Salisbury/Wicomico Metropolitan Planning Organization 2023 Long Range Transportation Plan

Financial Assistance Provided By:

MARYLAND DEPARTMENT OF TRANSPORTATION

Delaware Department of Transportation

U.S. Department of Transportation
Federal Transit Administration

U.S. Department of Transportation
Federal Highway Administration

Prepared in cooperation with the United States Department of Transportation, Federal Highway Administration and Federal Transit Administration.

Technical Assistance Provided By:

Rossi

MPO Adopted:
March 4, 2024

Federal Concurrence:
August 8, 2024

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RESOLUTION BY THE SALISBURY/WICOMICO METROPOLITAN PLANNING ORGANIZATION COUNCIL ADOPTING THE 2023 LONG-RANGE TRANSPORTATION PLAN, *CONNECT 2050*
RESOLUTION 03-2024

WHEREAS, the Salisbury/Wicomico Metropolitan Planning Organization ("S/WMPO") was established to conduct regional transportation planning for the S/WMPO area in accordance with Federal requirements;

WHEREAS, the S/WMPO Council is the governing body for the S/WMPO;

WHEREAS, Federal regulations require the endorsement by the S/WMPO (Technical Advisory Committee and Council) of a Long-Range Transportation Plan ("LRTP"), which serves as a guide for transportation improvements in the S/WMPO region over the next 30-year period extending from 2023 – 2053. This financially constrained LRTP is multi-modal in nature and developed in conjunction with the Maryland and Delaware Departments of Transportation and in accordance with applicable Federal guidelines governing the development of transportation plans by metropolitan planning organizations;

WHEREAS, on February 6, 2024, the 2023 Long-Range Transportation Plan, *Connect 2050* was reviewed by the S/WMPO TAC, which made a favorable recommendation to forward the LRTP to the S/WMPO Council for review and action;

WHEREAS, the 2023 Long-Range Transportation Plan, *Connect 2050,* was presented at a public hearing of the S/WMPO Council on February 21, 2024, and consistent with the requirements of the Organization's Adopted Public Participation Plan a 30-day public comment period was instituted prior to the public hearing. No public comments were received; and

NOW, THEREFORE, BE IT RESOLVED the S/WMPO Council does hereby adopt the 2023 Long Range Transportation Plan, *Connect 2050,* for the S/WMPO Urban Area.

3/4/24
Date

Matthew E. Creamer, Chairman, S/WMPO Council

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U.S. Department of Transportation

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Region III
1835 Market Street, Suite 1910
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Federal Highway Administration
Delaware Division
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Dover, DE 19904
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(302) 734-3066 (fax)

August 8, 2024

Mr. Matt Creamer, Chair
125 N. Division Street
Room 203 - 2nd Floor
Salisbury, MD 21801

Re: Air Quality Conformity Determination for the Fiscal Year (FY) 2023-2026 Transportation Improvement Program (TIP) and the Connect 2050 Long Range Transportation Plan (LRTP) for the Salisbury/Wicomico Metropolitan Planning Organization (S/WMPO)

Dear Mr. Creamer:

The 1990 Amendments to the Clean Air Act require transportation air quality conformity determinations for Metropolitan Transportation Plans (MTP), Transportation Improvement Programs (TIP), sections of a State Transportation Improvement Program (STIP) covering rural nonattainment/maintenance areas, and projects in areas that are designated as air quality nonattainment and maintenance areas. Section 176 (d) of the Clean Air Act establishes priority requirements for programs supported by the Federal government that target nonattainment or maintenance areas in order to provide for timely implementation of eligible portions of air quality plans.

The Federal Transit Administration (FTA) and Federal Highway Administration (FHWA) coordinated the transportation air quality conformity determinations submittal with the Environmental Protection Agency (EPA) and are jointly making this air quality conformity determination for the 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS) for Sussex County (i.e., Seaford, DE Nonattainment Area). This determination was triggered by Delaware's update to its Capital Transportation Program (CTP), which serves as the State's STIP, and incorporates the S/WMPO FY 2023-2026 TIP and the Connect 2050 LRTP. The conformity determination applies to the S/WMPO's Connect 2050 LRTP and FY 2023-2026 TIP. The last air quality conformity determination was made on February 17, 2023.

On July 1, 2024, in a letter to FHWA's Delaware Division regarding the review of the 1997, 2008, and 2015 8-Hour Ozone Standards Conformity (enclosed), the EPA acknowledged its review supporting the conformity finding of the region's FY 2023-2026 TIP and Connect 2050 LRTP.

Based on our evaluation of the material submitted, coordination with EPA's Region 3 Office, FTA and FHWA find that the analytical results provided by S/WMPO to demonstrate conformity are consistent with EPA's Transportation Conformity Rule (40 CFR Part 93), as amended. FTA

and FHWA find that the FY 2023-2026 TIP and the Connect 2050 LRTP conform to the region's State Implementation Plans and that the conformity determination has been performed in accordance with the requirements specified in the Transportation Conformity Rule (40 CFR Part 93), as amended.

FTA and FHWA find that the FY 2023-2026 TIP was developed based on a continuing, cooperative, and comprehensive transportation planning process carried on cooperatively by S/WMPO, the Delaware Authority for Regional Transit (DART), and the Delaware Department of Transportation (DelDOT) in accordance with the requirements of 23 USC 134 and 49 USC 5303.

Based on our transportation planning regulatory requirements, our day-to-day involvement, and extensive review of technical analysis reports, and in accordance with the provisions of Section 134(h)(2)(B), Title 23 USC, FTA and FHWA find the financial information needed to support our fiscal constraint determination is complete.

Any questions concerning this approval should be directed to Enos Han, FHWA Delaware Division, 302-734-4018, or Daniel Sommerville, FTA Region III at 215-656-7243.

Sincerely,

Digitally signed by THERESA GARCIA CREWS
Date: 2024.08.08 11:16:26 -04'00'

Terry Garcia Crews
Regional Administrator
Federal Transit Administration

DOUGLAS S. ATKIN
Digitally signed by DOUGLAS S. ATKIN
Date: 2024.08.09 07:37:31 -04'00'

Doug S. Atkin
Division Administrator
Federal Highway Administration

CC: Pamela Steinbach, DelDOT
Mike DuRoss, DelDOT
Gregory Becoat, EPA Region 3
Jasmine Champion, FHWA Maryland
Enos Han, FHWA Delaware
Tony Tarone, FTA Region 3
Laura Keeley, FTA Region 3
Daniel Sommerville, FTA Region 3
Keith Hall, S/WMPO

REGION 3
PHILADELPHIA, PA 19103

July 1, 2024

Mr. Douglas S. Atkin
Federal Highway Administration
Delaware Division Administrator
1201 College Park Drive (Suite 102)
Dover, Delaware 19904

Via email at doug.atkin@dot.gov

Dear Mr. Atkin:

This letter provides the U.S. Environmental Protection Agency's (EPA) response regarding the Salisbury-Wicomico Metropolitan Planning Organization's (SWMPO) conformity determination for the Fiscal Year (FY) 2023-2026 Transportation Improvement Program (TIP) and *Connect* 2050 Regional Transportation Plan (RTP). EPA has reviewed documentation submitted by SWMPO demonstrating that no new regionally-significant and/or non-exempt projects were added to the FY 2023-2026 TIP and the *Connect* 2050 RTP. As a result of EPA's findings, a regional emissions analysis is not required for the FY 2023-2026 TIP and the Connect 2050 RTP, pursuant to 40 CFR 93.109(f). However, all other transportation conformity requirements under 40 CFR 93.109(b) continue to apply. EPA has reviewed the associated conformity determination documentation related to the *Connect* 2050 RTP and FY 2023-2026 TIP. EPA concurs that this RTP and TIP conformity determination meets all other applicable requirements under the conformity rule at 40 CFR part 93.

If you have any questions, please do not hesitate to contact me or have your staff
Contact Mr. Gregory Becoat, Project Officer, Air & Radiation Division, 1600 John F. Kennedy Boulevard, Philadelphia, PA 19103, at 215-814-2036.

Sincerely,

CRISTINA FERNANDEZ
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Date: 2024.07.01 11:16:46 -04'00'

Cristina Fernández
Air & Radiation Division

Cc: Jasmine Champion, FHWA
(via email at jasmine.champion@dot.gov)
Daniel Koenig, FTA
(via email at daniel.koenig@dot.gov)
Daniel Sommerville, FTA
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(via email at lindsay.donnellon@dot.gov)
Keith Hall, SWMPO
(via email at khall@wicomicocounty.org)

SALISBURY/WICOMICO Metropolitan Planning Organization

S/WMPO Council

Matthew E. Creamer, Wicomico County, S/WMPO Council Chair
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Sharon Dashiell, City of Salisbury, Council
Greg Padgham, Tri-County Council of the Lower Eastern Shore, Executive Director
Marc Henderson, City of Fruitland, City Manager
Michael H. Vincent, Sussex County, County Council President, District 1

S/WMPO Techncial Advisory Committee

Tracey Taylor, Maryland Department of Planning, Director Lower Eastern Shore Regional Office, S/WMPO Chair
Dorothy Morris, Delaware Office of State Planning Coordination, Principal Planner, S/WMPO Vice-Chair
Rashad Pinckney, Maryland Department of Transportation, Rural Area Regional Planner
Melinda Stafford, Town of Hebron, Town Clerk
Andrew Wile, Shore Transit, Director
Tremica Cherry-Wall / Jared Kaufmann, Delaware Transit Corporation, Service Development Planners
Eric Berkheimer, Salisbury University, Associate Vice President of Facilities and Capital Management
Mike Gibbons, City of Fruitland, Director of Public Works and Utilities
Berley Mears, City of Seaford, Director of Public Works
Will White, City of Salisbury, Department of infrastructure and Development, Transportation Manager
Becky Robinson, Delmarva Water Transport Committee
Jim Thomas, Salisbury-Wicomico County Planning and Zoning Commission
Lauren DeVore, Sussex County Planning Department, Planner III
Keith D. Hall, Wicomico Co. Dept. of Planning, Zoning, and Community Development, Deputy Director
Delaware Department of Transportation
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Salisbury-Ocean City: Wicomico County Regional Airport
Wicomico County Department of Public Works
Town of Delmar

S/WMPO Staff

Keith D. Hall, AICP, S/WMPO Executive Director
Gary Pusey, S/WMPO Administrator

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How to Read this Plan

Connect 2050 is the 30-year Long Range Transportation Plan for the Salisbury Wicomico Metropolitan Planning Organization (S/WMPO). It identifies and details the transportation plans, projects, and programs that will be carried out by the S/WMPO during the next thirty years, from 2023 to 2050. Area transportation projects must be included within ***Connect 2050*** to qualify for Federal funding. Project inclusion reflecting new or evolving needs shall be updated at regular intervals and published in supplemental reports or attachments.

This document is organized around a series of topics and questions to assist the reader in finding the sections of the plan most relevant to his or her interests.

- **Use summary pages:** Each chapter begins with a summary page about how to "Connect With" the key points in that chapter.
- **Ask questions:** The section headers for each chapter are in the form of a question to guide the reader in understanding why the elements in the plan are important to the work of the S/W MPO and to the overall transportation landscape in the region.
- **Highlight key concepts:** Within each chapter, key terms and documents are highlighted with blue font and blue call-out boxes.

Chapter 1: The Plan, Process, and Purpose

This chapter provides an overview of the metropolitan transportation planning process and Federal requirements, discusses background information related to the establishment and organizational structure of the S/WMPO, and explains ***Connect 2050's*** development, use, and goals.

Chapter 2: The Metropolitan Region

A detailed description of current and future demographic characteristics of the S/WMPO region is included in this chapter. Understanding who lives in the region, how the region is changing, and the importance of considering environmental justice populations is critical to the metropolitan planning process. Additionally, this chapter includes a discussion of policy and planning for the natural environment.

Chapter 3: The Roadway System

The roadway system accounts for the vast majority of trips and of projects in the fiscally constrained plan in this region. Existing and forecast traffic conditions and recommendations from local plans inform the roadway needs in ***Connect 2050***.

Chapter 4: The Bicycle and Pedestrian System

A variety of infrastructure that supports access and mobility for bicyclists and pedestrians exists in the S/WMPO region. Local plans and priorities seek to expand this system.

Chapter 5: The Transit System

Shore Transit in Maryland and DART in Delaware comprise the transit system in the S/WMPO region. This chapter discusses the local plans and funding programs to expand these systems.

Chapter 6: The Freight System

This chapter discusses goods movement within Wicomico County, Sussex County, and in the combined region for current and projected tonnage, mode split, and the mix of commodities that are moved by each freight mode, as well as top trading partners.

Chapter 7: Safety and Security

Roadway safety statistics as well as policies and plans for a secure and resilient transportation system give a clearer picture of the long range priorities for the S/WMPO region.

Chapter 8: Long Range Plan Projects

Finally, this chapter presents the roadway, bicycle and pedestrian, freight system, and transit projects that accomplish system preservation and capacity expansion goals and that compose the fiscally constrained plan. Additional unfunded local priority projects and some opportunities for additional study are also included in this chapter.

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Chapter 1
Connect with… The Plan, Process, and Purpose

Chapter 1: Plan, Process, and Purpose

This chapter provides a general introduction to the Salisbury/Wicomico Metropolitan Planning Organization's role in regional transportation planning and describes the purpose and plan development process of *Long Range Transportation Plan - **Connect 2050***.

1.1 What is Transportation Planning?

The transportation system affects all aspects of daily life – commuting to work or school, movement of goods and freight, and ensuring national networks of highways, railroads, and airports connect people all over the world. Transportation planning is a continuing, cooperative, and comprehensive process. The goal of the 3C planning process is to identify improvements to facilities and operations in an effort to achieve a well-maintained, multimodal transportation system.

A transportation system must provide for the safe, convenient, affordable, and efficient movement of people, goods, and services within and between population and business centers. The transportation planning process involves a variety of governmental agencies, including, but not limited to local planning and public works departments, regional and state agencies, and the federal government. In addition, it involves all users of the system, including the business community, environmental organizations, public, freight operators, and community groups.

This process comprehensively considers strategies, evaluates diverse viewpoints and data sources, facilitates transportation-related agency and organization participation, and involves the public in an open, timely, and meaningful way. MPOs were created in order to ensure that existing and future expenditures on transportation projects and programs were based on a continuing, cooperative, and comprehensive planning process.

1.2 What is the Role of a MPO in Regional Transportation Planning?

Metropolitan Planning Organizations ("MPOs") assist with regional transportation decision-making and provide a critical link for coordinating transportation planning and programming between federal, state, and local governments, as well as the public. Regional transportation planning addresses shared challenges and financial investments of projects relating to transportation mobility, safety, and security over long time spans.

An MPO carries out five (5) core functions:

1. **Establish a setting:** Establish and manage a fair and impartial setting for effective regional decision making in the metropolitan area;
2. **Identify and evaluate alternative transportation improvement options:** Use data and planning methods to generate and evaluate alternatives. The Unified Planning Work Program ("UPWP") includes these planning studies and evaluations;

What is a Metropolitan Planning Organization?
An MPO is a federally mandated and federally funded transportation policy-making organization comprised of representative from local government and governmental transportation authorities.

The purpose of a MPO is designed to carry out the metropolitan transportation planning process for Urban Areas with populations greater than 50,000 and designated by local officials and the Governor of the state.

3. **Prepare and maintain a Long Range Transportation Plan ("LRTP" or the "Plan"):** Develop and update a Long Range Transportation Plan (i.e., a planning horizon of at least 20 years) for the metropolitan area that fosters mobility and access for people and goods, efficient system performance and preservation, and good quality of life;
4. **Develop a Transportation Improvement Program ("TIP"):** In conjuction with a state Department of Transportation, assist with the development of a short-range (four-year) program of transportation improvements based on the LRTP. The TIP should use spending, regulating, operating, management, and financial tools to target the area's goals; and
5. **Involve the public:** Involve the general public and other affected constituencies in the four essential functions listed above.

What is a Long Range Transportation Plan?
A document resulting from regional or statewide collaboration and consensus on a region or state's transportation system and serving as the defining vision for the region or state's transportation systems and services.

What is a Transportation Improvement Program?
A prioritized listing/program of transportation projects covering a period of four (4) years that is developed by an MPO as part of the metropolitan transportation planning process, consistent with the LRTP, and required for projects to be eligible for funding under title 23 U.S.C. and title 49 U.S.C. Chapter 53.

1.3 Why are MPOs Required?

The Federal Aid Highway Act of 1962 established the federal requirement for urban transportation planning in response to the construction of the Interstate Highway System and the planning of routes through, in between, and around urban areas. As a condition attached to the federal transportation financial assistance, the Act required transportation projects in urbanized areas of 50,000 persons or more to be based on a 3C transportation planning process (continuing, comprehensive, and cooperative). Federal surface transportation funding bills provide the foundation for MPO requirements.

While MPOs have existed in some parts of the country since the 1960s, MPOs gained new prominence and authority in 1991 with the passage of the Intermodal Surface Transportation Efficiency Act ("ISTEA"). The 1998 Federal transportation reauthorization, Transportation Equity Act for the 21st Century ("TEA-21"), and the 2005 reauthorization, Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users ("SAFETEA-LU"), each guaranteed over $200 billion in funding for highway and public transportation projects. SAFETEA-LU increased the focus of Federal transportation priorities on safety, equity, innovative finance, congestion relief, mobility and productivity, efficiency, environmental stewardship, and environmental streamlining. The 2012 reauthorization, Moving Ahead for Progress in the 21st Century ("MAP-21"), brought further modifications to the metropolitan planning process. On December 4, 2015, President Obama signed the Fixing America's Surface Transportation ("FAST") Act. The FAST Act, which expired September 30, 2020 (extended through FY2021), provided long-term funding certainty for surface transportation planning activities and infrastructure improvements and enhancements. Moreover, the FAST Act maintained a focus on safety and the established structure of various highway-related programs.

TEA-21 and SAFETEA-LU identified a set of federal metropolitan transportation planning factors to ensure that the transportation planning process is carried out in a manner consistent with federal regulations. These factors are the basis for goal setting, project recommendations, and financial prioritization in MPO plans. The FAST Act expanded the scope of consideration for the metropolitan planning process and included additional factors. See **Table 1.1**.

Table 1.1: Federal Metropolitan Transportation Planning Factors

Planning Factors
1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for motorized and non-motorized users.
4. Increase the accessibility and mobility of people and freight
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system
9. Improve transportation system resiliency and reliability and reduce (or mitigate) the stormwater impacts of surface transportation.
10. Enhance travel and tourism.

Source: https://www.ecfr.gov/current/title-23/part-450/subpart-C; https://safety.fhwa.dot.gov/tsp/fhwasa16116/saf_plan.pdf

President Biden signed the Bipartisan Infrastructure Law ("BIL"), enacted as the Infrastructure Investment and Jobs Act ("IIJA"), on November 15, 2021. The law funds Federal-aid highways, highway safety programs, transit programs, and other transportation programs with $567.5 billion through FY2026. The BIL continues the Metropolitan Planning Program with joint oversight by the FHWA and FTA. Minor changes incorporated as a result of the BIL include[1]:

- A requirement for the USDOT to amend federal regulations to define a metropolitan transportation plan's outer years as beyond the first four years.
- A requirement for an MPO that serves an area designated as a transportation management area to consider the equitable and proportional representation of the population of the MPO area.
- More than one MPO may be designated within an existing urbanized area (based on size and complexity).
- Allows MPOs to use social media and other web-based tools to encourage public participation.
- Incorporates housing considerations in the metropolitan transportation planning process.

1.4 What is the Salisbury/Wicomico Metropolitan Planning Organization (S/WMPO)?

The Salisbury/Wicomico Metropolitan Planning Organization is a federally mandated and federally funded MPO. As of the 2020 census, the FHWA has identified 420 MPOs[2] that exist nationwide, seven (7) of which include a portion of Maryland[3].

Based on the 2000 U.S. Decennial Census, an Urbanized Area (UA) consisting of the City of Salisbury, City of Fruitland, Town of Delmar, Maryland, and Town of Delmar, Delaware, as well as adjacent unincorporated areas of Wicomico County, Maryland, and Sussex County, Delaware met federal criteria requiring these jurisdictions establish an MPO.

[1] https://safety.fhwa.dot.gov/tsp/fhwasa16116/saf_plan.pdf
[2] https://narc.org/about/what-is-a-cog-or-mpo/
[3] https://www.planning.dot.gov/mpo/default.aspx

A Memorandum of Understanding ("MOU") formally establishing the S/WMPO was executed by the following member jurisdictions and entities on January 21, 2004: Maryland Department of Transportation ("MDOT"); Delaware Department of Transportation ("DelDOT"); Wicomico County; City of Salisbury; City of Fruitland; Town of Delmar, Maryland; Town of Delmar, Delaware; and the Tri-County Council of the Lower Eastern Shore of Maryland. The MOU established the framework for the creation of the Salisbury/Wicomico Metropolitan Planning Organization, mandated the creation and adoption of bylaws and a prospectus, and recognized Wicomico County, acting through its Department of Planning, Zoning, and Community Development, as the lead local government. On February 19, 2004, Maryland Governor Robert L. Ehrlich, Jr. designated the S/WMPO to serve as the Federally designated MPO for the region.

The primary mission of the S/WMPO is to perform transportation planning by establishing regional consensus on transportation planning, projects, and programs following prevailing federal transportation guidelines. The S/WMPO coordinates with appropriate authorities and departments of all impacted state and local governments in an effort to assist with solving regional problems and implement regional goals and policies.

As the S/WMPO works to fulfill its mission, its major goals include:

1. Facilitating efficient movement of people and goods;
2. Using existing facilities to the fullest extent practical;
3. Allocating limited financial resources to generate maximum benefit to the transportation system;
4. Limiting impacts on air quality, the built environment, as well as historic, cultural, and natural resources; and
5. Ensuring public involvement throughout the transportation planning and project development process.

Wicomico River in downtown Salisbury

While several other agencies implement transportation projects, the S/WMPO serves in an overall coordination role, assisting with planning and programming funds for projects and operations. The S/WMPO involves local transportation providers in the planning process by including transit agencies, state and local highway departments, maritime operators, and other entities within the region.

1.5 Where is the Urban Area of the S/WMPO?

The 2000 UA consisted of the City of Salisbury, the City of Fruitland, the Town of Delmar, Maryland, and the Town of Delmar, Delaware – as well as the adjacent unincorporated areas of Wicomico County, Maryland and Sussex County, Delaware. From a regional perspective, the S/WMPO area is located approximately equidistant (120 miles) from three (3) major urban areas – Philadelphia to the north, Baltimore-Washington D.C. to the west, and Norfolk-Hampton Roads area to the south.

At the time of the original designation, the multistate UA encompassed approximately 43.23 sq. miles. The Maryland portion of the UA accounted for roughly 99 percent or 42.68 sq. miles, whereas the Delaware portion covered 0.55-sq. mile or one (1) percent of the UA. Because of a change in the U.S. Census Bureau's delineation criteria of an urbanized area, the S/WMPO's 2010 UA expanded significantly into the western portion of Sussex County, Delaware along U.S. Route 13A to include the communities of Laurel, Blades, and Seaford. This UA was identified as the "Salisbury, MD—DE Urbanized Area." The total area of the 2010 UA increased by 29.95 sq. miles or 69.3 percent compared to the 2000 UA for the

S/WMPO. The 2010 UA boundary expanded to include the northern part of Somerset County, Maryland, the Town of Hebron, Maryland, and portions of the designated growth areas adjacent to Salisbury, Fruitland, and Delmar. Overall, the Delaware portion of the UA expanded by 20.96 sq. miles or 3,810 percent between 2000 and 2010. For comparative purposes, the Maryland portion increased by 8.99 sq. miles or 21.1 percent. The 2010 UA encompassed 73.18 sq. miles, of which 51.67 sq. miles were in Maryland and 21.51 sq. miles were in Delaware.

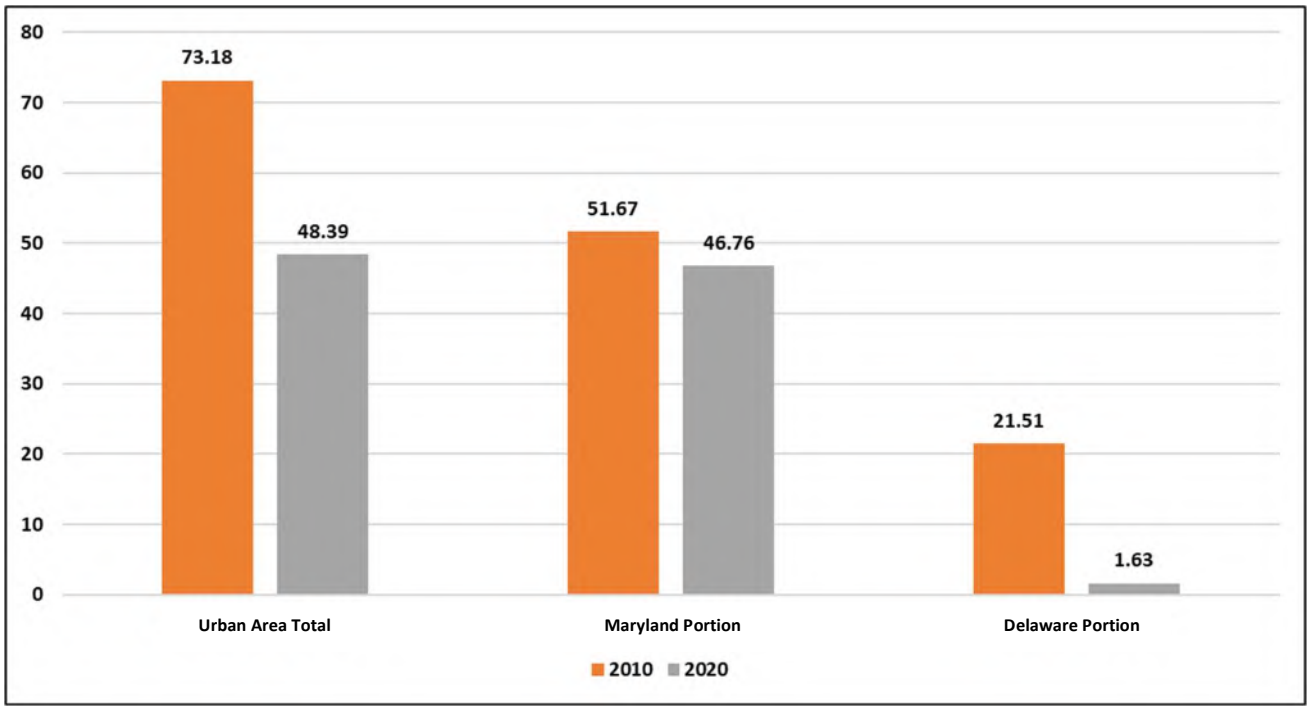
Following the 2020 census and as of December 2022, the U.S. Census Bureau reassessed and redefined "Urban Areas" with three changes to urban area concept and criteria[4]:

- The minimum population threshold to qualify an area as urban was increased from 2,500 to 5,000.
    - As an alternative, areas can also qualify based on a minimum housing threshold instead of qualifying based on population size.
- Housing unit density is now used instead of population density.
- There is no longer a difference between different types of urban areas.
    - All areas, regardless of population size, are now referred to as "urban areas."

As a result, the previous 2010 UA boundary has been redefined as two separate UAs. The "Salisbury, MD—DE Urban Area" no longer includes Somerset County, the Town of Hebron, along with other areas, and no longer includes Laurel, Blades, or Seaford. These Delaware municipalities, along with Bridgeville, are now identified as the "Seaford—Laurel—Bridgeville, DE Urban Area." See **Figures 1.2 and 1.3**.

[4] https://www.census.gov/newsroom/blogs/random-samplings/2022/12/redefining-urban-areas-following-2020-census.html

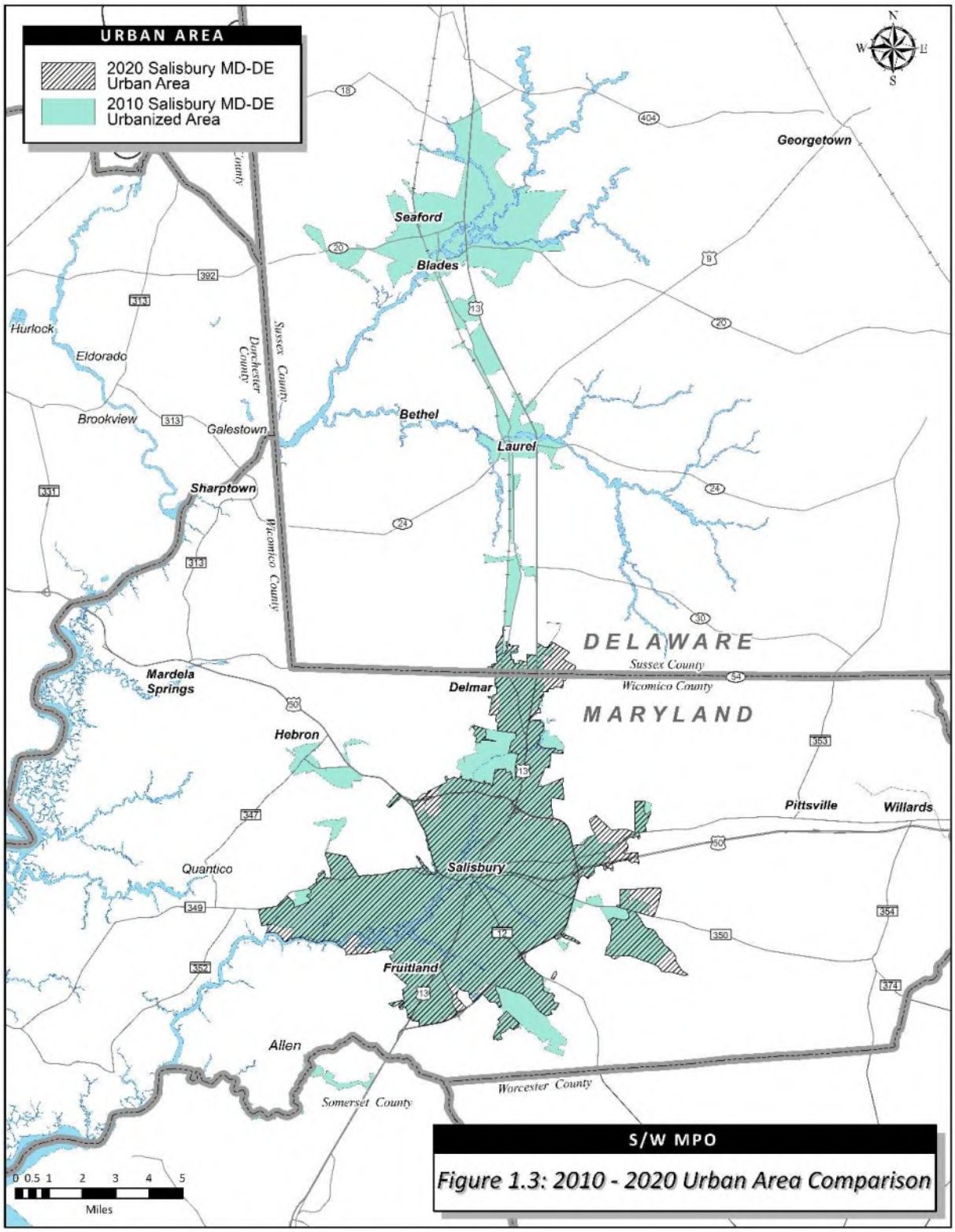
Figure 1.2: S/WMPO Urban Area Comparison – 2010 and 2020 (Sq. Miles)



Source: 2010 and 2020 U.S. Census, Salisbury/Wicomico Department of Planning, Zoning, & Community Development.

For comparative purposes, **Figure 1.3** depicts the changes between the 2010 and 2020 Urban Areas for the S/WMPO region.

Figure 1.3: S/WMPO Urban Area Comparison – 2010 and 2020



Source: 2010 and 2020 U.S. Census; Salisbury/Wicomico Department of Planning, Zoning, & Community

1.6 Where is the Metropolitan Planning Area of the S/WMPO?

In accordance with federal regulations, a MPO is permitted to delineate a **Metropolitan Planning Area ("MPA")** consisting of the U.S. Census Bureau's delineated UAs, and the contiguous area expected to be developed within a 20 to 30 year timeframe. The S/WMPO's MPA consists of census tracts adjacent to the 2020 UAs, which are located (in whole or partially) within designated growth areas included in locally adopted comprehensive plans (**Figure 1.4**). Upon adoption of the proposed MPA by the S/WMPO Council, the MPA for each State will be submitted to the Governors, or their appointed representatives, for approval.

A **Metropolitan Planning Area** is the existing urban and contiguous area expected to become urban within a 20-year forecast period for the long range transportation plan and represents the area of interest for a MPO to conduct regional Transportation planning activities and studies.

As of the 2010 Decennial Census, the MPA encompassed 118.66 sq. miles and has a total population of 104,103 persons. The Maryland portion accounted for 86.06 sq. miles or 72.5 percent of the total area and 77,976 persons or 75 percent of the population residing in the MPA. The remaining 32.6 sq. miles or 27.5 percent of the area and 26,127 persons or 25 percent of the population of the MPA was located in Delaware. Although the UAs have been redefined with the 2020 Decennial Census, the MPA will remain the same until a change is proposed by the S/WMPO Council.

The MPA is centered on Salisbury and encompasses portions of Maryland and Delaware. As of 2010, the Maryland portion of the MPA includes the City of Salisbury, City of Fruitland, Town of Delmar, Town of Hebron, and unincorporated areas of Wicomico County and Somerset counties. In Delaware, the MPA includes rural southern Sussex County, City of Seaford, and the Towns of Delmar, Laurel, and Blades. Salisbury is the economic, academic, medical, and institutional hub for this region.

Wicomico County is in the center of the Delmarva Peninsula. Due to its location at the intersection of major highways (U.S. Route 13 and U.S. Route 50) on the Eastern Shore of Maryland, it is the regional economic center. The jurisdictions below are included in the MPA:

- The **City of Salisbury**, the MPA's center, is the county seat and the largest city on Maryland's Eastern Shore. Referred to as the "Capital of the Eastern Shore," the City is home to Salisbury University and the Port of Salisbury, the second largest port in Maryland after the Port of Baltimore, Tidal Health, and Salisbury University.
- The **City of Fruitland** is south of Salisbury. The City is bisected from north to south by U.S. Route 13 and the Norfolk Southern freight line.
- The **Town of Hebron** is a small but growing town located northwest of Salisbury.
- The **Town of Delmar** is split by the Maryland and Delaware border, creating a Town of Delmar in each state. These small towns are situated in rural portions of southern Sussex and northern Wicomico Counties. Delmar is accessed via U.S. Route 13, and the Norfolk Southern freight line extends north-south through the towns.

Sussex County is the largest county in Delaware by land area and leads the state in agricultural production. Sussex is the fastest growing county in Delaware, due in part to the large influx of persons relocating to the area. The following jurisdictions are included in the MPA, located in the southernmost portion of this county at the Maryland border:

- The **City of Seaford** is an historic City situated along the Nanticoke River. The Norfolk Southern freight rail line and U.S. Route 13 cross though Seaford in a north-south direction. The City is home to the Port of Seaford and Tidal Health Nanticoke.

- The **Town of Laurel** is a community and business center located along U.S. Route 13 and the freight rail line in the rapidly growing southwestern part of the county.
- The **Town of Blades** is located along the Nanticoke River, adjacent to Seaford in the western part of the county. It is located 21 miles north of Salisbury, near U.S. Route 13.

Figure 1.4: S/WMPO Metropolitan Planning Area

Source: U.S. 2020 Census. DelDOT. Salisbury/Wicomico Department of Planning, Zoning, & Community

1.7 What is the Organizational Structure of S/WMPO?

MPOs vary greatly in scale; while some are in major cities with large, full-time staffs, others are in smaller areas and rely on staff support from participating agencies. The area that an MPO serves may span several counties or multiple states. There is no standard structure for MPOs, but most have three elements: an MPO Board or Council, Technical Advisory Committee, and MPO Staff.

The MPO Council is responsible for making regional transportation policy, planning, and programming decisions by prioritizing and choosing capital projects and operating strategies. The Council is comprised of 12 local elected officials and representatives of government agencies and serves as the governing body of the S/WMPO (**Table 1.2**).

Table 1.2: S/WMPO Council

Maryland Members
• Maryland Department of Transportation (one position) • Wicomico County, Maryland (three positions) • City of Salisbury, Maryland (two positions) • City of Fruitland, Maryland (one position) • Town of Delmar, Maryland (one position) • Tri-County Council for the Lower Eastern Shore of Maryland (one position)
Delaware Members
• Delaware Department of Transportation (one position) • City of Seaford, Delaware (one position) • Sussex County (one position)

The S/WMPO Council meets to act on transportation issues of regional significance within their study area. Local government entities designate representatives, while MDOT and DelDOT designate their own representatives.

The S/WMPO Council established a **Technical Advisory Committee ("TAC")** consisting of expert personnel, such as planners and engineers, from constituent agencies to provide technical expertise and develop recommendations to assist the Council's decision making. Typical duties of the TAC include reviewing and recommending revisions to the planning process, data collection, forecasts, LRTP, TIP, and the UPWP. TAC representatives are listed in **Table 1.3.**

Table 1.3: The S/WMPO Technical Advisory Committee

Members
State Agencies • Maryland Department of Transportation • Maryland Department of Planning • Delaware Department of Transportation* • Delaware Department of Natural Resources – Division of Air Quality* • Delaware Office of State Planning Coordination • Delaware Transit Corporation
County Agencies • Salisbury-Wicomico County Planning Commission • Wicomico County Department of Public Works* • Wicomico County Department of Planning, Zoning, & Community Development • Sussex County Planning Department • Salisbury Airport*
Municipal Agencies and Local Institutions • City of Salisbury Public Works • City of Fruitland • Town of Delmar (Maryland and Delaware)* • Town of Hebron • Delmarva Water Transportation Committee • Salisbury University • Shore Transit • City of Seaford (rotating 2-year appointment Laurel, Blades, and Seaford)
Ex-Officio Members
• Federal Highway Administration (“FHWA”) • Federal Transit Administration (“FTA”) • Maryland Department of Transportation - Maryland Transit Administration (“MDOT MTA”) • Maryland Department of Transportation - Maryland State Highway Administration (“MDOT SHA”)

* position vacant as of October 2023

The S/WMPO is staffed with personnel from the Wicomico County Department of Planning, Zoning, and Community Development. The S/WMPO Staff manages the daily operations of the organization as directed by the TAC and Council, and coordinates transportation planning projects and activities. In addition, the S/WMPO Staff serves as the local liaison to state and federal agencies involved in transportation planning and programming within the region.

Other issues relative to the organizational structure, including, but not limited to officers, staff structure, committees, financial organization, voting procedures, and other similar items can be found in the S/WMPO’s Bylaws. The Bylaws can be viewed on the Organization’s website at www.swmpo.org.

1.8 What is *Connect 2050*?

Connect 2050 is the Long Range Transportation Plan for the S/WMPO. It is the source for planning transportation investments for the region over the next 30 years. The Plan prioritizes projects and programs that have short- and long-term effects on daily commutes, transportation options, and quality of life in this region of Maryland and Delaware. ***Connect 2050*** guides future regional transportation system development and maintenance by integrating plans from different transportation modes including auto, transit, freight, waterways, biking, and walking. It presents constrained and unconstrained transportation projects for the region according to priorities and available funding through 2050.

The primary purpose of ***Connect 2050*** is to guide the S/WMPO and government agencies in the transportation decision-making process, channeling transportation investments where they will be most effective. ***Connect 2050*** can guide other municipal and state officials, local organizations, and private sector businesses to plan in concert with the region's overall transportation goals. This Plan is designed to be flexible and to reflect the unique characteristics of the Maryland and Delaware communities in the S/WMPO region. This Plan can be amended and/or updated by approval of the S/WMPO Council, following appropriate public review consistent with the Organization's adopted Public Participation Plan.

While the federal requirement provides for an updated LRTP every five (5) years, the S/WMPO is required to update the LRTP every four (4) years because a portion of the 2020 UA is in the Delaware air quality maintenance area. Federal regulations require air quality issues be considered during the preparation of the LRTP. The Maryland portion of the S/WMPO's UA meets air quality conformity criteria as identified in the 1990 Clean Air Act Amendments ("CAAA"); whereas the Delaware portion is designated as a maintenance area. See **Appendix B**.

MAP-21 and the FAST Act established new provisions to the metropolitan planning process that are designed to establish a transparent, accountable decision-making framework for the MPO and public transit providers to identify multimodal capital investment and project priorities. In 2016, USDOT issued a final rule regarding performance-based planning. The BIL provides for long-term investment in infrastructure utilizing the performance-based planning framework. ***Connect 2050*** addresses these requirements in **Appendix I**.

1.9 How was Connect 2050 Developed?

Connect 2050 closely relates to other aspects of the transportation planning process. As **Figure 1.5** illustrates, an LRTP is created by "inputs," including an understanding of a region's vision and goals, an assessment of alternative improvement strategies, and an evaluation and prioritization of strategies. Likewise, some of the immediate "outputs" from an LRTP include the S/WMPO's TIP development, projects development and implementation, and performance management.

Figure 1.5: The Transportation Planning Process

Source: https://www.fhwa.dot.gov/planning/publications/briefing_book/index.cfm, accessed May 23, 2023.

The S/WMPO and/or the member jurisdictions perform the following activities, which inform the long range transportation planning process:

- Monitor existing conditions;
- Forecast future population and employment growth, including assessing projected land uses in the region and identifying major growth corridors;
- Identify current and projected future transportation problems and needs and analyzing improvement strategies to address those needs;
- Develop long range plans and short-range programs of alternative capital improvement and operational strategies for moving people and goods;
- Estimate the impact of recommended future transportation system improvements on environmental features, including air quality; and
- Develop a financial plan for securing sufficient revenues to cover the costs of implementing strategies.

As illustrated in **Figure 1.6**, the ***Connect 2050*** Process involved sustained public input throughout the process of preparing technical data and analyses and identifying the available funding for the region over the 30-year plan horizon.

Figure 1.6: *Connect 2050* Process

This Plan synthesizes information and data from Federal, State, and local transportation plans, and studies summarized in **Table 1.4**. ***Connect 2050*** utilized data from many other sources as well, including the Census Bureau, USDOT, Maryland Department of Transportation, Maryland Department of Planning, Delaware Department of Transportation, Delaware Population Consortium, Shore Transit, US Army Corps of Engineers – Navigation Data Center, and locally adopted comprehensive plans and capital improvement programs.

Table 1.4: Plans and Studies Reviewed

Plans and Studies	Owning Agency
Comprehensive Plans and Capital Improvement Plans for City of Salisbury; Wicomico County; City of Fruitland; Town of Hebron; Sussex County; Towns of Delmar (MD and DE), Town of Laurel, Town of Blades, City of Seaford	Local jurisdiction
Salisbury Port Feasibility Study	City of Salisbury
S/WMPO Corridor Studies and Pedestrian/Cyclist Studies	S/WMPO
S/WMPO UPWP and TIP	S/WMPO
MDOT and DelDOT CTP	MDOT and DelDOT
2040 Maryland Transportation Plan	MDOT
2050 Maryland Transportation Plan (DRAFT)	MDOT
2040 Maryland Bicycle and Pedestrian Master Plan Update	MDOT
Wicomico County Land Preservation, Parks, and Recreation Plan (LPPRP)	Wicomico County
DelDOT Long Range Transportation Plan	DelDOT
DelDOT Annual Highway Safety Plan	DelDOT
Statewide Pedestrian Action Plan – Phase 1	DelDOT
Statewide Bicycle Facility Master Plan	DelDOT

Plans and Studies	Owning Agency
Delaware State Comprehensive Outdoor Recreation Plan (SCORP)	DNREC, Division of Parks and Recreation
Shore Transit Ridership Study	Shore Transit
Transit Development Plan for Shore Transit	Shore Transit
2017 Delaware Statewide Freight Plan Addendum: A FAST Act Compliancy to the 2015 Delmarva Freight Plan	DelDOT
Delaware Freight Plan	DelDOT

1.10 What are the *Connect 2050* Goals and Objectives?

Six (6) overarching goals will guide the S/WMPO's transportation planning and policy work over the next 30 years. To create the ***Connect 2050*** goals, the S/WMPO considered the ten (10) Federal metropolitan planning factors, the States of Maryland and Delaware's guidance, the 2023 LRTP goals and objectives, local and county comprehensive planning documents, and public input. Included under each goal is a list of more specific objectives, as well as a list of thought-provoking questions targeting the relationship between these broad goals and the transportation needs of families, businesses, organizations, and governments in the S/WMPO Metropolitan Planning Area. These goals, objectives, and questions are linked to specific projects and outcomes in **Chapter 8, Long Range Planning Projects**.

Goal 1: Manage the Existing Transportation System

Objectives

- Coordinate local, State, and Federal efforts to provide an efficient transportation system that will maximize the capacity and safety of the existing transportation system.
- Encourage local jurisdictions to control the location and intensity of adjacent land development so that highway traffic load will not exceed planned design capacities.
- Provide for the short- and long-term maintenance and management of assets to maximize public investment and ensure the sustainability of transportation infrastructure.

Questions to Consider

- *How can we afford to maintain the existing roads, bridges, and transit services and also pay for future improvements?*
- *How are these projects funded and prioritized?*

Goal 2: Increase Safety and Security

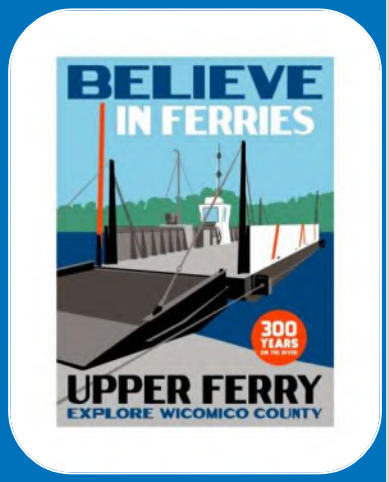
Objectives

- Establish a transportation network that optimizes the safe movement of people and goods throughout the region.
- Provide for the safe and efficient integration of private, commercial, emergency, and seasonal traffic, including application of effective and enforceable traffic controls and restrictions.
- Ensure a resilient transportation system that emphasizes preparedness for changing environmental conditions.

Questions to Consider

- *What projects and policies will keep those who live in, visit, and do business in this region safe on the roadways?*
- *Would providing defined, safe, and convenient pedestrian and bicycle crossing points make the system safer for all users?*
- *How do we plan for natural disasters (to include stormwater impacts), sea-level rise, security threats, and emergency evacuations?*

Goals 3: Enhance Access and Mobility



Objectives

- Improve access to and movement within the communities of the S/WMPO region, including the pedestrian and bicycle network, road network, and public transit system.
- Manage access points to along highways and encourage the use of service roads to provide additional route options.

Questions to Consider

- *Does the current transportation system help you reach your destinations?*
- *Do you think it adequately serves people of all ages, abilities, and income levels?*
- *What infrastructure improvements might improve pedestrian and bicycle mobility?*
- *What infrastructure improvements might improve the efficiency of regional and through traffic (to include freight movement)?*
- *What infrastructure improvements might improve local traffic circulation?*

Goal 4: Provide a Connected, Multi-Modal Transportation System

Objectives

- Coordinate all modes of transportation.
- Encourage the improvement of an efficient, convenient public transportation system to meet the needs of current and potential needs of transit riders.
- Encourage the development of a safe and efficient continuous pedestrian and bikeway system throughout the region to connect high-activity centers such as schools, parks, playgrounds, shopping areas, and employment centers with major residential neighborhoods.

Questions to Consider

- *Do you and your family, friends, or co-workers walk, bike, ride buses, and/or drive cars?*
- *Would you like to travel by these modes for recreation or commuting?*
- *Is freight movement through the region important to your business?*
- *How can the transportation system more effectively and safely connect the Salisbury University community with downtown Salisbury?*

Goal 5: Protect the Environment and Quality of Life

Objectives

- Maximize the desired use of transportation systems while minimizing possible negative effects upon neighborhoods, the environment, and the general public.
- Provide for and preserve scenic areas and other open space areas along major highways.
- Locate and design new transportation facilities and make facility improvements in a manner that will avoid destruction of the natural environment and minimize disruption to developed urban settings.
- Improve existing transportation facilities wherever possible, if adverse environmental impacts can be avoided, rather than create new highway corridors that may compound adverse effects on the environment.

Questions to Consider

- *How can the region's roads, trails, bridges, and ports support the natural environment and quality of life in rural and urban communities on the Eastern Shore?*
- *Can the Nanticoke Heritage Byway encourage residents and visitors to explore the region?*
- *Do the impacts of seasonal traffic positively or negatively affect the year-round movement of people and goods in the region?*

Goal 6: Support Economic Development

Objectives

- Provide for the safe and efficient integration of private, commercial, emergency, and seasonal traffic, including application of effective and enforceable traffic controls and restrictions.

Questions to Consider

- *How can the region's roads, bridges, and ports enhance access to job sites and the movement of freight and goods?*
- *Does the Salisbury-Ocean City: Wicomico Airport have efficient and appropriate connections with roadways?*
- *Do the region's roads, trails, bridges, and ports support travel and tourism?*

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Chapter 2
Connect with… The Metropolitan Region

Chapter 2: The Metropolitan Region

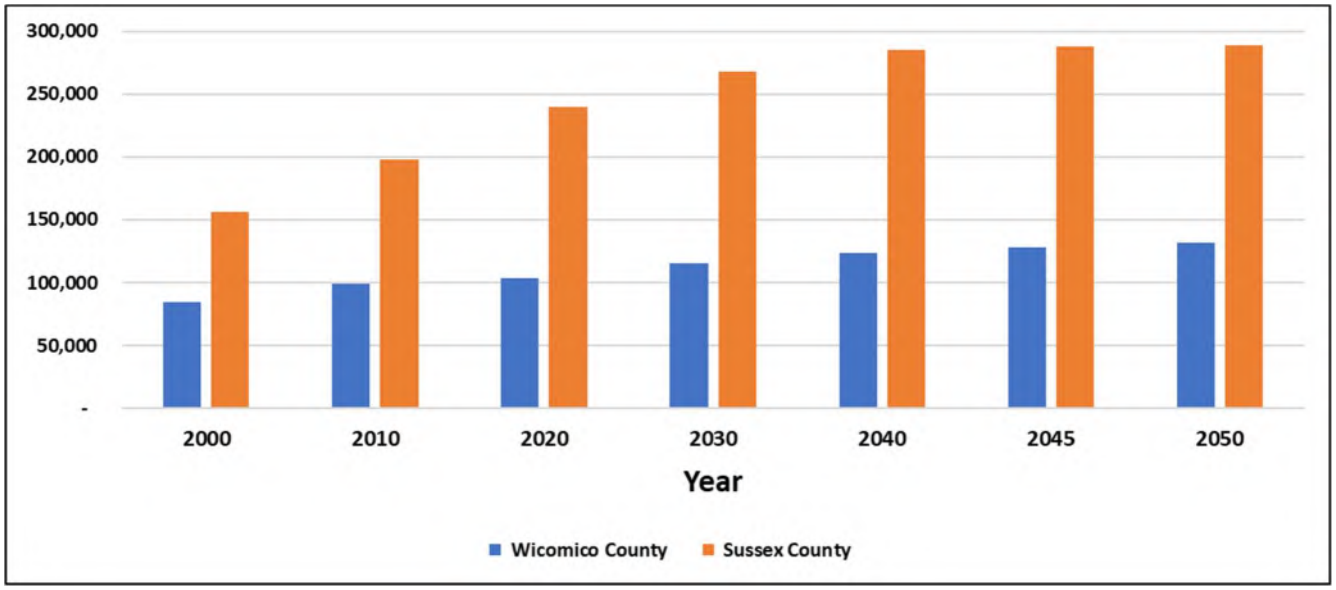
Chapter 2 discusses regional demographic, housing, employment, and commuter data[1]. This Chapter also discusses how the plan supports environmental policies and promotes environmental justice.

2.1 Who Lives in the Region?

Population

This region continues to grow, as shown in recent data analysis. Wicomico County's population grew by 14,089 people or 16 percent from 2000 to 2010. For the period from 2010 to 2020, the County population increased by 4,855 people or five (5) percent. For the period from 2020 to 2050, the population in Wicomico County is forecasted to grow by 28,392 persons or percent for a projected population of 131,980. Sussex County's population grew by 41,227 people or 26 percent from 2000 to 2010. For the period from 2010 to 2020 the Sussex population increased by 21 percent or 41,897 persons. The population in Sussex County is forecasted to reach 288,549 in 2050 based on a forecasted 20 percent growth rate from 2020 to 2050. (Refer to **Figure 2.1** and **Table 2.1**).

Figure 2.1: County Population Trends (2000 – 2050)



Source: Maryland Department of Planning Preliminary Total Population Projections (December 2022) and Delaware Population Consortium (December 2018 and October 2022)

[1] Applicable data sources for tables and figures are noted accordingly. Data from the 2020 Decennial Census was used if available for the 2020 S/WMPO Urban Area (UA) boundary. The 2021 American Community Survey 5-Year Estimates were used to supplement census data not yet available at the time of document publication. As a result, some of the data tables only present statistics at the state and county levels.

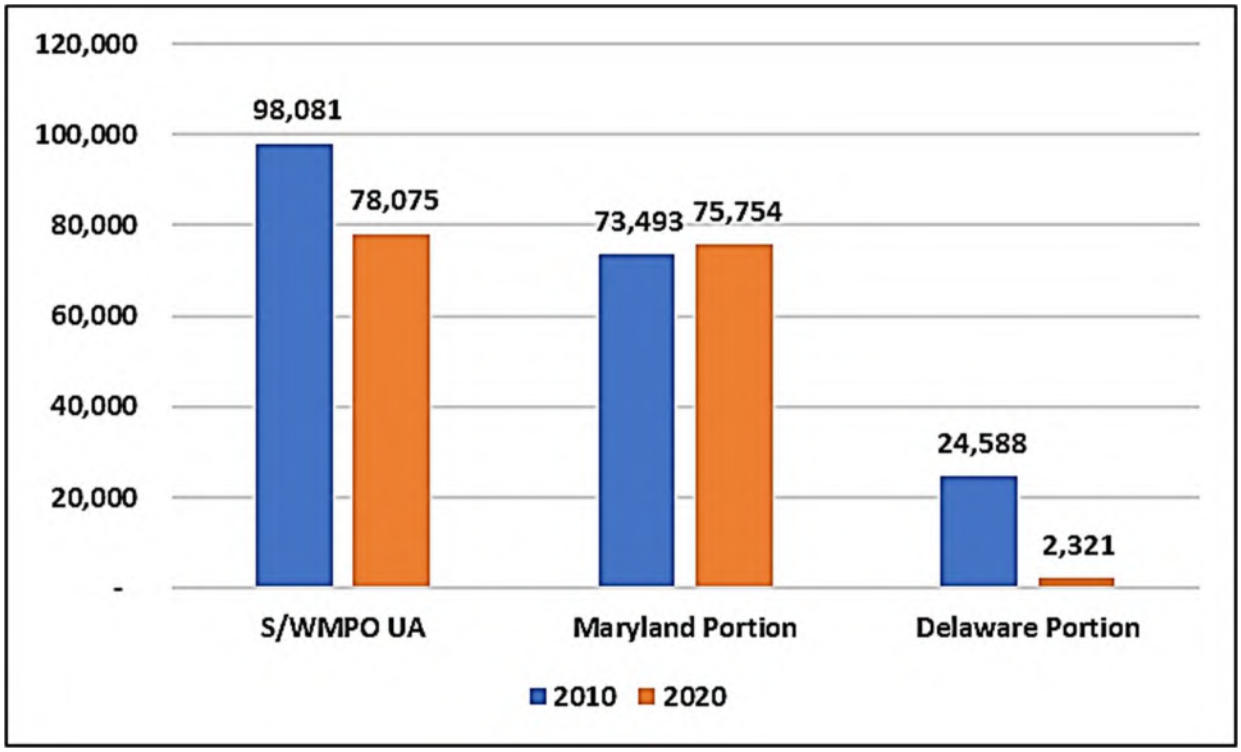
Table 2.1: Population Trends (2000 – 2050)

County	2000	2010	2020	2030	2040	2045	2050
Wicomico County	84,644	98,733	103,588	115,020	123,920	128,050	131,980
Sussex County	156,638*	197,865	239,762	268,241	285,142	287,757	288,549

Source: Maryland Department of Planning Preliminary Total Population Projections (December 2022) and Delaware Population Consortium (*December 2018 and October 2022)

In 2010, the total population of the Salisbury, MD-DE Urban Area (UA) was 98,081 persons. As previously discussed in Chapter 1, following the 2020 census, the U.S. Census Bureau reassessed and redefined "Urban Areas" resulting in a reduction in the size of the area that makes up the Salisbury, MD-DE UA; this is representative of the 2020 UA population (78,075 persons). **Figure 2.2** compares the total population from the 2010 U.S Census to the 2020 U.S. Census within the respective S/WMPO UA boundary; the figure also depicts the populations within the Maryland and Delaware portions of the UAs.

