areas for water and/or sewer expansion, if any?
4. What are your thoughts on future growth in these areas?

Key findings by Technical Committee members were included below for each of the four mapped and reviewed service areas. Areas the Technical Committee have recommended for water and/or sewer service extension are numbered 1 through 8 (bolded in the text and shown on Figures 9-9 through 9-12 beginning on page 9-39).

#### **Greater Crisfield Service Area**

Water and/or sewer service expansion into the Greater Crisfield area would be primarily driven by the City's desire to expand through annexation. There are some developments in this area which are experiencing septic failure, combined with an aging population, which might incentivize the need for expanding these services in the future to these areas, as identified below. As shown on Tables 9-3 and 9-7, the Crisfield service area has sufficient public water and public sewer capacity for future growth, respectively. In terms of Growth Areas, the proposed water extension area (i.e., #1) is primarily within growth Tier 2, which are areas proposed to be served by public sewerage or mapped as locally designated growth areas.

Findings from the analysis of the Greater Crisfield service area include:

- **Proposed Extension Area #1 (Figure 9-9):** Extend water service to areas north of MD 413, extending to Daughterytown Road and properties along the Jones Creek Area.
  - a. Expand PFA along MD 413 up to Marion Station, and Enterprise Zone to Holland Crossing Road
    - i. Expand Water and Sewer Service into this area as well.
  - b. Failing septic system issue has been identified by the Health Department in the Annemessex Ridge and Hearts Ease areas. Existing lot sizes are ¼ acres or less.

#### **Greater Princess Anne Service Area**

Future water and/or sewer service areas in the Greater Princess Anne area will ideally be adjacent to existing development which already follows major transportation corridors as identified in Chapter 7 of this plan. As

shown on Tables 9-3 and 9-7, the Princess Anne service area has sufficient public water and public sewer capacity for future growth, respectively. In terms of Growth Areas, the mapped proposed sewer extension area (i.e., #2) is primarily within growth Tier 3 and 4. These tiers are associated with large lot growth that is not planned for future sewerage. Expansion into proposed sewer extension area #2 would require changes to these growth tiers.

Findings from the analysis of the Greater Princess Anne service area include:

- **Proposed Extension Area:** Extend sewer service to the south side of MD-363, from Brownstone Road to Goose Creek.
  - a. This proposed extension area is not feasible due to current zoning, lack of demand, and critical area. Chapter 8 Sensitive Areas identifies sensitive areas in this proposed region and Chapter 10 identifies existing land use.
- **Alternate Extension Area #2 (Figure 9-10):** Extend sewer service along U.S. Route 13 from existing service area near Old Princess Anne Road to West Pocomoke.
  - a. Chapter 4 Economic Vitality and Chapter 7 Transportation both recommend future development, thus water and/or sewer extension, primarily remain along the County's main transportation corridors.

#### **Fairmount Service Area**

Generally, this area is not ideal for future water or sewer extensions within the planning horizon of this comprehensive plan due to the presence of sensitive areas and the lack of interest in development. However, extending services to the proposed areas would fill existing "doughnut holes" within the service area. As shown on Tables 9-3 and 9-7, the Fairmount service area has sufficient public water and public sewer capacity for future growth, respectively. In terms of Growth Areas, the mapped proposed water extension area (i.e., #3) is primarily within growth Tier 2, which makes it suitable to receive both water and sewer service.

Findings from the analysis of the Fairmount service area include:

- **Proposed Extension Area:** Extend water service to the Landonville Road Area.
  - a. This area is less suitable for extension due to existing sensitive areas, such as wetlands, the SFHA, and critical areas. The lack of demand for development in this area also makes it less suitable.
- **Proposed Extension Area #3 (Figure 9-11):** Extend water service to the Upper Hill Road area.
  - a. Agricultural land could be developed if demand increases in the area. The area is also less impacted by sensitive areas than Landonville Road Area.

#### **Westover Service Area**

The Westover area is ideal for expansion of water service, as it includes major transportation corridors and much of the proposed extension area is currently zoned industrial. Findings indicate that the service areas should generally be expanded to the east and south, as described in more detail below. As shown on Tables 9-3 and 9-7, the Westover service area has sufficient public water and public sewer capacity for future growth, respectively. In terms of Growth Areas, the mapped proposed extension areas are within the following growth tiers:

- **Proposed Water and Sewer Service Extension #4 – Tier 4**

- Proposed Water Service Extension #5 – Tier 1 & Tier 2
- Proposed Water Service Extension #6 – Tier 1
- Proposed Water Service Extension #7 – Tier 1
- Proposed Water Service Extension #8 – Tier 4

The growth tier corresponding with proposed water and sewer service extension #4 would need to be modified to accommodate the proposed extension.

Findings from the analysis of the Westover service area include:

- Proposed Extension Area: Proposed sewer extension in the area south of ECI.
  - a. Not recommended due to the area being State owned and due to Resource Conservation Area status.
  - b. Proposed Extension Area: Water extension to the Somerset County landfill area.
    - i. This area is not recommended for expansion by the technical committee.
- **Alternate Extension Area #4 (Figure 9-12):** Area North of Revells Neck Road next to ECI is County-owned and needs water and sewer service.
  - a. Intensely Developed Area
  - b. Proposed future industrial park
- **Proposed Extension Area #5 (Figure 9-12):** Extend water service to the areas along U.S. 13 to connect Westover to Princess Anne.
  - a. This area is recommended for extension and should include more areas to the east and south of the proposed area (to follow the industrial zoning line), along Old Princess Anne Road.
- **Proposed Extension Area #6 (Figure 9-12):** Water main extension to the County Complex on Route 413.
  - a. This extension would fill a need and a “doughnut” hole in service.
- **Additional Proposed Extension Area #7 (Figure 9-12):** The County-owned Park and Rec Field (Somerset County Recreation and Parks) needs water service and presently has sewer service. The park location encompasses the triangular area between Sam Barnes Road, Route 13, and Route 413.
- **Additional Proposed Extension Area #8 (Figure 9-12):** Expand water service to the Tawes Campus Drive area to include the Sheriff’s Office, JM Tawes Career and Technical School, Somerset Intermediate School, and Somerset County Technical High School.

## **Conclusion**

The Hybrid Scenario as described in this chapter acknowledges the likelihood of some development in rural areas, while focusing the majority of growth (significantly more than past trends) into PFAs, where investments in sewer and stormwater management infrastructure are more cost-effective and can help to minimize impacts on the County’s water resources and sensitive areas.

With this in mind, all of the proposed extension areas, including those outside of the PFA, were selected with the intention of avoiding environmentally sensitive areas, hazard prone areas, areas with known stormwater management issues, as well as geographic locations with identified septic failures. The Technical Committee’s recommendations focus on balancing growth needs, infrastructure capacity, and environmental considerations. Strategic extension of water and sewer services is essential for sustainable development in Somerset County. The Hybrid Scenario is still the best future growth option based on the Technical Committee’s recommendations.

Findings from the evaluation of proposed water and sewer extensions will be utilized for recommendations for future development made in Chapter 10 Land Use.

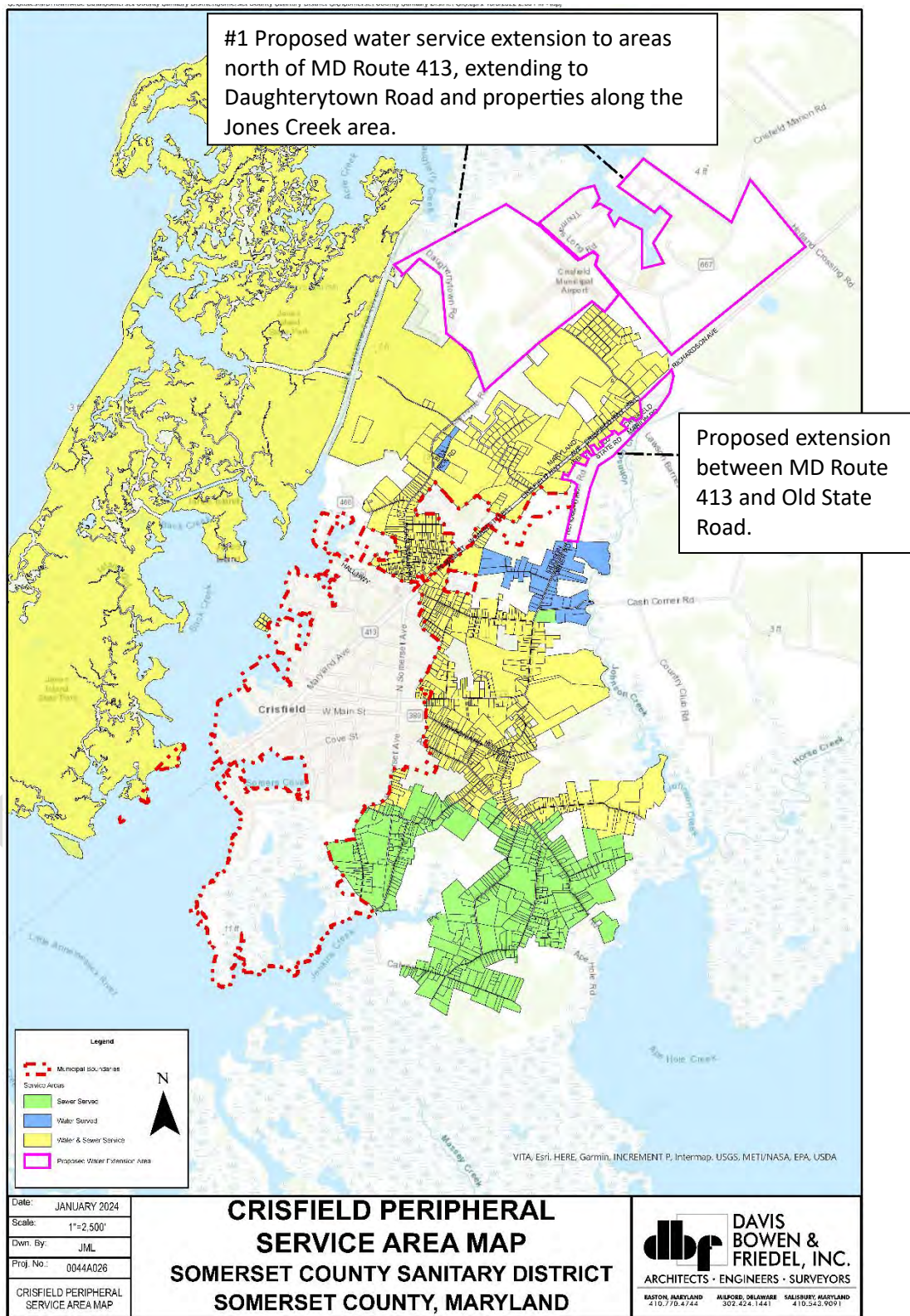


Figure 9-9: Greater Crisfield Proposed Water and Sewer Extensions. Source: Somerset County Water & Sewer Master Plan, 2024 & Somerset County Comprehensive Plan Technical Committee.

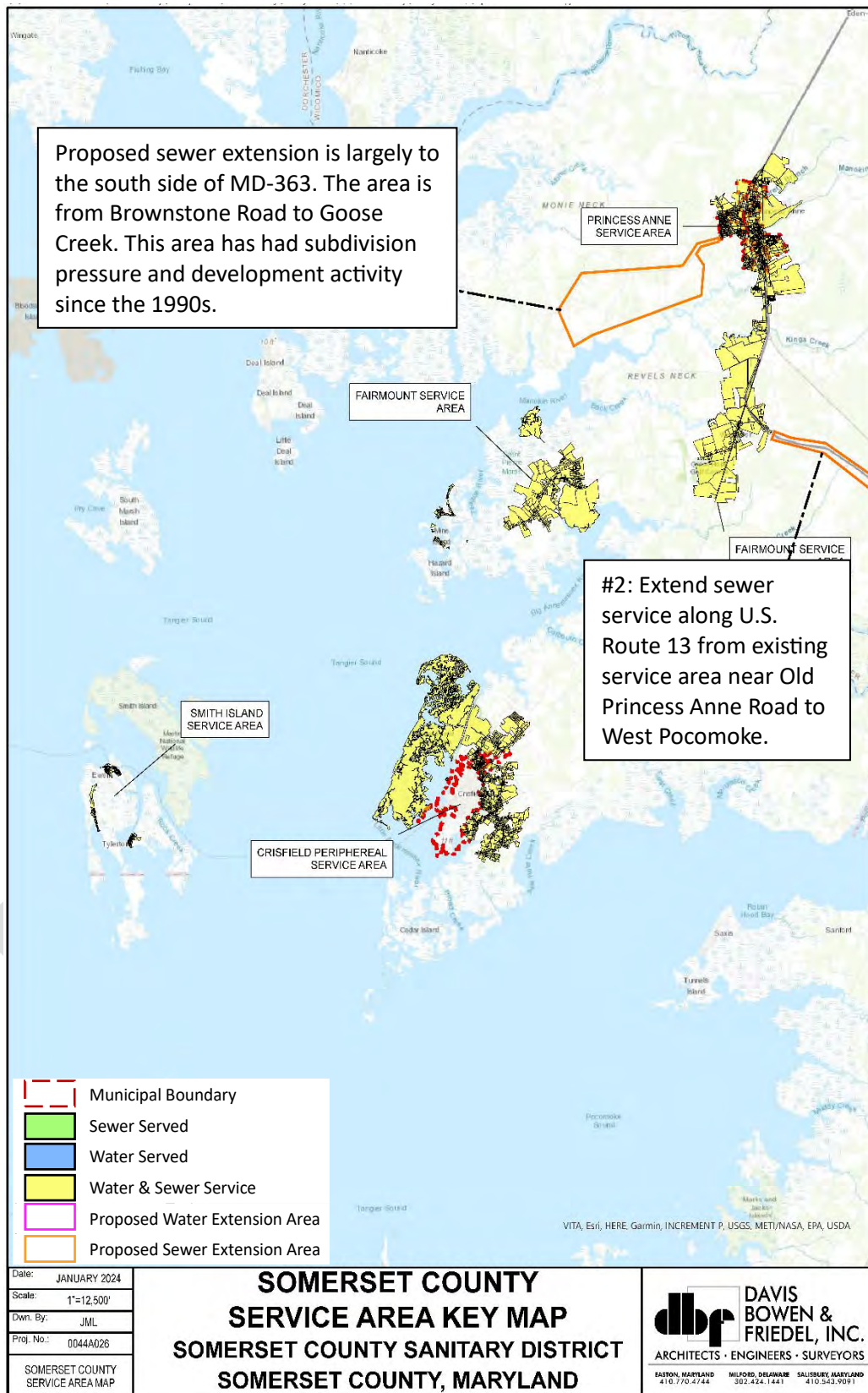


Figure 9-10: Greater Princess Anne Proposed Water and Sewer Extensions. Source: Somerset County Water & Sewer Master Plan, 2024 & Somerset County Comprehensive Plan Technical Committee.

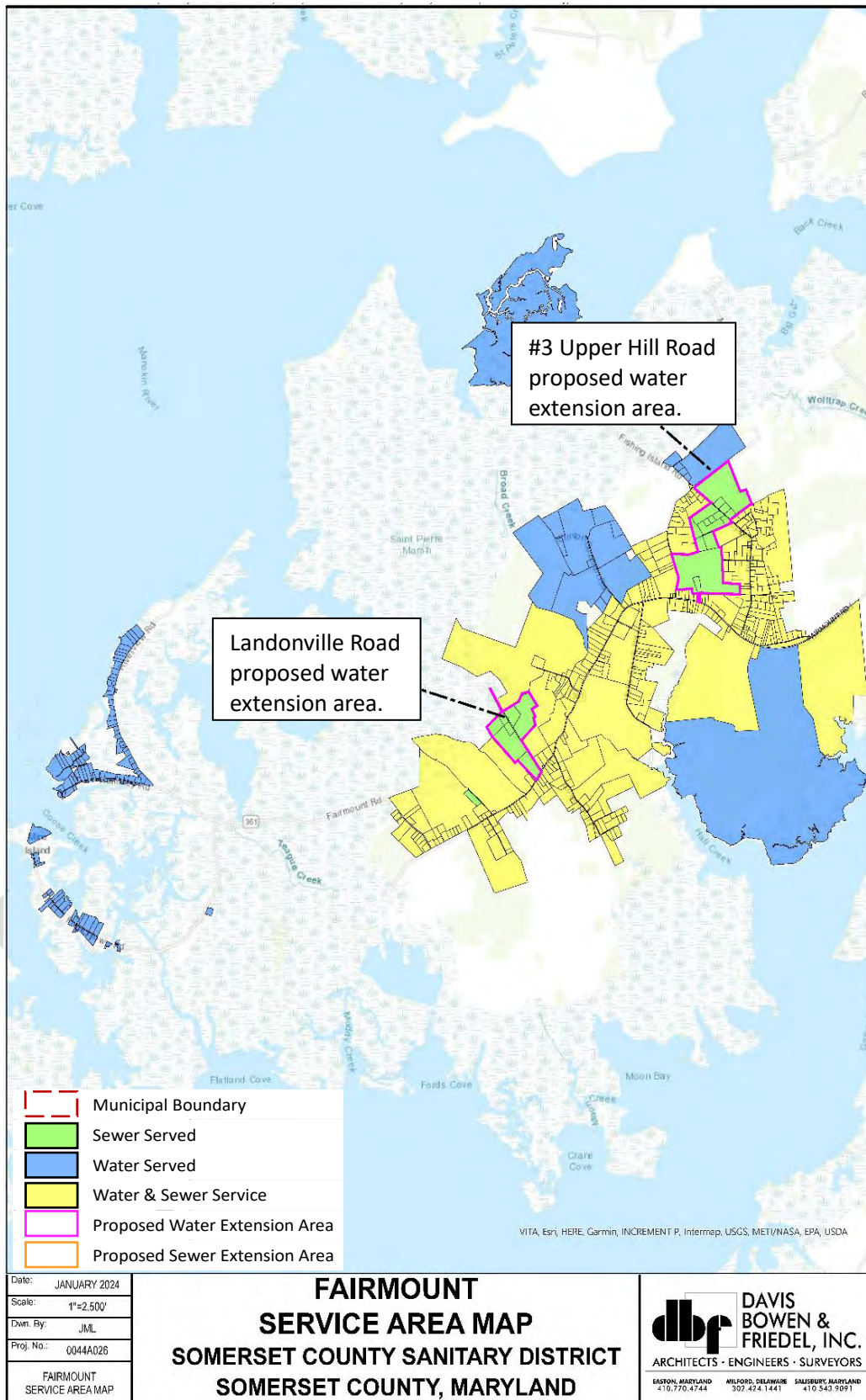


Figure 9-11: Fairmount Proposed Water and Sewer Extensions. Source: Somerset County Water & Sewer Master Plan, 2024 & Somerset County Comprehensive Plan Technical Committee.

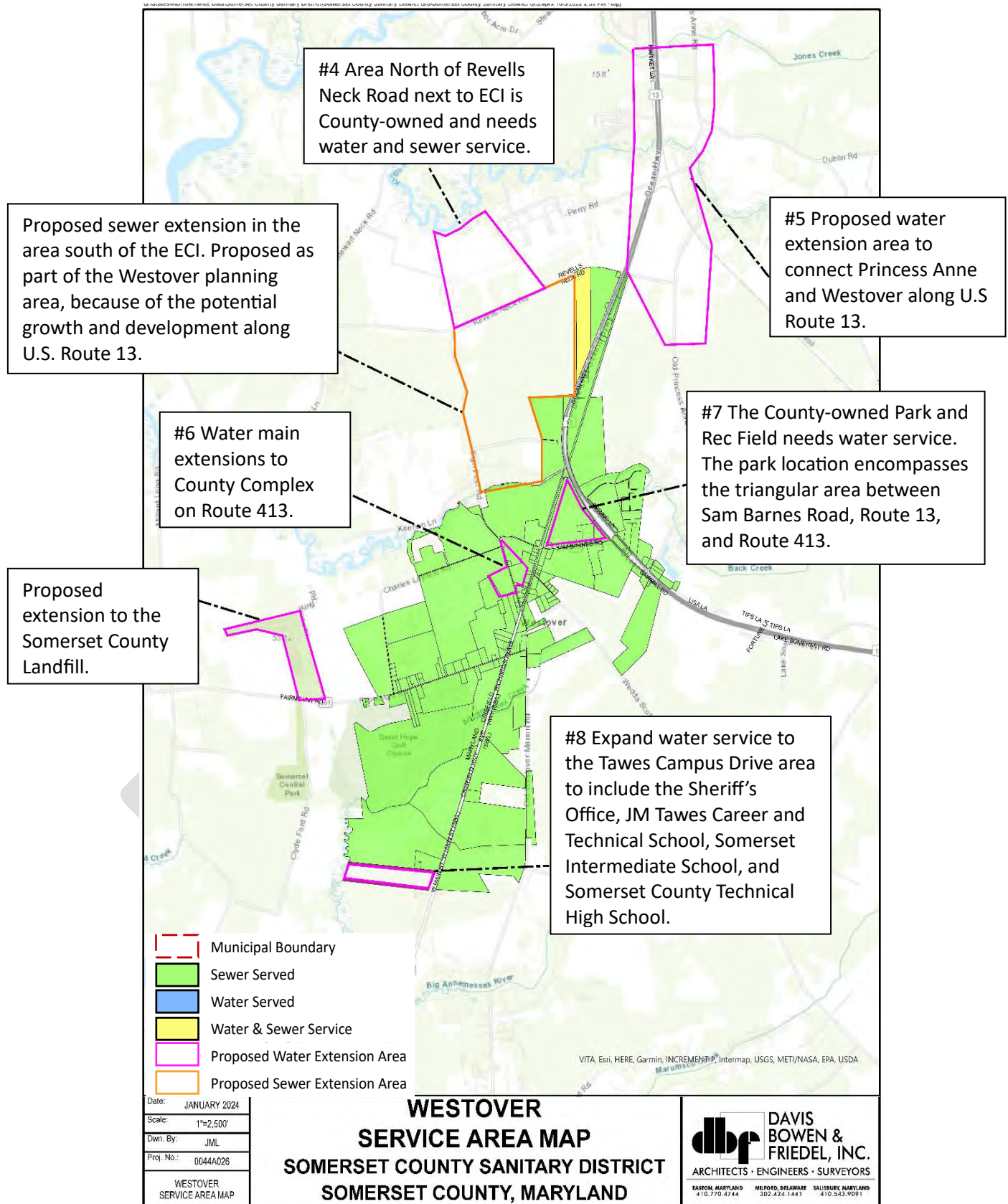


Figure 9-12: Westover Proposed Water and Sewer Extensions. Source: Somerset County Water & Sewer Master Plan, 2024 & Somerset County Comprehensive Plan Technical Committee.

## 9.7 Future Conditions

### 9.7.1 Climate Change and Flooding

According to the County's Multi-Hazard Mitigation Plan (HMP), climate change will increase the frequency and intensity of storms, thus leading to more issues related to flooding. Flooding creates a host of water quality and management issues, including: well/drinking water contamination, failure of wastewater infrastructure, and increased stormwater.

Areas experiencing nuisance and repetitive flooding issues will gradually see an increase in these issues as the changing climate elevates water levels and drives precipitation patterns to new extremes. However, this shift will likely occur gradually over time. New areas will also become impacted, leading to an increased number of businesses, residents, and critical infrastructure at risk. Public services will also be more frequently impaired as flooding increases.

The [2021 Flood Mitigation Plan](#) identifies and describes the risk and vulnerability associated with hurricane storm surge, 1-percent annual chance flood, projected sea level rise, nuisance flooding, and flash flooding. The plan identifies at-risk essential infrastructure for each of these flood hazards as well as repetitive flood roadways within Somerset County by type of flooding. Repetitive flooded roadways are included on Table 2-8: Repetitive Flooded Roadways and indicates if each identified roadway experiences stormwater management issues as a result of repetitive flooding.

The [2022 Multi-Hazard Mitigation Plan](#) identifies additional infrastructure at risk of flooding, including critical and public facilities. A complete listing of these facilities as identified in the County's HMP is available as Appendix B: Essential and Critical & Public Facilities Databases of the HMP. Water resources-related infrastructure assessed in the hazard mitigation plan includes Wastewater Treatment Plants (WWTP), pumping stations, and well houses. The full list of impacted infrastructure begins on page 4-19 of the HMP, Table 4-9: Critical & Public Facilities At-Risk to the 1-Percent-Annual-Chance Flood. County infrastructure identified as at-risk to the 1-percent annual chance flood includes 3 WWTPs, 3 pumping stations, and 4 well houses.

### 9.7.2 Floodplain Management and Comprehensive Flood Control

#### Floodplain Management Capabilities

The County regulates development within the floodplain in an attempt to minimize future flood losses via its Floodplain Management Ordinance, Subdivision Regulations, and Building Codes. Somerset County's Floodplain Management Ordinance (Ordinance 1193) was last updated and adopted on December 19, 2023. Ordinance 1193 establishes a flood protection elevation of base flood elevation (BFE) plus one foot.

The County also participates in the Chesapeake Bay Critical Area Program, with the purpose of establishing a Resource Protection Program for the Bay and its tributaries and encouraging more environmentally sensitive development in areas near the shoreline. This law created a statewide Critical Area Commission to oversee the development and implementation of local land use programs directed towards the Critical Area.

Regarding shoreline erosion, Somerset County utilizes the State Critical Area Law and has adopted a Local Critical Area Program which provides for a 100-foot Buffer from the shoreline. This Buffer is measured 100 feet inland from mean high water, the landward extent of tidal wetlands, and the edge of tributary streams. The Buffer also refers to areas that have been expanded beyond 100 feet to include hydric soils. The Critical Area Program also

requires the first 100-300 feet from tidal wetlands be managed to protect aquatic and shoreline environments from man-made disturbances. Finally, the program requires that existing vegetation be protected, and planting of un-vegetated areas is strongly encouraged.

The local program explains the requirements and protection measures in place and provides Critical Area Maps that visually show the boundaries, 100-foot buffer, land classifications, resources and other resource information and portions of the Subdivision Regulations and Zoning Ordinance that implement the Critical Area requirements. Additional portions of the Critical Area Legislation include Water-Dependent Facilities Program, Shore Erosion Protection Program, Forest and Developed Woodland Program, and Buffer Protection Program. The County Planning and Zoning Office's Department of Technical and Community Services provides printed brochures and information on the 100-foot buffer and tree plantings. Maps may also be reviewed with local planning staff.

Furthermore, the County participates in the National Flood Insurance Program (NFIP) to allow property owners to purchase insurance through this federally sponsored program. As of June 2024, Somerset County has earned a Class 7 Community Rating System (CRS) rating, which means homeowners receive a 15% discount on their national flood insurance premiums. The CRS rating is earned through participating in one of four types of activities: public information outreach, mapping and regulations, flood damage reduction, and warning and response.

### **9.7.3 Additional Local Planning Efforts**

The County has taken the effort to identify and map areas of known and repetitive flood issues in an effort to mitigate and control flooding. The Hazard Mitigation Plan, Flood Mitigation Plan, and [Nuisance Flooding Plan](#) have mapped areas of flood risk and identified critical infrastructure that are at-risk and vulnerable to flooding. Combined, these plans provide a comprehensive view of flooding issues in Somerset County.

#### **Dam Failure and Flooding**

In the most recent HMP update, an assessment of dam failure and associated impacts was completed. Dam failure can most commonly be caused by overtopping (associated with flooding), foundation defects, cracking, inadequate maintenance and upkeep, and pumping. According to the Association of State Dam Safety Officials (ASDSO), flooding was the number one driver of dam failure incidents between 2010 and 2019 by a very large margin (according to the ASDSO Dam Incident Database – this is not an all-inclusive list of dam incidents). Dam failure risk is measured by potential by hazard potential and based on information from the HMP, the County has no major or high hazard potential dams (HHPD) or levees. One low hazard potential dam exists in northern Somerset County, very near the border of Wicomico County – Allen Town Pond. Therefore, unlike repetitive flooding caused by nuisance flooding and sometimes made worse by stormwater management issues, the County is not very likely to be impacted negatively by flooding associated with dam failure.

#### **Repetitive Loss Properties**

Additionally, repetitive loss properties and repetitive loss areas were included in the HMP Update. According to FEMA, repetitive loss and severe repetitive loss properties meets the following criteria:

##### **Repetitive Loss:**

- Properties are those for which two or more losses of at least \$1,000 each have been paid under the National Flood Insurance Program (NFIP) within any 10-year period since 1978.

**Severe Repetitive Loss:**

- A property that has at least four NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or,
- A property for which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

The County has 61 repetitive loss properties and 2 severe repetitive loss properties; the vast majority of these properties (i.e., 59) are residential. The plan also identifies repetitive loss areas, which are locations with a higher concentration of repetitive loss properties compared to others. Properties and water resources infrastructure located in these areas might be more at risk to the negative impacts of flooding worsened by climate change, including more frequent and intense flooding. Repetitive loss areas include the following:

- Crisfield Surrounding Area – North (7 properties)
- Crisfield Surrounding Area – South (17 properties)
- Deal Island, Chance, Dames Quarter (11 properties)
- Oriole, Champ (8 properties)
- Frenchtown-Rumbly, Fairmount (4 properties)
- Mount Vernon (2 properties)
- Pocomoke River (1 property)
- Smith Island (6 properties)

*Note: Due to the sensitive nature of the data, the RLP listing and RLP areas mapping are not available to the public. These locations are available to the County as an appendix labeled Official Use Only.*

**Proposed Strategies to Protect Water Resources**

Finally, in addition to identifying and mapping known hazard areas, these plans include strategies to lessen risk and vulnerability to flooding in the face of future climate change. Strategies identified within these plans that are related to protecting water resources include the following:

**Strategies From the Hazard Mitigation Plan**

- Project A: Maintain Current FEMA CRS Rating
- Project F: Mitigation of Repetitive Roadway Flooding
- Project I: Essential Facility Flood Mitigation
- Project J: Repetitive Loss Outreach
- Project K: Somerset County Water and Sewer Plan Update
- Project V: Fuel Oil and Propane Tank Maintenance Education
- Project Z1: Protect Wells from Contamination by Flooding

*Note: Detailed project sheets are available for review in Chapter 18: Mitigation Strategies of the HMP Update beginning on page 18-8.*

#### Strategies From the Flood Mitigation Plan

- Project 3: High Priority Flood-Prone Land Acquisition
- Project 7: Repetitive Roadways Impacting Essential Facilities Ingress/Egress
- Project 10: Stormwater Vulnerability Assessment and Green Infrastructure Identification

*Note: Detailed project sheets are available for review in Section 4: Flood Mitigation Action Plan of the Flood Mitigation Plan, beginning on page 4-1.*

DRAFT

## Chapter 9: Water Resources Goals & Implementation Strategies

### Goal 9.1

Integrate 2025 Somerset County Comprehensive Plan into the Master Water and Sewer Plan

#### Strategies

- A. Integrate, projections and proposed conditions in this plan, including designated growth areas, priority preservation areas, future land use and the Future Land Use Map Plan, at a minimum, into the updated Master Water and Sewer Plan.

### Goal 9.2

Assess water supply comprehensively from both a county and regional perspective.

#### Strategies

- A. Conduct comprehensive study of water-bearing formations used by Somerset County. *Note- Water Balance Methodology recommended by Models and Guidelines #26 (the state's official guidance for preparation of the Water Resources Element) is not applicable for the Coastal Plain.*
- B. Support the development of broader regional water policies to protect water resources, particularly those that relate to groundwater appropriations and protection of aquifer recharge areas.
- C. Establish watershed or wellhead protection strategies for water supply sources.

### Goal 9.3

Enhance water conservation efforts and address capacity concerns.

#### Strategies

- A. Work with MDE to determine whether additional withdrawals to support the Smith Island water systems (which rely on the heavily used Patapsco aquifer) and have adequate capacity to support potential growth.
- B. Continue to manage water supplies using the water supply allocation system (i.e., 80%/20% Capacity Rule) to manage groundwater resources. Review and integrate 2016 Coastal Plain Aquifer Study to shape water use policies and ordinances—particularly those that relate to groundwater appropriations and protection of aquifer recharge areas.
- C. Develop an official water conservation program to formalize the current conservation policies.
- D. Partner with UMES and municipalities to investigate opportunities to develop a public information campaign on water conservation.
- E. Coordinate with UMES to broaden the Natural Sciences Program to include Water Resources curriculum at the college.

### Goal 9.4

Enhance water quality using best practices and adaptive measures.

#### Strategies

- A. Continue to address water quality issues identified in *Table 9-2, Public Drinking Water System Characteristics*, including Fluoride, Disinfection, Iron, and Total Dissolved Solids (TDS).
- B. Continue to implement existing regulations that limit saltwater contamination of freshwater supplies by ensuring that wells do not become a conduit for saltwater.
- C. Continue to encourage community buy-in for establishing forested buffers where none exist.
- D. Continue compliance with state and federal requirements with respect to permitting and reaching nitrogen reduction standards (use of Enhanced Nutrient Reduction (ENR) technologies) for the purpose of contributing to maintaining acceptable levels of water quality.

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**Goal 9.5**

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Assess and meet, to the extent feasible, the existing and future needs of public and private wastewater facilities.

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**Strategies**

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- A. Address Crisfield Sewer System have infiltration/inflow (I/I) problems which, if minimized, would reduce the hydraulic flows to these wastewater treatment plants and make more capacity available.
- B. Address Princess Anne Sewer System have infiltration/inflow (I/I) problems which, if minimized, would reduce the hydraulic flows to these wastewater treatment plants and make more capacity available.
- C. Prioritize areas for connection to public sewer systems following completion of projects that address infiltration/inflow (I/I) problems, both Princess Anne and Crisfield sewer systems.
- D. Extend public sewer service to address failing septic systems in the Annemessex Ridge Area, north of Crisfield Municipal Airport.
- E. Continue to work closely with the Town of Princess Anne and the City of Crisfield in the review of existing and future growth areas, in relation to growth tiers under Title 1, Subtitle 5 of the Land Use Article of the Annotated Code of Maryland.
- F. Use of innovative methods including Best Available Technology (BAT) for on-site treatment and disposal of wastewater to address public health concerns by reducing nitrogen discharge levels.

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**Goal 9.6**

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Provide adequate treatment for the quality, volume, and rate of stormwater runoff.

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**Strategies**

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- A. Focus future development within Priority Funding Areas and continue to implement Tributary Strategy BMPs to further reduce total nutrient loads to the Chesapeake Bay and its tributaries.
- B. Continue to implement and update as needed the County's stormwater management practices and procedures and Environmental Sensitive Design Manual practices and procedures.
- C. Update 2012 Watershed Implementation Plan (WIP), dependent on increasing development in the future.
- D. Utilize open space and land preservation programs to provide water protection measures.
- E. Partner with regional localities, non-governmental organizations, and others to target high value restoration opportunities and increase implementation efficiency.
- F. Use information technology to strategically locate and install restoration projects that maximize results of the County's stormwater management efforts.
- G. Identify locations where stormwater retrofits could address concentrations of nonpoint source pollution ("hot spots"), or where retrofits can help to protect environmentally sensitive areas.



## CHAPTER 10 LAND USE

### PUBLIC SURVEY RESULTS



#### HIGHLIGHTS

- There is a strong preference for preserving natural resources and agricultural land in future development.
- Maintaining and improving existing infrastructure is a high priority.
- Supporting local businesses and the agricultural economy is important to residents.

89%

#### OFFICIAL POLICY

89% of survey respondents indicate that Proximity to Emergency Service Facilities/Response Time should be encouraged by local officials in terms of future development. Retail Development, Residential Housing, and Tourism Facilities are also highly encouraged.

80%

#### MOST IMPORTANT

Job creation is viewed as the most important component to future development in Somerset County. 80% of respondents indicated that it is very important.

This is followed by Homes/Neighborhoods and Variety of Businesses.

## ISSUES AND OPPORTUNITIES

**Issues** identified: Need for additional job opportunities, businesses, community services, and public safety services. Concerns for natural hazards, specifically flooding. Additional services are needed for youth and seniors.

**Opportunities** identified: Reuse of existing buildings is a common idea. Continued improvements to tourism. Improvements to the airport. Preservation of historic character. Preservation of rural character. Striking a balance between single family and multi family homes. Placing new businesses and homes in the right place. Future additional waterfront development can be a huge draw for new residents and visitors.

## Chapter: 10 Land Use

The Land Use component of the Comprehensive Plan recognizes the County's agricultural base as the backbone of its economy and the dominant land-use. The Plan seeks to preserve that base by restricting growth, particularly unplanned sprawl. Maintaining rural character of the County is a primary theme of this Comprehensive Plan. While growth areas are identified within this chapter, growth areas are in large part directed at concentrating urbanization in portions of the Somerset County where further development would not prove destructive of the farm economy.

The Land Use Plan examines future land use for all the major topics included in this comprehensive plan and includes mapping of proposed changes, as applicable, for:

- Economic Vitality
- Affordable Housing
- Community Facilities
- Transportation
- Sensitive Areas
- Water Resources
- Priority Preservation Area

### Land Use Requirements

The land use element outlines the most appropriate and desirable patterns of growth and development. Maps are particularly helpful for this section and can show areas targeted for different types of development; revitalization; priority corridors or areas; and preservation areas.

*Source: Maryland Department of Planning.*

The Future Land Use Map Plan indicates the principal areas where growth in the County is to be encouraged. The primary growth areas are all intended to have existing or proposed water and sewer service.

### Land Use Data Background Information & Caveats

*As part of this planning process, Somerset County requested early use of draft land use data from the Maryland Department of Planning. Somerset County reviewed this data prior to usage in this Comprehensive Plan. Per the Maryland Department of Planning (MDP) correspondence specific to data utilization August 14, 2024. The MDP's draft 2018 Land Use data along with the draft classification descriptions and methodology documentation were provided for the local review and comprehensive planning, however this information was not final. MDP's draft 2018 Land Use data was provided for use in the comprehensive plan. The final 2018 Statewide Land Use Map (2024 Edition) was released January 2025.*

*Note: Due to differences in how the 2018 land use data set was created, it cannot be directly compared to the 2010 Land Use/Land Cover data. Therefore, it is not possible to directly compare the two datasets to determine changes over the last decade. The 2018 land use data set was developed using available parcel polygons attributed with tax assessment data as of project initiation in early 2020, Computer-Assisted Mass Appraisal (CAMA) data dated February 2020, and the Chesapeake Bay Program's 2017/18 Land Use Land Cover data (2022 edition). In addition, the land use classification scheme was updated with the decision to update only urban land uses. Maryland Department of Planning's land use map classifications detail land use types such as low to high-density residential, commercial, and other developed areas and no longer distinguishes between different types of undeveloped land such as agriculture, forest, wetland, and barren lands.*

## 10.1 Existing Land Use

It is important to note that the dataset used for Somerset County existing land use was prepared by the Maryland Department of Planning (MDP) and contain the draft land use map for the County. Data was provided August 14, 2024, and was last updated on June 11, 2024. The land use classifications were preliminary and intended for review by local jurisdictions before becoming final. MDP indicated that Somerset County could utilize the draft 2018 data for the comprehensive plan with caveats. Somerset County's Department of Technical and Community Developed reviewed the draft dataset prior to inclusion in this plan document.

The Maryland Department of Planning's statewide land use map shows the general location of developed lands, including residential, commercial, industrial, institutional, and other urban lands as well as the general density of residential development statewide as of 2018. The data distinguishes between developed and undeveloped portions of developed parcels and no longer includes non-urban land use and land cover information.

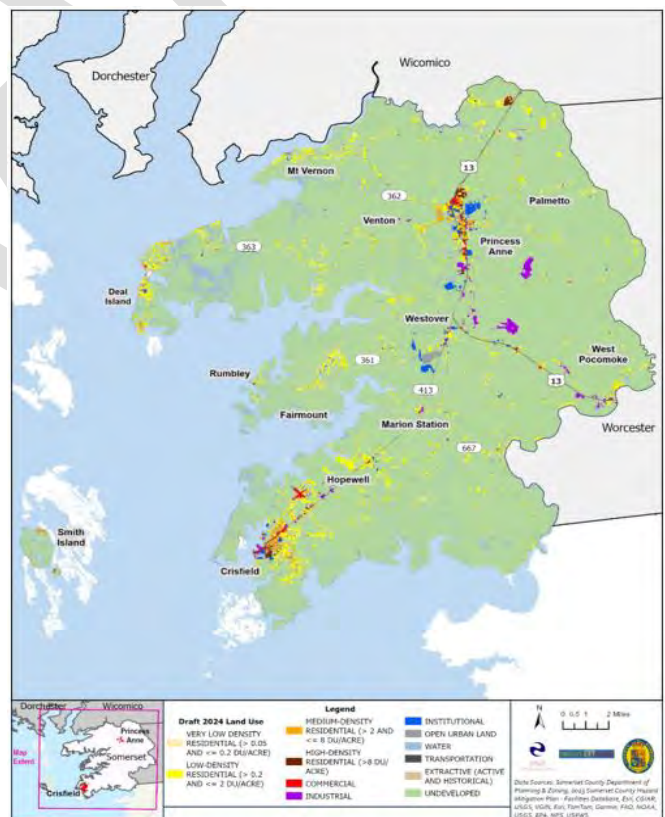
Table 10-1 includes the tabulated draft existing land use data displayed on Map 10-2. Low-density residential is the predominate land use classification, with the exceptions of undeveloped resource land comprising 88% of the total land area and water comprising 4.7% of the total land area. Low-density residential land use is typical for a historically rural area, however some medium to high residential housing has been constructed in the more urbanized areas of the County, specifically within the municipalities of Princess Anne and Crisfield and along US Route 13.

*Note: Additional detailed existing land use maps are included at the end of this chapter.*

**Table 10-1.**

Existing Land Use – Somerset County, MD		
Land Use Classification	Acreage	% of Total Acreage
Very Low Density Residential (> 0.05 and <= 0.2 DU/Acre)	699.36	0.3%
Low-Density Residential (> 0.2 and <= 2 DU/Acre)	7,000.64	3.5%
Medium-Density Residential (> 2 and <= 8 DU/Acre)	1,011.74	0.5%
High-Density Residential (>8 DU/Acre)	304.00	0.2%
Commercial	452.56	0.2%
Industrial	896.62	0.4%
Institutional	950.15	0.5%
Open Urban Land	402.84	0.2%
Water	9,332.43	4.7%
Transportation	2,115.40	1.0%
Extractive (Active and Historical)	57.24	>1.0%
Undeveloped Resource Land	177,391.01	88.4%
<b>Total Acreage - 200,613.99</b>		

Source: MDP's Draft 2018 Land Use Map dated 11/28/2023.



**Figure 10-1: Somerset County Draft Existing Land Use.** Source: Maryland Department of Planning Draft 2018 Land Use Map dated 11/28/2023. See Map 10-2.

Maryland Department of Planning's land use map estimates and generalizes the distribution of developed land for general planning purposes and would not be used to identify land uses on individual parcels. Therefore, new Parcel-Based Existing Land Use data was developed for this Comprehensive Plan. In order to develop the parcel-based existing land use data, the [ArcGIS Summarize Within \(Analysis\) Tool](#) was used to transfer MDP's Draft 2018 Land Use classification to Somerset County shapefile for initial parcel-based land use classification. The dominant land use classification for each parcel was assigned. A visual inspection was conducted to validate designation and, where necessary, parcel land use classification was modified. In addition, when necessary, parcels were split due to roadway, or for large parcels typically over 20 acres to account for multiple land use designations. A full methodology is provided in the plan appendix. The development of the parcel based existing land use data enables future parcel-based land use determination and mapping products, see Maps 10-3.

Table 10-2 provides acreage and parcel totals for each land use category. Much of the county consists of undeveloped resourced land with 182,678.81 acres distributed within 6,874 parcels. Low-density residential land use is the predominate land use classifications within Somerset County, see Maps 10-4 through 10-7.

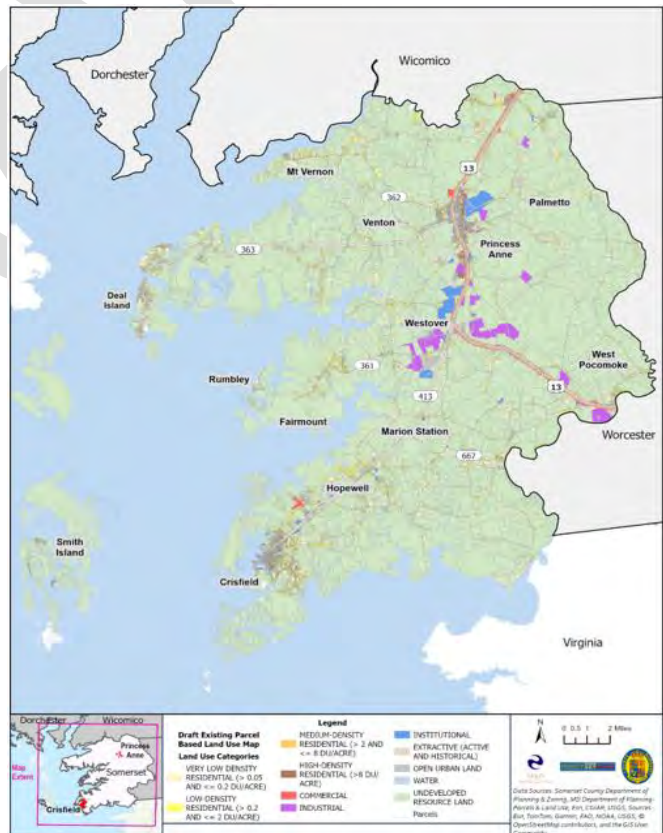
Total acreage discrepancies between Tables 10-1 and 10-2 are due to Maryland Department of Planning's (MDP) Draft 2018 Land Use data did not include large portions undeveloped portions of Somerset County including Martin National Wildlife Refuge, portions of Smith Island, South Marsh Island, Jones Island, Western Islands, Little Deal Island, and Cedar Island State Wildlife Management Area.

*Note: Transportation -roadways were not included in the Somerset County parcel boundary dataset provided by the Maryland Department of Planning.*

**Table 10-2.**

<b>Draft 2024 Parcel Based Land Use – Somerset County, Maryland</b>		
<b>Parcel Based Land Use Classification</b>	<b>Acreage</b>	<b>Parcels</b>
Very Low Density Residential (> 0.05 and <= 0.2 DU/Acre)	5,366.48	553
Low-Density Residential (> 0.2 and <= 2 DU/Acre)	7,188.10	4,820
Medium-Density Residential (> 2 and <= 8 DU/Acre)	1,058.45	2,856
High-Density Residential (>8 DU/Acre)	408.56	584
Commercial	693.15	482
Industrial	2,594.86	174
Institutional	1,914.93	302
Extractive (Active and Historical)	111.52	3
Open Urban Land	503.36	88
Water	562.91	273
Undeveloped Resource Land	182,678.81	6,874
<b>Totals</b>	<b>203,081.13</b>	<b>17,009</b>

Source: MDP's Draft 2018 Land Use data dated 11/28/2023 and SP&D parcel-based land use classification designation.



**Figure 10-2: Somerset County Draft Parcel Based Existing Land Use, see Map 10-3.**

## 10.2 Growth Areas

Primary and secondary growth areas have been identified for Somerset County. Primary growth areas were designated in consideration of overall suitability while secondary growth areas were designated based on infill development opportunities. In addition, overlay zones are identified in acknowledgement of the likelihood of growth along US Route 13 and MD Route 413. These proposed overlay zones allow for future growth at select locations, while maintaining the County's rural characteristics.

### 10.2.1 Primary Growth Areas

Primary growth areas were designated following the evaluation of the four current [Somerset County Growth Tiers](#), a comprehensive land use evaluation, and proposed water and sewer extensions. The proposed water and sewer extension locations were determined by the Technical Committee and are detailed in Chapter 9: Water Resources. While current water and sewer service areas were considered along with proposed water and/or sewer extension areas identified in the Draft 2024 Water & Sewer Plan, additional factors were included in the evaluation conducted by the Technical Committee. These additional factors for consideration resulted in a comprehensive evaluation, focused on water resources, existing land use, and land suitability for future growth.

- Water & Sewer System Capacity
- Water & Sewer System Issues
- Failing Septic
- Demographics
- Somerset Growth Tier Areas
- PFA Areas
- Growth Areas
- Special Flood Hazard Areas
- Development Density
- Critical Areas
- Wetlands
- Sea Level Rise
- Existing Land Use
- Zoning
- Transportation System
- Municipal Planning, Annexation

Key findings resulting from this evaluation identified the feasibility and suitability of proposed water and/or sewer system expansions, per service area, as well as associated modifications to Growth Tiers. In some cases, proposed expansions evaluated, which were identified in the Draft 2024 Water & Sewer Plan, were found to be problematic and not recommended by the Technical Committee based on their comprehensive evaluation. In some of these cases alternative expansion areas were identified. These proposed alternative areas were based on this comprehensive evaluation, with content from other topical plan chapters informing the proposed alternates. This information provided the basis for alternative proposed expansions in relation to primary growth areas. In other cases, opportunities to extend services to the proposed growth areas would result in filling existing "doughnut holes." Finally, additional proposed extension of services included consideration for existing and proposed community facilities, commercial development, industrial parks, redevelopment, and areas targeted for medium to high density residential development.

The conclusion of the evaluation conducted is that the **Hybrid Scenario** is the best future growth option based on the Technical Committee’s recommendations. With this in mind, all of the proposed extension areas, including those outside of the **PFA**, were selected with the intention of avoiding environmentally sensitive areas, hazard prone areas, areas with known flooding and stormwater management issues, as well as geographic locations with identified septic failures. **Primary Growth Area** designations focus on balancing growth needs, infrastructure capacity, and environmental considerations. Strategic extension of water and sewer services is essential for sustainable development in Somerset County. This process is consistent with encouraging future development outside of known hazard and sensitive areas. In some cases, changes to the current PFA include expansion to the PFA, providing additional non-hazard areas for development, as some of the existing PFAs include both current and projected flood prone areas as well as other sensitive areas, such as wetlands.

Primary Growth Areas are intended for developments with public water and sewer and are suitable for a broad spectrum of land uses. The Comprehensive Plan is predicated upon 80% of the residential growth in the County occurring in the Primary Growth Areas (refer to Chapter 9: Water Resources for more information on growth tier mapping).

### Three Growth Scenarios Considered

The **Priority Funding Area (PFA)** Focus scenario has consistently lower nutrient loads than other scenarios. However, the PFA Focus scenario—in which essentially no new development occurs outside of PFAs— could not realistically be implemented in Somerset County, even with robust growth controls outside of PFAs. While also ambitious, the **Hybrid Scenario** represents a more feasible approach. It acknowledges the likelihood of some development in rural areas, while focusing the majority of growth (i.e., significantly more than past trends) into PFAs, where investments in sewer and stormwater management infrastructure are more cost-effective and can help to minimize impacts on the County’s waters.

Source: Chapter 9: Water Resources

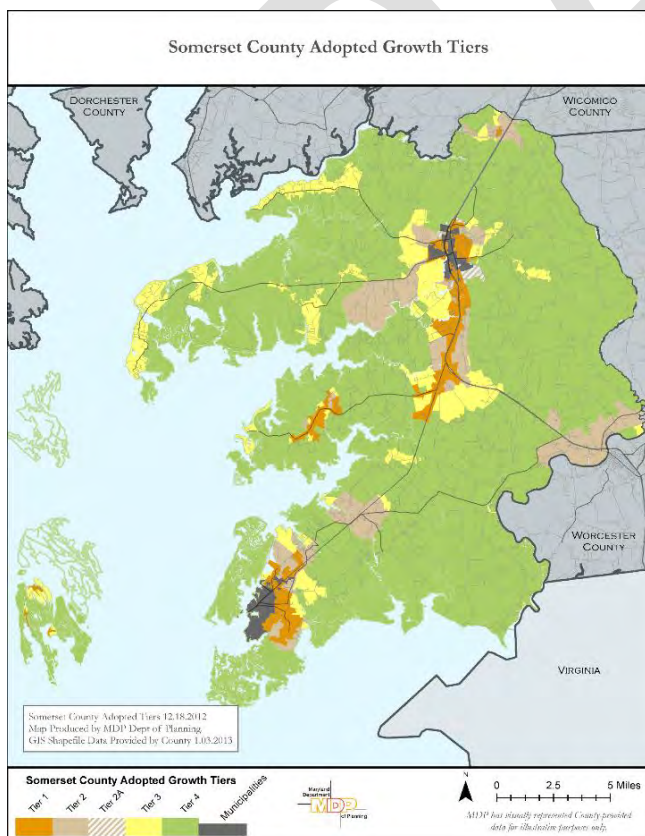


Figure 10-3: Somerset County Adopted Growth Tiers. Source: Somerset County GIS & Maryland Department of Planning.

It should be noted that Somerset County's two principal towns are subject to their own Comprehensive Plans. These Comprehensive Plans were last updated for Crisfield and Princess Anne in 2010 and 2009, respectively. Both communities do have a considerable influence over land surrounding their boundaries and the City of Crisfield has expressed that they may consider annexation for economic development purposes. The City of Crisfield's annexation plans include areas to the north-east and east of the existing town boundaries, covering areas which are also scheduled for water and sewer expansion. Many of these areas fall within the 1-percent annual chance floodplain as identified on the 2015 FEMA flood maps, and this may affect the type of structures and land-uses in the North Crisfield area. Feasibility studies of future annexations should be a cooperative effort between the County and the municipalities; additional information relating to annexation is available in Chapter 3: County & Municipal Plan Integration.

### 10.2.2 Primary Growth Area Designation & Implementation

A comprehensive review of each primary growth area was conducted resulting in the Primary Growth Analysis and Implementation document developed for use by Somerset County Department of Technical and Community Services. Table 10-3 includes primary growth area, description, and summary information regarding any modifications for implementation, based on these growth area designations, as applicable.

Seven primary growth areas were identified and are located along the two major corridors in Somerset County, US Route 13, and MD Route 413. Each growth area would require modifications to the Priority Funding Areas to assist with extending water and sewer service areas. These primary growth areas direct growth away from sensitive areas identified in the plan and priority preservation areas. Figure 10-4 depicts the location of Primary Growth Areas; see Map 10-8.

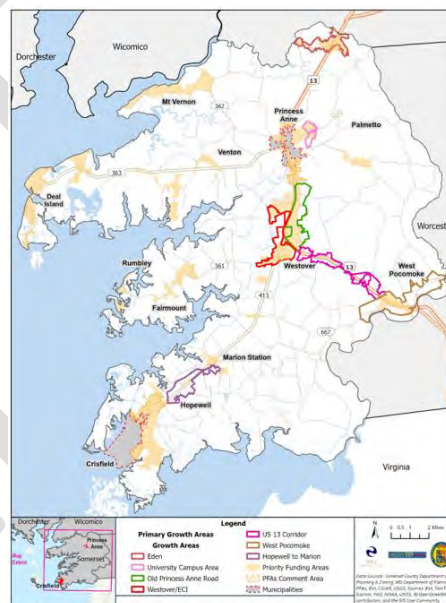


Figure 10-4: Somerset County Primary Growth Areas, see Map 10-8.

Table 10-3.

Primary Growth Area Designation & Implementation				
Primary Growth Area	Description of Future Land Use	Modifications to Priority Funding Areas	Modifications to Existing Land Use	Modifications to Existing Zoning
Eden	Residential development drawing from Wicomico County.	Yes The PFA area around the Village of Eden will need to expand west of US Route 13 and north and south of Eden Allen Road.	Yes Modifications were made to change undeveloped resource land to future land use category.	Yes Parcels or portions of parcels currently zoned as Agriculture Residential.
University Campus Area	University expansion, with supporting residential uses (students and faculty).	Yes Extend PFA south and adjacent to the eastern portion of the University. * The northwest border portion of PFA includes Special State Concern Wetlands. The northeast portion of the PFA includes DNR palustrine wetlands.	Yes Modifications were made to change undeveloped resource land to future land use category.	Yes Parcels or portions of parcels zoned as Agriculture Residential change to institutional. Portions of the northern existing institutional area includes wetlands.

Table 10-3.

Primary Growth Area Designation & Implementation				
Primary Growth Area	Description of Future Land Use	Modifications to Priority Funding Areas	Modifications to Existing Land Use	Modifications to Existing Zoning
<b>Westover/ECI</b>	New community, shopping center, industrial, warehousing and transportation uses.	Yes The PFA would need to be extended in 3 small areas: 2 areas south of Revells Neck Road and 1 area north of Sam Barnes Road. The area around Fooks Lane is within the PFA comment area.	Yes Modifications were made to change undeveloped resource land to future land use category.	Yes Areas along US Route 13 change to allow for commercial and light industrial activity.
<b>West Pocomoke</b>	Industrial and commercial expansion west of the river. Some residential growth.	Yes The PFA would need to be expanded to accommodate industrial and commercial expansion as well as some residential growth. The PFA would need to be extended US Route 13 west to Route 667 and US Route 13 east to Courthouse Hill Road and Route 364.	Yes Modifications were made to change undeveloped resource land to future land use category as sewer service becomes available.	Yes Areas along US Route 13 change to allow for commercial activity, particularly at intersections.
<b>US Route 13 Corridor between Lisa Lane and Davis Store Road</b>	Access points meeting development criteria of a Limited Access Overlay Zone.	Yes A connection between Westover PFA to West Pocomoke PFA is needed. Note: a small area of existing PFA is located at Fleamarket Lane.	Yes Land use changes are projected for undeveloped resource land to future land use category if water and sewer service become available.	Yes Areas along US Route 13 change to allow for commercial activity, particularly at intersections.
<b>Hopewell to Marion</b>	Residential growth and supporting commercial areas along Route 413 and encourage development outside of flood risk areas.	Yes Link the PFA areas between Marion and Hopewell. Note: a small area of the existing PFA is located between Hopewell and Marion along Route 413. *The PFA area in and around Hopewell includes the regulated floodplain and areas of projected Sea Level Risk.	Yes Modifications were made to change undeveloped resource land to future land use category as water and sewer service becomes available particularly along transportation corridor, Route 413.	Yes Some areas along MD Route 413 are zoned General Commercial (C-2) and General Industrial (I-2) zoning districts. Consider those parcels on the opposite side of the roadway from these C-2 and I-2 zoning districts for changes.
<b>Old Princess Anne Road Corridor from Jones Creek to US Route 13</b>	Mixed land use with large parcels of Industrial Land Use, many of which already exist.	Yes This PFA would need to expand eastward to include areas on both sides of Old Princess Anne Road.	Yes Currently the area has some industrial land use and water service, however with sewer service expanded to this area, land use changes are projected.	No This entire area is already a General Industrial (I-2) zoning district except for the southern portion, which is General Commercial (C-2).

### 10.2.3 Secondary Growth Areas (Infill Areas)

Recognizing continued demand for waterfront homes in existing bayfront communities, the Land Use Plan indicates that selected infill development is acceptable, providing all appropriate environmental, Critical Area, and septic system criteria are met. Since most of these locations do not have central sewer systems, proposed infill developments should be avoided in areas where there have already been septic system failures, unless they are planned as part of a central package treatment system or are to be linked with adjacent developments to form a cooperative community septic system. These Secondary Growth Areas are intended principally for residential development with supporting community facilities. They include:

#### Villages:

- Chance
- Dames Quarter
- Oriole
- Rumbley
- Manokin
- Kingston
- Rehobeth
- Rhodes Point and Tylerton on Smith Island

#### Community Centers:

- Mt. Vernon
- Deal Island
- Upper Fairmount
- Marion
- Ewell, Smith Island

In addition, the Greater Crisfield Area was identified for sewer expansion to replace failing septic systems. This area could be considered for infill development following this expansion project. This area is included as a long-range plan in the draft Water and Sewer Plan.

### 10.2.4 Priority Funding Area Designation

For an area to be designated it must meet the statutory criteria for PFA designation set forth in State Finance and Procurement Article §5–7B–03. If it meets the criteria, the process is simple and only requires the submission of a PFA Certification request to the Maryland Department of Planning. The PFA designation criteria differ based on the specifics and context of the area to be designated. The following are standard requirements.

1. Zoning: if residentially zoned, the area must at least have a density of 3.5 dwelling units per acre. The zoning also qualifies if the area is zoned for employment uses, such as commercial, industrial, or institutional.
2. Water and Sewer Plan: the area must be planned for sewer service in the 10-year water and sewer plan.
3. Growth Area: the area must be within a locally designated growth area.

Designating an area as PFA is a local government action known as a PFA Certification. A PFA Certification is an official letter from the jurisdiction stating local designation of an area as PFA, which includes the following information for the area designated: map and parcel number(s), applicable zoning, allowable residential density, water and sewer service area designations, comprehensive plan designated growth area status, and any other relevant information which led the local jurisdiction to determine that the area satisfies PFA designation criteria. A jurisdiction must submit its PFA Certification letter and related documentation to the Maryland Department of Planning which will review the Certification for compliance with the PFA designation criteria; if it determines that the designated PFA satisfied the criteria, Planning will send a PFA concurrence letter to the jurisdiction within 30 days.

The local designation process is determined by the jurisdiction and may be completed either administratively or legislatively; State law does not establish any specific designation process or procedures and does not require any sort of public hearing on a proposed designation. The Maryland Department of Planning recommends that a jurisdiction considering a PFA designation consult with the jurisdiction's attorney to ensure it follows proper local procedures. When the Department of Planning receives a PFA designation, it does so under the assumption that the jurisdiction followed its local procedures and proceeds with its review accordingly.

PFAs are designated locally. The Maryland Department of Planning can neither designate a PFA nor remove a local PFA designation. However, State Finance and Procurement Article § 5-7B-08 enables the Department to comment on a locally designated PFA if the Department determines that the area does not meet PFA designation criteria. If a jurisdiction submits a PFA Certification to the Department that does not meet one or more of the criteria for PFA designation, then the Department will classify the PFA as a "PFA Comment Area" on the Department's PFA map. This classification communicates that the area has been designated locally but that, as determined by the Department, it does not meet one or more PFA requirements. For the purpose of administering State funded programs that are subject to the PFA law, State agencies will take into consideration a PFA Comment Area classification when processing funding requests and have typically treated PFA Comment Areas as equivalent to non-PFA areas for purposes of funding determinations. If a jurisdiction would like to remove a Comment Area classification, it should send an official letter to the Maryland Department of Planning, in a manner like a PFA Certification letter, requesting removal of the Comment. The letter should provide supporting information as to why the area now meets State criteria for PFA designation.

#### **10.2.5 Statutory Criteria for PFA Designation and Primary Growth Areas**

Designated Primary Growth Areas and changes to the PFA are included on Table 10-3. However, changes to the PFA that meet the statutory criteria for PFA designation, set forth in State Finance and Procurement Article §5–7B–03 are discussed below.

- **Village of Eden** – The PFA area around the Village of Eden will need to be expanded west of US Route 13 and north and south of Eden Allen Road.
  1. Existing land use in this area consists of very low density residential, low density residential, medium density residential, high density residential, commercial, institutional, and undeveloped resources. In terms of zoning, the predominant existing zoning district in this area is high-density residential. Other existing zoning districts include general commercial, industrial, agricultural residential, medium density residential, and a small portion of low density residential. The general commercial and high-density residential zoning districts follow along Route 13. High density residential zoning district is on either side of Eden Allen Road.
  2. This growth area was identified in the 2024 Draft Water and Sewer Plan. The Eden primary growth area is included in the Sewer Service Category S5 – Long Range Planning and the Water Service Category W5 – Long Range Planning. The Water Service Category W5 is expanded beyond the Sewer Service Category S5, however this expanded area is within the Septic Growth Tier 4, which are areas for preservation and conservation. Therefore, the Eden primary growth area remained near the projected Sewer Service Category S5. Sewer Service Category S5 is within Septic Growth Tier 2, Future Growth Areas planned for sewer.
- **University Campus Area** – Extend PFA south and adjacent to eastern portion of the University. Portions of the northern existing PFA area includes wetlands.
  1. Existing land use in the growth area consists of institutional, industrial, and undeveloped resource land. Zoning districts include Medium Density Residential and Agricultural Residential.