Figure 2.2: Urban Area Population (2010 and 2020)

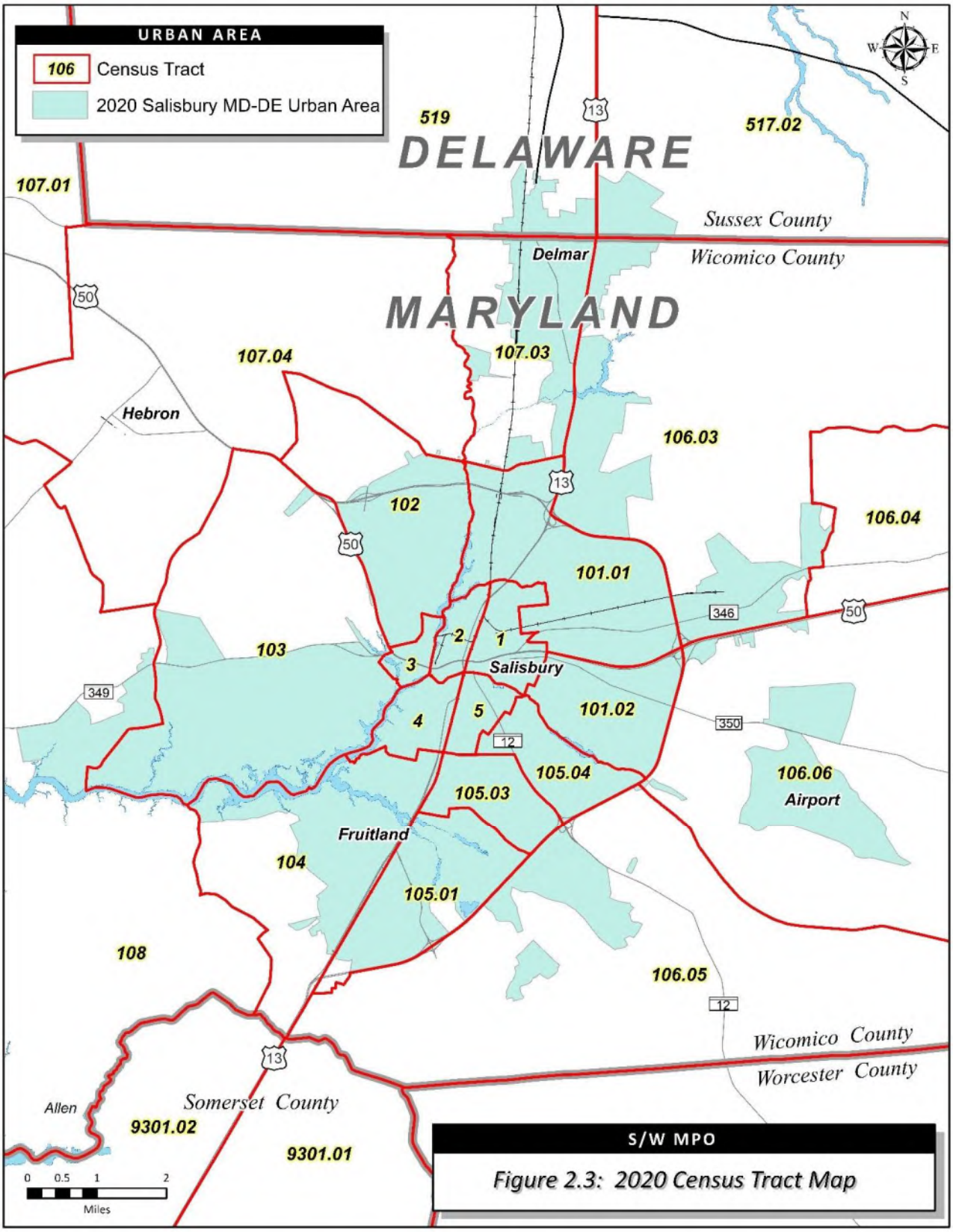


Source: 2010 and 2020 U.S. Census based on 2010 and 2020 UA boundaries, respectively.

Figure 2.3 illustrates the 22 census tracts within the S/WMPO region, which the entirety of a census tract may not be within the 2020 UA. Within the 2020 UA of the S/WMPO, 20 census tracts are located in Wicomico County and two (2) in Sussex County, Delaware.

According to 2020 Census data, the most populated census tracts in the Maryland portion of the 2020 UA are Census Tract 103 with 8,338 persons, Tract 106.03 with 8,052 persons, and Tract 104 with 7,600. The two census tracts within the Delaware portion of the 2020 UA have 6,577 persons (CT 517.02) and 4,760 persons (CT 519).

Figure 2.3: Census Tract Map (2020)



Source: 2020 U.S. Census

Age

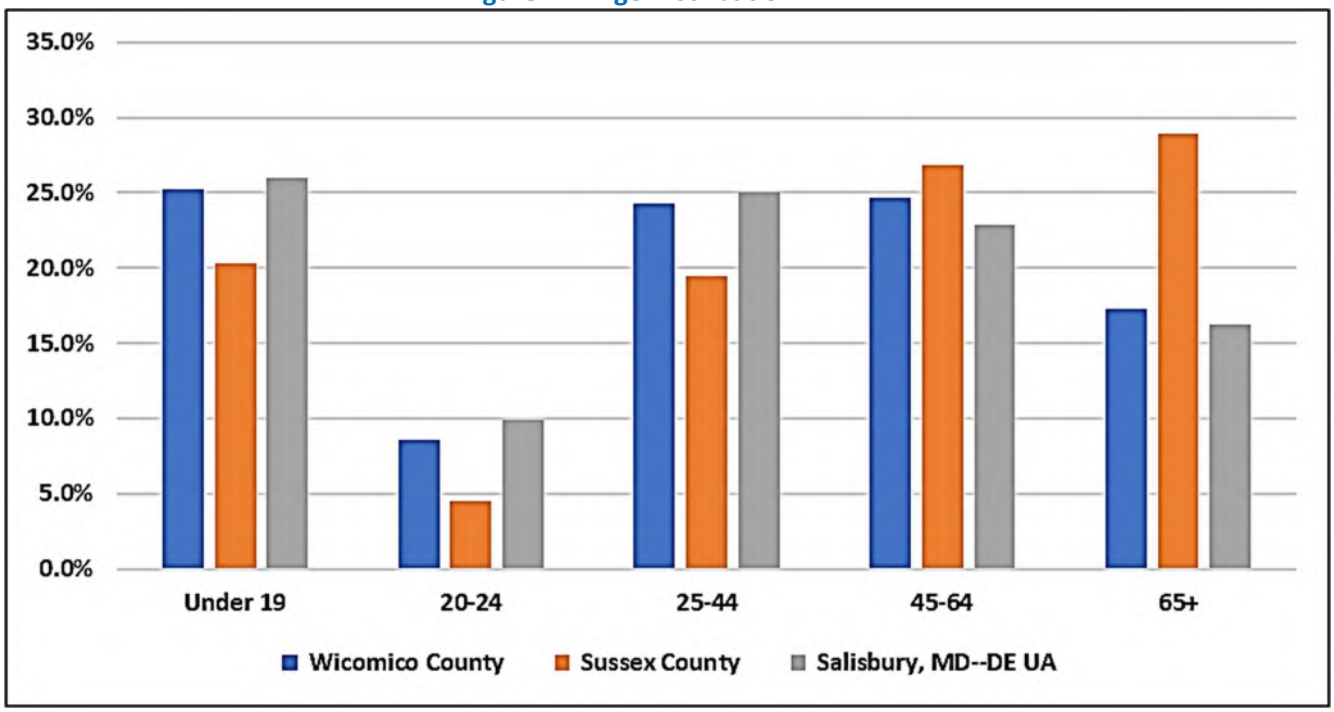
Table 2.2 and Figure 2.4 depict the 2020 U.S. Census population by age group for both the S/WMPO 2020 UA, Wicomico and Sussex Counties. The data shows the largest segment of the Salisbury, MD—DE UA population (26.0 percent) was less than 19 years of age. The largest segment of the Wicomico population was under the age of 19 (25.2 percent), and the largest segment of the Sussex population (28.9 percent) was aged 65 or older. The 2020 U.S. Census indicates the median age in Wicomico County was 37.9 and 50.8 in Sussex County. The 2020 U.S. Census indicated the median age for the UA is 33.9.

Table 2.2: Age Distribution

Region	Under 19	20-24	25-44	45-64	65+
Wicomico County	25.2%	8.6%	24.3%	24.7%	17.3%
Sussex County	20.3%	4.5%	19.5%	26.8%	28.9%
Salisbury, MD--DE UA	26.0%	9.9%	25.0%	22.9%	16.2%

Source: 2020 U.S. Census

Figure 2.4: Age Distribution

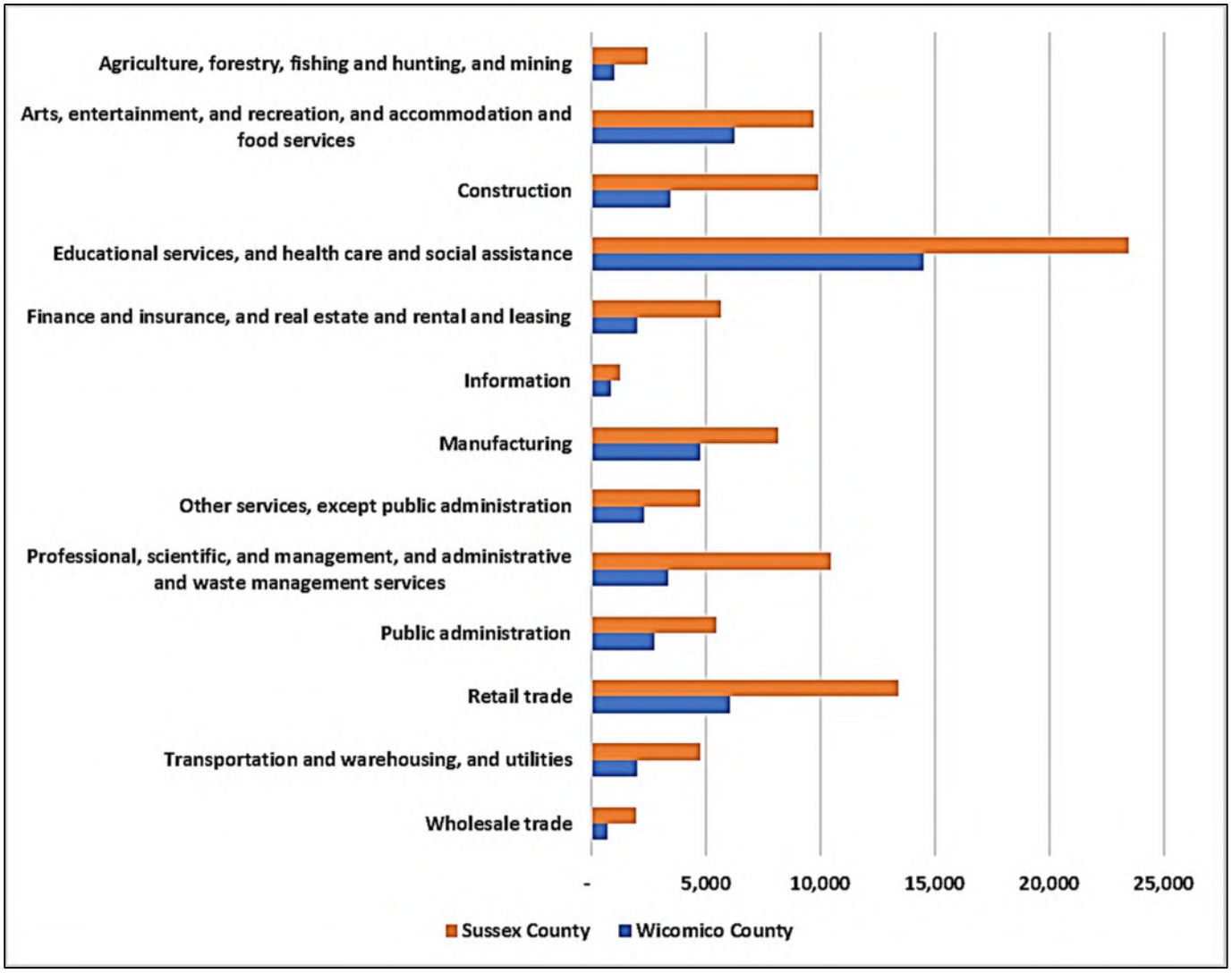


Source: 2020 U.S Census

Labor Force

A review of the 2021 ACS Industry by Occupation data shows the Educational and Health Care services was the largest labor sector in Maryland, Delaware, and both Wicomico and Sussex counties. In contrast, the smallest labor sector for the aforementioned jurisdictions was agricultural, forestry, fishing and hunting, and mining jobs, except for Sussex County which was 'Information' sector. Figure 2.5 illustrates the 2021 ACS data on the Civilian Employed Labor Force by sector (Maryland and Delaware are not included for scaling purposes); whereas Table 2.3 shows the percentages within each employment sector.

Figure 2.5: Civilian Employed Population 16 and Older (2021)



Source: 2021 ACS – 5-Year Estimates

Table 2.3: Percentage of Labor Force by Sector (2021)

Sector	Maryland	Wicomico County	Delaware	Sussex County
Agriculture, forestry, fishing and hunting, and mining	0.5%	1.0%	1.1%	2.4%
Arts, entertainment, and recreation, and accommodation and food services	7.8%	10.2%	8.5%	9.6%
Construction	7.3%	8.1%	7.0%	9.8%
Educational services, and health care and social assistance	23.7%	29.9%	24.8%	23.2%
Finance and insurance, and real estate and rental and leasing	6.1%	5.4%	9.4%	5.6%
Information	1.8%	1.4%	1.2%	1.2%

Sector	Maryland	Wicomico County	Delaware	Sussex County
Manufacturing	4.6%	12.3%	7.7%	8.1%
Other services, except public administration	5.3%	3.0%	4.1%	4.7%
Professional, scientific, and management, and administrative and waste management services	16.0%	6.6%	10.7%	10.3%
Public administration	11.0%	5.1%	5.9%	5.4%
Retail trade	9.2%	12.9%	11.8%	13.2%
Transportation and warehousing, and utilities	4.9%	3.2%	5.8%	4.7%

Source: 2021 ACS – 5-Year Estimates

2.2 How do People Travel to Work and How Much Time Does it Take?

Table 2.4 shows the percentage breakdown by mode for commuters in Maryland, Delaware, and both Wicomico and Sussex counties, according to the 2021 ACS 5-Year Estimates. The data also shows the percentage of employees working from home. In all jurisdictions driving alone to work is the largest share of commuting patterns. The State of Maryland had the highest percentage using public transportation at 6.4 percent. In contrast, 0.2 percent of persons in Sussex County commute to work using public transportation.

Table 2.4: Commuting Modes (2021)

Mode	Maryland	Wicomico County	Delaware	Sussex County
Car, drove alone	69.8%	81.3%	76.8%	80.2%
Carpooled	8.2%	8.8%	8.0%	8.0%
Public Transportation	6.4%	0.6%	2.0%	0.2%
Walked	2.0%	1.7%	2.1%	1.1%
Other	1.7%	1.7%	1.3%	1.3%
Worked from Home	11.9%	5.9%	9.8%	9.2%

Source: 2021 ACS – 5-Year Estimates

Table 2.5 shows the average commute times for workers in each state and county. Marylander's experienced the longest commute time at 32.5 minutes. In contrast, commuters in Wicomico County had the shortest commute times at 22.6 minutes, respectively. Both Sussex County and Delawareans had commute times at or over 26 minutes.

Table 2.5: Average Commute Time in Minutes (2021)

Maryland	Wicomico County	Delaware	Sussex County
32.5	22.6	26.0	26.9

Source: 2021 ACS – 5-Year Estimates

By analyzing commute data at the census tract level, it is possible to assess where alternative modes of commuting are utilized. As examples, the highest percentage public transit use is in Census Tract 5 (8.0 percent) on the southeast side of Salisbury. There are also four (4) census tracts in, and immediately adjacent to, central Salisbury with no public transit use (101.02, 102, 103, and 106.03).

2.3 How will Connect 2050 Consider Environmental Justice?

Federal regulations require Long Range Transportation Plans to consider environmental justice. All Federal agencies and recipients of Federal aid must assure non-discrimination in their programs and activities, in accordance with Title VI of the Civil Rights Act of 1964. Furthermore, Executive Order 12898, mandated Federal agencies to identify and respond to any disproportionately high and adverse human, health, or environmental effects of their programs, policies, and activities on minority or low-income populations. In order to address environmental justice concerns, jurisdictions must identify if and where high concentrations of minority, elderly, disabled, and low-income populations exist within the S/WMPO study area.

Minority Population

The U.S. Department of Transportation's Title VI requirements define "minority" to include black or African American, Hispanic (regardless of race), Asian, and American Indian or Alaskan Native populations. For the purposes of this analysis, minority population is defined as everyone other than non-Hispanic white alone.

As shown in Table 2.6, Maryland had 51.3 percent minority population; whereas, Delaware's population was comprised of 39.6 percent minority. Sussex County experienced the lowest percentage of minority population (25.9 percent). The minority compostion of the UA was 48.1 percent. With regard to Hispanic or Latino Origin, Maryland and Delaware had 11.8 percent and 10.5 percent, respectively. Wicomico County had the lowest percentage of the population identifying as Hispanic or Latino Origin (6.8 percent) with Sussex County at 11.3 percent and the UA at 7.8 percent.

Table 2.6: Percentage Minority Populations (2020)

	Maryland	Wicomico County	Delaware	Sussex County	S/WMPO UA
Total Population	6,177,224	103,588	989,948	237,378,	78,075
% White Alone	48.7%	59.3%	60.4%	74.1%	51.9%
% Black or African American Alone	29.5%	27.0%	22.1%	10.7%	32.9%
% American Indian and Alaskan Native Alone	<1%	<1%	<1%	<1%	<1%
% Asian Alone	6.8%	3.0%	4.3%	1.3%	3.6%
% Native Hawaiian and Other Pacific Islander Alone	<1%	<1%	<1%	<1%	<1%
% Some Other Race Alone	6.7%	3.6%	4.9%	6.0%	4.3%
% Two or More Races	7.8%	6.5%	7.9%	7.2%	6.8%
% Hispanic or Latino Origin	11.8%	6.8%	10.5%	11.3%	7.8%

Source: 2020 U.S. Census

Table 2.7 shows the percentage minority composition by Census Tract for each county in the UA. In the Maryland portion of the UA, Census Tracts 1, 3, and 102 had the largest percentages of minority population (72.7 percent, 94.7 percent, and 88.3 percent, respectively). The two census tracts in Delaware (517.02 and 519) had 19.6 percent and 25.1 percent minority population, respectively.

Table 2.7: Percent Minority Population by Census Tract (2020)

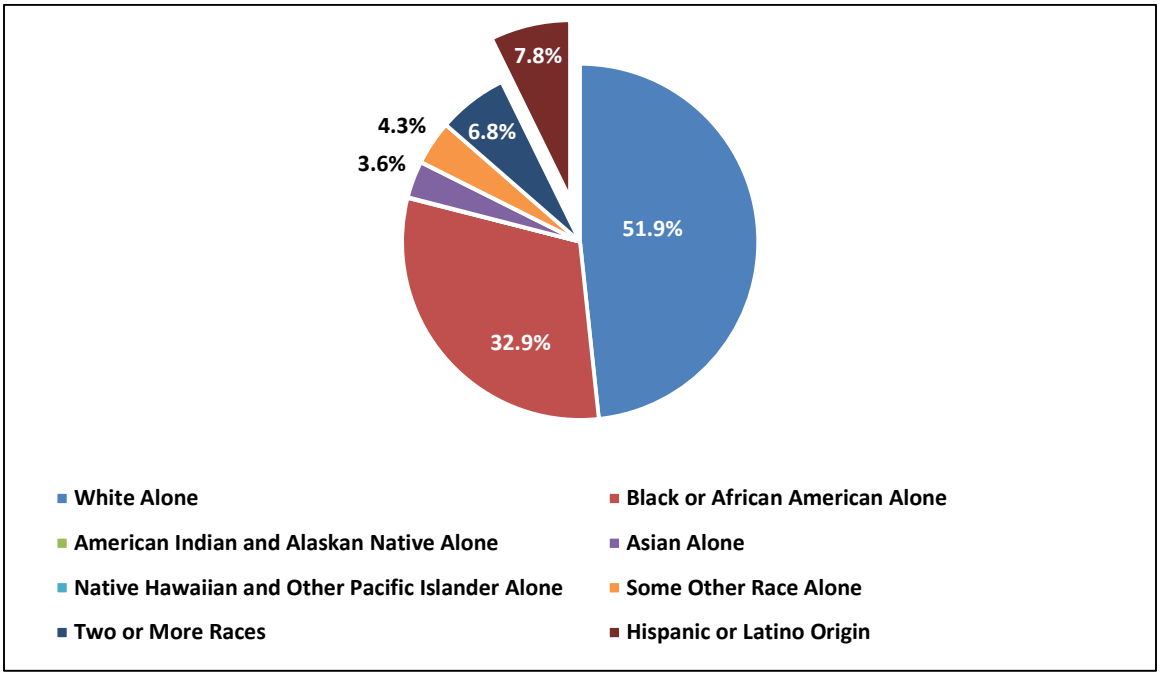
Census Tract	Percent Minority Population [1]	Minority Population Total[1]
Wicomico		
1	72.7%	4,362
2	43.1%	837
3	94.7%	1,215
4	43.4%	1,841
5	64.8%	2,085
101.01	44.1%	3,244
101.02	36.7%	1,263
102	88.3%	5,748
103	39.7%	3,309
104	29.7%	2,258
105.01	40.6%	2,109

Census Tract	Percent Minority Population [1]	Minority Population Total[1]
105.03	50.4%	1,745
105.04	50.7%	2,453
106.03	34.0%	2,741
106.04	15.7%	820
106.05	14.7%	629
106.06	15.0%	637
107.03	39.6%	1,685
107.04	26.3%	1,133
108	21.8%	1,269
Sussex		
517.02	19.6%	1,291
519	25.1%	1,194

[1] Non-white population. Source: 2020 U.S. Census

The racial composition of the UA is 51.9 percent white alone, 32.9 percent black or African American alone, and approximately 15 percent other races (Asian, American Indian, or Alaskan Native) or multiple races. Additionally, the Hispanic population, regardless of race, comprised 7.8 percent of the population. Refer to **Figure 2.6** below.

Figure 2.6: Distribution by Race in the S/WMPO Urban Area (2020)



Source: 2020 U.S. Census

Aging Population

Approximately 16.0 percent of Maryland's population and 19.7 percent of Delaware's population were aged 65 or older; 16.2 percent of the S/WMPO 2020 UA population falls within this demographic. **Table 2.8** provides a comparison of the 65 and older data by jurisdiction.

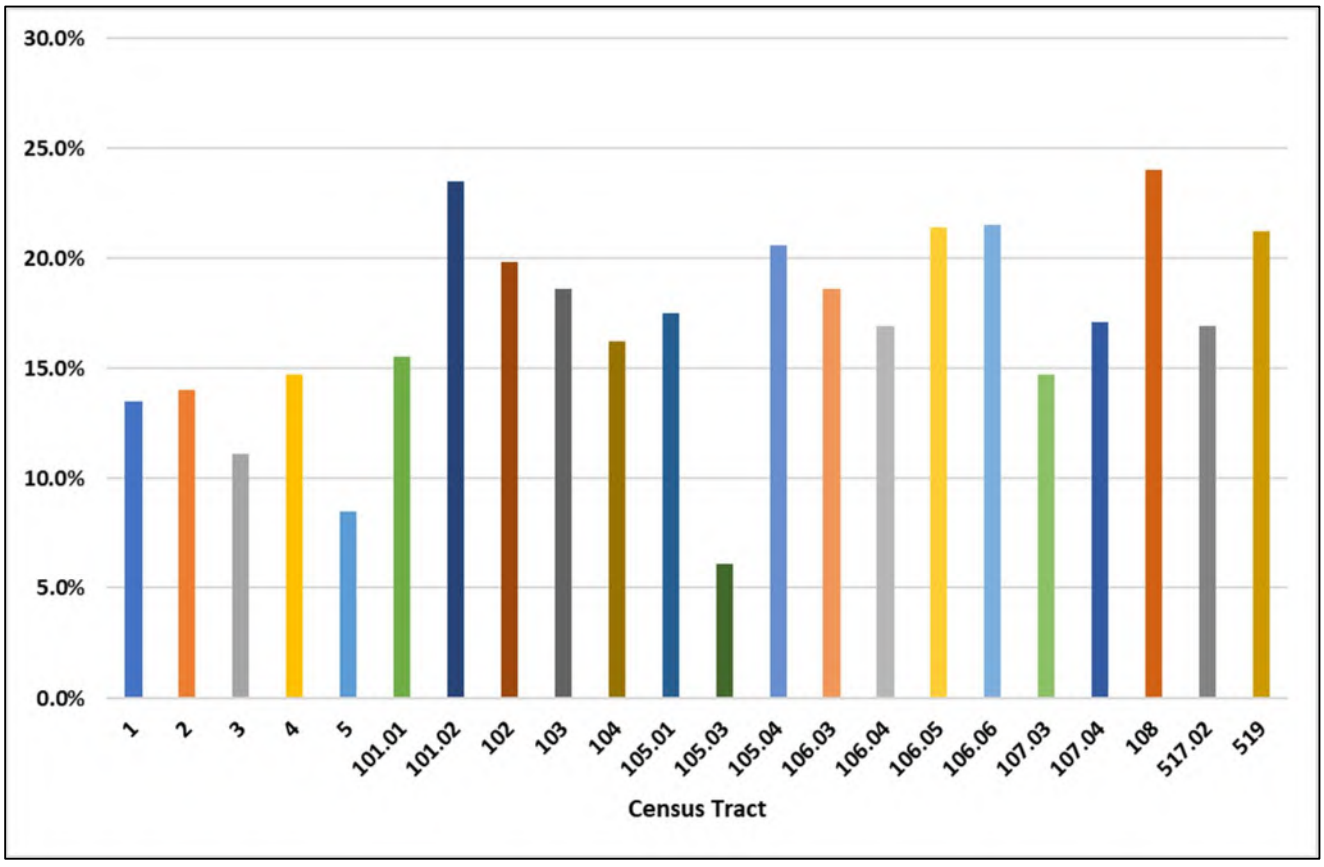
Table 2.8: Percent of Population 65 Years of Age and Older (2020)

Population	Maryland	Wicomico County	Delaware	Sussex County	S/WMPO UA
Total Population	6,177,224	103,588	989,948	237,378	78,075
Persons 65 Years +	986,315	17,906	194,577	68,555	12,676
% of Population 65 Years +	16.0%	17.3%	19.7%	28.9%	16.2%

Source: 2020 U.S. Census

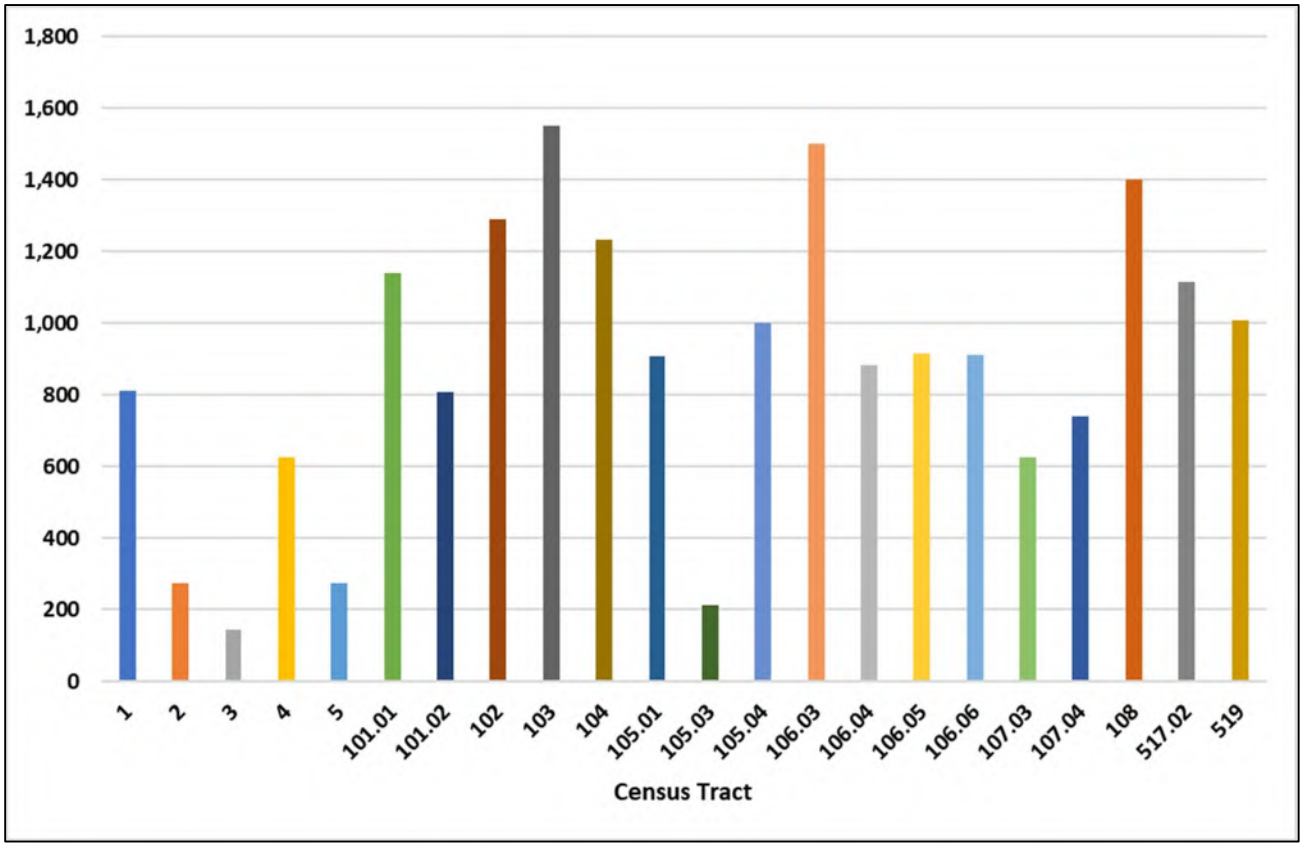
Figure 2.7 and **Figure 2.8** illustrate the percentage and total population of persons over the age of 65 by Census Tract in the S/WMPO 2020 UA. The data indicates people over age 65 are distributed widely throughout the UA, ranging between approximately 6.1 and 24.0 percent of the total population per Census Tract. The three (3) Census Tracts with the greatest percentage of population 65 years and over are Tracts 108 (24.0 percent), 101.02 (23.5 percent, Tract 106.06 (21.5 percent), and Tract 106.05 (21.4 percent). Two (2) Census Tracts in the UA have less than 10 percent of their total population that is 65 years or older (5 and 105.03).

Figure 2.7: Percent of Population Age 65 and Older by Census Tract (2020)



Source: 2020 U.S. Census

Figure 2.8: Total Population 65 and Over by Census Tract (2020)



Source: 2020 U.S. Census

Disabled Population

Of particular importance in transportation planning, environmental justice considers the population of persons with limited mobility. Table 2.9 provides a comparison of the disabled populations among Maryland and Delaware as well as both Wicomico and Sussex counties.

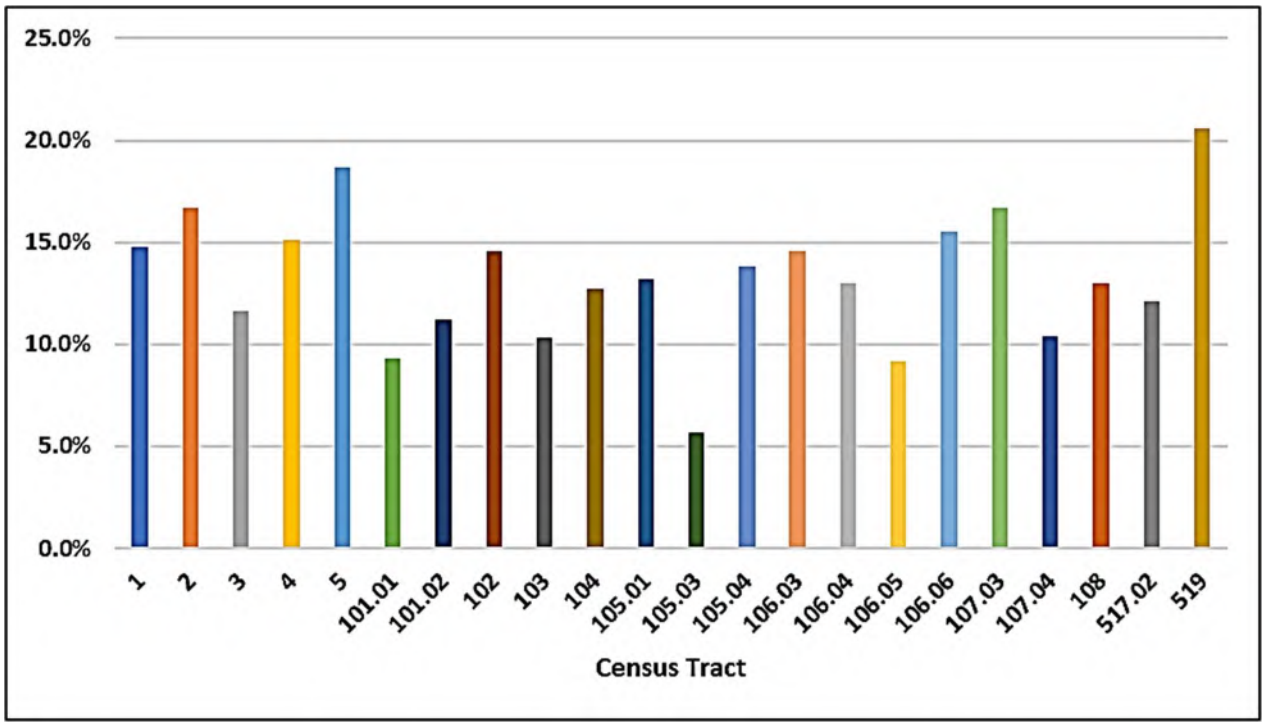
Table 2.9: Percent of Population with a Disability (2021)

Population	Maryland	Wicomico County	Delaware	Sussex County
Total Population**	6,049,675	101,953	966,239	231,117
Persons with a Disability	669,324	13,026	128,119	32,122
% of Population with a Disability	11.1%	12.8%	13.3%	13.9%

Source: 2021 ACS – 5-Year Estimates
** Total civilian noninstitutionalized population

Figure 2.9 shows the percentage of the disabled population by Census Tract. Within the UA, the percentage of persons with a disability in a Census Tract ranged from 5.7 to 20.6 percent. Census Tracts 5 and 519 had the highest proportion of disabled persons. In comparison, Census Tracts 105.03 and 106.05 had the lowest percentage of disabled population. The median percentage of disabled population of the Census Tracts within the UA is 13.3 percent or 639 persons per census tract. The availability of alternative modes of transportation is vital for limited mobility populations. Any actions worsening accessibility are even more critical for persons with limited mobility, and require evaulation prior to programmatic or policy considerations.

Figure 2.9: Persons with Disability by Census Tract (2021)



Source: 2021 ACS – 5-Year Estimates

Low-Income Population

According to the 2021 ACS data, 9.2 percent or 550,074 people of Maryland's population and 11.4 percent or 109,274 people of Delaware's population were living below the poverty level (**Table 2.10**). Both Maryland and Delaware have Census Tracts in the area with poverty levels below and above their statewide average. Concentrations where poverty rates are higher than 30 percent can be found in the area.

Table 2.10: Percentage of Population Below Poverty Level (2021)**

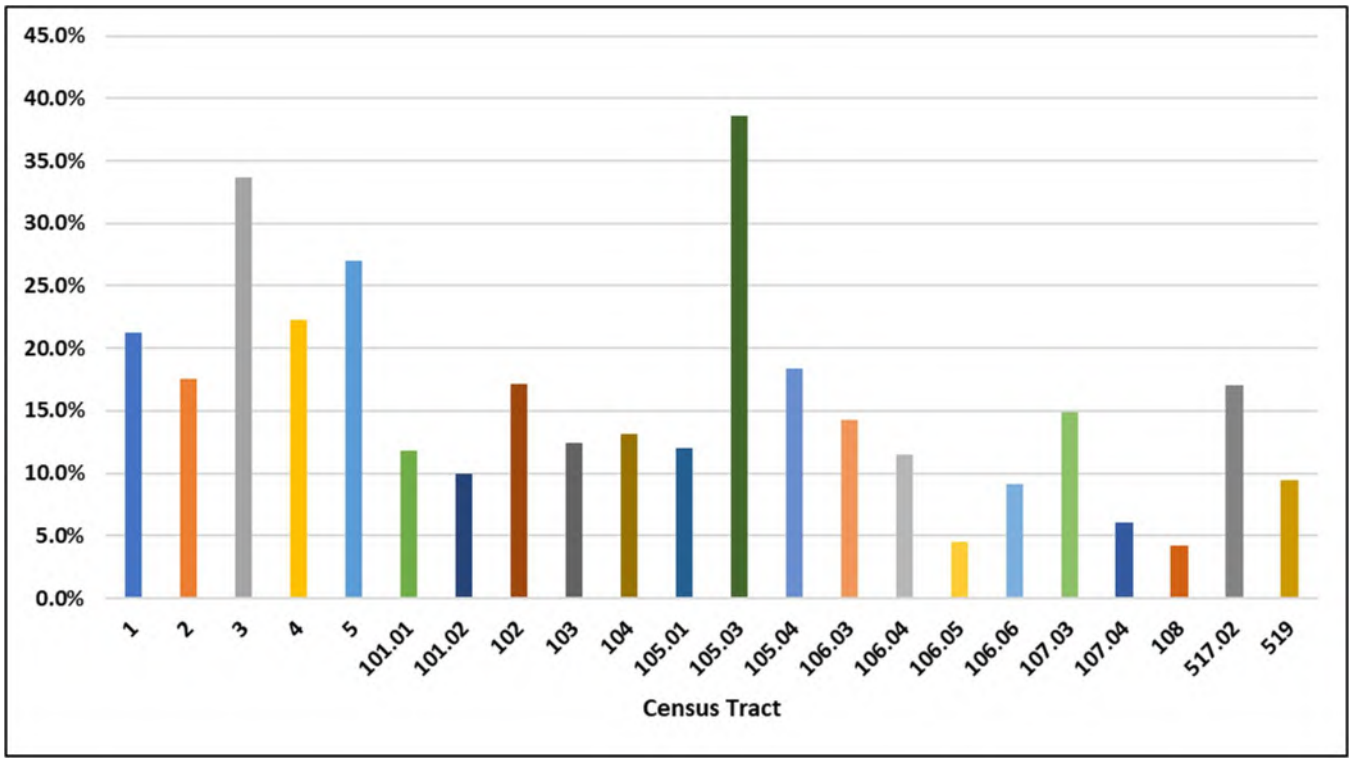
Population	Maryland	Wicomico County	Delaware	Sussex County
Total Population**	6,006,777	99,081	955,602	230,435
Persons Below Poverty Level	550,074	14,170	109,274	27,859
% of Population Below Poverty Level	9.2%	14.3%	11.4%	12.1%

Source: 2021 ACS – 5-Year Estimates

** Population for whom poverty status is determined within the past 12 months

Figure 2.10 shows the percentage of the population living below poverty level (last 12-months) by Census Tract. Within the UA, the percentage of persons living below poverty level in a Census Tract ranged from 4.2 to 38.6 percent. Census Tracts 3, 5, and 105.03 had the highest proportion of persons living in poverty (all above 25 percent). In comparison, Census Tracts 106.05, 106.06, 107.04, 108, and 519 had the lowest percentage of persons living in poverty (below 10%). The median percentage of persons living below poverty within the Census Tracts of the UA was 15.7 percent.

Figure 2.10: Percentage of Population* Living Below Poverty Level by Census Tract (2021)



Source: 2021 ACS – 5-Year Estimates

* Population for whom poverty status is determined within the past 12 months

Households Without Access to Vehicle

According to the 2021 ACS data, 8.1 percent or 3,213 households in Wicomico County and 3.4 percent or 3,256 of Sussex County households with no vehicles available. **Table 2.11** compares data for Maryland, Delaware, and both Wicomico and Sussex counties on occupied households without access to vehicles.

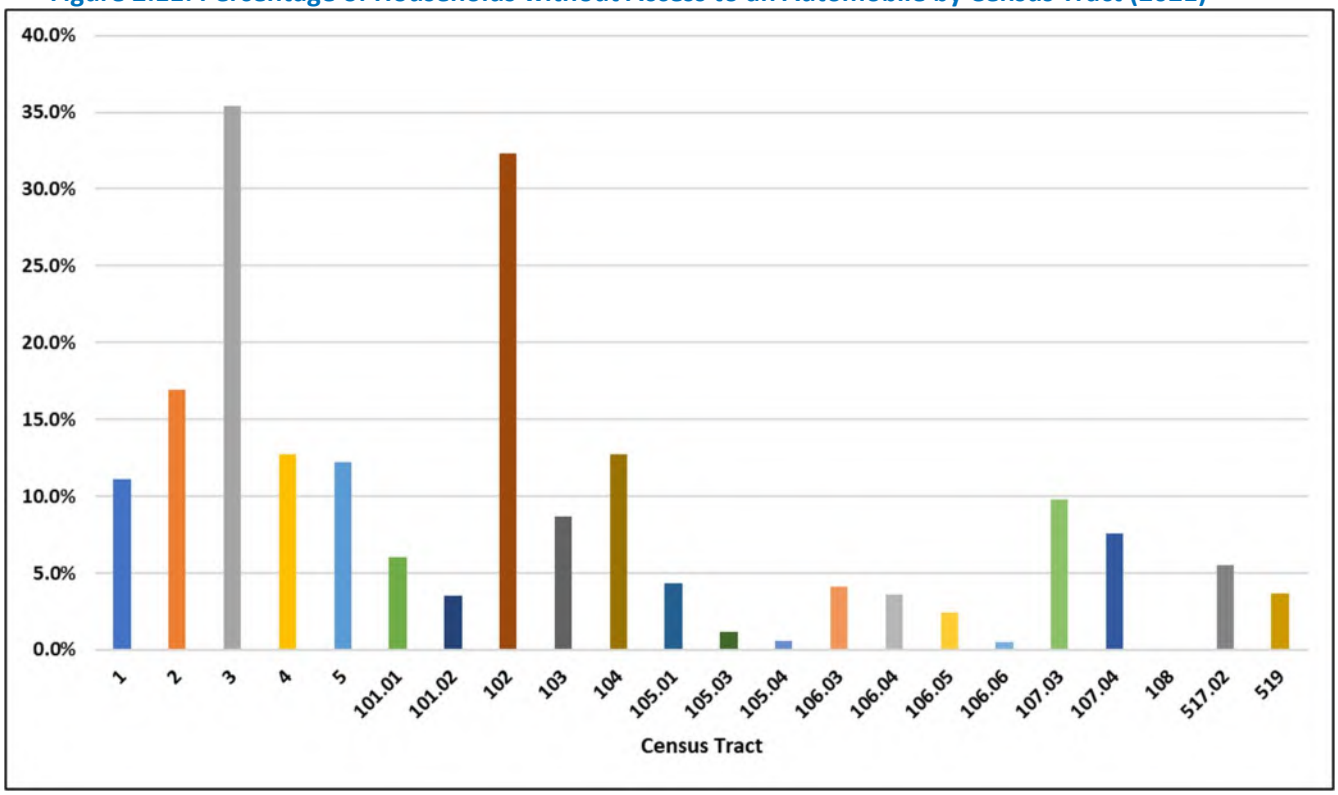
In major urban areas, such as downtown Salisbury, some households may elect to forgo a car as daily needs are readily accessible by foot, bicycle, or public transit. However, a limited income has the potential to make car ownership unfeasible for some households. This can severely impact access to jobs, shopping, and schools in lower density residential areas. Often times, these amenities and services are located some distance away. In the S/WMPO UA, the highest concentration of households without access to a car occurs in Census Tracts 3 and 102 (over 30%) (**Figure 2.22**). The median percentage of households without access to vehicles within the census tracts of the UA is 8.9 percent.

Table 2.11: Percent of Households With No Vehicles Available (2021)

Housing Units	Maryland	Wicomico County	Delaware	Sussex County
Total Occupied Housing Units	2,294,270	39,452	381,097	96,375
Occupied Housing Units with No Vehicles Available	198,772	3,213	22,372	3,256
% of Occupied Housing Units with No Vehicles Available	8.7%	8.1%	5.9%	3.4%

Source: 2021 ACS – 5-Year Estimates

Figure 2.11: Percentage of Households without Access to an Automobile by Census Tract (2021)



Source: 2021 ACS – 5-Year Estimates

2.4 How will *Connect 2050* Address the Natural Environment?

It takes a long time for a transportation infrastructure project to evolve from a concept to a facility on the ground. When a transportation need is identified or a solution to a transportation problem is proposed, it must be determined whether the solution adequately addresses the problem or need and whether the solution is consistent with the local and state plans programs and policies.

How will *Connect 2050* help to protect and enhance the environment?

The impacts of proposed transportation projects on the human environment, natural environment, and cultural resources are studied during project planning. The projects identified in this Plan are reviewed by the local jurisdictions, as well as the S/WMPO to assure consistency with applicable environmental laws, regulations, and standards.

Connect 2050 cannot result in degradation in the region's air quality. To ensure air quality standards are met and maintained, the Environmental Protection Agency ("EPA") developed regulations requiring MPOs and state DOTs to provide state air agencies, local air quality agencies, and transportation agencies the opportunity for consultation regarding the development of the State Implementation Plan ("SIP"), Transportation Improvement Program ("TIP"), and associated conformity determinations. The EPA developed three (3) categories regarding the status of air quality: Non-Attainment, Maintenance, and Early Action Compact.

Federal regulations require that air quality issues be considered during the preparation of the LRTP. The Maryland portion of the S/WMPO's UA meets air quality conformity criteria as identified in the 1990 **Clean Air Act Amendments ("CAAA")**; whereas the Delaware portion is designated as an 8-Hour Ozone nonattainment area. As part of this Plan update, the Federal Highway Administration ("FHWA") and the Federal Transit Administration ("FTA") conducted a joint review of the Sussex County, Delaware, and S/WMPO's conformity determination for the 2008 8-hour Ozone National Ambient Air Quality Standards ("NAAQS") for Sussex County. As a result of the evaluation, a positive conformity determination for Sussex County, Delaware, for the aforementioned NAAQS was rendered. See **Appendix B** to review the Air Quality Conformity Analysis.

If Federal funding is sought for a project, it must also be consistent with the purpose of the federal funding program and comply with a number of environmental requirements. Environmental studies must be conducted in accordance with the **National Environmental Policy Act ("NEPA")**. NEPA-based studies identify and analyze the environmental effects of projects. For large transportation projects, NEPA studies are extensive and take a long time to conduct and must involve public outreach. This means stakeholders in the S/WMPO area will have an opportunity to find out about the potential impacts and the strategies to avoid, minimize, and mitigate impacts to the environment.

What is CAAA?
The 1990 Clean Air Act Amendments revised the 1970 Clean Air Act, the national air pollution control program. A CAA (42 U.S.C. 7506[c]) requirement that ensures that federal funding and approval are given to transportation plans, programs, and projects that are consistent with the air quality goals established by a SIP.

What is NEPA?
The National Environmental Policy Act ("NEPA") was passed in 1969 and requires that projects be planned and designed so as to avoid environmental impacts, minimize impacts that cannot be avoided, and mitigate impacts that do occur.

Conservation, water, and air quality regulations are the most applicable environmental safeguards for transportation projects. Projects undertaken by both the Maryland and Delaware Departments of Transportation must comply with federal and state environmental requirements. Each state has policies to guide decision making.

At the regional level, an MPO also plays a critical role in conserving the environment. The S/WMPO coordinates with appropriate state and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of a long-range transportation plan. The purpose of this collaboration is to define and identify environmentally sensitive areas, analyze impacts associated with transportation projects, and identify ways to mitigate the impacts. MPOs are also encouraged to link their planning activities with NEPA. By collaborating with resource protection agencies early in the metropolitan planning process, the environmental reviews required under NEPA can happen simultaneously, reducing redundancy, saving time, and reducing costs.

The Delaware Long Range Transportation Plan, *Innovation in Motion* (2019), as well as their 2021 annual LRTP Supplement, identifies an environmental stewardship goal applied to all strategic policy plans, partnering, prioritization and spending decisions. DelDOT applies strategies to planning and the NEPA process in an effort to streamline the environmental review process.

What are the Livable Delaware Initiative investment levels?

Level 1: Municipalities and other higher density areas consisting of a mix of transportation opportunities;

Level 2: Less developed, rapidly growing area usually adjacent to level 1 areas;

Level 3: Areas not contiguous to existing infrastructure and may be environmentally sensitive; and

Level 4: Areas where development is not preferred and where rural character is to be preserved.

Among broader land use planning goals, the **Livable Delaware Initiative** is a State strategy for directing future growth to areas with existing or planned infrastructure. This strategy seeks to preserve open spaces and agricultural lands and to target development in and around established communities, like Seaford and Laurel. The Livable Delaware initiative calls for protecting Delaware's critical environmental resources.

In support of this goal and other State objectives, Delaware's agencies have endeavored to identify and help preserve "green infrastructure", which the Department of Natural Resources and Environmental Control ("DNREC") describes as a network of natural areas, parks, conservation areas, and working lands with conservation value that contribute to the health and quality of life in Delaware.

Maryland's 1997 Smart Growth Initiative centered on two primary efforts, the Smart Growth Areas Act and the Rural Legacy Program. Through these measures, the State finances infrastructure development in designated Priority Funding Areas and provides inducements for the protection of land outside of Priority Funding Areas.

What are the Maryland Smart Growth Initiative Goals?

- To support existing communities by targeting resources to support development in areas where infrastructure exists;
- To save the most valuable natural resources before they are forever lost;
- To save taxpayers from the high cost of building infrastructure to serve development located outside of traditional population centers; and
- To provide Marylanders with a high quality of life, whether they choose to live in a rural community, suburb, small town, or city.

A new State Development Plan, **A Better Maryland**, was released in 2019 which incorporates the State's 12 Planning Visions. Along with economic goals, these visions focus on protection of the environment, resource conservation, and preservation and enhancement of natural and cultural resources

Wicomico County has a Watershed Implementation Plan ("WIP") identifying specific steps to be taken to improve water quality by reducing the amount of sediment and nutrients running off into waterways. Maryland's statewide WIP program is a coordinated effort among each of the 23 counties and Baltimore City to improve the water quality of the Chesapeake Bay and its tributaries. As improvements are planned and programmed for the regional transportation network, a coordinated approach should be utilized to identify potential opportunities to improve existing or new stormwater management practices to reduce nutrients and sediments from reaching tributaries and the bays.

Maryland DOT's 2040 *Maryland Transportation Plan* has an Environmental Stewardship goal seeking to assure that the delivery of the State's transportation infrastructure program conserves and enhances Maryland's natural, historic and cultural resources.

How is the S/WMPO monitoring climate change initiatives?

Schumaker Pond

The Maryland Commission on Climate Change was created in 2007 and consists of individuals from foundations, state and local agencies, universities, businesses, associations, and more. They were charged with creating a Climate Action Plan which creates strategies to reduce greenhouse gas emissions.

According to the United States EPA, transportation sources accounted for the largest portion (29 percent) of total U.S. greenhouse gas emissions in 2021[2]. In 2022, Maryland set the most aggressive GHG emission reduction goals under the Climate Solutions Now Act with the ultimate goal of net-zero emissions by 2045. Maryland's GHG Emission Reduction Plan is scheduled to be published in December 2023[3].

Transportation agencies continue to play an important role in reducing greenhouse gas emissions. Linking transportation and land uses, providing commute alternatives for community members, and incorporating these principles into a regional climate action plan are among the ways the S/WMPO can act on climate change.

What are Transportation Demand Management Programs?

Transportation Demand Management ("TDM") is a set of strategies that improve the efficiency of an existing transportation system. The goal is to reduce single occupant vehicle travel and influence an equal balance across all modes of transportation. This can reduce congestion, enhancing both air quality and quality of life. Sample TDM strategies include ridesharing programs, transit benefits, bicycle and pedestrian improvements, alternative work hours, and priced parking. Partnering with local businesses, the local MDOT and DelDOT offices, and/or Shore Transit can provide health and environmental benefits for the S/WMPO area.

[2] https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions
[3] https://mde.maryland.gov/programs/Air/ClimateChange/Pages/index.aspx

What are some of the environmental mitigation practices employed in the region?

According to MDOT SHA's Office of Environmental Design, common mitigation practices utilized throughout the State and Wicomico County during and after construction of transportation infrastructure include:

- Wetland Management – Impacted wetlands are replaced by creating new wetlands within the watershed where the impact occurs. Specific works include reforestation and removal of fish blockages;
- Stream Restoration – This measure determines an alternative flow tailoring the natural tendencies of an altered stream when road infrastructure is put in place;
- Critter Crossings – Instead of installing infrastructure on the ground, critter crossings (elevated passes) allow safe passage for woodland animals and help to prevent harm to forests and streams. The purpose is to keep existing corridors connecting ecological hubs, thus minimizing the fragmentation of ecosystems;
- Erosion Control – MDOT SHA utilizes devices such as silt fences, portable sediment tanks, sediment bags, geotextile materials, and bioengineering materials to meet and often exceed the requirements of MDE. Another measure is to rapidly establish vegetation on exposed soil during construction;
- Nutrient Management – In this mitigation practice, the use of shallow marsh ditches slows highway runoff water during storms. If left unfiltered, pollutants would be released into water streams;
- Buffers – Vegetated barriers between roadways and water resources capture impervious surface runoff (nutrient pollution) before it enters the water system; and
- Noise Barriers – Noise barriers are solid obstructions built between the highway and areas along a highway. Effective noise barriers typically may cut the loudness of traffic noise by as much as 50 percent.

What factors are involved with LRTP Projects and Environmental Impacts?

When planning for projects in a metropolitan area, there are many factors to be considered, including congestion relief, safety concerns, and growth patterns. Additionally, another important factor is the proposed projects effect the natural and human environments. Evaluating maps of critical / sensitive ecological areas, coordinating with resource agencies early in the planning process, and understanding the federal and state regulations will foster a balance between infrastructure and conservation.

Every capital transportation project, utilizing federal funds, will go through the NEPA process to determine if it is a Categorical Exclusion (excluded from the NEPA process), Environmental Assessment (enough evidence to warrant an analysis), or Environmental Impact Statement (a definite need to understand the environmental impacts of the project). All capital projects in the LRTP and CTP are included in this process to ensure the environmental impacts are identified and mitigated; however, not all projects will have a negative environmental impact. Moreover, in certain circumstances, there will be future transportation-related projects directly improving the environment.

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Chapter 3
Connect with… The Roadway System

Chapter 3: The Roadway System

The road network serves as the backbone of the S/WMPO region, accounting for the vast majority of trips. While the transportation network must be complemented by other modal options for commuting, recreation, and goods movement, the future livelihood of this region of the Delmarva Peninsula relies on a safe, efficient, well-maintained, and connected system of roads.

3.1 What does the Region's Roadway System Look Like?

The S/WMPO region is centered along **U.S. Route 13**, the north-south spine that runs the length of the Delmarva Peninsula. It links Wilmington, Delaware, to Norfolk, Virginia, and, thus, serves as a critical link in the Mid-Atlantic truck-borne freight system. **U.S. Route 50** is the primary east-west axis in Maryland's Eastern Shore and is the second most heavily traveled route in the region. This highway corridor serves as a vital link connecting the S/WMPO region to the Baltimore-Washington metropolitan area, as well as connections to the beach resort of Ocean City, Maryland.

U.S. Route 13 approaching the City of Salisbury

Greater Salisbury Primary Radial System – A radial roadway system is formed by a network of arterials extending outward from the City of Salisbury's core and connecting to the surrounding small towns and rural areas. Most of the radial corridors are linked on the periphery of the Metro Core by the Salisbury Bypass/Ocean Gateway (U.S. Route 13 and U.S. Route 50). The radial corridors include MD 349 (Nanticoke Road), MD 12 (Snow Hill Road), MD 346 (Old Ocean City Road), MD 350 (Mt. Hermon Road), Camden Avenue/Allen Road, and Jersey Road/Lake Street. While these routes fall on different parts of the functional classification spectrum and carry different volumes and types of traffic – as shown in **Table 3.1** – these routes are significant pieces of the regional road network.

Secondary Radial Corridors – Minor radial roadways link downtown Salisbury with residential developments and activity centers. Notable minor radials include: Eastern Shore Drive/South Division Street/Coulbourn Mill Road; Riverside Drive; Pemberton Drive; West Road; East Main Street/Glen Avenue; Zion Road; Johnson Road; Levin Dashiell Road; and Crooked Oak Lane (upon completion of Naylor Mill Road Extended).

Concentric System – Several State routes create a concentric system connecting the radial network. These routes include: MD 347 (Quantico Road); MD 352 (Whitehaven Road); MD 354 (Powellville Road); MD 353 (Gumboro Road); and MD 670 (Lillian Street). The remainder of the Salisbury area's highway system consists of a network of local roads, as well as major and minor collectors branching out from these basic radials.

Sussex County – The roadway system in Sussex County consists of several State-maintained radial routes that provide access to U.S. Route 13 and U.S. Route 13A/Business, including: SR 30 (Whitesville / Dorothy Road), SR 24 (Laurel Road), SR 9 (County Seat Highway), SR 20 (Stein Highway), and SR 18 (Cannon Road).

The Town of Delmar's major roads include U.S. Route 13 and Delaware 13A/675 extending in a north-south direction, and Maryland and Delaware Route 54 extending in an east-west direction. MD 675 and

Delaware 54 intersect at the center of Town, dividing the Town into four (4) quadrants, and serve both local and regional traffic.

Table 3.1: Greater Salisbury Primary Radial System

Roadway and Segment	Functional Classification	Lanes	Access Control
U.S. Route 13/50 – Salisbury Bypass/ Ocean Gateway			
	Principal Arterial: freeway and expressway	4	Divided highway, fully controlled access
U.S. Route 13 Business/ US Route 13			
Within S/WMPO Area: Between south and north interchanges with U.S. 13/Salisbury Bypass and extending through Salisbury and Fruitland	Principal Arterial: other principal arterial	4	Portions of divided highway; uncontrolled access
Within S/WMPO Area: North (to Delmar)	Principal Arterial: other principal arterial	6/4	Divided highway; partially controlled access
South (to Princess Anne) of the Metro Core	Principal Arterial: other principal arterial	4	Divided highway; partially controlled access
U.S. Route 50 Business/U.S. Route 50			
Non-urban portions of S/WMPO Area	Principal Arterial: other principal arterial	4	Divided highway; partially controlled and uncontrolled access
Business segment: south of Naylor Mill Road to Isabella Street	Principal Arterial: other principal arterial	4	Divided highway; uncontrolled access
Business segment: Isabella Street to Division Street	Principal Arterial: other principal arterial	6	Divided highway; partially controlled
Business segment: Division Street to Davis Street	Principal Arterial: other principal arterial	4	Divided highway; partially controlled
Business segment: Davis Street to Salisbury Bypass	Principal Arterial: other principal arterial	6/4	Divided highway; partially controlled
West of the Salisbury Bypass	Principal Arterial: other principal arterial	4	Divided highway; partially controlled access
MD 349 (Nanticoke Road)			
West from U.S. Route 50 to include areas outside S/WMPO UA	Minor arterial	4/2	Undivided highway, uncontrolled access

Roadway and Segment	Functional Classification	Lanes	Access Control
MD 12 (Snow Hill Road)			
Inside urban area (E. Main Street to 670 feet past Nutters Cross Road)	Principal Arterial: other principal arterial	4/2	Undivided highway, uncontrolled access
Outside Bypass (670 feet past Nutters Cross Road to Worcester County Line)	Minor arterial	2	Undivided highway, uncontrolled access
MD 346 (Old Ocean City Road)			
U.S. Route 50 to Worcester County Line	Minor arterial	2	Undivided highway, uncontrolled access
MD 350 (Mt. Hermon Road)			
Long Avenue to Beaglin Park Drive	Minor arterial	4	Undivided highway, uncontrolled access
Beaglin Park Drive to Worcester County Line	Collector: Major collector	2	Undivided highway, uncontrolled access
Camden Avenue			
U.S. Route 13 Business to Riverside Traffic Circle	Minor arterial	2	Undivided highway, uncontrolled access
Lake Street/Jersey Road			
U.S. Route 50 Business to Connelly Mill Road	Collector: Major collector	2	Undivided highway, uncontrolled access
Connelly Mill Road to Sussex County Line	Collector: Minor collector	2	Undivided highway, uncontrolled access

3.2 Do all Roads Serve the Same Purpose?

One of the core responsibilities of the S/WMPO is to develop and maintain the LRTP to prioritize and categorize investments based on anticipated federal funding, as well as regional goals and policies. The challenge and opportunity in regional planning lie in coordinating the competing needs of a variety of different jurisdictions while maintaining a focus on the overall needs of the region. While roadways with greater regional significance – those carrying greater volumes of local, regional, and freight traffic – may be prioritized when it comes to funding, it is critical to understand all of these roadways are part of one (1) network. **Table 3.2** includes key facts about the state, county, and municipal jurisdictions with responsibility for design, construction, operation, and/or maintenance of the region's roadways, as well as bridges and ferries.

Table 3.2: Key Facts about Roadway Maintenance by Jurisdiction

Did you know…
➢ MDOT SHA maintains 16.6% or 5,206 of the 31,343 center lane miles of state roads, but those roads account for approximately 70% of the total vehicles miles of travel in the state. (**Source:** MDOT SHA - 2021 Highway Needs Inventory ("HNI") – Wicomico County)
➢ DelDOT owns and maintains 84% of the roads in the State; all roads in Sussex County are either state-maintained or municipality-maintained. (**Source:** *Innovation in Motion,* 2019; *Sussex County Comprehensive Plan, 2019*).
➢ Wicomico County Roads Division maintains 700 miles of roads, 26 bridges, eight (8) dams, and two (2) ferries (Whitehaven Ferry and Upper Ferry). (**Source**: http://www.wicomicocounty.org/146/Roads)
➢ City of Seaford has approximately 47 miles of streets to maintain within City limits, of which approximately 11 miles are State maintained and approximately 36 miles are maintained by Seaford's Public Works Department. (Source: https://www.seafordde.com/government/departments_offices/public_works/streets)

All levels of government face challenges in financing the construction, maintenance, and system preservation of roadways and infrastructure. To assist local governments' funding of transportation services and facilities, Maryland provides qualifying jurisdictions with local highway user revenues. Prior to FY 2011, State local highway user revenues accounted for approximately 40 percent of local transportation expenditures. Since the drastic reduction of Maryland's Highway User Revenue funding to local governments in FY 2011, Wicomico County's allocation decreased from approximately $7 million to less than $1 million annually. In September 2022, MDOT released the Draft Consolidated Transportation Program (CTP) for fiscal years 2023 to 2028. The Draft CTP includes a $2.2 billion increase that will deliver priority projects and provide additional Highway User Revenues to local jurisdictions[1]. For Wicomico County, the Draft CTP includes funds to make safety and mobility improvements as well as constructing turn lanes, acceleration and deceleration lanes, improving safety, and addressing ongoing and future traffic growth[2].

Highway Functional Classification System

All roads are not created equal and they do not serve the same purpose in the transportation network. While wide lanes and a faster speed limit might make sense for carrying regional through traffic and long-haul trucks on U.S. Route 13; a slower speed, narrower lane width, on-street parking, bicycle accommodations, and sidewalks are a more appropriate fit for a neighborhood street. The functional classification system is a lens to help understand these distinct roles and the corresponding prioritization and level and source of investment.

The functional classification of the street and highway network is an essential step in the development of an efficient transportation network for the S/WMPO area. Functional classification is the process for grouping streets and highways into classes or systems, according to the character of service they are intended to provide. The intended function of a road or street provides a planning basis for determining appropriate system management techniques to be applied. Also, a functional classification system provides a means for prioritizing new construction or other road improvements to upgrade circulation for existing and future development. Wicomico County, in coordination with MDOT SHA, and Sussex County, in coordination with DelDOT, has classified roadways within the region in accordance with the Federal

[1] https://www.mdot.maryland.gov/tso/pages/newsroomdetails.aspx?newsId=627&PageId=38
[2] https://www.mdot.maryland.gov/tso/pages/newsroomdetails.aspx?PageId=38&newsId=642

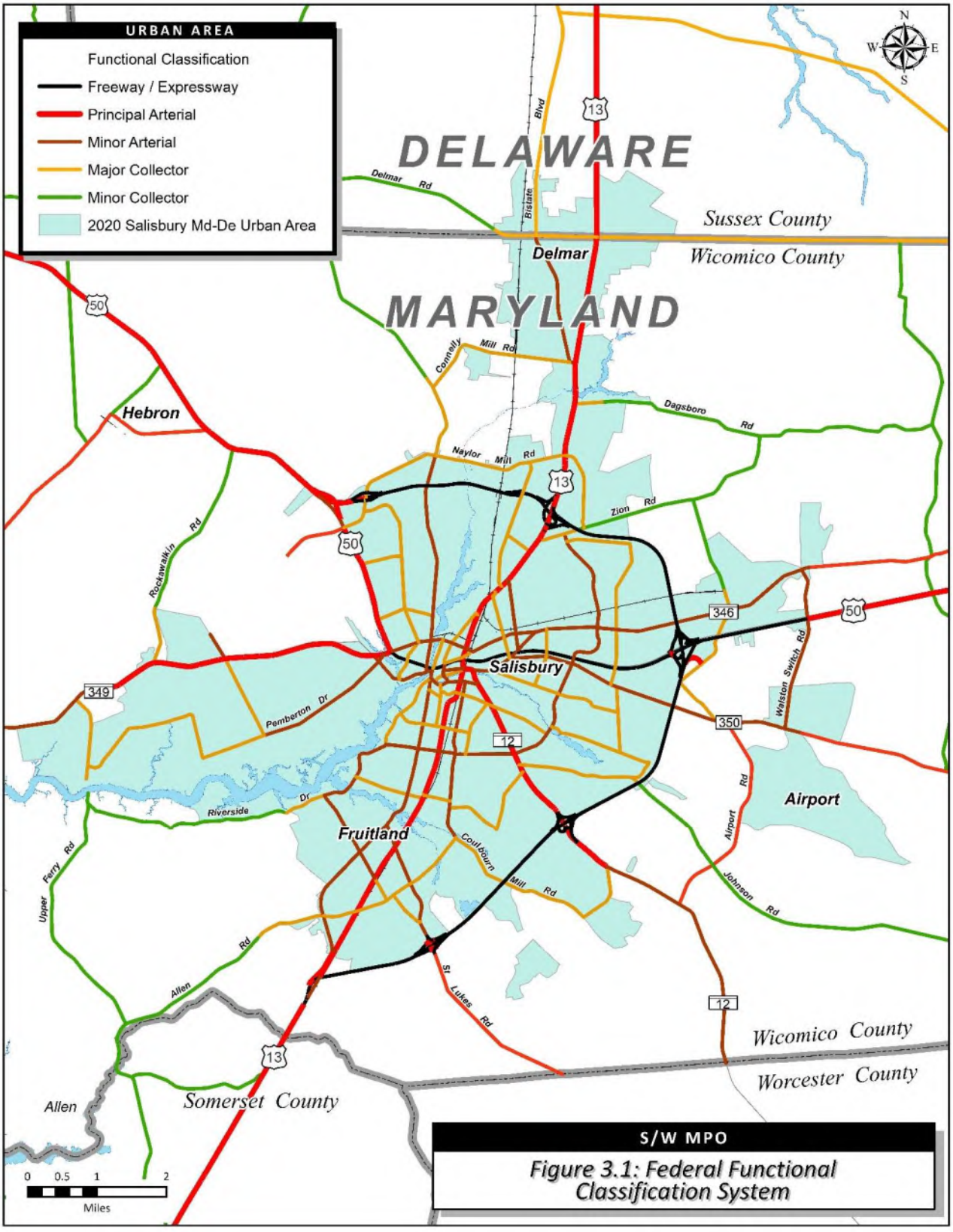
Highway Administration's **Highway Functional Classification** system. **Table 3.3** and **Figure 3.1** explain the function classifications and map the classifications in the S/WMPO region.

Table 3.3: Functional Classifications

Functional Classification	Description	S/WMPO Example
Principal Arterial: Interstate/ Expressway/Freeway	Provide continuous and efficient routes for movement of high-volume traffic; supports regional mobility; typically funded and maintained by state.	 US 50 – Salisbury Bypass
Principal Arterial: Other Principal Arterial	Provide continuous and efficient routes for movement of high-volume traffic; supports regional mobility; typically funded and maintained by the state or local government.	 US Route 13, north of Salisbury
Minor Arterial	Serve shorter trips; may include sidewalks, signalized intersections, or on-street parking; generally maintained by local government, but capital costs may be the responsibility of state.	 Camden Avenue, Salisbury
Collector: Major Collector; Minor Collector	Support access to nearby land uses and provide connections to arterials; generally designed, constructed, and funded by local government.	 Middleford Road, Seaford
Local Road	Provides the greatest access to adjacent land uses; serves short travel distances; generally designed, constructed, and funded by local government.	 2nd Street, Delmar

Photos courtesy of Google Streetview (screenshots captured July 2023)

Figure 3.1: Federally Classified Roadways in the S/WMPO Region



Source: Salisbury/Wicomico Department of Planning, Zoning, & Community Development; MDOT SHA; and DelDOT.

Access and Mobility

All of the different classes of roadways are part of the network providing a region with both access, helping people reach their destinations, and mobility, allowing people to travel distances. For example, a minor arterial can be described as offering a lower level of traffic mobility than a principal arterial; it has lower speeds and more intersections and driveways. These same characteristics; however, mean a minor arterial provides a higher level of access than the principal arterial. **Table 3.4** illustrates these differences across the spectrum of roadway type.

Table 3.4: Relationship between Functional Classification and Travel Characteristics

	Arterial	Collector	Local
Distance Served and Length of Route	Longest	Medium	Shortest
Access Points	Few	Medium	Many
Speed Limit	Highest	Medium	Lowest
Distance Between Routes	Longest	Medium	Shortest
Usage (AADT, DVMT)	Highest	Medium	Lowest
Significance	Statewide	Medium	Local
Number of Travel Lanes	More	Medium	Fewer

Source: Highway Functional Classification Concepts, Criteria and Procedures, Federal Highway Administration

3.3 What are the Region's Existing and Forecasted Traffic Conditions?

There are several key metrics used to evaluate the region's traffic conditions: volume, expressed as average annual daily traffic and vehicle miles traveled; and capacity or congestion, expressed as level-of-service.

Traffic Volume

According to the Institute for Traffic Engineers ("ITE"), traffic volume is the most basic and widely used parameter in traffic engineering. While there are different definitions and methods used to collect, analyze, and describe traffic volume data, **Annual Average Daily Traffic ("AADT")** typically based on weekday travel is the most common measure. AADT is used for measuring or evaluating the present demand for service by the roadway, developing the major or arterial street system, locating areas where new facilities or improvements to existing facilities are needed, and programming capital improvements.

What is AADT?
Average daily traffic on a section of roadway for all days of the week during a period of one year, expressed in vehicles per day.

The existing AADT can be used to project a future number of trips and the volume-to-capacity ratio for segments of roadway. An analysis of existing and future highway conditions was conducted using current traffic counts and future forecast levels on the highway system, as detailed in **Appendix C**.

A trend analysis using DelDOT historical AADT counts reveals high-growth segments for selected roadways in the S/WMPO area (specifically Sussex County) over the 2019 through 2022 period is included in **Appendix D.** Roadway segments experiencing a significant increase of AADT should be evaluated to determine existing and future LOS and recommended improvements to ensure acceptable operations.

The analysis also utilized data for future build-out forecasts of residential and commercial space in the S/WMPO area, which are listed in **Appendix E**. It is important to note, the existing and projected traffic volumes are for illustrative purposes and are not comprehensive enough to be considered an engineering or traffic impact study.

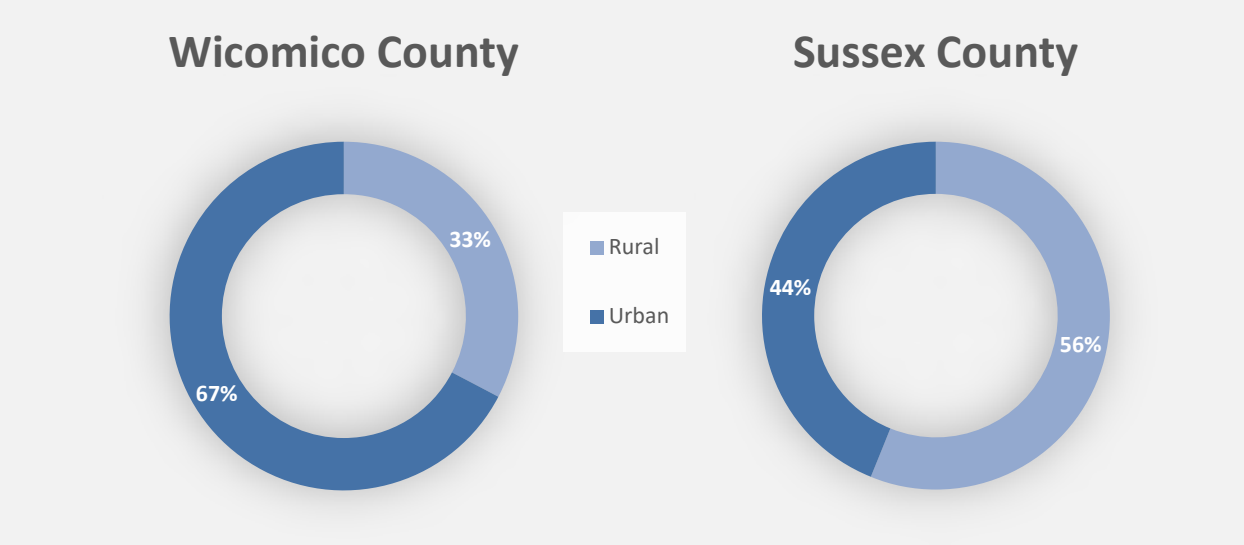
Vehicle Miles Traveled ("VMT")

Annual data on the number of miles that vehicles travel on different types of roadways is another important metric for understanding how the roadway system changes over time. VMT is a tool to measure vehicle travel, as well as a lens into larger trends in travel patterns. For example, while personal automobile use has been on the decline in many urban parts of the United States, Delaware has seen a statewide increase in licensed drivers, registered motor vehicles, and VMT consistent with population growth.[3]

What is Vehicle Miles Traveled?
A measurement of the number of miles traveled by vehicles in a specified region during a specified time period. This statistic is compiled by the Federal Highway Administration and may be used to measure performance and to evaluate road pricing programs.

MDOT and DelDOT collect annual VMT data by county and functional classification as part of the Highway Performance Monitoring System ("HPMS") under the Federal Highway Administration. The 2021 VMT for Wicomico County was approximately 980,000,000, while the 2021 figure for Sussex County was 6,922,163. These figures have remained fairly consistent for the past three (3) years. As shown in **Figure 3.2**, the majority of the vehicle-miles traveled in Wicomico are on urban roads (67.3%), while a little more than half (56.1%) of VMT within Sussex County occurs on rural roads.

Figure 3.2: Vehicle Miles Traveled in Wicomico and Sussex Counties, 2021



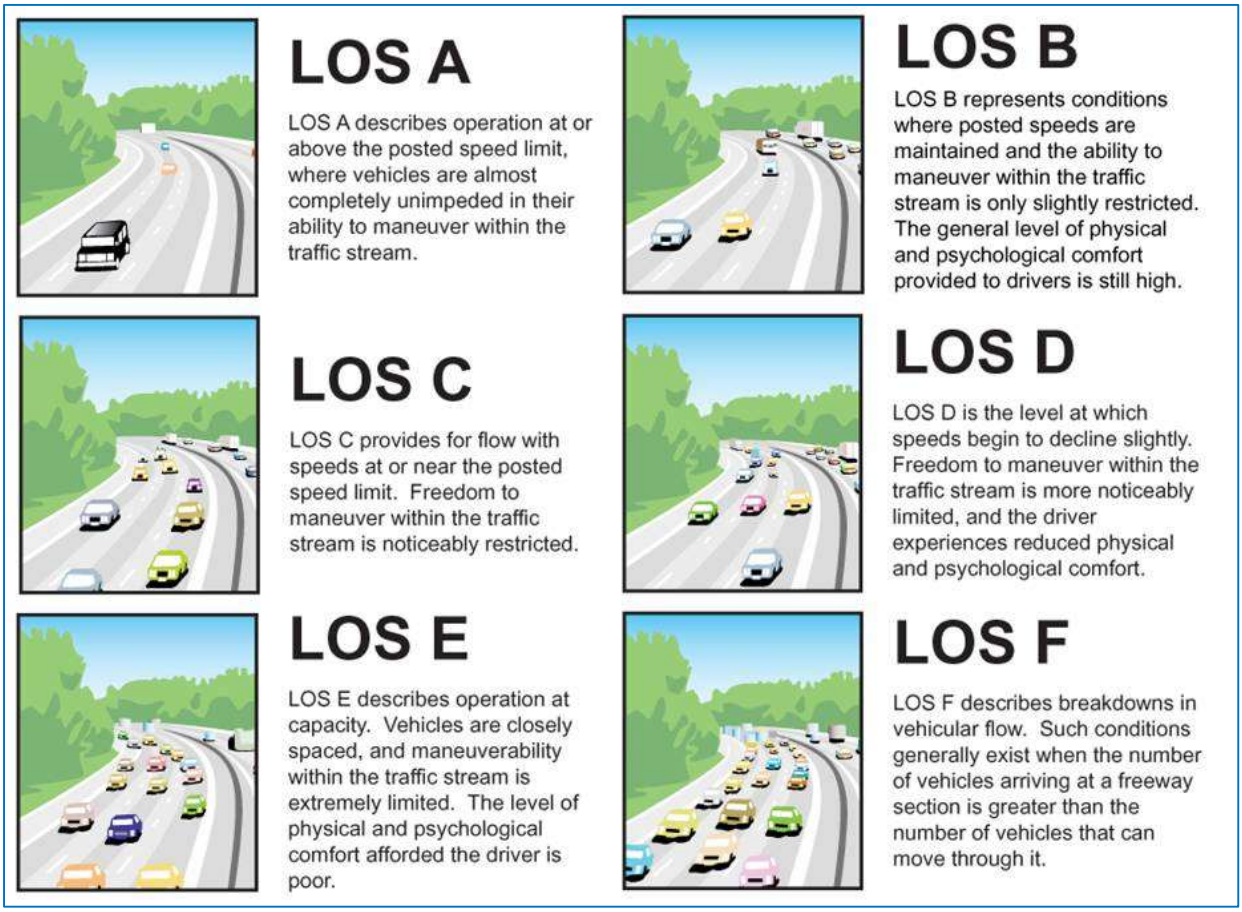
Sources: MDOT SHA, Annual Highway Mileage Report (All Systems); Delaware Department of Transportation, Highway Performance Monitoring System

[3] https://dsp.delaware.gov/reports/ (Traffic Statistical Reports)

Traffic Congestion

Traffic engineers often use the **Level of Service ("LOS")** metric to analyze and compare the relative level of congestion of a stretch of road or intersection. LOS is a qualitative performance metric used by traffic engineers to compare the volume and capacity of roadways. There are six (6) standard levels of service given letter designations like school grades, as illustrated in **Figure 3.3**.

Figure 3.3: Level of Service (LOS)



Source: MDOT MTA, http://www.mdta.maryland.gov/I95section100DELETE/i95-sect100_los.html

The volume-to-capacity ratio ("v/c ratio") expresses the relationship between the actual or projected traffic volume and the actual or programmed capacity at an intersection. A v/c ratio of 1.0 or greater means the intersection is at or exceeding capacity[4]. When capacity is exceeded, a breakdown occurs in normal intersection operations causing traffic delays and congestion. This is usually a time of day occurrence when the roadway or intersection is most heavily used, which typically occurs on weekday morning and/evening as people commute to and from their jobs.

Segments of the following roadways have projected v/c ratios exceeding 0.90; indicating that actual traffic volume is approaching (<1.00) or exceeding (>1.00) the actual or programmed capacity:

- v/c = 0.91 on US 50 BU Ocean Gateway @ mile point 1.32;
- v/c = 0.91 on US 13 Ocean Highway @ mile point 7.66;
- v/c = 0.99 on US 50 BU W. Salisbury Parkway @ mile point 2.42;
- v/c = 1.07 on US 50 Ocean Gateway @ mile point 25.24;

[4] https://safety.fhwa.dot.gov/intersection/signal/fhwasa13027.pdf

- v/c = 1.12 on US 13 Ocean Highway @ mile point -1;
- v/c = 1.29 on US 13 Ocean Highway @ mile point 14.21;
- v/c = 1.55 on US 13 Ocean Highway @ mile point 13.64; and
- v/c = 1.64 on US 50 Ocean Gateway @ mile point 19.46.

According to the MDOT SHA's 2015 AM and PM Peak Hour Congestion Maps[5] on State roads within Wicomico County, six (6) road segments are experiencing moderate or heavy congestion: U.S. Route 13 Business between the Salisbury Bypass and U.S. Route 50 Business; U.S. Route 50 between the Salisbury Bypass and Hobbs Road; Salisbury Bypass at Naylor Mill Road overpass; MD 349 – Nanticoke Road between U.S. Route 50 Business and Crooked Oak Lane; MD 349 – Nanticoke Road between MD 815 and U.S. Route 50 Business; and MD 54 – Line Road between U.S. Route 13 to east of MD 675 – Bi State Boulevard. Given these areas already experience traffic congestion, it is likely congestion on these roadways will increase over the horizon of this LRTP. Furthermore, as population and development in the study area rise, demand on existing transportation systems will increase. As a result, roadways currently experiencing free-flow movement may likely become mildly or moderately congested in the future.

Concerns about the impact of development on the roadway system led the S/WMPO to prepare several corridor studies over the years to identify future transportation needs on the major corridors in the area. Studies include *Pemberton Drive Corridor Study (2007)*; *Riverside Drive Corridor Study (2010)*; *Beglin Park Drive Traffic Study (2010)*; *East Side Corridor Study*; *U.S. Route 13 North and Naylor Mill Corridor Study (2011)*; *Eastern Shore Drive Corridor Study (2016)*; *Eastern Shore Drive and E. Carroll Street – Traffic Signal Warrant Analysis (2021)* and the *Glen Avenue Road Diet (2022)*. These studies analyze current and future traffic demand and crash data, among other metrics, to identify issues such as vehicular safety, traffic flow, and LOS. Specific intersections, shown in **Table 3.5**, are identified as candidates for jurisdictions to consider as part of their engineering-level evaluation and / or capital programming efforts during the plan horizon. The S/WMPO will continue to monitor these corridors, and collect data as requested, contingent upon available funding and support of the TAC and Council.

Table 3.5: Maryland Intersections - Forecasted LOS D

Study	Intersection
Pemberton Drive Corridor	Nanticoke Road and Rockawalkin Road
	Nanticoke Road and Parsons Road
East Side Corridor	South Division Street and East College Avenue
	Business U.S. 13 and West College Avenue
	East College Avenue/Beaglin Park Drive and MD 12 (Snow Hill Road)
	Beaglin Park Drive and South Schumaker Drive
	Beaglin Park Drive and MD 350 (Mt. Hermon Road)
	Beaglin Park Drive and Business U.S. 50
	Kelly Road and Outten Road
	MD 12 (Snow Hill Road) and Ramps to/from NB U.S. 13
	Kelly Road and Gordy Road
	MD 12 (Snow Hill Road) and Toadvine Road

[5] https://roads.maryland.gov/OPPEN/Wicomico_Congestion.pdf

Study	Intersection
U.S. 13 North Corridor	U.S. 13 and Connelly Mill Road/Winner Boulevard
	U.S. 13 and Foskey Lane
	U.S. 13 and Route 4
	Bi-State Boulevard (MD 675B) and Route 54
	Bi-State Boulevard (MD 675B) and Foskey Lane
	Bi-State Boulevard (MD 675B) and Connelly Mill Road
Riverside Drive Corridor	U.S. Route 50 and Mill Street
	Mill Street and W. Main Street
	Mill Street and Riverside Drive
	Riverside Drive and Wicomico Street
U.S. 13 North/Naylor Mill Road	Dagsboro Road at U.S. 13
	North Pointe Drive at U.S 13
	Naylor Mill Road at U.S. 13
	Centre Road at U.S. 13
	Zion Road at Naylor Mill Road
	Northgate Drive at Naylor Mill Road
	Northwood Drive at Naylor Mill Road
	Log Cabin Road at Naylor Mill Road
	U.S. 50 westbound ramp at Naylor Mill Road
Eastern Shore Drive Corridor	Eastern Shore Drive/South Division Street at College Avenue
	Eastern Shore Drive at East Carroll Street
	Eastern Shore Drive at South Division Street
Eastern Shore Drive and East Carroll Street Signal Warrants	Salisbury Boulevard at East Carroll Street
	Eastern Shore Drive/Pond Street at East Carroll Street
Glen Avenue Road Diet	Glen Avenue at Civic Avenue

Source: S/WMPO studies (https://www.swmpo.org/studies)

3.4 How do Local Plans Address Roadway Needs?

The Transportation Chapter, sometimes referred to as the Circulation Element, of a county, city, or town's Comprehensive Plan typically addresses the existing conditions and the plans for a jurisdiction's transportation system. Sometimes these chapters include visionary statements about the area's goals for the system. The *Wicomico County Comprehensive Plan* includes such a vision, which is referenced in other local plans:

> *"The future vision for Wicomico County is of streets that are pleasant to walk along, safe and efficient bike routes, effective incentives for carpools and vanpools, and a network of roads that moves people and goods efficiently throughout the County. The goal must be to shift from moving vehicles, to strategies that will result in balancing the need for cars and trucks, transit riders, bike riders, walkers, agricultural operations, and emergency services."*

Some local plans reference conflicts between residents trying to move around within their town and prserve the character of a "main street" corridor and the through traffic from commuters, visitors, or freight truck movement. Effective transportation planning includes balancing the needs of all users and modes to ensure the appropriate roadways are provided for different purposes.

Local jurisdictions within the S/WMPO region are working on many important transportation projects to improve mobility, access and safety, and system preservation and maintenance to ensure the traveling public moves safely and efficiently through the region.

3.5 What are the Needs of the Region's Bridges and Ferries?

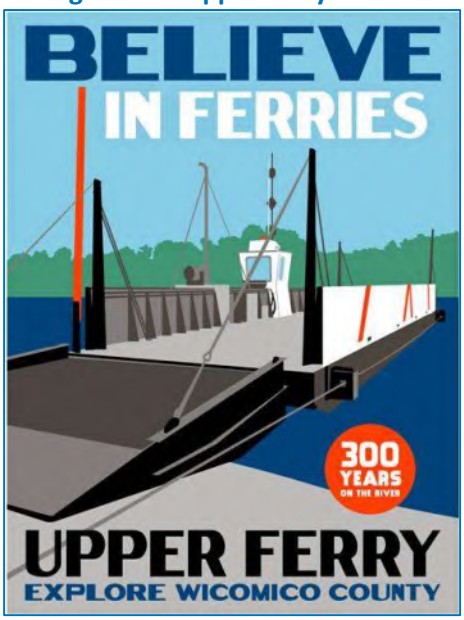
Bridges are an important part of the roadway system in the S/WMPO region. According to the MDOT SHA, Office of Structures' Bridge Inventory, there are approximately 70 bridge crossings on State highways located in Wicomico County. MDOT SHA conducts in-depth, hands-on bridge inspections to determine whether any of three main elements of a bridge are structurally deficient: the deck (riding surface), superstructure (main supporting element of the deck, including beams, girders, and trusses), and the substructure (supports to hold up the superstructure and deck, including abutments and piers). If any of these elements are rated as a four (4) or lower on a nine (9) point scale, the bridge is categorized as structurally deficient and MDOT SHA may prioritize it for rehabilitation or replacement. According to the National Bridge Inventory in the 2023 National Transportation Atlas Database, which is maintained by the U.S. Department of Transportation, there are two (2) bridges within the 2020 UA in Salisbury, Maryland meeting the definition as structurally deficient[6]. In general, bridge improvements are considered system preservation, rather than capacity expansion, projects and federal, State, and local investments are aimed at keeping infrastructure in good working order.

Adequate and efficient river crossings are critical from a strategic point of view of moving people, automobiles, and freight through the region, as well as from a public safety perspective of ensuring that emergency vehicles can quickly reach all corners of Salisbury. The Sussex County portion of the UA also has strategically important crossings of the Nanticoke River in Seaford and Blades.

The Wicomico County DPW operates and maintains the Upper Ferry (**Figure 3.4**) and the Whitehaven Ferry, though Somerset County shares 50% of the maintenance cost for the latter. The two (2) ferries make approximately 200,000 trips annually transporting passengers and vehicles. The ferry service is free and each ferry has a capacity of six (6) passengers and a weight limit of 20,000 pounds.

[6] https://data.delmarvanow.com/bridge/maryland/wicomico/24045/

Figure 3.4: Upper Ferry Poster



Source: Wicomico County Department of Public Works website, https://www.wicomicocounty.org/301/Ferry-Schedule, 2023.

3.6 What are Some Recommendations?

The Highway Needs Inventory (HNI) is a planning document which is not financially constrained – in contrast to ***Connect 2050***, which includes a list of financially constrained projects in **Chapter 8**. **Table 3.6** reflects the 2021 Wicomico County HNI.

Table 3.6: MDOT SHA – Highway Needs Inventory for Wicomico County (2021)

Route and Segment	Improvement Type	Cost
U.S. 13 (South Fruitland Boulevard) from the Somerset County line to U.S. 13 Business; 0.6-mile	Divided highway reconstruct	$8,100,000
U.S. 13 (North Salisbury Boulevard/Ocean Highway) from the Salisbury Bypass to the Delaware State line; 4.4 miles	Divided highway reconstruct	$138,900,000
U.S. 50 (Ocean Gateway) from MD 731A to White Lowe Road; 9.7 miles	Access control improvements	$289,900,000
U.S. 50 (Ocean Gateway) from Salisbury Bypass to east of Walston Switch Road; 2.6 miles	Divided highway reconstruct, including interchanges	$237,700,000
MD 12 (Snow Hill Road) from the Worcester County line to south of U.S. 13 Bypass; 4.2 miles	2 lane reconstruct	$58,900,000
MD 12 (Snow Hill Road) from U.S. 13 Bypass to Johnson Road; 1.0 mile	Multi-lane urban reconstruct	$116,500,000
MD 349 (Nanticoke Road) from N. Upper Ferry Road to US 50; 4.9 miles	Multi-lane reconstruct	$66,900,000
MD 350 (Mt. Hermon Road) from Beaglin Park Drive to Walston Switch Road; 3.3 miles	2-lane reconstruct	$57,400,000

Source: MDOT SHA 2021 Highway Needs Inventory for Wicomico County

Delaware and Maryland counties are encouraged to submit an endorsed Priority Letter to the state Department of Transportation's identifying the county's recommended roadway improvements along State roads. These recommended improvements for consideration are based on locally adopted comprehensive plans, municipal and County requests, public input, and studies prepared by the S/WMPO for the purpose of reducing congestion and improving safety. Projects include those intended to meet both capacity expansion and system preservation goals including dualization of a state roadway, geometric and signalization improvements to existing and planned intersections, planning-level studies, restriping projects to accommodate shared use roadways between pedestrian/cyclist and motorized vehicles, as well as modifying existing travel lanes.

3.7 What Roadway Needs does *Connect 2050* Address?

Roadway projects are funded by federal, state, county, and municipal governments, depending on who owns the infrastructure. Because of the magnitude of high capital cost of such projects, highway projects rely heavily on federal funds. As noted in FHWA guidance about MPOs:

> *"The funding for transportation plans and projects comes from a variety of sources including the federal government, state governments, special authorities, public or private tolls, local assessment districts, local government general fund contributions (such as local property and sales taxes) and impact fees. However, federal funding—transferred to the state and later distributed to metropolitan areas—is typically the primary funding source for major plans and projects."*

Roadway projects included in ***Connect 2050*** are typically targeted to solve one (1) of the following transportation challenges:

- **Mobility and Capacity Expansion –** Vehicular traffic volume is an important way to think about the region's transportation in the context of a long range transportation plan. Do the existing roadways meet the current capacity needs of the region? As land use patterns, economic development, and changes in technology and transportation habits change over the next 30 years, will the roads be able to meet projected demand? While some level of traffic volume can be a positive attribute and signal of economic strength, significant congestion can also cause drivers to alter their behavior and avoid traveling to or through a region.
- **Access and Safety** – Long range transportaiton plans no longer include only projects designed to move more traffic as fast as possible. Rather, smaller, more incremental projects and corridor studies that support multi-modalism, appropriate traffic speeds, and geometric intersection design aimed at fostering a safer system are also part of ***Connect 2050***.
- **System Preservation and Maintenance** – Maintenance and paving are significant and ongoing costs for state and local transportation departments, particularly in an era of fewer large capital projects adding significant new capacity. These projects ensure that infrastructure will remain in safe and efficient operating condition.

The Financially Constrained Projects are listed in **Chapter 8**.

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Chapter 4
Connect with… The Bicycle and Pedestrian System

Chapter 4: The Bicycle and Pedestrian System

This Chapter explains the various types of bicycle and pedestrian facilities and discusses those in the S/WMPO region. It describes previous and on-going bicycle and pedestrian planning activities and initiatives, as well as reviews the locally identified needs and priorities. In addition, this Chapter discusses potential funding sources for providing pedestrian, trail, and bicycle facility improvements.

Walking and bicycling are modes of transportation, as well as leisure pursuits. Such activities are undertaken by adults and children, local residents and visitors, people seeking exercise, as well as those seeking solitude and nature's beauty. Bike and pedestrian facilities should be planned and constructed in appropriate locations to link residential areas to activity centers within the region or connect to areas beyond the region. A variety of facility types help to meet the wide range of demand. The features for trails and bike paths intended for recreational use may be different from the sidewalks and on-road bikeways sought by commuters.

There are numerous ways to implement sidewalk, trail, and bicycle network improvements. Initiatives may be undertaken by state, county, or municipal agencies and as stand-alone projects or as part of larger programs. Bikeway and pedestrian circulation improvements may be implemented as roadway construction occurs (rehabilitation or new construction) or conducted as a part of an overall pedestrian or bicycle safety program. Bicycle and off-road trail projects may be implemented in association with park improvements or recreation programs. Both bicycle and pedestrian improvements can be undertaken by private developers as a result of negotiations in the local jurisdiction development approval process. Because so many different entities could have a role in contributing to these networks, it is important to have plans to guide the initiatives and outcomes.

4.1 What are the Types of Bicycle and Pedestrian Facilities?

There are several types of bicycle facilities to meet different types of needs. On-street bicycle facilities can consist of marked bike lanes, side paths, paved shoulders and shared-use lanes. Off-road facilities consist of bike trails and multi-use paths intended for bicycling, as well as walking, jogging, in-line skating and potentially horseback riding. There are a number of elements that support both on-street and off-street pedestrian and bicycle facilities, described in **Tables 4.1** and **4.2.**

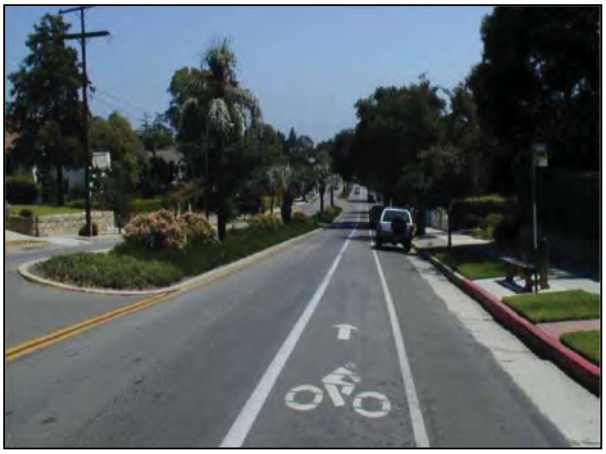
Table 4.1: Pedestrian Facility Elements

Element	Description
Sidewalks	The linear elements of the pedestrian facility along a street
Off-Road Path	Paved or unpaved pedestrian facility in rural or low density suburban areas
Shared Use Path	Paths developed for use by pedestrians and bicyclists (and others)
Shared Use Roadway	Shared use of a street for people walking and driving (usually streets with extremely low vehicle speeds and volumes)
Overpass/Underpass	A grade separated walkway and / or bike path

Table 4.2: Bicycle Facility Elements

Element	Description
Bikeway	The generic term for any road, street, path or way that is specifically designated for bicycle travel.
On-Road Routes	Roads that may be well-suited and/or retro-fitted for future bike routes. They include both roads with and without shoulders, as well as roads with or without delineated bike lanes.
Roads With Shoulders	On roads with shoulders, dedicated bike lanes could be designated.
Roads Without Shoulders	On roads without shoulders, dedicated bike lanes may not be possible and bikers may have to share a travel lane with vehicular traffic. Evaluation to occur on a segment-by-segment basis.
Off-Road Routes	Off-road locations where trails could be built to connect to on-road trails or greenway connections to major hubs.
Rails-to-Trails / Rails-with-Trails Routes	Off-road trails using former railroad rights of way either along the rail right-of-way adjacent to an operating railroad or on former railroad bed.
Conventional Bicycle Lanes	A bicycle lane is a portion of the roadway designated by striping, signing, and pavement markings for the preferential and exclusive use of bicyclists. Bicycle lanes are located on both sides of the road, except one way streets, and carry bicyclists in the same direction as adjacent motor vehicle traffic.
Buffered Bicycle Lanes	Buffered Bike Lanes typically have a desired width of 6' feet and minimum of 5' feet against a curb with white paint lines and bicycle symbols painted on the bikeway.

On-road bicycle route with a striped shoulder (left) and on-road bicycle route without shoulder (right).



Conventional on-road bike lane (left) and shared-use hiking and biking trail (right).

Heavily used pedestrian underpass at Salisbury University

4.2 What are the Existing Conditions for the Region's Bicycle and Pedestrian System?

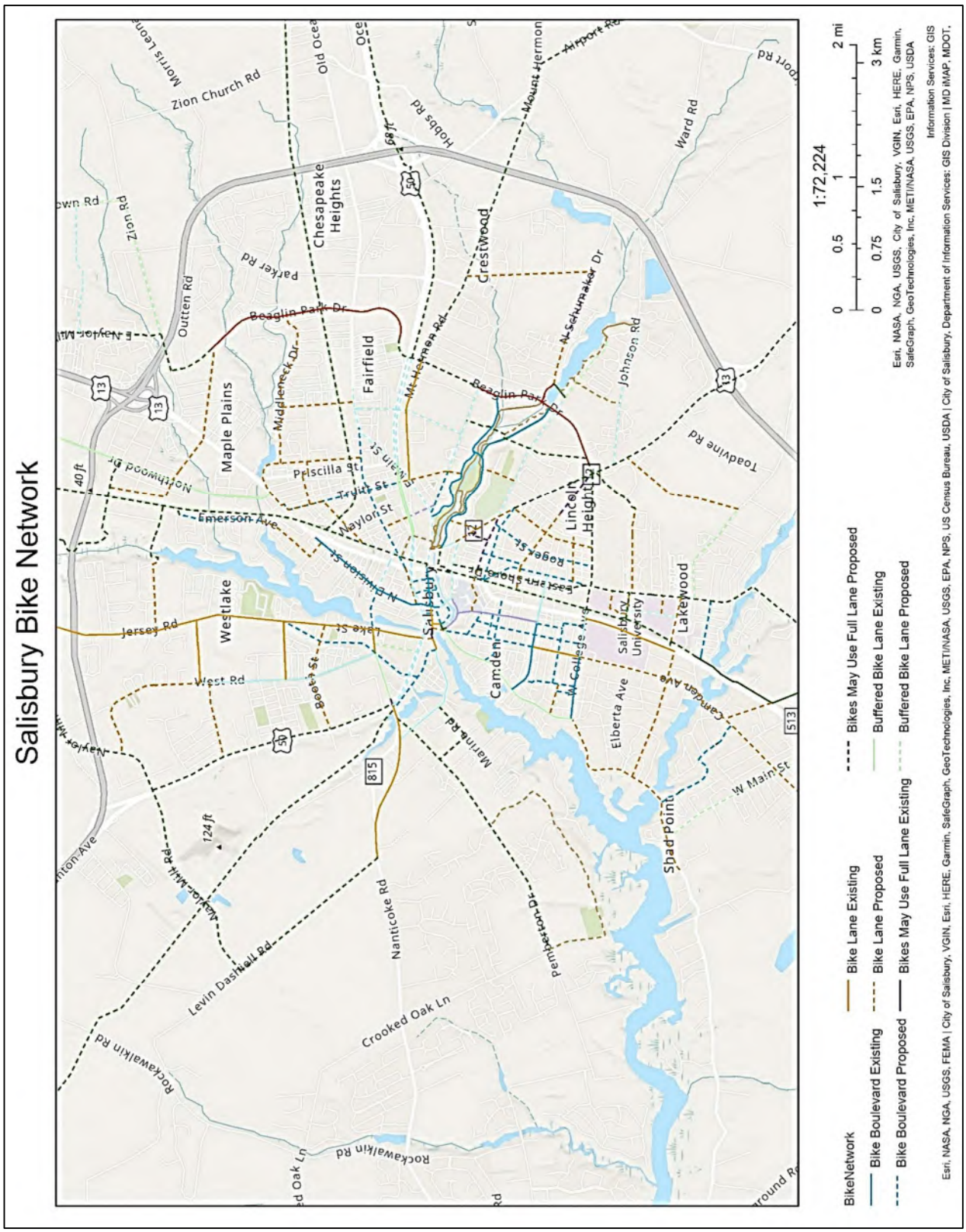
Table 4.1 lists several of the existing and planned bicycle and pedestrian facilities in the Salisbury area (Figure 4.1). Not identified in the table are numerous roadways within the area that have existing and planned designated bike lanes, such as Lake Street (existing) and Middle Neck Drive (planned). Additional trail information can be found at: https://salisbury.md/bicycling.

Table 4.1: Existing Bicycle and Pedestrian Facilities

Name	Approximate Length	Facility Type
South Park Drive (Snow Hill Road to Beaglin Park Drive)	1.5 miles	Existing Bike Boulevard
Beaglin Park Drive (Gordy Rd to Shamrock Drive)	1.6 miles	Existing Side Path
N. Division Street (N. Circle Avenue to north terminus)	1.1 miles	Existing Bike Boulevard
Snow Hill Road (Spring Avenue to Worcester County Line)	6.4 miles	Proposed Multi-Use Shared Path
Camden Avenue (South Boulevard to Riverside Traffic Circle)	0.7-mile	Proposed Bike Boulevard
W./E. Carroll Street (Riverside Traffic Circle to S. Division Street)	0.3-mile	Existing Two-Way Cycle Track
Salisbury Riverwalk	0.66-mile	Existing Concrete Path
W. Naylor Mill Road (Levin Dashiell Road to U.S. 13/Ocean Highway)	5.30 miles	Proposed Multi-Use Shared Path
E. Naylor Mill road (U.S. 13/Ocean Highway to Zion Road)	1.2 miles	Proposed Multi-Use Shared Path

Source: https://salisbury.md/bicycling

Figure 4.1: Salisbury Bike Network Map



In coordination with Wicomico County, and the Lower Eastern Shore Heritage Council provided a grant to create the Bicycle Touring Route Project. The outcome of the project was a series of maps detailing bicycling routes on established urban and rural roads and byways in Wicomico County. The touring routes listed in **Table 4.2** are intended for special bicycle events and informal riding.

Table 4.2: Bicycle Touring Routes

Route Name	Length
Route 8 Jackson's Back	8.0 miles
Route 9 Zippity Zoo Da	9.0 miles
Route 13 Lucky 13	13.5 miles
Route 14 Ferry Loop	14.5 miles
Route 15 Shorebird	14.9 miles
Route 20 Cooper Looper	19.8 miles
Route 28 Tourist Tango	27.3 miles
Route 34 Pemberton to Whitehaven	34.0 miles
Route 36 Pemberton to Cedar Hill	36.0 miles
Route 38 Polka Pass Loop	39.3 miles
Route 40 Milburn Landing Loop	40.5 miles
Route 51 Sticky Fingers	55.9 miles
Route 62 Deals Island Express	62.8 miles

Walking and hiking trails are largely located in the regional parks located within the area. These trails provide opportunities to walk along waterways, woodlands natural areas, and recreational areas. The Wicomico Department of Recreation, Parks, and Tourism maintains a number of these trails throughout the County some of which are listed in **Table 4.3**.

Table 4.3: Wicomico County Department. of Recreation, Parks and Tourism Hiking Trails

Route Name	Approximate Length
Adkins Mill	0.5-mile
Leonards Mill Park	0.4-mile
Naylor Mill Athletic Park	1.3 miles
Naylor Mill Park Bike Trail	4.0 miles
North Lake Park	0.3-mile
Pemberton Historical Park (various short trails)	5.3 miles
Pirate's Wharf Park	1.0 mile
Winter Place Park	2.0 miles

The Salisbury City Park has a series of trails, which total approximately four miles of trails. The trails begin at Beaver Dam Creek and run through the Salisbury Zoo and wooded areas near Pony League Park (**Figure 4.2**). The trails are used for walking and biking.

Figure 4.2: Salisbury City Park Trail Map

4.3 What are the State Level Plans and Initiatives?

Maryland

Maryland first developed their *20-Year Bicycle and Pedestrian Access Master Plan* ("BPAMP") in 2002 with updates conducted in 2014 and 2019 (referred to as 2040 *Maryland Bicycle and Pedestrian Statewide Master Plan 2019 Update*). Updates to this Plan, now referred to as the *2050 Maryland Statewide Bicycle and Pedestrian Master Plan ("BPMP")*, are in progress at the time of this plan update, with anticipated adoption by early 2024. This draft plan identifies goals and strategies for improving active transportation access across the state and helps advance the MDOT vision to provide safe and convenient active transportation that supports equitable access for all. The Plan's four (4) goals are shown in **Table 4.4**.

Table 4.4: Goals of the Draft 2050 Maryland BPMP Plan

Goal	Description
Equitable & Sustainable Communities	Leverage active transportation investments for building sustainable, equitable and resilient communities.
Safety	Improve the safety of active transportation travel through infrastructure and resource development.
Process	Better integrate active transportation and micromobility considerations in project and program procedures.
Connections	Encourage short- and long-distance active transportation trips through better-connected networks.

MDOT's integrated approach seeks consideration of bicycle and pedestrian needs, as appropriate in all projects and policies. The draft 2024 BPMP focuses on "short- and long-term policy and practice recommendations to improve safety, mobility, and access[1]."

The League of American Bicyclists provides a Bicycle Friendly State ranking for all 50 states based on four public data sources and a Bicycle Friendly State survey that is answered by each state's Department of Transportation and/or a statewide bicycle advocacy organization. The data analyzed is organized into five (5) categories:

- Infrastructure & Funding
- Education & Encouragement
- Traffic Laws & Practices
- Policies & Programs
- Evaluation & Planning

Maryland ranked Maryland 14th in the 2022 *Bicycle Friendly State Ranking* report.

Maryland has a **Bicycle and Pedestrian Advisory Committee** ("BPAC") that advises State agencies on issues directly related to bicycling and funding, public awareness, safety and education. The Committee is comprised of citizens and representatives from eight (8) state agencies and a regional planning agency appointed by the Governor. The City of Salisbury has its own BPAC and renewed their Bicycle Friendly Community ("BFC") status

2009 Maryland Trails Strategic Implementation Plan Vision

"Increase the number of people using trails for transportation by providing a system of multi-use trails that: strategically link destinations throughout the State, provide a sustainable transportation alternative, and promote physical activity and tourism in the places Maryland residents and visitors live, learn, work, and play."

[1] https://www.2050marylandbpmp.com/

designation by the League of American Bicyclists in the Fall of 2022. Salisbury is the first BFC on Maryland's Eastern Shore and one of seven BFCs in Maryland.

The *Maryland Trails Strategic Implementation Plan* (2009) was an effort to guide the implementation of a trail network throughout the State. The Plan proposed a coordinated approach for the State's shared use trail network intended for transportation purposes. It recommended implementation of linkages and improved utilization of existing facilities. The Plan expresses MDOT's intent to collaborate with regional planning organizations to promote the use of federal Congestion Mitigation and Air Quality ("CMAQ") funds to construct "missing links" in non-attainment areas. MDOT encourages jurisdictions to incorporate trails in planning documents including: land preservation; parks and recreation plans; local comprehensive plans; and stand-alone transportation, bikeway, and bicycle and pedestrian plans. Addressing trails in these long-range planning documents is a vital first step for Maryland jurisdictions to successfully: engage private developers in trail construction; secure trail funding in annual capital budgets; and pursue strategic, phased development of key trail links.

Maryland's Greenway Atlas identifies existing and proposed greenways and connectors. Connectors are defined as "walkways or on-road routes in heavily built environments that provide key connections between or within greenways corridors." In Wicomico County, the Atlas identifies:

- The Salisbury Urban Park Greenway extends in two (2) directions from the City of Salisbury connecting the Port of Salisbury, several other parks, and the Hospital via the Riverwalk; and
- The Salisbury/Pocomoke River Greenway Connector is a potential on-road bikeway connector that would provide a route across the eastern section of the county and link the greenways network in Salisbury to proposed corridors along Nassawango Creek and the Pocomoke River. Local parks along the corridor provide areas for public access.

Delaware

The previously mentioned League of American Cyclists ranked Delaware 9th in the 2022 *Bicycle Friendly State Ranking* report.

Delaware's Long Range Transportation Plan ("LRTP") is based on seven (7) guiding principles, one (1) of which is to maximize transportation choice for residents and visitors. Among the Plan goals is to: Enhance multi-modal transportation by advancing transportation system integration and connectivity across all users including people and freight. The next update to Delaware's LRTP is anticipated in early 2024.

Delaware's Bike Council is comprised of state agency representatives and "considers, reviews and works on matters pertaining to bicycling, bicycle safety, and bicycle safety education and to make recommendations to various State agencies." The Council has two (2) goals listed in **Table 4.5.**

Table 4.5: Goals of the Delaware Bike Council

Goal	Description
Goal #1: Increase facilities and opportunities for bicycling.	The goal is supported by objectives to develop policies and provide facilities to increase road shoulders and trails; maintain existing facilities; develop planning mechanisms for providing facilities and to work with the private sector to provide facilities.
Goal #2: Be an identifiable resource for bicyclists.	The goal is supported by objectives to represent the bicycling community in policy making, legislative processes, and to serve as a forum for public input.

DelDOT completed a *Statewide Pedestrian Action Plan* in 2008. The purpose of the Plan is to provide a path for DelDOT to make safe, accessible, connected, and equitable transportation facilities for all. Phase I of the plan, which included a review of existing plans, initial pedestrian crash data analysis and public engagement, was published in October 2022.

The *Delaware Statewide Bicycle Facility Master Plan* (2005) designated a network of on-road bicycle routes for utilitarian trips and touring riders. The Plan identifies statewide routes intended to connect Delaware's three (3) counties, Pennsylvania and Maryland. Also, the Plan also identifies Regional Routes intended to provide direct connections between major municipalities and activity centers. There is a description of each route in the Master Plan, as well as an explanation of the specific facility improvements needed for implementation. Alternate 13 is designated as a Statewide Route; and State Routes 9, 20, 30 and 24 are designated as Regional Routes

The *Delaware Strategies for State Policies and Spending* is updated every five (5) years. The 2020 update calls for specific agency initiatives with regard to pedestrian and bicycle infrastructure. For DelDOT, this includes:

- Focusing on the creation of an inventory of pedestrian facilities (sidewalks) and filling in any gaps.
- Collaborating to link cities and towns by a network of multi-use paths that can be used by commuters in additional to recreational pedestrians and bicyclists.

Previous versions of the *Strategies for State Policies and Spending* included complete streets in designated cities, towns, villages and suburbs, as well as intermodal connections to help close gaps in the pedestrian network. Delaware's *Complete Streets Policy* is intended to enhance access, safety and mobility for all modes of transportation. Under the *Strategies for State Policies and Spending Plan*, the towns of Delmar, Laurel, and Seaford have designated areas (Level 1 or Level 2 spending areas) where these complete streets strategies would apply. Some other rural locations within the S/WMPO area are Level 3 or 4 areas (natural or farmland areas) where the complete streets policies would not apply. In early 2023, DelDOT published the *Draft Complete Street Design Guide* to provide design guidance to state, county and local municipality transportation staff.

Figure 4.3 depicts the Statewide, Regional, and suggested Connector bicycling routes located in Sussex County (also available at the following link: SussexSide2-2021_web.pdf (deldot.gov)).

Figure 4.3: Sussex County Bicycle Map

Source: DelDOT

DNREC's Division of Parks and Recreation updates the *Delaware State Comprehensive Outdoor Recreation Plan ("SCORP")* every five (5) years. The 2018 survey for the Plan indicated 96 percent of Delaware residents indicate outdoor recreation is important with walking and jogging being the most popular outdoor recreational activity. Over one-third (39 percent) had participated in walking in the 12 month prior to the survey with 82 percent planning to partake within the following year. Walking and jogging are the most popular activities in Region 4 (Western Sussex County). Approximately 28 percent of Delaware residents are not walking or biking as much as they would like to, out of fear roads are too dangerous. The 2023 SCORP update is currently in progress (at the time of this plan update).