- A very small portion is zoned Low Density Residential.
2. The northern portion of the University Campus Area is included in the Water Service Category W5 – Long Range Planning. The entire primary growth area is included in the Sewer Service Category S5 – Long Range Planning.
- **Westover/ECI** – New community, shopping center, Industrial, warehousing and transportation uses. The area North of Revells Neck Road next to ECI is County-owned and needs water and sewer service. This area is an intensely developed area and a proposed future industrial park.
    1. Existing land use in the growth area consists of very low density residential, low density residential, medium density residential, commercial, institutional, industrial, and undeveloped resource land. Zoning districts within the growth area include light industrial, general commercial, low density residential, medium density residential, and agricultural residential. The primary growth area has excluded the area surrounding Back Creek is designated as a Resource Conservation Area (RCA).
    2. Most of this primary growth area either has existing water service or is in the final engineering phase. A small area around Fooks Lane is designated as a Water Service Category W-3 Immediate Priority Area. A few parcels in the north are within the Water Service Category W5 – Long Range Planning. Sewer service categories within this growth area: Sewer Service Category W1 – Existing Service Area, Sewer Service Category W3 – Final Engineering Phase, and Category W5 – Long Range Planning. A large portion of the Sewer Service Category W5 is located within the Resource Conservation Area (RCA). This is state owned land, and the Technical Committee indicated this area would not be developed due to critical area designation.
  - **West Pocomoke** – The PFA would need to be expanded to accommodate industrial and commercial expansion as well as some residential growth. The PFA would need to be extended to US Route 13 west to MD Route 667 and from US Route 13 east to Courthouse Hill Road and Route 364.
    1. Existing land use categories found within this primary growth area include very low density residential, low density residential, medium density residential, commercial, institutional, industrial, and undeveloped resource land. Zoning districts located along US Route 13 include general industrial, general commercial, and agricultural residential. An overlay commercial district is located along US Route 13 as well. Agricultural residential and low-density residential zoning districts are located beyond US Route 13 in this primary growth area.
    2. The entire growth area is in the Sewer Service category S5 – Long Range Planning. However, there is no water service in the West Pocomoke Primary Growth area nor is there a proposed water service for this area in the next 10 years.
  - **Hopewell to Marion** – The PFA needs to be expanded to link the Hopewell to Marion PFAs. A small portion of PFA is located between Hopewell and Marion along MD Route 413.
    1. Existing land use within the Hopewell to Marion primary growth area includes very low density residential, low density residential, medium density residential, high density residential, commercial, institutional, industrial, open urban land, and undeveloped resource land. Zoning districts include general commercial, general industrial, medium density residential, and agricultural residential. Each zoning district is located along MD Route 413.
    2. A section of the Hopewell to Marion primary growth area is not projected for sewer service in the future. The area begins around the Liberty Rock Church and continues to the Crisfield Marion Road and Whites Road intersection. The extension of the PFA in this area would assist

with providing sewer service in this area. The portion of the growth area near Marion is within the Sewer Service Category S5 – Long Range Planning, while the section above Hopewell is within the Sewer Service Category S4 – Anticipated Area. The Water Service Category W5 – Long Range Planning only encompasses the northeast section of the North Crisfield to Marion growth area. The Proposed Extension Area #1 includes all the Greater Crisfield and only a portion of North Crisfield to Marion growth areas.

- **Old Princess Anne Road** – The Old Princess Anne Road Corridor primary growth area encompasses the area between Jones Creek and Route 13. The PFA would need to be extended west of the Old Princess Anne Road to extend the sewer service area.
  1. Existing land use in this area consists of very low density residential, low density residential, commercial, institutional, industrial, extractive, and undeveloped resource land. Zoning districts in this growth area include general industrial, general commercial, and agricultural residential.
  2. The sewer service area is not projected to be extended in this area. Extension of the PFA in this area would assist with providing sewer service for the entire growth area. The growth area is included in the Water Service Categories W-2 Final Engineering Phase and W-3 Immediate Priority Area. The norther portion of this area has water service.
- **US Route 13 Corridor between Lisa Lane and Davis Store Road** – The US Route 13 Corridor primary growth area encompasses the area between Lisa Lane and Davis Store Road. The Technical Committee identified the area along Route 13 as a proposed extension area for sewer. The PFA would need to be extended west from the Westover PFA to the West Pocomoke PFA to connect the proposed sewer service area along the corridor.
  1. Existing land use in this area consists of very low density residential, low density residential, medium density residential, commercial, institutional, industrial, open urban land, and undeveloped resource land. Zoning districts in this growth area include low density residential, general industrial, general commercial, and agricultural residential. The overlay commercial district is in three sections along US Route 13 as well.
  2. The northwestern portion of this primary growth area is within the Sewer Service Category S-3 Immediate Priority Area. The area surrounding Costen is within the Sewer Service Category S-4 Anticipated Area. The northwester portion is also within the Water Service Category W-3 Immediate Priority Area.

### 10.2.6 Growth Area Considerations

Planned Unit Developments (PUDs) should be encouraged in the Primary Growth Areas, with a range of community facilities consistent with the development's needs and the location, size and other criteria typically required by the County. Communities with a broad mix of activities, including residential, commercial, employment, and recreation should be preferred. Positive arrangements should be made to ensure that such communities maintain the traditional form and character of villages, separated by open space from adjacent development, and employing high standards of community design.

In terms of sewerage and water facilities, prior to accepting a development plan for a planned unit development for preliminary approval, the developer must furnish satisfactory evidence that the Sanitary District will allocate water and sewerage for the project. If municipal water and sewerage is not available, acceptable evidence must be provided that a new public utility district or shared facility will be created, meeting all County Health Department and fiscal surety requirements, as well as those of other agencies with jurisdiction. Additional standards include landscaping and circulation.

- Landscaping standards include requirements for tree buffers or landscaped berms on the perimeters of planned unit developments abutting both lower density zones, and along environmentally sensitive areas, specifically Chesapeake Bay Critical Area or other environmental program requirements. However, tree buffers, or greenways, are strongly recommended along streams and connecting forested areas.
- Circulation standards encourage bike and pedestrian traffic pathways linking areas within and to neighboring developments, community facilities, and recreation areas, but are not required.

All planned unit development, regardless of land-use which disturbs 10 or more acres, is required to provide narrative of environmental impacts and cultural impacts, via Environmental Impact Report (EIR) and Cultural Impact Report (ICR), respectively.

#### Planned Unit Development (PUD)

A planned unit development will be considered a “floating zone” which allows for increased flexibility in approximate locations where necessary infrastructure and services are accessible. A planned unit development will only be considered for the following districts: Low Density Residential (R-1), Medium Density Residential (R-2), High Density Residential (R-3), and Agricultural Residential (AR). Land with a commercial zoning designation that is contiguous to the property(s) may be included if commercial uses are planned within the planned unit development. It is intended that PUDs incorporate LEED building and infrastructure designs wherever possible.

Higher residential densities in the form of density bonuses should be encouraged in the Primary Growth Areas, where a high-quality central water and sewer system is planned. Construction of such systems should be the developer's responsibility. They may either be independent or connected to existing systems, when there is adequate capacity, and they satisfy the criteria of the Sanitary District. A system of density bonuses should be devised and adopted by the Board of Commissioners, possibly in the form of an 'Overlay Zone' for the Primary Growth Areas. The intention is to encourage developments which demonstrate good planning and design, take positive steps to protect the environment, provide affordable housing for residents, and fulfill the locational recommendations of the Comprehensive Plan. Such density bonuses may also be adopted for commercial activities.

#### Density Bonuses

Presently, the County allows for a density bonus for senior housing. The max density of a tract may be increased by 25% if the development is restricted by lease and by deed to persons 55 years and older, their spouses and the physically handicapped.

*Source: Somerset County Zoning Ordinance – February 13, 2024.*

Strip development is to be discouraged in all areas of the County, whether in the principal highway corridors, or in the form of farm sub-divisions along rural roads. Developments that make little or no contribution to County infrastructure, disturb the agricultural character of the County, and add inappropriate traffic volumes to local roads should also be discouraged. To this end, development along roads designated as major collectors (refer to Chapter 7, Map 7-1) or higher should be allowed access only from a service road or by means of loop roads connecting with the main highway at a limited number of points. Where feasible, right-in/right-out movements should only be permitted, with U-turns at principal intersections. Elsewhere, on minor collectors and local streets any subdivision of more than two lots per parcel should provide an internal road which provides access to all lots, unless:

- The Planning Commission determines that the topography, soil types or other physical conditions prevent such internal access to all lots, or
- Each new subdivision lot has at least 600 feet of frontage onto the minor collector or local street.

In generally agricultural areas only minor subdivisions should be permitted unless the proposed subdivision includes plans for internal roads which provide access to all lots.

Industrial and commercial development should be encouraged to cluster in office parks and employment centers within the Primary Growth Areas as indicated on the Future Land Use Map Plan. They should be well landscaped, buffered from nearby residential areas, and should take positive measures to protect sensitive environmental resources. They should also have good access to a major highway; however, development in the US Route 13 and MD Route 413 corridors should be strenuously discouraged unless access is provided via service roads.

Developments in the US Route 13 and MD Route 413 corridors should maintain the rural character of these highways and avoid extensive clearance of vegetation within 100 feet of the right of way. Free-standing signage should be strictly limited to industrial and commercial park entrances and should set high standards of design. Specific development proposals along the US Route 13 corridor may be consistent with economic development in the County but should be limited to those existing intersections which allow for service roads along the limited access highway.

The County has designated priority use for watermen at several locations, which include docking, access ramps, loading fin- and shellfish, and fish processing. The following locations are given watermen's priority, although

recreational uses are not presently excluded:

- Jenkin's Creek, Crisfield
- Rumbley Point, West of Shelltown
- Wenona, Wenona
- Webster's Cove, Mount Vernon
- Dames Quarter Creek, Dames Quarter
- Ewell and Tylerton, Smith Island
- Deal Island

### **10.2.7 Overlay and Floating Districts**

Currently, Somerset County has overlay and floating districts, one of which is the Overlay Commercial District (OC). The OC district is intended to encourage well-planned and well-coordinated development at selected key existing intersections along a major highway. A development under this section is required to provide well-coordinated traffic access, substantial landscaping, and coordinated site planning. In return, a developer may be permitted to develop business uses that otherwise would not be permitted in the underlying zoning district. This district is primarily intended to apply along US Route 13.

Other existing overlay districts include:

- Airport Overlay District (AP) created and established certain zones within the Airport District Overlay ordinance and includes use restrictions specific to the AP district.
- Critical Area Overlay District (CA-1) with provisions set forth in the Somerset County Critical Area Ordinance.
- Utility Scale Solar Energy Facility Floating Zone (SEF).

New overlay districts for consideration have been identified during this planning process and include:

- Overlay District for the Primary Growth Areas – density bonuses for both housing and commercial activities that encourages development that demonstrate good planning and design, takes positive steps to protect the environment, provides affordable housing for residents, and fulfills the locational recommendations of the Comprehensive Plan.
- Coastal Resilience Overlay District - this district would be used for greater protection from sea level rise and an increased margin of safety against errors in FEMA flood risk maps. Another option is an expanded floodplain (i.e., including the 0.2% chance “500-year” floodplain). In addition, Maryland Department of Natural Resources has identified Coastal Community Resiliency, which are areas along the shoreline where natural habitats, such as marshes and coastal forests, have the potential to reduce the impact of coastal hazards to the adjacent coastal communities by dampening waves, stabilizing sediment, and absorbing water.

## **10.3 Revitalization**

A brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Brownfield properties are often difficult to redevelop due to concerns regarding the environmental conditions and potential liability. In cases where contamination complicates the reuse of a property, local governments or development authorities

can play a pivotal role in transforming these properties into community assets. The EPA offers a [Revitalization-Ready Guide](#), which provides a general process for evaluating a brownfield property and identifying actions needed to bring it back to productive reuse.

## 10.4 Community Disaster Resilience Zone

The [Community Disaster Resilience Zones Act](#) uses FEMA's [National Risk Index](#) to identify the most at-risk and in-need communities to identify resilience zones. Designated zones will be prioritized for targeted federal support, such as increased cost-share for resilience and mitigation projects, lessening the financial burden on communities to perform resilience-related activities.

September 6, 2023, FEMA announced the initial 483 designations in all 50 states and the District of Columbia.

Census Tract 24039930101 in Somerset County Maryland was identified as a Community Disaster Resilience Zone on September 6, 2023, because the tract satisfies both of the following criteria:

- The composite National Risk Index score ranks in the top 50 nationally or in the top 1% within their state.
- It is identified as a disadvantaged community by the Climate & Economic Justice Screening Tool.

Communities with identified resilience zones can receive additional support for resilience projects that will help communities reduce the impact of climate change and other natural hazards. The Act enables a range of all levels of government and private sector partners to provide this targeted assistance to the communities with designated zones.

### National Risk Index

An online mapping tool that identifies communities most at risk to 18 natural hazards and provides communities with standardized natural hazard risk data. Common designation criteria used in the National Risk Index include risk scores, which are identified at the Census tract level, as well as percentile rankings within each state. The Community Disaster Resilience Zones designation methodology uses a tailored version of CDC's Social Vulnerability Index (SVI) in the National Risk Index that includes the Socioeconomic Status, Household Characteristics, and House Type & Transportation Themes.

*Source: FEMA Community Disaster Resilience Zone - [Zone Designation Methodology](#)*

## 10.5 Future Land Use Considerations

Various considerations were considered throughout the development of this Comprehensive Plan. Summaries of these considerations have been included.

### 10.5.1 Planned Unit Developments (PUDs)

Planned Unit Developments (PUDs) offer a great deal of flexibility to preserve sensitive environments, and offer a mix of housing types, densities and commercial land uses in a comprehensively planned community. They are not currently permitted in Somerset County, although they are particularly appropriate for larger tracts of land, which are readily available within the Primary Growth Areas. Such a zoning category would be a valuable addition to the current zoning ordinance. Typical densities for a PUD would average between 3 - 6 DU per acre, although density bonuses could push this 10 - 15% higher. Some assurance of a balanced community would be had by specifying a range of acceptable percentages for each residential type.

### **10.5.2 Municipalities and Villages**

According to the Town of Princess Anne, no annexations are planned due to various physical constraints. Infill and redevelopment are the Town's priorities.

According to the City of Crisfield's Comprehensive Plan, Section 5.5 Annexation Plan, Crisfield's development capacity analysis indicates that the City has sufficient land to support future commercial and light industrial development and maintain the current floor area to population ratios. Although the City currently has no specific annexation plans it will consider annexing additional land for economic development purposes. In terms of water resources, the City of Crisfield determined that the City should consider sewer capacity limits before increasing service to areas outside the existing corporate area if it intends to fully utilize its existing development capacity.

Development in both new and infill villages should be clustered in neighborhoods and focused on community facilities, in the manner of traditional communities. There should be a highly visible and accessible 'central place' wherever possible, with community facilities nearby. Internal accessibility and recreation activities should focus on off-street trails and linear parks where possible, and existing vegetation and topography should be preserved.

### **10.5.3 Economic Vitality**

An analysis utilizing Maryland Department of Planning's property view database and Somerset County's zoning data, specifically viewing developed and vacant parcels intersecting with zoning districts, in relation to identified focus industries was conducted for Chapter 4: Economic Vitality. Focus industries identified in the 2020 Somerset County Strategic Opportunities Analysis, included:

- retirement living and healthcare;
- aquaculture, agriculture, food processing, and food distribution;
- skilled trades, including those related to construction and manufacturing;
- alternative energies; and,
- tourism.

While the analysis of parcels available for future development within current zoning districts, specific to each of the focus industries indicate existing availability, water and sewer service remains a limiting factor. As such, areas identified as primary and secondary growth areas herein account for water and sewer service availability including proposed extensions. In addition, other limiting factors, such as hazard risk and other sensitive areas, were accounted for in the designation of growth areas. Aligning the future land use map plan and subsequent recommendations regarding zoning modifications, with economic development planning efforts will advance economic development programs and policies.

### **10.5.4 Affordable Housing**

Current zoning categories and development densities in the County are consistent with traditional rural communities. The population of Somerset County has experienced an average growth rate of 0.54% since 1970, which is partly attributed to job limited opportunities, and partly because of limited housing types, and affordable housing. Low-density residential housing is by far the predominate housing land use, by acreage, in both the unincorporated and incorporated areas of Somerset County, at 50% and 48%, respectively. The second largest housing land use classification, by acreage, in both the unincorporated and incorporated areas of Somerset County, at 28% and 26%, respectively, is large lot subdivision (agriculture). There are a few areas of

high-density residential land use by acreage in Somerset County, with 1% in the unincorporated, and 2% in the incorporated areas. Some high-density housing exists in the unincorporated areas of the County and mainly along US Route 13, just south of Eden, north and south of the Town of Princess Anne, and Costen.

New development in the Primary Growth Areas aim for a mix of affordable housing types and densities. These areas are in and around existing development and are targeted for the expansion of water and/or sewer service. While Secondary Growth Areas aim for infill development and redevelopment. A review of current zoning in these areas, and recommendations for upzoning, to allow for multi-family units, would result in an increase of housing supply to serve a range of income levels, integrating traditional market value housing with affordable housing opportunities.

#### **10.5.5 Community Facilities**

Growth areas should be supported with plans for appropriate community facilities. This includes the expansion of broadband infrastructures, public safety facilities, and a county-wide network of greenways, parks, trails, and natural areas. Both Primary and Secondary Growth Areas should include future trails and paths to connect residential neighborhoods with shopping centers and employment centers. This is consistent with encouraging Planned Unit Developments (PUDs) in the Primary Growth Areas, as a range of community facilities, including recreation areas and trails should be included within the PUDs, addressing the development's needs and the location, size, and connectivity to other residential neighborhoods and commercial areas. Goals and strategies specific to Community Facilities are included in Chapter 6.

#### **10.5.6 Transportation**

Primary Growth Area designation strongly focused on the likelihood of growth along transportation corridors, US Route 13, and MD Route 413. Maryland Route 413 (Crisfield Highway) is the main access to the City of Crisfield and US Route 13 and consist of a single-lane north and south-bound for its entire length of approximately fifteen (15) miles. For safety reasons and to accommodate future growth, Somerset County has recommended dualization of roadway to the Maryland Department of Transportation. Dualization of this roadway was considered as part of the designation of growth areas for this plan development. In addition, the Maryland Department of Transportation is constructing a 12-mile shared-use path that will run parallel to MD Route 413. This project is expected to be completed in 2027. This future path is consistent with providing connectivity within Primary and Secondary Growth Areas.

#### **10.5.7 Sensitive Areas**

The protection of sensitive areas from the adverse effects of development is a vital component of this comprehensive plan, as detailed in Chapter 8: Sensitive Areas. Designation of Primary Growth Areas strongly considered sensitive areas, including existing and projected flood hazard areas. Some areas designated as primary growth areas and for new Priority Funding Area Designation during this planning process offset portions of existing Priority Funding Areas that should be avoided for future development due to the sensitive areas.

#### **10.5.8 Solar**

Somerset County strives to balance multiple community needs, including environmental, viewshed, agricultural, cultural, and land preservation goals in the consideration of utility-scale solar facilities. In February 2019, the Utility Scale Solar Energy Facility Floating Zone (SEF) was established within Section 7 of the Somerset County Zoning Ordinance. The purpose of the utility scale solar floating zone is to allow for the orderly development of

utility scale solar energy facilities typically generating more than two (2) megawatts in electricity (AC) that are appropriately sited and sized. Furthermore, it is intended that utility scale solar energy facilities are not placed on prime agricultural lands, are aesthetically attractive, are placed to protect the commercial viability of the US Route 13 and MD Route 413 corridors and are compatible with the surrounding neighborhood.

Setback regulations and visual standards including but not limited to visual shields, landscaping, fencing, glare, and signage are detailed in the zoning ordinance.

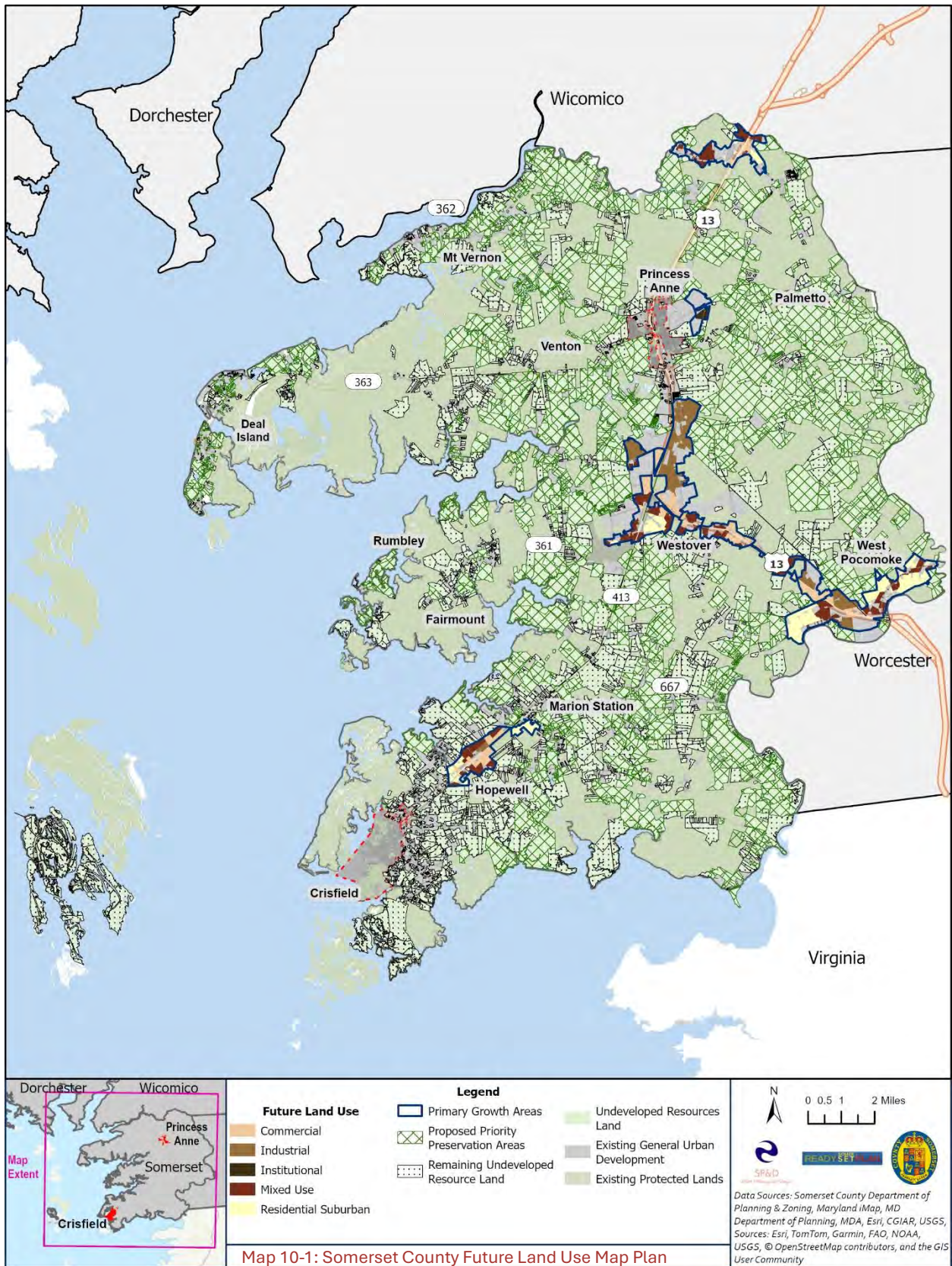
## 10.6 Future Land Use Map Plan

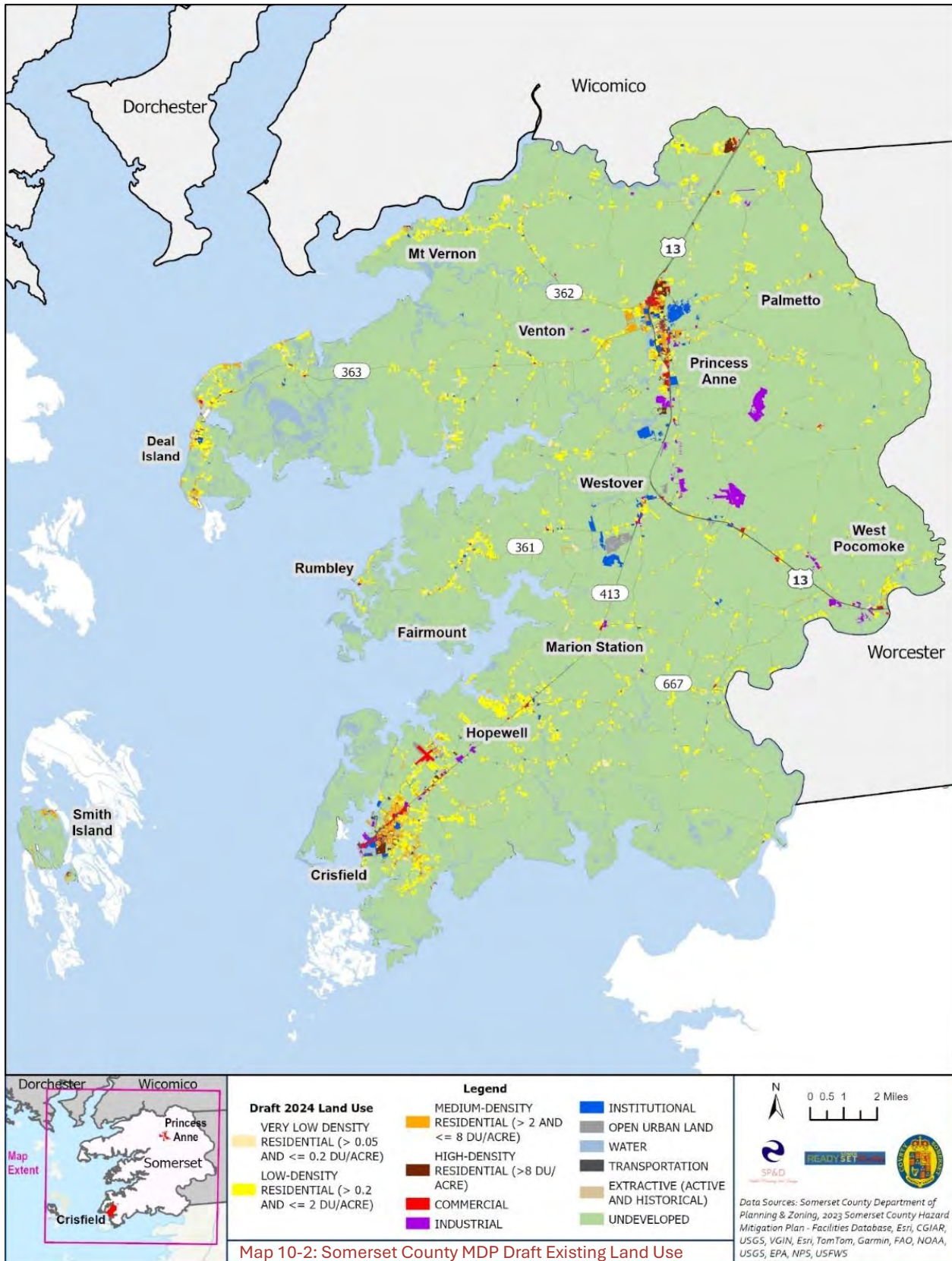
The Future Land Use Map Plan (FLUMP), Map 10-1 provides generalized depiction and guidance for conservation and growth. Goals and strategies detailed in topical plan chapters informed this FLUMP. It is not a zoning map. A zoning map is specific and combined with detailed zoning regulations. Even though specific parcel boundaries have been used in the FLUMP to designate future land uses, this map is not intended to be prescriptive. The FLUMP informs the next steps and implementation measures. Implementation measures of a comprehensive plan are changing the land use and zoning within a jurisdiction to meet the growth and development goals established in the plan. Land Use Article § 4-202 requires that zoning be "in accordance with the plan", meaning that zoning should be consistent with the comprehensive plan. As this FLUMP is intended to be a multi-year plan, it may be amended to accommodate evolving needs or opportunities. Requests to change the map are considered and may result in general map amendments, as applicable.