4.4 What are the County, Regional and Local Plans and Initiatives?

Wicomico County

The Transportation Chapter of the 2017 *Wicomico County Comprehensive Plan* recommends development of an extensive bikeway and pedestrian trail network to connect population centers to natural recreational areas, greenways and water trails. Also, it recommends the identification of needed links and elimination of sidewalk gaps, and the prioritization of sidewalk links connecting academic institutions to residential areas. Trails, hiking, biking and multimodal transportation systems are acknowledged as having a role in tourism and the economic and financial sustainability of the County.

Wicomico County Land Preservation, Parks, and Recreation Plan (2022) assesses the progress in meeting the leisure needs of Wicomico County residents. It includes a Wicomico County Bikeways, Scenic Byways and Greenways Chapter and identifies existing and proposed County facilities. The Plan discusses the role these facilities have or could have in meeting the overall open space and recreation needs of the County.

Sussex County

The 2019 *Sussex County Comprehensive Plan* identifies a number of objectives and associated strategies to promote and encourage bicycle and pedestrian travel (**Table 4.6**).

Table 4.6: 2019 Sussex County Comprehensive Plan Objectives and Strategies to Promote Bicycle and Pedestrian Travel

Community Design Element
Encourage development design that promotes increased access between developments and community facilities including parks, schools, and libraries.
Encourage pedestrian connectivity between developments with sidewalks, paths, trails, and easements.
Revisit County Code to determine if modifications are needed to encourage interconnectivity between residential developments.
Develop connectivity standards for new developments in order to create multiple, alternate routes for automobiles and more route options for people on foot and on bicycles.
Mobility Element
Encourage non-motorized transportation planning along low-speed roadways.
Incorporate bike and pedestrian facilities into community master plans where appropriate and consider allowing the use of motor-assisted bicycles along bicycle facilities and trails.
Support the development and implementation of the statewide bicycle plan, a Blueprint for a Bicycle-Friendly Delaware, and continue to support the creation of recreational trails and shared-use pathways to connect communities to employment,

	commercial services, recreational opportunities, and to provide safe alternatives to car travel.
	Partner with Delaware's Pedestrian Coordinator to complete sidewalk connectivity projects in conjunction with new development.

Regional

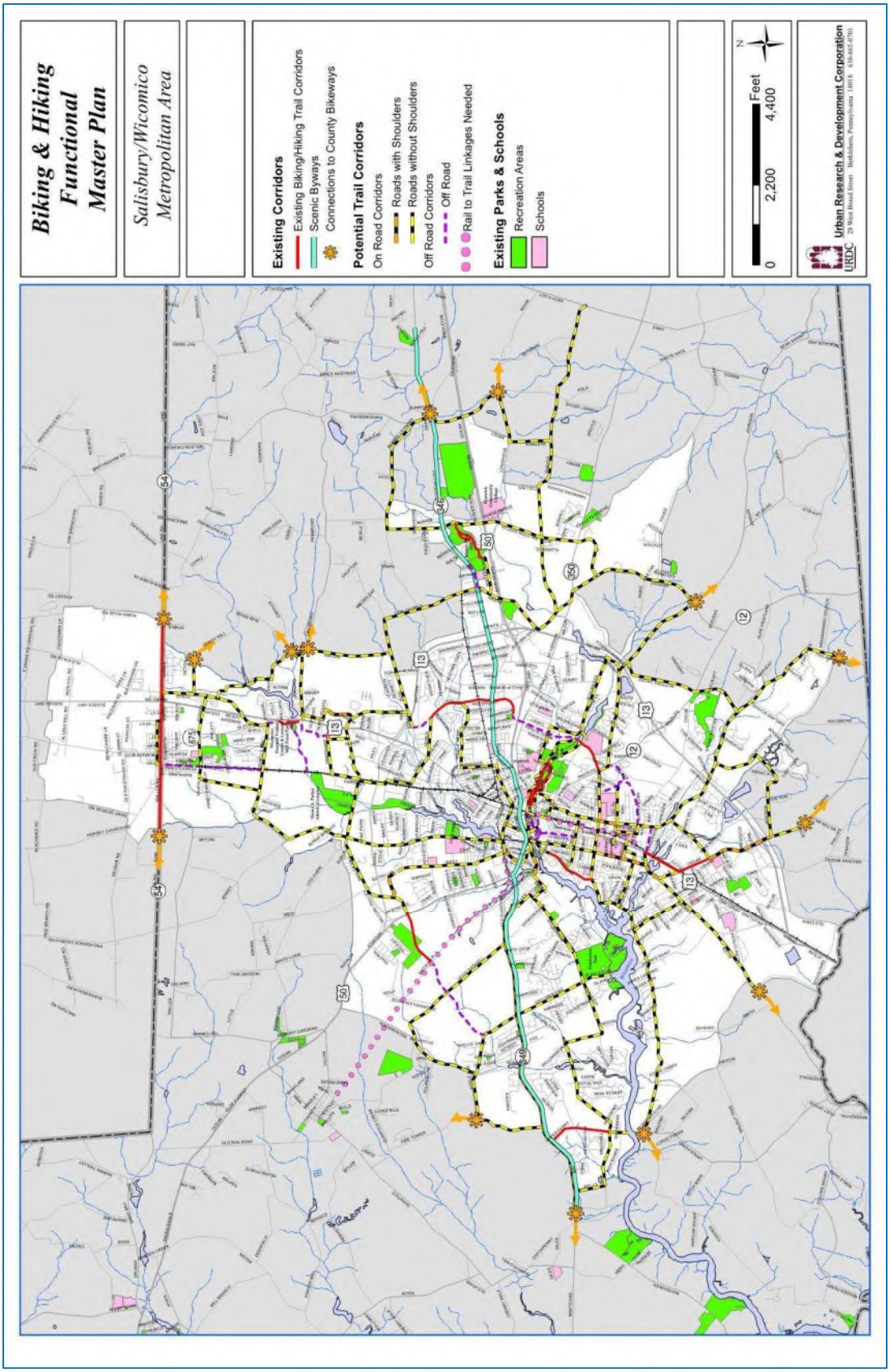
***The Biking and Hiking Functional Master Plan for the Salisbury/Wicomico Metropolitan Area* (2012)** identifies the existing and potential hiking and biking corridors (**Figure 4.4**). Both on-road and off-road facilities, as well as opportunities to connect with County bikeways are also identified. The Plan focuses on parks and schools and includes recommended conceptual routes for each section of the Metropolitan area (North, South, East, West and Downtown). Design guidelines for different types of facilities are recommended.

The Biking and Hiking Functional Master Plan identifies a vision for a walking and bicycle network to link destinations, increase accessibility to historic, cultural and tourist destinations and improve people's health and the environment.

The following are specific goals of the 2012 *S/WMPO Biking and Hiking Functional Master Plan*:

- Enhance on-street bicycle and pedestrian connectivity throughout the metropolitan area;
- Offer trail routes to destinations and transit centers, thereby decreasing dependence on the automobile;
- Promote exercise and improve the quality of life by developing trails, pathways, sidewalks that interconnect where possible;
- Highlight the Salisbury/Wicomico metropolitan area's many water bodies, including the Nanticoke River and the Wicomico River, as ideal locations for more linear greenways; and
- Stimulate tourism by improving pedestrian and bicycle trail access throughout the Salisbury/Wicomico metropolitan and outlying areas.

Figure 4.4: S/WMPO Biking & Hiking Functional Master Plan (2012)



Source: S/WMPO

In 2014, the ***U.S. Route 50 Pedestrian and Bicyclist Safety and Connectivity Study*** was undertaken for the S/WMPO. The Study included a facility inventory, along the eastern part of U.S. 50 and an assessment of ADA conditions and needs. Major components of this planning effort included identify barriers making bicycling and walking difficult, as well as provide planning-level recommendations to increase the safety of pedestrian and bicyclist crossings along a portion U.S. Route 50 and MD 350. The deficiencies identified included: Non-ADA compliant pedestrian facilities; missing sidewalk links; disconnected bicycle facilities; poor intersection alignment/signage; inadequate facility usage; and poor pedestrian and bicycle facility usage compliance. As a result of the study, MDOT SHA has implemented a road diet on MD 350 from Beaglin Park Drive to Long Avenue. In addition, MDOT SHA implemented the following recommendations contained in the Plan:

- Install decorative fence in the U.S. Route 50 median extending from Ward Street to Naylor Street;
- Eliminate left-turn movements on U.S. 50 at Davis Street; and
- Convert Davis Street intersections to right-in and right-out movements.

In the spring of 2022, S/WMPO conducted the ***Glen Avenue Road Diet Corridor Analysis*** in coordination with the City of Salisbury, and the Wicomico County Department of Parks, Recreation, and Tourism. The purpose of this effort was to assess the feasibility of implementing a "road diet" on Glen Avenue for the purpose of reclaiming right-of-way for uses other than motor vehicle use, such as a loading zone, enhanced pedestrian and bicycle facilities, street scaping, and medians, among others. Recommendations developed as a result of the Corridor Analysis included reducing Glen Avenue from four lanes to two lanes which would allow for bike lanes on the north and south side and two travel lanes, with left turn lanes at key intersections. Other considerations included closing the eastern access to the Wicomico High School parking lot and providing a drop-off area at the access to the Flanders Building for the Wicomico Youth & Civic Center (WY&CC). A sidewalk would be extended along the south side of Glen Avenue to Memorial Plaza. Other pedestrian accommodations included a crosswalk to the east of Civic Avenue to provide access to the parking lot on the northeast corner of Civic Avenue and Glen Avenue and a crosswalk to the west of Civic Avenue to provide access to the Wicomico High School parking lot which is often used for WY&CC events. Two options were presented: 1) Two-Way Left Turn Lane Option; and 2) Median Option. Alternative traffic control at the intersection of Glen Avenue and Civic Avenue was also discussed, which included a roundabout and a traffic signal.

Also in 2022, the ***U.S. Route 13 Business Pedestrian & Cyclist Safety and Connectivity Plan*** analyzed pedestrian and cyclists needs and identified improvements to address safety concerns and opportunities to improve non-motorized connectivity. The study area encompassed approximately 0.90-mile along U.S. 13, Wesley Drive, and small portions of Dogwood Drive, Bateman Street, and Pine Bluff Road. The Plan included specific concept designs for sidewalks, signage, curb ramps, crosswalks, refuge islands, and stop bars. Pedestrian and cyclist signals were also included along the study area roadways, and intersections to help achieve pedestrian and cyclist safety and connectivity goals and objectives. The Plan prioritized short-, mid-, and long-term concept implementation and provided concept-level construction estimates for each of the recommended improvements. Specific objectives addressed in the Plan included:

- Providing safe pedestrian and cyclist accommodations (connections and accessibility) for the general public, which are ADA compliant.
- Pedestrian and cyclist connections among nearby schools, retail, and residential areas.
- Safe and convenient non-motorized movement at designated and non-designated crossing points across and along US Route 13 Business and Wesley Drive.
- Safe and convenient pedestrian and cyclist connection to bus stops and nearby activity centers (commercial and residential).

- Integration with City of Salisbury, Wicomico County, and Maryland Department of Transportation State Highway Administration planned mobility projects including but not limited to the 2018 Salisbury Rails with Trails Master Plan and 2017 Salisbury Bicycle Network Plan.

The ***Southwest Sussex County Bicycle Network Master Plan*** (in progress at the time of this Plan update) for the southwest portion of Sussex County, Delaware including the municipalities of Delmar, Laurel, Blades, and Seaford is being prepared by the S/WMPO. The goal of this Master Plan is to delineate a proposed regional bicycle network to enhance existing bike routes in the study area, as well as to provide locally elected officials and DelDOT with information to make informed policy and capital programming considerations. This study effort is evaluating community visions and relevant plans, including, but not limited to locally adopted comprehensive and capital improvement plans and the Department of Transportation's Plans to ensure consistency with existing and proposed bike routes in the study area. The Plan, when complete, will include existing and proposed route delineations, planning-level cost estimates, policy recommendations, and funding resources. Routes will be delineated on GIS mapping and will be classified by facility types, such as an off-road multi-use path or protected shoulder to name a few. The mapping will be available to the study area community for use in planning origins, destinations, and routes to travel.

Also, in progress at the time of this Plan update is the ***Brown Street Multi-modal Corridor Study***. The S/WMPO, in conjunction with the City of Fruitland are currently gathering public feedback regarding the safety of Brown Street, particularly during times when sporting events are taking place, as well as future improvements the community would like to see to improve safety and connectivity in the area. The focus of this Corridor Study is to assess existing and future conditions based on two (2) major recreational complexes (Crowns Sports Center and the Falcon's Field sports complex) and provide recommendations to ensure the safety of motorized and non-motorized modes of travel. This study will analyze motorized and non-motorized conditions and identify improvements to address circulation patterns, ingress and egress, intersection performance, safety, speed control, parking, and connectivity concerns.

Each of the S/WMPO member jurisdictions address bicycle and pedestrian needs in their local plans. **Table 4.7** lists the bicycle and pedestrian policies or priorities that have been identified by **local jurisdictions**.

Table 4.7: Identified Local Jurisdiction Bicycle and Pedestrian Policies and Priorities

Jurisdiction	Policy /Priority
City of Fruitland, MD	The 2008 *City of Fruitland Comprehensive Plan* identifies a future vision of sidewalks for all residential areas and additional bike routes.
City of Salisbury, MD	The City adopted a Complete Streets Policy in 2014 that calls for consideration of all users in design, resurfacing and construction of roadways. The City established a Bicycle and Pedestrian Advisory Committee in 2014. The Committee makes recommendations to the Mayor and Council and provides advice on regulations and policies that pertain to cyclists and pedestrians. In 2017, the City developed the Salisbury Bike Network Plan to provide a framework for implementing bicycle facilities across the City and provide connectivity to Wicomico County.

Jurisdiction	Policy /Priority
Town of Hebron, MD	The 2009 *Hebron Comprehensive Plan* designates a town parkway system and a separate bikeway; sidewalks and street design concepts that include bike/pedestrian standards. Also, the Plan makes reference to recreational trails.
Wicomico County, MD	The 2017 *Wicomico County Comprehensive Plan* recommends an extensive bikeway and pedestrian trail network to connect population centers to natural recreational areas, greenways and water trails. It also seeks the elimination of sidewalk gaps, and the prioritization of needed sidewalk links connecting academic institutions to residential areas.
Towns of Delmar, MD and DE	The 2009 *Delmar Comprehensive Plan* seeks the provision of safe, convenient, and inviting routes and walkways. The Town seeks access between activity centers for pedestrians and bicyclists, promotes alternatives to driving, and the provision of recreational greenway corridors where viable. Future residential street upgrades are to include sidewalks.
Town of Laurel, DE	The 2018 *Reimagining Laurel Comprehensive Plan* identifies hiking trails and bicycle paths as high facility needs. The Plan seeks an interconnected street network that extends into new growth areas, inclusion of bikeways that allow cyclists of all levels to access the system. Also, consideration will be given to a Safe Routes to Schools pilot program to encourage children to ride bikes or walk to Laurel's new school campus. The Plan also mentions the possibility of a bicycle/ pedestrian master plan.
City of Seaford, DE	The 2021 *Comprehensive Plan* identifies a goal to improve safety conditions and expand the City's nonmotorized transportation network for pedestrian and bicycle connectivity. As part of another goal to maintain and improve City recreational facilities, the City will evaluate and identify pedestrian linkage improvements to recreational locations. A recently completed TAP-funded project provided increased pedestrian safety, ADA mobility compliance, vehicular safety, and pedestrian connectivity in the Downtown Development District.

Jurisdiction	Policy /Priority
Town of Blades, DE	The 2019 *Comprehensive Plan Update* cites a need for sidewalk and crosswalk improvements to enhance safety and connectivity, and a desire for a town-wide pedestrian and bicycle study.
Sussex County, DE	The 2019 *Comprehensive Plan* identifies a number of objectives and strategies to promote bicycle and pedestrian travel (refer to **Table 4.X**).

4.5 How are Projects Funded?

There are various funding sources available for bicycle and pedestrian projects (refer to **Tables 4.8, 4.9, and 4.10**) Funding is typically provided through the local jurisdiction or state transportation capital improvement programs, or through competitive grant programs. Grant programs may focus on specific project types or geographic areas and may require a match of local funds or in-kind services. In general, projects that receive grant funding must identify priorities of the local jurisdiction, county, and / or the state; therefore, it is important to reference the needs in official planning documents.

Table 4.8. Funding Sources: Federal Programs Administered by States

Grant/ Funding Program	Description	Agency Responsible
Transportation Alternatives Program ("TAP")	Supports projects that enhance the cultural, aesthetic, historic, or environmental aspects of the intermodal transportation system. The Program funds planning, design, and construction of bicycle or pedestrian facilities that serve a transportation purpose and are located on a public right of way. Recipients of grants must be county or local jurisdictions, an MPO or similar agencies.	Maryland: MD State Highway Administration (MDOT SHA) Delaware: DelDOT Division of Planning
Safe Routes to School Program ("SRTS") - Part of TAP	Focuses on five (5) elements: engineering; education; enforcement; encouragement; and evaluation. The SRTS Program funds projects, and activities in the vicinity of K-8 schools. A local match is required. Grants can generally be used for bike and pedestrian safety classes for students, traffic education, or enforcement near schools, and bike and sidewalk improvements or bike parking.	Maryland: An annual Program administered by MDOT SHA. Local jurisdictions or school districts can apply for grants. Delaware: Applications can be submitted anytime to the DelDOT Division of Planning. There is a limit of $125,000 for an individual project.

Grant/ Funding Program	Description	Agency Responsible
Recreational Trails Program- Part of TAP	This is a dedicated funding source that supports property acquisition, construction, maintenance and restoration of trails for hiking, bicycling, horseback riding, snowmobiling, all-terrain vehicles, and other motorized and non-motorized uses.	Maryland: MDOT SHA Delaware: Administered through DelDOT.

Table 4.9: Funding Sources: Maryland Programs

Grant/Funding Program	Description	Agency Responsible
Bikeways Program	Supports projects maximizing bicycle access and complete missing links in the State bicycle system. Focus on connections to shared use paths and last mile links to schools, transit, or retail areas. Local match from zero to 50% depending on size and priority status. Projects must be within a Priority Funding Area or near rail station or bus transit hub, and identified in a county's annual Priority Letter to MDOT.	Administered through the MDOT SHA
Sidewalk Reconstruction for Pedestrian Access	A fund to upgrade existing sidewalks, curb ramps, and driveway entrances along State roadways for ADA compliance.	MDOT SHA-Fund 33
Bicycle Retrofit	Intended for bicycle improvements within 100 feet of a State roadway. A portion of the project must be funded locally and State funds vary depending on whether it's located within a Priority Funding Area.	MDOT SHA-Fund 88
New Sidewalk Construction for Pedestrian Access	Intended to fund missing sidewalk segments along State roadways. The local match varies depending on whether the project is located within a Priority Funding Area, and a designated Sustainable Community.	MDOT SHA, Office of Highway Design-Fund 79
MD Highway Safety Office Grant	Intended to help reduce the number of motor vehicle related crashes. Pedestrian safety is a top priority. Projects must be consistent with *Strategic Highway Safety Plan* and a 20% local match required.	MDOT SHA, Highway Safety Office
Community Legacy Program	Sidewalk and bicycle improvements within a designated Sustainable Community may be eligible for funding. The Cities of Salisbury and Fruitland are designated as a Sustainable Community.	MD Department of Housing and Community Development
Program Open Space	Intended to fund the acquisition and development of recreation land or open space areas. Local grants can be made for this purpose.	MD Department of Natural Resources

Table 4.10: Funding Sources: Delaware Programs

Grant/Funding Program	Description	Agency Responsible
Community Transportation Fund	Can fund bicycle and pedestrian projects. Individuals or groups seek funding for a project through each legislator who has funds for community transportation improvement projects within their district. Legislators obtain a cost estimate through DelDOT and determine whether the project can/should proceed.	DelDOT
Statewide Bicycle and Pedestrian Program	Program has access to Federal and State funds for shared-use pathways, on-road bicycle and pedestrian facilities, recreational trails, and conceptual planning studies and includes a prioritization process. It is a State goal to coordinate with MPOs and local governments to complete bicycle and pedestrian connectivity projects.	DelDOT

There are challenges to be faced as a region attempts to improve bicycle and pedestrian networks. Different requirements exist for sidewalks within and outside of municipalities. Efforts should be made to reduce the number of existing gaps in the system throughout the region. There is a desire to increase the bike mode share through provision of more on road facilities, improved connections, and convenient bike parking. However, major corridors in the region (U.S. 50 and U.S. 13) carry high volumes of through traffic creating challenging issues for bicyclists and pedestrians. Balancing the interest and safety of motorized and non-motorized vehicles is paramount.

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Chapter 5
Connect with… The Transit System

Chapter 5: The Transit System

This Chapter provides an overview of the transit services provided in the Salisbury/Wicomico MPO planning region, as well as discusses the transit opportunities, challenges, and current and planned improvements to the system.

5.1 What are the Existing Services?

There are two (2) primary transit service providers in the Salisbury/Wicomico MPO study area: Shore Transit, a division of the Tri-County Council for the Lower Eastern Shore of Maryland; and Delaware Authority for Regional Transit, operated by the Delaware Transit Corporation ("DTC").

Shore Transit 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 Services** and **Demand Response Services.** The fixed routes include urban routes in the Salisbury metropolitan area and regional routes connecting major population centers. In addition, demand-response services are available for riders outside the fixed route service areas or who have difficulty accessing a fixed route service or transfer point.

What are Fixed Route Services?
Transit service in which vehicles run along an established path at pre-set times. Trains, subways, and buses are the most common examples of this type of service.

What are Demand Response Services?
Any non-fixed route system of transporting individuals that requires advanced scheduling by the customer.

It is estimated that in FY 2023 Shore Transit carried over 210,000 transit passengers: roughly 75 percent or 160,000 riders utilized fixed route service while the remaining 25 percent or 52,000 persons were demand response service passengers. At the time of this publication, fixed route fares were $3 for regular fare and half fare for elderly and persons with disabilities. Shore Transit also offers a refillable Fixed Route Bus Pass valid for seven (7) consecutive days of unlimited travel for $25.00. Fares for the demand responsive services vary depending on the location and circumstances of the user; the fares can range from $4 to $5 per trip, depending on funding source. ADA paratransit fares are $5 per one-way trip.

DART First State and the DTC, an operating division of the DelDOT, provide fixed route and demand response services in Sussex County and throughout Delaware. There are two (2) routes serving the portion of the S/WMPO study area located in Delaware, namely the 212, which is a traditional fixed route, and the 903, which is a flex route mainly operated in Seaford. DART provides year round traditional and "Connect" routes in other parts of Sussex County, with additional extended and "Beach Bus" transit services provided in the summer months. Demand response service is provided through DART via paratransit service.

In FY 2022, DART carried over 5,210,545 passengers system wide. Of which 4,110,318 (79 percent) transit riders used a fixed route service; 404,032 (eight [8] percent) of riders used regional rail[1]; and the remaining 696,195 (13 percent) of transit riders used paratransit services. The large majority of transit riders utilize DART in New Castle and Kent counties. As of February 2021, the fixed route fare was $2.00 with reduced fares and daily passes available for a discounted rate. The Sussex County Flex Off-Route Option applies to

[1] Regional Rail is operated by the Southeastern Pennsylvania Transportation Authority (SEPTA); service extends into Delaware via the Wilmington Newark Line (https://www5.septa.org/travel/routes/?service=rr#WIL).

Route 903 only and is $1. Paratransit fares are $4 one-way for ADA trips and $6 one-way for non-ADA trips. Some paratransit trips are subsidized through local citizen service providers.

Fixed Route Services: Shore Transit

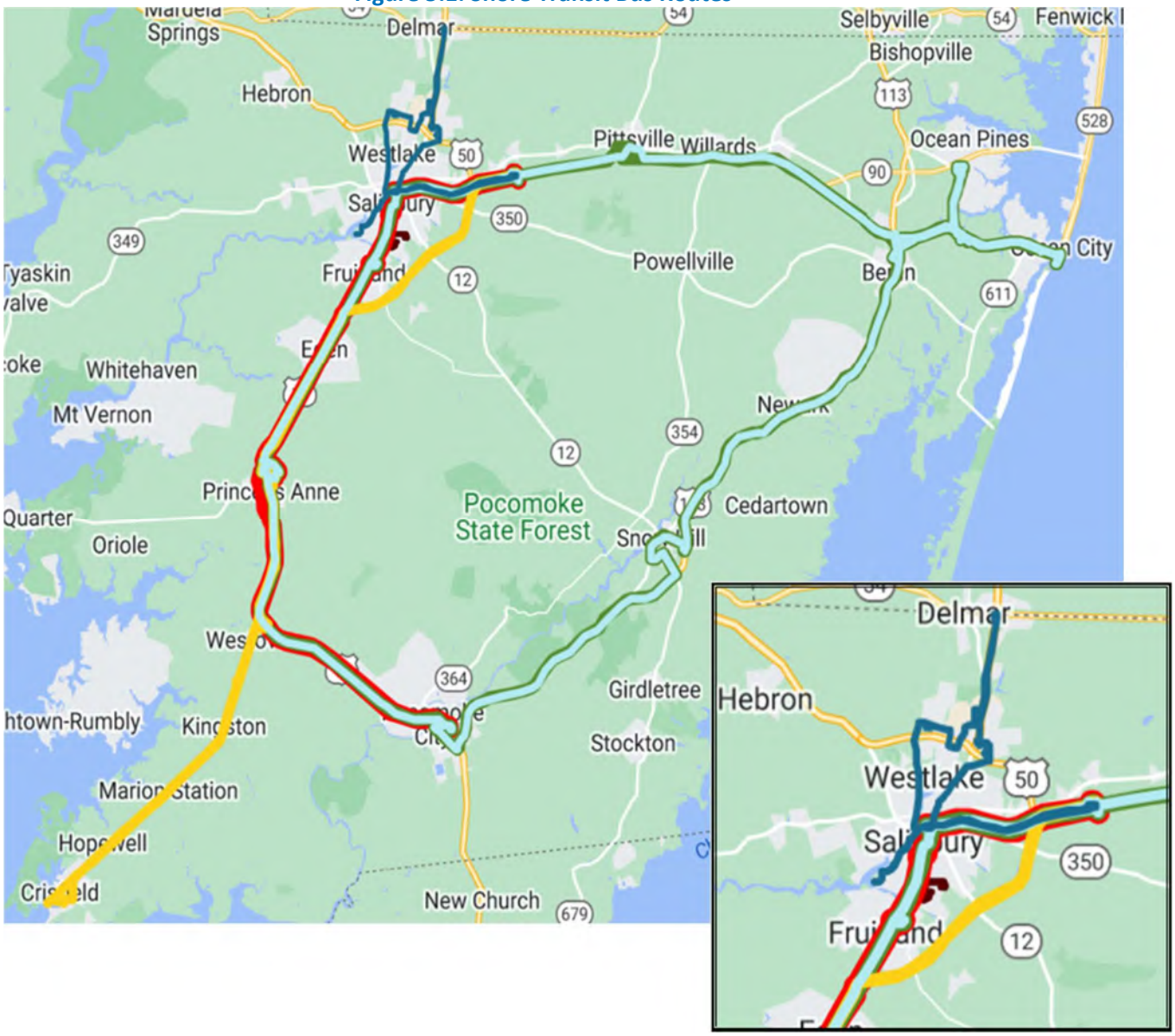
Shore Transit operates seven (7) fixed routes schedules for the Tri-County region, with all routes operating multiple times per day. The S/WMPO region is served by five (5) of the seven (7) fixed routes. All routes originate from and provide service to the Shore Transit Terminal at Tri-County Council Multi-Purpose Center. Shore Transit's fixed routes are listed in **Table 5.1** and displayed on the **Figure 5.1** map.

Table 5.1: Shore Transit Bus Routes

Route*	Location(s)	Operating Days
108	SU	Monday – Friday[1]
116	West Salisbury and Delmar	Monday-Friday
253	Salisbury, Princess Anne, Pocomoke	Monday – Friday
432	Salisbury, Ocean City, Pocomoke	Monday - Sunday
452	Salisbury, Pocomoke, Ocean City	Monday – Sunday
706N	Crisfield and Princess Anne	Monday – Friday
706S	Princess Anne and Crisfield	Monday – Friday

Source: Shore Transit; * match SU class schedule

Figure 5.1: Shore Transit Bus Routes



LEGEND:

116

253

706 N and S

432

452

Fixed Route Services: DART

As previously stated, DART operates two (2) routes in the S/WMPO study area. Route 212 is a traditional fixed route, which runs from the Georgetown Transit Hub to Delmar with stops in Bridgeville, Seaford, Blades, and Laurel along U.S. Route 13. Also, DART operates the Flex Route 903 Seaford Loop serving local destinations in the Seaford vicinity. DART provides year round fixed service for other parts of Sussex County. Route 206 runs from Georgetown to the Lewes Transit Center; Route 204 from Lewes Transit center, through Lewes, to the Cape May-Lewes Ferry; Route 201 runs from the Lewes Transit Center to Rehoboth; and Route 215 from Millsboro to Rehoboth. In addition, DART provides a summer season operation from mid-May through mid-September with additional "Beach Buses" as well as increasing services to existing routes. The seasonal service generally originates out of the park & ride lot located on Country Club Drive in Rehoboth. All routes traverse through the park & ride lot and offer service to Ocean City, Maryland, and the Rehoboth Boardwalk, Lewes, Georgetown, and Long Neck, Delaware. Passengers can connect with the seasonal bus routes through Georgetown Transit Hub via Route 212 from the study area. Finally, DART provides two (2) intercounty routes connecting to Dover: the 303 from Georgetown, via Milton and Milford; and, the 307 from the Lewes Transit Center via Milford. DART's Sussex County routes are listed in **Table 5.2** and displayed in **Figures 5.2 through 5.5**.

Table 5.2: DART Routes in Sussex County

Route	End Points (to/from)	Operating Days
201	Lewes Transit Center – Rehoboth	Monday - Saturday*
203	Lewes Transit Center – Dewey Beach	Seasonal
204	Lewes Transit Center – Cape May-Lewes Ferry Terminal	Monday – Saturday*
206	Georgetown – Lewes Transit Center	Monday – Saturday*
208	Rehoboth PNR – Ocean City	Seasonal
210	Bayhealth Sussex Campus – Milford Super Walmart	Monday - Friday
212	Georgetown – Seaford - Delmar	Monday - Saturday
215	Millsboro – Long Neck – Rehoboth	Monday – Saturday*
303	Georgetown – Milton – Milford – Dover	Monday - Friday
305	Wilmington Transit Center – Dover – Rehoboth PNR	Seasonal
307	Lewes PNR – Milford – Dover Transit Center	Monday - Friday
903F	Flex – Seaford Loop	Monday - Friday

Source: DART; *Intercounty routes*
*** Year round modified schedule; additional service is provided May-September (https://dartfirststate.com/RiderInfo/BeachBus/index.shtml)**

Figure 5.2: DART Bus Routes – Upper Sussex County

Source: Delaware Transit Corporation ("DTC")

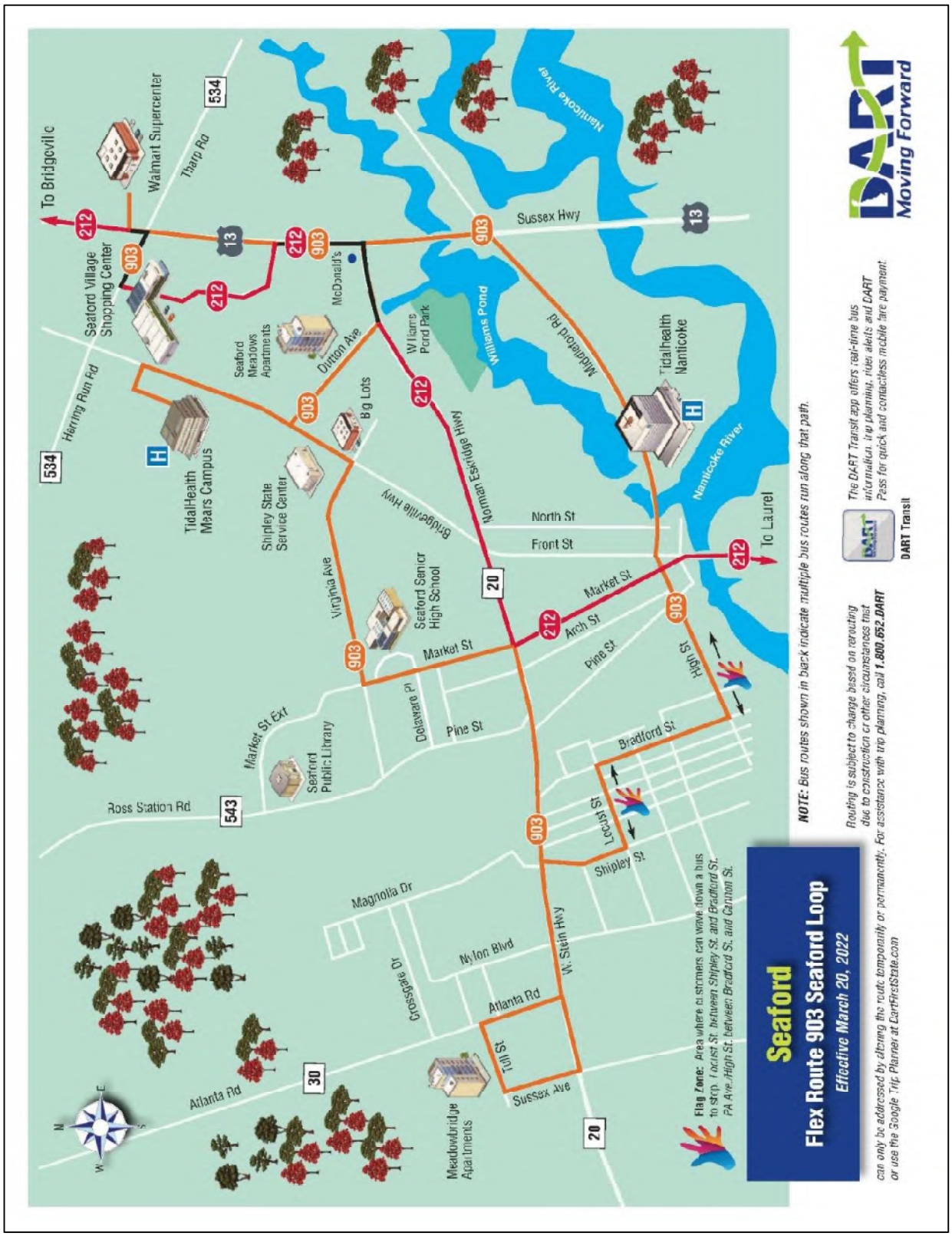
Figure 5.3: DART Bus Routes – Lower Sussex County

Source: Delaware Transit Corporation ("DTC")

Figure 5.4: DART Bus Routes – Lewes-Rehoboth Area, Sussex County

Source: Delaware Transit Corporation ("DTC")

Figure 5.5: DART Bus Routes – Seaford, Sussex County



Source: Delaware Transit Corporation ("DTC")

Demand Response Services: Shore Transit

In addition to its fixed-route services, Shore Transit operates a number of different demand response services. Demand response services are reserved for people who reside more than three-quarters of a mile away from fixed-route bus stop/transfer point or who have disabilities preventing them from using the fixed route system.

The demand response services cover all of the three (3) counties. To create the region-wide service, Shore Transit has integrated demand-response services traversing Wicomico, Somerset, and Worcester counties. While counties fund the program through different sources, these services are coordinated and riders are carried on the same vehicles and at the same times to create a seamless system.

A summary of each demand responsive service is provided below.

- General Public – Shore Transit provides general public transit service for persons residing more than three-quarters of a mile away from a fixed route bus stop/ transfer point. This service is provided primarily in the more rural areas of the counties not serviced by any fixed routes. General public riders in rural areas not served by fixed routes are picked up at their homes and taken to the closest fixed route stop / transfer point to utilize the fixed route service. Shore Ride is funded through the Federal Transit 5311 program, state funds, and local county match funds.
- Special Services for Elderly/Disabled – Shore Transit provides transit services for elderly and disabled riders under the State Specialized Transportation Assistance Program ("SSTAP"). This service is provided in Wicomico County, offering curb-to-curb and door-to-door services funded through SSTAP with a local match.
- ADA Paratransit– With the provision of regular fixed route services, Shore Transit is required to provide Federally-mandated ADA complementary paratransit service. To qualify for the ADA service, customers must complete an ADA Application and submit it to the Eligibility Assistant at the Customer Service Center. Customers utilizing this ADA service are requested to call the Customer Service center by 4:00 p.m. the day before their requested ride. Shore Transit's ADA Origin to Destination Paratransit Service operates during the times and dates of the fixed route public transportation service in ADA service areas.

Demand Response Services: DART

DART also provides door-to-door paratransit options for senior citizens and persons with disabilities. The demand for such services is likely to increase due to the projected growth in senior communities. As discussed in the University of Delaware's Institute for Public Administration (IPA) *Planning for Age-Friendly Communities* (October 2019), Sussex County's 65+ age group will make up approximately 29 percent of the county's total population by 2050 with the 85+ age group population projected to significantly increase over the next three decades[2].

[2] https://udspace.udel.edu/server/api/core/bitstreams/084dd885-93b1-4a2d-b56e-391f344b47f7/content

ADA and Demand Response, the door-to-door paratransit services operated by DART, are available for senior citizens (65 years of age or older) and persons with disabilities (unable to use the public fixed bus routes) Monday through Friday from 6:00 a.m. until 9:00 p.m. and Saturdays from 6:00 a.m. until 4:00 p.m. Trip requests can be submitted by phone or using an online registration form. Requests by phone must be made by 4:30 p.m. the previous day; online requests must be made two (2) business days in advance of the scheduled trip. Paratransit service can be accommodated between any two (2) locations provided they are within the State of Delaware, and by using connectors to travel between counties.

In addition to DART, numerous social service agencies provide human services transportation within Sussex County. These agencies serve a variety of clients, including, but not limited to elderly and disabled. DelDOT supports these organizations by providing vehicles or some level of financial support, either directly or through reimbursement. The Department of Health and Social Services and the Division of Developmental Disabilities Services are two (2) of the main providers engaged in the provision of transportation services for their clients or qualified individuals.

Other paratransit trips are accommodated by private, non-profit operators throughout the County. Sussex Senior Services ("CHEER") and other senior centers mainly provide service for senior citizens to the senior centers, medical appointments, and shopping. A portion of the operating expenses of these non-profit service providers is funded by the State or Sussex County. Each of these agencies has its own area of focus and client base, but works to coordinate efforts and share information in partnership with DTC. Easter Seals also conducts limited trips in Sussex County as part of their statewide partnership with DTC.

5.2 What are the Service Trends, Challenges, and Opportunities?

Shore Transit

The *Lower Eastern Shore Coordinated Public Transit-Human Services Transportation Plan* is one (1) tool for statewide and local planners to examine the transportation needs of individuals with disabilities, older adults, and people with low incomes, to provide strategies for meeting local needs, and to prioritize transportation services and projects for funding and implementation.

The previous Coordination Plan was completed in 2022 and a new Plan is scheduled to be completed in 2027. The needs and strategies were developed through a series of outreach efforts with local stakeholders.

The regional transportation needs identified in the Coordination Plan include:

- Need for expanded transportation services based on;
    - Trip purpose;
    - Operating schedules; and
    - Origins/destinations.
- Need for improved and expanded outreach, marketing, and education related to transportation and transit services;
- Need for more affordable transportation services; and
- Need for improved coordination and connectivity between:
    - Stakeholders and agencies;
    - Land use and future development;
    - Multi-Modal transportation trips; and
    - Training initiatives.

To address these needs, a preliminary list of goals and strategies was developed and presented at an August 2023 workshop with local stakeholders. Actions and projects will be developed in future phases of the Plan's development. The goals and strategies presented at the workshop are listed in **Table 5.3**.

Table 5.3: Lower Eastern Shore Coordinated Public Transit-Human Services Transportation Plan Goals and Strategies

Goal	Strategies
Maintain existing services through appropriate operating and capital funding.	• Continue to support capital projects that are planned, designed, and implemented to meet specific needs of seniors and individuals with disabilities. • Maintain services effectively meeting identified transportation needs in the region.
Ensure customers are aware of existing transportation options and can use these services effectively.	• Establish or expand programs to train customers, human service agency staff, medical facility personnel, and others in the use and availability of transportation services.
Expand public transportation options in the region.	• Support recommendations to improve public transportation identified through detailed transit development plans conducted in the region.
Expand specialized transportation services for people who unable to use or access public transit services.	• Use current human services transportation services to provide additional trips, especially for older adults and people with disabilities.
Consider a broader variety of transportation services targeting specific needs identified through the coordinated transportation planning process.	• Use volunteers to provide more specialized and one-to-one transportation services. • Expand access to taxi and other private transportation operators. • Consider and implement vehicle repair programs.
Secure additional funding and resources to support community transportation services.	• Develop additional partnerships and identify new funding sources to support public transit and human service transportation. • Advocate for additional funding to support public transit and human service transportation.
Provide more flexible transportation services in response to seasonal nature of the region.	• Provide flexible services to accommodate seasonal businesses and peak tourism seasons.

Shore Transit and the MDOT MTA Office of Local Transit Support ("OLTS") also work together to identify needed improvements to the transit system through the *Lower Shore Transportation Development and Service Consolidation Report* ("TDP"). The last published TDP was in 2022.

The TDP is used to analyze transit needs within the service area, evaluate existing services, and develop strategies to match service to identified transit needs. The TDP also includes a financial plan containing a constrained list of transit projects needed to meet the demands for future growth of the system. This

constrained list contains projects with reasonable likelihood of being funded at the federal, state, and/or local level.

DART

Delaware Transit Corporation ("DTC"), the State's public transit provider, operates 55 bus routes statewide providing over five million trips per year (as of FY 2022)[3]. The largest concentration of service is in New Castle County ("NCC"), Delaware's most northern County, with 36 non-intercounty routes. Kent County in central Delaware operates 10 routes. Sussex County has six (6) traditional fixed routes operating year round, along with three (3) "Beach Bus" routes operating seasonal service in the resort areas from May to September. There are four (4) year-round intercounty routes, two (2) of which operate between NCC and Kent counties, and the other two (2) operating between Kent and Sussex counties.

DTC operates paratransit service fully compliant with the Americans with Disability Act, within ¾ of a mile around fixed route services on a door to door basis during the times the respective fixed route services are operating. Outside of this ADA trip zone, DTC provides a Demand Response ("DR") service in all three (3) counties. **Figure 5.6** depicts the coverage areas for weekday services. Service areas modifications for weekend days can be found at: https://www.dartfirststate.com/RiderInfo/Paratransit/index.shtml. Statewide, both of these services provided nearly 700,000 trips in FY 2022. From August 2022 through April 2023, NCC had the heaviest concentration of riders with 319,000 combined DR and ADA trips. Kent and Sussex Counties had approximately 123,000 DR and ADA riders, respectively[4]. Intercounty travel is also possible by accessing established paratransit transfer points for an additional cost.

Additionally, DART Connect, a microtransit pilot program, was initiated in Spring 2021 and is available in Newark, Georgetown, and Millsboro. In acknowledgement of communities that lack access to cars or public transit, DART provides on-demand direct transportation to the aforementioned bus routes and destinations. Users simply call a phone number or use the DART Connect app to request a ride.

DTC contracts with SEPTA for the provision of commuter rail service from Philadelphia and Delaware County communities to Claymont, Wilmington, Churchman's Crossings, and Newark via the Wilmington/Newark Line. The regional rail service is primarily used by commuters to the cities of Philadelphia and Wilmington, transporting well over one (1) million passengers annually. DTC will continue to invest in rail services to help mitigate traffic congestion and to contribute to the economy of Delaware by efficiently moving people. Delaware based employment is increasingly making the state a destination for rail riders.

DART Reimagined, led by DTC, is a year-long transit study currently underway at the time of this plan's update. The study began in the Fall of 2022 and is focused on improving public transportation services statewide by analyzing the existing DART First State transit system and identifying future opportunities for improvement.

> *"Meeting and exceeding customer current and future needs remains DTC's prime focus. As DART rider needs and habits are changing, DTC wants to adapt by examining existing service provision, coverage, and span of services and take a fresh approach to reimagined, innovative DART service delivery.[5]"*

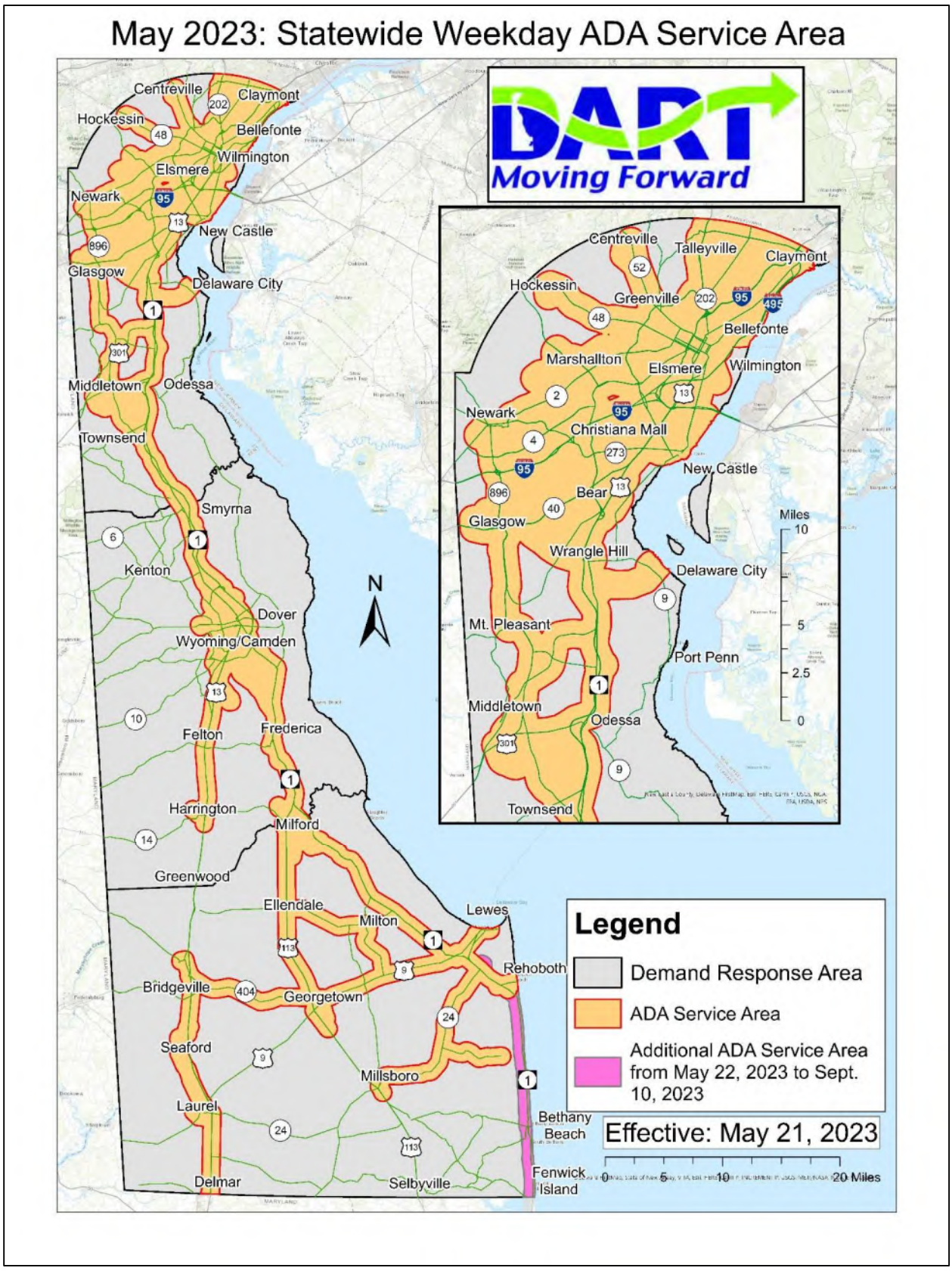
The final report with service recommendations is anticipated to be completed by the December 2023.

[3] https://dartfirststate.com/About/index.shtml?dc=fast-facts

[4] https://dartfirststate.com/RiderInfo/Paratransit/pdfs/2023/may-2023-minutes.pdf

[5] https://www.dartreimagined.com/images/project_resources/State_of_the_System_ADA_PDFUA_WEB.pdf

Figure 5.6: DART Statewide Paratransit and Demand Response Service Areas



5.3 What are the Current or Planned Improvements?

Each locally operated transit system is required to develop an Annual Transportation Plan ("ATP"), which combines requests for capital and operating funding from federal or state funding programs into a single application. The ATP also contains information on current service, fleet information, and civil rights and equal employment regulations compliance.

The requests for funding are coordinated with the *Transportation Development and Service Consolidation Report* ("TDP") and with the S/WMPO's Transportation Improvement Plan. The combined and coordinated requests for funding are incorporated into MDOT's Consolidated Transportation Program or DelDOT's Capital Transportation Program ("CTP"). The projects included in the MDOT's or DelDOT's CTP are listed in **Chapter 8.4** and **Appendix F** of this document.

Under the current funding environment in Delaware and Maryland, the large majority of funding requests and planned improvements focus on maintaining and improving current operations as opposed to new transit service alternatives or expansions.

5.4 How is Transit Funded?

Local transit services in the S/WMPO region are funded through a combination of local, state, and /or federal funding programs. In Delaware, transit revenue consists of passenger fares, federal grants, bus advertising, and State Funds. The Transportation Trust Fund ("TTF") is the main source of income covering the State funded costs of transit service.

In Maryland, the MDOT MTA OLTS manages a number of the federal funding programs available to transportation operators described below. These programs support both public transportation and specialized transportation services. The primary purpose of the OLTS is to provide a variety of technical assistance services to the Local Operating Transit Systems ("LOTS") operating in the State of Maryland. These include:

- Federal and State Regulatory Compliance;
- Operations;
- Management;
- Planning; and
- Training.

Federal Funding

Federal funding for public transportation programs is provided through the Bipartisan Infrastructure Law (BIL), enacted in the Infrastructure Investment and Jobs Act (IIJA) in 2021. The law authorized up to $108 billion to support federal public transportation programs, including $91 billion in guaranteed funding. **Table 5.4** summarizes the federal funding programs provided in the BIL. The legislation reauthorizes surface transportation programs for FY 2022-2026 and provides advance appropriations for certain programs.

Table 5.4: Bipartisan Infrastructure Law (BIL) Federal Funding Programs

Title	Objective/Goal
Accelerating Innovative Mobility	This program highlight FTA's commitment to support and advance innovation in the transit industry. • In 2020, Delaware Transit Corporation received $317,692 to partner with the private mobility service, Via, to develop software that integrates fixed-route bus service, paratransit and microtransit in Georgetown and Millsboro. DART Connect was launched in April 2021 with dynamic fare pricing and trip planning available on a mobile platform.
Areas of Persistent Poverty Program	This program provides competitive funding for planning studies or financial plans to improve transit services in areas experiencing long-term economic distress. • In July 2023 FTA announced that Shore Transit will receive $327,600 to conduct an evaluation of its transit system design. The study will focus on ensuring disadvantaged communities have transit access and that the transportation needs of the community are met.
Better Utilizing Investments to Leverage Development (BUILD) Transportation Grants Program (formerly TIGER)	This program funds investments in transportation infrastructure, including transit.
Bus Exportable Power Systems (BEPS)	This program enables public transportation agencies, communities, and states to access resilient and flexible power options through hybrid electric bus fleet vehicles during major power disruptions. This program builds on BEPS technologies developed under FTA's previous research grants that provided the ability to address a need for generating power immediately after natural disasters by transforming hybrid electric and fuel cell buses into mobile power generators.
Capital Investment Grants – 5309	Provides funding through a multi-year competitive process for transit capital investments, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. Federal transit law requires transit agencies seeking CIG funding to complete a series of steps over several years to be eligible for funding.
Enhancing Mobility Innovation	This program advances a vision of mobility for all – safe, reliable, equitable, and accessible services that support complete trips for all travelers. The program promotes technology projects that center the passenger experience and encourage people to get on board, such as integrated fare payment systems and user-friendly software for demand-response public transportation.
Grant for Buses and Bus Facilities Program – 5339(a)	Provides funding to states and transit agencies through a statutory formula to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities. In addition to the formula allocation, this program includes two discretionary components: The Bus and Bus Facilities Discretionary Program and the Low or No Emissions Bus Discretionary Program. • In June 2023 FTA announced that DTC will receive $8.4 million to buy battery-electric and hydrogen fuel cell-electric buses to replace older diesel buses. This project will improve service reliability and air quality throughout Delaware.
Innovative Coordinated Access and Mobility (ICAM) Grants	This program provides competitive funding to support innovative capital projects for the transportation disadvantaged that will improve the coordination of transportation services and non-emergency medical transportation services. Entities eligible for the Section 5310 Enhanced Mobility of Seniors & individuals with Disabilities program are eligible applicants for the ICAM program.

Title	Objective/Goal
Integrated Mobility Innovation	This program funds projects that demonstrate innovative and effective practices, partnerships and technologies to enhance public transportation effectiveness, increase efficiency, expand quality, promote safety and improve the traveler experience.
Pilot Program for Transit-Oriented Development Planning – 20005(b)	Provides funding to local communities to integrate land use and transportation planning with a transit capital investment that will seek funding through the Capital Investment Grant (CIG) Program.
Public Transportation COVID-19 Research Demonstration Grant Program	This program funded grants through public transit agencies to develop, deploy, and demonstrate innovative solutions that address COVID-19 related concerns to increase operating efficiencies and improve mobility. • In 2021, DTC received $450,000 to install protective barriers on part of its fixed route bus and paratransit fleet and evaluate the results on public health and operator protection as part of efforts to improve operations and restore public confidence during the COVID-19 public health emergency.
Rural Transportation Assistance Program – 5311(b)(3)	Provides funding to states for developing training, technical assistance, research, and related support services in rural areas. The program also includes a national program that provides information and materials for use by local operators and state administering agencies and supports research and technical assistance projects of national interest.
Safety Research and Demonstration Program	This program is part of a larger safety research effort at the U.S. Department of Transportation that provides technical and financial support for transit agencies to pursue innovative approaches to eliminate or mitigate safety hazards. The SRD program focuses on demonstration of technologies and safer designs.
Standards Development Program	Provides competitive funding to perform an assessment and develop voluntary standards and standards-related best practices, guidance, and tools in safety, and other areas to address transit industry needs.
State of Good Repair – 5337	Provides capital assistance for maintenance, replacement, and rehabilitation projects of existing high-intensity fixed guideway and high-intensity motorbus systems to maintain a state of good repair. Additionally, SGR grants are eligible for developing and implementing Transit Asset Management plans
Technical Assistance & Standards Development – 5314(a)	Provides funding for technical assistance programs and activities that improve the management and delivery of public transportation and development of the transit industry workforce.
Urban Area Formula Grants – 5307	Provides funding to public transit systems in Urban Areas (UA) for public transportation capital, planning, job access and reverse commute projects, as well as operating expenses in certain circumstances.

Source: Federal Transit Administration

Capital Financing Plan

The financial plans for Shore Transit and DART are developed in a manner to ensure the reasonable likelihood funding will be available to cover the cost of proposed improvements. This Fiscally Constrained LRTP lists transportation projects needed to meet the existing and future demands of the transit system and identifies anticipated resources from federal, state, and local sources to carry out the LRTP. See **Chapter 8.4** and **Appendix F**. A summary of the 25-year capital costs for Shore Transit and annual cost for DART operations is presented in **Table 5.5**. The planning-level programming information contained in **Table 5.5** is representative of projected funding levels consistent with Shore Transit's and DART's FY 2024 *Annual Transportation Plans*, and is apportioned by funding source and category.

Table 5.5: Capital Financing Plan 2023 – Funding by Source (Thousands of Dollars)

Funding Source	Replacement and Refurbish Vehicles	Preventive Maintenance	Other Capital Items	Facility	Percentage of Total Projected Expenditures
Shore Transit					
Federal Capital Assistance	$870.1	$640.0	$233.1	$0.0	80%
State Capital Assistance	$108.7	$80.0	$23.3	$0.0	10%
Local Capital Assistance	$108.7	$80.0	$23.3	$0.0	10%
Total	***1,087.5***	***$800.0***	***$279.7***	***$0.0***	***100%***
Wicomico County Share (50 % of Local Share)					
	$53.8	*$40.0*	*$139.8*	*$0.0*	*0.5%*
DART (FY 2020 through FY 2026)					
Federal Capital Assistance	$80,280.0	$39,352.0	$8,458.0	$45,731.0	49%
State Capital Assistance	$76,753.0	$24,784.0	$60,497.0	$17,191.0	51%
Total	***$157,033.0***	***$64,136.0***	***$68,955.0***	***$62,922.0***	***100%***

Source: Shore Transit's FY 2024 Annual Transportation Plan, DART, and S/WMPO

Operating Financing Plan Scenarios

Public transit services in the S/WMPO region are supported by Federal Sections 5307 and 5311 public transit funding; New Freedom grant funding – 5317; State Americans with Disabilities Act funding (ADA); State Systems Technical Assistance Project funding ("SSTAP"); local county funding; and passenger fares. While the majority of a system's operating expenses are provided through federal, state, and local governmental sources, the S/WMPO calculated two (2) alternative long-range service levels for Shore Transit from 2023 through 2050. It is important to note, the operating financing plan scenarios for Shore Transit assume Wicomico County will provide approximately 50 percent portion of the local share.

Existing Level of Service

The existing level of service assumes a continuation of the current level of service and programming to 2050. Shore Transit's annual operating cost in FY24 is projected to be approximately $8.4 million. Using a linear extrapolation calculation for the 26-year planning horizon of this LRTP, the estimated total operating cost is $217.5 million. See **Table 5.6**. Assuming the passenger fares and other revenues cover approximately 30 percent or $65.2 million of the total annual operating expenses, the remaining 70 percent or $155 million will be covered by federal, state, and local contributions. At current contribution levels, Wicomico County's portion both annually and the 26-year planning horizon is $292K and $7.7 million, respectively.

Ten Percent Increase over Existing

This scenario is predicated on continuation of the current level of service and programming to 2050. The projected Shore Transit system operation cost over the next 26 years, based on a 10 percent increase, is approximately $239.3 million or $9.2 million annually (**Table 5.6**). Assuming passenger fares and other revenues cover about 30 percent or $2.7 million, the net annual operating cost contribution of federal, state, and local governments will be roughly $6.4 million. The resulting net operating cost for the

Wicomico County portion annually and over the 26-year planning period is approximately $322K and $8.7 million, respectively. **Table 5.6** presents a summary of the two (2) scenarios by illustrating the differences between the average annual and cumulative local transit operating cost by funding source over the 2024 through 2050 planning period for both scenarios.

Table 5.6: Operating Financing Plan Scenarios 2024 through 2050 (Thousands of Dollars)

Annual/Total Operating Cost	Existing Service Level (Scenario 1)	10 Percent Increase Over Existing Service Level (Scenario 2)
Total Shore Transit		
Average Annual Operating Cost FY 24	**$8,367.4**	**$9,204.1**
Passenger fares and other revenue (projected to cover 30 % of total operating cost)	$2,510.2	$2,761.2
Federal, State, and Local (projected to cover 70 % of total operating cost)	$5,857.1	$6,422.8
Federal – 80 %	$4685.7	$5,154.2
State – 10 %	$585.7	$644.2
Local – 10 %	$585.7	$644.2
Wicomico County portion (50 % of local contribution)	*$292.8*	*$322.1*
Total Operating Cost (2024 through 2050)	**$217,552.4**	**$239,306.6**
Passenger fares and other revenue (projected to cover 30 % of total operating cost)	$65,265.7	$71,791.9
Federal, State, and Local (projected to cover 70 % of total operating cost)	$155,086.6	$167,514.6
Federal – 80 %	$124,069.2	$134,011.6
State – 10 %	$15,508.6	$16,751.4
Local – 10 %	$15,508.6	$16,751.4
Wicomico County portion (50 % of local contribution)	*$7,754.3*	*$8,377.2*

Source: Shore Transit FY 2024 Annual Transportation Plan and S/WMPO.

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Chapter 6
Connect with… The Freight System

Chapter 6: The Freight System

Freight movement is an essential component of a region's transportation activities. The S/WMPO area is served by various modes of transportation including highway, rail, aviation, and waterborne. All four (4) modes of transport play an integral role in the region's local and global economy.

This Chapter describes the existing transportation network for freight; identifies current and future tonnage of freight commodities by type, tonnage, and transport mode; and provides information about the top trading partners in the area.

6.1 Why Does Freight Matter?

In today's global economy, freight movement is crucial to a region's business and industrial development potential. A well-functioning and maintained regional transport system brings modern quality-of-life benefits and economic stability to the region it serves. This network is the backbone for the free flow and efficient movement of goods and services within and throughout the region. This section of the LRTP identifies and addresses the freight needs and subsequent impacts on the region.

Goods movement is a common term used to describe the transport of commodities. Understanding where commodities move using each mode (highway, rail, air, pipeline, and water), and under existing and future conditions, is important to any coordinated regional freight planning effort.

In December 2022, DelDOT released the *2022 Delaware State Freight Plan*, prepared in collaboration with the Wilmington Area Planning Council (WILMAPCO), Dover/Kent County Metropolitan Planning Organization (Dover Kent MPO), and Salisbury/Wicomico Metropolitan Planning Organization (S/WMPO), as well as the University of Delaware's Institute for Public Administration (IPA). Additionally, in November 2022, MDOT released the *2022 Maryland State Freight Plan*. These two documents meet the federal freight planning requirements established by the Fixing America's Surface Transportation (FAST) Act of 2015 and the Infrastructure Investment and Jobs (IIJA) Act of 2021. Together they provide a comprehensive description of the freight environment in the region, covering most of the Delmarva Peninsula region.

6.2 What is the Roadway Freight Network?

A large portion of the freight moved within the S/WMPO region is transported by truck along the local and regional road network. The extensive roadway network allows for the movement of goods by truck to 10 states and all major Northeast cities within a half-a-days' time. The region remains a competitor for roadway freight by maintaining a connected roadway system essential to sustaining commerce, as well as encouraging future growth of the existing network. As discussed in **Chapter 3**, the major primary radial roadways comprising the regional network include the following: U.S. Route 13/Route 13 Business; U.S. Route 50/Route 50 Business; MD 346 (Old Ocean City Road); MD 12 (Snow Hill Road); MD 350 (Mt. Hermon Road), MD 349 (Nanticoke Road), Camden Avenue /Allen Road, and Jersey Road - Lake Street.

U.S. Route 13, the major north-south corridor, provides the region with access to the Philadelphia-Wilmington region to the north and Hampton Roads, Virginia to the south. It is a four-lane highway with no access control and is the most heavily traveled route in the regional system. U.S. Route 50, the major east-west corridor, provides access to the Baltimore-Washington metropolitan area to the northwest and Ocean City, Maryland, to the east. It is a four-lane highway with uncontrolled access downtown, fully controlled access on the bypass, and limited access along unincorporated areas outside of town limits.

The Salisbury Bypass/Ocean Gateway Bypass (U.S. Route 13/50) is one (1) of the major roads serving the local and regional need for movement of people and goods. The Bypass is a limited access, multi-lane,

divided highway linking a portion of the primary roadways in the region such as U.S. Route 13, U.S. Route 50, and Snow Hill Road.

Roadway freight and the roadway network in the region provides a vital link to the economic market areas

A rural road in Laurel, Delaware connects roadway and rail freight networks to move agricultural products.
Photo source: Google Maps, 2023.

located to the northeast, making truck transport essential to the economy of the area. Therefore, the region should continue to maintain and improve roadways, vital network links, and the efficiency of roadway freight service to business and industries, as well as the markets they serve.

Figure 6.1 outlines major roadways in the S/WMPO region carrying freight movements. Depicted on the map are roads on the National Highway Planning Network and roads designated in either the Maryland or Delaware state freight plans as part of a Critical Urban Freight Corridor or Critical Rural Freight Corridor. Roads may be designated as part of a Critical Urban Freight Corridor in urban areas when they:

> *(B)(i) connect an intermodal facility to – (I) the primary highway freight system; (II) the Interstate System; or (III) an intermodal freight facility; (ii) is located within a corridor of a route on the primary highway freight system and provides an alternative highway option important to goods movement; (iii) serves a major freight generator, logistic center, or manufacturing and warehouse industrial land; or (iv) is important to the movement of freight within the region as determined by the metropolitan planning organization or State*.[1]

Roads outside of an urban area may be designated as part of a Critical Rural Freight Corridor when they are:

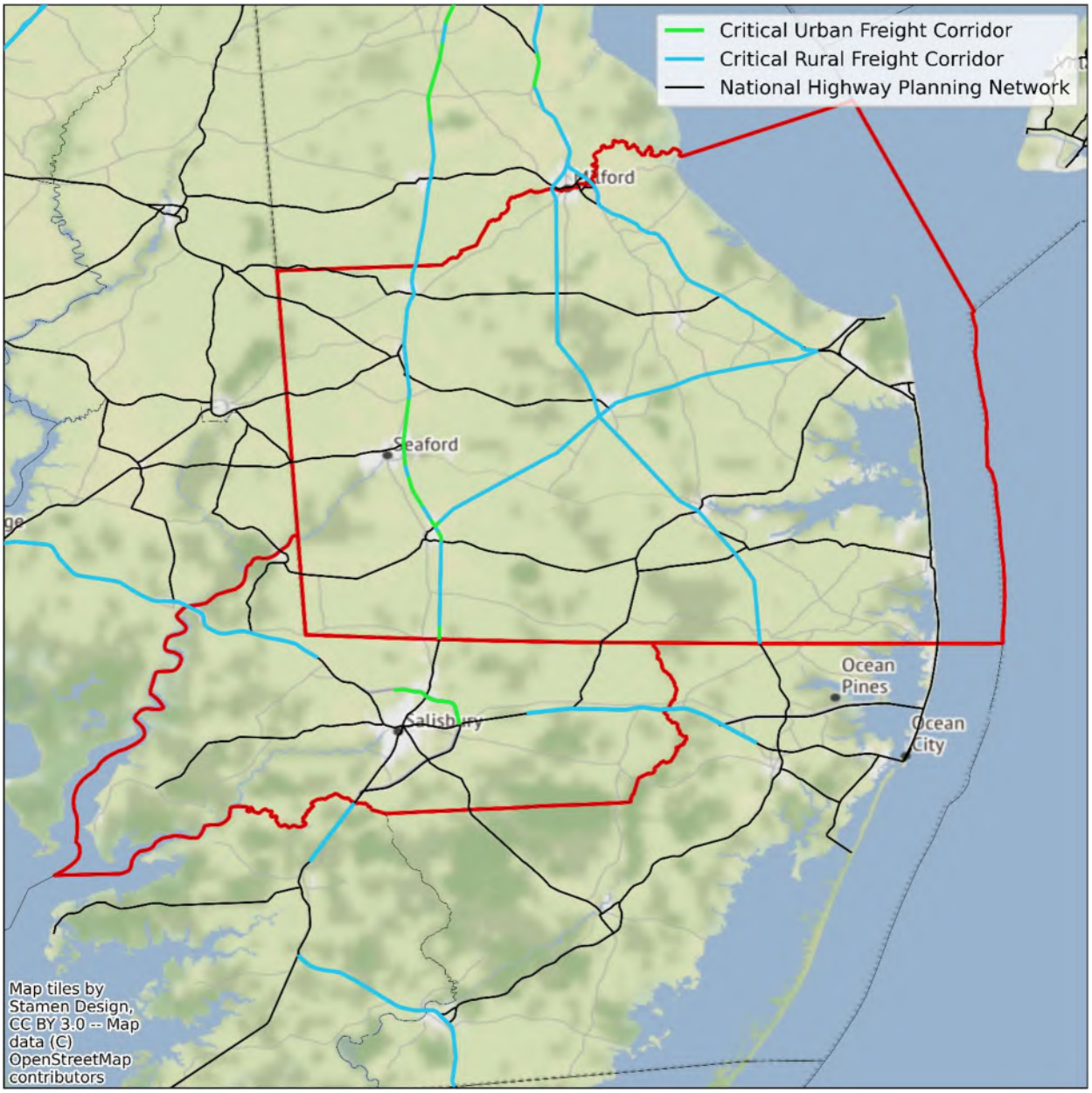
> *(A) is a rural principal arterial roadway and has a minimum of 25 percent of the annual average daily traffic of the road measured in passenger vehicle equivalent units from trucks (Federal Highway Administration vehicle class 8 to 13); (B) provides access to energy exploration, development, installation, or production areas; (C) connects the primary highway freight system, a roadway described in subparagraph (A) or (B), or the Interstate System to facilities that handle more than – (i) 50,000 20-foot equivalent units per year; or (ii) 500,000 tons per year of bulk commodities; (D) provides access to— (i) a grain elevator; (ii) an agricultural facility; (iii) a mining facility; (iv) a forestry facility; or (v) an intermodal facility; (E) connects to an international port of*

[1] Content excerpts from 23 U.S.C. §167(f) (https://www.gpo.gov/fdsys/pkg/USCODE-2015-title23/html/USCODE-2015-title23.htm).

entry; (F) provides access to significant air, rail, water, or other freight facilities in the State; or (G) is, in the determination of the State, vital to improving the efficient movement of freight of importance to the economy of the State.[2]

Concurrent with the completion of this LRTP, MDOT and DelDOT are considering amendments to designated Critical Urban and Rural Freight Corridors as enabled by Bipartisan Infrastructure Law provisions.[3] These amendments may alter the designated Critical Urban and Rural Freight Corridors in and around the S/WMPO region.

Figure 6.1: S/WMPO Region – Major Freight Roadway Network



Sources: Maryland Department of Transportation, Delaware Department of Transportation, and USDOT, 2023.

[2] Content excerpts from 23 U.S.C. §167(f) (https://www.gpo.gov/fdsys/pkg/USCODE-2015-title23/html/USCODE-2015-title23.htm)

[3] See "National Highway Freight Program" Fact Sheet, February 8, 2022, https://www.fhwa.dot.gov/bipartisan-infrastructure-law/nhfp.cfm

6.3 How Does the Rail Corridor Operate as Part of the Freight System?

Norfolk Southern ("NS") owns the system of major rail corridors providing the S/WMPO region with access to the entire East Coast. The Delmarva Secondary is NS's primary north-south route, paralleling U.S. Route 13 on the Delmarva Peninsula. Carload Express has operated the Delmarva Secondary branch since 2016, and they are actively marketing rail service and intermodal freight opportunities to business owners along the rail corridor. Delmarva Central Railroad (DCR), a subsidiary of Carload Express, operates 188 miles of rail in Delaware, Maryland, and Virginia.[4] DCR operations stretch from Porter, Delaware south to Hallwood, Virginia and from Harrington to Frankford, Delaware, with multiple points of interchange with NS and the Maryland & Delaware Railroad. The branch intersects the New Castle Secondary and the Reybold Connecting Track at Porter. This forms a northern Delaware rail triangle between the Delmarva, New Castle/Shellpot, and the Northeast Corridor ("NEC") rail lines.

Compared to truck transportation, rail allows for more energy and emissions efficient delivery of freight. By reducing the need for truck trips, rail operations can relieve traffic congestion and lessen wear and tear on roadways. For many companies, shipping and receiving by rail may be a competitive option on a cost-per-ton mile basis, with rail offering particular advantages for the largest volumes and heaviest loads.

Despite rail's significant advantages for freight movement, most shipments in the U.S. and the S/WMPO region occur via truck, and rail operations face numerous challenges. Rail is a capital-intensive sector that requires major upfront and ongoing investments to install and maintain track, as well as purchase and operate equipment. Areas without a sufficient density of customers can be challenging to serve with rail. In the S/WMPO region, a lack of customers south of Hallwood, Virginia resulted in the abandonment of rail operations that extended south to Cape Charles, Virginia.[5]

Conditions on interconnecting rail lines can also limit the potential for rail operations within the S/WMPO region. For instance, MDOT Maryland Transit Administration (MTA) owns tracks in Dorchester County that are operated by the Maryland and Delaware Railroad Company and interconnect with Delmarva Central Railroad operations. The development of regular service on these interconnections has been hampered by safety concerns resulting in the lines in Dorchester County being subject to embargo.[6] Beyond the S/WMPO region, freight rail operations on the NEC are limited to an eight (8) hour operating window between 10 p.m. and 6 a.m. due to passenger rail activity on the corridor.

Even with significant and sustained investments, rail cannot directly match the door-to-door reach of truck transportation. Additional investments in infrastructure can allow for targeted extensions of service that make rail an accessible and convenient option for customers. For example, rail spurs may be needed to allow for direct service to industrial areas. Transload facilities make rail service more accessible by providing for the transfer of cargo from truck to rail, and the 2022 *Maryland State Rail Plan* identifies the development of these facilities as a priority for short line operations.[7] Land use study and coordination efforts may also be necessary for preserving a corridor of appropriate agricultural and industrial users that can be efficiently served by rail infrastructure. For example, the Dover/Kent County MPO has completed studies aimed at identifying lands appropriate for freight rail service and recommending policies and investments to preserve or develop lands for appropriate industrial purposes.[8]

[4] https://www.carloadexpress.com/railroads/delmarva-central-railroad/

[5] https://www.trains.com/trn/news-reviews/news-wire/09-end-of-the-line-for-the-bay-coast-railroad/

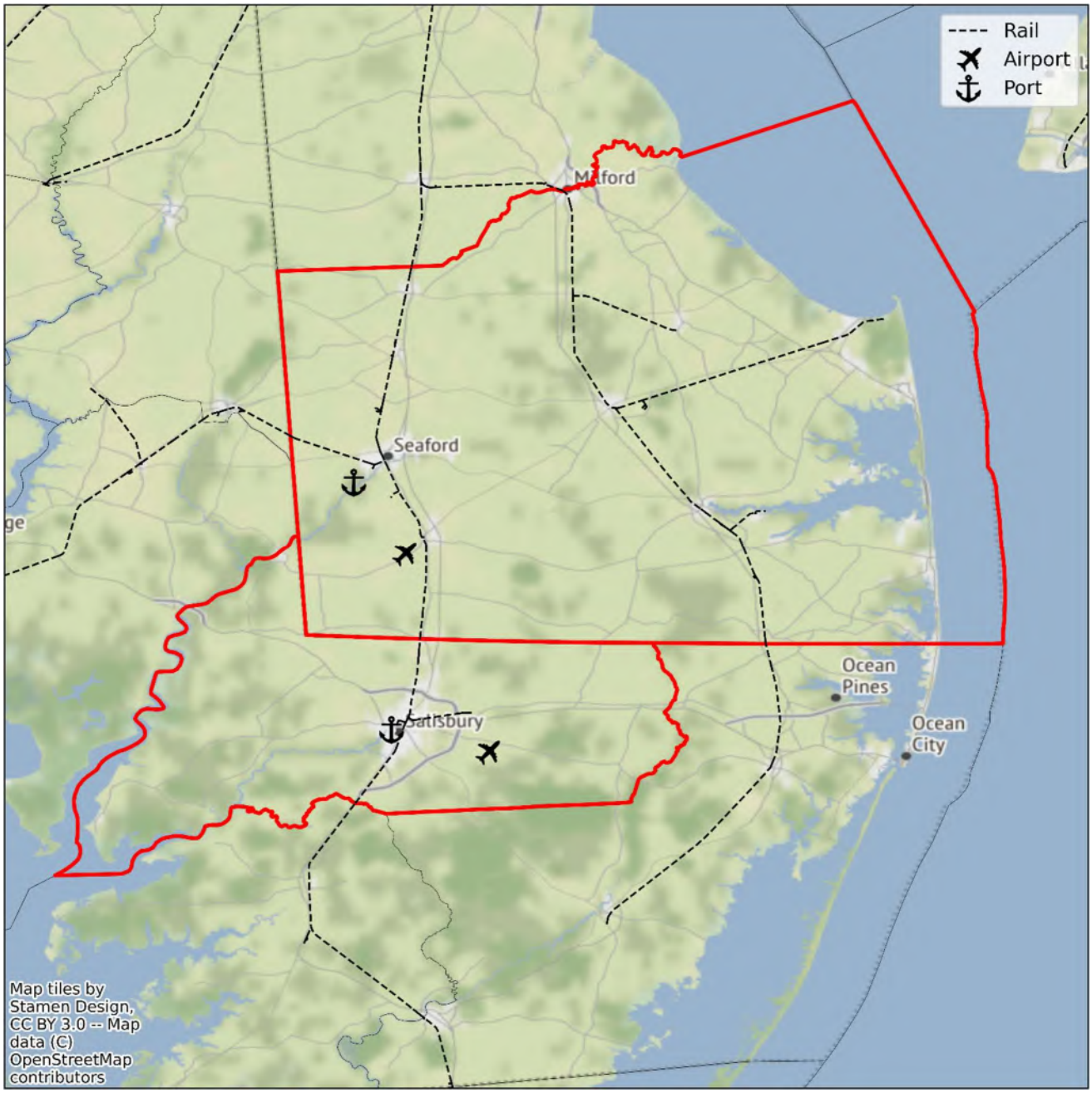
[6] 2022 *Maryland State Rail Plan*, page 2-10, https://www.mdot.maryland.gov/OPCP/MD_State_Rail_Plan.pdf

[7] 2022 *Maryland State Rail Plan*, page 25, https://www.mdot.maryland.gov/OPCP/MD_State_Rail_Plan.pdf

[8] 2022 *Rail Corridor Industrial Land Use Study* (https://doverkentmpo.delaware.gov/files/2023/01/Rail-Corridor-Land-Use-Study-Final-September-2022.pdf) and 2021 *Harrington Multimodal Freight Terminal Feasibility Study*

Figure 6.2 displays multimodal freight network infrastructure in the S/WMPO region, including rail, ports, and airports.

Figure 6.2: S/WMPO Region – Multimodal Freight Network



Sources: AirNav.com, U.S. Army Corps of Engineers, and Open Railway Map, 2023.

(https://doverkentmpo.delaware.gov/files/2021/09/Harrington-Multimodal-Freight-Terminal-Feasibility-Study-FINAL_2021-08-05.pdf)

6.4 Why is Waterborne Freight Important to the Region?

The Port of Salisbury is located at the headwaters of the Wicomico River, 30 miles northeast of the Chesapeake Bay. The River is a dredged, 14-foot deep, 150-foot-wide channel waterbody used by barges to transport grain, petroleum, and building aggregate. The United States Army Corps of Engineers ("USACE") reports commodity flow information for the Wicomico River from its mouth to Salisbury, MD.[9] The USACE reported that a total of approximately 956,000 short tons of freight were transported on the Wicomico River in 2021. **Table 6.1** shows annual freight traffic trends for the Wicomico River.

What is waterborne freight movement?
Waterborne freight is an economical mode of transportation for moving bulk items through the use of barges that would otherwise require shipping through multiple truck deliveries.

Table 6.1: Wicomico River, MD (Eastern Shore) – Waterborne Freight

Year	Total (thousand short tons)	Percent Change
2003	1,783	N/A
2004	1,868	+4.8%
2005	1,885	+0.9%
2006	1,823	-3.3%
2007	1,606	-11.9%
2008	1,329	-17.2%
2009	1,133	-14.7%
2010	791	-30.2%
2011	1,065	+34.6%
2012	896	-15.9%
2013	939	+4.9%
2014	869	-7.5%
2015	885	+1.9%
2016	1,032	+16.6%
2017	1,197	+16.0%
2018	1,039	-13.2%
2019	1,032	-0.6%
2020	937	-9.2%
2021	956	+1.9%

Source: U.S. Army Corps of Engineers – Waterborne Commerce Statistics Center, Waterborne Commerce of the United States (WCUS) Ports and Waterways Web Tool, 5-Year Cargo Report for Wicomico River, MD (Eastern Shore) (accessed August 2023).

[9] U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center, https://ndc.ops.usace.army.mil/wcsc/webpub/#/report-landing/year/2021/region/1/location/437.

As shown in **Table 6.1** a decline of short ton traffic along the Wicomico River has occurred over the 19-year period ending in 2021. Waterborne freight traffic on the Wicomico River decreased by approximately 827,000 short tons (46 percent) from approximately 1,783,000 short tons in 2003 to approximately 956,000 short tons in 2021. From 2006 through 2014, freight traffic along the Wicomico experienced almost uninterrupted annual declines. Waterborne freight tonnage increased significantly during 2016 and 2017, with decreases from 2018 to 2020 followed by a slight uptick in 2021. Based on current USACE policies, maintaining a five-year average of one (1) million short tons annually will be needed to sustain Federal funding for port and waterway improvements, to include dredging. Based on available data through 2021, the most recent five-year average of 1,032,241 short tons exceeds this threshold for federal funding. From 2012 to 2021, reported waterborne freight on the Wicomico River only exceeded one (1) million short tons during the four years between 2016 and 2019. Continued vigilance and advocacy will likely be needed to maintain freight flows in order to secure the funding for required maintenance.

Waterborne freight moves through the Port of Seaford along the Nanticoke River. The USACE tracks and reports commerce flowing on the Nanticoke River from both its mouth to Seaford, DE and along its northwest fork to Federalsburg, MD. **Table 6.2** reports waterborne freight trends for the Nanticoke River. For 2008 through 2021, traffic increased from approximately 772,000 short tons to approximately 1,318,000 short tons. While recent flows have been above the one (1) million short ton threshold necessary to sustain federal funding for dredging, pre-2017 flows fell short of this threshold. As with the Wicomico River, there will likely be a need for ongoing vigilance and advocacy to ensure maintenance and improvements necessary to maintain a navigable Nanticoke River channel.

Table 6.2: Nanticoke River, DE and MD – Waterborne Freight

Year	Total (thousand short tons)	Percent Change
2008	772	N/A
2009	568	-26.4%
2010	543	-4.4%
2011	653	+20.3%
2012	636	-2.6%
2013	840	+32.1%
2014	785	-6.5%
2015	954	+21.5%
2016	907	-4.9%
2017	1,010	+11.4%
2018	1,054	+4.3%
2019	1,287	+22.1%
2020	1,242	-3.5%
2021	1,318	+6.1%

Source U.S. Army Corps of Engineers – Waterborne Commerce Statistics Center, Waterborne Commerce of the United States (WCUS) Ports and Waterways Web Tool, 5-Year Cargo Report for Nanticoke River, DE and MD, https://ndc.ops.usace.army.mil/wcsc/webpub/#/report-landing/year/2021/region/1/location/432: Accessed August 2023.

Table 6.3 shows the type and direction of waterborne commodities transported on the Wicomico and Nanticoke rivers during 2021. Inbound freight traffic accounted for 100 percent of the movement reported along the Wicomico River, with gasoline (495,037 or 51.8 percent), sand and gravel (243,423 or 25.5 percent), and distillate fuel oil (162,393 or 17 percent) accounting for the largest proportions of waterborne freight traffic by commodity.

Reported freight traffic along the Nanticoke River was split nearly evenly among inbound (652,695 short tons or 49.5 percent) and outbound (664,454 short tons) flows during 2021. Sand and gravel accounted for just under 80 percent of all tonnage moved (1,039,845 short tons or 78.9 percent), with corn, soybeans, and wheat accounting for the vast majority of remaining flows.

Table 6.3: Wicomico River, MD (Eastern Shore) and Nanticoke River, DE and MD – Waterborne Commodities, 2021 (Short Tons)

Commodity	Internal		Total
	Inbound (Upbound)	Outbound (Downbound)	
Wicomico River, MD (Eastern Shore)			
Gasoline	495,037 (51.8%)	0 (0.0%)	495,037 (51.8%)
Sand & Gravel	243,423 (25.5%)	0 (0.0%)	243,423 (25.5%)
Distillate Fuel Oil	162,393 (17.0%)	0 (0.0%)	162,393 (17.0%)
Alcohols	53,032 (5.5%)	0 (0.0%)	53,032 (5.5%)
Corn	1,700 (0.2%)	0 (0.0%)	1,700 (0.2%)
Total, all commodities	**955,585 (100%)**	**0 (0.0%)**	**955,585 (100%)**
Nanticoke River, DE and MD			
Sand & Gravel	455,371 (34.5%)	584,474 (44.3%)	1,039,845 (78.9%)
Corn	133,880 (10.2%)	0 (0.0%)	133,880 (10.2%)
Soybeans	39,200 (3.0%)	35,280 (2.7%)	74,480 (5.7%)
Wheat	0 (0.0%)	45,700 (3.5%)	45,700 (3.5%)
Nitrogenous Fertilizers	18,813 (1.4%)	0 (0.0%)	18,813 (1.4%)
Animal Feed, Prep.	3,000 (0.2%)	0 (0.0%)	3,000 (0.2%)
Residual Fuel Oil	2,431 (0.2%)	0 (0.0%)	2,431 (0.2%)
Total, all commodities	**652,695 (49.5%)**	**665,454 (50.5%)**	**1,318,149 (100%)**

Source: U.S. Army Corp of Engineers - Waterborne Commerce Statistics Center, Waterborne Cargo and Trips Data Files, Cargo 2012-2021, https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll2/id/12766: Accessed August 2023.

The Delmarva Water Transport Committee ("DWTC") works in conjunction with USACE to support commodity distribution by way of the Wicomico and Nanticoke Rivers through maintaining dredged channels of approximately 14 and 12 feet deep, respectively. Dredging is performed through the USACE using federal funding. A major hurdle with maintaining the shipping lane is finding appropriate spoil disposal sites. Wicomico County and DWTC work closely with the USACE to locate suitable dredge spoil sites. If the shipping lane cannot be maintained and the freight hauled on these rivers drops below a five-year average of one (1) million short tons a year, the federal aid used to maintain the port operations may be evaluated for reprogramming or suspended. USACE awarded a contract for maintenance dredging of the lower Wicomico River in September 2022. Dredging of the lower reaches of the Wicomico River is anticipated in October 2023, with dredging of the upper reaches scheduled for late 2024.[10] The Nanticoke River was last dredged in 2012 and 1990.[11]

Delmarva Water Transport Committee (DWTC)
A non-profit organization based in Salisbury and dedicated to supporting the continued use and further development of waterborne commerce on the rivers, bays, and harbors of the Delmarva Peninsula through the promotion of adequate dredging, safe navigation, and maintenance.

The continued maintenance of dredged and navigable river channels is critical for preserving and potentially expanding commercial and industrial activities in the S/WMPO region. The maintenance of navigable channels for the Nanticoke and Wicomico rivers is essential for the continued success of regional employers. For instance, Chesapeake Shipbuilding Corporation is a major Salisbury-based employer that depends on the Wicomico River but does not generate freight movement activities that directly trigger USACE reporting and federal investments in waterway maintenance. The waterways also play a crucial resilience role for the region, as barges provide for the movement of fuel oil and gasoline to the region, for example. Finally, the 2021 *Salisbury Port Feasibility Study* reviews potential Port of Salisbury improvements that could yield increases in freight and economic activity on and around the Wicomico River.[12]

6.5 How is Aviation a Part of Goods Movement?

Salisbury-Ocean City: Wicomico Regional Airport

The Salisbury-Ocean City: Wicomico Regional Airport ("SBY Airport") is a public-use airport owned and operated by Wicomico County. SBY Airport is located on 1,081 acres of land in unincorporated Wicomico County, which is approximately five (5) miles southeast of Salisbury. SBY Airport is the second largest of the 36 commercial airports in Maryland, behind BWI, and is the only commercial airport on the Delmarva Peninsula. The SBY Airport is regarded as an economic engine for the region supporting airport operations and general aviation services employment. Also, SBY Airport supports local and regional business growth by providing freight and passenger mobility through commercial and private aviation services.

SBY Airport serves travelers from the southern part of Delaware, the northern part of Eastern Shore of Virginia, and the Eastern Shore of Maryland. American Airlines provides direct passenger service to Charlotte, NC, and Philadelphia, PA, and indirect service to over 157 domestic and 46 international destinations, providing the region with national and global connections. In addition to the movement of people, SBY Airport is the only air cargo facility on the Lower Delmarva Peninsula providing daily air cargo service via FED EX. SBY Airport also supports local military training activities.

[10] U.S. Army Corps of Engineers, Wicomico River, MD Fact Sheet as of March 1, 2023, https://usace.contentdm.oclc.org/digital/collection/p16021coll11/id/545

[11] "Nanticoke River Dredging Project Status" (https://sussexcountyde.gov/nanticoke-river-dredging-project-status) and "Nanticoke River Dredging Project" (https://sussexcountyde.gov/nanticoke-river-dredging-project)

[12] 2021 *Salisbury Port Feasibility Study*, https://www.swmpo.org/_files/ugd/5c05e2_5a20a26e43f34c24b91295fdd78865dc.pdf

Fleet

According to AirNav Data[13], the SBY Airport facility has approximately 117 aircraft on the field consisting of 55 single engine aircraft, four (4) multi-engine airplanes, 54 jet airplanes, three (3) helicopters, and one (1) ultralight aircraft. Further, AirNav reported that the facility averaged 161 flights per day, or approximately 58,765 flights annually for the 12-month period ending on December 31, 2022. This activity consisted of 37 percent military operations, 28 percent transient general aviation, 23 percent local general aviation, and 12 percent air taxi.

Terminal

Built in the mid-1990s, the airport houses a 26,000 square foot terminal with a ticket counter, TSA bag scanning area, two (2) departure gates, one (1) arrival gate, and security check points. SBY Airport is also served by Avis, Hertz, and Enterprise rental car agencies located in the arrival terminal. SBY Airport provides the following aviation-related services:

- Fuel sales
- Major airframe service
- Major power plant service
- Commercial service
- Passenger service
- Flight instruction
- Aircraft rental
- Control tower
- Corporate flight departments
- Air freight operations
- Automobile rentals
- T-hangers and paved tie-downs

Runway

SBY Airport has two (2) operating runways: Runway 14/32 and Runway 5/23. Runway 14/32 is an asphalt paved runway measuring 6,400 feet in length and 100 feet wide with parallel taxiway available. Runway 5/32 is an asphalt paved runway measuring 5,000 feet in length and 100 feet wide with parallel taxiway available. According to the Federal Aviation Administration's Terminal Area Forecasts ("TAF"), SBY Airport had approximately 58,939 total aircraft operations (take-offs and landings) for 2022 and a future projection of 65,458 (take-offs and landings) by the year 2050.

Why is a longer runway important?
With a longer runway, SBY Airport has the ability to receive larger jets. This enhancement affords the ability for reaching a larger market. Also, the improvement affords the ability to serve as a disaster recovery center for the Delmarva Peninsula.

The Maryland Aviation Administration ("MAA") performed an economic impact analysis of all the state's General Aviation ("GA") airports in 2018. **Table 6.4** summarizes SBY Airport passenger and air cargo activity economic impacts. This analysis shows the importance of SBY Airport for the local and regional economy.

Table 6.4: SBY Airport's Economic Impact – 2018

Impact Summary	On-Site	Visitor	Total
Total Jobs	1,167	454	1,620
Total Personal Income	$68,585,000	$15,788,000	$84,373,000
Business Revenue	$52,494,000	$25,757,000	$78,251,000
Local Purchases	$18,210,000	$9,518,000	$27,728,000
State and Local Taxes ($1,000)	$11,385,000	$3,749,000	$15,134,000

Source: Maryland Economic Impact of Airports, 2018, retrieved from https://marylandregionalaviation.aero/wp-content/uploads/2020/03/2018-Economic-Impact-Statement-Full-Report.pdf.

[13] https://www.airnav.com/airport/KSBY (as of August 10, 2023)

Laurel Airport

The Laurel Airport ("N06"), is a privately-owned grass strip general aviation airport open to public use, located one mile southwest of Laurel, Delaware. Airport activities are centered on agricultural spraying and skydiving, which take advantage of the Airport's geographic location providing exceptional access to Southern Delaware and Eastern Maryland. The Laurel Airport has one (1) operating turf grass runway, Runway 15/33 measuring 3,175 feet in length and 270 feet wide. According to AirNav Data[14], the Laurel Airport averaged 21 flights per day or 7,665 flights annually for a 12-month period ending on December 31, 2018, consisting of 81 percent local general aviation and 19 percent transient general aviation.

6.6 How Much Freight is Transported?

The S/WMPO region is a hub for a variety of commodities moved by multiple modes into, around, and out of Wicomico County and Sussex County. **Table 6.5 and Figure 6.3** show the total kilotons ("KTons") reported for inbound, outbound, and internal total freight movements throughout the region in 2023 and 2050[15]. In 2023, the total combined tonnage for Wicomico and Sussex counties represented a projected 32,479 KTons of freight. By 2050, the total tonnage is projected to be 50,342 KTons of freight, which represents a 55 percent increase from 2023.

Table 6.5: Freight Transportation Movement – 2023 & 2050: All Traffic, KTons

County	Year	Inbound	Outbound	Internal	Total
Wicomico	2023	6,122	3,864	214[16]	10,200
	2050	9,025	6,198	317	15,540
Sussex	2023	10,253	6,735	5,292	22,279
	2050	16,560	10,295	7,948	34,803
Combined	**2023**	**16,375**	**10,598**	**5,505[17]**	**32,479**
	2050	**25,584**	**16,493**	**8,265**	**50,342**
2023-2050 Growth		**56.2%**	**55.6%**	**50.1%**	**55.0%**

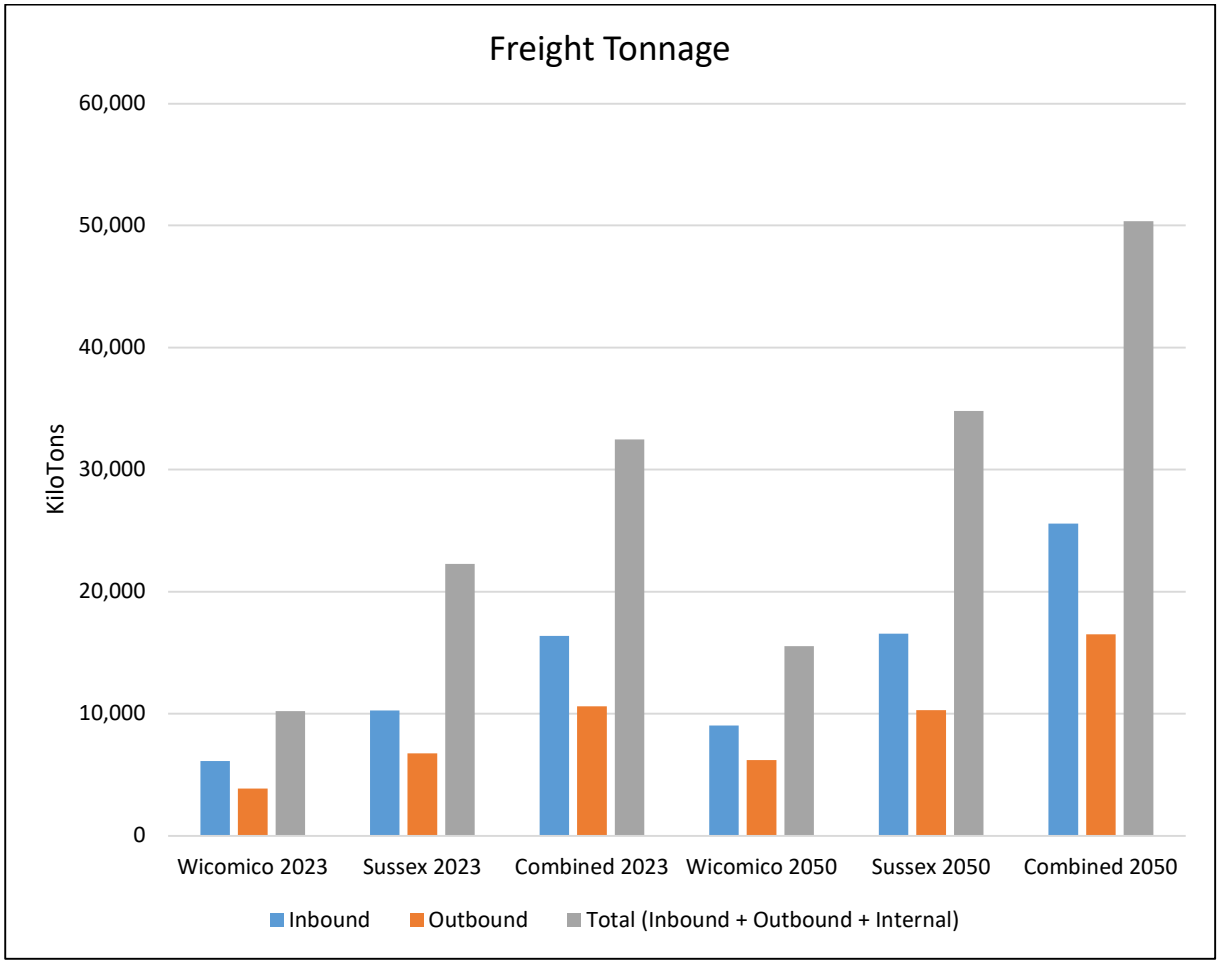
[14] https://www.airnav.com/airport/N06 (as of August 10, 2023)

[15] Freight movements cited in the remainder of this section are all sourced from the Freight Analysis Framework 5, v 5.1 accessed in 2023. County-level data were not published for Wicomico County, so the University of Delaware, Institute for Public Administration used methods outlined in "Use of FAF Data for Florida Multimodal Freight Analysis" to estimate flows for Wicomico.

16 Internal flows for Wicomico County were estimated based on the industrial employment and population characteristics of this county relative to those for other counties represented in the "Rest of Maryland" FAF area—Allegany, Caroline, Cecil, Dorchester, Garrett, Kent, Somerset, St. Mary's, Talbot, Washington, and Worcester counties. Methods to estimate county-level freight flows are limited and imprecise—particularly within FAF areas—and these numbers are presented as the best available estimates given data limitations. The internal freight flows for Wicomico are likely understated, with some actual internal flows allocated to the inbound and outbound category due to data and methodological limitations.

17 Internal flows for individual counties are flows originating and ending in that particular county, with internal flows for combined counties representing the sum of both flows within Sussex County and flows within Wicomico County.

Figure 6.3: Freight Transportation Movement– 2023 & 2050: All Traffic, KTons



Source: Freight Analysis Framework 5, v. 5.1; University of Delaware, Institute for Public Administration Estimates and S/WMPO, 2023.

In Wicomico County, an estimated 10,200 KTons were projected from inbound, outbound, and internal freight movements in 2023. The majority of projected tonnage was inbound (approximately 6,100 KTons). Outbound movements originating in Wicomico County accounted for nearly 4,000 KTons of freight or approximately 40 percent of projected total movements. By 2050, a projected 15,540 KTons of freight will move into, within, and out of Wicomico County, which represents an increase of just over 5,300 KTons from 2023. Inbound movements are projected to account for approximately 9,000 KTons of freight, with outbound movements accounting for roughly 6,000 KTons.

An estimated 22,279 KTons of freight were projected for Sussex County in 2023, with projections placing this total at 34,803 KTons by 2050. Inbound freight movements in Sussex County accounted for a projected 10,253 KTons in 2023, with outbound movements accounting for roughly 6,700 KTons. Estimates for intra-county freight movements in Sussex County far outpace those in Wicomico County, though significant methodological concerns and data limitations are likely to contribute to this disparity.

Mode Split

Mode split represents the choice of transportation (e.g., by road, water, air, or rail) companies use to move goods in, out, and around the region. Table 6.6 reveals truck transportation as the dominant mode for the S/WMPO region when considered from the perspective of total tons moved. In 2023, nearly 38,000 KTons of freight were projected to move throughout Wicomico and Sussex counties. Truck transportation accounted for 89 percent of this tonnage. By 2050, total freight traffic for Wicomico and Sussex counties is projected to increase to 58,290 KTons. Truck transportation is projected to grow in importance, accounting for 90 percent of expected flows. Rail transport is expected to grow in absolute terms, with approximately 400 additional KTons of freight moved by this mode. Water transport is projected to increase from approximately 1,247 KTons to 1,435 KTons.

Table 6.6: Freight Transportation Modes – Tonnage (2023 and 2050)
(All Traffic, KiloTons)

County	Mode	2023 Local Movements	2023 Local Movements (%)	2050 Local Movements	2050 Local Movements (%)
Wicomico[18]	Truck	8,298	81.2	13,215	85.0
	Rail	634	6.2	772	5.0
	Water	723	7.1	742	4.8
	Air (include truck-air)	0	0.0	1	0.0
	Multiple modes & mail	295	2.9	424	2.7
	Pipeline	272	2.7	384	2.5
	Other and unknown	0	0.0	0	0
	TOTAL	**10,223**	**100**	**15,540**	**100**
Sussex	Truck	25,226	91.5	39,339	92.0
	Rail	618	2.2	910	2.1
	Water	523	1.9	693	1.6
	Air (include truck-air)	2	0.0	4	0.0
	Multiple modes & mail	561	2.0	930	2.2
	Pipeline	641	2.3	875	2.0
	Other and unknown	0	0.0	0	0.0
	TOTAL	**27,571**	**100**	**42,750**	**100**
Combined	Truck	33,524	88.7	52,554	90.2
	Rail	1,253	3.3	1,682	2.9
	Water	1,247	3.3	1,435	2.5
	Air (include truck-air)	3	0.0	5	0.0
	Multiple modes & mail	856	2.3	1,354	2.3
	Pipeline	913	2.4	1,259	2.2
	Other and unknown	0	0	0	0.0
	TOTAL	**37,794**	**100%**	**58,290**	**100%**

Source: Freight Analysis Framework 5, v. 5.1; University of Delaware, Institute for Public Administration Estimates and S/WMPO, 2023.

[18] Mode split was estimated for Wicomico County since FAF data are not released at the county level for this portion of Maryland. They are presented as best available estimates resulting from an allocation of "Rest of Maryland" FAF area estimates and projections for movements by commodity and mode to Wicomico.

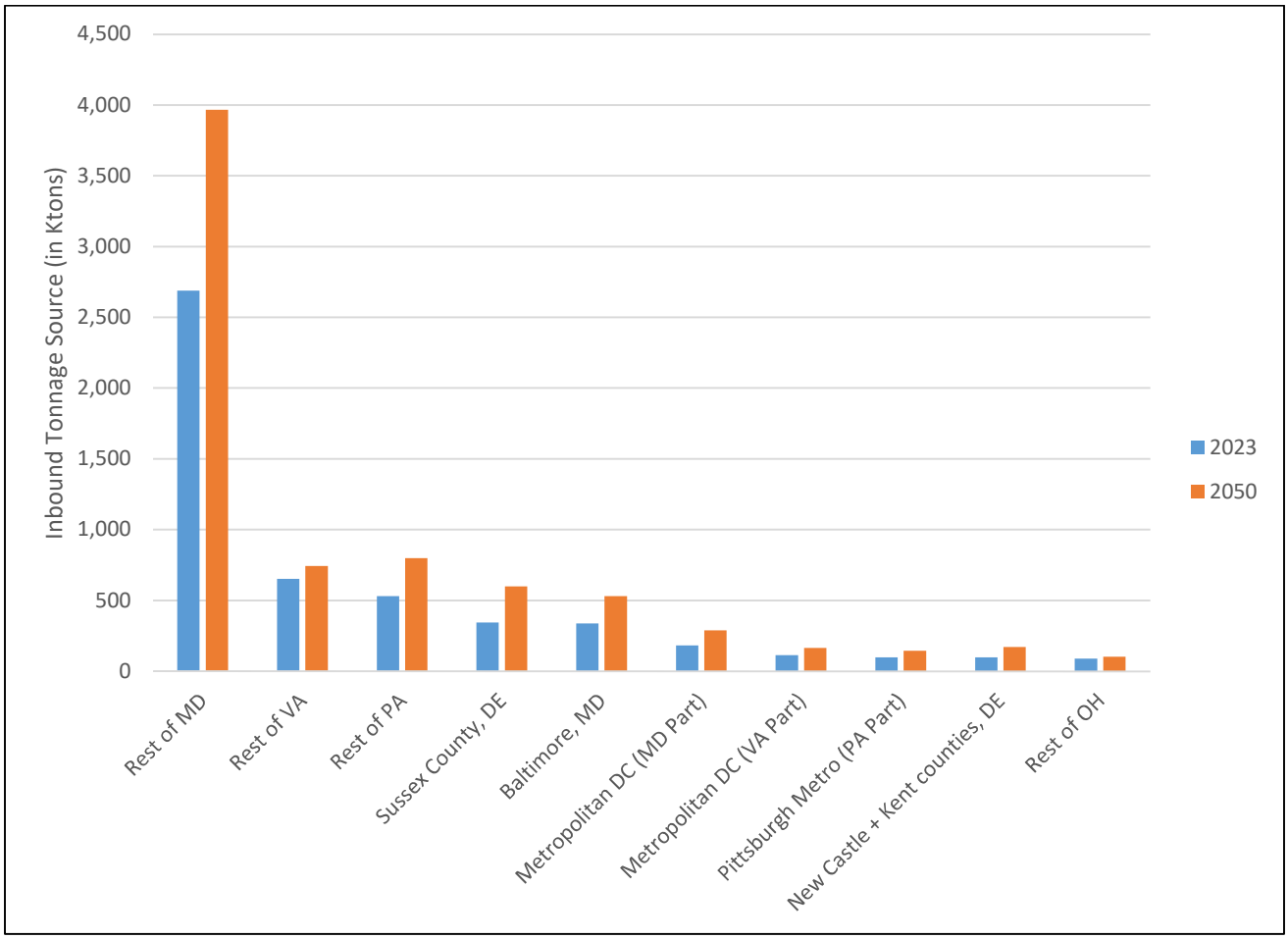
6.7 Who are the Region's Trading Partners?

Geographic trading partners include the top origin of commodities flowing into Wicomico and Sussex counties and the top destinations of commodities flowing outside of the region. Partners are presented as Freight Analysis Framework (FAF) areas, which tend to include multiple counties, and as counties where available.

Figures 6.4 and **6.5** illustrate Wicomico County's top trading partners by inbound and outbound tonnage for 2023 and 2050. Wicomico County's top trading partner is the Rest of Maryland FAF area, which consists of Allegany, Caroline, Cecil, Dorchester, Garrett, Kent, Somerset, St. Mary's, Talbot, Washington, and Worcester counties. While some of this trade likely represents internal flows within Wicomico, this area far outpaces other trading partners in terms of tonnage moved to Wicomico. In 2023, Wicomico's top five trading partners—the Rest of Maryland, Rest of Virginia, and Rest of Pennsylvania areas, Sussex County, Delaware, and Baltimore, Maryland—were projected to account for approximately 74 percent of Wicomico's inbound freight tonnage. This share is projected to remain consistent by 2050.

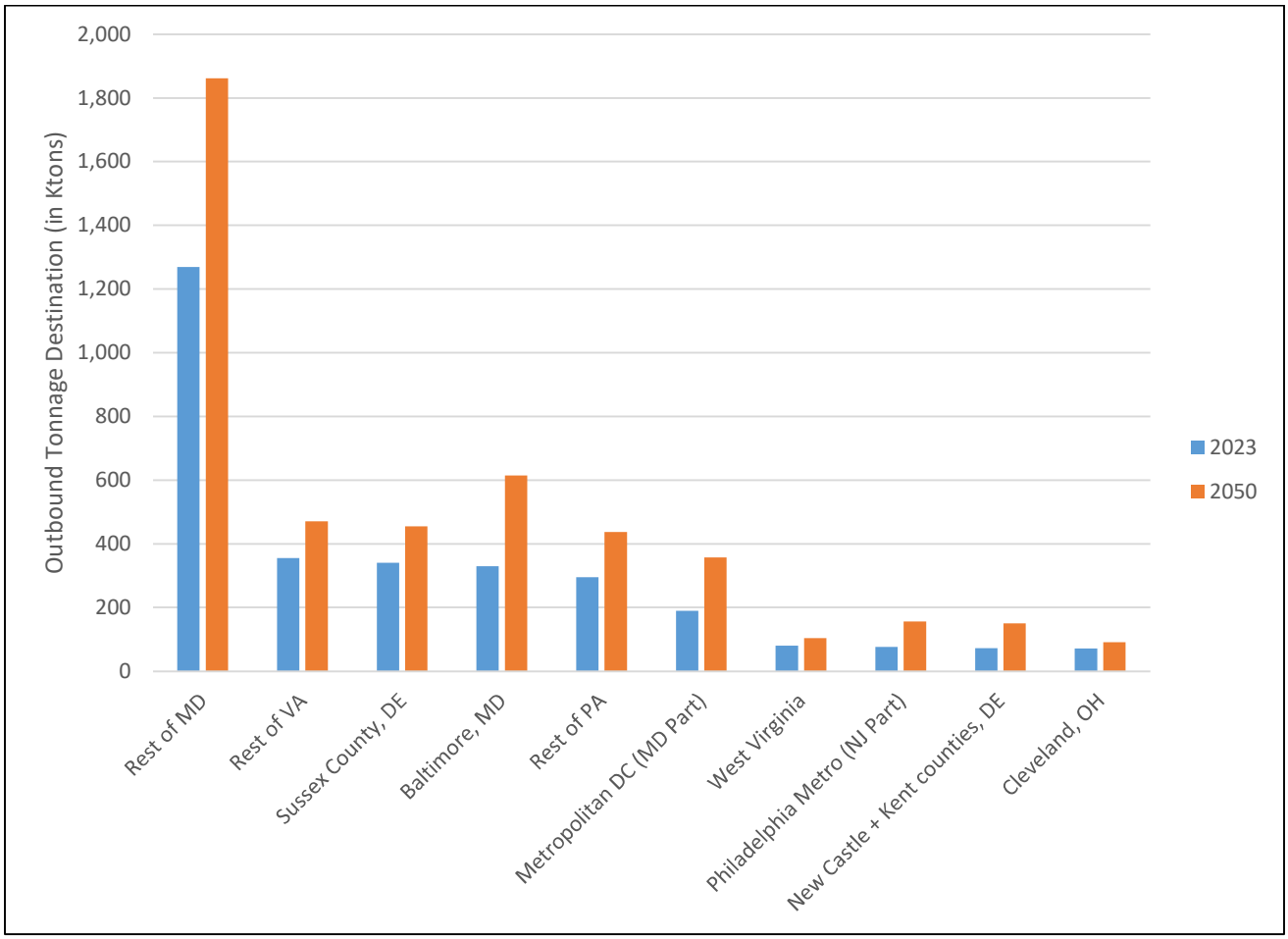
In 2023, Wicomico County's top three (3) projected outbound trading partners were the Rest of MD area, Rest of VA FAF area, and Sussex County, DE, which accounted for about 50 percent of tonnage. Wicomico's top ten trading partners accounted for roughly 80 percent of projected total outbound tonnage in 2023, with these partners projected to account for 76 percent of these movements by 2050.

Figure 6.4: Top Trading Partners by Inbound Tonnage: Wicomico County, 2023 and 2050



Source: Freight Analysis Framework 5, v. 5.1; University of Delaware, Institute for Public Administration Estimates and S/WMPO, 2023.

Figure 6.5: Top Trading Partners by Outbound Tonnage: Wicomico County, 2023 and 2050

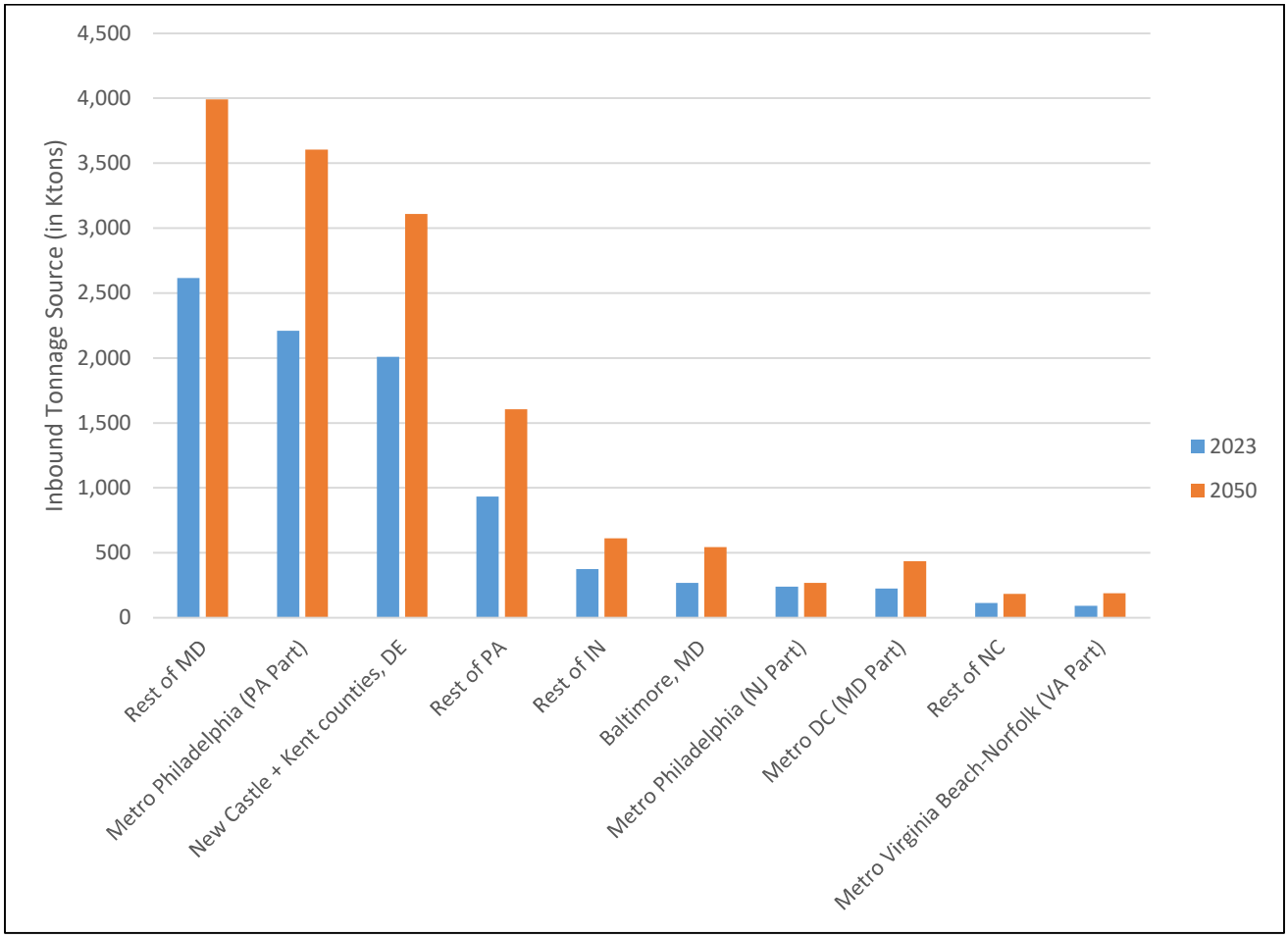


Source: Freight Analysis Framework 5, v. 5.1; University of Delaware, Institute for Public Administration Estimates and S/WMPO, 2023.