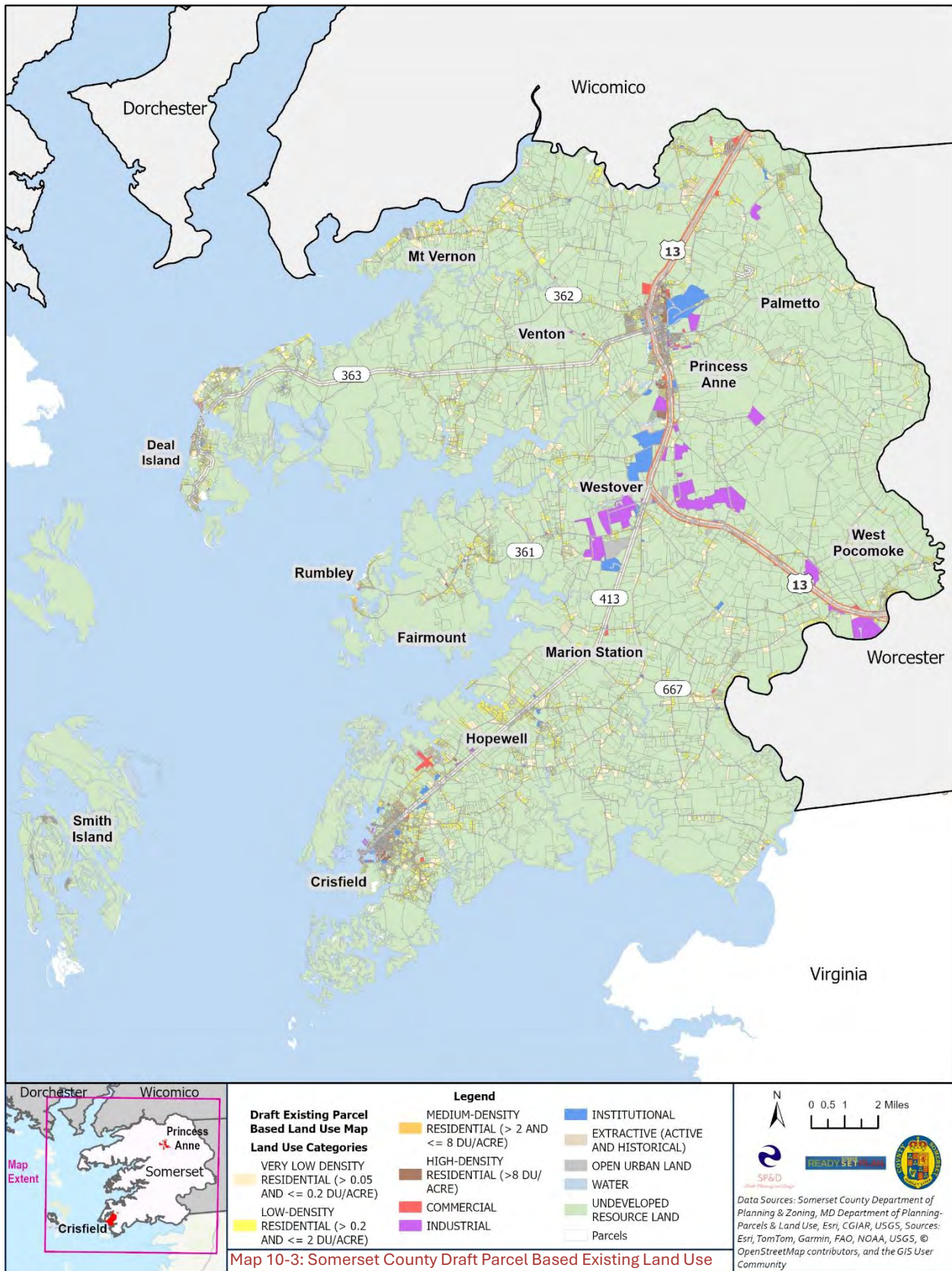
**Table 10-4**

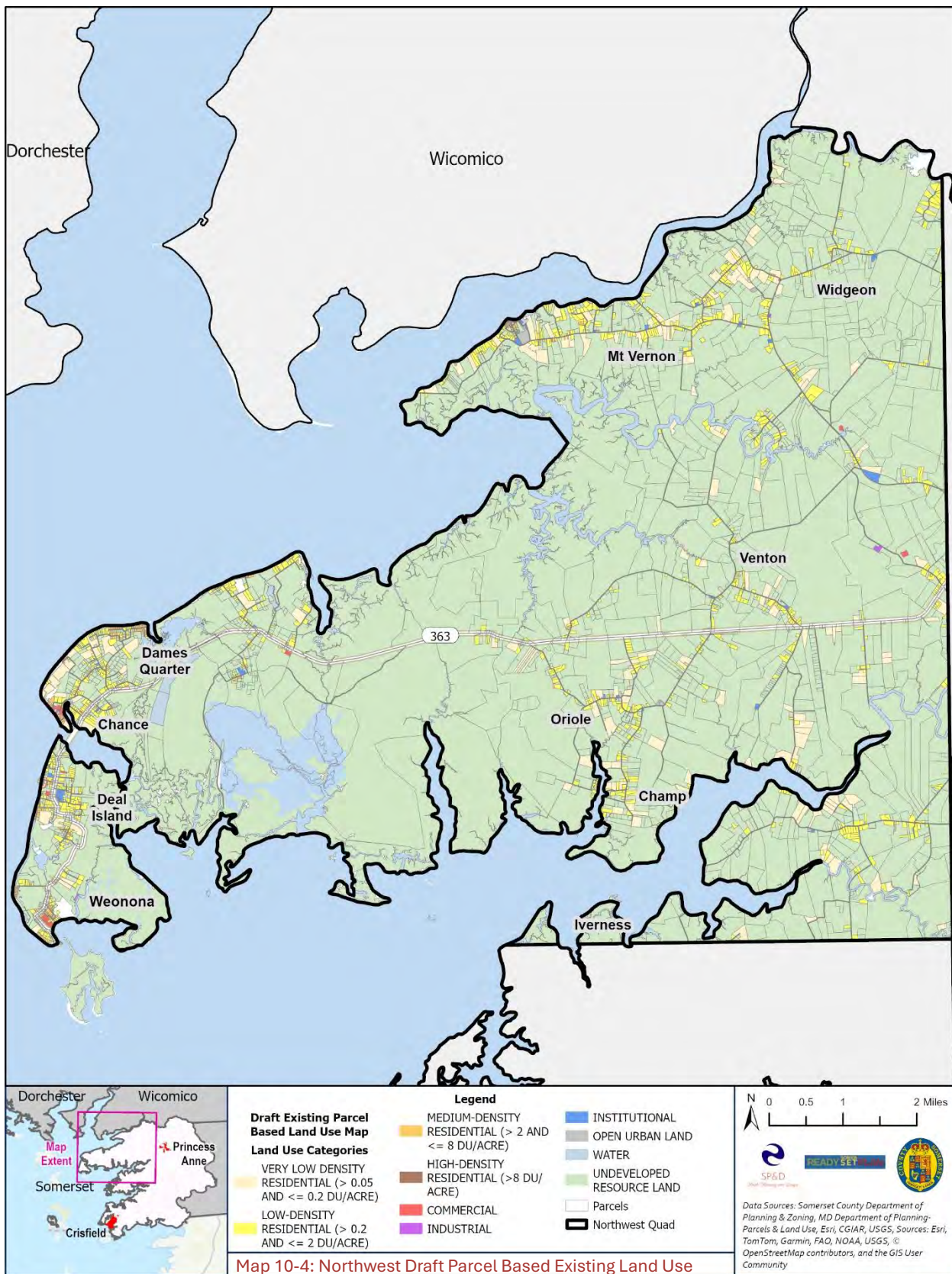
Primary Growth Areas	Future Land Use Map Plan – Parcel Based											
	Commercial		Industrial		Institutional		Mixed Use		Residential Suburban		Total	
	Parcels	Acreage	Parcels	Acreage	Parcels	Acreage	Parcels	Acreage	Parcels	Acreage	Parcels	Acreage
Eden	13	77.60	0	0	0	0	26	294.60	22	95.88	61	468.08
University Campus Area	0	0	0	0	1	65.05	0	0	0	0	1	65.05
Old Princess Anne Road Corridor	14	173.02	25	816.21	0	0	0	0	0	0	39	989.23
Westover/ECI	15	324.46	2	168.79	0	0	27	397.15	15	167.93	59	1,058.34
US 13 Corridor	35	359.75	1	79.17	0	0	39	373.45	3	10.64	78	823.02
West Pocomoke	10	84.92	5	258.71	0	0	49	432.05	45	887.58	109	1,663.27
Hopewell to Marion	14	251.47	1	39.11	0	0	27	318.93	34	243.04	76	852.55
<b>Total</b>											<b>423</b>	<b>5,919.54</b>

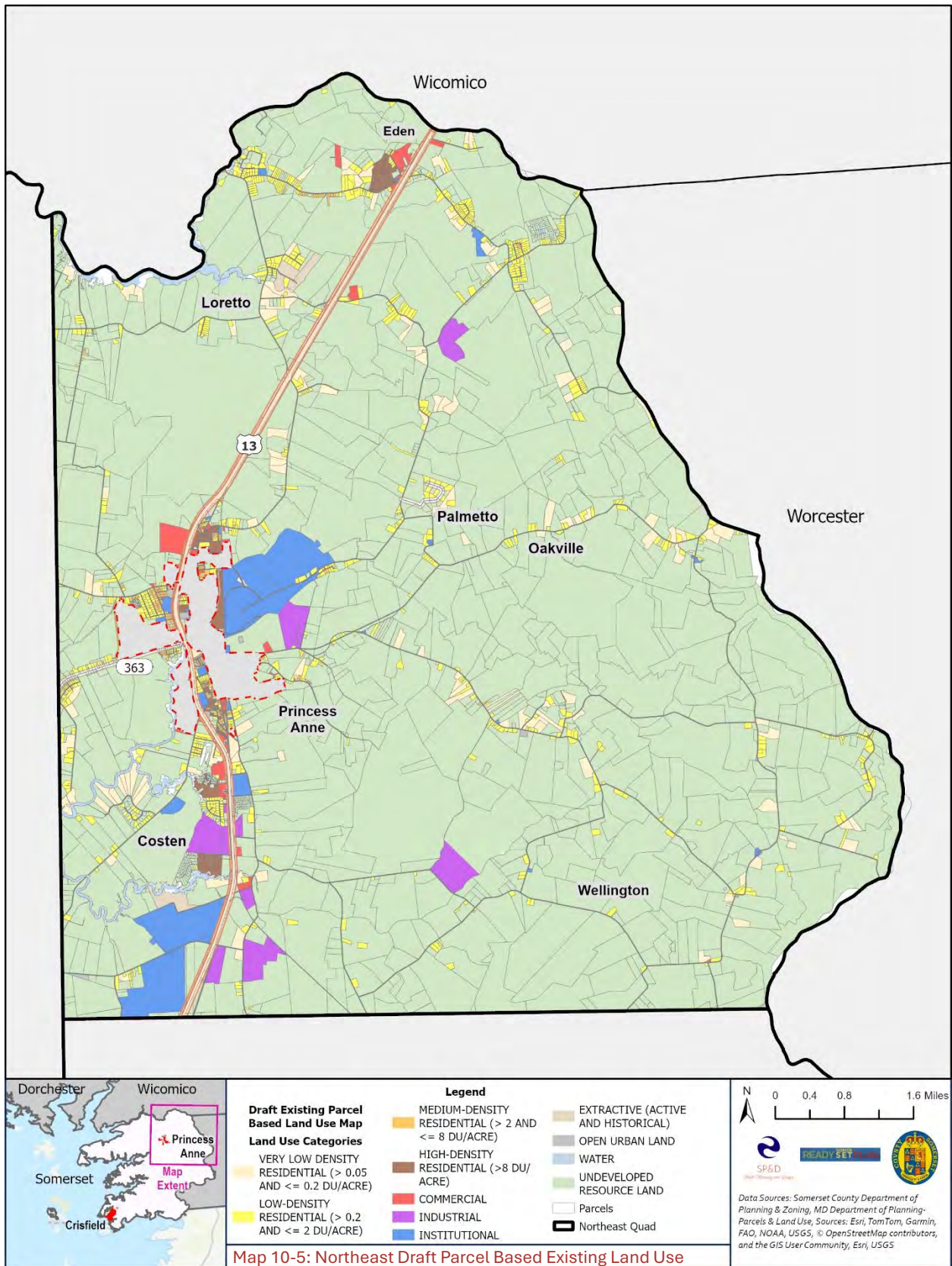
*Note: Portions of large parcels included in primary growth areas were split and those portions of parcels within the primary growth area were assigned a new future land use, while the remaining portion outside the primary growth area maintained the existing land use designation. In addition, the Future Land Use Map does not dictate zoning district boundaries but will be a guiding factor in the future rezoning and/or Map Amendment processes.*

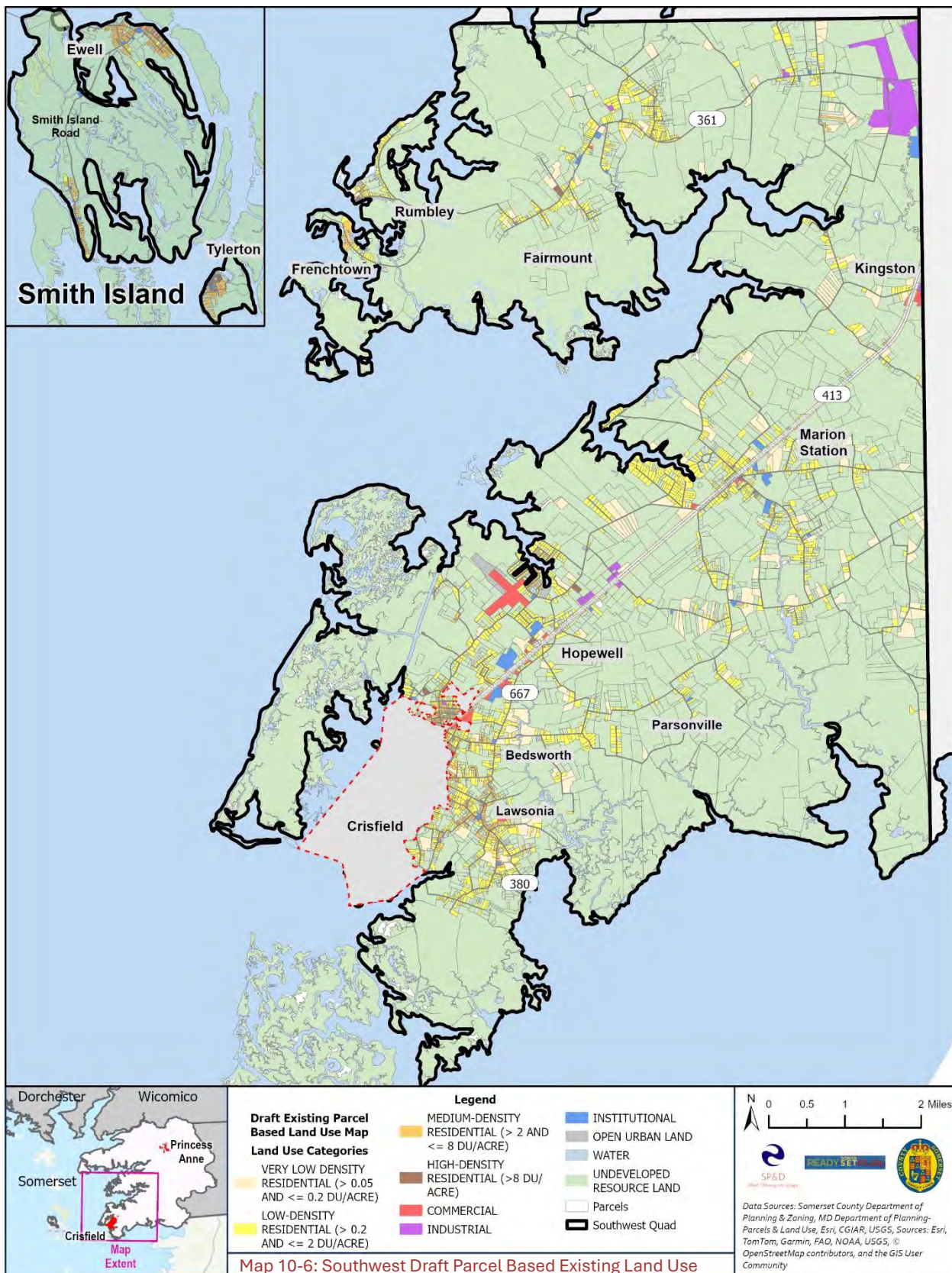


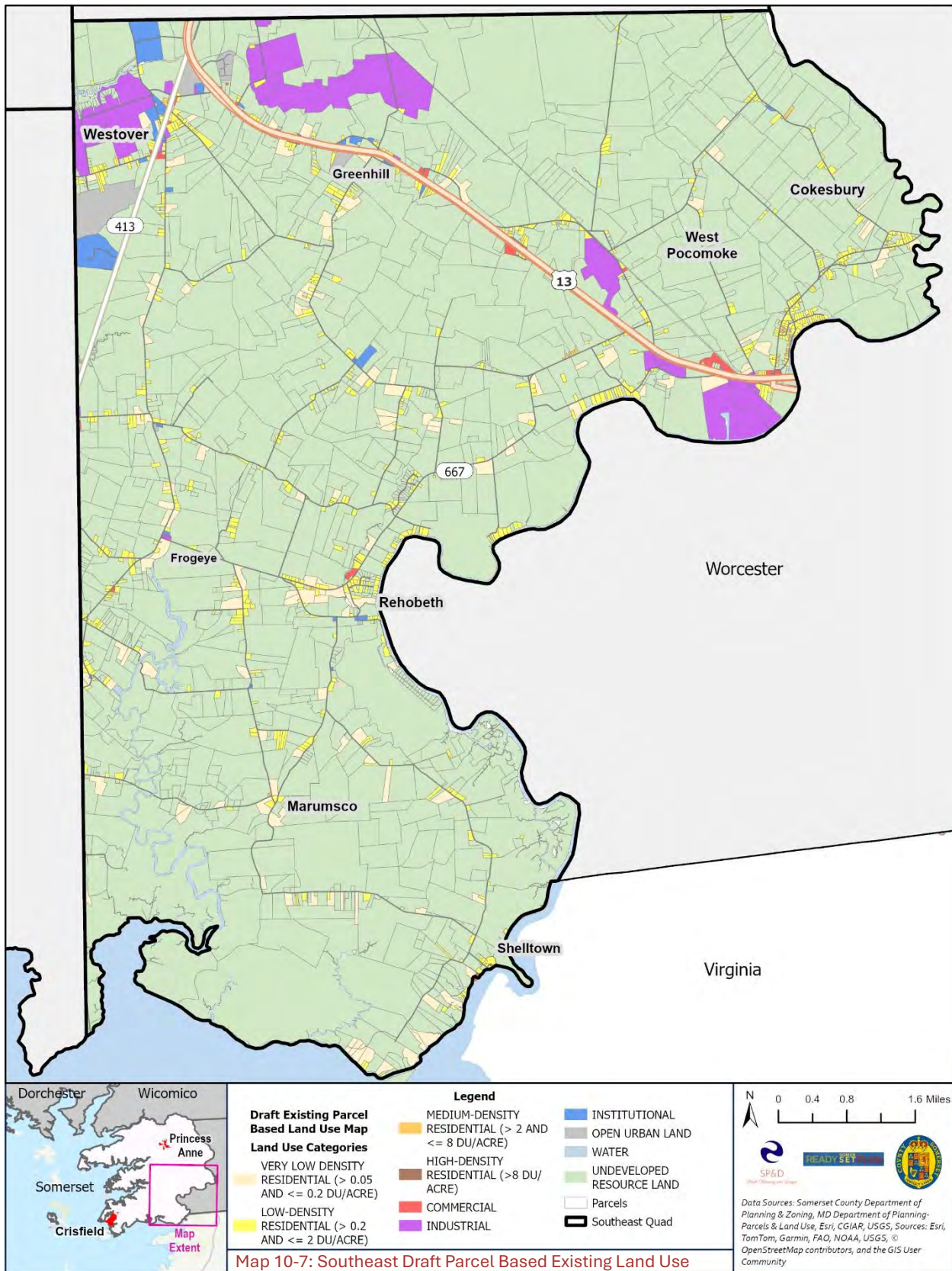


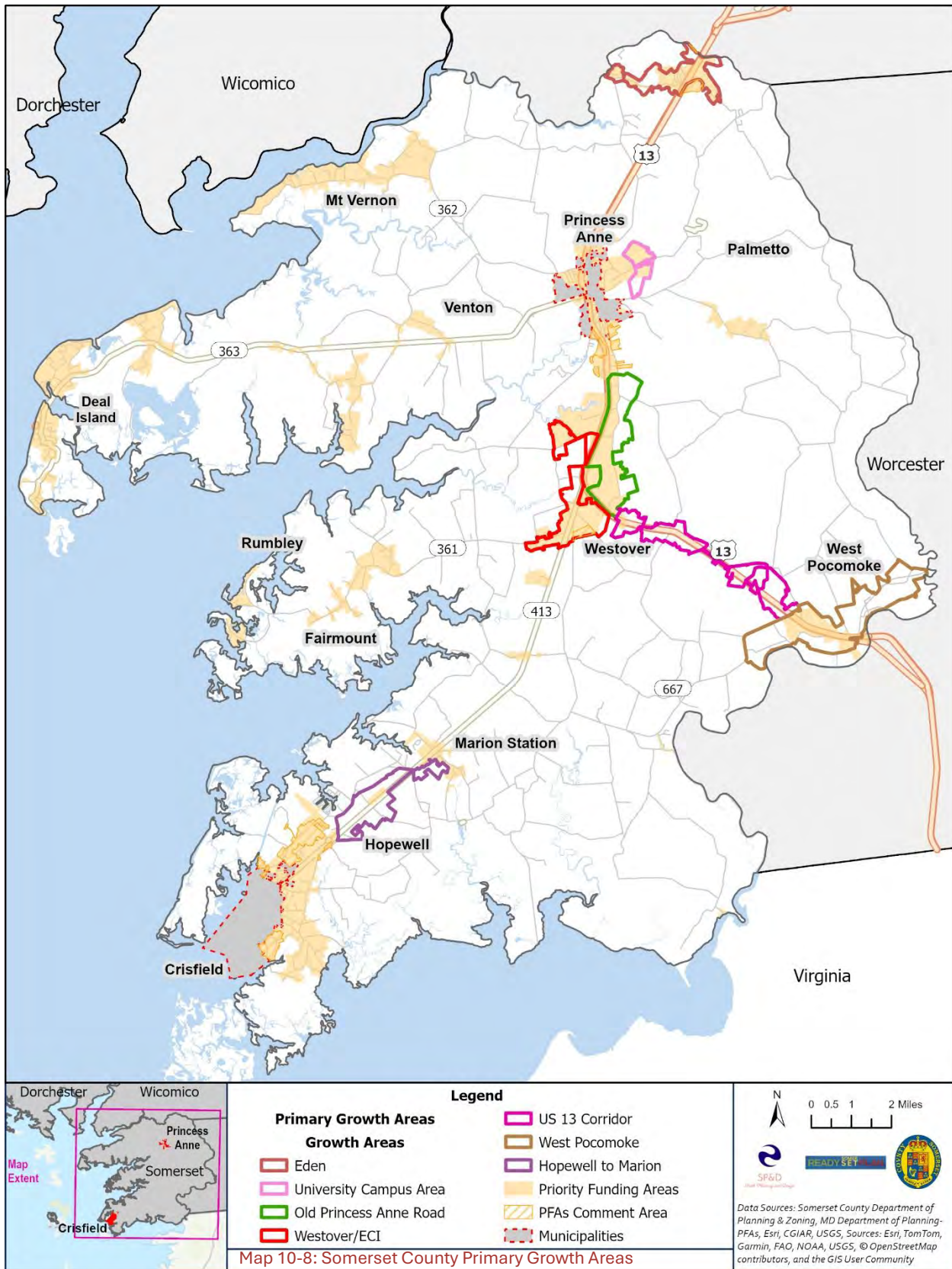












## Chapter 10: Land Use Goals & Implementation Strategies

### Goal 10.1

Complete a comprehensive rezoning and/or Map Amendments of the areas affected by the Primary Growth Area designation.

#### Strategies

- A. Consider 'Overlay District' for the Primary Growth Areas – offer density bonuses for both housing and commercial activities that encourage developments which demonstrate good planning and design, take positive steps to protect the environment, provide affordable housing for residents, and fulfill the locational recommendations of the Comprehensive Plan.
- B. Consider Coastal Resilience Overlay Zone - this zone would be used for greater protection from sea level rise and an increased margin of safety against errors in FEMA flood risk maps. Another option is an expanded floodplain (i.e., including the 0.2% chance “500-year” floodplain). In addition, Maryland Department of Natural Resources has identified Coastal Community Resiliency, which are areas along the shoreline where natural habitats, such as marshes and coastal forests, have the potential to reduce the impact of coastal hazards to the adjacent coastal communities by dampening waves, stabilizing sediment, and absorbing water.
- C. Consider zoning change along MD Route 413, once the highway is “dualized” to include four lanes of through traffic.
- D. Periodically consider Table 10-3, which includes modification to land use and zoning resulting from future growth and the extension of public water and/or sewer services. The Primary Growth Area and Analysis and Implementation reference document for use by the Department of Technical and Community Services staff may assist in decision-making and next steps.
- E. Review Primary Growth Area consideration outlined in this chapter for integration.
- F. Amend Priority Funding Areas in consideration of upgrades to failing water and sewer and high hazard risk areas.
- G. Amend Priority Funding Areas to account for the exclusion of high hazard and sensitive areas while extending to offset the loss of these areas and encouraging sustainable development.
- H. Review Priority Funding Area certification and statutory criteria in relation to primary growth areas for amendments and expansion.

### Goal 10.2

Complete a review of potential changes to regulations and development standards.

#### Strategies

- A. Evaluate parking regulations to determine if reductions can be made to large impervious surfaces within Mixed Use Village, General Commercial, and the Overlay Commercial zoning districts. For example, review off street parking requirements for large nonresidential uses such as shopping centers. Consider requirements for Stormwater Best Management Practices (BMPs), green infrastructure rather than gray infrastructure, when feasible.
- B. Accommodate a mix of residential housing types. Evaluate development standards, review criteria, and/or incentives to achieve the desired mixed uses and mixed housing types.
- C. Encourage densities of at least 3.5 dwelling units per acre to qualify as Priority Funding Areas.
- D. Explore implementation of a transfer of development rights (TDR) program with bonus density incentives as long-term strategy for agriculture preservation.

### **Goal 10.3**

Coordinate with the municipalities to plan for future annexation areas, and for compatible land uses along common boundaries.

#### **Strategies**

- A. Work with the municipalities to incorporate a comprehensive evaluation method to achieve the County's goal to pursue policies that facilitate development in appropriate areas, including the designated growth areas, when updating the community comprehensive plans.
- B. Encourage coordination between the County and municipal staffs to ensure coordinated interjurisdictional land use planning and capital needs programming.

### **Goal 10.4**

Provide opportunities for the use of residential, commercial, and utility scale renewable energy, through solar energy facilities and battery storage facilities, while minimizing the impact of such facilities on the County's view shed and natural, agricultural, cultural, and historic resources.

#### **Strategies**

- A. To ensure continued use of agricultural lands for farming within the County, solar energy and battery storage facilities within the County should include shared agricultural uses, such as grazing, agri-photovoltaics (APV), compatible crops, and/or ground cover that facilitates habitats for non-invasive native species and native pollinators.
- B. Encourage Future Agricultural Use. To ensure that agricultural lands used for solar energy and battery storage systems may be returned to an active state of agricultural use in the future, topsoil should be retained on all project sites housing these systems within the County.
- C. Utilization of Land with Limited Development Potential. Siting of projects on lands that have increased limitations for development (brownfields, reclaimed coal mining sites, abandoned industrial sites, or agricultural lands with soil classifications not conducive to active farming) should be encouraged.
- D. Historic and Cultural Heritage Areas. Siting of projects in state or federally designated Historic Districts are not permitted. Projects located outside, but adjacent to, these areas should be evaluated for any potential visual or other impacts associated with development.
- E. Consider development regulations that explicitly address all forms of solar development (large-scale, accessory to a principal use of a property, rooftop versus ground-mounted or not attached to an existing structure). Defining and distinguishing between roof-mounted and ground-mounted installations of various sizes allows subsequent code sections to identify which installations can be permitted by-right and apply directly for a building permit.

A wide-angle photograph of a lush green field, likely a soybean field, stretching to the horizon. The sky is a deep blue with scattered white cumulus clouds. In the upper left, a blue rounded rectangle contains the chapter title in white text.

## CHAPTER 11 PRIORITY PRESERVATION AREA

## Chapter 11: Priority Preservation Area

This Priority Preservation Area Element, a new plan chapter added to the comprehensive plan, is consistent with Somerset County's future vision statement.

*"Somerset County's rich history and traditions, along with its tidal bays, farm fields, lush woodland, and seafood bounty will be preserved. Affordable housing, meaningful employment opportunities, and emphasis on technical and higher education will help ensure an excellent quality of life for residents in the years to come."*

In addition, an overarching goal of Somerset County's Priority Preservation Area is to:

*"Support and sustain a strong, diversified agricultural community through implementation of preservation and development mechanisms that are balanced and maintains the rural character of Somerset County."*

### 11.1 Maryland's Certification of Local Agricultural Preservation Programs

Maryland's Certification of Local Agricultural Preservation Programs, known as the Certification Program, encourages development of county agricultural preservation programs, which complement the [Maryland Agricultural Land Preservation Foundation's \(MALPF\)](#) preservation efforts. The Certification Program also employs agricultural land preservation as a tool to manage growth. The Maryland Department of Planning (Planning) and MALPF jointly administer the Program for the Certification of County Agricultural Land Preservation Programs.

The Maryland Agricultural Land Preservation Foundation (MALPF) was one of the first created in the United States and has become one of the nation's leaders in agricultural land preservation by preserving more agricultural land than any other state in the country. For purposes of the Program, agricultural land includes both farm and forest. Most of Maryland's farms include some forested areas.

Participation in the Certification Program by interested counties is **voluntary**. One of the benefits for Somerset County to establish a **Priority Preservation Area (PPA)** and to

**Excerpt from the 2024 Maryland Statutes  
Agriculture Title 2 - Department of Agriculture  
Subtitle 5 - Maryland Agricultural Land  
Preservation Foundation  
Section 2-518 - Priority Preservation Areas**

#### **MD AGRICULTURE CODE § 2-518**

*A county may include a priority preservation area element in the county's comprehensive plan. A county that applies for certification or recertification under § 5-408 of the State Finance and Procurement Article shall include a priority preservation area element in the county's comprehensive plan.*

*A priority preservation area shall:*

- Contain productive agricultural or forest soils; or
- Be capable of supporting profitable agricultural and forestry enterprises where productive soils are lacking.

*Be governed by local policies, ordinances, regulations, and procedures that:*

- Stabilize the agricultural and forest land base so that development does not convert or compromise agricultural or forest resources; and
- Support the ability of working farms in the priority preservation area to engage in normal agricultural activities; and,
- Be large enough to support normal agricultural and forestry activities in conjunction with the amount of development permitted by the county in the priority preservation area, as represented in its adopted comprehensive plan.

*A priority preservation area may:*

- Consist of a single parcel of land, multiple connected parcels of land, or multiple unconnected parcels of land; and,
- Include rural legacy areas.

*A county's acreage goal for land to be preserved through easements and zoning within an area shall be equal to at least 80% of the remaining undeveloped land in the area, as calculated at the time of application for State certification of an area.*

participate in the Certification Program is the retention of 75% of its locally generated agricultural transfer tax revenue that results from certification, as compared to the County’s present retention of 33%.

- To qualify for and retain certified status, counties are required to designate a **Priority Preservation Area (PPA)**. Counties concentrate their preservation efforts and program funding into their PPAs in order to preserve large contiguous blocks of agricultural and wooded land.
- The increase in participating counties’ share of the agricultural land transfer tax helps to support and enhance their preservation programs in ways that best meet **local goals and needs**.
- All retained revenue must be spent or encumbered for qualifying land preservation expenditures within six years of collection, otherwise those collected funds revert to **MALPF**.

Certified counties must establish **Priority Preservation Areas (PPAs)** in their **comprehensive plans** and set a farmland preservation acreage goal for the PPA. In addition to preserving land through MALPF, certified counties have typically also preserved land through private land trusts, Maryland Environmental Trust (MET), Rural Legacy Program, and Federal land protection programs.

Source: Certification Program: [MD AGRICULTURE CODE § 2-518](#)  
Office of Planning. Chapter 08. Guidelines for the Certification of County Agricultural Land Preservation Programs.

## 11.2 Preserved Land in Somerset County by Program

At present, the total protected land in Somerset County is 81,758 acres across various land preservation programs. The first MALPF easement for Somerset County was purchased in 1987, and as of 2022, MALPF has permanently protected 7,266 acres in Somerset County. Somerset County's total area is 610.35 square miles or 390,624 acres. Of that, 319.75 square miles is land or about 204,640 acres. Table 11-1 provides each program type along with acreage total of preserved land, indicating that 40% of land in Somerset County is currently within a protected lands program. Map 11-1 shows these existing protected lands by category.

### Agricultural Easements

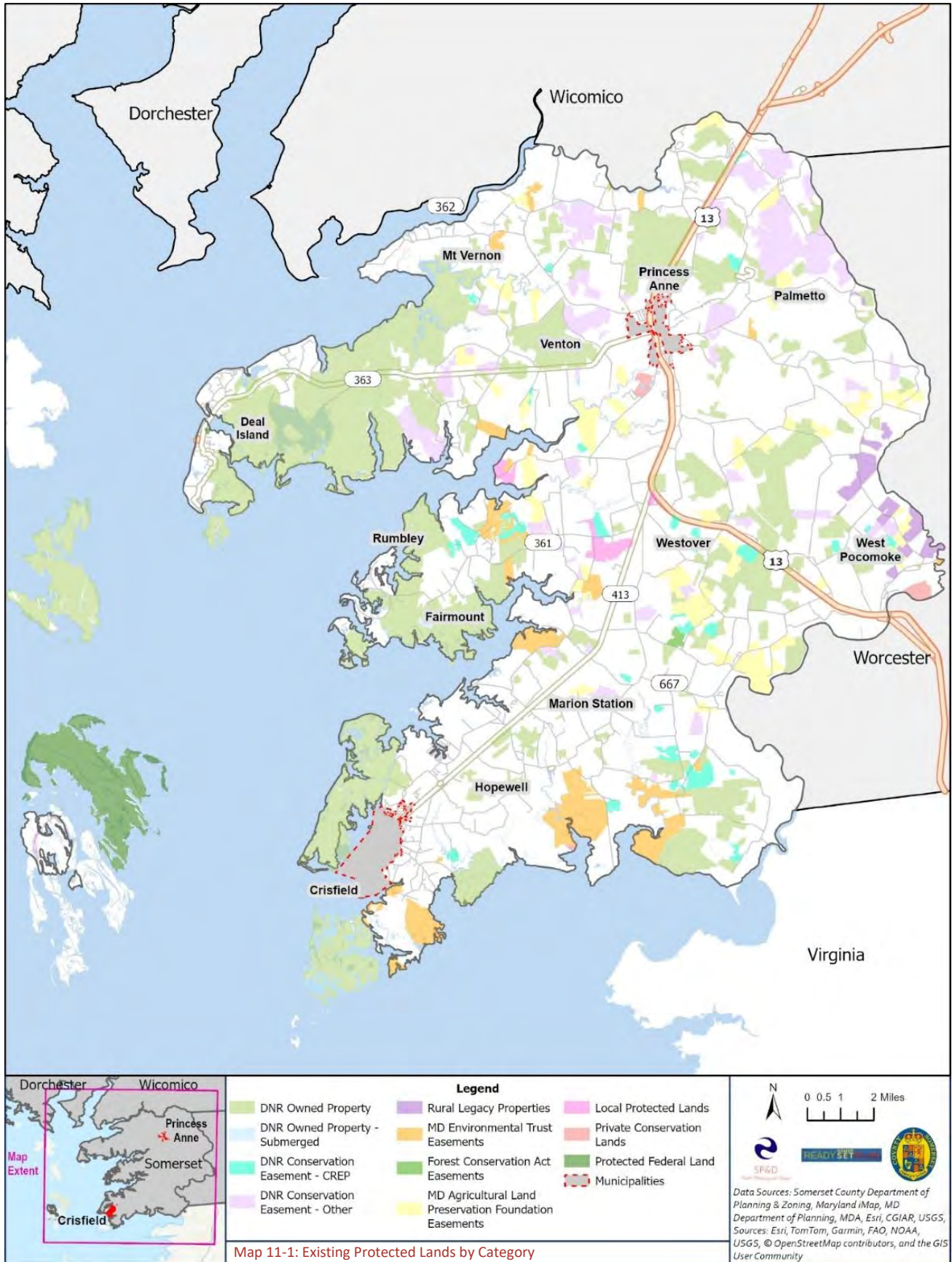
An agricultural conservation easement, as defined by the American Farmland Trust, “is a deed restriction that landowners voluntarily place on their property to restrict development and keep the land available for farming.” Land under easement remains in private ownership. The owner has voluntarily sold the right to develop his land to programs like MALPF, Rural Legacy, county purchase of development rights programs, etc., and usually uses the funds to invest in the farm or pay down debt. The landowner can still farm the land, harvest timber, build farm buildings, engage in certain compatible non-agricultural activities, and sell the land. However, except for a strictly limited number of houses that may be allowed by the preservation program, development is prohibited in perpetuity.

Source: [Maryland Protected Lands Dashboard](#)

Table 11-1.

Protected Land in Somerset County by Protected Lands Category (Best Available Data as of September 4, 2024)	
Protected Lands Category	Acres
DNR State Land Inventory	50,823
POS Statewide Conservation Easement	8,116
Maryland Agricultural Land Preservation Foundation	7,266
Maryland Environmental Trust (as of Dec 2021)	6,058
Federal Park & Conservation	4,431
ISTEA/Forest Legacy/CREP/FRPP-ACEP	2,419
Rural Legacy	1,813
County Recreation & Parks	632
Private Conservation Organizations	200
<b>Total Preserved Acres:</b>	<b>81,758</b>

Source: [Maryland Protected Lands Dashboard](#)



### 11.3 Existing Agricultural Activities

Somerset County is the southernmost county in Maryland's Eastern Shore. According to the [University of Maryland Extension](#) only 26% of the land-base is classified as agricultural, however, agriculture is the largest industry in the County. Approximately 286 farm businesses encompass 65,212 acres of farmland with the average farm size of 228 acres. Production of corn, soybeans, broilers, vegetables and livestock rank Somerset County as third in agriculture value for the State of Maryland. Somerset County ranks #1 in the state for broiler production, making it a leader in broiler poultry production.



### 11.4 Establishing Priority Preservation Area (PPA)

Establishing a PPA does not explicitly hinder or restrict development but rather encourages preservation. An initial step in the process of establishing the PPA for Somerset County included review of areas outside of existing and future growth. Areas with existing and future growth include Primary Growth Areas, Municipalities, Priority Funding Areas, and Priority Funding Comments Areas, shown in Chapter 10 Land Use, Map 10-8.

Review of Map 10-2 Existing Land Use depicts underdeveloped resource land in green, which includes rural land, single-family residential parcels greater than or equal to 20 acres in size, and undeveloped portions of urban parcels. Undeveloped resource land is the remaining land not covered under another existing land use category.

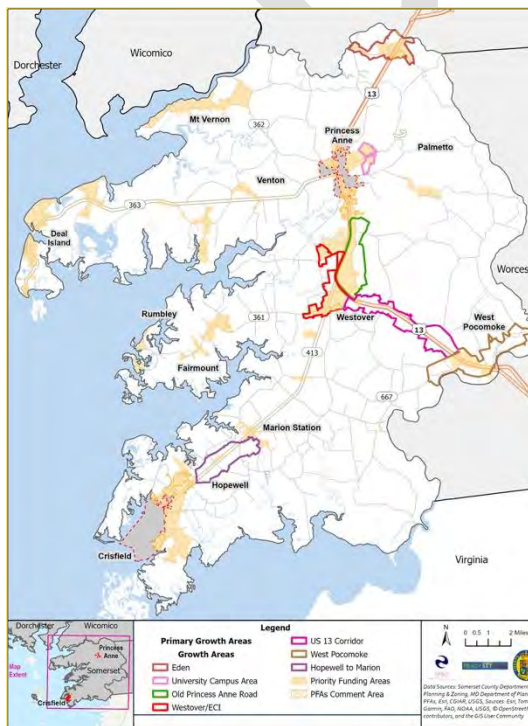


Figure 11-1 Primary Growth Areas, see Map 10-8.

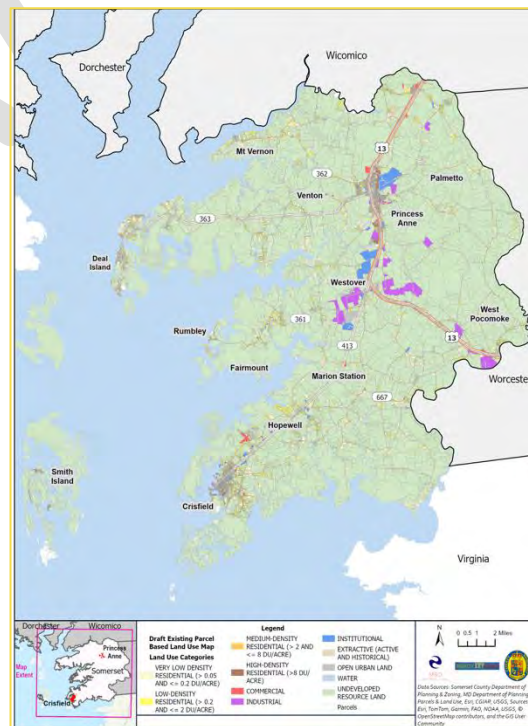


Figure 11-2 Existing Land Use, see Map 10-2.

*Note: This review process and subsequent establishment of the PPA resulted in further refinement of the primary growth areas, Map 10-8.*

#### 11.4.1 Priority Preservation Areas Identification - Prime Agriculture Soils

Following the initial step, an evaluation was completed for parcels with prime agricultural soils, or prime farmland. This evaluation did not include farmland of statewide importance.

**Prime farmland**, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. The slope ranges mainly from 0 to 6 percent.

**Table 11-2.**

Somerset County Prime Farmland Soils			
mukey	Mapunit Symbol	Mapunit Name	Farm Class
1407963	IgA	Ingleside sandy loam, 0 to 2 percent slopes	All areas are prime farmland
1599031	MdB	Manokin silt loam, 2 to 5 percent slopes	
1599556	HnA	Hammonton sandy loam, 0 to 2 percent slopes	
1600232	KpA	Keyport silt loam, 0 to 2 percent slopes	
1612317	WodA	Woodstown loam, 0 to 2 percent slopes, Northern Tidewater Area	
1599008	DoA	Downer sandy loam, 0 to 2 percent slopes, Northern Tidewater Area	
1599009	DodB	Downer sandy loam, 2 to 5 percent slopes, Northern Tidewater Area	
1407954	HbB	Hambrook sandy loam, 2 to 5 percent slopes	
1599012	HcA	Hambrook loam, 0 to 2 percent slopes	
1407956	HmAd	Hammonton loamy sand, 0 to 2 percent slopes, Northern Tidewater Area	
1407964	IgB	Ingleside sandy loam, 2 to 5 percent slopes	
1599018	MdA	Manokin silt loam, 0 to 2 percent slopes	
1599019	QbB	Queponco loam, 2 to 5 percent slopes	All areas are prime farmland
1407994	QeA	Queponco silt loam, 0 to 2 percent slopes	
1407995	QeB	Queponco silt loam, 2 to 5 percent slopes	
1408012	WddA	Woodstown sandy loam, 0 to 2 percent slopes, N. Tidewater Area	
1408013	WddB	Woodstown sandy loam, 2 to 5 percent slopes, N. Tidewater Area	

*Source: Soil Data Access (SDA) Prime and other Important Farmlands- In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.*

**mukey:** A non-connotative string of characters used to uniquely identify a record in the Mapunit table.

**Mapunit\_SYM:** The symbol used to uniquely identify the soil mapunit in the soil survey.

**Mapunit\_Name:** Correlated name of the mapunit (recommended name or field name for surveys in progress).

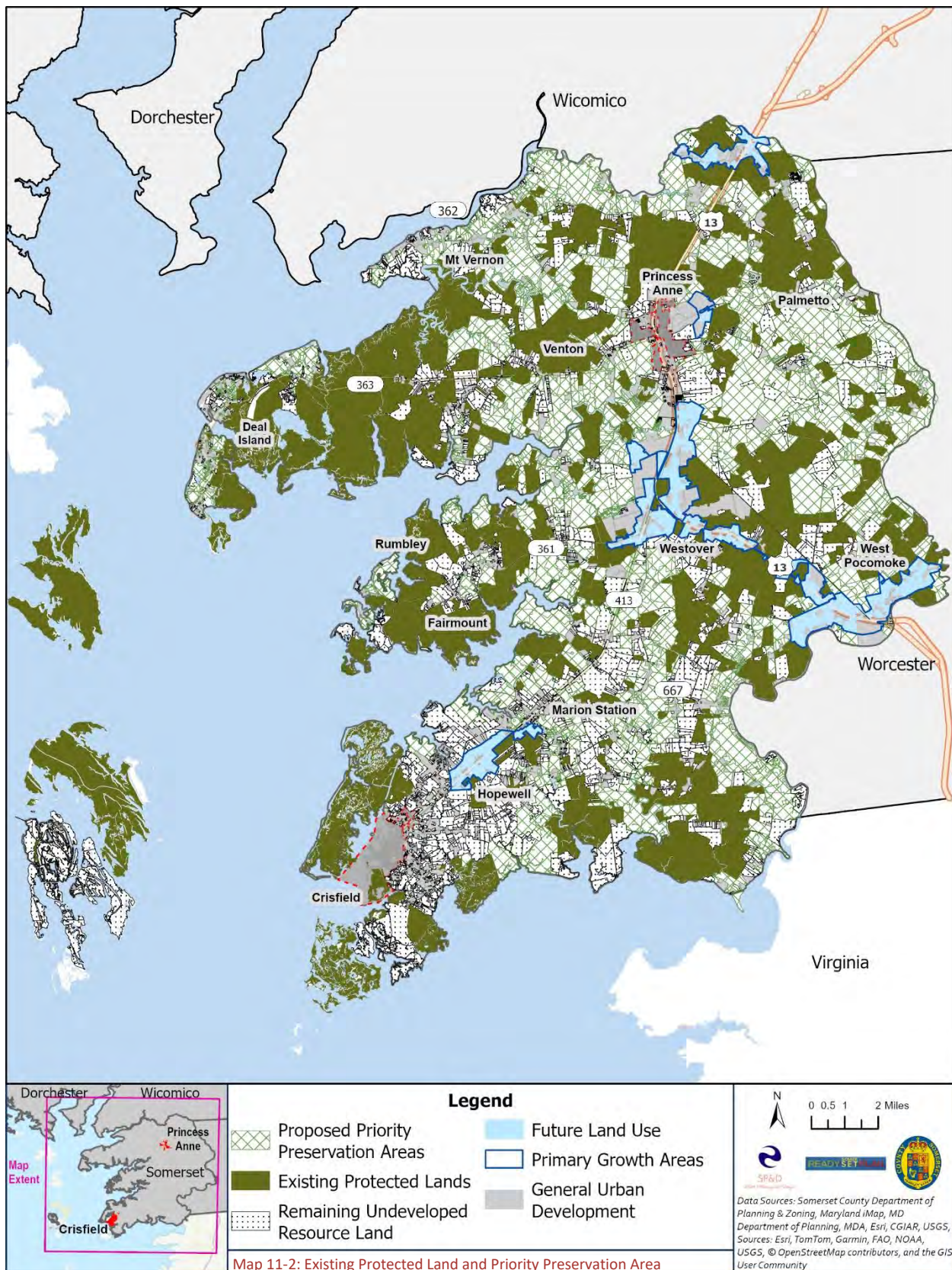
In some areas, land that does not meet the criteria for prime or unique farmland is considered to be **farmland of statewide importance** for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

The evaluation included:

- Selection of all existing land use parcels with a designated land use category of undeveloped resource land located outside of existing and future growth areas.
- Removal of undeveloped resource land parcels that are designated as protected land by one of the protected land programs.
- Selection of those undeveloped resource land parcels not currently within a protected land program that intersect with prime agriculture soils.

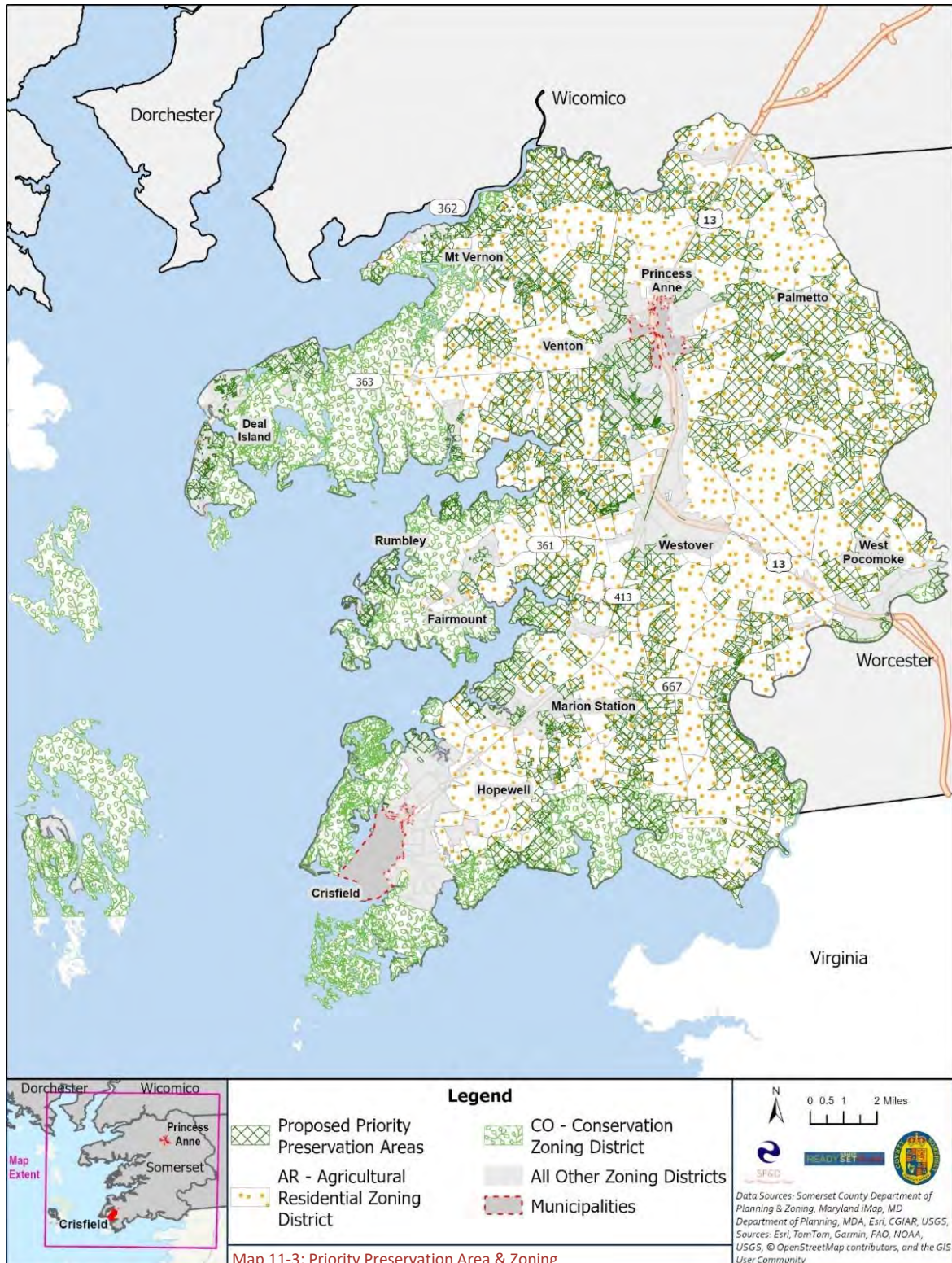
Results of the evaluation indicate that undeveloped resource land parcels containing prime agriculture soils totals 1,683 parcels comprised of 60,217 acres. These parcels are not included in preservation programs and are at-risk to being converted to non-agricultural uses like urban development. To mitigate potential land conversion, these parcels have been selected as Priority Preservation Area (PPA) by Somerset County. Map 11-2 includes existing protected lands, newly established PPA and remaining undeveloped resources land. Remaining undeveloped resource land parcels, which do not include prime agriculture soils located outside of the proposed PPA, total 3,473 parcels containing 39,024.15 acres. This total includes Agriculture Residential (AR) zoning district with 1,496 parcels containing 24,494.90 acres and Conservation (CO) zoning district with 130 parcels containing 6,982.64 acres of undeveloped resource land. Remaining zoning districts with undeveloped resource land include 1,847 parcels totaling 7,546.61 acres.

*Note: While agriculture is the focus, the PPA includes forested land, as well as sensitive areas such as wetlands, floodplains, and green infrastructure networks.*



### 11.4.2 Priority Preservation Area & Zoning

The Priority Preservation Area (PPA) has only been established within the Agriculture Residential (AR) and Conservation (CO) zoning districts, Map 11-3.



### 11.4.3 Utility Scale Solar Energy Facility Floating District (SEF)

Somerset County land use and zoning involve the regulation of use and development of property. The unincorporated area of Somerset County is divided into zoning districts, one of which is the Floating Zone – Utility Scale Solar Energy Facility Floating District (SEF). The purpose of the utility scale solar floating zone is to allow for the orderly development of utility scale solar energy facilities typically generating more than two (2) megawatts in electricity (AC) that are appropriately sited and sized.

Furthermore, it is **intended that utility scale solar energy facilities are not placed on prime agricultural lands**, are aesthetically attractive, are placed so as to protect the commercial viability of the US Route 13 and MD Route 413 corridors and are compatible with the surrounding neighborhood.

Utility scale solar energy facilities will only be considered on parcels designated as ‘**Agricultural Residential**’ (AR) or ‘**General Industrial**’ (I-2). The General Industrial District (I-2) is not included in the PPA. Parcels within the AR zoning district are included, specifically those parcels with prime agriculture soils. Remaining parcels within the AR zoning district not designated as PPA may be applicable for utility scale solar energy facilities.

### 11.5 Land Preservation, Parks, & Recreation Plan

Both the 2017 and the 2022 Land Preservation, Parks, and Recreation Plan (LPPRP) recommended that the County create a Priority Preservation Area with the goal of preserving 25,000 acres of agricultural land. Approximately 14,948 acres of agricultural lands in the County is preserved through 3 programs, according to 2022 LPPRP. However, updated data indicates that 15,164 acres of agricultural lands in the County are preserved in the following three programs.

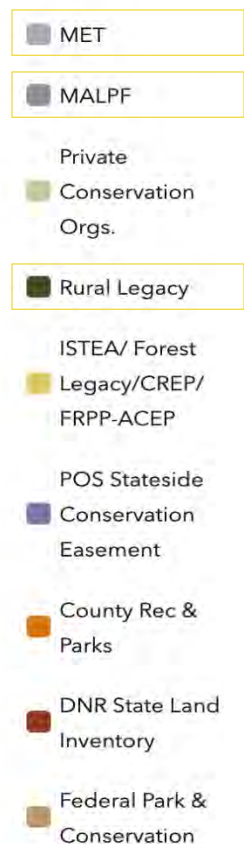
- Maryland Environmental Trust - 6,058
- Rural Legacy - 1,813
- MALPF 7,266

Programs with yellow highlight (right) were used to calculate data total in the LPPRP. Additional protected lands are included under the various other protected land programs previously discussed and listed on the right.

The remaining acres needed to reach the goal of the 2022 LPPRP is 9,836.

### 11.6 Somerset County Priority Preservation Area

Protected lands in Somerset County total 81,758 acres, or 40% of the total land area. PPA established and shown on Maps 11-2 and 11-3 total 60,217 acres. Results of the evaluation of undeveloped resource land parcels containing prime agriculture soils and designated as PPA total 1,683 parcels containing 60,217 acres, while remaining underdeveloped resources land parcels, which do not include prime agriculture soils and, as such, have not been included in the PPA total 39,024.15 acres. The remaining underdeveloped land in the Agriculture Residential (AR) and Conservation (CO) zoning districts total 31,477.54 acres, while all other zoning districts total 7,546.61 acres.



## Chapter 11: Priority Preservation Area Goals & Implementation Strategies

### Goal 11.1

Apply for Maryland's Certification of Local Agricultural Preservation Programs, known as the Certification Program.

*A county's acreage goal for land to be preserved through easements and zoning within an area shall be equal to at least 80% of the remaining undeveloped land in the area, as calculated at the time of application for State certification of an area.*

### Strategies

- A. Demonstrate that the County's current protected lands at 81,758 acres, along with the 60,217 acres of Priority Preservation Area, and the Conservation (CO) zoning district with 6,982.64 acres constitute 73% of the County's total land. That being said, the total undeveloped resource lands in both the Conservation (CO) and Agriculture Residential (AR) zoning districts total 39,024.15 acres, and when combined with protected lands and PPA, results in 88% of the remaining undeveloped land in Somerset County.
- B. Review the zoning categories to identify ways to stabilize and maximize preservation of agricultural land through zoning.
- C. Concentrate preservation efforts and program funding in the PPA to preserve large contiguous blocks of agricultural and forested land.

### Goal 11.2

Encourage and promote the exploration of agricultural preservation and practices.

### Strategies

- A. Work with the local land trusts and nonprofit organizations to increase their role in preserving land in the PPA.
- B. Explore tools to support agriculture as a way to increase locally grown produce and provide new market opportunities for farmers in the PPA.
- C. Promote local agribusiness (equipment, seed, fertilizer, buildings, labor, and other farm services).
- D. Supports agritourism, such as corn mazes, wineries, and other educational/recreational activities on an active farm.
- E. Promote the benefits of Agricultural Land Preservation in Somerset County.

### Goal 11.3

Pursue options for establishing a transfer of development rights (TDR) program that can maintain property owners' development rights.

### Strategies

- A. Establishment of a density transfer 'sending areas' in which development rights are created and from which they can be sold.
- B. Designation of density transfers 'receiving areas' where the land and public services are capable of absorbing additional density.

### Goal 11.4

Consider including the economic viability of farm and forest enterprises as a vital part of their overall economic development strategy.

### Strategies

- A. Continue to support the Soil Conservation District's effort to address the concerns of farmers regarding the challenges of maintaining productive farmland, which will further promote agricultural resource enterprise.

## Appendix A: Public Survey Results

Through the comprehensive planning process, County residents, business owners and community organizations help shape the future of Somerset County. County-wide planning leads to compatible land uses, as well as transportation networks, public facilities and parks. In addition, comprehensive planning protects the County's environmental and cultural resources. Planning helps to ensure that Somerset County continues to be attractive, safe, and prosperous.

In May 2023, the Somerset County Comprehensive Plan Update public survey was launched to enhance public engagement efforts. The survey consisted of 26 questions, which included open ended questions as well as multiple choices. The survey asked for participants perspective on housing, commercial and industrial development, community facilities and services, transportation networks, parks and recreation, and overall quality of life in Somerset County. A total of 372 participants took part, with 98% residing within Somerset County and 63% living in its unincorporated areas. Results from the survey are provided on the following pages. In addition, the survey results have been incorporated into the plan and highlighted across the chapter covers.



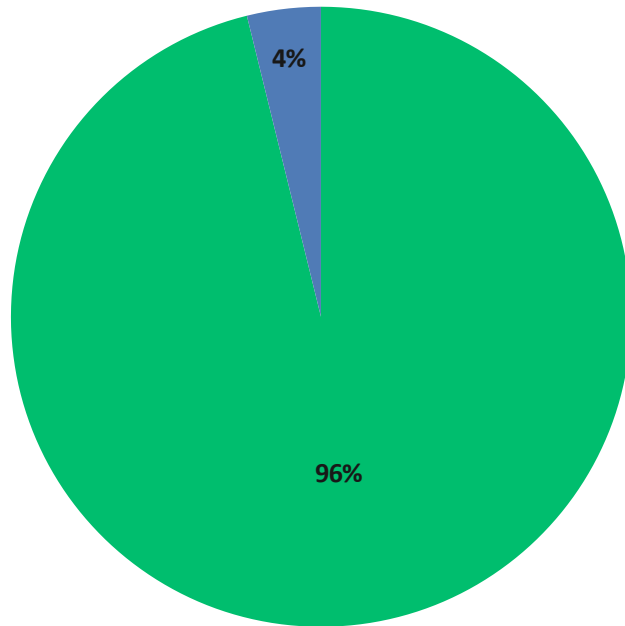
### Somerset County Comprehensive Plan Update

#### Public Opinion Survey

Thank you for your interest in the Somerset County MD Comprehensive Plan. This survey is part of our public engagement process. The results of this survey will be documented for use in preparing the comprehensive plan update. Your participation and input will be a valuable resource for our community.

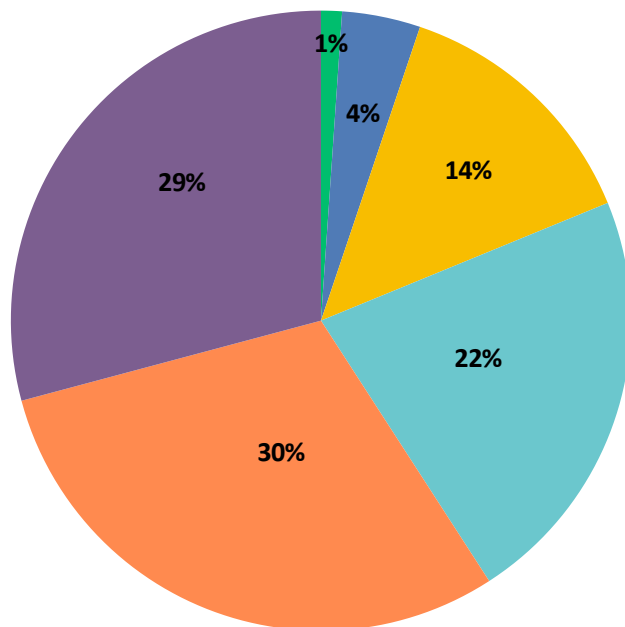
# Public Survey Results

Do you live in Somerset County?



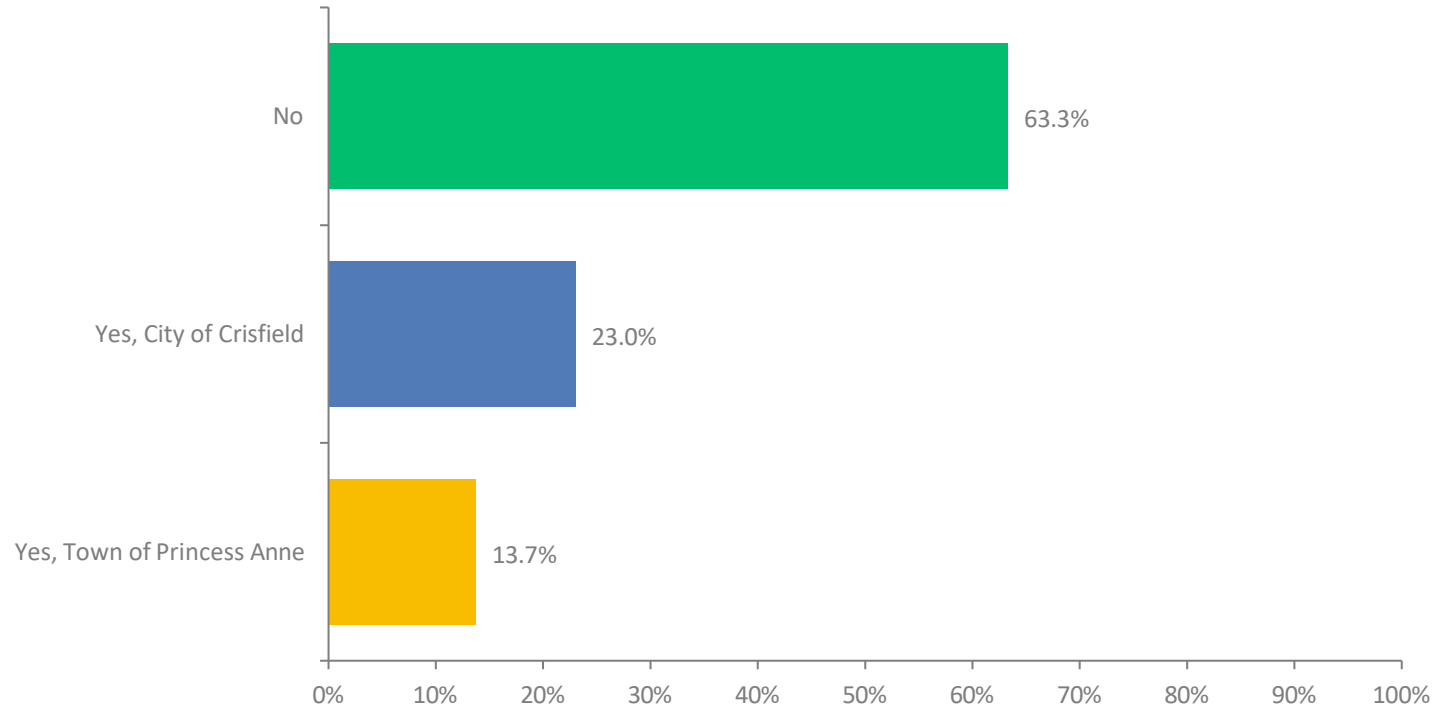
■ Yes ■ No

What is your age bracket?