Figures 6.6 and 6.7 illustrate Sussex County's top trading partners by inbound and outbound tonnage for 2023 and 2050. In 2023, the region's top three (3) projected inbound trading partners were the Rest of Maryland area, the Pennsylvania part of the Philadelphia metro area, and Kent and New Castle counties in Delaware. These trading partners accounted for approximately 67 percent of projected inbound tonnage, with Sussex County's top ten partners accounting for nearly 89 percent of movements.

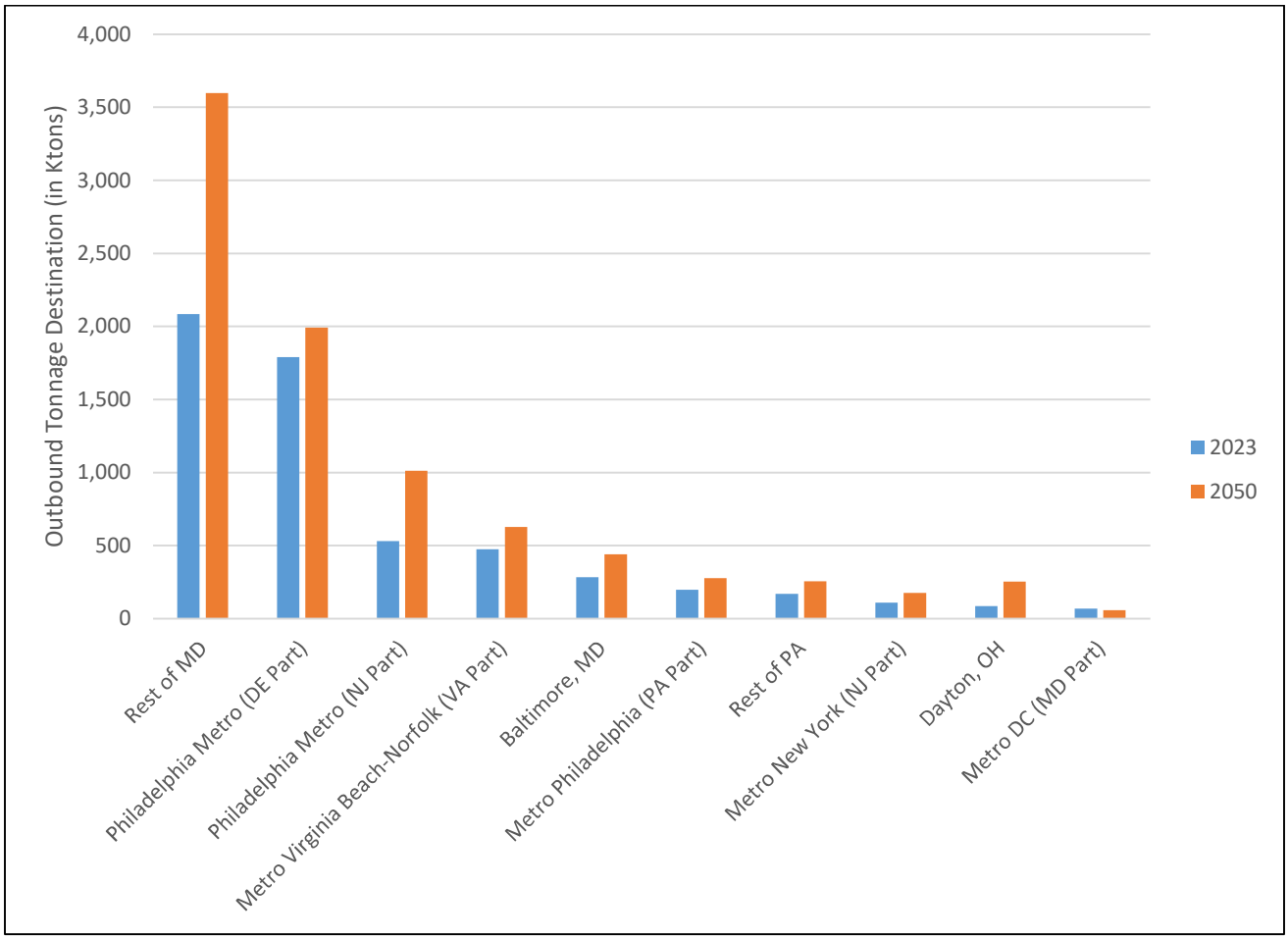
In 2023 Sussex County's top three (3) projected outbound trading partners were the Rest of Maryland FAF area, the Delaware portion of the Philadelphia Metro (i.e., Kent and New Castle counties), and the New Jersey portion of the Philadelphia Metro. These areas accounted for a projected 65 percent of outbound trade in 2023, a share expected to dip slightly to 64 percent by 2050. Sussex County's top 10 trading partners accounted for approximately 86 percent of projected outbound tonnage in 2023.

Figure 6.6: Top Trading Partners by Inbound Tonnage: Sussex County, 2023 and 2050



Source: Freight Analysis Framework 5, v. 5.1; University of Delaware, Institute for Public Administration Estimates and S/WMPO, 2023.

Figure 6.7: Top Trading Partners by Outbound Tonnage: Sussex County, 2023 and 2050



Source: Freight Analysis Framework 5, v. 5.1; University of Delaware, Institute for Public Administration Estimates and S/WMPO, 2023.

6.8 What are the Top Commodities?

There are three (3) types of commodity flows captured in an analysis of the freight system:

- **Inbound movements** are defined as movements from any other U.S. Census Region, adjoining state, or other county to Wicomico County or Sussex County;
- **Outbound movements** are defined as movements from Wicomico County or Sussex County to any other U.S. Census Region, adjoining state, or other county; and
- **Internal movements** are defined as movements within Wicomico County or Sussex County. This tonnage is counted only once, rather than counting it at both its origin county (as an outbound move) and its destination county (as an inbound move). Due to limitations with the estimation approach used for Wicomico County figures, internal flows for Wicomico likely represent underestimates, while inbound and outbound flows are likely to be overestimated.

Tables 6.7 and 6.8 illustrate the top commodities moved in, around, and out of Wicomico County, sorted by total tonnage in 2023. In 2023, the projected top five (5) commodities by tonnage were gravel (1,968 KTons), cereal grains (1,484 KTons), other foodstuffs (997 KTons), other ag products (946 KTons), and animal feed (625 KTons). The top ten commodities moved in Wicomico County accounted for a projected 77 percent of tons moved during 2023. By 2050, the top ten current commodities are projected to account for roughly 73 percent of tonnage moved in, from, and to Wicomico County.

Table 6.7: Top Commodities Moved by All Modes in Wicomico County: Inbound, Internal, and Outbound Tonnage, 2023

Commodity Description	Inbound (KTons)	Internal (KTons)	Outbound (KTons)	Total (KTons)
Gravel	1,593	41	334	1,968
Cereal grains	903	31	550	1,484
Other foodstuffs	385	32	580	997
Other ag products	549	34	363	946
Animal feed	466	11	148	625
Nonmetal mineral products	259	12	215	485
Mixed freight	175	1	230	406
Natural gas and other fossil products	352	0	0	352
Waste/scrap	111	15	206	332
Pharmaceuticals	8	3	293	303
TOTALS - ALL COMMODITIES (Top Commodities Share of Total)	**6,122 (78%)**	**237 (76%)**	**3,864 (76%)**	**10,223 (77%)**

Source: Freight Analysis Framework 5, v. 5.1; University of Delaware, Institute for Public Administration Estimates and S/WMPO, 2023.

Table 6.8: Top Commodities Moved by All Modes in Wicomico County: Inbound, Internal, and Outbound Tonnage, 2050

Commodity Description	Inbound (KTons)	Internal (KTons)	Outbound (KTons)	Total (KTons)
Gravel	2,359	56	569	2,984
Cereal grains	1,006	32	585	1,623
Other foodstuffs	561	37	690	1,289
Other ag products	658	37	400	1,095
Animal feed	776	13	184	973
Nonmetal mineral products	392	18	392	801
Mixed freight	307	2	383	692
Natural gas and other fossil products	488	0	0	488
Waste/scrap	135	19	364	518
Pharmaceuticals	23	5	841	868
TOTALS - ALL COMMODITIES (Top Commodities Share of Total)	**9,025 (74%)**	**317 (69%)**	**6,198 (71%)**	**15,540 (73%)**

Source: Freight Analysis Framework 5, v. 5.1; University of Delaware, Institute for Public Administration Estimates and S/WMPO, 2023.

Tables 6.9 and 6.10 illustrate the top commodities moved in, around, and out of Sussex County, which are sorted by total tonnage in 2023. In 2023, the projected top five (5) commodities by total tonnage were animal feed (3,441 KTons), cereal grains (2,710 KTons), gravel (2,679 KTons), other foodstuffs (1,749 KTons), and nonmetal mineral products (1,667 KTons). The top ten commodities accounted for a projected 77 percent of tonnage moved in 2023, with this share projected to slip to 73 percent by 2050.

Table 6.9: Top Commodities Moved by All Modes in Sussex County: Inbound, Internal, and Outbound Tonnage, 2023

Commodity Description	Inbound (KTons)	Internal (KTons)	Outbound (KTons)	Total (KTons)
Animal feed	1,299	1,170	972	3,441
Cereal grains	1,205	137	1,367	2,710
Gravel	1,050	751	878	2,679
Other foodstuffs	1,639	91	19	1,749
Nonmetal mineral products	537	665	465	1,667
Other ag prods.	692	81	446	1,220
Meat/seafood	130	149	773	1,052
Live animals/fish	359	296	255	910
Natural gas and other fossil products	675	89	127	891
Natural sands	24	706	154	884
TOTALS - ALL COMMODITIES (Top Commodities Share of Total)	**10,253 (74%)**	**5,292 (78%)**	**6,735 (81%)**	**22,279 (77%)**

Source: Freight Analysis Framework 5, v. 5.1; University of Delaware, Institute for Public Administration Estimates and S/WMPO, 2023.

Table 6.10: Top Commodities Moved by All Modes in Sussex County: Inbound, Internal, and Outbound Tonnage, 2050

Commodity Description	Inbound (KTons)	Internal (KTons)	Outbound (KTons)	Total (KTons)
Animal feed	2,062	1,971	1,822	5,855
Cereal grains	1,318	227	1,958	3,502
Gravel	2,056	613	659	3,329
Other foodstuffs	2,297	119	29	2,445
Nonmetal mineral products	988	830	480	2,298
Other ag prods.	944	118	656	1,718
Meat/seafood	201	194	967	1,362
Live animals/fish	972	799	768	2,538
Natural gas and other fossil products	930	219	218	1,367
Natural sands	55	917	102	1,074
TOTALS - ALL COMMODITIES (Top Commodities Share of Total)	**16,560 (71%)**	**7,948 (76%)**	**10,295 (74%)**	**34,803 (73%)**

Source: Freight Analysis Framework 5, v. 5.1; University of Delaware, Institute for Public Administration Estimates and S/WMPO, 2023.

6.9 What are Some Recommendations?

Freight transportation by land, sea, and air is integral to the S/WMPO region's economic vitality, and the MPO collaborates with transportation agencies in Delaware and Maryland to plan for and implement freight-related strategies. The S/WMPO participates in the Delmarva Freight Working Group with representatives of the DelDOT, the Wilmington Area Planning Council ("WILMAPCO"), MDOT and SHA, and the University of Delaware. As part of this participation, the S/WMPO collaborates to implement the following goals and strategies as outlined in the *2022 Delaware State Freight Plan* and the *2022 Maryland State Freight Plan*.

Delaware Freight Plan Goals and Strategies

Goal: Safety and Security

- Ensure the safe and secure movement of people and goods while limiting the potential for incidents that may cause harm or disrupt the network operations
    - Sample objectives: crash prevention, oversize/overweight (OS/OW) monitoring, truck parking capacity/availability, incident response planning, hazardous material tracking, cargo screening

Goal: Economic Vitality

- Promote and strengthen the economic vitality of Delaware with an excellent multimodal freight transportation network that meets the needs of a diverse and growing economy
    - Sample objectives: industry-specific supply chain needs, import/export opportunities, freight land use compatibility, preservation of multimodal options

Goal: Freight Connectivity, Accessibility, and Mobility

- Improve freight network connections, accessibility, and mobility to increase options for the movement of freight and enhance the integration of the state's multimodal transportation systems.
    - Sample Objectives: roadway freight networks, first/final mile networks, congestion mitigation, peak tourist season access, highway-rail crossing needs, multimodal opportunities (rail, air, port, barge)

Goal: System Management, Operations & Maintenance

- Preserve and enhance the state's multimodal freight transportation systems to support freight travel and commerce while adapting to the future's changing needs and integrating innovative strategies and technology that increase efficiency and safety during both normal and emergency situations.
    - Sample Objectives: state-of-good repair programs, dredging programs, freight enforcement technologies, all-electronic tolling, traffic responsive signal systems, truck parking technologies

Goal: Sustainability & Environmental Stewardship

- Provide resilient and reliable freight transportation systems while protecting and enhancing the environment through sustainable best practices, integration of environmental considerations into planning and design, and responsible energy consumption.
    - Sample Objectives: truck idling regulations, truck stop electrification, spills control, sea-level rise adaptation planning, community/livability enhancements, first/final mile route resilience

Maryland Freight Plan Goals and Strategies

- **Safety, Security, and Resilience** - Ensure the safe, secure, and resilient movement of goods on Maryland's multimodal freight network
- **Economic Opportunity and Efficiency** - Enhance economic competitiveness through freight industry opportunities, mobility improvement, and strategic system expansion
- **System Preservation and Modernization** - Modernize Maryland's multimodal freight network and operations with innovative solutions from origin to destination
- **Quality of Service, Efficiency, and Customer Experience** - Enhance transportation services and communications for users of Maryland's multimodal freight system
- **Environmental Protection and Sensitivity** - Support sustainable freight infrastructure, community vitality, and environmental stewardship
- **Fiscal Responsibility** - Ensure responsible freight system investment and management through performance-based decision-making and innovative funding mechanisms and partnerships
- **Transportation Choices and Connections -** Support alternative transportation choices and goods delivery options by improving multimodal and last-mile connections

Recommendations

Above and beyond the need for continued collaboration to implement the Delaware and Maryland freight plans, the following recommendations are advanced to focus the S/WMPO's regional and multimodal freight implementation efforts.

Enhance and Support the Viability of Rail and Waterborne Commerce: The S/WMPO should continue to evaluate strategies to increase the share of tonnage carried by water and rail modes to counter the increased use of trucks to transport freight. Support for intermodal freight movement is one way the S/WMPO can promote a more balanced freight transportation system. Intermodal connections and availability of multi-modal freight transportation options in the S/WMPO region are essential to providing a comprehensive transportation system, especially to minimize some of the negative impacts of truck freight transportation. For example, moving goods on a rail car or barge as opposed to a truck translates into less congestion on the roadway network and less air pollution.

Rail-focused considerations include:

- Developing economic strategies to retain and expand existing industries and attract new businesses that will use the existing rail system.
- Modeling efforts by the Dover/Kent County MPO to identify underutilized, rail adjacent lands and educate land use authorities and the public about the potential value of preserving and developing these areas for rail commerce.[19]
- Exploring the potential development of infrastructure such as rail spurs and transload facilities to serve industrial uses more efficiently and effectively.
- Coordinating with MDOT, DelDOT, and private rail operators to identify, consider, and, as appropriate, implement rail maintenance, rehabilitation, and development projects aimed at improving safety and preserving and expanding commerce.
- Developing policies and programs aimed at preserving an adequate supply of land suitable for industrial development near rail lines.

[19] 2022 *Rail Corridor Industrial Land Use Study* (https://doverkentmpo.delaware.gov/files/2023/01/Rail-Corridor-Land-Use-Study-Final-September-2022.pdf) and 2021 *Harrington Multimodal Freight Terminal Feasibility Study* (https://doverkentmpo.delaware.gov/files/2021/09/Harrington-Multimodal-Freight-Terminal-Feasibility-Study-FINAL_2021-08-05.pdf).

Waterborne commerce-focused considerations include:

- Analyzing and clearly communicating the economic impacts of waterborne commerce on Wicomico County and the surrounding region and advocating for investments that increase the viability of waterborne commerce in the region. These efforts should highlight the economic impacts of companies such as Chesapeake Shipbuilding that rely on navigable waterways but do not generate tonnage measures that trigger Army Corps reporting and federal investments in waterway maintenance. Further, efforts should highlight the critical resilience role that these waterways play for the region, as barges provide for the movement of fuel oil to the region, for example. Continued investments are necessary to maintain the viability of regional waterways for both existing shipping and waterborne commerce and emerging opportunities, such as those that may be associated with staging for offshore wind development.
- Engaging Wicomico and Sussex County stakeholders with and through the Delmarva Water Transport Committee on an ongoing basis to ensure information sharing, education, and coordination on and about dredging and related activities necessary to maintain regional waterways. In particular, Sussex County officials should be engaged to begin coordination and planning associated with future Nanticoke River dredging activities.

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Chapter 7
Connect with… Safety and Security

Chapter 7: Safety and Security

This Chapter examines regional safety trends and statistics, plans and programs in place to improve safety on the transportation system, and how stakeholder collaboration across the region serves to assess security threats and implement mitigation measures.

7.1 How Safe are the Region's Roads?

The number and type of motor vehicle crashes is an important safety indicator of a region's roadways. Enhancing traffic safety is critical to the health and well-being of the citizens of S/WMPO region and those who travel and conduct business on our streets and highways. Traffic safety is a vital component to any successful long range transportation plan, and a thorough examination of crash history and traffic patterns can identify key locations where an improvement in traffic safety will benefit both motorists and the community as a whole.

The number of fatal motor vehicle crashes is an important measurement of safety. The National Highway Traffic Safety Administration ("NHTSA") provides nationwide reporting on traffic safety statistics, including fatalities and alcohol-impaired fatalities. At a regional level, the most recent data covers the 2018 - 2022 timeframe. **Table 7.1** details the fatalities for Wicomico and Sussex counties. Both counties show an increase in fatalities from 2017-2019 with a significant decrease from 2018-2022.

Table 7.1: Fatalities and Alcohol Impaired Fatalities Suffered in Motor Vehicle Crashes (2018-2022)

County	Fatalities				
	2018	2019	2020	2021	2022
All Fatalities					
Wicomico County	7	19	11	15	11*
Sussex County	33	49	37	29	47
Alcohol Impaired Fatalities					
Wicomico County	0	3	1	1	3*
Sussex County	7	13	12	8	11*

Source: DelDOT

*2022 crash data not finalized

Total crashes by type from 2020-2022 within the Delaware portion of the S/WMPO Region are shown in **Table 7.2**. Factors contributing to a location's number of crashes include: intersection design; access considerations; and traffic congestion. A direct relationship exists between traffic congestion and crash frequency, which justifies the ongoing efforts to provide adequate funding for transportation planning and capital programming of enhancements designed to minimize congestion and improve safety.

Table 7.2: S/WMPO - Delaware S/WMPO Region Crash Data – Motorized Vehicles (2020-2022)

Crash Type	2020	2021	2022
Fatality Crash	1	2	6
Personal Injury Crash	172	218	194
Property Damage Only	640	739	713
Total	**783**	**960**	**913**

Source: DelDOT

Total crashes by type from 2020-2022 for Wicomico County are shown in **Table 7.3**. Crash rates have fluctuated during the reporting period.

Table 7.3: Wicomico County Crash Data – Motorized Vehicles (2020-2022)

Crash Type	2020	2021	2022
Fatal Crash	11	12	10*
Personal Injury Crash	645	631	636*
Property Damage Only	1,319	1,502	1429*
Total	**1,975**	**2,145**	**2075***

Source: SHA (https://zerodeathsmd.gov/wp-content/uploads/2023/08/WicomicoBR-2022Aug10-2023.pdf)
*2022 crash data not finalized

Safety Projects: SHA

SHA District 1 is responsible for overseeing all areas of State road operations, including traffic, construction, maintenance, engineering systems, right-of-way, utilities, and safety improvements for the Maryland portion of the S/WMPO region. SHA reviews safety data, identifying high-crash locations on state roads (road sections, intersections, ramps, etc.) and making recommendations for the distribution of safety funds for the region.

Safety-related road projects identified in Maryland's FY2023 - FY2028 *Consolidated Transportation Program* ("CTP"), which is the six-year capital budget for transportation projects, lists the following ongoing and completed safety improvement projects for the S/WMPO region:

- U.S. Route 13 Business (South Salisbury Boulevard) replacement of Bridge NO. 2200400 over East Wicomico River; construction anticipated to start in Spring 2024 and be completed in the Spring of 2026;
- US 13 (Centre Drive to Dagsboro Road): sidewalks, pedestrian activated signals, and crosswalks; in early design, which is anticipated to be completed in Spring 2025;
- MD 12 at Robins Avenue: geometric improvements and signalization; construction anticipated to start in Winter 2024 and be completed in Spring 2025;
- US 50 (MD 347 to Rockawalkin Road): geometric and safety improvements; in early design; construction anticipated to occur in 2025-2026.

Safety Projects: DelDOT

Many roadway safety improvements in Delaware are implemented via the State's Highway Safety Improvement Program ("HSIP"), including the SHSP, or through intersection or corridor specific projects funded through the Capital Transportation Program ("CTP"). Currently, DelDOT has the following planned project addressing safety in the S/WMPO area:

- Discount Land Road Improvements Project: The project will consist of roadway widening, adding bicycle lanes, and the construction of a sidewalk or multi-use path adjacent to the roadway. Project improvements extend from U.S. 13A (Seaford Road) to U.S. Route 13.

7.2 How Can Safety be Improved?

Improving safety for all users of the transportation system is a priority for the S/WMPO and its member jurisdictions. The plans, policies, and programs developed at a statewide and local level in both Maryland and Delaware play an important role in coordinating efforts to reduce and eliminate the number of deaths and serious injuries on public roads.

In Maryland, the *Strategic Highway Safety Plan*[1] ("SHSP") utilizes a data-driven approach to build effective strategies, create action steps, and establish performance measures to help achieve the goal of zero roadway deaths. The SHSP is coordinated with the individual plans of its modal administrations including SHA, MTA, MDTA, and MVA. The 2021 – 2025 Maryland's SHSP consists of the following six (6) major emphasis areas targeting various users of the roadway system:

"Toward Zero Deaths"
Both Maryland and Delaware have adopted the "Toward Zero Deaths" strategy developed by the American Association of State Highway Transportation Officials ("AASHTO").

- Distracted Driving;
- Highway Infrastructure
- Impaired Driving;
- Occupant Protection;
- Pedestrians and Bicyclists; and
- Speed and Aggressive Driving.

For each of the aforementioned emphasis areas, the SHSP provides program goals, safety performance measures, and an action plan to achieve the stated goals. In April of 2019, Governor Hogan approved House Bill 889, which further demonstrates Maryland's commitment to safety. Vision Zero is an internationally recognized programmatic approach to achieve zero traffic-related fatalities or serious injuries on roadways. MDOT will build on work already established by their SHSP and "Toward Zero Deaths" strategy, as well as incorporating other best practices, to achieve this goal.

The Delaware SHSP[2] similarly serves as the statewide blueprint for achieving its safety goal of working towards zero deaths on the roadway system. The Delaware SHSP has identified eight (8) priority emphasis areas along with secondary emphasis areas. Each of the following primary emphasis areas includes strategies, implementation methods, performance measures, and evaluation tools to gauge progress toward the stated goals:

- Intersections;
- Distracted Driving;
- Impaired Driving;
- Roadway Departure;
- Pedestrians;
- Motorcycles;
- Unrestrained Motorist;
- Speeding; and
- Traffic Records.

[1] https://zerodeathsmd.gov/wp-content/uploads/2021/06/2021_2025_MD_SHSP_FINAL.pdf
[2] https://deldot.gov/Programs/DSHSP/pdfs/2021-2025%20Delaware%20SHSP.pdf?cache=1698783549812

7.3 What are Some Threats to the Transportation System?

The S/WMPO region is susceptible to a wide range of threats and hazards, including both human-caused and naturally-occurring disasters, catastrophic acts of violence and terrorism, and the isolated or systematic failure of critical infrastructure systems. The ability to address the risks associated with these potential events is directly tied to the preparedness of all of the region's communities, levels of government, private and nonprofit organizations, and individual residents and visitors. Many of the hazards potentially affecting the region can have significant impacts to the transportation system.

As a part of the development of the Wicomico County *Multi-Hazard Mitigation Plan* (2022), a planning committee was formed to identify and rank the potential hazards impacting the County. Twenty natural and eight (8) human impacted hazards were identified. Hurricane/Tropical Storm and heavy rain were ranked as a medium-high risks, while land subsidence, earthquake, mass movement, and radiological emergencies were ranked as either medium-low or low risk. The other remaining hazards were ranked as medium. The Sussex County *Multi-Jurisdictional Hazard Mitigation Plan* (2022) identified 11 natural, four (4) human-caused, and one (1) technological hazards with the greatest potential to adversely affect Sussex County. Flooding, hurricane/tropical storms, and severe thunderstorms were ranked as the three (3) highest risks to Sussex County. Climate change and sea-level rise are increasing concerns on the Delmarva Peninsula. **Figure 7.1** depicts flooding in Bethany Beach, Delaware (north of Ocean City, Maryland and not included in the S/WMPO region) as a result of Hurricane Ian in October 2022.

Figure 7.1: Flooding in Bethany Beach, Delaware due to Hurricane Ian, October 2022

Source: https://www.coastalpoint.com/news/communities/bethanybeach/meeting-focuses-on-beach-loss-local-floods/article_4b4fac66-982a-11ed-8b63-dfa0a2ff9cb4.html (accessed August 2, 2023)

7.4 How Does *Connect 2050* Address Security?

The first step in any emergency response or hazard mitigation plan is to assess the types and likelihood of threats that may occur. Both at the state and county level, plans and processes are in place to identify threats and develop responses to them. The four (4) phases of emergency management, according to the Federal Emergency Management Agency ("FEMA"), are shown in **Figure 7.2**.

Figure 7.2: The Four Phases of Emergency Management

Source: FEMA

To assist with being prepared to mitigate hazards, Wicomico County has mutual aid agreements with surrounding counties and longstanding relationships with the Salisbury Fire Department, as well as the volunteer fire and rescue units throughout the County. Wicomico County also has mutual agreements with the American Red Cross and other groups that may be called upon under special circumstances, such as the National Guard. Wicomico County has agreements to coordinate mitigation activities with private utility companies, such as Delmarva Power and Verizon, and with private transportation companies, such as Norfolk Southern, for rail transportation for hazmat events.

In Sussex County, the Emergency Operations Center ("EOC") coordinates responses to natural disasters, such as winter storms, floods, and hurricanes, and technical disasters, such as chemical spills and hazardous materials incidents. The EOC also provides 911 service for the residents of Sussex County and dispatches fire companies, ambulance squads, County paramedics, State Police's Medevac helicopter, and other resource equipment to support the fire service within Sussex County. Sussex County also works in conjunction with State of Delaware Emergency Management Agency and neighboring counties and municipalities.

The next step in the hazard mitigation process is to assess the local and regional ability to respond to identified hazards and develop mitigation strategies to eliminate or reduce the impact on a community. Wicomico County Emergency Services has access to a network of trained agency and volunteer personnel through the Maryland Emergency Management Assistance Compact, a statewide mutual aid agreement to mitigate and respond to a variety of hazards. This network includes State agencies such as the Maryland State Police, Department of Natural Resources, Department of the Environment, Department of Health and Mental Hygiene, State Highway Administration, and the Maryland Emergency Management Agency. Wicomico County agencies include: County Roads Department; City-County Planning Office; General Services; Board of Education, and the Sherriff's Office.

Wicomico County's *Multi-Hazard Mitigation Plan* (2022) developed six (6) mitigation actions forming the core of the County's Plan. Specific projects related to the action areas ranged from construction projects (e.g., retrofitting existing structures to resist floods and high winds) to non-construction related projects (e.g., acquisition and relocation of vulnerable structures and the implementation of educational awareness programs).

A similar process was used in the development of Sussex County's 2022 *Multi-Jurisdictional Hazard Mitigation Plan* with six (6) mitigation techniques identified with a range of actions recommended. Some of the actions include: improving hazard mapping and floodplain regulations; repairing levees, dikes, and dams; and better educating citizens and businesses about potential hazards.

The six (6) actions developed in the Wicomico County Plan and the six (6) mitigation strategies developed in the Sussex County Plan reflect a focus on the same set of priorities:

- Prevention;
- Property Protection;
- Natural Resource Protection;
- Structural Projects;
- Emergency Services; and
- Public Education and Awareness.

The final phase of an emergency management plan is the recovery phase. Recovery includes both a short-term and a long-term process. Short term operations seek to restore vital services to the community and to provide for the basic needs of the public. Long-term recovery activities focus on restoring the community to its safe or improved status.

Sussex County's *Emergency Operations Plan* describes several actions to take place in the recovery phase across a range of County departments. All departments should participate in some or all of the following activities:

- Inspect infrastructure and equipment for damage and clean up debris
- Make necessary repairs to infrastructure and equipment to return to normal operations
- Initiate financial assistance or disaster relief process if applicable
- Participate in a post-emergency lessons learned activity
- Make any necessary adjustments to emergency mitigation or operation plans as necessary

An essential component to any successful planning effort is to continuously monitor and evaluate a plan's effectiveness and updates it on a five-year cycle, then submits for FEMA review. In Wicomico County, the Local Emergency Planning Committee is responsible for these actions. The Sussex County *Hazard Mitigation Plan* is reviewed, updated, and adopted by County officials. A Hazard Mitigation Plan can be

revised more frequently if conditions, under which a plan was developed, materially change as a result of new or revised policy, major disaster, or availability of funding.

7.5 What are the Emergency Evacuation Plans for the Region?

The S/WMPO region has the need for emergency evacuation planning related to the transportation system for two (2) primary reasons. The region's proximity to the major metropolitan centers of Philadelphia, Wilmington, Baltimore, Washington, D.C., and Hampton Roads creates the possible scenario of having to evacuate a large number of people from these areas through the region's state and local roads. Furthermore, the S/WMPO region is susceptible to flooding and coastal storm damage from hurricanes or tropical storms. In Maryland and Delaware, evacuation strategies are incorporated into the comprehensive, transportation, and emergency operation planning for the respective states and counties.

Delaware

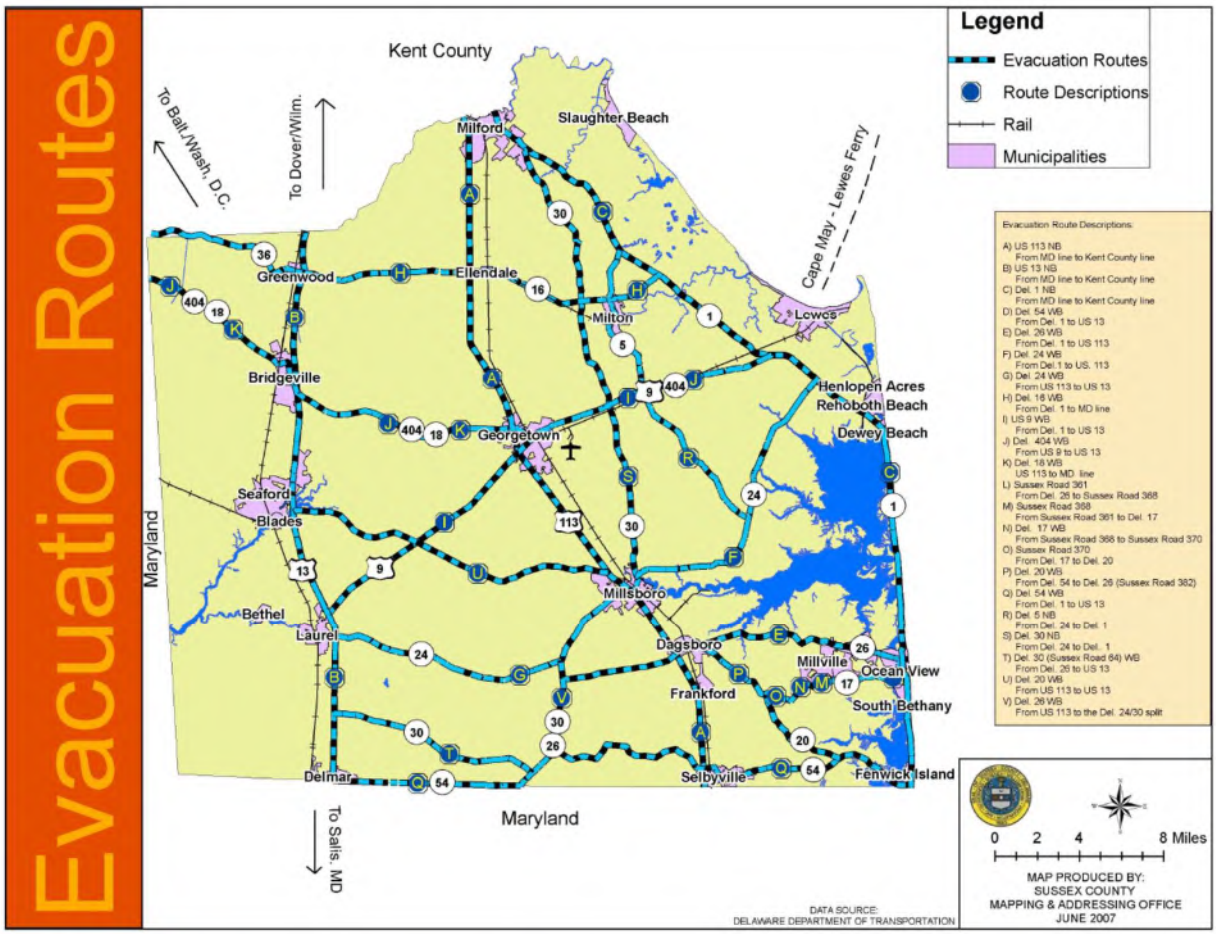
Statewide evacuation routes are determined by Transportation Management Teams ("TMTs"), which are part of DelDOT's transportation management program known as Intelligent Transportation Management System ("ITMS"). TMTs bring together personnel and resources from police, fire, rescue, emergency management, transportation, communications, environmental protection, public works, and other agencies to improve safety and reduce delays during incidents, events, and emergencies impacting Delaware's transportation system.

In Sussex County, coordination with officials in Maryland and Virginia frequently occurs to focus on routes and demand, as well as make real-time adjustments to coordinate the evacuation of the entire Delmarva Peninsula when necessary.

The composition of a TMT depends on the nature of the event or incident. Also, the TMTs develop detailed traffic control plans to be used in conjunction with evacuation plans. The Plans for each county are being integrated into a comprehensive statewide plan, which will be integrated with plans from neighboring states.

TMTs respond to planned events, such as sporting events, fairs, and shows, and to anticipated heavy volumes of traffic, such as summer weekend beach traffic. In addition, TMTs are ready to respond to unplanned incidents and events, such as hurricanes, floods, snowstorms, serious or hazardous materials accidents, natural gas leaks, major fires, a nuclear event, or terrorist attack. The Sussex County *All Hazards Evacuation Annex* (2017) was developed to demonstrate how DelDOT, DelDOT's Transportation Management Center (TMC), and other state and local agencies which make up the Sussex County TMT will work together to manage the transportation system and protect life and property during a threatening incident or event.

Figure 7.3: Sussex County Evacuation Routes



Source: Sussex County/DelDOT

As shown in **Figure 7.3**, primary and secondary evacuation routes are identified based on Army Corps of Engineers tidal inundation maps of areas prone to flooding during severe storms. Secondary routes are used to direct local residents to primary evacuation routes or are used to reroute traffic if a primary evacuation route becomes impassable.

Maryland

Through coordination with the Maryland's SHA and other State and local agencies on the Eastern Shore, a *Maryland Eastern Shore Hurricane Evacuation Plan* has been developed to guide the safe and efficient evacuation of coastal and inland areas. An earlier version of the Plan primarily focused on evacuating Ocean City, Maryland, traffic into Salisbury, but the current plan extends to cover the entire Eastern Shore and connections into Delaware and Virginia.

The Plan describes a regional hurricane traffic control strategy to maximize traffic flows out of Ocean City and other areas susceptible to storm surges, as well as developed specific traffic control and incident management responsibilities of agencies supporting an evacuation operation. The traffic management plan serves as a common basis for each jurisdiction to develop its own hurricane traffic evacuation plan.

The major evacuation routes on the Eastern Shore are U.S. Route 50, U.S. Route 113, U.S. Route 13, U.S. Route 301, MD 90, MD 404, DE 404, DE 20, DE 24, and DE 54. There have been many estimates of the number of vehicles that might need to be evacuated from Ocean City. One estimate, based on a population of 200,000 people and an average vehicle-occupancy of 2.5-3.0 persons per vehicle, suggested

that 67,000-80,000 vehicles might need to be evacuated from the beach resort city during the summer season.

The general concept of operation includes three (3) response stages for an approaching storm/hurricane, increased readiness, mobilization, and evacuation. **Table 7.4** describes some of the activities associated with each stage.

Table 7.4: SHA Preparedness Activities for Hurricane Evacuation Operations

Emergency Response Stage	Emergency Response Activities
Increased Readiness	• Contact personnel and activate readiness posture • Check Equipment
Mobilization	• Contact personnel ○ District 1, District 2, MSP • Evacuation Preparation • Fuel Vehicles • Check Equipment • Prepare Roster
Evacuation	• Place Supervisor at Ocean City Command Post • Assign vehicles to roving patrol • Set up Traffic Control Points

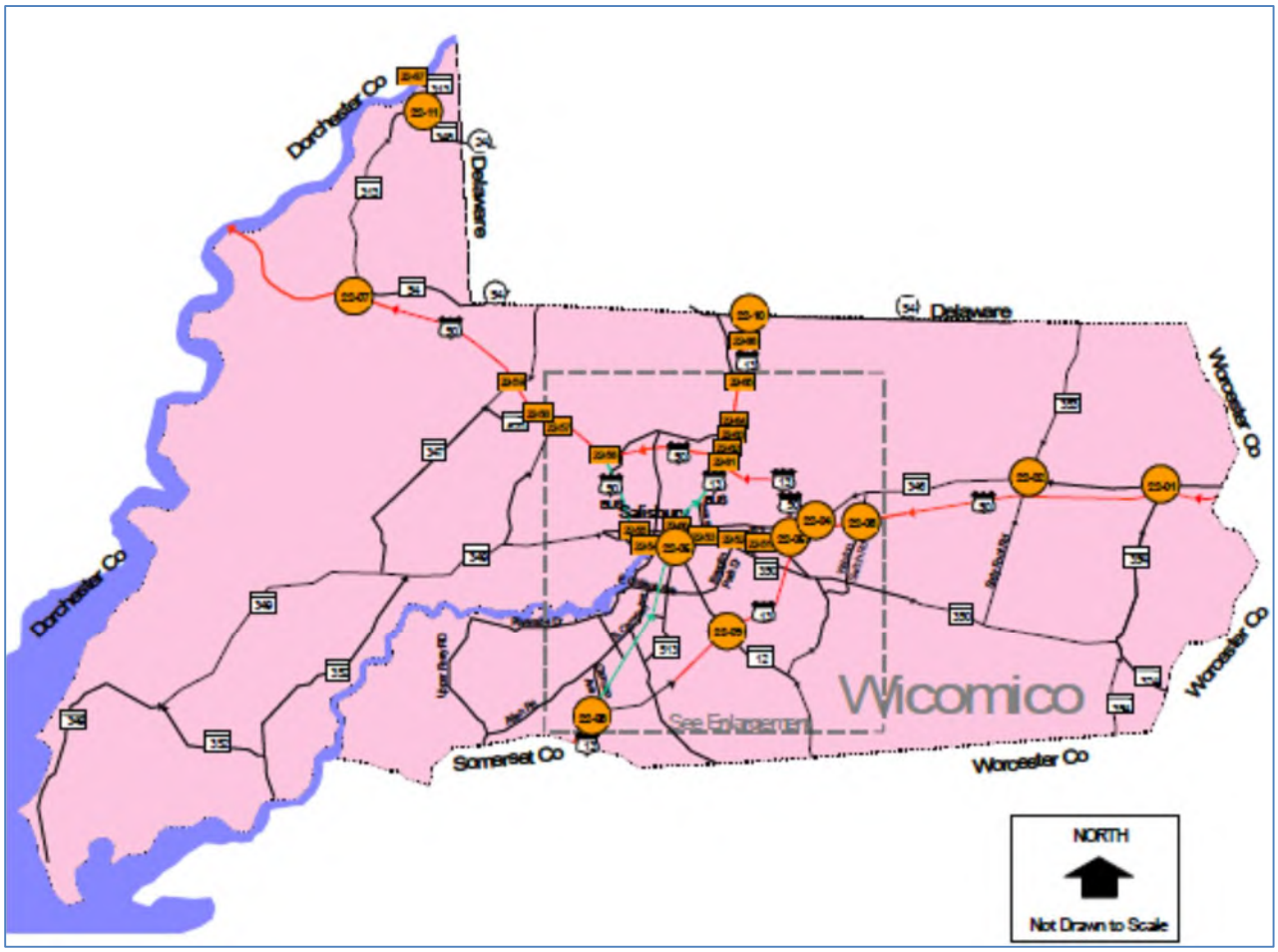
Source: MDOT

The primary objective of any hurricane evacuation operation is to move people out of a barrier island or low-lying flood prone areas to a safe area, not necessarily to their ultimate destinations. The secondary objective of the hurricane evacuation operation is to move people off the Eastern Shore. To achieve this objective, traffic control points are used to manage the traffic flow along evacuation routes. The focus of hurricane evacuation operations is to manage traffic flow on the primary evacuation routes, which include U.S. Route 50, MD 528, MD 90, U.S. Route 113, U.S. Route 13, MD 404, and U.S. Route 301. **Figure 7.4** shows the traffic control points for Wicomico County and **Figure 7.5** shows the same information for Sussex County, as described in the *Maryland Eastern Shore Evacuation Plan*.

The evacuation operations as described in the *Maryland Eastern Shore Evacuation Plan* can be executed using a "playbook" that is accessible to all of the agencies tasked with executing the Plan. The "playbook" can be modified and adjusted as necessary in real-time conditions as circumstances warrant. Changes to evacuation routes, traffic control points, lane operations, and sequencing of events can be communicated immediately through radios, cell phones, computers, and other electronic devices to the personnel in the field.

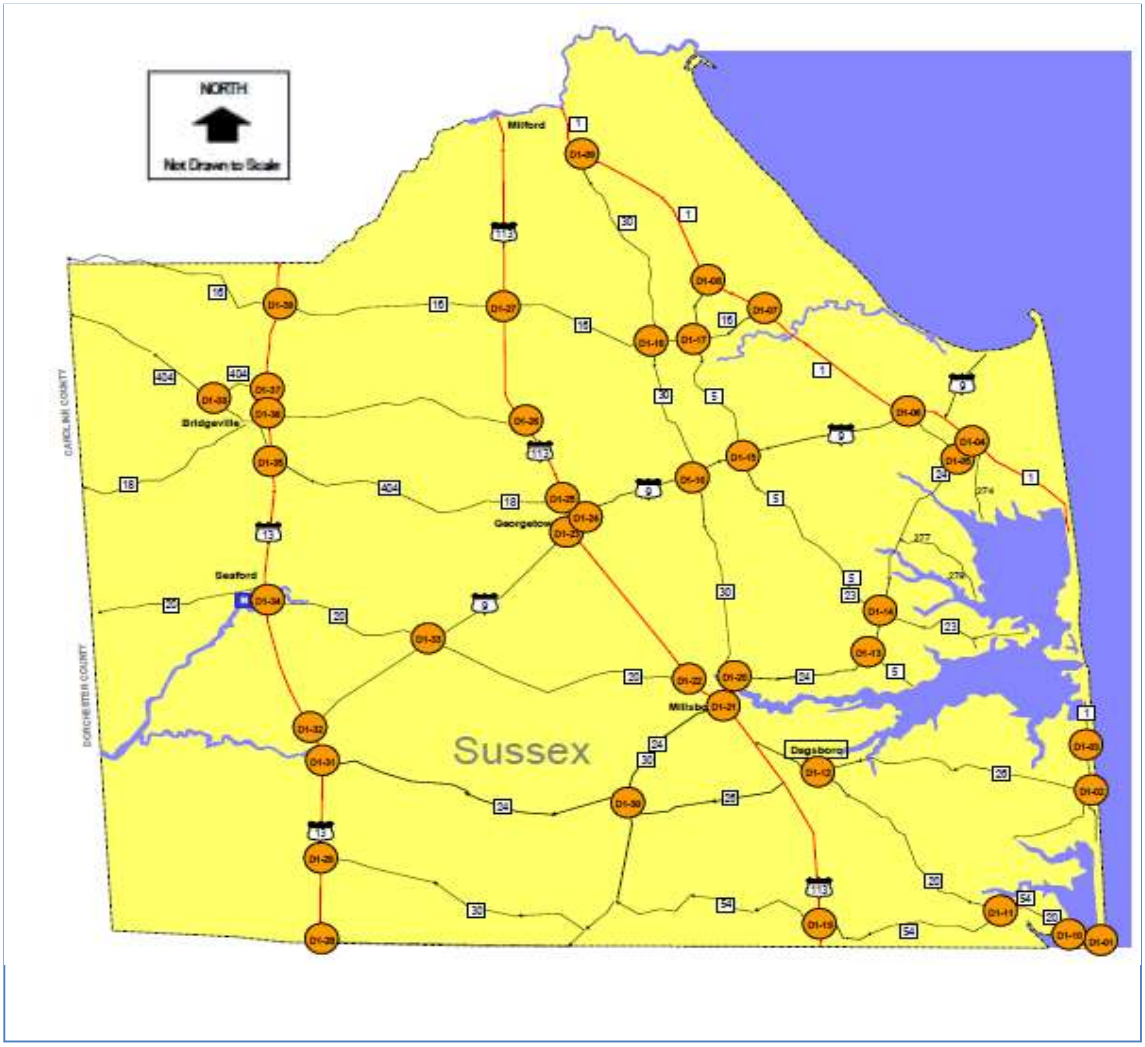
After a storm or evacuation event, agencies move into the recovery phase to assess damage, clean up debris, remove temporary traffic control devices, and return permanent traffic control devices to normal operations. The *Maryland Eastern Shore Evacuation Plan* has the ability to be adapted to other hazard evacuations as required.

Figure 7.4: Traffic Control Points for Wicomico County



Source: SHA Maryland Eastern Shore Evacuation Plan

Figure 7.5: Traffic Control Points for Sussex County



Source: SHA Maryland Eastern Shore Evacuation Plan

S/WMPO Role

The S/WMPO can embrace and support security planning by providing a forum for collaboration, which it already brings together local jurisdictions, MDOT and DelDOT Staff, transit providers, and the public to make decisions on regional transportation planning and programming. Most MPOs have Technical Advisory Committees or other specialty committees focusing on critical issues within a region. By inviting emergency personnel and other entities involved in evacuations to a MPO committee meeting, a dialogue can begin on the gaps and the various ways a MPO can assist in the planning efforts. Creating a listing of these organizations and their respective contact person, meeting regularly, and coordinating plans will ensure relationships are being built and maintained.

Chapter 8
Connect with… The Long Range Plan Projects

Chapter 8: Long Range Plan Projects

As S/WMPO's Long Range Transportation Plan, ***Connect 2050*** is required by Federal transportation regulations to be financially constrained to the funding reasonably expected to be available over the applicable time period. ***Connect 2050*** contains recommendations for proposed projects with projected revenue.

8.1 How are Projects Identified?

Transportation operations improvements are intended to increase capacity and safety, and provide a financially viable alternative to enhancing existing facilities instead of constructing new capacity. The Federal transportation legislation identified in IIJA continues the MAP-21 and the FAST Act requirements for Metropolitan Planning Organizations to examine transportation operations activities through their LRTP processes.

What does it mean to be fiscally constrained?
A demonstration of sufficient funds (federal, state, local, and private) to implement proposed transportation system improvements, as well as to operate and maintain the entire system, through the comparison of revenues and costs.

The projects identified for funding in ***Connect 2050*** are contained in the following existing documents, including plans and capital programs used to identify future project needs:

- MDOT SHA Highway Needs Inventory – Wicomico County 2020 Revised;
- MDOT Consolidated Transportation Program ("CTP") (FY 2024 – FY 2029);
- Delaware DOT Capital Transportation Program ("CTP") (FY 2023 – FY 2028); and
- S/WMPO Transportation Improvement Program ("TIP") (FY 2024 – FY 2027).

A complete list of the identified projects is included in **Appendix F**. There are two (2) categories of projects:

- **Capital expansion projects** increase the capacity of the transportation system through the construction of new facilities and the expansion of existing infrastructure; and
- **System preservation projects** maintain and improve existing facilities.

8.2 What is the Fiscally Constrained Plan?

The MDOT and DelDOT develop revenue projections of reasonably available funds used for transportation projects for each county in their respective states. Projects are identified by the States, member jurisdictions, and transit providers along with project costs. Based on Federal requirements, an MPO Long Range Transportation Plan must be **fiscally constrained**.

According to USDOT, this includes information on how a governmental entity reasonably expects to fund the projects included in a plan, including anticipated revenues from FHWA and FTA, state government, regional or local sources, private sector, and user charges. ***Connect 2050*** must demonstrate there is a balance between the expected revenue sources for transportation investments and the estimated costs of the projects and programs described in the Plan. In other words, the Plan must be fiscally (or financially) constrained. The complete MDOT Financial Forecast for Wicomico County, updated in August 2022, is available in **Appendix G**.

The focus of ***Connect 2050*** is on capital expansion and system preservation projects. The total fiscally constrained project listing equal to or less than the forecasted capital expansion funds and forecasted system preservation funds, as shown conceptually in **Figure 8.1**.

Figure 8.1: Transportation Expenditures

Tables 8.1 and 8.2 show the funding available for capital expansion and system preservation projects in Wicomico and Sussex Counties, respectively, from 2023 through 2050, as well as the total anticipated cost of those projects. The projects are discussed in more detail in Sections 8.3 and 8.4.

Table 8.1: Available Funds and Estimated Project Costs, Wicomico County (Thousands $)

Capacity Expansion – Wicomico County	
Highway Agency	**Highways, Total Estimated Project Costs**
MDOT SHA	$0.0
Highways Subtotal	**$0.0**
Transit Agency	**Transit, Total Estimated Project Cost**
MDOT MTA / Shore Transit	**$0.0**
Transit Subtotal	**$0.0**
Total Estimated Project Costs MDOT SHA and MDOT MTA	**$0.0**
Total Funding Projected	**$0.0**

System Preservation – Wicomico County	
Highway Agency	**Highways, Total Estimated Project Costs**
MDOT SHA	$41,833.3
Highway Subtotal	**$41,833.3**
Transit Agency	**Transit, Total Estimated Project Costs**
MDOT MTA / Shore Transit	$3,226.0
Transit Subtotal	**$3,226.0**
Municipality	**Municipality, Total Estimated Project Costs**
City of Salisbury	$1,923.2
Municipality Subtotal	**$1,923.2**
Total Estimated Project Costs Highway, Transit, and Municipality	**$46,982.5**
Total Funding Projected	**$46,982.5**

Table 8.2: Available Funds and Estimated Project Costs, Sussex County (Thousands $)

Capacity Expansion – Sussex County	
Highway Agency	**Highways, Total Estimated Project Costs**
DelDOT	$0
Highways Subtotal	**$0**
Transit Agency	**Transit, Total Estimated Project Cost**
DART (within UA)	$0
Transit Subtotal	**$0**
Total Estimated Project Costs Highway and Transit	**$0**
Total Funding Projected	**$0**

System Preservation – Sussex County	
Highway Agency	**Highways, Total Estimated Project Costs**
DelDOT	$10,042.1
Highways Subtotal	**$10,042.1**
Transit Agency	**Transit, Total Estimated Project Cost**
DART	$24,482.9
Transit Subtotal	**$24,482.9**
Total Estimated Project Costs Highway and Transit	**$34,525.0**
Total Funding Projected	**$34,525.0**

8.3 Which Roadway Projects are in the Fiscally Constrained Plan?

Roadway projects – including projects benefitting the bicycle and pedestrian system and the roadway freight system – compose the majority of ***Connect 2050***, both in terms of number of projects and cost. All project costs are in **year of expenditure** dollars, reflected in the figures below.

What is "year of expenditure"?
Regardless of how financial assumptions and forecasts are developed, all forecasts in the financial plan must be shown in "year of expenditure" dollars based on reasonable inflation factors.

MDOT State Highway Administration Fiscally Constrained Projects

The State's CTP is a six-year capital budget for transportation projects which includes major and minor projects for MDOT and its modal administrations. The FY 2024 to FY 2029 CTP and the MPO's FY 2024 – FY 2027 TIP includes projects in various stages of completion, as shown in **Table 8.3A**. These transportation improvements include the following types of projects: resurface/rehabilitation; bridge replacement/rehabilitation; safety/spot improvements; and bike/pedestrian improvements. Based on estimated project cost in the projected year of expenditure, the State will need to allocate approximately $1 billion to complete the projects contained in the HNI (**Table 8.3B**) and $41.8 million to complete system preservation projects identified in the CTP and TIP.

Table 8.3A: Fiscally Constrained MDOT SHA Roadway Projects (Thousands $)

Facility/System	Location	Project Description	Estimated Project Cost in Year of Expenditure
System Preservation			
Roadways	Wicomico County	Resurface / Rehabilitate	$8,381.0
Roadways	Wicomico County	Safety and resurfacing	$9,810.0
Roadways	MD 12 at Robins Avenue	Geometric improvements	$3,338.0
Bridge 2200400	US 13 Business over East Branch of Wicomico River	Bridge replacement	$8,836.0
U.S. Route 50 – Ocean Gateway	West of MD347 and East of Rockawalkin Road	Geometric improvements	$8,499.0
Salisbury Bike Network	Carroll Street	Construction	$400.0
Eastside Bike Network	Salisbury	Implementation	$200.0
Naylor Mill Connector Bikeway	Salisbury	Construction	$100.0
Salisbury Bike Ped	Salisbury	Counters	$49.3
Salisbury Rail Trail, Phases 2 & 3	Salisbury	Design	$139.7
Salisbury Bike Network	Salisbury	Design	$597.0

Facility/System	Location	Project Description	Estimated Project Cost in Year of Expenditure
Eastern Shore Drive Multi-Use Path	Salisbury	Design	$120.0
Trail Construction	Pirates Wharf	Construction	$156.3
National Electric Vehicle Infrastructure ("NEVI")	Wicomico County	Vehicle charging stations	$1,207.0
		Total	**$41,833.3**

Source: MDOT SHA

Table 8.3B: 2020 Highway Needs Inventory Roadway Projects (Thousands of Dollars)

Facility/System	Location	Project Description	Estimated Project Cost in Year of Expenditure
System Preservation			
U.S. Route 13 – N. Salisbury Boulevard/ Ocean Highway	Salisbury Bypass to Delaware State line	Divided highway reconstruct with access control improvements, 4.4 miles	$138,900.0
U.S. Route 13 – S. Fruitland Boulevard	Somerset County line to U.S. Route 13 Business	Divided highway reconstruct, 0.6 miles	$8,100.0
U.S. Route 50 – Ocean Gateway	Salisbury Bypass to E. of Walston Switch Road	Divided highway reconstruct, 2.6 miles (includes interchanges)	$237,700.00
MD 350 – Mt. Hermon Road	Beaglin Park Drive to Walston Switch Road	Two-lane reconstruct, 3.3 miles	$57,400.0
MD 12 – Snow Hill Road	Worcester County line to south of U.S. Route 13 Bypass	Two-lane reconstruct, 4.2 miles	$58,900.0
MD 12 – Snow Hill Road	U.S. Route 13 Bypass to Johnson Road	Multi-lane urban reconstruct, 1.0 miles	$116,500.0
MD 349 – Nanticoke Road	N. Upper Ferry Road to U.S. Route 50	Multi-lane reconstruct, 4.9 miles	$66,900.0
U.S. Route 50 – Ocean Gateway	MD 731A to White Lowe Road	Access control improvements, 9.7 miles	$289,900.0
		Total	**$974,300.0**

Source: MDOT SHA

City of Salisbury Fiscally Contrained Projects

S/WMPO's FY 2024 – FY 2027 TIP includes projects in various stages of completion for the City of Salisbury, as shown in **Table 8.3C** and **Appendix F**.