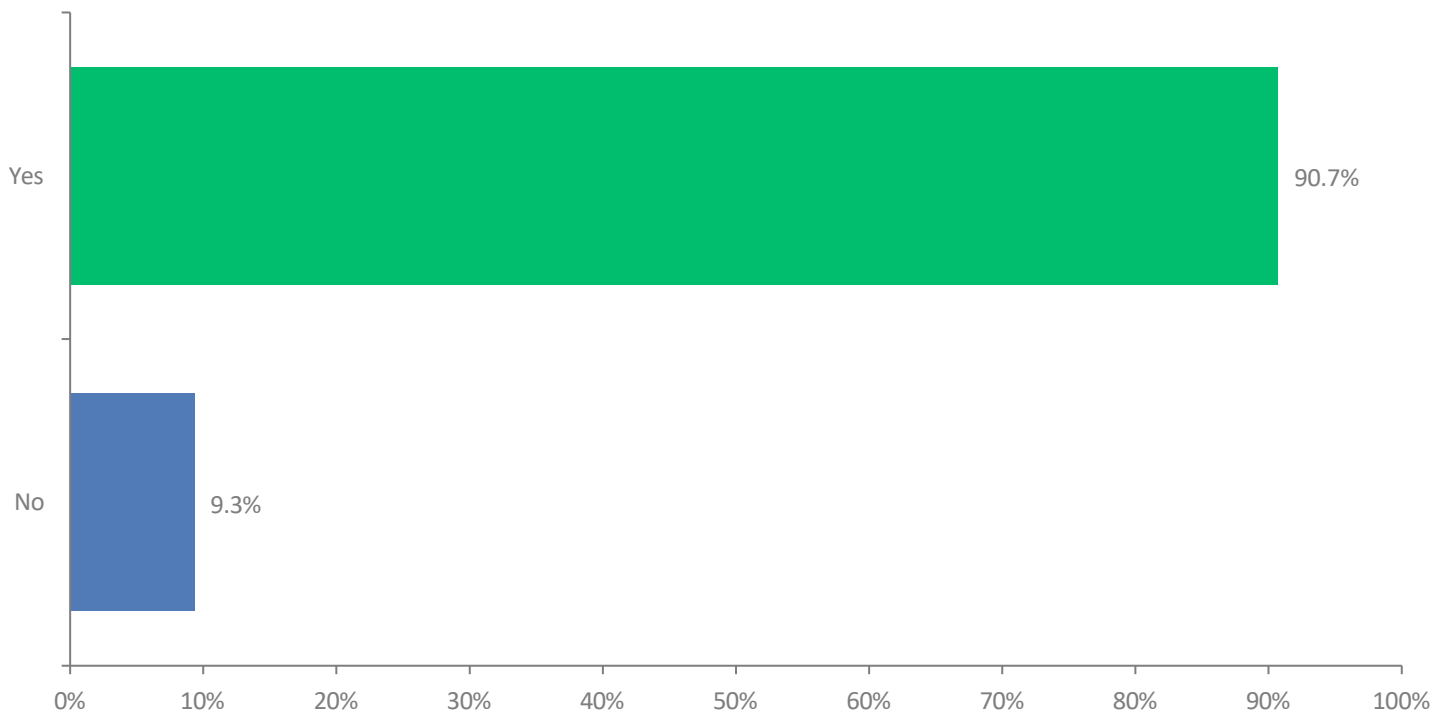


■ 19-24 ■ 25-34 ■ 35-44 ■ 45-54 ■ 55-64 ■ 65+

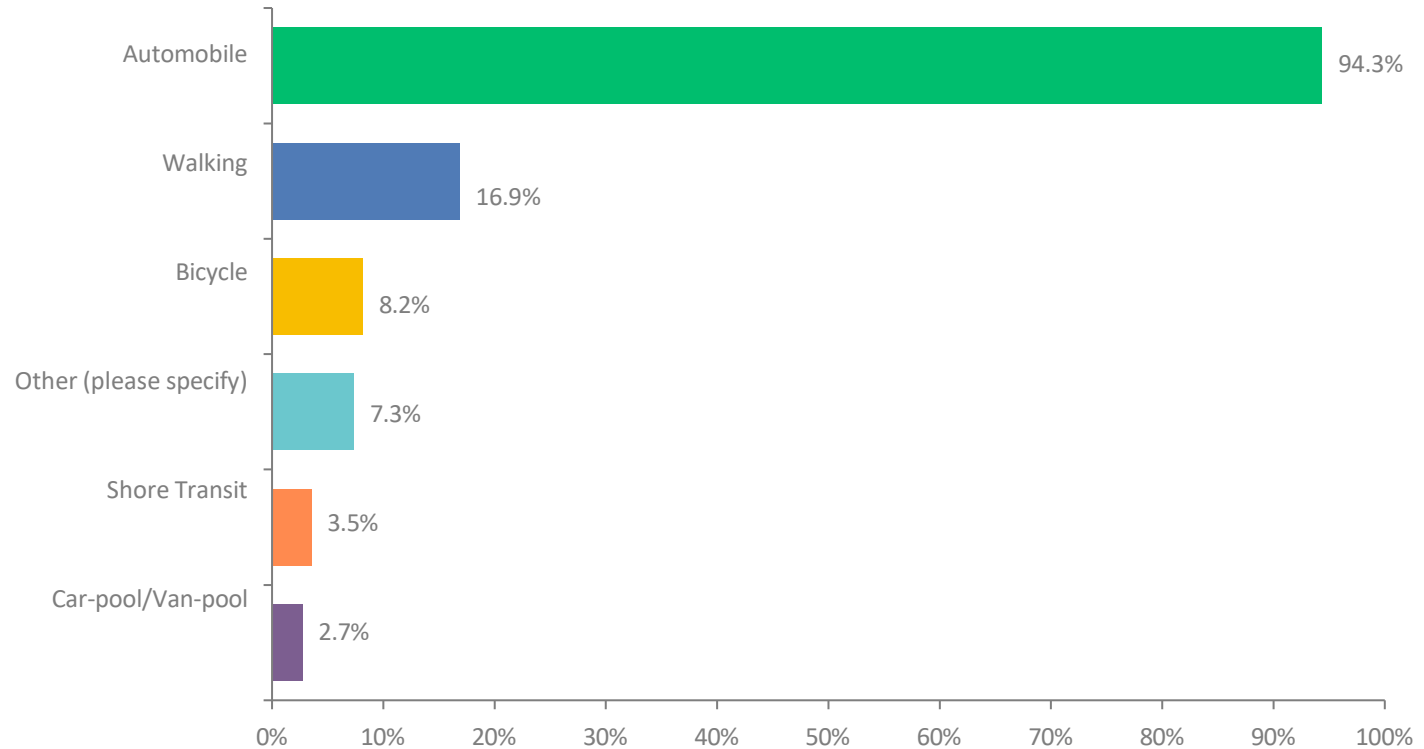
Do you reside in a municipality? If so, which municipality?



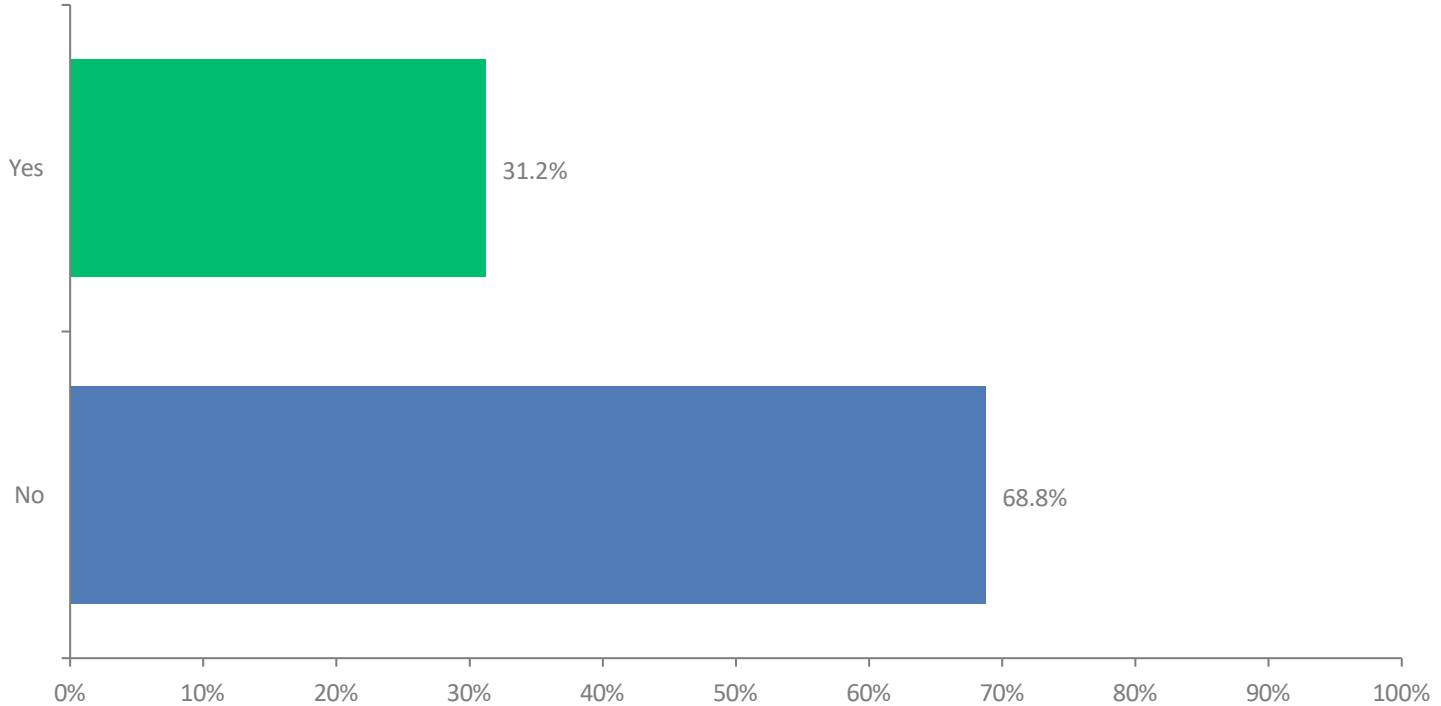
Do you plan to stay in Somerset County for the next 10 years?



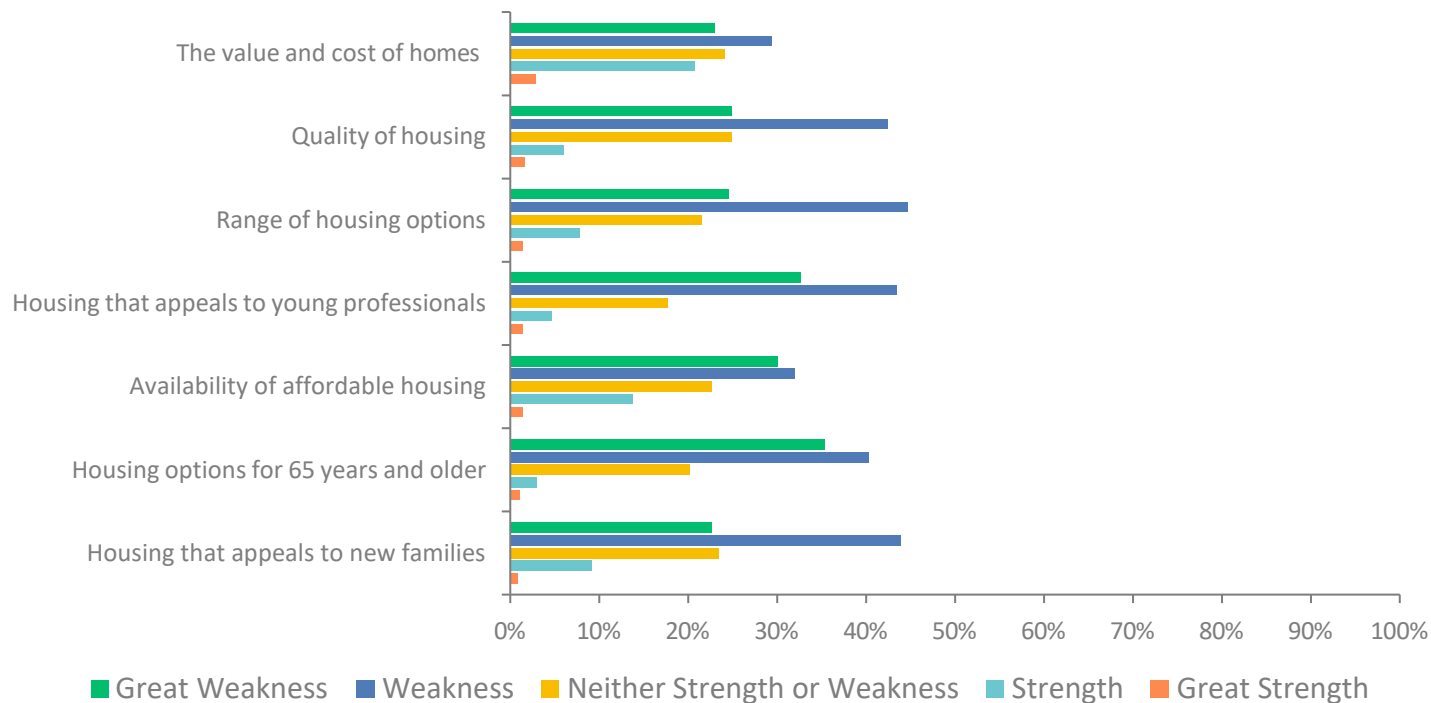
## What are your primary modes of transportation?



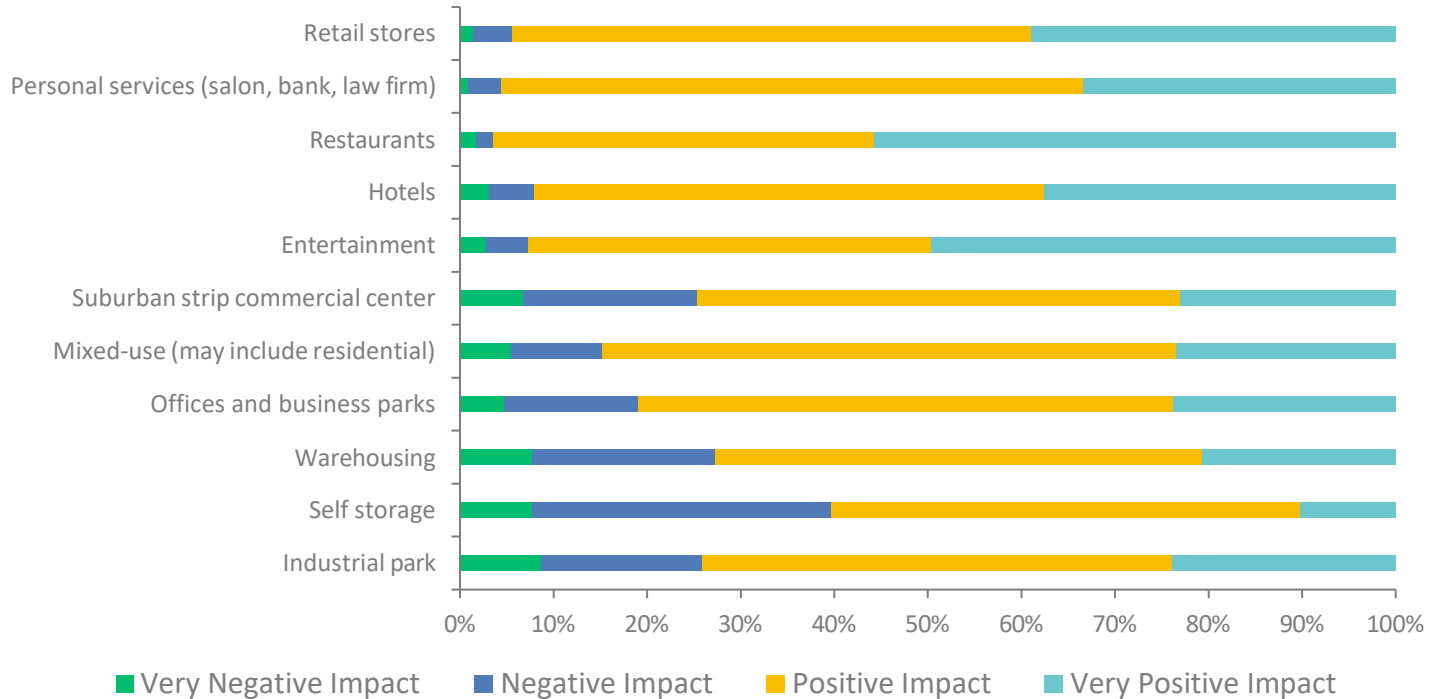
Prior to taking this survey, were you aware that Somerset County has a Comprehensive Plan?



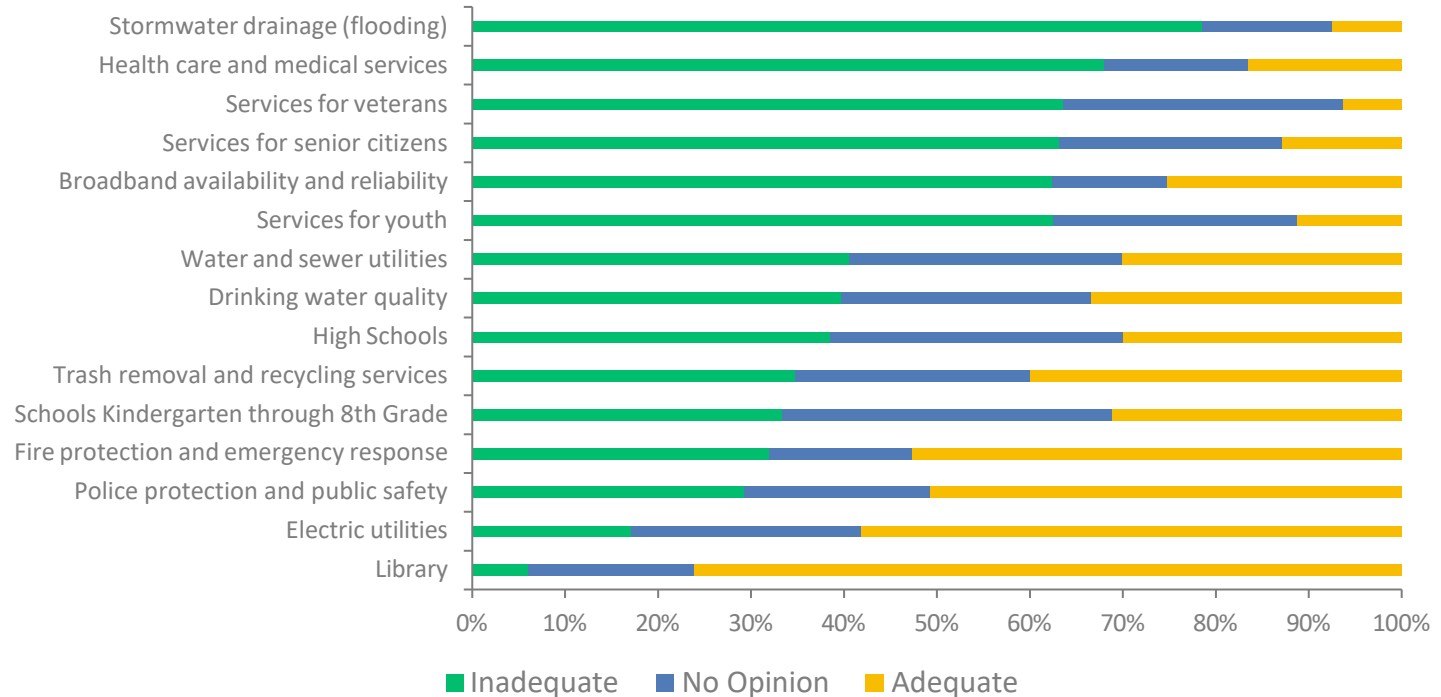
When considering existing housing and residential areas, identify if each of the following is a strength or weakness for Somerset County.



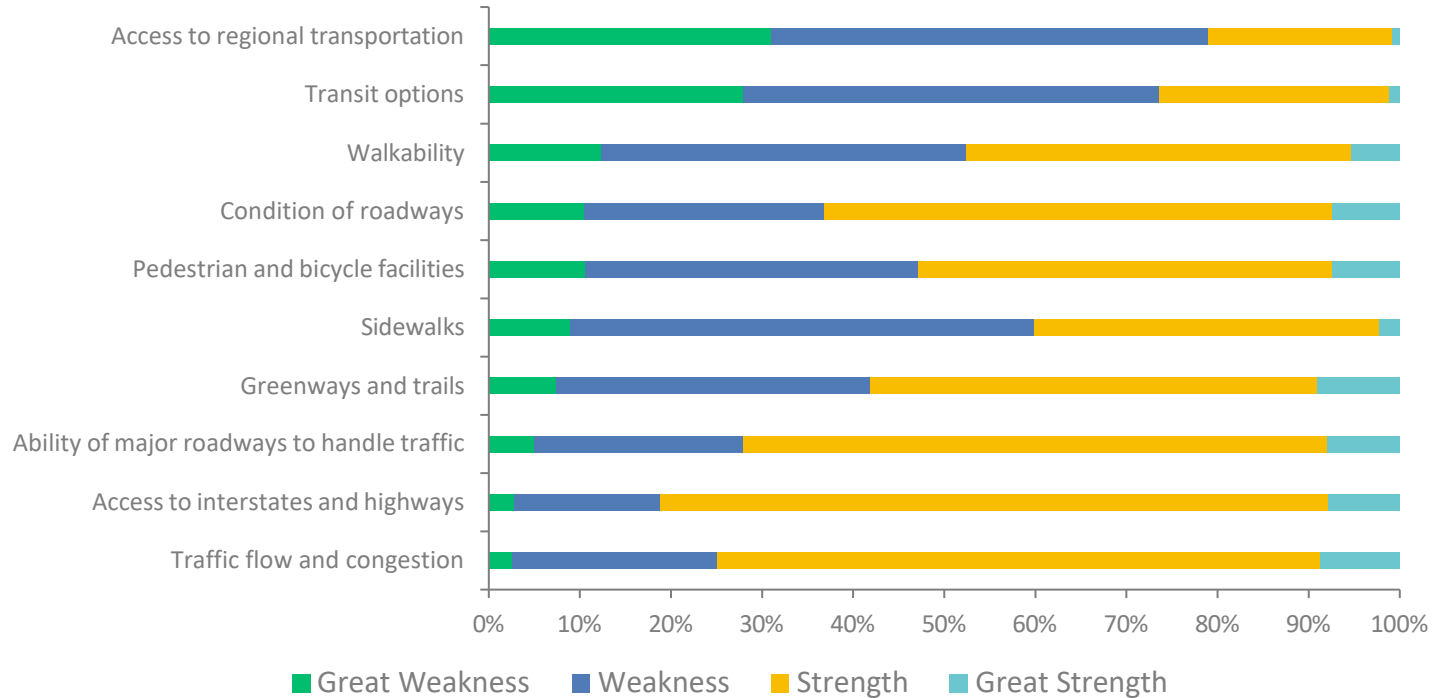
What kind of impact would each of the following types of commercial and industrial development have on Somerset County?



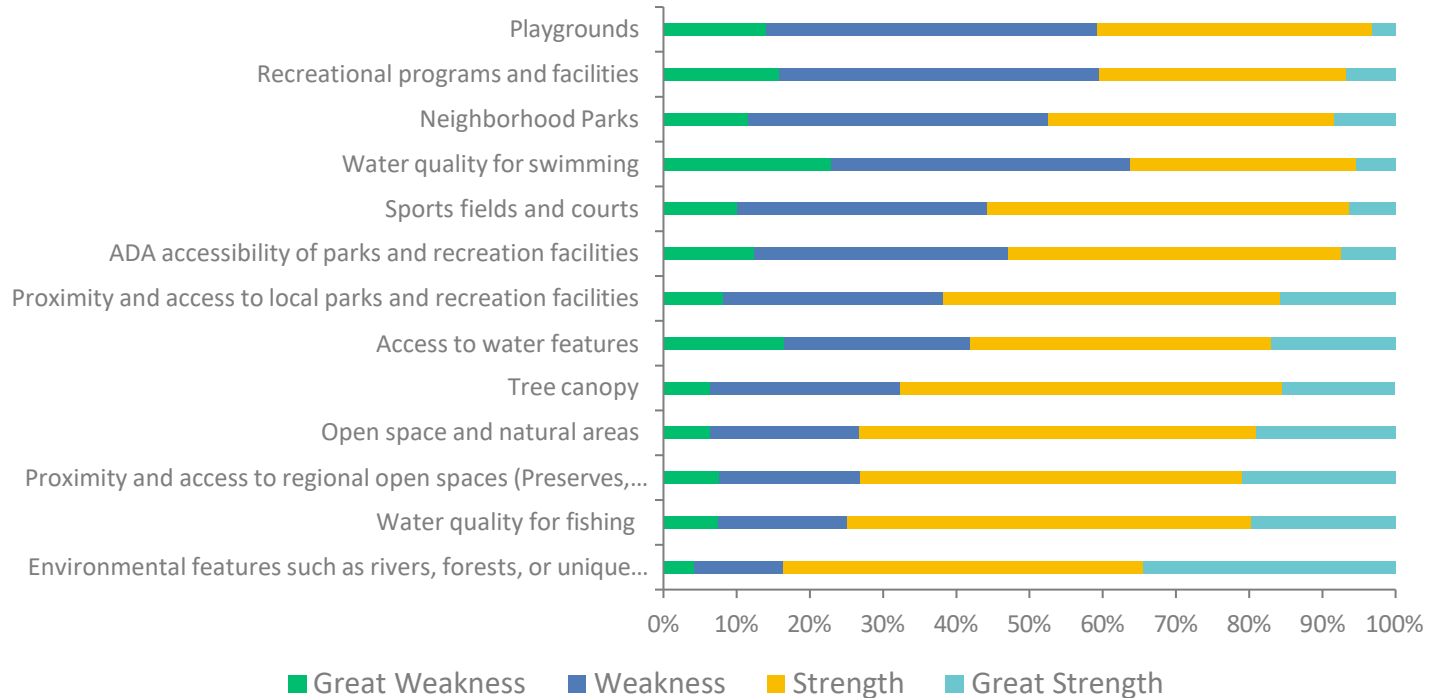
When considering Somerset County's existing community facilities and services, identify if each of the following is currently adequate or inadequate.



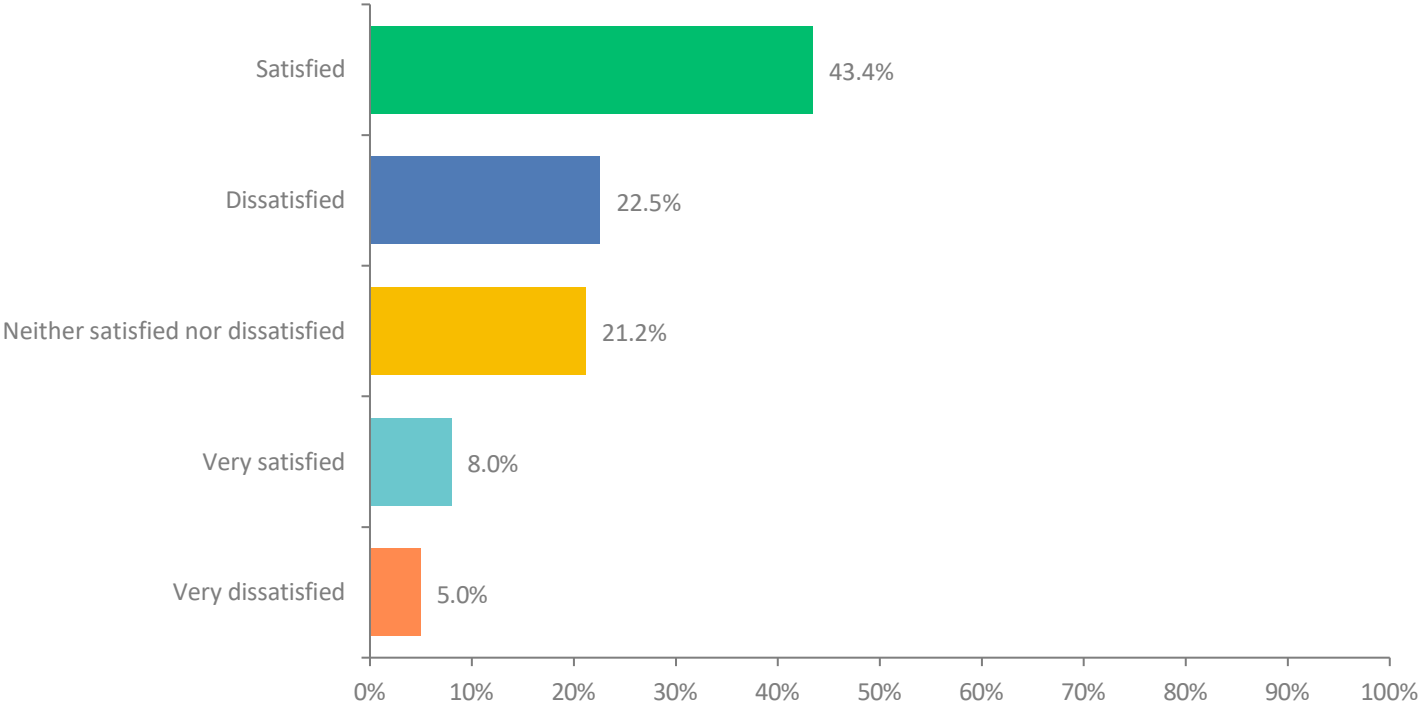
When considering Somerset County's existing transportation networks, identify if each of the following is a strength or weakness for the community today.



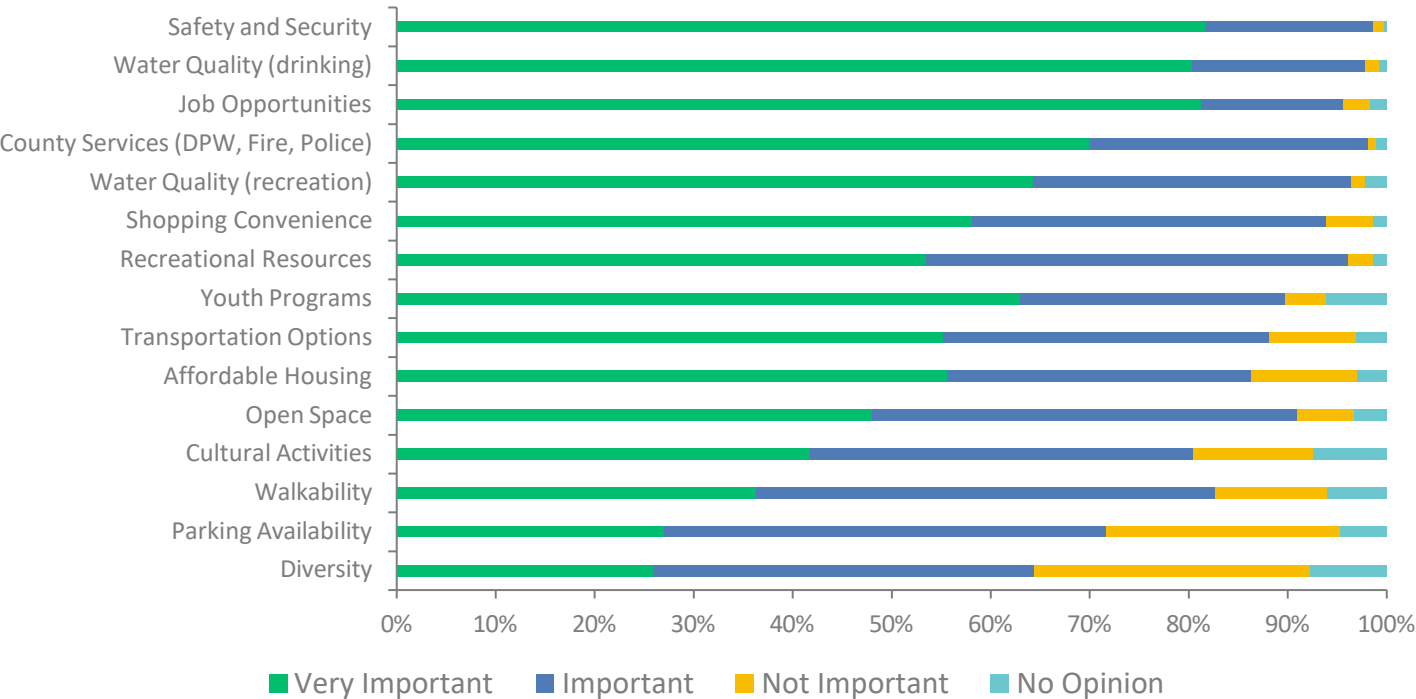
When considering Somerset County's existing parks and recreation, identify if each of the following is a strength or weakness for the community today.



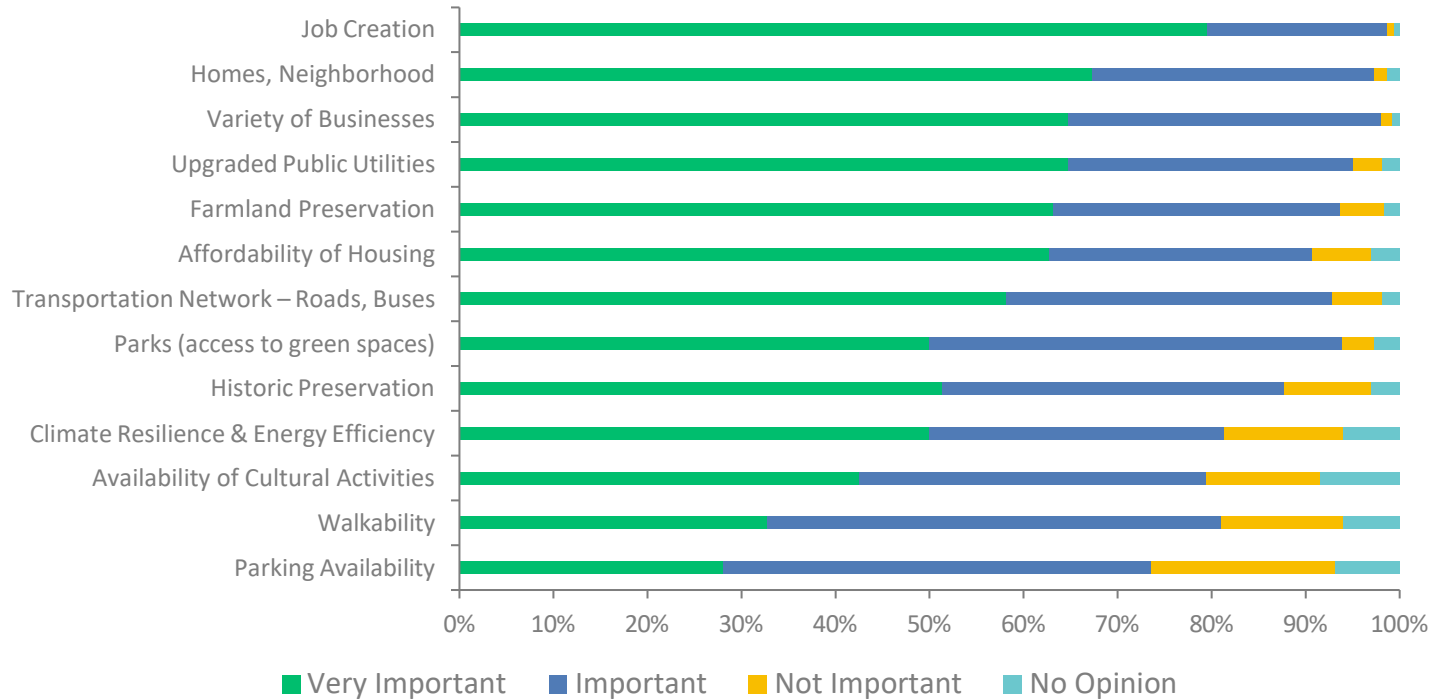
Are you satisfied with the overall quality of life in Somerset County?



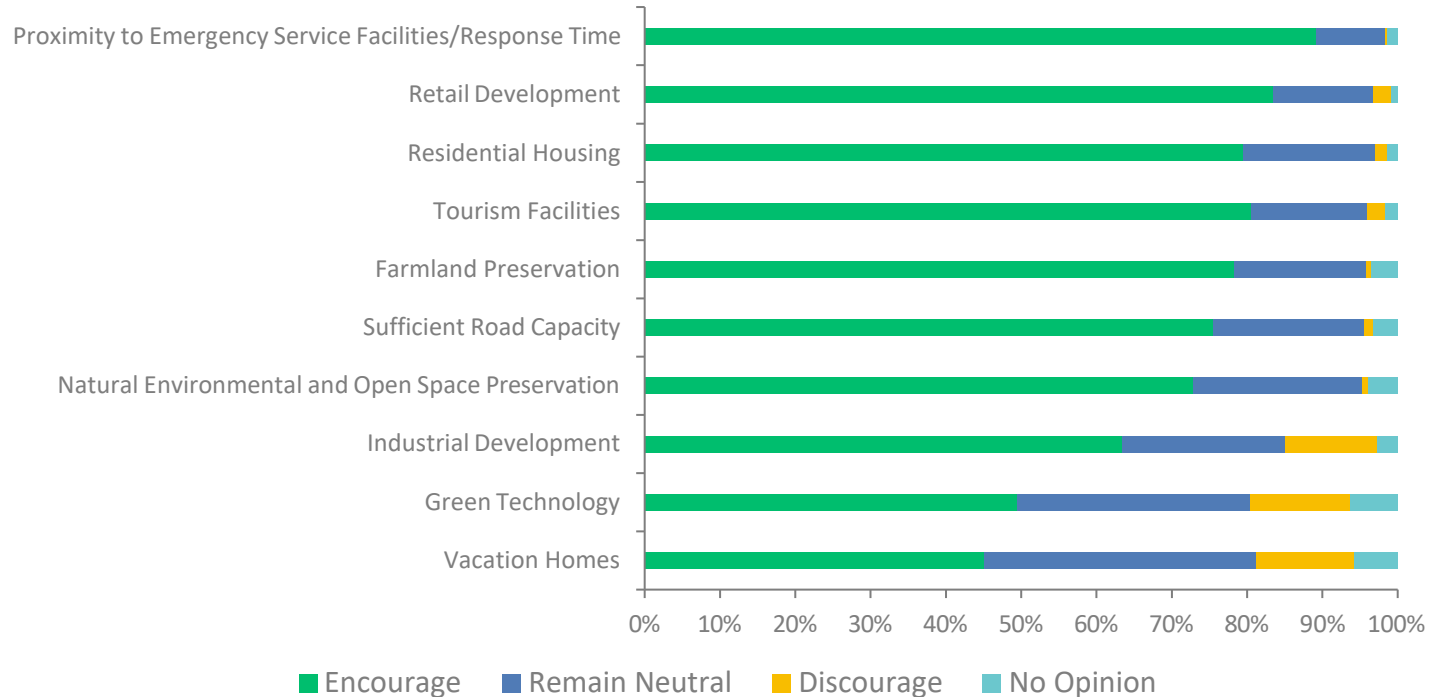
# How important are the following items to quality of life in Somerset County?



## How important are the following items in terms of future development?



As Somerset County plans for the future, should local officials encourage, remain neutral, or discourage each of the following?



## Appendix B: Technical Committee Meeting Notes & Plan Comments

Through the comprehensive planning process, the Technical Committee comprised of targeted stakeholders met periodically to review working draft chapters, goals, and implementation strategies. Notes for each of the Technical Committee meetings are included herein.

*Note: the last meeting of the Technical Committee on March 6, 2025, was a review of the cohesive draft comprehensive plan. All TC members were provided a copy of the plan for review and comment. No notes were produced for this meeting as it was a review of the plan.*

# Meeting Notes

## August 3, 2023, Technical Committee Meeting Notes

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**In attendance:** Yvette Cross- Department of Emergency Services, Gary Powell- Department of Emergency Services, Charly Sager- Planning & Zoning, Catherine Skeeter- Planning & Zoning, Mary Phillips- Planning & Zoning, Jesse Drewer- Planning and Zoning, Woody Barnes- Department of Public Works- Roads and Waterways, John Redden- Office of County Engineer, Gary Powell- Department of Emergency Services, Jim Mathias- University of Maryland, Danny Thompson- Economic Development Commission, Tony Stockus- Somerset County Sanitary District, Hitesh Patel- Crisfield Chamber of Commerce. Eric Messick- SP&D, Michele King- SP&D, and Virginia Smith- SP&D.

### Comprehensive Plan Purpose

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Somerset County has initiated its comprehensive plan update, which is a long-range guide to strengthen our community over the next 20 years through land use planning, preservation, and investment. This plan is an update of the [1996 Somerset County Comprehensive Plan](#). The Department of Technical and Community Services along with their consultant, SP&D will draft the plan update, which will be overseen by the Somerset County Planning Commission. Following the plan review and public comment process, the plan will be adopted by the Board of County Commissioners.

### Technical Committee (TC)

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Members of the TC were identified by the Department of Technical Assistance and Community Services to assist in the development of the Comprehensive Plan Update. The previous comprehensive plan was adopted by the Somerset County Board of County Commissioners in 1996. The plan update will be continuously informed by the Technical Committee. TC members were provided with an overview of the planning process and public outreach. The [project website](#) will serve as a “one stop shop” for the comprehensive plan update process.

### TC Listening Session

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SP&D led a facilitated listening session to gather information and resources from TC members.

Are there reports and/or planning documents currently in the development phase or slated for development that should be integrated into the Comprehensive Plan Update?

- SWOT Analysis (Particularly the planning of a possible Westover facility for a county EMS station),
- Water & Sewer Plan Update – currently underway by DBF,
- Broadband expansion – Working with ISP’s and MD office of statewide broadband,
- Natural gas expansion – Working with Chesapeake Natural Gas,
- Transportation projects – MDOT Priority Letter,
- Strategic growth of the University,
- Passenger Ferry,
- Economic development studies in Princess Anne and Crisfield,
- Current update of building codes for Somerset, and,
- “Growth” Fruitland, Princess Anne, Westover, Pocomoke, Westover, Crisfield.

What existing reports and/or planning documents should be reviewed and integrated into the Comprehensive Plan Update.





- SWOT Analysis (Phase 1),
- Flood Mitigation Plan,
- Integration of University of Maryland Eastern Shore into the comprehensive development of Princess Anne and Somerset County,
- Health Care & School Safety,
- Water and Sewer Plan, and,
- Multi-Hazard Mitigation Plan.

TC members were asked to identify issues or problem areas. Color-coded numbered cards that correspond with topical plan chapters were used to collect information that could be identified on a map, if applicable. Information collected provided below.



The map icon (left) indicates that the TC member response listed below has an associated map location identified. Please refer to the map on page 4. Mapped areas are color coded based on the planning topic. Each comment has a number that corresponds to the location on the map.


#### Economic Vitality (Pink)



1. Water and  Sewer
  - a. Fruitland to Princess Anne
  - b. West to Crisfield
  - c. West to Pocomoke
  - d. Princess Anne to Westover
2. Broadband
  - a. Improvements have been made, but need further expansion, specifically rural areas.
3. Natural Gas (same as Water and Sewer)
4. Lack of Affordable and Workforce  Housing
  - a. Crisfield, Mt Vernon Road, Deal  Island, areas along Rt 413.
5. Smith Island
  -  a. Resources – housing, flooding, transportation, services (e.g., broadband)
6. Designated Growth Areas are outdated.
  - a. PFA, etc.

#### Affordable Housing

1. Rent affordability
2. Lack of multi-family housing
3. Aging housing stock

#### Transportation (Green)

1. Nuisance Flood Impacts in Tidal Communities
  -  a. Roadway accessibility
  - b. Evacuation concerns
  - c. Locations:
    - i. Fairmount, Crisfield, Dames Quarter, Oriole, Rumbly-Frenchtown




2. Roadway Quality
  - a. Tar and chip roads(~250 miles) v. Asphalt hot mix (~100 miles)
  - b. Impacts growth will have on current roadway conditions.
3. Public Drainage/Shoreline Erosion
  - a. Tidal communities 
  - b. Poor planning/vision of current residential communities.
4. Smith Island
  -  a. Transportation ferries, transit slips
  - b. Island Road Maintenance
  - c. Shoreline Protection
5. Bridges
  - a. 5 bridges rated as poor quality
6. Marine Facilities
  - a. Dredging, USACE Federal Channels
7. SHA Highway/Roads
  - a. ~325 roadways
  - b. East and West sides of the County, major corridors need maintained.

#### Areas of Concern

1. Saltwater Intrusion/Flooding
  - a. Agriculture production loss
  - b. Septic failures
  - c. Road flooding
  - d. Access issues
  - e. Housing flooding

#### Community Facilities & Services (Orange)



1. Need for large Convention/Meeting Facility
  - a. North and South locations
2. Additional fire department substations are needed.
3. Transportation routes and resource availability issues (school buses & Shore Transit) for use during evacuation.
4. Better cell phone and internet service

- a. Goal: be able to connect anywhere
- 5. University of Maryland Eastern  Shore
  - a. Assuring adequate water/wastewater supply and infrastructure for future development
  - b. Assuring access roads to and throughout university property are accommodating of future development.
  - c. Public safety services are adequate.
- 6. Landfill Operations 
  - a. Limited capacity
  - b. Location
  - c. Cover
  - d. Recycling
- 7. Airport 
  - a. Runway upgrades & hanger replacements
  - b. Promote airport facility usage.
  - c. Emergency response

#### Land Use (Blue)

- 1. Overlay Zone of RCA/Tier 4 (AR Zoning)
  - a. Limits septic/development in major portions of the County.
- 4. Subdivision regulations need to be updated.

#### County and Municipal Integration (Purple)

- 1. PFAs limit expansion of water/sewer service around Crisfield and Princess Anne
- 2. Annemessex River 
  - a. Failing  septic
  - b. Crisfield expansion not available.

TC members were asked to identify opportunities. Color-coded numbered cards which represent topical plan chapters were used to collect information that could be identified on a map, if applicable. Information collected provided below.

#### Community Facilities (Orange)


- 8. Public Safety Complex –  Westover

Land Use (Blue)

2. Promote better Parks and Recreation Beach Access to water.
  - a. E.g., Racoon Point
3. Establish “village” type zoning in areas like Smith Island.
  - a. Maritime residential-commercial may be sufficient.



Economic Vitality (Pink)

7. Cannabis  Industry
  - a. Growing, processing, sales
  - b. Opportunity for the new Industrial Park

## October 12, 2023, Technical Committee Meeting Notes

**In attendance (alphabetical order):** Catherine Skeeter – Department Of Technical And Community Services, Clint Sterling – Department of Recreation, Parks, and Tourism, Hitesh Patel – Crisfield Chamber of Commerce, Janet McIntyre – Somerset County Planning Commission, Jen Merritt – City of Crisfield, Jesse Drewer – Department of Technical and Community Services, Jim Mathias – University of Maryland Easton Shore, John Redden – Office of County Engineer, Jon Hill – Somerset County Public Schools, Leeann Linton – Economic Development Commission, Loraine Buck – Department of Emergency Services, Mark Carey – Maryland Department of Agriculture, Mary Phillips – Department of Technical And Community Services, Matt Duvall – Department of Planning and Zoning, Tracey Taylor – Maryland Department of Planning, Woody Barnes – Department of Public Works, Eric Messick – SP&D, Michele King – SP&D.

### Comprehensive Plan Update

Somerset County has initiated its comprehensive plan update, which is a long-range guide to strengthen our community over the next 20 years through land use planning, preservation, and investment. This plan is an update of the [1996 Somerset County Comprehensive Plan](#). The Department of Technical and Community Services along with their consultant, SP&D will draft the plan update, which will be overseen by the Somerset County Planning Commission. Following the plan review and public comment process, the plan will be adopted by the Board of County Commissioners.

### TC Meeting Purpose

The purpose of this Technical Committee Meeting was to review **discussion questions** and proposed **goals and strategies** associated with the drafts of *Chapter 3: County & Municipal Plan Integration* and *Chapter 4: Economic Vitality*. Attendees signed up to join this topical meeting at the previous TC meeting.

### County & Municipal Integration

#### What is Plan Integration?

*Plan integration is the process by which communities look critically at their existing planning framework and align efforts with the goal of building a safer, smarter community. Plan integration involves a two-way exchange of information and incorporation of ideas and concepts between the County and its municipalities.*

The first half of the meeting was dedicated to reviewing the development process of *Chapter 3: County & Municipal Plan Integration* for the TC. The following was discussed:

- Review of municipal comprehensive plans.
- Meetings were held with both the Town of Princess Anne (September 18<sup>th</sup>) and the City of Crisfield (October 10<sup>th</sup>).
  - Discussion questions asked at each meeting informed the drafting of Chapter 3.
- Both Crisfield and Princess Anne are seeking funding opportunities to update their Comprehensive Plans.
  - Crisfield Comp. Plan adopted in 2007 (with 2010 amendments).
  - Princess Anne Comp. Plan adopted in 2009.

- **PowerPoint** was presented provided an overview of *County & Municipal Plan Integration*.
- **Handout** – draft Goals and Strategies for Chapter 3 were provided to TC members for review and comment. Members discussed these as a group and made modifications. **Revised Goals and Strategies for Chapter 3 based on TC member feedback are included and begin on page 3, following.**

## Economic Vitality

### What is Economic Vitality?

*Economic vitality is the strength, energy, and continuance of Somerset County's wealth and resources.*

*Economic development refers to a program, a group of policies, or activity that seeks to improve the economic well-being and quality of life.*

*The group that encourages and promotes economic vitality and development for the betterment of all the County's citizens is Somerset County Economic Development Commission (SCEDC).*

During the second portion of the meeting, economic vitality in the context of Somerset County's future land use was discussed. SCEDC commissioned the Sage Policy Group and partners to develop a strategic economic opportunities analysis, published in June 2020. The goal of the analysis was to supply policymakers and other stakeholders' guidance and to position the county for more broadly shared prosperity, greater visitation, livelier streetscapes, and fiscal sustainability.

One of the key recommendations from Part 1 of the report included focusing particular attention on several **promising industries**:

1. Retirement Living and Healthcare;
2. Aquaculture, Agriculture, Food Processing, and Food Distribution;
3. Skilled Trades, including those related to Construction and Manufacturing;
4. Alternative Energies; and,
5. Tourism.

Chapter 4 evaluates these promising industries in relation to existing land use and the 2019 Somerset County Zoning Ordinance. This examination has assisted in the identification of goals, recommendations, and changes to future land use. Aligning this chapter of the comprehensive plan with economic development planning efforts will advance economic development programs and policies and improve the economic vitality of Somerset County.

- **PowerPoint** was presented provided an overview of *Economic Vitality*.
- **Handout #1** – Excerpts and discussion questions derived from the Sage Policy Group's Analysis were addressed at the meeting. Various comments from TC members have been integrated into Chapter 4 as a result of these discussion questions. Additionally, the handout has been provided to Somerset County Economic Development Commissions Executive Director, Danny Thompson for review and comment.
- **Handout #2** – draft Goals and Strategies for Chapter 4 were provided to TC members for review and comment. Members discussed these as a group and made modifications.

## December 7, 2023, Technical Committee Meeting Notes

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**In attendance (alphabetical order):** Catherine Skeeter – Department of Technical and Community Services, Jesse Drewer – Department of Technical and Community Services, Mary Phillips – Department of Technical and Community Services, William Cornish - Department of Technical and Community Services, Matt Duvall – Department of Technical and Community Services, Woody Barnes – Department of Roads and Waterways, Don Bibb - Crisfield Housing Authority, Cheryl Meadows - Salisbury Neighborhood Housing Services, Jen Merritt – City of Crisfield, Julie Peters – Shore Up!, Ashley Hanke – Shore Up!, Virginia Smith – SP&D, Michele King – SP&D.

### Comprehensive Plan Update

---

Somerset County has initiated its comprehensive plan update, which is a long-range guide to strengthen our community over the next 20 years through land use planning, preservation, and investment. This plan is an update of the [1996 Somerset County Comprehensive Plan](#). The Department of Technical and Community Services along with their consultant, SP&D will draft the plan update, which will be overseen by the Somerset County Planning Commission. Following the plan review and public comment process, the plan will be adopted by the Board of County Commissioners.

### TC Meeting Purpose

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The purpose of this Technical Committee Meeting was to identify and discuss **issues and opportunities, reoccurring themes**, and potential **goals and strategies** associated with the *Chapter 5: Affordable Housing*. Attendees signed up to join this topical meeting at the first TC meeting. In addition, guests who specialize in housing were invited to attend.

### Affordable Housing

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**Maryland House Bill (HB) 1045 (2019)** requires jurisdictions with planning and zoning authority to include a housing element as part of its comprehensive plan update. The focus of HB

1045 (2019) focuses on “affordable housing” - both low-income and workforce housing.

A housing element shall address the need for affordable housing and will include:

- Workforce Housing
- Low-Income Housing

While the requirement for comprehensive plans to include a housing element was not in effect

when the previous Somerset County Comprehensive Plan was completed in 1996, the plan included a housing element, as Chapter 7. A new affordable housing element has been developed for this plan update.

The first part of the meeting was dedicated to reviewing housing terms and data to add context to the group activities and discussion. The PowerPoint presented during the meeting is included with TC Meeting #3 notes.

### Preliminary Public Survey Results – Specific to Housing

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*Note: The survey results presented below are preliminary and were used as general discussion points for this session.*

**Question** - When considering existing housing and residential areas, identify strengths and weaknesses.

**Response**- In all but one category, most survey participants identified “weakness”, with one

exception – the value and cost of homes.

Weaknesses included:

- Quality of Housing
- Availability of Affordable Housing
- Range of Housing Options
- Housing options for 65 years and older
- Housing that appeals to professionals

**Question** – How important are the following items in terms of future development.

**Response-** Thirteen items were listed, and the following two were ranked second, and sixth in terms of importance, respectively.

- Homes and Neighborhoods
- Affordable Housing

**Question** – As Somerset County plans for the future, should local officials encourage, remain neutral, or discourage each of the following?

**Response-** 73% of responses collected to date indicated that residential housing should be encouraged, 25% remained neutral, 2% indicated no opinion, and no one indicated discouraged.

## Issues and Opportunities

Meeting attendees were divided into two groups. Each group identified and discussed issues and opportunities as they relate to housing in Somerset County. Results were shared by each group and further discussed by all participants.

### Issues Identified by Meeting Attendees:

- Vacant housing in poor condition; cost prohibitive to make livable.
- Environmental impacts to existing housing stock and lots of record including flood, marshland, and sea level rise.
- Lack of public transportation.

- Lack of affordable housing.
- Quality of existing housing.
- Blighted homes throughout the County.
- Privately owned rentals being sold in real estate boom of pandemic.
- MD Historic Trust obstacles to blight removal.

### Opportunities Identified by Meeting Attendees:

- Affordable land, compared to other counties in the region.
- County owned land on Revell's Neck – potential for future Industrial Park, equating to more jobs, which could lead to investments in housing.
- Renewed effort to address the issues of affordable housing.
- Removal of blight could raise the value of surrounding properties, improve appearance.
- Space for building new housing units – infill development opportunities.
- Extension of public utilities in growth areas.
- Salisbury Neighborhood Housing Authority, which serves Somerset County.
- Shore Up's subsidized housing (elderly and apartments) in Princess Anne.

Following the group report outs and discussion, meeting attendees were asked to review issues and opportunities collected as part of the public survey. Attendees were asked to look for overarching themes from both TC and public survey results. These include the following:

### Themes from Issues Reported:

- Affordability
- Blight - Poorly maintained properties
- Crime, Drugs
- Code Enforcement, specifically rentals
- Lack of handicap accessibility
- Flooding and Sea Level Rise
- Poor job market, locally

**Themes from Opportunities Reported:**

- Community Partners
- Growing broadband coverage
- Land Availability
- Job Development
- Elderly & Disability Housing

## Identification of Goals and Strategies

Information from the Maryland Department of Planning (MDP) Housing Toolkits was distributed as handouts for use during this portion of the meeting. Items that resonated with group members were identified and discussed. As such, the following goals, and strategies, that were most frequently identified by attendees were selected for inclusion in the Chapter 5: Affordable Housing.

**Goals:**

- Strive to foster a community in which existing affordable housing is preserved and well maintained.
- Promote safe, vibrant, and well-maintained neighborhoods that inspire residents and visitors and convey a sense of place.
- Encourage residential communities that can grow sustainably, are supported by existing and planned infrastructure, and address the housing needs for a variety of income levels.
- Support affordable housing opportunities that are accessible to the entire population, without compromising the quality of existing residential neighborhoods.

**Strategies:**

- Encourage, support the creation of, and partner with non-profit housing development corporations to develop, own, and manage affordable housing.
- Hire code enforcement officer specific for rental housing units in the unincorporated areas of Somerset County.
- Support housing projects that provide a mix of housing to serve a range of income levels, integrating traditional market value housing with affordable housing opportunities.
- Provide incentives and encourage providing affordable housing through public, private, and joint ventures, ensuring income-based housing equity.
- Maintain and rehabilitate publicly owned infrastructure and facilities in older neighborhoods to promote community investment, establish confidence, and discourage neighborhood decline.
- Direct a large portion of Sustainable Communities façade grant funding to maintaining affordable housing units.
- Review ordinances, codes, regulations, and permitting processes to eliminate or modify conflicting or excessive requirements, and to streamline the regulatory review process.
- — Revise R2 district to permit 5,000 square foot lots for single family detached units and 1,800 square feet for single family attached units (subject to water/sewer or septic).

## February 1, 2024, Technical Committee Meeting Notes

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**In attendance (alphabetical order):** Catherine Skeeter – Department Of Technical And Community Services, Hitesh Patel – Crisfield Chamber of Commerce, Jen Merritt – City of Crisfield, Jesse Drewer – Department of Technical and Community Services, Bernard Johnson – Somerset County Public Schools, Leeann Linton – Economic Development Commission, Matt Duvall – Department Of Technical And Community Services, Will Cornish - Department Of Technical And Community Services, Tracey Taylor – Maryland Department of Planning, Chris Osment – Somerset County Health Department, John Wunder – City of Crisfield, Danny Thompson – Economic Development, Ed Goyda – Somerset County Libraries, Andrew Wile – Shore Transit, Woody Barnes – Department of Public Works, Eric Messick – SP&D, Virginia Smith – SP&D.

### Comprehensive Plan Update

---

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Chapters of the plan currently available as working drafts for review and comment include:

- Chapter 2: Community Profile
- Chapter 3: County & Municipal Plan Integration
- Chapter 4: Economic Vitality
- Chapter 5: Affordable Housing

Updates since the last TC Meeting include:

- Regional Coordination Meeting held on January 23, 2024. Held in Princess Anne, with Somerset, Worcester, and Wicomico in attendance. Provided a regional perspective to this planning process.

- Visioning Workshop held on January 31, 2024. Targeted multi-week Facebook advertising the workshop. Stats: 4,000 persons reach, and ~200 new visits to the project website. Provided the public the opportunity to help craft the comprehensive plan's "vision statement." Eight members of the public in attendance.
- Completed Public Surveys: 164

### TC Meeting Purpose

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The purpose of this Technical Committee Meeting was to review **discussion questions** and proposed **goals and strategies** associated with the drafts of *Chapter 6: Community Facilities* and *Chapter 7: Transportation*. Attendees signed up to join this topical meeting at the previous TC meeting.

### Community Facilities

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Somerset County supports a broad range of community facilities, including **schools, parks and recreation, public safety, libraries, health services, solid waste collection and disposal sites**.

Most of these facilities are managed by the County as public amenities. A few, such as the hospital and museums, are private. Schools and Parks comprise a major portion of the County's

budget, and the principal facilities were included in Chapter 6.

Preliminary survey results were shared with those in attendance and include:

- Many types of facilities were considered both a strength and weakness. While existing facilities are considered a strength, many respondents want to see additional facilities. The need for more parks - more playground equipment and maintenance of existing playgrounds were identified. Also, the lack of public access to streams and rivers were included in the written remarks.

Highlights from session with TC members specific to community facilities included:

- Focus on reusing/repurposing and upgrade existing facilities.
- Most community facilities have existing future goals, many of which were included in the working draft chapter.
- Need for new convention/meeting facility in the County was identified.
- Promote the County's existing 13 waterway facilities was identified for inclusion in the goals and strategies.
- Addition of fishing pier in Rumbley next to existing boat ramp was identified during the meeting.
- Interest in County Green Infrastructure Plan was discussed.
- Need for additional fire and EMS stations was included in the goals and strategies.

## Transportation

The transportation element describes and presents transportation patterns and includes the entire spectrum of transportation facilities

(roads, rail, air, public transit, bicycle and pedestrian amenities, and transit-oriented development) applicable to the jurisdiction.<sup>1</sup>

Preliminary survey results were shared with those in attendance and include:

- Lack of available transportation for older adults.
- Transit-Bus issues cost, number of routes, and hours of operation.
- Secondary roadway maintenance.
- Adequate ferry service and cost.
- More than 90% thought that the transportation network – roads and busses were very important or important in terms of future development.

Highlights from session with TC members specific to transportation included:

- Currently underway is a study of on-demand transportation service both the feasibility of and cost-benefit in the County.
- Exploration of partnering possibilities with Shore Transit to meet additional/future County needs were discussed.
- Electric vehicle charging station at trail heads was identified for inclusion.
- Ensure waterways stay open and navigable and dredge materials are used beneficially was identified for inclusion.
- Adding within the chapter that dredging promotes economic development as well as meeting community facility and transportation needs was discussed.
- Need to site locations for bus stations, charging facilities, with pedestrian access was identified.

<sup>1</sup> Maryland Department of Planning (.gov)  
<https://planning.maryland.gov/OurWork/complans>

## Goals & Strategies

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Draft Goals & Strategies for both Chapter 6: Community Facilities and Chapter 7: Transportation were discussed during the meeting. Thereafter modifications were made reflective of TC member comments.

## March 7, 2024, Technical Committee Meeting Notes

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**In attendance (alphabetical order):** Catherine Skeeter – Department Of Technical And Community Services, Danny Thompson – Economic Development, Jen Merritt – City of Crisfield, Jesse Drew – Department of Technical and Community Services, John Redden – Office of County Engineer, Leeann Linton – Economic Development Commission, Mary Phillips – Department of Technical and Community Services, Matt Duvall – Department Of Technical And Community Services, William Cornish – Department Of Technical And Community Services, Tracey Taylor – Maryland Department of Planning, Woody Barnes – Department of Public Works, Michele King – SP&D.

### Comprehensive Plan Update

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Somerset County has initiated its comprehensive plan update, which is a long-range guide to strengthen our community over the next 20 years through land use planning, preservation, and investment. This plan is an update of the [1996 Somerset County Comprehensive Plan](#). The Department of Technical and Community Services along with their consultant, SP&D will draft the plan update, which will be overseen by the Somerset County Planning Commission. Following the plan review and public comment process, the plan will be adopted by the Board of County Commissioners.

Chapters of the plan currently available as working drafts for review and comment include:

- Chapter 2: Community Profile
- Chapter 3: County & Municipal Plan Integration
- Chapter 4: Economic Vitality
- Chapter 5: Affordable Housing
- Chapter 6: Community Facilities
- Chapter 7: Transportation

Updates since the last TC Meeting include:

- Visioning Workshop held on January 31, 2024. Targeted multi-week Facebook advertising the workshop. Stats: 4,000 persons reach, and ~200 new visits to the project website. Provided the public the opportunity to help craft the

comprehensive plan's "vision statement." Eight members of the public in attendance.

- Added Draft Vision and public comment form to project website following the Visioning Workshop.
- Completed Public Surveys: 181

### TC Meeting Purpose

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The purpose of this Technical Committee Meeting was to review **discussion questions** and proposed **goals and strategies** associated with the drafts of *Chapter 8: Sensitive Areas*. Attendees signed up to join this topical meeting at the first TC meeting.