Table 8.3C: Fiscally Constrained Projects for the City of Salisbury (Thousands of Dollars)

Facility/System	Location	Project Description	Estimated Project Cost in Year of Expenditure
System Preservation			
Mill Street Bridge	Salisbury	Deck Replacement	$1,500.0
Pedestrian Network	Salisbury	Installation of pedestrian signals and rapid flashing beacons	$250.5
Fitzwater-Parsons Road	Salisbury	Safety improvements	$172.7
		Total	**$1,923.2**

Source: S/WMPO TIP (FY 2024-2027)

DelDOT Fiscally Constrained Projects

The State's Capital Transportation Program ("CTP") is a six-year capital budget for transportation projects which includes major and minor projects for DelDOT. The FY 2023 to FY 2028 CTP includes projects in various stages of completion, as shown in **Table 8.4** and **Appendix F**.

Table 8.4: Fiscally Constrained DelDOT Roadway Projects (Thousands of Dollars)

Facility/System	Location	Project Description	Estimated Project Cost in Year of Expenditure
System Preservation			
Discount Land Road	Laurel	Roadway widening, bicycle lanes, and construction of sidewalk or multi-use path adjacent to roadway	$5,810.0
BR 3-314	Laurel Road over James Branch	Bridge rehabilitation	$30.0
BR 3-237	Old Furnace Road over Nanticoke River	Engineering study – R.O.W	$100.0
Various bridges – open end	Sussex County	Scour countermeasures, Open End (FY 22-24)	$4,102.1
		Total	**$10,042.1**

Source: Delaware DOT Capital Transportation Program (FY 2023-2028)

8.4 Which Transit Projects are in the Fiscally Constrained Plan?

Maryland Transit Administration Fiscally Constrained Projects for Shore Transit

The MDOT FY 2024 to FY 2029 CTP also includes transit funding under the MDOT MTA, which supports Shore Transit in Wicomico County. The vehicle replacements, preventative maintenance, and other project expenses total approximately $3.2 million. See **Table 8.5** and **Appendix F.**

Table 8.5: MDOT FY 2024 – FY 2029 CTP (Thousands $)

Facility/System	Location	Start	Estimated Project Cost in Year of Expenditure
System Preservation			
Medium Duty Bus Replacement (406)	Shore Transit	FY 2019 (5339)	$165.0
Medium Duty Bus Replacements - 2 (260 & 411)	Shore Transit	FY 2022 (5339)	$219.0
Small Duty Bus Replacements - 3 (231, 245 & 97)	Shore Transit	FY 2022 (5339)	$241.0
Support Vehicle (partial)	Shore Transit	FY 2022 (5339)	$18.0
Propane Conversions – 6	Shore Transit	FY 2019 (5339 Discretionary)	$100.0
Disinfectant Module	Shore Transit	FY 2020 (CARES)	$2.0
Preventative Maintenance	Shore Transit	FY 2023 (5307)	$800.0
Mobility Management	Shore Transit	FY 2022 & 2023 (5307)	$286.0
Small Duty Bus Replacement – 1	Shore Transit	FY 2023 (5307)	$85.0
Small Duty Bus Replacements – 2 (100 & 101)	Shore Transit	FY 2023 (5339)	$225.0
Bus Security Cameras	Shore Transit	FY 2020 (CARES)	$400.0
Fixed Route Management System	Shore Transit		$590.0
Transportation Development Program	Shore Transit	FY 2021	$95.0
		Total	**$3,226.2**

Source: MDOT Consolidated Transportation Program ("CTP") (FY 2024 to FY 2029)

Delaware Transit Corporation Fiscally Constrained Projects for DART

DelDOT's FY 2023 to FY 2028 CTP includes approximately $24.5 million for replacement of vehicles serving Sussex County. These projects are detailed in **Table 8.6** and **Appendix F**.

Table 8.6: Fiscally Constrained Delaware Transit Corporation Projects (Thousands $)

Facility	Location	Project Description	Estimated Project Cost in Year of Expenditure
System Preservation			
Transit Vehicle Replacement Paratransit Buses Sussex	Sussex County	FY 2020 – FY 2026	$18,494.9
Transit Vehicle Replacement (12) 29' Buses	Sussex County	FY 2023	$5,988.0
		Total	**$24,482.9**

Source: Delaware DOT Capital Transportation Program ("CTP") (FY 2023 to FY 2028)

8.5 What are Some Opportunities for Additional Study?

While an MPO is not intended to be an implementing agency, there is a role for the S/WMPO in helping to achieve regional transportation priority projects in the next thirty years. Over the next four (4) years, S/WMPO will look to several opportunities to advance ***Connect 2050***. Some of these work products might be included as addenda to ***Connect 2050***.

Consult Member Jurisdictions' Priority Letters

Each county, with input from municipalities, submits an annual "Priority Letter" to MDOT or DelDOT. S/WMPO should continue to monitor these letters for projects that are local priorities and might be most likely to receive future funding.

Sponsor Studies

The S/WMPO has recently funded corridor studies yielding valuable information about the traffic characteristics, pedestrian and bicyclist safety, and transit within the region. Over the next four (4) years, the S/WMPO should continue investments to develop maps and GIS based datasets, as well as acquiring data to assist local jurisdictions with planning and capital programming decision making. Other potential work program items include the following:

- Coordinate with Wicomico and Sussex County's Emergency Services to assist with the preparation of evacuation routes map for Wicomico County;
- Partner with DelDOT to acquire LOS data and AADT information for the UA and MSA portions of the S/WMPO located in Delaware, which is in keeping with DelDOT's goal to provide a statewide Congestion Management System;
- Coordinate with MDOT SHA to conduct a safety study for the Salisbury Bypass access from U.S. Route 50 Business extending from Tilghman to Hobbs Road;
- Initiate pedestrian & cyclist safety and connectivity study at various high-volume locations without safety amenities; and
- Prepare corridor studies for the region that analyze current level of service and queueing at both signalized and non-signalized intersections in the Urban Area.

Continue MAP-21 Performance Management

MAP-21 established new provisions to the metropolitan planning process designed to establish a transparent, accountable decision-making framework for the MPO and public transit providers to identify multimodal capital investment and project priorities. As a result, five (5) transportation performance measures were established by MDOT and DelDOT with S/WMPO adopting the statewide targets. **Appendix I** contains the updated performance measure targets for the S/WMPO.

Meeting Transportation Challenges

As both the draft *Maryland Transportation Plan 2050* and the *Delaware Statewide Transportation Plan* observe, transportation demand exceeds the supply of infrastructure, services, and funding available in both the short- and long-term. Aging infrastructure might be addressed by partnerships between the public and private sector, enhanced maintenance tools and techniques, and asset management practices. Populations aging and becoming more diverse might require an accessibility evaluation of the transportation system to people of all abilities and at ensuring a variety of multi-modal options exist, including transit and safe bicycle and pedestrian routes. Land use and development patterns resulting in sprawl might be countered by an orderly and controlled growth pattern, implementing complete streets policies, and spending system preservation funds on improving congestion and bottlenecks to improve the function of the existing network. Thoughtful planning and effective coordination will help state and local governments to effectively manage the transportation system, and the S/WMPO is essential to the success of that system on the Delmarva Peninsula.

Appendix A
Stakeholder Interview and Online Survey Summaries

Appendix A: Stakeholder Interview Summaries

A series of interviews were conducted to gain insight into different stakeholders' concerns and interests regarding the SWMPO LRTP. Conversations were guided by a prewritten questionnaire; however, not every participant answered all questions. Interviews were performed over a three week period in July 2023 via the Microsoft Teams platform and recorded to ensure accuracy of the information obtained. The interview questions are provided below with each interview summarized on the subsequent pages.

Stakeholder Interview Questions

NAME

TITLE:

AFFILIATION/ORGANIZATION:

PRIMARY AREA(S) OF INTEREST:

INTERVIEW DATE/TIME:

1. **What is your relationship to the Salisbury-Wicomico Metropolitan Planning Organization area?**
2. **What changes do you see happening in the S/WMPO area over the next 25-30 years?**
3. **Which three (3) issues are the most important to address in the update to Connect 2050?**
    a. **Maintenance/repair of existing transportation infrastructure**
    b. **New roads or added capacity on roads**
    c. **Improved safety**
    d. **Improved road operations and traffic signal timing**
    e. **Improvements to the transit system**
    f. **Additional bicycle and pedestrian facilities**
    g. **Truck routing and access**
    h. **Improved road signage, wayfinding, and directions**
4. **Are there particular projects or types of projects that you think need emphasis (i.e., safety, transit, road maintenance, road capacity, freight, bicycle, pedestrian, etc.)?**
5. **Are there particular corridors or areas that need transportation improvements?**
6. **Do you feel funding is adequate for maintenance and improvements to the transportation system (yes/no)? If not, how do you think additional funds should be raised and by whom (i.e., sales tax, fuel tax, fees, etc.; state or local level)?**
7. **What types of transportation improvements do you see as being most beneficial to the economy and retention/creation of employment opportunities?**
8. **What types of transportation improvements do you see as being most beneficial to the region's quality of life?**
9. **What are the biggest transportation-related challenges that your organization encounters within the S/WMPO region?**
10. **What other issues/factors need to be considered in the LRTP?**

Stakeholder Interview Summaries

Name:	Dorothy Morris, AICP
Title:	Principal Planner
Organization:	Delaware Office of State Planning Coordination
Primary Area(s) of Interest:	Land Use Planning and Comprehensive Planning in Sussex County
Interview Date/Time:	July 10, 2023, 3:00 PM

Ms. Morris is the Vice Chair of the TAC Committee. She believes housing development in the SWMPO region of Delaware will be one of the biggest changes over the next 25-30 years. The beach house community is already moving westward. With the development comes traffic, and bicycle and pedestrian safety issues. When asked to provide the three (3) most important issues for this LRTP update, Ms. Morris identified improving safety as the upmost importance. This is especially of concern as development happens. Roads need to be brought up to standards; this includes roads in front of the development and intersections within the development. The second most important issue is the addition of bicycle and pedestrian facilities. Ms. Morris also values increased accessibility in the form of improved transit systems (this would go along with additional bike and ped facilities), and increased truck routing and access. She mentioned that Western Sussex has "always struggled with getting economic development projects" because there is less truck routing and access compared to its northern counterparts. She believes improved truck routing and access will benefit the economy and retention/creation of employment opportunities. Economic development projects are desperately needed in the SWMPO region. With regard to the types of projects that need emphasis, Ms. Morris mentioned the current SWMPO-funded bicycle study, which focuses on the Seaford, Laurel and Delmar area and she would like to see more of those types of projects. Additionally, she emphasized the need for a proactive approach to road capacity and maintenance associated with projected development versus "playing catch-up" once development has occurred. When asked about specific corridors that need improvements, Ms. Morris mentioned the continued issues with US Route 13, but that DelDOT would be better to elaborate on that question. Ms. Morris feels there is adequate funding for maintenance and improvement of the transportation system; however, DelDOT may disagree. When asked about enhancing the region's quality of life, she revisited the importance of pedestrian and bicycle safety and transit system upgrades. Ms. Morris identified unplanned development as the largest transportation-related challenge for the Office of State Planning Coordination because it takes much more time to plan new roads than it does development. When asked to elaborate on a specific type of unplanned development, Ms. Morris explained that the strategy state policies and spending breaks the state into five levels. Development in levels one and two are where the state is prepared to grow and invest in infrastructure. Level three is further out and may have environmental features that could impede development. Anytime development happens in a level four area, the state is not prepared to fiscally maintain the roadways and intersections and will have to "play catch-up." [*Ms. Morris did not discuss the fifth level.*] Ms. Morris's only additional concern she'd like the LRTP to address is if Delaware will stay a part of SWMPO, but thinks the organization is doing a great job.

Name:	Charles Anderson
Title:	City Manager
Organization:	City of Seaford
Primary Area(s) of Interest:	Commercial and Industrial Development
Interview Date/Time:	July 11, 2023, 11:00 AM

Mr. Anderson has been on the Council since Seaford became part of the MPO and now serves as Vice Chairman of SWMPO. The City of Seaford was incorporated into the Urbanized Area and became part of SWMPO due to the 2010 decennial census. Mr. Anderson expects significant growth in the SWMPO area over the next 25 years; therefore, it is crucial to prepare public infrastructure. When asked to provide the three (3) most important issues for the LRTP update, Mr. Anderson identified new roads or added capacity, improved safety, and improved road operations and traffic signal timing. According to Mr. Anderson, projects that need specific emphasis are pedestrian safety improvements. He noted that pedestrian safety is sorely lacking in Sussex County. The public network is difficult to navigate due to little lighting and handicap accessibility, especially in rural areas where there are not safe designated places to walk. When asked about specific corridors of concern, he indicated US 13 needs capacity improvements. Although DelDOT has made good progress with intersection improvements and the capacity corridor preservation program, they need to focus on the US 13 corridor. Mr. Anderson believes additional funds are needed to improve and maintain the transportation system. He suggests funds can be acquired through increased residential impact fees for those moving to the area, especially retirement populations, as they require more services and impact the existing services. When asked about what types of transportation improvements would be most beneficial to the economy and retention/creation of employment, he proposed extending the end of Route 1 from Dover to the Maryland line. Mr. Anderson noted that following Middletown's extension of Route 1, there was an economic boom, which supports the idea that adding a limited access road across the state borders would be beneficial. To enhance the region's quality of life, he emphasized improving east to west traffic infrastructure in Sussex County because the current road network can't handle the recent development. Mr. Anderson stated funding and coordination with DelDOT are the biggest transportation-related challenges the City of Seaford faces. In the LRTP, growth, migration, and the increased demand of services need to be addressed, while considering how transportation can play a role in the solution.

Name:	Eric Berkheimer
Title:	Associate Vice President of Facilities and Capital Management
Organization:	Salisbury University
Primary Area(s) of Interest:	Student Bicycle and Pedestrian Safety
Interview Date/Time:	July 11, 2023, 2:00 PM

Mr. Berkheimer is a member of TAC and represents Salisbury University, one of the largest institutions in the region. He hopes to see slow and steady University growth over the next 25 to 30 years. Increasing the number of enrolled students would translate to increasing staff and faculty support opportunities. This growth would impact transportation on Route 13, including bicycle and pedestrian crossings, especially considering students to the southeast of Route 13 generate most of the traffic. When asked to provide the three (3) most important issues for this LRTP update, he stated safety is most important especially in areas along Route 13 where it is not bicycle- or pedestrian-friendly. He added there are little to no traffic issues along the back roads around campus and within the public transit network. According to Mr. Berkheimer, projects that need emphasis are improvements to interconnectivity of multimodal transportation within the area. He says there is a disconnect because Salisbury University resides in multiple jurisdictions, so there should be an emphasis on consistency when a road transitions from city to county. For example, there are no bike paths that provide transportation from one side of the City to the other despite recent improvements. When asked which corridors or areas need improvements, Mr. Berkheimer identified West College Avenue and the connection to Downtown is convoluted because Camden Avenue, the most logical path downtown, is too narrow to facilitate bike lanes. Especially since Downtown is ringed by wider roads, it creates a barrier for pedestrians and bikes. He feels there is generally adequate funding, and the local roads are well-maintained. When asked which transportation improvements could benefit the economy or the creation/retention of employment opportunities, Mr. Berkheimer focused on providing pedestrian and bicycle facilities for communities, especially to the west of campus because a lot of faculty and staff reside there. Additionally, if the transportation to Downtown and to Ocean City was more convenient, whether by shuttle or better bike paths, more people would travel there. To enhance the region's quality of life, Mr. Berkheimer emphasized the importance of overall improved pedestrian facilities, such as signalized pedestrian crossings. He mentioned he often sees people biking the wrong way or walking on the side of South Division Street without a sidewalk. Additionally, James M. Bennett High School generates a lot of foot traffic, which is a safety issue. He feels the greatest transportation-related issue Salisbury University encounters within the SWMPO region is the extent in which students depend on cars. He would like to see reduced reliance on vehicles. There have been efforts to provide alternatives like ride sharing; however, nothing has gained traction. Additionally, Mr. Berkheimer states that parking is a greater issue than transportation. When asked about additional issues/factors to be considered in the LRTP, Mr. Berkheimer stated he is interested in the future of the Route 13 corridor and how growth affects the commute.

Name:	Will White
Title:	Transportation Manager
Organization:	City of Salisbury
Primary Area(s) of Interest:	Transportation
Interview Date/Time:	July 12, 2023, 10:00 AM

Mr. White is a member of the TAC. Over the next 25-30 years, he anticipates a rapid increase in population density within the SWMPO region. In the next two years, he says there are already approximately 6,000 units coming in the City of Salisbury along with other mixed-use development projects. There is significant bike and pedestrian traffic in the area between Downtown and Salisbury University. Mr. White stated US 13 is a constant source of concern because it divides the City in half. The State treats US 13 as a rural route, but there are massive bicycle and pedestrian safety issues. When asked which were the three (3) most important issues for the LRTP update, Mr. White identified improved operational safety on US 13, and improved bike and pedestrian safety along US 13 and throughout the City. According to Mr. White, road capacity is not a concern. The City is "road dieting" some roads because they were built for higher capacity than needed. Salisbury is about to initiate a transit study with the intent to push for more transit, bike, and pedestrians in the City. He mentioned the lack of funding in transit is always an issue. Additionally, microtransit is being pushed to provide better service with less. Mr. White is also concerned with road maintenance, especially regarding increased flooding in the City and surrounding roads. Mr. White would like to see operational improvements at intersections, such as converting signals into roundabouts. He identified US 13 and US 50 as corridors that could use signal operation improvements. Mr. White feels there is not adequate funding for transportation. He proposed insufficient funding could be supplemented by user or impact fees; however, the City fees in lieu for developers are helpful. The City recently received the SS4A grant, but he stated that will not be enough to make all the prioritized improvements. When asked what transportation improvements would benefit the economy or creation/retention of employment opportunities, Mr. White stated increased bike, pedestrian, and freight facilities, along with the expansion of the Port of Salisbury, would benefit different sectors of the economy. According to Mr. White, walking and biking improvements would make the community more livable. There has been a lot done to connect the University, Downtown, and the Park, but even more connectivity and safety is needed. He added that to retain people in Salisbury, the community needs to be "better place to take your kids for a walk." Establishing distanced bike/ped facilities from traffic would also improve safety. Mr. White stated the greatest transport-related challenge Salisbury faces is coordination with SHA District 1. He noted that Salisbury has a good relationship with SHA District 1, but sometimes their transportation focuses are not aligned, especially regarding needs on US 13. The City would like to add a median to US 13 and lighting, while the District is focused on right-turn lanes on US 13. Additional issues Mr. White believes the LRTP should prioritize are expanding the Port and freight infrastructure. He emphasized that utilizing rail access to Perdue Agribusiness would benefit the economy and make space on the roads. Removing trucks from the road is important for environmental and safety reasons. Mr. White ultimately emphasized a proactive approach to bike and pedestrian facilities, such as incorporating bike lanes in designs instead of retrofitting.

Name:	Todd Lawson
Title:	Sussex County Administrator
Organization:	Sussex County
Primary Area(s) of Interest:	Movement of Commerce
Interview Date/Time:	July 13, 2023, 2:00 PM

Mr. Lawson serves as "chief appointed person" for the Sussex County Government, which serves as a member of SWMPO. He predicts over the next 25 years population growth will apply significant pressure to the transportation system. In addition, there are more commercial and transportation type businesses located on the western side of Sussex County, which will also increase demand and present challenges for the transportation system. When asked to provide the three (3) most important issues for this LRTP update, Mr. Lawson emphasized new roads and added capacity, improved road operations and traffic signal timing, and truck routing and access. He stated projects related to road capacity deserve focus because there will be a capacity challenge in the years to come. He mentioned many companies are positioning around US 13, like Amazon in Seaford, which entails more truck traffic. Additionally, he thinks US 13 will become a north-south alternative to I-95 to avoid the Baltimore/Washington traffic. According to Mr. Lawson, other areas of concern are along the Seaford, Laurel, and Delmar corridor. He stated growth in the surrounding towns results in different transportation needs because the roads are used for both local and through traffic. Mr. Lawson was unsure whether funding is adequate for maintenance and improvement of the transportation system, but acknowledged that typically transportation is underfunded. When asked what transportation improvements would benefit the economy or creation/retention of employment opportunities, Mr. Lawson focused on increased corridor capacity and corridor improvements along the US 13 corridor because businesses are increasing freight movements. He stated the primary priority should be the movement of commerce. In addition, there is a need for improved service roads, safety, and multimodal facilities. To enhance the region's quality of life, he believes that bike and pedestrian safety, with dedicated bike paths or safe biking available on arterial roads, is of utmost importance. Mr. Lawson stated the biggest transportation-related challenge in Sussex County is that the land use authority is vested in the County Government and the roads are controlled by the State Government. There is some synergy between the two, but land use is often ahead of transportation and transportation is catching up. The collaboration needs improvement, such as a proactive approach to road system development and forecasted development growth. When asked if there are any other issues or factors that need to be considered with this update to the LRTP, Mr. Lawson stated that Sussex County doesn't feel like a true part of the MPO and questioned if recent growth would allow for the County to have their own MPO.

Name:	Andy Wile
Title:	Transit Director
Organization:	Shore Transit
Primary Area(s) of Interest:	Transit
Interview Date/Time:	July 17, 2023, 10:00 AM

Mr. Wile is the Transit Director of Shore Transit and operates within the SWMPO area. He is also a member of the TAC. Over the next 25 years, he expects an influx of new residents that will require more paratransit services. Specifically, there are retirement populations moving to the area, as well as those aging in place who will need paratransit services. Mr. Wile has seen a greater reliance on public transit for transportation around the SWMPO area and expects that to continue. When asked to provide the three (3) most important issues for this LRTP update, Mr. Wile identified improved safety and transit system, as well as maintenance and repair of existing transportation infrastructure. He believes projects that should be emphasized are related to safety with major intersections along Route 50 and Route 13. Additionally, the bridges and road deck in the Salisbury area are in dire need of improvements and maintenance. Mr. Wile believes funds are inadequate for improvements and maintenance of the transportation system; however, he believes additional funds could be raised in a combination of real estate transfer tax, hotel/motel room tax, and internet tax. When asked which transportation-related projects would benefit the economy or creation/retention of employment opportunities, Mr. Wile stated improved public transportation and targeted modes of transportation within public transit, which would allow people in rural areas to work at places that offer a living wage. He believes developing the public transportation system will encourage businesses and industry to move to this area because a reliable and affordable workforce is available. The SWMPO region has disadvantaged populations that cannot afford high vehicle costs and do not have access to public transportation. Mr. Wile stated that the biggest transportation-related challenge Shore Transit faces is inadequate financial and human resources to meet the current and future increase in demand. He mentioned pre-pandemic ridership was about 350,000 and it's now about 220,000. Conversely, paratransit ADA door-to-door service has doubled from pre-pandemic levels to 50,000. Paratransit ADA door-to-door is the most expensive Shore Transit service and is increasing exponentially.

Name:	Tony Rudy
Title:	Airport Director
Organization:	Salisbury-Ocean City: Wicomico County Regional Airport
Primary Area(s) of Interest:	Air travel
Interview Date/Time:	July 17, 2023, 2:00 PM

Mr. Rudy is involved with SWMPO for planning projects, which the Airport has a representation on the TAC. When asked to provide the three (3) most important issues for this LRTP update, Mr. Rudy prioritized maintenance and repair of existing transportation infrastructure, including the airport, and improved road and wayfinding signage. He noted that northward travel from US 13 will present challenges in the future. Specific projects he believes need emphasis are runway extension projects and infrastructure improvements within the Airport; however, funding is limited. Currently, there is a pilot shortage, which has reduced travel out of the Airport. Recently, the County provided funds to the Airport for basic infrastructure construction or improvement, but it is not enough. The Airport mainly relies on the federal funding airport improvement program, which is provided annually. In addition, Salisbury Airport must compete with other airports for discretionary funds, which is funding a portion of the runway improvement project that they have planned (which is currently out to bid). When asked about what transportation improvements would be most beneficial to the economy and retention/creation of employment, Mr. Rudy identified the runway extension project. The biggest transportation-related challenge Salisbury Airport faces is funding. Any infrastructure work for an airport is specialized and therefore expensive.

Name:	Becky Robinson
Title:	Executive director of Delmarva Water Transport Committee
Organization:	Delmarva Water Transport Committee
Primary Area(s) of Interest:	Water Transportation on the Eastern Shore
Interview Date/Time:	July 18, 2023, 9:00 AM

Ms. Robinson was a member of TAC for five (5) years but left two (2) years ago because there was little relevance to water transportation. Ms. Robinson is not sure what to expect over the next 25 to 30 years; however, she expresses concern for increased traffic in the Port of Salisbury due to its narrow pathway. She believes proactive dredging is an important issue for water transport. In order to support traffic, water bodies need to be dredged, which requires funding and impact studies for responsible parties. Ms. Robinson added that funding for dredging projects depends on the total tonnage moved through each waterway; however, feels that funding should be based on the economic impact. As a result, there are economically beneficial waterways that can't be used because they lack the tonnage to receive dredging projects. One of the biggest projects coming up is the dredging of the Nanticoke River, which is still a few years away. In the future, Ms. Robinson hopes for more proactive dredging so commercial fisherman can move freely in and out of the waterway. According to Ms. Robinson a specific area of concern is the Port of Ocean City because there is growing interest in wind farms in the area. She said wind companies will need to use the ports for maintenance, but the ports cannot handle such traffic in their current state. Ms. Robinson thinks a transportation-related project that would benefit the economy and quality of life is improved barge access. She explained that one barge of fuel oil is equivalent to 150 tractor trailer trucks. CATO Oil transports one barge weekly. If they lost access, it would result in either an oil shortage or 150 more trucks on the roads west of Salisbury. The influx of trucks would impact the community, road quality, and environment. Ms. Robinson believes there are not enough funds for maintenance and improvements to the waterway transportation system. She believes the only funding source for dredging projects is federal and is unsure if there are any private sources of funding. Ms. Robinson believes there is no overall responsible party for waterways, such as the Port of Salisbury, and it should not be handled by a private committee.

Name:	Cathy Smith, Tremica Cherry-Wall, and Jared Kauffman
Title:	Planning Manager for Fixed Route Services, Planner for Sussex County, Fixed Route Planner
Organization:	Delaware Transit Corporation
Primary Area(s) of Interest:	Information sharing on crossing state line and migration/ transit
Interview Date/Time:	July 18, 2023, 1:00 PM

Ms. Smith, Ms. Cherry-Wall, and Mr. Kauffman are all members of TAC and Mr. Kaufman is the planner who represents DART. Over the next 25 to 30 years, they predict continued growth and migration into Smyrna which will apply stress to the roadways and transit capacity. Ms. Smith mentioned there is an urban surge population coming into Sussex, so they are confronted with people looking for transit and intermodal connectivity. There is currently limited access to transit because shuttles do not run year-round and people live further west where there are fewer transit options. Ms. Smith also states there is little roadway geometry in Sussex. Smaller roads or parks are not connected to the main transit system. Ms. Cherry-Wall added that there is increased interest in towns providing their own form of transportation, which would be ideal, and DelDOT can then connect them. Mr. Kauffman also stated that community-funded and provided transportation can sooner respond to different requirements and better suit the needs of their residents than a statewide agency. Ms. Cherry-Wall mentioned there has been a steady increase in demand for paratransit services. When asked to provide three (3) most important issues for this LRTP update, they listed improving transit, additional bike and pedestrian facilities, and improved overall safety. According to Ms. Smith, projects that need emphasis are related to sidewalk connectivity with ADA accessibility and transit supportive infrastructure for buses, such as pull offs and safe provisions for the operator. When asked about specific areas that need transportation improvements, Ms. Cherry-Wall stated there are opportunities for better pedestrian facilities along Route 13, especially in the Delmar area. Additionally, she identified safety issues on Route 20 like inadequate pull offs that force buses to stop in traffic lanes which can be dangerous for riders. Ms. Cherry-Wall also emphasized the importance of adequate pedestrian facilities in Meadow Bridge especially because they are developing the shopping center nearby. According to Mr. Kauffman, projects that need emphasis are enhanced pedestrian and transit infrastructure in general. He stated there needs to be an encouraging environment for someone to use transportation other than their car. Encouraging environments are safe, direct, and aesthetically pleasing. All three of them believe there is not adequate funding for maintenance and improvements to the transportation system. Ms. Smith stated, as a division of DelDOT, DART is mainly subsidized by the transportation trust fund, approximately 80 percent. The rest of the funding is provided by profits as a public service. She added since they are so heavily subsidized, the future budgets are uncertain because funding can change with the next administration. When asked about what transportation improvements are most beneficial to the economy and retention/creation of employment, Ms. Smith mentioned improved partnership and marketing campaign. She suggests public support for transit improvements can be boosted through a better understanding of services provided. When asked what transportation improvements would improve the region's quality of life, Mr. Kauffman emphasized the importance of infrastructure that makes it encouraging for people to walk, bike and use transit. According to Mr. Kauffman, the biggest transportation-related challenge DART encounters in the SWMPO is the lack of ridership because he feels DART can't justify the services that they believe they need. When asked about additional issues/factors to be considered in the LRTP, Mr. Kauffman would like to study how induced demand affects roadway and intersections projects. He would also like the LRTP to consider how to better increase and prioritize pedestrian and bicycle safety within intersection projects.

Name:	Dr. Ray Hoy
Title:	President at Wor-Wic Community College
Organization:	Wor-Wic Community College
Primary Area(s) of Interest:	Vehicle and pedestrian traffic
Interview Date/Time:	July 19, 2023, 10:00 AM

Dr. Hoy serves on the Tri-County Council to oversee plans for federal request and funding. In addition, he submits plans to SWMPO. Over the next 25-30 years, Dr. Hoy hopes water and sewer developments, especially access to public water, are addressed. He believes without water and sewer development, there is no capacity for growth. When asked to provide the three (3) most important issues for this LRTP update, he identified improved safety, maintenance and repair of existing infrastructure, and improved road operations and traffic signal timing. Dr. Hoy believes the Route 13/50 Bypass at the Centre of Salisbury needs a lot of attention because it is dangerous and confusing. Dr. Hoy also prioritized the Wor-Wic egress and improving access to the Airport because signage is poor. Dr. Hoy believes there is inadequate funding for maintenance and improvement of the transportation system on a county and city level; however, the infrastructure bill will help. He feels projects at Wor-Wic receive adequate funding, with 75 percent being State-funded and 25 percent locally funded. When asked which transportation improvements could benefit the economy or the creation/retention of employment opportunities, Dr. Hoy stated improvements to the Wicomico River and barge traffic are important. He emphasized making sure that the Army Corps of Engineers goes through the proper process and keeps the River dredged in areas with ship traffic, especially at Chesapeake Shipbuilding in Salisbury. Dr. Hoy added that the Army Corps of Engineers wants to collaborate with Wor-Wic College to obtain more employees with specialized trades. Dr. Hoy believes it is important to use and maintain the barge for oil transport because it lowers fuel rates and keeps trucks off the road, which is helpful to the region. According to Dr. Hoy, transportation improvements that would benefit the region's quality of life are improved roadways, maintenance of existing infrastructure, Airport transportation improvements, and continued dredging of the River. The biggest transportation challenge Wor-Wic encounters with the SWMPO region is egress to Route 50. The State improved a glide path off Route 50 into Walston Switch Road because traffic backups were dangerous. However, he believes Route 50 will require more improvements, such as extending running lanes to and from the roadway.

Name:	Desmond Hughes
Title:	Director of Transportation for Wicomico County Public Schools
Organization:	Wicomico County Board of Education
Primary Area(s) of Interest:	Transportation for the School District
Interview Date/Time:	July 21, 2023

Over the next 25-30 years, Mr. Hughes predicts there will be an enrollment boost due to planned construction around the County. To prepare for the expected growth, he will be adding a route to the northern part of the County in the Delmar area and is considering adding another elementary route on the west side of Salisbury. Mr. Hughes hopes to be proactive with the new construction of single-family homes and residences. When asked to provide the three (3) most important issues for this LRTP update Mr. Hughes identified improved safety, additional bicycle and pedestrian facilities, and improved roads. He added that additional safe bike and pedestrian facilities for students would minimize bus traffic. He feels a specific area for improvement is the drawbridge on Route 50 because it affects the buses' schedule. Mr. Hughes believes realistic pedestrian and bicycle improvement projects should be emphasized. Some bus drivers have complained that the expansion of bike lanes and walkways have made the roads narrower, leaving only 25 feet for two-way traffic. Additionally, Mr. Hughes observed irreparable traffic lights near the schools have a negative impact on the transportation network. He is not sure if funding is adequate for maintenance and improvement of the transportation system and feels Maryland does a good job of road maintenance; however, more could always be done. When asked what transportation-related projects would benefit the economy, creation/retention of employment and quality of life, Mr. Hughes stated there needs to be a more dependable public transit system for the residents and for the Salisbury University students in the area. According to Mr. Hughes, the biggest transportation-related challenge public schools encounter in the region is overall safety.

Name:	Troy Mix
Title:	Associate Director, Institute for Public Administration
Organization:	University of Delaware
Primary Area(s) of Interest:	Freight Planning and Regional Planning
Interview Date/Time:	July 24, 2023, 1:00 PM

Mr. Mix and members of SWMPO participate in the Delmarva Freight Working Group. Over the next 25-30 years, he expects demographic changes within the SWMPO region. Delaware has a growing and aging population. As a result, the growth and population distribution over the next 20 years is going to look different than the last 20 years. Mr. Mix also said there has been a national growth in distribution centers; however, that does not mean the trend will continue. When asked to provide the three (3) most important issues for this LRTP update, Mr. Mix listed improved safety system resilience and port infrastructure in the face of sea level rise and climate change. He believes projects that need emphasis are related to additional green infrastructure because, as a peninsula, the area is especially sensitive. He believes funding options other than fuel taxes should be considered because electric vehicles are growing in popularity. When asked what transportation-related projects would benefit the economy or creation/retention of employment opportunities, Mr. Mix stated investing in infrastructure that ensures the movement of goods is important. A free flow of commerce is beneficial to the economy. When asked what transportation-related projects would improve the overall quality of life, he identified projects related to urban center investments, like improved bicycle and pedestrian facilities. According to Mr. Mix, the biggest transportation-related challenge University of Delaware encounters within the region is the divide between state lines because it makes the MPO not as effective as it could be. When asked about additional rail updates, Mr. Mix mentioned there has been a big focus in Delaware on preserving the lands around the short line rails

Name:	Tracey Taylor
Title:	Director, Maryland Department of Planning Lower Eastern Shore (Salisbury)
Organization:	Maryland Department of Planning
Primary Area(s) of Interest:	Pedestrian activities
Interview Date/Time:	July 26, 2023, 1:00 PM

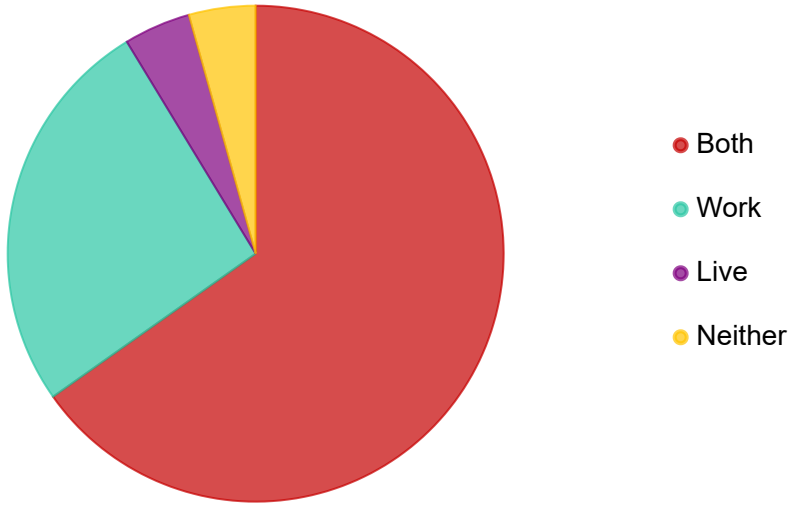
Ms. Taylor has been a member of TAC as a State representative and has worked with local governments within the MPO region. According to Ms. Taylor, over the next 25-30 years the SWMPO region will experience capacity issues on roads near Ocean City, as well as safety issues with pedestrian and bicycle activity, and traffic signalization on Route 13. When asked to provide the three (3) most important issues for this LRTP update, Ms. Taylor identified bicycle and pedestrian facilities and safety, transportation infrastructure maintenance and repair, and improved transit. Elderly populations and people in the lower socioeconomic level are especially impacted by inadequate transit options. Ms. Taylor believes projects that need more emphasis are related to the rail system. She said it is used rather infrequently due to inconvenience and its crossings and signalization need more attention from a maintenance standpoint. Ms. Taylor mentioned a specific corridor of concern is Route 13 because there are serious safety issues regarding crosswalks, sidewalks and bike lanes. She is especially concerned about the bike lanes because they are dangerous and underused. Ms. Taylor added although the Route 50 Bypass is a huge help with traffic distribution, Route 13 still experiences bumper-to-bumper traffic from downtown Salisbury to Fruitland. Ms. Taylor feels that there is not adequate funding for maintenance and improvement of the transportation system. She mentioned a solution to insufficient funding would be to lump municipal highway user funds into a larger contract with the County. Additional funding could be achieved through impact fees and sales and fuel taxes. When asked what transportation-related projects would benefit the economy and the creation/retention of employment, Ms. Taylor stated improved transit would assist people with transportation to and from jobs. According to Ms. Taylor, transportation-related projects that would enhance the quality of life are additional alternative fueling stations and facilities for electric vehicles, and more accessible trails for walking and biking. The greatest transportation-related challenge Maryland Department of Planning Lower Eastern Shore encounters in the SWMPO region is to fund and implement studies in heavily traveled areas. When asked about additional issues/factors to be considered in the LRTP, Ms. Taylor hopes for an increase in public input and a better understanding of the MPO and its purpose in the future.

Appendix A: Online Survey Summary

SWMPO LRTP

TELL US ABOUT YOU

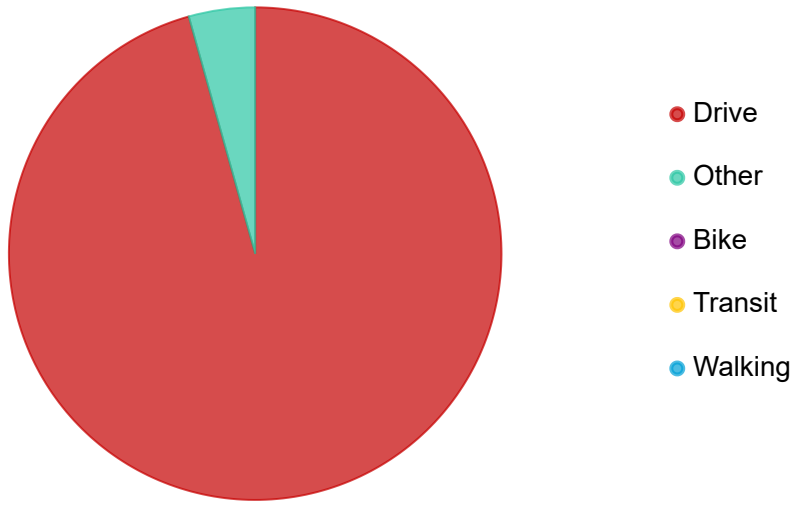
- **Do you live/work in the S/WMPO area?**



Answers	Count	Percentage
Both	15	65.22%
Work	6	26.09%
Live	1	4.35%
Neither	1	4.35%

Answered: 23 Skipped: 0

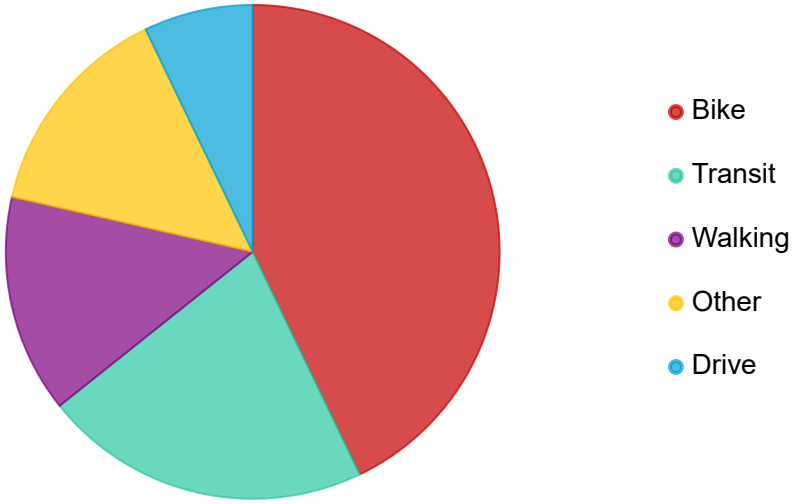
Which method of travel do you primarily use?



Answers	Count	Percentage
Drive	22	95.65%
Other	1	4.35%
Bike	0	0%
Transit	0	0%
Walking	0	0%

Answered: 23 Skipped: 0

- **Is there another method by which you would prefer to travel?**

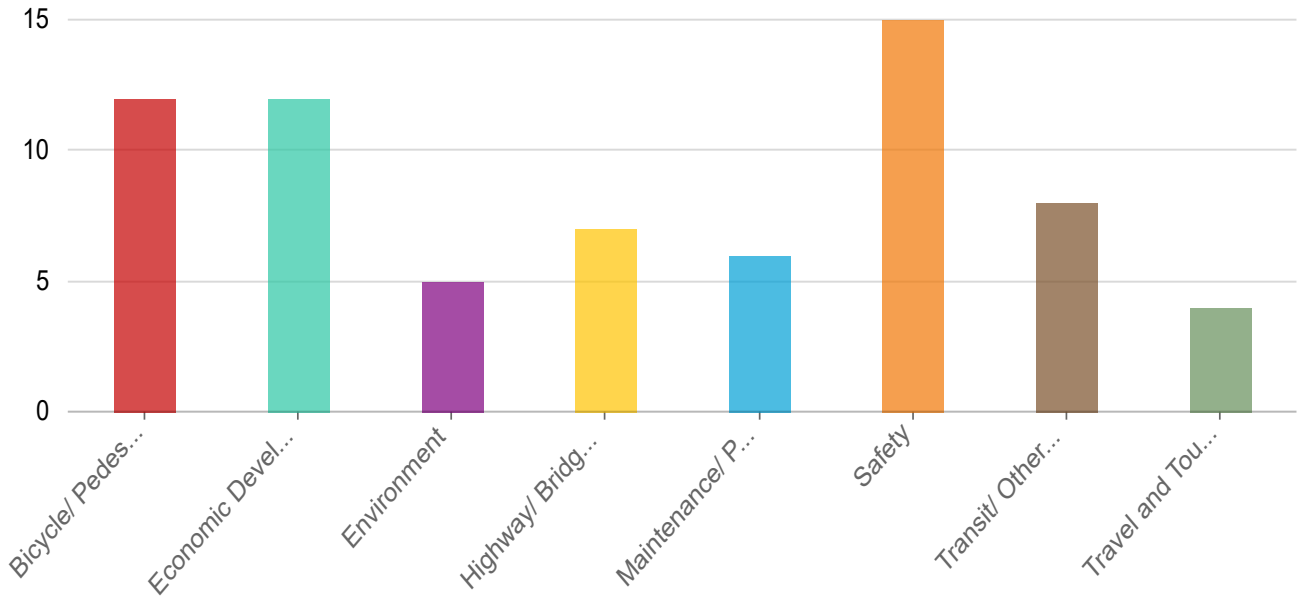


Answers	Count	Percentage
Bike	6	26.09%
Transit	3	13.04%
Walking	2	8.7%
Other	2	8.7%
Drive	1	4.35%

Answered: 14 Skipped: 9

REGIONAL PRIORITIES

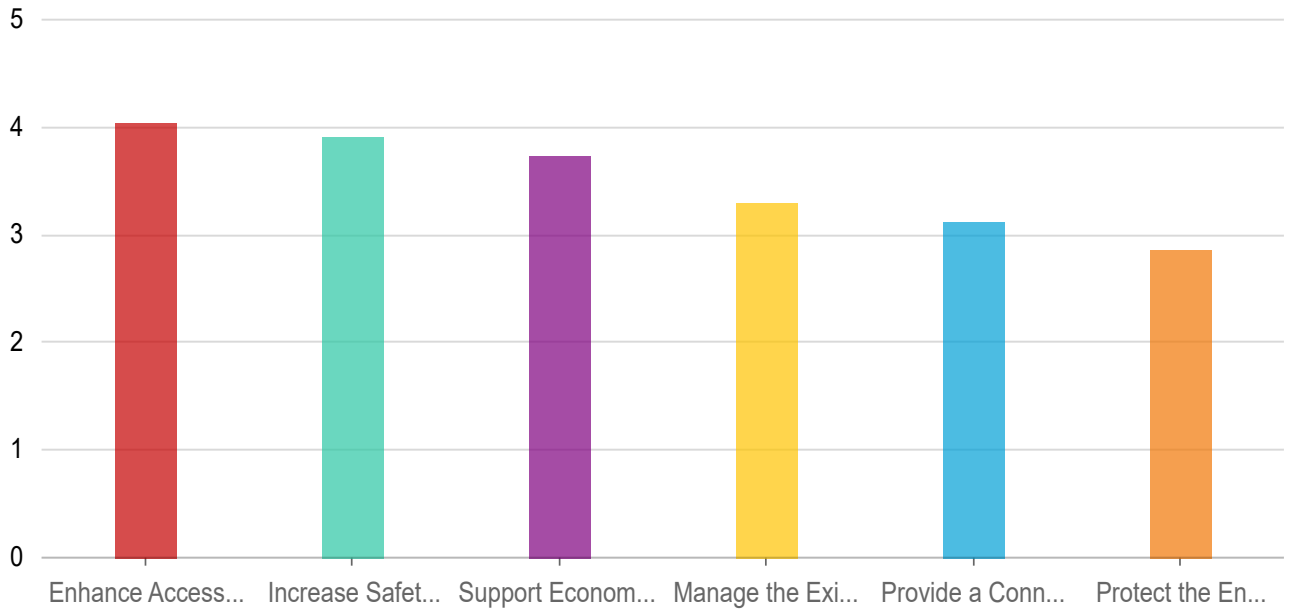
- **What are your top three (3) priorities when it comes to regional transportation…**



Answers	Count	Percentage
Bicycle/ Pedestrian	12	52.17%
Economic Development	12	52.17%
Environment	5	21.74%
Highway/ Bridge	7	30.43%
Maintenance/ Preservation	6	26.09%
Safety	15	65.22%
Transit/ Other Multimodal	8	34.78%
Travel and Tourism	4	17.39%

Answered: 23 Skipped: 0

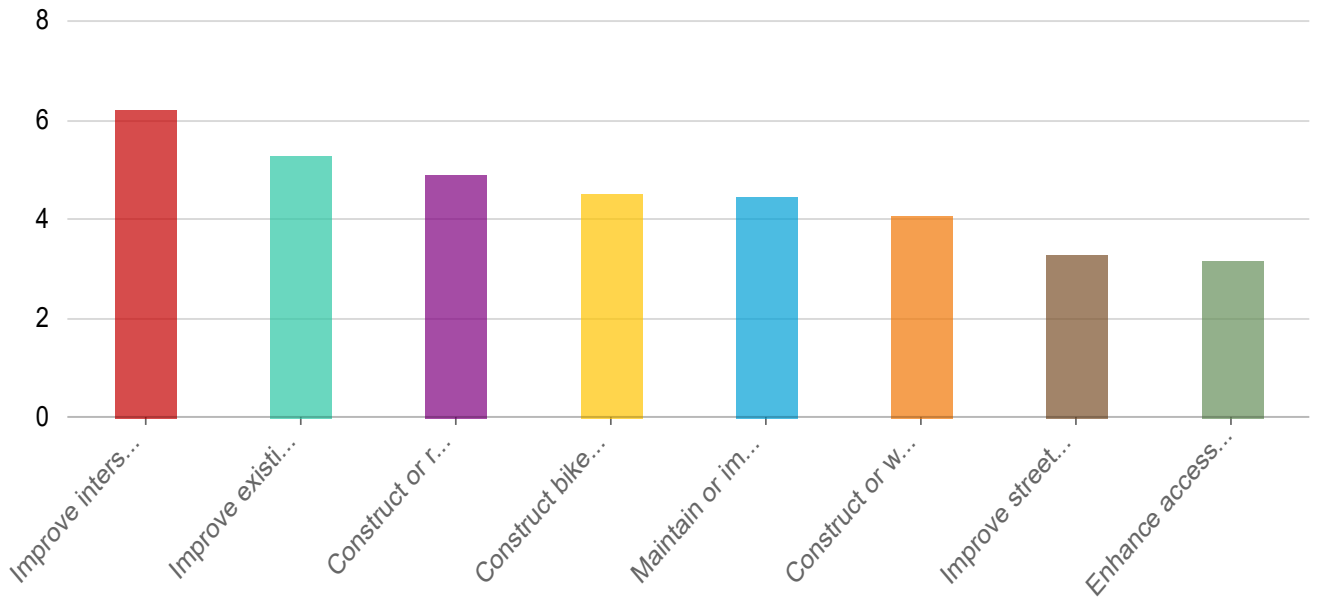
Please rank and prioritize the preliminary goals for the Connect 2050 S/WM …



Answered: 23 Skipped: 0

INVESTMENT PRIORITIES

- **Please rank the areas where you would allocate resources.**



Rank	Answers	1	2	3	4	5		Average score
1	Improve intersections	21.74% 5	26.09% 6	21.74% 5	21.74% 5	4.35% 1	0% 0	6.22
2	Improve existing facilities	34.78% 8	13.04% 3	0% 0	8.7% 2	4.35% 1	21.74	5.30
3	Construct or repair sidewalks	4.35% 1	8.7% 2	26.09% 6	30.43% 7	0% 0	26.09% 6	4.91
4	Construct bikeways or greenways	17.39% 4	4.35% 1	13.04% 3	8.7% 2	26.09% 6	8.7	4.52
5	Maintain or improve public transit	8.7% 2	13.04% 3	8.7% 2	13.04% 3	21.74% 5	17.39% 4	4.48
6	Construct or widen roads	8.7% 2	21.74% 5	8.7% 2	8.7% 2	8.7% 2	4.35	4.09

4.35% 1

13.04% 3

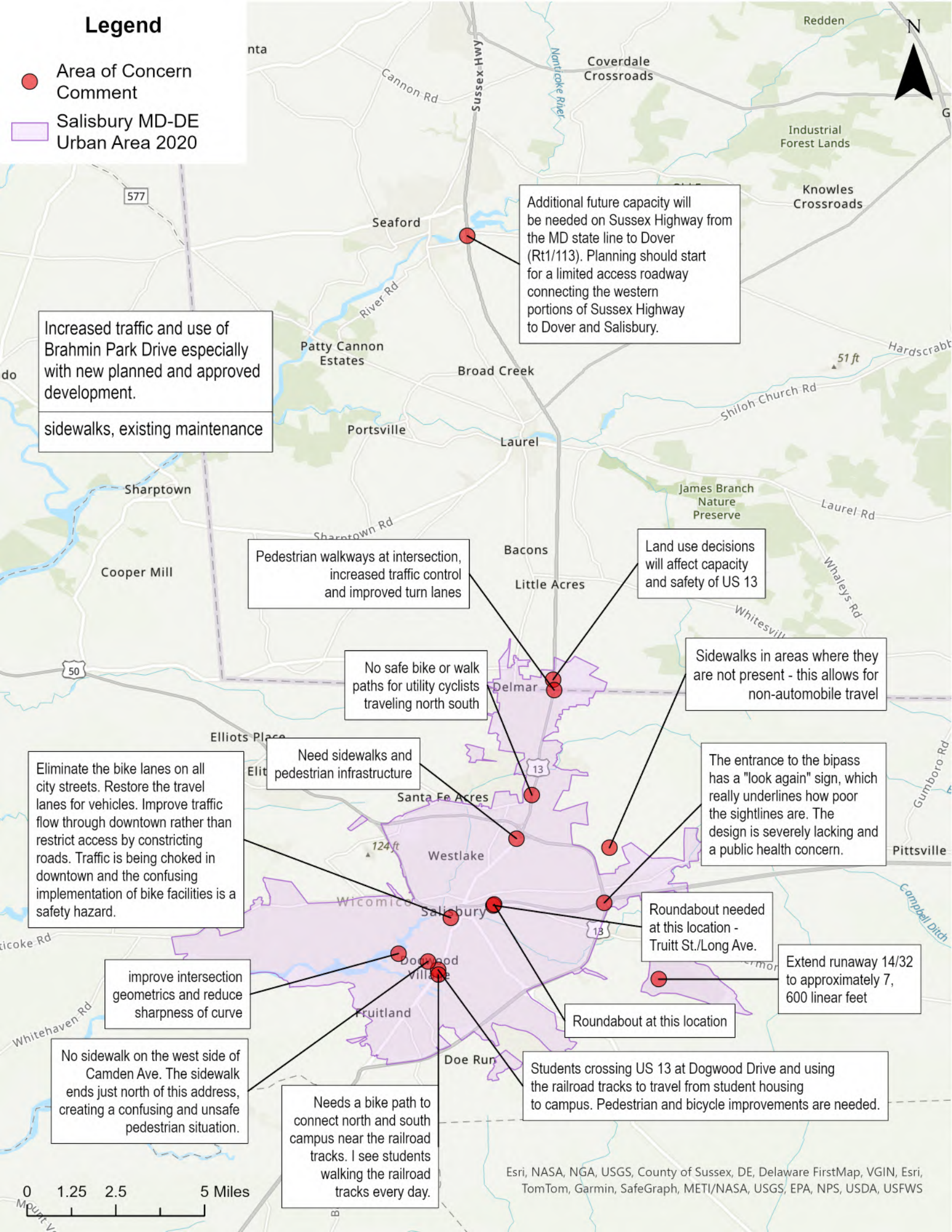
Answered: 23 Skipped: 0

COMMENT MAP

What is the concern or needed improvement at the chosen location?