### Sensitive Areas

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Land Use Article requires jurisdictions to protect streams and their buffers; the 100-year floodplain; habitats of threatened and endangered species; and steep slopes, wetlands and agricultural and forest lands intended for resource protection or conservation.

An overview for each of the sensitive areas (environmental resources) listed above was provided during the meeting.

- **Streams:** There are 74 streams within Somerset County. Main tributaries include Wicomico Creek, Monie Bay, Manokin River, Kings Creek, Back Creek, the Big Annemessex River, the Little Annemessex River, the Pocomoke River

and Dividing Creek. All streams are controlled by tidal backwater except for Dividing Creek, which is controlled by riverine flooding. The 2015 Forest Conservation Ordinance requires a stream buffer of 50 feet from the top of the stream bank.

- **Floodplain:** Half the county is located within the 1% annual chance flood hazard area. In December 2023, the County adopted 1 foot freeboard. Both municipalities floodplain ordinance requires all new development to be built at 2 feet above Base Flood Elevation (BFE).
- **Wetlands:** The following wetland types were discussed.
  - Special State Concern Wetlands: Identified by MDE based on the "Prioritizing Sites for Wetland Restoration, Mitigation & Preservation in Maryland" Report.
  - National Wetlands Inventory (NWI): Includes wetlands identified by the US Fish & Wildlife Service. Typically, these include wetlands 5+ acres in size. Additional wetlands may exist.
  - Maryland DNR Wetlands: Wetlands identified by the Maryland Department of Natural Resources, which supplement NWI datasets.
- **Targeted Ecological Areas:** Lands and watersheds of high ecological value identified as conservation priorities by DNR. These lands include large blocks of forests and wetlands, rare species habitats, aquatic biodiversity hotspots, and areas important for protecting water quality.
- **Sensitive Species Project Review Areas (SSPRA):** Primarily represents the general locations of documented rare, threatened, and endangered species per the Wildlife & Heritage Service.
- **Slope:** The County is relative flat. According to a Custom USDA/NRCS Soil Resource Report for Somerset County, the only mapping unit with over 15%

slopes is Udorthents (refuse substratum) soils found in urban land – side slopes of low hills. Land mapped as Udorthents soils range from 5-35% slopes. This series covers approximately 67.3 acres of the County, located at the Somerset County Landfill.

- **Chesapeake Bay Critical Area:** The Critical Area includes all lands within 1,000 feet of the mean high-water line of tidal waters or the landward edge of tidal wetlands of the Chesapeake and Coastal Bays and their tidal tributaries. While the Critical Area Act aims to protect resources within the “critical area,” the law does not prohibit development within the designated territory. Instead, the law regulates and restricts land development.
- **Protected Lands:** These lands consist of Maryland Environmental Trust, Maryland Agricultural Land Preservation Foundation, Transfer of Development Rights, Program Open Space, Conservation Reserve Enhancement Program, and Agricultural Conservation Easement Program. A total of 81,569 acres are preserved in Somerset County.
- **Sea Level Rise:** Relative Sea Level Rise expected for Maryland between 2000 and 2050 is 0.8 to 1.6 feet. Scientists predict that with climate change, sea levels may rise as much as 2-3 feet in the Chesapeake Bay by 2100. A map illustrating 1, 2 and 3 feet of sea level rise was reviewed.
- **Fisheries:** The following fisheries are in the county: MeTompkin Bay Oyster Company, Southern Connection Seafood, Handy Seafood, and Somerset Seafood Company.

Highlights from session with TC members  
specific to sensitive areas included:

- Saltwater intrusion is a concern. A mitigation measure for this issue is Thin Layer Placement.
- Shoreline protection should be included within the chapter.
- Explore the possibility of making the County Maryland Agricultural Land Preservation Foundation (MALPF) Certified.
- Chapter should include a map depicting state owned lands.
- John Redden will provide a listing of boat slips and waterway facilities for inclusion in the plan.
- Tracy Taylor will provide information on the Priority Preservation Element which is required for the Maryland Agricultural Land Preservation Foundation (MALPF) Certified.
- Mary Phillips will provide current code information on Transfer of Development Rights (TDR).

## Goals & Strategies

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Draft Goals & Strategies for Chapter 8: Sensitive Areas were discussed during the meeting. Thereafter modifications were made reflective of TC member comments.

## June 6, 2024, Technical Committee Meeting Notes

**In attendance (alphabetical order):** Catherine Skeeter – Department Of Technical And Community Services, Cody Bradshaw – Sanitary District, Danny Thompson – Economic Development, Jesse Drewer – Department of Technical and Community Services, John Redden – Office of County Engineer, Laraine Buck – Department of Emergency Services, Mark Carey – MDA Soil Conservation, Mary Phillips – Department of Technical and Community Services, Matt Duvall – Department Of Technical And Community Services, Rich Padgett – Sanitary District, Tony Stockus – Sanitary District, Tracey Taylor – Maryland Department of Planning, William Cornish – Department Of Technical And Community Services, Woody Barnes – Department of Public Works, Michele King – SP&D, Eric Messick – SP&D.

### Comprehensive Plan Update

Somerset County has initiated its comprehensive plan update, which is a long-range guide to strengthen our community over the next 20 years through land use planning, preservation, and investment. This plan is an update of the [1996 Somerset County Comprehensive Plan](#). The Department of Technical and Community Services along with their consultant, SP&D will draft the plan update, which will be overseen by the Somerset County Planning Commission. Following the plan review and public comment process, the plan will be adopted by the Board of County Commissioners.

Chapters of the plan currently available as working drafts for review and comment include:

- Chapter 2: Community Profile
- Chapter 3: County & Municipal Plan Integration
- Chapter 4: Economic Vitality
- Chapter 5: Affordable Housing
- Chapter 6: Community Facilities
- Chapter 7: Transportation
- Chapter 8: Sensitive Areas

Updates since the last TC Meeting include:

- Received public comments on both the draft chapters and draft Vision Statement. All comments will be included with the final plan version.

- The Public Survey is now **CLOSED**. Total completed surveys: 371.

### TC Meeting Purpose

The purpose of this Technical Committee Meeting was to complete a **group mapping exercise**, review **discussion questions**, and proposed **goals and strategies** associated with the draft of *Chapter 9: Water Resources*. Attendees signed up to join this topical meeting at the first TC meeting.

### Water Resources & Land Use

**Chapter 9: Water Resources** is an update to the 2010 Water Resources Element, which was an amendment to the 1996 Comprehensive Plan, and a standalone document.

The purpose of the Water Resources chapter is to identify:

- **Drinking water and other water resources** that will be adequate for the needs of **existing and future development** proposed in the land use element of the plan; and,
- **Suitable receiving waters** and land areas to meet **stormwater (SW) management and wastewater treatment and disposal** needs of existing and future development proposed in the land use element of the plan (Land Use Article §1-410 and §3-106).

In 2022, Maryland issued [Water Resources Element \(WRE\) Guidance Update](#). The update to the state's WRE Guidance provides best practices regarding analyses and approaches for:

- Ensuring receiving waters are protected as the local land use plan is developed and implemented, reflecting changes to the Maryland Department of the Environment's (MDE) water resources programs over the past decade; and
- Integrating **climate change** considerations, particularly **flood**ing **risks**, into the drinking water, wastewater and stormwater assessments of the WRE.

At the time of developing the Water Resources Chapter, the following data from the Draft W&S Plan was unavailable, including:

- Current and potential service areas – mapping & GIS data
- Water Supply and Demand Projections
- Wastewater Demand Projections

*Note: Proposed water and sewer extension areas included in the following exercise are based on narrative found in the two drafts provided (**Chapter 3 and 4**) of the W&S Plan.*

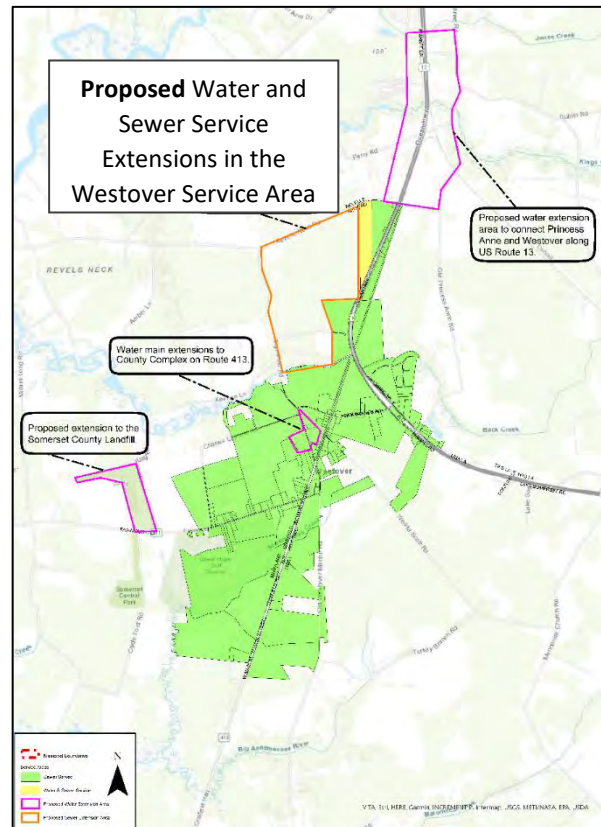
Group mapping exercise included:

- Two groups were asked to review four current water and sewer service areas in the County for proposed future extension water and/or sewer service areas. Proposed service areas were mapped on 11x17" paper along with the following reference mapping:
  - PFA Areas
  - Growth Areas
  - Special Flood Hazard Areas
  - Development Density
  - Critical Areas
  - Wetlands
  - Sea Level Rise

- Existing Land Use
- Zoning
- Growth Areas

- Service Areas examined included: Greater Princess Anne, Fairmount, Westover, and Greater Crisfield.
- Groups were asked to consider the following questions while examining each mapped service area:
  1. Do you **agree** with the proposed extension areas?
  2. **If not**, what are your **suggestions**?
  3. Do you see **other connections** or areas for water and/or sewer expansion, if any?
  4. What are your thoughts on **future growth** in these areas?

An example of a mapped service area as included in the discussion is shown below. Pink represents proposed water extension and orange is proposed sewer extension.



**Chapter 9: Water Resources** will be modified based upon the information gathered during the group mapping activity. Land Use recommendations gathered during the activity will be integrated into **Chapter 10: Land Use**.

Additional question asked of the TC members following the group exercise:

- (Social Equity lens) What are known vulnerable populations that have water, or sewer needs greater than the average resident?
  - Identified groups included: low-income households that have trouble paying their utility bills (~25% of population) and aging populations in areas with failing septic.

## Goals & Strategies

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Draft Goals & Strategies for Chapter 9: Water Resources were discussed during the meeting. Thereafter, modifications were made reflective of TC member comments.

# Plan Comments

Plan Comments		
Chapter	Page Number(s)	Comment
4	4-4, 4-11, 4-14	Section 4.2.2 - Could mention proposed Tidal Health Pavilion in Hopewell, Lower Shore Immediate Care in Princess Anne, Chesapeake Health Care in Princess Anne, Somerset Health Department in Westover, local doctor's offices or local pharmacies. Could mention Somerset Animal Hospital and local boarding kennels. Section 4.2.5 - Should de-emphasize wind energy systems as they are strongly discouraged by DoD due to potential impacts to Patuxent Naval Air Station operations. Section 4.3 - Could provide map or list of key tourism locations from an existing plan. Miscellaneous - Could mention UMES Hospitality & Tourism Management, Aviation Science and PGA Golf Management, Pharmacy, Agriculture, Urban Forestry, Environmental Science and Engineering programs. Could mention UMES, SU and Wor-Wic for their support of our local and regional economy.
6	6-2	Ewell Elementary School closed in 2023

## Appendix C: Housing Needs Assessment Method

Somerset County conducted a basic housing needs assessment to determine the number of residential housing units the County will need to add by 2030 in order to keep pace with projected demographic changes.

To conduct the housing needs assessment, the following steps were taken:

1. Collect housing and population data from the U.S. Census Bureau and American Community Survey;
2. Project future population by utilizing the Cohort-Component Method;
3. Convert projected population into households by using headship rates;
4. Calculate housing units needed, and;
5. Allocate housing needs in proportion to income categories/affordability.

Future residential housing unit needs are calculated by converting household data into housing units by tenure (owners and renters), and projecting population growth from 2020 to 2030 in Somerset County.

Projected population growth between 2020 and 2030 was calculated for this housing needs assessment via the completion of a Cohort-Component method, as described in *Planning Support Methods: Urban and Regional Analysis and Projection* (Rowan and Littlefield, 2018). The Cohort-Component method projects the male and female population in age cohorts (as included on Table C-1) for up to thirty years.

The following parameters are required to begin the method:

1. **Study Area:** Somerset County, Maryland
2. **Population:** Total population of the County
  - a. Somerset County's male and female population in seven age cohorts in the launch year and five years preceding the launch year.
3. **Launch Year:** 2020
4. **Target Year:** 2030
5. **Life Table Area:** United States
  - a. Life Table Tx Values: the male and female life table Tx values for nineteen one-year age intervals (0-1 through 90-91) in the launch year

The age cohorts utilized in the Cohort-Component calculations were combined for Somerset County and are shown below. This data was gathered for the launch year (i.e., 2020) from the U.S. Census Bureau.

**Household:** A household includes all the people who occupy a housing unit (such as a house or apartment) as their usual place of residence.

**Householder:** The person, or one of the people, in whose name the home is owned, being bought, or rented.

**Housing Unit:** A house, an apartment, a mobile home or trailer, a group of rooms, or a single room occupied as separate living quarters, or if vacant, intended for occupancy as separate living quarters.

Source: [www.census.gov/glossary/](http://www.census.gov/glossary/)

**Table C-1.**

Population Cohort Assessment for Somerset County (as of 2020)		
Population Cohort	Total Population (2020)	% of Total
Under 15	3,445	14%
15 to 24 years	4,263	18%
25 to 34 years	3,658	15%
35 to 44 years	3,002	12%
45 to 54 years	2,805	11%
55 to 64 years	3,261	13%
65 years and over	4,238	17%
Totals	24,672	100%

Next, the following data was needed to complete the population projection:

- **Study Area Live Births:** Somerset County's male and female live births by age of mother (ages 10-14 through 50-54) in the launch year and five years before the launch year, and;
- **National Population Data:** the nation's male and female population for the age cohorts from five years preceding the launch year to five years preceding the target year.

This data is input into an excel workbook and calculated automatically using the Cohort-Component method. More information about this method is available at [Census.gov](https://www.census.gov).

The population projections for 2030, by age cohort, look as follows for Somerset County:

**Table C-2.**

Population Projections (from Cohort Projection) for Somerset County (by 2030)		
Population Cohort	Total Population (2030)	% of Total
Under 15	4,068	15%
15 to 24 years	3,843	14%
25 to 34 years	4,941	18%
35 to 44 years	4,117	15%
45 to 54 years	3,294	12%
55 to 64 years	3,019	11%
65 years and over	4,168	15%
Totals	27,450	100%

The 2030 population projections form the basis of the housing unit need assessment for Somerset County. Results of the assessment are shown in Table C-3, following.

**Table C-3.**

<b>Results of the Housing Needs Assessment for Somerset County, Maryland</b>	
<b>Population And Household Characteristics (As Of 2020)</b>	
<b>ATTRIBUTE</b>	<b>FIGURE</b>
Total Population, 2020	24,672
Group Quarters Population, 2020	4903
% Group Quarters Population, 2020	20%
Average Household Size, 2020	2.37
Housing Units, 2020	10,925
<b>Population And Housing Unit Projections (By 2030)</b>	
<b>ATTRIBUTE</b>	<b>FIGURE</b>
Population Projection, 2030	27,450
Group Quarters Population, 2030	5490
% Group Quarters Population, 2030	20%
Household Population, 2030	27,450
Average Household Size, 2030	2.37
# of Households, 2030	8,735
Housing Units Needed in 2030, with 5% vacancy rate	11,471
Loss Rate of Housing Units	0.20%
Housing Units Lost, 2020-2030	17
Existing Units Still Available in 2030	10,908
Total New Units Needed	563
Average New Units Needed Per Year	56

### Housing Affordability Assessment

In addition to the housing needs analysis, a housing affordability assessment was conducted for Somerset County utilizing the same data sets. The housing affordability analysis examines the affordability of housing for homeowners and renters by age cohort in Somerset County. Housing is considered to be “affordable” if the cost of rent or mortgage is 30% or less of the household’s total monthly income. Results of the analysis are shown in Table C-4 and C-5 for homeowners and renters, respectively.

**Table C-4.**

Housing Affordability for Homeowners in Somerset County, Maryland					
AGE OF HOUSEHOLDER BY SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME					
	Age of Householder				
	15 to 24 years	25 to 34 years	35 to 64 years	65 years and older	Total
Less than 30 percent	38	268	2,153	1,571	4,030
More than 30 percent	43	72	807	555	1,477
<b>Total Householders</b>	<b>81</b>	<b>340</b>	<b>2,960</b>	<b>2,126</b>	<b>5,507</b>
Percent above 30%	53%	21%	27%	26%	-

**Table C-5.**

Housing Affordability for Renters in Somerset County, Maryland					
AGE OF HOUSEHOLDER BY GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME					
	Age of Householder				
	15 to 24 years	25 to 34 years	35 to 64 years	65 years and older	Total
Less than 30 percent	60	220	460	185	925
More than 30 percent	381	319	516	165	1,381
<b>Total Householders</b>	<b>441</b>	<b>539</b>	<b>976</b>	<b>350</b>	<b>2,306</b>
Percent above 30%	86%	59%	53%	47%	-

The total number of householders paying more than 30% of their monthly income on mortgage or rent in Somerset County is 2,858. This means that 10.4 percent of householders in the County are not living in affordable housing.

The affordability analysis shows that householders who rent are more likely to live in unaffordable housing than householders who own their home. On average, 62% of householders who rent live in unaffordable housing, while 31.7% of householders who own their home live in unaffordable housing. Young (age 15-24) renters and owners are more likely to live in unaffordable housing than others. Additionally, those householders aged 65 and older make up a sizeable portion of those living in unaffordable housing’ on average, 29% of householders aged 65 and older live in unaffordable housing.

# HOUSING NEEDS ASSESSMENT WORKBOOK DATA

Somerset County Housing Need 2020 - Headship (Householder) Rate and Ownership Model								
2020 Population								
	Population	%	HHs by Headholder	Formation (of Population)	Owned	Ownership Rate (of Heads)	Rented	% Rental
Under 15	3,445	14%	0	0%	0	0%	0	0%
15 to 24 years	4,263	18%	644	15%	81	12.50%	563	87.50%
25 to 34 years	3,658	15%	927	25%	340	36.70%	587	63.30%
35 to 44 years	3,002	12%	1,220	40%	722	59.20%	498	40.80%
45 to 54 years	2,805	11%	1,286	46%	987	76.70%	299	23.30%
55 to 64 years	3,261	13%	1,539	21%	1,258	81.70%	281	18.30%
65 years and over	4,238	17%	2,739	64%	2,254	82.30%	485	17.70%
<b>Totals</b>	<b>24,672</b>	<b>100.00%</b>	<b>8,355</b>		<b>5,642</b>		<b>2,713</b>	
2030 Population Projection								2020-2030 Change
	Population Projection (from Cohort Assessment)	%	Formation Rate	2030 HHs	Ownership Rate	2030 Owner	2030 Renters	Owners      Renters
Under 15	4,068	15%	0%	0	0	0	0	0      0
15 to 24 years	3,843	14%	15%	576	12.50%	72	504	(-) 9      (-) 59
25 to 34 years	4,941	18%	25%	1,235	36.70%	453	782	(+) 113      (+) 195
35 to 44 years	4,117	15%	40%	1,646	59.20%	974	672	(+) 252      (+) 174
45 to 54 years	3,294	12%	46%	1,976	76.70%	1,516	460	(+) 529      (+) 161
55 to 64 years	3,019	11%	21%	634	81.70%	518	116	(-) 740      (-) 165
65 years and over	4,168	15%	64%	2,668	82.30%	2,196	472	(-) 58      (-) 13
<b>Totals</b>	<b>27,450</b>	<b>100%</b>		<b>8,735</b>		<b>5,729</b>	<b>3,006</b>	

## Appendix D: Draft Parcel-Based Land Use Map Methodology

As part of this planning process, Somerset County requested early use of draft land use data from the Maryland Department of Planning. Somerset County reviewed this data prior to usage in this Comprehensive Plan. Per the Maryland Department of Planning (MDP) correspondence specific to data utilization August 14, 2024. The MDP's draft 2018 Land Use data along with the draft classification descriptions and methodology documentation were provided for the local review and comprehensive planning, however this information was not final. MDP's draft 2018 Land Use data was provided for use in the comprehensive plan. The final 2018 Statewide Land Use Map (2024 Edition) was released January 2025.

It is important to note that the dataset used for Somerset County existing land use was prepared by the Maryland Department of Planning (MDP) and contain the draft land use map for the County. Data was provided August 14, 2024, and was last updated on June 11, 2024. The land use classifications were preliminary and intended for review by local jurisdictions before becoming final. MDP indicated that Somerset County could utilize the draft 2018 data for the comprehensive plan with caveats. Somerset County's Department of Technical and Community Developed reviewed the draft dataset prior to inclusion in this plan document.

Note: The following information including the Summary, Description, Credits and Use Limitations was extrapolated from the MDP's [DraftLandUseMap\\_Somerset](#) shapefile.

### Summary

This dataset, prepared by the Maryland Department of Planning (MDP), contains a draft land use map for the State of Maryland. The land use classifications are preliminary and intended for review by local jurisdictions before becoming final.

### Description

This dataset, prepared by the Maryland Department of Planning (MDP), contains a draft land use map for the State of Maryland. The land use classifications are preliminary and intended for review by local jurisdictions before becoming final. Please do not circulate the draft widely or use it for analysis or mapping without permission from MDP. MDP recommends deleting any copies of this draft dataset following local review to avoid confusion with the final product. For more information about this layer, please see the webpage for reviewers or contact Deborah Sward at [deborah.sward@maryland.gov](mailto:deborah.sward@maryland.gov). This dataset was last updated on 06/11/2024.

### Credits

Maryland Department of Planning

### Use Limitations

Please do not circulate the draft widely or use it for analysis or mapping without permission from MDP. MDP recommends deleting any copies of this draft dataset following local review to avoid confusion with the final product.

Please feel free to use the draft information as you see fit for the comprehensive plan update, considering the following caveats we developed before releasing the draft for review:

The Maryland Department of Planning's (MDP) draft 2018 Land Use data are provided for the business purpose described above. When citing the data, please reference MDP's draft 2018 Land Use Map dated 11/28/2023. For draft classification descriptions and methodology documentation, please see MDP's temporary webpage for reviewers: <https://planning.maryland.gov/Pages/OurWork/Land-Use/draft-sw-landuse-map.aspx>. Please note that the data have not yet been reviewed by local jurisdictions and could change before being finalized for public use. Please do not circulate or use the data or above webpage for mapping or analysis purposes other than those described above without permission from MDP. Due to methodology changes since 2010, the draft 2018 data are not comparable with MDP's 2010 Land Use Land Cover map. If you encounter quality issues with the draft data, please contact Deborah Sward at [Deborah.sward@maryland.gov](mailto:Deborah.sward@maryland.gov) so that MDP may consider your feedback during the review phase.

## **Maryland Department of Planning Draft Statewide Land Use Classification Definitions - DRAFT**

### **Urban Land Uses**

**11 Low-density residential** - Detached single-family/duplex dwelling units, yards, and associated areas. Includes generalized areas with lot sizes of less than five acres but at least one-half acre (0.2 to 2 dwelling units/acre).

**12 Medium-density residential** - Detached single-family/duplex, attached single-unit row housing, yards, and associated areas. Includes generalized areas with lot sizes of less than one-half acre but at least one-eighth acre (2 to 8 dwelling units/acre).

**13 High-density residential** - Attached single-unit row housing, garden apartments, high-rise apartments/condominiums, mobile home and trailer parks, yards, and associated areas. Includes generalized areas with more than eight dwelling units per acre. This may include subsidized housing.

**14 Commercial** - Retail and wholesale services. Areas used primarily for the sale of products and services, including associated yards and parking areas. This category may include airports, welcome houses, telecommunication towers, and boat marinas.

**15 Industrial** - Manufacturing and industrial parks, including associated warehouses, storage yards, research laboratories, and parking areas. Warehouses that are returned by a commercial query should be categorized as industrial. This also includes power plants.

**16 Institutional** - Elementary and secondary schools, middle schools, junior and senior high schools, public and private colleges and universities, military installations (built-up areas only, including buildings and storage, training, and similar areas), churches, medical and health facilities, correctional facilities, government offices and facilities that are clearly separable from the surrounding land cover, and other non-residential non-profit uses.

**17 Extractive** - Surface mining operations, including sand and gravel pits, quarries, coal surface mines, and deep coal mines. Status of activity (active vs. abandoned) is not distinguished.

**18 Open urban land** - Urban areas whose use does not require structures, or urban areas where nonconforming uses characterized by open land have become isolated. Included are golf courses, parks, recreation areas (except areas associated with schools or other institutions), open spaces, and cemeteries.

**190 – Very Low Density Residential** – Clustered residential parcels that have lot sizes less than 20 acres but at least five acres (0.2 to 0.05 dwelling units/acre)

## **Water**

### **50 – Water**

## **Transportation**

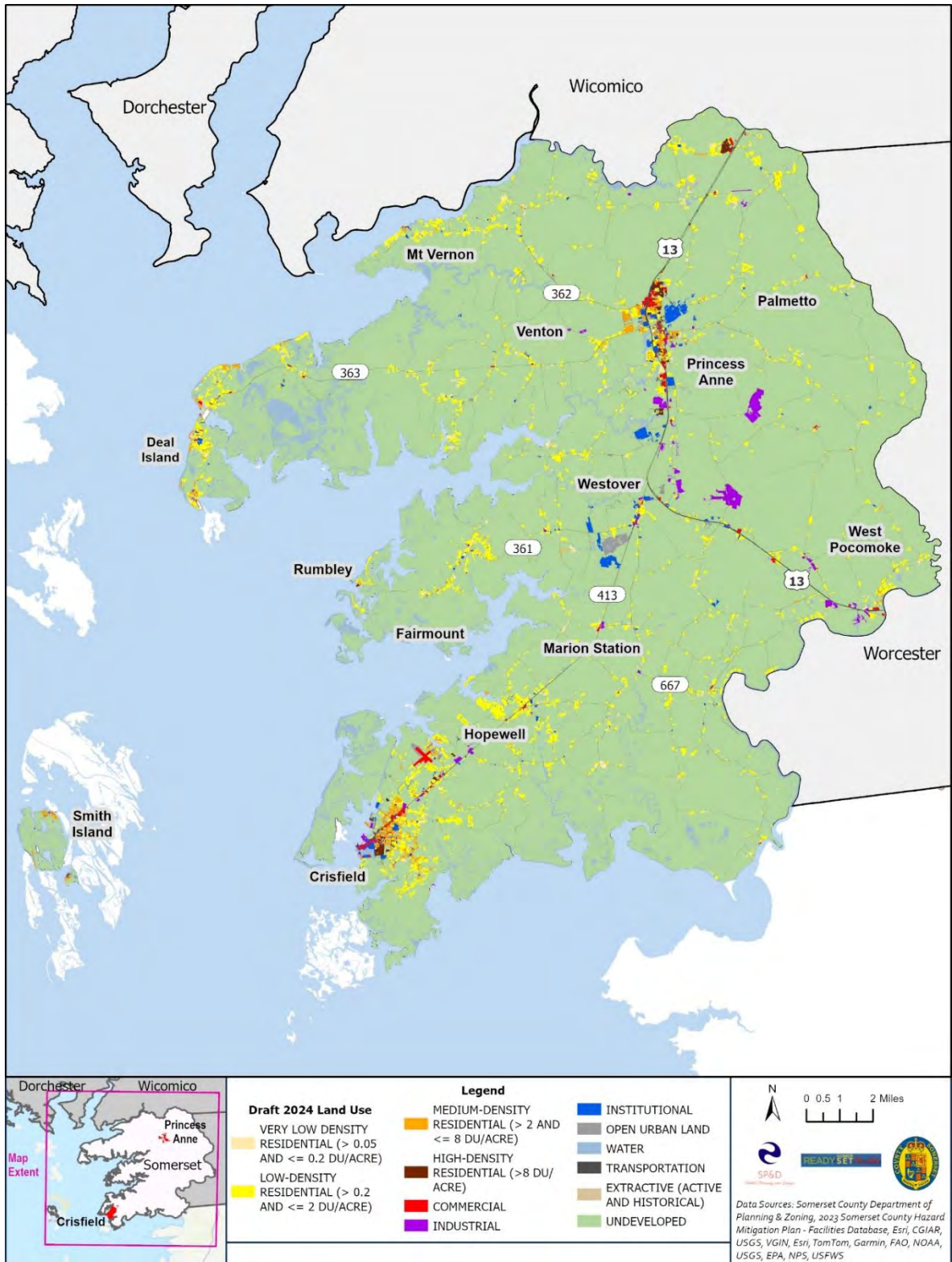
**80 – Transportation** - Transportation features include impervious roads, roadway rights-of-way, and parcels primarily containing light rail or metro stations and Park-and-Ride lots.

### **Undeveloped Resource Land**

**99 – Undeveloped Resource Land** - Remaining land not covered under another category. Includes rural land, single-family residential parcels greater than or equal to 20 acres in size, and undeveloped portions of urban parcels.

Note: Urban Land Use classifications encompass the entire parcel on parcels less than five acres that contain a structure as of 2018 based on the Maryland Department of Planning and Maryland State Department of Assessment and Taxation's Computer-Assisted Mass Appraisal (CAMA) Building dataset. Elsewhere, the Chesapeake Bay Program's 2017/18 Land Use Land Cover dataset (2022 edition) is used to delineate the developed extent of the parcels. For more information, see Methodology Documentation.

The Maryland Department of Planning Draft 2018 Land Use Map shows generalized locations of developed land, including varying densities of residential land and commercial, industrial, institutional, other developed, and undeveloped resource land uses.



## Parcel-Based Existing Land Use Methodology

Utilizing the draft MDP 2018 Land Use data, the following steps were taken to develop the draft parcel-based existing land use data.

### Transferring MDP Draft 2018 Land Use Categories to Somerset County Parcels

Step 1: Utilize [Summarize Within \(Analysis\) Tool](#)

- This tool allows the user to overlay a polygon layer with another layer to summarize area of the polygons within each polygon and calculate attribute field statistics about the features within the polygons.
- Parameters used with tool:
  - Input Polygon: SomePoly
  - Input Summary Features: DraftLandUseMap\_Somerset
  - Output Feature Class: SomePoly\_SummarizeWithin
  - Keep all input polygons: Checked
  - Summary Fields:
    - Field: gridcode
    - Static: Mean
  - Add shape summary attributes: Checked
  - Shape Unit: Acres
  - Group Field: gridcode
  - Add minority and majority attributes: Checked
  - Add group percentages: Unchecked
  - Output Grouped Table: gridcode\_Summary
- Run tool to develop new shapefile: SomePoly\_SummarizeWithin

Step 2: Based symbology on attribute: Majority gridcode

Step 3: Overlay DraftLandUseMap\_Somerset shapefile on SomePoly\_SummarizeWithin shapefile.

Step 4: Review for accuracy and ensure appropriate land use category is assigned to each polygon.

Step 5: Use the acreage for each parcel to ensure the correct land use category is assigned to the parcels.

Step 6: When necessary, reassign polygon to correct land use category.

- Visual inspection of parcels with multiple land uses
- Determine appropriate land use for entire parcel
  - Use Urban Land Use categories definitions
- Modify to appropriate land use category
  - Some parcels were split

Once completed, the draft parcel-based existing land use data was incorporated into Chapter 10: Land Use. The map below depicts the draft parcel-based existing land use for Somerset County.