Response	Count
The entrance to the bipass has a "look again" sign, which really underlines how poor the sightlines are. The design is severely lacking and a public health concern.	1
Students crossing US 13 at Dogwood Drive and using the railroad tracks to travel from student housing to campus. Pedestrian and bicycle improvements are needed.	1
sidewalks, existing maintenance	1
Sidewalks in areas where they are not present - this allows for non-automobile travel	1
Roundabout needed at this location - Truitt St./Long Ave.	1
Roundabout at this location	1
Pedestrian walkways at intersection, increased traffic control and improved turn lanes	1
No sidewalk on the west side of Camden Ave. The sidewalk ends just north of this address, creating a confusing and unsafe pedestrian situation.	1
No safe bike or walk paths for utility cyclists traveling north south	1
Needs a bike path to connect north and south campus near the railroad tracks. I see students walking the railroad tracks every day.	1
Need sidewalks and pedestrian infrastructure	1
Land use decisions will affect capacity and safety of US 13	1
Increased traffic and use of Brahmin Park Drive especially with new planned and approved development.	1
improve intersection geometrics and reduce sharpness of curve	1
Extend runaway 14/32 to approximately 7,600 linear feet	1
Eliminate the bike lanes on all city streets. Restore the travel lanes for vehicles. Improve traffic flow through downtown rather than restrict access by constricting roads. Traffic is being choked in downtown and the confusing implementation of bike facilities is a safety hazard.	1
Additional future capacity will be needed on Sussex Highway from the MD state line to Dover (Rt1/113). Planning should start for a limited access roadway connecting the western portions of Sussex Highway to Dover and Salisbury.	1

Answered: 17 Skipped: 6


Legend
Area of Concern Comment
Salisbury MD-DE Urban Area 2020
N
Additional future capacity will be needed on Sussex Highway from the MD state line to Dover (Rt1/113). Planning should start for a limited access roadway connecting the western portions of Sussex Highway to Dover and Salisbury.
Increased traffic and use of Brahmin Park Drive especially with new planned and approved development.
sidewalks, existing maintenance
Pedestrian walkways at intersection, increased traffic control and improved turn lanes
Land use decisions will affect capacity and safety of US 13
No safe bike or walk paths for utility cyclists traveling north south
Sidewalks in areas where they are not present - this allows for non-automobile travel
Need sidewalks and pedestrian infrastructure
Eliminate the bike lanes on all city streets. Restore the travel lanes for vehicles. Improve traffic flow through downtown rather than restrict access by constricting roads. Traffic is being choked in downtown and the confusing implementation of bike facilities is a safety hazard.
The entrance to the bipass has a "look again" sign, which really underlines how poor the sightlines are. The design is severely lacking and a public health concern.
Roundabout needed at this location - Truitt St./Long Ave.
Extend runaway 14/32 to approximately 7, 600 linear feet
improve intersection geometrics and reduce sharpness of curve
Roundabout at this location
No sidewalk on the west side of Camden Ave. The sidewalk ends just north of this address, creating a confusing and unsafe pedestrian situation.
Students crossing US 13 at Dogwood Drive and using the railroad tracks to travel from student housing to campus. Pedestrian and bicycle improvements are needed.
Needs a bike path to connect north and south campus near the railroad tracks. I see students walking the railroad tracks every day.
Redden
Coverdale Crossroads
Industrial Forest Lands
Knowles Crossroads
Seaford
Cannon Rd
Sussex Hwy
Nanticoke River
River Rd
Patty Cannon Estates
Broad Creek
Portsville
Laurel
Shiloh Church Rd
Hardscrabble
51 ft
Sharptown
Cooper Mill
Sharptown Rd
James Branch Nature Preserve
Laurel Rd
Bacons
Little Acres
Whaleys Rd
Delmar
Elliots Place
Santa Fe Acres
124 ft
Westlake
Wicomico
Salisbury
Pittsville
Gumboro Rd
Campbell Ditch
Dogwood Village
Fruitland
Whitehaven Rd
Doe Run
577
50
13
0 1.25 2.5 5 Miles
Esri, NASA, NGA, USGS, County of Sussex, DE, Delaware FirstMap, VGIN, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS

STAY INVOLVED

- **Do you have any additional comments?**

Response	Count
Would like to see improved on-off ramp control at Rt. 13 Bypass and Rt. 13 (N. Salisbury Rd.)	1
We need more regional connectivity.	1
Thank you for the opportunity to convey transportation-related priorities.	1
Prepare updated Metropolitan (including Sussex County)Trransportation plan	1

Answered: 4 Skipped: 19

Appendix B
Air Quality Conformity

Air Quality Conformity Analysis
Final Report

For the 8-hour Ozone National Ambient Air Quality Standards (NAAQS)
for

Sussex County, Delaware

Prepared by:

Delaware Department of Transportation
Division of Planning
Regional Systems Planning

Updated
December 1, 2023

Table of Contents

Air Quality Conformity Analysis for Sussex County, Delaware

Executive Summary

What is this Document?

Essentially, the report demonstrates the Federal statutory requirement that estimates of future roadway-sourced emissions are likely to be within allowable levels as determined by DNREC and the EPA.

This report is required by Federal Highway Administration (FHWA) and Environmental Protection Agency (EPA) regulations under the 1990 Clean Air Act Amendments (CAAA). It presents the required emissions analysis of transportation projects listed in three documents:

1) The Sussex County portion of DelDOT's FY 2025-2030 Capital Transportation Program (CTP),
2) The update of the Salisbury-Wicomico MPO's 2023-2026 Transportation Improvement Program (TIP), and
3) The update of the "Connect 2050: Salisbury/Wicomico Long Range Transportation Plan (LRTP)"- December, 2023.

The report compares the total estimated mobile source on-road emissions for transportation projects listed in the above three documents, that are or would be located Sussex County, against applicable maximum limits (so-called "air quality budgets") prepared by the Delaware Department of Natural Resources and Environmental Control (DNREC) as part of its State Implementation Plan (SIP) for Sussex County. The budgets are based on the 8-hour National Ambient Air Quality Standards (NAAQS).

This report documents the methods and assumptions used in the conformity analysis, and also demonstrates the findings meet all current and imminent conformity criteria established by EPA.

Why Does DelDOT Need to Prepare this Document?

DelDOT's Division of Planning must prepare this document because it is currently the responsible agency for conducting and completing transportation conformity in Sussex County. At this time, the "triggers" initiating DelDOT's preparation of this conformity analysis are:

1) The Sussex County portion of DelDOT's FY 2025-2030 Capital Transportation Program (CTP) -- this document lists transportation projects in Delaware's three counties, is updated every two years, and DelDOT must include conformity determinations prepared according to Federal requirements.

2) The update of the Salisbury-Wicomico MPO's 2023-2026 Transportation Improvement Program (TIP) -- this document lists transportation projects in Wicomico County, Maryland and Sussex County, Delaware, is updated annually (or every two years, at minimum) and DelDOT must provide a conformity determination to the Salisbury/Wicomico MPO prepared according to Federal requirements.

3) The update of the "Connect 2050: Salisbury/Wicomico Long Range Transportation Plan (LRTP)"- December, 2023 -- this document lists long range transportation projects in Wicomico County, Maryland and Sussex County, Delaware, is updated every four years, and DelDOT must provide a conformity determination to the Salisbury/Wicomico MPO prepared according to Federal requirements.

On July 20, 2012, EPA issued a final rule designating nonattainment areas (nationwide) for the 2008 ozone NAAQS. Since all of Sussex County was designated through that action as an *ozone nonattainment area* **AND** a small part of Sussex County was included in the Salisbury-Wicomico urbanized area based on the 2010 Census, conformity determinations must be made, when required, for regionally significant transportation projects located in Sussex County.

According to FHWA and EPA regulations, this conformity analysis and determination covers **BOTH** the expanded Sussex County portion of Salisbury-

Wicomico urbanized area (per the 2010 Census) and the remaining, non-urbanized (so-called "donut area") portions of Sussex County. These two areas, together, comprise the entire area of Sussex County.

What Methods were Used?

The emissions analysis presented in this report comprised two major modeling processes. The first involved estimation of annual average daily traffic data for the horizon years of 2020, 2025, 2030, 2040, and 2050 using the Delaware Department of Transportation's **"Peninsula Travel Demand Model"** (TDM). This process converts estimates of projected population and employment for those horizon years into forecasts or estimates of future traffic on the various roads included in the model. The estimated future traffic levels include projections for average travel speeds on those same roads.

The second component of the methods used in this analysis involves the EPA's "**MO**tor **V**ehicle **E**mission **S**imulator, otherwise known as the "MOVES" model. The analysis used MOVES4. The software is used nationally by State DOTs and MPOs to estimate on-road, mobile source emissions from cars, trucks, motorcycles, and buses.

The MOVES model develops emission estimates by combining traffic estimates with other statewide and countywide information such as: the age of the vehicle fleet in a county by model year, the type and standards of applicable emission inspection programs, weather and temperature-related data, and other factors.

More information on EPA's MOVES model can be found at:
https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves

What were the Findings?

Since Sussex County was designated on July 20, 2012, as being in nonattainment status for ozone, DelDOT must demonstrate that future roadway-sourced ozone precursor emissions for "nitrogen oxides" (NOx) and "volatile organic compounds" (VOC's) within Sussex County are consistent with all applicable DNREC Mobile Emission Budgets for that county.

For all years tested, both NOx and VOC emissions were below the applicable 2008 and 2009 "On-Road Vehicle Mobile Emission Budgets" for Sussex County.

What Does it Mean?

As noted above, both NOx and VOC emissions were below the applicable 2008 and 2009 "On-Road Vehicle Mobile Emission Budgets" for Sussex County.

Therefore, because each test passes required emission budgets DelDOT is able to make a determination that transportation conformity with applicable SIP's is established.

Air Quality Conformity Analysis for Sussex County, Delaware

Summary:

This report demonstrates transportation conformity of the Sussex County portion of the FY 2025-2030 Capital Transportation Program (CTP), the Salisbury- Wicomico MPO's 2023-2026 Transportation Improvement Program (TIP) and the Draft "Connect 2050: Salisbury/Wicomico Long Range Transportation Plan (LRTP)"-2023, to the 8-hour National Ambient Air Quality Standards (NAAQS).

This document ensures that the findings meet all current and imminent conformity criteria established by US EPA.

Background on 8-Hour Ozone:

Ozone is an odorless, colorless, gas created by a reaction between nitrogen oxides (NOx) and volatile organic compounds (VOC) in the presence of sunlight. While higher-level ozone located in the stratosphere forms a protective layer that shields the earth from the sun's harmful rays, ground level ozone is significantly different and is a key contributor to smog. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents, and even natural sources all contribute to NOx and VOC emissions. Since ozone is formed in the presence of heat and sunlight, it is generally considered a summertime pollutant.

The health effects of ozone vary. Ozone can irritate airways and cause inflammation similar to sunburn. Other symptoms include wheezing, coughing, and pain when taking a deep breath and breathing difficulties during exercise or outdoor activities. According to EPA studies people with respiratory problems, children and the elderly are most vulnerable, but even healthy people that are active outdoors can be affected when ozone levels are high. Even at relatively low levels, ground-level ozone may trigger a variety of health problems including aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses such as pneumonia and bronchitis.

Background on the NAAQS and Conformity:

In an attempt to reduce harmful emissions nationwide, the Clean Air Act of 1970 and Clean Air Act Amendments (CAAA) of 1990 classified certain metropolitan and non-metropolitan areas that did not comply with federal air quality standards under the 1-hour ozone standard, from marginal to extreme, based on the severity of their local air pollution problems. In the early 1990's Sussex County was classified as a *marginal nonattainment area* under the 1-hour ozone standard, based on air quality monitoring programs managed by DNREC.

The CAAA requires EPA to set National Ambient Air Quality Standards (NAAQS, 40 CFR Part 50) for ozone and five other criteria pollutants considered harmful to public health and the environment (the other pollutants are particulate matter, nitrogen oxides, carbon monoxide, sulfur dioxide and lead). The law also requires EPA to periodically review the standards to ensure that they provide adequate health and environmental protection, and to update those standards as necessary.

In 1997, the EPA issued the 8-hour ozone (NAAQS) to replace the existing 1-hour ozone standard. That standard was an 8-hour average concentration of 0.080 ppm. According to that standard, the fourth highest value in a year, rounded to the nearest 0.1 and averaged over three years, may not exceed this level at any monitor in the area. DNREC located and maintains air quality monitors in Sussex County.

Information on DNREC's air quality monitoring program can be found at:

https://dnrec.alpha.delaware.gov/air/quality/monitoring/

On April 15, 2004, EPA issued final designations (or classifications according to severity) for those areas that were in nonattainment status for the 8-hour ozone standard. Following some modifications those designations became final on June 15, 2005.

Through this process EPA designated the entire PA-NJ-MD-DE area as *"moderate nonattainment"* for the 1997 8-hour ozone standard. At this time, all three of Delaware's counties were thus classified as nonattainment and subject to the transportation conformity process described in this report.

Classifications through this process resulted in an attainment date of six years following the original designations or, June 2010, for the PA-NJ-MD-DE nonattainment area.

On March 27, 2008, the EPA subsequently lowered the ozone NAAQS from 0.080 ppm to 0.075 ppm. In April and May 2012, EPA reviewed and processed area designations for the 2008 ozone standards. New Castle County and Sussex County were designated as "*marginal nonattainment"* on July 20, 2012.

New Castle County continued to be in the Philadelphia – Wilmington nonattainment area while Sussex County became the Seaford, Delaware nonattainment area. Kent County was classified as attainment (although in late 2018 was reclassified as nonattainment based on a Federal Court case).

Through the July 2012 designations New Castle County was still in nonattainment for the PM2.5 NAAQS. However, Sussex was designated as in attainment for PM2.5 so the air quality conformity analyses and related conformity determination processes only apply to the ozone criteria pollutant.

States or areas, designated as *"marginal ozone nonattainment"* status, are not required to submit State Implementation Plans (SIPs) to the EPA outlining how they will meet the ozone standard. Nevertheless, states must keep in place those measures to reduce emissions they had in the SIP under the 1997 ozone standard. The 1997 standard SIP include mobile source emissions budgets used in conformity analyses, such as those presented in this report.

States or areas that have been designated as nonattainment areas for any of the six NAAQS criteria pollutants are subject to the transportation conformity process. Transportation conformity requires nonattainment and maintenance areas to demonstrate that all future transportation projects will not hinder the area from reaching and maintaining its attainment goals outlined in SIPs.

In particular, the Federally required transportation conformity process requires State DOTs and MPOs to complete an analysis demonstrating that planned transportation-related projects <u>will not</u>:

- Cause or contribute to **new air quality violations** of the NAAQS.
- Worsen **existing violations** of the NAAQS.
- Delay timely **attainment** of the relevant NAAQS.

In October 2011, the Secretary of the DNREC issued orders finalizing new motor vehicle emissions budgets as part of *"Delaware's Revised 2008 SIP"* for the attainment of the PM2.5 NAAQS. This SIP updated mobile source budgets for all three counties based on the newer EPA MOVES model methodologies.

Subsequent to that, DNREC issued the *"Attainment SIP for the 8-Hour Ozone NAAQS, with Revision for Establishment of 2008 and 2009 Mobile Source Emission Budgets".* This document assigned ozone budgets (again, "maximum amounts") for both 2008 and 2009 for each of Delaware's three counties.

Background on Conformity Analysis and Determination Processes in Sussex County:

Sussex County has been a designated nonattainment area for ozone under the NAAQS since the early 1990's. Such nonattainment areas are required by Federal regulations to periodically conduct "transportation conformity" analyses and make conformity determinations. In most nonattainment areas, conformity analyses are performed by MPOs.

However, prior to the 2010 Census there was no Federally designated Metropolitan Planning Organization (MPO) for Sussex County. Thus, according to Federal regulations the Delaware Department of Transportation (DelDOT) was the agency required by Federal law to show transportation projects *conform* to applicable Federal air quality planning requirements.

DelDOT completed required conformity analyses and determinations for the Sussex County nonattainment area in 1995, 1998, 2001, 2005, 2010, 2013, 2015, 2019, and now this document in 2023. Each of these conformity determinations used methods generally similar to those described in this report and included coordination with Sussex County planning officials, MPO staff, public outreach and a minimum 30-day public comment period.

EPA issued a final rule designating nonattainment areas for the 2008 ozone NAAQS that became effective July 20, 2012. Through this process Sussex County was designated as a *"marginal nonattainment"* area. According to FHWA and EPA regulations nonattainment counties and areas have a "one-year grace period" in which to conduct a conformity analysis and make a conformity determination. The

one-year grace period for Sussex County ended July 20, 2013, which required the July 2013 conformity analysis determination.

Following the 2010 Census, the designated urbanized area for the Salisbury-Wicomico MPO was expanded further into Sussex County to include additional portions of the county, primarily along the US 13 corridor from Delmar to north of Seaford. This expansion of urbanized area boundaries was based on population density-based methods used by the Census Bureau.

Through this action a portion of Sussex County is now contained within the planning area of the Salisbury-Wicomico MPO and because of that, the MPO's TIP and long-range transportation plan **must** include a transportation conformity analysis and corresponding conformity determination for the urbanized portion of the Sussex County. As a result, the Salisbury-Wicomico MPO and DelDOT conduct and participate in interagency coordination efforts regarding air quality conformity and other transportation planning issues.

If the Sussex County Census-designated urbanized area did not contain any part of the Salisbury-Wicomico MPO area it would be considered an *"isolated rural nonattainment area"* and a conformity determination would only be required:

1) if and when a non-exempt FHWA/FTA project needed federal funding or approval. *This is the Federal regulation DelDOT was following previously in conducting required conformity analyses in Sussex County.*

2) Or, if and when the maximum four-year time between conformity determinations had elapsed.

At the current time Sussex County presents a somewhat unique situation in which the expansion of the Salisbury-Wicomico urbanized area into Sussex County (following the 2010 Census) resulted in a bi-state urbanized area.

The non-urbanized (Census-designated rural) portions of Sussex County are considered a donut area due to the county-wide nonattainment status and, according to Federal regulations, must also be included in any conformity determination done by a MPO or State DOT.

The Salisbury-Wicomico MPO's FY23-26 TIP and "Connect 2050: Salisbury/Wicomico Long Range Transportation Plan (LRTP)-2023" include and list Sussex County's transportation projects within the Salisbury/Wicomico MPO

Planning Area. This air quality conformity analysis accounts for all projects in Sussex County (as shown in Appendix G), including those outside the MPO Planning Area. For additional information on Federal conformity regulations, please refer to: http://www.epa.gov/otaq/stateresources/transconf/regs/420b12045.pdf

Status of the FY2025-2030 Capital Transportation Program:

According to Federal requirements, transportation plans and projects must demonstrate conformity according to tests applicable to each nonattainment area. As part of the bienniel (or annual, prior to April, 2019) development of the Sussex County portion of the Capital Transportation Plan, any new or amended capital transportation projects must be reviewed to determine whether any of these additions or changes requires a new conformity analysis.

In general, for transportation conformity purposes capital projects are divided into two groups: **regionally significant** and non-exempt projects, and **exempt** projects. Non-exempt projects or any projects considered through a consultation process to be *regionally significant* require a conformity analysis when they are added to the CTP.

Projects defined as *exempt* include non-capacity enhancing safety and roadway improvement projects, the addition of bicycle and pedestrian facilities, and transit vehicle replacements. These projects may move forward towards implementation even in the absence of a conformity demonstration. (For the entire list of Exempt Projects, see 40 CFR 93.126 and 40 CFR 93.127)

DelDOT completed a review of the projects contained in the FY2025-2030 CTP and determined that there are *no new regionally significant or non-exempt projects* being submitted for Sussex County, Delaware. In other words, there are no new projects submitted under this CTP that would independently serve as a "trigger" for a conformity determination for Sussex County, Delaware.

As noted previously, the "trigger" (the transportation planning-related action requiring it to take place) for this conformity analysis and determination is primarily the update of:

1) The Sussex County portion of DelDOT's FY 2025-2030 Capital Transportation Program (CTP),

2) The update of the Salisbury-Wicomico MPO's 2023-2026 Transportation Improvement Program (TIP), and

3) The update of the “Connect 2050: Salisbury/Wicomico Long Range Transportation Plan (LRTP)”- December, 2023.

These documents were prepared according to Federal transportation planning regulations, including:

1) **Metropolitan (Long-Range) Transportation Plan:** Federal regulations provide, that a metropolitan (Long-Range) transportation plan and TIP can include only projects for which funding "can reasonably be expected to be available" [23 CFR 450.324(f)(11) (metropolitan (long-range) transportation plan), 23 CFR 450.326(j) (TIP), and 23 CFR 450.218(l) (STIP)].

2) **TIP:** In nonattainment and maintenance areas subject to transportation conformity requirements, the FHWA and the FTA, as well as the MPO, must make a conformity determination on any updated or amended TIP [23 CFR 450.324(m) and 23 CFR 450.218(b)].

3) **Air Quality Determination:** Finally, the Clean Air Act's transportation conformity regulations specify that a conformity determination can only be made on a fiscally constrained long-range transportation plan and TIP [40 CFR 93.108].

Conformity Determination for the 2025-2030 Capital Transportation Program, Salisbury-Wicomico MPO's FY 2024-2027 Transportation Improvement Program (TIP) and the Draft "Connect 2050: Salisbury - Wicomico Long Range Transportation Plan (LRTP)-2023":

Both NOx and VOC emissions were estimated for Sussex County for the horizon years of 2020, 2025, 2030, 2040, and 2050. Emissions for these years were generated using MOVES4.

For all years tested, NOx and VOC emissions were below the applicable 2008 "ROP" Budget. Table 1 summarizes Sussex County's conformity status:

Table 1
Sussex County Ozone (VOC & NOx Emissions MVEB Test (tons/summer weekday) Summary*

VOC (tps d)	2020	2025	2030	2040	2050
Emissions Average	2.36	1.79	1.44	1.20	1.12
Month 6 (June)	2.28	1.74	1.41	1.17	1.10
Month 7 (July)	2.43	1.84	1.48	1.22	1.14
Month 8 (August)	2.36	1.79	1.44	1.19	1.12
2008 ROP Budget	7.09	7.09	7.09	7.09	7.09
2009 Attain. Budget	7.05	7.05	7.05	7.05	7.05
Result	*Pass*	*Pass*	*Pass*	*Pass*	*Pass*

NOx (tps d)	2020	2025	2030	2040	2050
Emissions Average	5.26	3.22	2.36	2.00	2.02
Month 6 (June)	5.04	3.28	2.41	2.04	2.07
Month 7 (July)	5.28	3.18	2.32	1.96	1.98
Month 8 (August)	5.41	3.20	2.35	1.99	2.01
2008 ROP Budget	12.86	12.86	12.86	12.86	12.86
2009 Attain. Budget	11.93	11.93	11.93	11.93	11.93
Result	*Pass*	*Pass*	*Pass*	*Pass*	*Pass*

Source: DelDOT Planning (reference Whitman, Requardt and Associates, email to M.DuRoss dated September 12, 2023 from L. Li)

NOTES:

*The Following Notes Apply to and Were Used in the Estimation of Transportation-Based Ozone Precursor Emissions:

1) Vehicle Fleet Registration Data:

July 1, 2022 baseline data; future year vehicle populations estimated using a growth factor based on the projected increase in total countywide populations

2) Population & Employment (TAZ Data):

October 2022 Control Totals from Delaware Population Consortium (Including State and County Updates from the 2010 Census).

For Additional Information, Refer to:

https://stateplanning.delaware.gov/demography/index.shtml

July, 2021 Allocations to TAZ Performed by WILMAPCO & DelDOT Planning Staff.

3) Highway Performance Monitoring System (HPMS) VMT:

Used for Adjust Model VMT to FHWA-Reported VMT.:

July, 2023.

4) Table 1 Emissions:

Months 6, 7, 8 Modeled in MOVES4.
Average of three summer months shown

.

**The 2009 on-road emissions budget has been submitted as part of Delaware's Attainment SIP for the 8- hour ozone NAAQS.

The following Table 2 presents VMT data for analyzed horizon years.

Table 2: Vehicle Miles Traveled (VMT) for Analyzed Horizon Years

Vehicle Type	Annual Vehicle Miles Traveled (VMT) by Analysis Year				
	2020	*2025*	*2030*	*2040*	*2050*
Motorcycles	18,026,442	19,125,538	20,160,356	21,911,185	23,014,276
Light Duty Vehicles	2,362,581,300	2,506,630,898	2,642,256,272	2,871,723,378	3,016,296,668
Buses	14,560,251	15,448,008	16,283,848	17,698,021	18,589,005
Single Unit Trucks	101,127,632	107,293,513	113,098,804	122,920,885	129,109,182
Combination Trucks	120,245,200	127,576,703	134,479,450	146,158,336	153,516,493
Total	2,616,540,825	2,776,074,660	2,926,278,730	3,180,411,805	3,340,525,625

Source: Highway Performance Monitoring System (HPMS) VMT, July 2023

Appendix A:

Copy of Public Notice
For Newspaper

Published in
Cape Gazette
December 5 – December 8, 2023

Delaware Department of Transportation
Nicole Majeski
Secretary

PUBLIC NOTICE

Air Quality Conformity Analysis for the Sussex County Portion of the Salisbury/Wicomico Long Range Transportation Plan and FY 2023 – FY 2026 Transportation Improvement Program

The Delaware Department of Transportation (DelDOT) is required by the Federal Highway Administration (FHWA) to prepare an analysis periodically to demonstrate conformity of planned transportation projects in Sussex County with applicable Federal laws relating to air quality standards of the National Ambient Air Quality Standards (NAAQS).

To comply with the eight-hour ozone NAAQS, conformity of the Sussex County portion of the Capital Transportation Program (CTP) must be approved by USDOT because Sussex County is part of the "Seaford DE 2008 eight-hour nonattainment area" under the eight-hour standard, and because a portion of southwestern Sussex County is part of the "Salisbury, Maryland Urbanized Area" following the 2020 Census.

The Delaware Department of Transportation has now prepared a Draft Air Quality Conformity Analysis for Sussex County as part of the "Connect 2050 Salisbury/ Wicomico Long Range Transportation Plan" and the update of the FY 2023 – FY 2026 Transportation Improvement Program.

This analysis demonstrates that the Sussex County portion of the CTP is in conformity with NAAQS and complies with applicable Federal regulations for the content of conformity analyses per requirements of 23 CFR 450.

DelDOT, in accordance with federal requirements, is hereby notifying the public of the availability of the Draft Air Quality Conformity Analysis for the Sussex County Portion of the "Connect 2050 Salisbury/Wicomico Long Range Transportation Plan" and the FY 2023 – FY 2026 Transportation Improvement Program. To get a copy of the document, please email at: Humaira.Nabeela@delaware.gov.

Interested parties may also obtain a copy of the document by contacting DelDOT Community Relations at (302) 760-2080 or dotpublic@delaware.gov. All interested parties are invited to comment upon the report. Comments must be submitted in writing within 30 days of the publication of this notice or by January 3, 2024. Written comments may be sent to the following address:

Delaware Department of Transportation
800 S Bay Road
Dover, Delaware 19901
ATTN: Sussex County Conformity - Planning

DelDOT

Appendix B:
MOVES4 Input files

1) MOVES4 "runspec" files available upon request.
2) **Filenames:** Provided by WRA modeling team, concurrent filenames as shown below, based on August 2023 travel demand model runs to support MOVES4 emissions:

   10005_Sussex_MOVESb_2020_Input Files.XLS
   10005_Sussex_MOVESb_2025_Input Files.XLS
   10005_Sussex_MOVESb_2030_Input Files.XLS
   10005_Sussex_MOVESb_2040_Input Files.XLS
   10005_Sussex_MOVESb_2050_Input Files.XLS

3) DNREC provided a 2021 "base" MOVES4 runspec input file to DelDOT and to WRA (DelDOT consulting firm) in 2021. The DNREC runspec used the MOVES4 "inventory" method.

4) Runspec traffic data was updated with travel demand model output and vehicle population and age distribution data.

5) WRA created a copy of the original DNREC runspec file, so that a separate runspec would exist for each horizon year and county.

6) WRA, with DelDOT and DNREC staff concurrence, updated the following for each horizon year and county:
   a) **Speedbin distribution**, based on speed and VMT summary for each horizon year, from travel demand model.
   b) **Annual VMT**, in the VehicleTypeVMTYear tab.
   c) **Sourcetype population**, based on population growth rates used in travel demand model.
   d) **Vehicle age distribution**, based on July 2022 DMV data. EPA

converter used to convert the DMV data from MOBILE format and vehicle composition to MOVES required format.

e) **IMProgram**, minor adjustment needed to make it run in MOVES4 for each analysis year

Appendix C:

MOVES4 Output Files

1) Complete electronic files available upon request

Appendix D:

Travel Demand Model Summary

Air Quality Modeling Methodology:

This air quality analysis conducted for the Sussex County portion of the Salisbury/Wicomico MPO TIP and LRTP used a series of computer-based modeling techniques. These techniques are consistent with methods WILMAPCO, Dover/Kent MPO and DelDOT have used previously on a recurring, as needed basis, in conducting air quality analyses required by the CAA amendments and are similar to those used by other state and regional transportation agencies in preparing air quality analyses. They are consistent with methods DelDOT used in preparing conformity analyses for Sussex County in the past. They are also consistent with the modeling procedures DelDOT has used in the past in preparation of various SIP documents with the Delaware Department of Natural Resources and Environmental Control (DNREC).

Travel Demand Modeling

A travel demand model for Delaware, including Sussex County, is maintained by DelDOT. The model applies a variety of data regarding roadway network conditions, vehicular travel patterns, automobile ownership, and the location of population and employment sites.

The model follows the "traditional four-step process" of trip generation, distribution, mode split, and assignment that is commonly used throughout the transportation planning industry. The model components were processed through the CUBE Voyager software package. The primary products of the model used in the air quality analysis were estimated volumes and average speeds for each segment or "link" of the roadway system.

The modeling process developed for the Sussex County portion of the FY 2025-2030 CTP used a 2019 base year network validated against DelDOT traffic counts for 2019. Model networks were developed for the years 2020, 2025, 2030, 2040, and 2050 for Sussex County. As per standard travel modeling practice, the networks include the major capacity improvement projects that are expected to be in place and open to service during these years. The types of projects that are tested include enhanced transit service, highway widening (one lane or more) and/or new construction. It should be noted that there were relatively few, if any, regionally significant

improvements included, based on information from the Sussex County portion of the FY 2025 – 2030 CTP.

Demographic projections, including employment, households, and population, were developed for each of the horizon analysis years. The projections were based on statewide and countywide "control totals" for Sussex County from the October, 2022 series of projections from the Delaware Population Consortium.

WILMAPCO and DelDOT Planning staff developed a series of allocations of the control totals to "traffic analysis zones" (TAZ). That process used the previous set of TAZ projections for Sussex County as a base, as prepared through a cooperative process in July of 2021 involving staffs from Delaware State Planning Office, DelDOT Planning, Sussex County Planning, and Sussex County Economic Development.

Travel estimates were developed for this conformity analysis using a so-called "five-step travel demand" modeling process. The model process follows the traditional four-step modeling approach that includes trip generation, trip distribution, mode split, assignment, and feedback. This type of process is required by Federal air quality conformity regulations, and is a set of planning tools commonly used among MPOs and State DOTs.

The travel demand modeling process uses two sets of primary input data. The first is socio-economic data for traffic analysis zones (TAZ) for the entire modeled area including Sussex County. The modeling process maintained for Sussex County by DelDOT Division of Planning uses a single, integrated model of the Delaware/Maryland portion of the Delmarva Peninsula.

As noted above, WILMAPCO and DelDOT planning staffs developed a subcommittee process to estimate and manage demographic data for all of the TAZ in the modeled area (the Dover/Kent MPO manages a similar process for Kent County and participates in the WILMAPCO process as well).

Demographic data used in travel models generally consists of:

1) Population
2) Dwelling Units
3) Total Employment by Place of Work
4) Employment by Job Sector, by Place of Work

5) Total Employed Persons (Employment by Place of Residence)
6) Average Income
7) Income Quartiles
8) Average Vehicle Ownership
9) Vehicle Ownership Quartiles

For each TAZ, data for each of these items is obtained from the most recent census (2010 Census), updated as needed to the base year of the plan model (in this case, 2016).

For this conformity analysis, that means data from the 2010 Census was used with other locally obtained information to develop a set of TAZ estimates for 2016. Employment by place of work is not a product of the US Census, but the TAZ data allocation process used a series of local and state data sources to develop and achieve consensus on TAZ-based employment locations.

The process developed and finalized demographic forecasts for each TAZ, for the horizon years of 2020, 2025, 2030, 2040, and 2050. Any other years needed for travel forecasts or air quality planning can be obtained through interpolation.

The second primary travel model input is the so-called "travel network" which is a map-like representation of Sussex County roadways and streets. The network file stores the following data for each street segment:

1) Functional Class (or road type)
2) Number of Lanes
3) Lane Capacity
4) Posted Speed
5) Operating Speed
6) Average Peak Period Capacity (Lanes X Lane Capacity)

The current set of DelDOT/MPO/Sussex County travel demand models is typical of advanced TAZ-based travel models in use in the United States. DelDOT staff (with assistance from an engineering consulting firm) estimated these models using data from the 1997 – 2022 Delaware Travel Monitoring Survey (DTMS).

The current TAZ-based models are referred to as aggregate demand models because they are applied at an aggregate, zonal level with extensive market segmentation.

As part of this conformity analysis update a review and process update of the Sussex County modeling area was performed by DelDOT staff, which added the 2019 and 2022 DTMS travel survey data to the modeling process (Years 2020 and 2021 were excluded due to pandemic-related anomalies).

The trip generation models include a precursor step, which disaggregates TAZ-based household data using workers per household, persons per household, and vehicles per household data from US Census PUMS, then applies cross classification based trip generation rates to estimate productions and attractions for each TAZ, for several trip purposes including:

1) Home-Based Work (HBW)
2) Home-Based Local Shopping (HBLS)
3) Home-Based Regional Shopping (HBRS)
4) Home-Based Other (HBO)
5) Non-Home Based (NHB)
6) Journey-to-Work (JTW)
7) Journey-at-Work (JAW)
8) Trucks

The trip distribution models are standard gravity model formulations using trip length frequencies for each trip purpose, from the 1997 – 2022 DTMS.

The mode choice model used by DelDOT is a nested logit choice format. Non-motorized trips (separate modes for bicycle and walk) are included as an option in certain sets of model runs that are based on tax-parcel TAZ geography. Non-motorized trips are not currently modeled in the TAZ-based regional modeling process used for county-based conformity analyses.

The trip assignment procedures use network capacity-constrained equilibrium methods, which emphasize average weekday peak period congestion levels to allocate roadway volumes and speeds by time period of day. Four peak period times are used: AM, Midday, PM, and Offpeak. The process uses customized speed-flow delay curves representing freeway, arterial, collector, and local speeds separately.

The model process methods, as required by conformity regulations, incorporate full feedback from trip assignment back through trip distribution. The travel model was run in the CUBE Voyager software package (Version 6.4.4) under license from the vendor, Citilabs.

In summary, the modeling process developed used a 2019 base year network validated against DelDOT traffic counts for 2019.

Model networks were developed for the base year of 2016 and 10-year intervals of 2020, 2025, 2030, 2040 and 2050. The types of projects tested were corridor improvements, highway widening, and new roadway construction. Each project was added to the network in the year when the improvement was completed. Socioeconomic projects such as population, employment, and household size were developed for the same planning horizon years.

Emission Factor Estimate

The travel model software, CUBE Voyager, was arranged by DelDOT staff with consultant assistance. The MOVES inventory method for estimating mobile source emissions was applied to Sussex County. The conformity analysis process is based directly on the use of the MOVES inventory method.

The portions of the analysis requiring various data to be extracted from the travel demand model for each horizon year were identified, and a data transfer process was developed to facilitate the integration of required, travel model output data. Factors that originate in the travel demand model include average speed distribution and fractional calculations based on vehicle miles traveled data incorporated into the model from HPMS.

MOVES was used to set up the "runspec" file and to create and edit a County database which requires some input files extracted from the travel demand model for each horizon year. A separate MOVES "runspec" input file was developed for each horizon year. DelDOT and its engineering consulting firm (WRA) "ran" the Cube Voyager model for each horizon year to obtain the necessary average speed distribution and VMT distributions (Month, Day, & Hour) required for each County database defined in the runspec file.

A series of quality-control checks was performed by DelDOT and the consulting firm staff ensuring the CUBE-model generated emissions data accurately replicated the DNREC MOVES inventory method for each of the horizon years.

Through the process, travel model link segment volumes are summed to countywide

totals. Adjustment factors are then used to account for seasonal traffic variations and alignment of Delaware-based vehicle miles traveled (VMT) estimates with the federally-required Highway Performance Management System (HPMS). HPMS data are used to standardize the Delaware specific VMT data as required by the USEPA so that direct comparisons can be made among different years and modeling scenarios.

Mobile Source Emissions Estimates

The estimates of emissions for Sussex County are generated jointly by the DelDOT and DNREC. The model post-processor takes data produced by CUBE Voyager model output for Sussex County and adjusts it for input into the MOVES mobile emissions process noted above. This process links the estimated roadway speeds and volumes generated by the travel demand model with current and planned emission reduction trends derived from MOVES that reflect and incorporate planned emission reduction programs and technologies that will be implemented (by DNREC) within Delaware.

The product of this process is countywide emission estimates presented in this document.

The vehicle miles traveled (VMT) and emissions data for Sussex County were adjusted to be compatible with the data contained in the current SIPs. The adjustments represent factors to account for seasonal traffic variations and to align the travel demand estimates with DelDOT's and HPMS traffic level reporting system. These data were used to standardize the Delaware specific VMT data as required by the EPA so that direct comparisons can be made among different years and modeling scenarios.

Sussex County Travel Demand Model File Summary

Model: DelDOT Peninsula Travel Demand Model
Version: "Clean Model 22" (Whitman, Requardt, and Associates, August, 2023)
Model Catalog: Peninsula Model.CAT
Scenario: "Sussex County Conformity"
Software: CUBE Voyager 6.4.4

Year	LOD Filename
2020	A20ADT_LOAD.NET (August 25, 2023)
2030	A30ADT_LOAD.NET (August 25, 2023)
2040	A40ADT_LOAD.NET (August 25, 2023)
2050	A50ADT_LOAD.NET (August 25, 2023)

Note: Travel Demand Model output files available upon request, but require a commercial seat or enterprise license for CUBE Voyager available from Citilabs, Inc.

Appendix E:

Sussex County 2025 – 2030 CTP Project List

2025-2030 CTP Project List

Proposed FY19 to FY24 Capital Transportation Program

Proposed Project Implementation For Prioritized Projects

Denotes Projects in construction or going to advertisement in the next 6 months

New Projects

Projects Moved to the Highway Safety Program Line

PE ROW C Preliminary Engineering Right-of-Way Acquisition Construction

Rank	Project Name	FY18	FY19	FY20	FY21	FY22	FY23	FY24	County	Score
5	US 9, Kings Highway, Dartmouth Dr to Freeman Highway						PE	PE	Sussex	0.697
7	US 9 and US 113 Grade Separated Intersection					PE	PE	PE/ROW	Sussex	0.626
16	HSIP SR 24 at Mount Joy Road and SR 24 at Bay Farm Road Intersection Improvements	PE/ROW		C	C				Sussex	0.558
19	US113 at SR18/SR404 (Georgetown) Grade Separated Intersection	PE	PE	PE/ROW	PE/ROW	ROW	C	C	Sussex	0.546
27	***SR 24, Mulberry Knoll to SR 1***	PE/ROW/C	ROW/C	C					Sussex	0.518
31	HSIP SR 24 at SR 5 / SR 23 Intersection Improvements	PE/ROW	PE/ROW	C	C				Sussex	0.496
32	HEP SC, SR1 and SR16 Grade Separated Intersection	PE/ROW	PE/ROW	PE/ROW	C	C	C		Sussex	0.494
34	SR1 and Cave Neck Road Grade Separated Intersection		PE	PE	PE	PE/ROW	ROW	C	Sussex	0.489
35	***US113 at SR404/SR18 Intersection Improvement***	ROW/C	C						Sussex	0.486
44	***HSIP SC, US 9 and SR 5 Intersection***	ROW/C	C						Sussex	0.468
51	HSIP SR 24 at Camp Arrow Head Road and SR 24 at Robinsonville Rd/Angola Rd Intersection Improvements	PE	ROW	ROW	C				Sussex	0.449
52	Realignment of S269A at Westcoats Corner	PE		ROW/C	C				Sussex	0.449
53	US 9, Market Street, Sand Hill Road / Airport Road intersection improvement	PE	PE	PE/ROW/C	C				Sussex	0.444
56	North Millsboro Bypass, US113 to SR24	PE	PE	PE	PE/ROW	ROW	C	C	Sussex	0.437
59	SR 1, Minos Canaway Grade Separated Intersection	PE	PE	PE/ROW	ROW	ROW	C	C	Sussex	0.425
62	Plantations Road Improvements, SR 24 to US 9	PE	PE			ROW	ROW	ROW	Sussex	0.422
66	SR 24, Love Creek to Mulberry Knoll	PE	ROW	C	C				Sussex	0.414
73	Discount Land Road, US 13A to US 13				PE	PE	PE	ROW	*Sussex*	*0.370*
75	***Lewes Park and Ride and Maintenance Facility***	C	C						*Sussex*	*0.362*
79	US 113, North / South Improvements	ROW	ROW	ROW	ROW	ROW	ROW	ROW	Sussex	0.325
81	HSIP, SC, Zoar Road, Speedway Road, and Bethesda Road Intersection Improvements	ROW/C							Sussex	0.324
82	***HEP SC, SR 404 & SR 18 Intersection Improvements***	ROW/C							Sussex	0.320
85	***HSIP SC, Iron Branch Road / State Street***	C							Sussex	0.290
88	Park Avenue Relocation	PE	PE	ROW	ROW	C	C		Sussex	0.274
99	US 113 at SR 16 (Ellendale) Grade Separated Intersection	PE	PE	PE	PE	ROW	ROW	ROW	Sussex	0.154

Appendix F:

US EPA Conformity Criteria Checklist

CRITERIA FOR EVALUATING CONFORMITY DETERMINATIONS

Evaluation of the Conformity Determination for the Proposed Sussex County, Delaware 2025 – 2030 Capital Transportation Plan

SECTION of 40 CFR Part 93	CRITERIA	Y/N	COMMENTS
GENERAL CRITERIA APPLICABLE TO BOTH PLAN AND TIP			
93.110	Are the conformity determinations based upon the latest planning assumptions?	Yes	The conformity determination uses the most recent available information including recent demographics and vehicle registration.
	(a) Is the conformity determination, with respect to all other applicable criteria in §§93.111 - 93.119, based upon the most recent planning assumptions in force at the time of the conformity determination?	Yes	Population, housing and land use data inputs for the Travel Demand Model were updated in **October 2019** to reflect growth since the **2010** US Census. Vehicle fleet data for **July, 2022** was utilized in the conformity determination
	(b) Are the assumptions derived from the estimates of current and future population, employment, travel, and congestion most recently developed by the MPO or other designated agency? Is the conformity determination based upon the latest assumptions about current and future background concentrations?	Yes	Transportation demand and emissions modeling assumptions are developed by the DE Dept of Transportation in conjunction with other local, state and federal representatives as part of the consultation process.
	(c) Are any changes in the transit operating policies (including fares and service levels) and assumed transit ridership discussed in the determination?	Yes	No changes to transit fare policy are anticipated. Changes to service levels for fixed route service in Sussex County are not anticipated for the duration of the plan.
	(d) The conformity determination must include reasonable assumptions about transit service and increases in transit fares and road and bridge tolls over time.	Yes	It is reasonable to assume they will remain constant. There are no road or bridge tolls in the study area.
	(e) The conformity determination must use the latest existing information regarding the effectiveness of the TCMs and other implementation plan measures which have already been implemented.	N/A	There are currently no TCM's active in the Sussex County.

	(f) Key assumptions shall be specified and included in the draft documents and supporting materials used for the interagency and public consultation required by §93.105.	Yes	Key planning assumptions are agreed upon by all participating parties through the interagency consultation process. The conformity document has been made available for public review for the required **30 day period**.
93.111	Is the conformity determination based upon the latest emissions model?	Yes	Emissions factors for the Conformity Determination were calculated using **MOVES4.** This is the latest version of the current emissions model.
	Did the MPO make the conformity determination according to the consultation procedures of the conformity rule or the state's conformity SIP?	Yes	DelDOT conducted the conformity determination in accordance with the consultation procedures of the conformity rule.

TRANSPORTATION PLAN

93.106(a) (1)	Are the Horizon Years correct?	Yes	Analysis horizon years included **2020, 2025, 2030, 2040, and 2050**. These represent the appropriate horizon years for the 8-hour ozone NAAQS conformity determination.
93.106(a) (2)(i)	Does the plan quantify and document the demographic and employment factors influencing transportation demand?	Yes	Socioeconomic data including population, retail and non-retail employment and number of house-holds are included in DelDOT's Peninsula model, available on request.
93.106(a) (2)(ii)	Is the highway and transit system adequately described in terms of the regionally significant additions or modifications to the existing transportation network which the transportation plan envisions to be operational in the horizon years?	Yes	The regional modifications to the highway and transit systems are documented within the conformity determination report and included in the emissions analysis
93.108	Is the Transportation Plan Fiscally Constrained?	Yes	The transportation plan is in complete agreement with the State's **2025 –2030 Capital Transportation Program (CTP).**
93.113(b)	Are TCM's being implemented in a timely manner?	N/A	There are no TCM's included in the Plan
93.118	For Areas with SIP Budgets: Is the Transportation Plan, TIP or Project consistent with the motor vehicle emissions budget(s) in the applicable SIP?	Yes	Emission totals calculated for each analysis years were found to be consistent with the Sussex County Delaware **2008 and 2009 SIP budgets for ozone.**

Appendix C
Traffic Projections

Index of Segment Numbers by Route

Segment	Route	Segment	Route
1	US 50 (OCEAN GATEWAY)	35	MU 415 (E CARROLL ST)
2	US 50 (SALISBURY BYPASS)	36	MU 1632 (E MAIN ST)
3	US 13 (SALISBURY BYPASS)	37	MD 346 (E MAIN ST)
4	US 13 (SALISBURY BYPASS)	38	MD 350 (MT HERMON RD)
5	US 13 (SALISBURY BYPASS)	39	CO 416 (NAYLOR MILL RD)
6	US 13 (SALISBURY BYPASS)	40	MU 415 (E CARROLL ST)
8	US 50 BU(W SALISBURY PKWY)	41	MD 350 (MT HERMON RD)
7A	US 50 BU(OCEAN GATEWAY)	42	MD 12 (SNOW HILL RD)
7B	US 50 BU(W SALISBURY PKWY)	43	MD 12 (SNOW HILL RD)
9	US 50 BU(E SALISBURY PKWY)	44	MD 12 (SNOW HILL RD)
10	US 50 BU(E SALISBURY PKWY)	45	CO 420 (JERSEY RD)
11	US 50 BU(E SALISBURY PKWY)	46	MU 1430 (JERSEY RD)
12	US 50 BU(E SALISBURY PKWY)	47	CO 1106, MU 38, MU 39 & MU 370 (CAMDEN AVE)
13	US 50 (OCEAN GATEWAY)	48	CO 153, CO 1302 & MU 2421 (RIVERSIDE DR)
14	US 50 (OCEAN GATEWAY)	49	MU 38 & US 13 A (S CAMDEN AVE)
15	MD 675 B (BI STATE BLVD)	50	MD 513 (E CEDAR LA)
16	US 13 (OCEAN HWY)	51	MU 2422 (RIVERSIDE DR #2)
17	US 13 (OCEAN HWY)	52	MU 630, MU 631 & CO 445 (W COLLEGE AVE)
18	US 13 BU(N SALISBURY BLVD)	53	CO 277 (BEAGLIN PARK DR)
19	US 13 BU(N SALISBURY BLVD)	54	CO 294 (WALSTON SWITCH RD)
20	US 13 BU(S SALISBURY BLVD)	55	MU 2910 (WAVERLY DR)
21	US 13 BU(N FRUITLAND BLVD)		
22	US 13 BU(S FRUITLAND BLVD)		
23	US 13 (OCEAN HWY)		
24	MU 828 (EASTERN SHORE DR)		
25	MU 765 & CO 213 (DIVISION ST S)		
26A	MD 349 (NANTICOKE RD)		
26B	MD 349 (NANTICOKE RD)		
27	MU 1330 (W ISABELLA ST)		
28	MU 2600 (SOUTH BLVD)		
29	MU 520 (E CHURCH ST)		
30	CO 277 (BEAGLIN PARK DR)		
31	MD 346 (OLD OCEAN CITY RD)		
32	MD 346 (OLD OCEAN CITY RD)		
33	MU 2125 (PEMBERTON DR)		
34	MU 960, 2095, & CO 106 (PARSONS RD)		

Projected ADTS (Internal)

SALISBURY/WICOMICO CO. TRANSPORTATION PLAN - Directional Distribution for Internal Trips

TAZ	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA		
	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	ADT	
link	N/A	2,076	5,157	2,610	545	322	1,271	609	670	1,683	340	3,701	3,425	295	1,371	635	2,720	1,710	220	287	423	396	350	1,240	350	120	958	TOTAL 33,484	link
1	27%	27%	27%	27%	27%	73%	27%	0%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	80%	16,700	1
2	36%	36%	36%	36%	37%	50%	37%	0%	13%	13%	36%	7%	0%	0%	0%	0%	0%	0%	36%	36%	36%	36%	0%	0%	0%	0%	35%	9,400	2
3	25%	25%	25%	25%	25%	25%	25%	0%	0%	10%	52%	13%	0%	8%	10%	8%	8%	8%	56%	62%	62%	25%	25%	8%	8%	8%	25%	9,000	3
4	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	18%	20%	18%	18%	28%	0%	0%	0%	0%	20%	20%	30%	30%	0%	4,200	4
5	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	18%	18%	28%	0%	0%	0%	0%	0%	50%	30%	30%	0%	3,200	5
6	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8%	0%	28%	0%	0%	0%	0%	0%	5%	30%	50%	0%	1,900	6
7A	0%	0%	0%	0%	0%	13%	0%	9%	23%	23%	0%	29%	36%	36%	36%	36%	36%	36%	0%	0%	0%	36%	20%	36%	30%	36%	13%	11,400	7A
7B	0%	0%	0%	0%	0%	13%	0%	9%	23%	23%	0%	29%	36%	36%	36%	36%	36%	36%	0%	0%	0%	36%	20%	36%	30%	36%	13%	11,400	7B
8	0%	0%	0%	0%	0%	13%	0%	38%	23%	23%	0%	29%	38%	36%	36%	36%	36%	36%	0%	0%	0%	0%	0%	15%	36%	36%	13%	11,900	8
9	0%	0%	0%	0%	0%	13%	0%	38%	23%	23%	0%	29%	38%	36%	36%	36%	36%	36%	0%	0%	0%	0%	0%	15%	36%	36%	13%	11,900	9
10	0%	0%	0%	0%	13%	13%	13%	38%	8%	15%	10%	39%	38%	0%	0%	0%	0%	0%	6%	0%	0%	0%	0%	0%	0%	0%	13%	5,700	10
11	0%	0%	0%	0%	0%	0%	0%	25%	13%	15%	10%	39%	38%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	5%	4,600	11
12	0%	0%	0%	0%	0%	0%	0%	25%	13%	35%	10%	25%	25%	15%	15%	15%	15%	5%	0%	13%	0%	0%	15%	15%	5%	5%	2%	6,100	12
13	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	62%	25%	25%	25%	25%	25%	25%	25%	56%	75%	50%	25%	25%	25%	25%	25%	25%	14,900	13
14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	50%	0%	25%	25%	25%	25%	25%	1,800	14
15	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	5%	5%	5%	1%	0%	200	15
16	88%	88%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	70%	12%	12%	12%	12%	12%	10,200	16
17	74%	74%	74%	74%	12%	12%	12%	12%	26%	26%	16%	16%	12%	4%	26%	16%	16%	16%	20%	26%	26%	60%	3%	3%	10%	10%	12%	16,700	17
18	0%	0%	13%	13%	0%	0%	0%	12%	24%	0%	0%	0%	12%	0%	6%	8%	3%	3%	0%	0%	0%	0%	0%	0%	3%	3%	0%	3,300	18
19	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	23%	25%	54%	48%	48%	0%	0%	0%	0%	5%	5%	48%	48%	0%	7,700	19
20	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	54%	48%	48%	0%	0%	0%	0%	0%	30%	48%	48%	0%	6,500	20
21	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	26%	61%	56%	0%	0%	0%	0%	0%	20%	56%	56%	0%	5,100	21
22	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	56%	0%	0%	0%	0%	0%	0%	40%	56%	0%	2,500	22
23	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0	23
24	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	1,400	24
25	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	20%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	1,600	25
26A	0%	0%	0%	0%	0%	0%	0%	73%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2,400	26A
26B	0%	0%	0%	0%	0%	0%	0%	73%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2,400	26B
27	0%	0%	0%	0%	0%	0%	0%	26%	0%	0%	0%	0%	26%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,800	27
28	0%	0%	0%	0%	13%	0%	13%	12%	0%	0%	0%	0%	12%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,100	28
29	0%	0%	0%	0%	0%	0%	0%	0%	8%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	300	29
30	13%	13%	13%	13%	0%	0%	0%	0%	15%	29%	0%	16%	0%	8%	10%	0%	5%	5%	0%	0%	0%	5%	5%	5%	5%	5%	0%	4,000	30
31	0%	0%	0%	0%	0%	0%	0%	0%	12%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	400	31
32	0%	0%	0%	0%	0%	0%	0%	0%	12%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	1,000	32
33	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3,800	33
34	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	34
35	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	23%	23%	23%	23%	0%	0%	0%	0%	0%	10%	20%	2%	2%	0%	3,400	35
36	0%	0%	0%	0%	0%	0%	0%	0%	7%	0%	0%	0%	0%	18%	24%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,500	36
37	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	200	37
38	13%	13%	13%	13%	13%	13%	13%	13%	13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19%	13%	5%	10%	15%	15%	0%	0%	13%	3,700	38
39	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13%	0%	0%	0%	0%	0%	0%	0%	19%	0%	0%	0%	0%	0%	0%	0%	0%	100	39
40	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19%	0%	0%	0%	0%	0%	0%	0%	0%	0	40
41	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	300	41
42	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	46%	24%	0%	0%	0%	0%	0%	0%	0%	40%	40%	0%	0%	0%	2,600	42
43	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	23%	25%	0%	0%	0%	0%	0%	0%	0%	40%	40%	0%	0%	0%	2,200	43
44	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	40%	0%	0%	0%	600	44
45	0%	0%	0%	0%	14%	0%	14%	14%	0%	0%	10%	10%	14%	0%	10%	10%	10%	14%	6%	0%	0%	0%	0%	0%	14%	14%	0%	3,600	45
46	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%	0%	0%	10%	10%	10%	0%	6%	0%	0%	0%	5%	10%	5%	5%	0%	1,800	46
47	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	23%	23%	23%	23%	0%	0%	0%	0%	0%	0%	10%	5%	5%	0%	3,300	47
48	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	26%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,600	48
49	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	500	49
50	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	5%	0%	20%	0%	700	50
51	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	5%	5%	0%	1,900	51
52	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	28%	18%	13%	0%	0%	0%	0%	0%	0%	10%	10%	0%	3,400	52
53	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	27%	25%	28%	18%	13%	0%	0%	0%	0%	0%	10%	10%	13%	0%	4,300	53
54	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	81%	0%	15%	0%	10%	10%	0%	10%	0%	600	54
55	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	55

Source: The Traffic Group via S/W MPO

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TAZ	A	B		C		D	E	F		G		H	I		J		K		L	
	Res.	Res.	Com.	Res.	Com.	Res.	Res.	Res.	Com.	Res.	Com.	Res.	Res.	Com.	Res.	Com.	Res.	Com.	Res.	Com.
link		5434	824	13493	1138	6829	1425	837	7630	3325	2483	1595	1755	246	4400	692	886	1034	9677	466
1	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	0%	25%	25%	25%	25%	25%	25%	25%	25%
2	25%	25%	25%	25%	25%	25%	60%	40%	45%	40%	45%	10%	10%	5%	25%	5%	25%	25%	5%	5%
3	50%	50%	45%	50%	45%	25%	35%	15%	15%	15%	15%	0%	0%	10%	10%	10%	50%	55%	10%	10%
4	25%	25%	20%	25%	20%	15%	10%	0%	0%	0%	0%	0%	0%	10%	15%	10%	25%	20%	10%	10%
5	15%	15%	10%	15%	10%	10%	5%	0%	0%	0%	0%	0%	0%	5%	10%	5%	15%	10%	5%	5%
6	15%	15%	10%	15%	10%	11%	7%	3%	2%	3%	2%	3%	3%	6%	11%	6%	15%	10%	7%	6%
7A	0%	0%	0%	0%	0%	0%	10%	35%	30%	25%	20%	10%	15%	20%	0%	20%	0%	0%	20%	20%
7B	0%	0%	0%	0%	0%	0%	10%	35%	30%	25%	20%	10%	15%	20%	0%	20%	0%	0%	20%	20%
8	0%	0%	0%	0%	0%	0%	10%	35%	30%	15%	15%	45%	10%	20%	0%	20%	0%	0%	20%	20%
9	0%	0%	0%	0%	0%	0%	5%	25%	20%	10%	10%	45%	10%	10%	0%	10%	0%	0%	10%	10%
10	0%	0%	0%	0%	0%	0%	0%	10%	10%	10%	10%	25%	10%	40%	0%	40%	0%	0%	0%	0%
11	0%	0%	0%	0%	0%	0%	0%	10%	10%	10%	10%	25%	25%	30%	0%	30%	0%	0%	10%	10%
12	0%	0%	0%	0%	0%	10%	0%	10%	10%	10%	10%	25%	25%	45%	60%	45%	0%	0%	45%	45%
13	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	75%	75%	25%	25%
14	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
15	15%	0%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
16	60%	30%	75%	20%	25%	25%	20%	20%	25%	20%	25%	20%	20%	25%	20%	25%	20%	25%	20%	25%
17	75%	75%	80%	75%	75%	75%	25%	25%	30%	25%	30%	25%	25%	30%	25%	30%	25%	30%	25%	30%
18	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	35%	0%	0%	0%	0%	0%	0%	0%
19	0%	0%	0%	0%	0%	0%	15%	25%	20%	20%	15%	25%	25%	10%	0%	10%	0%	0%	10%	10%
20	0%	0%	0%	0%	0%	0%	8%	12%	8%	12%	8%	12%	12%	0%	0%	0%	0%	0%	0%	0%
21	0%	0%	0%	0%	0%	4%	8%	12%	8%	12%	8%	12%	12%	4%	4%	4%	0%	0%	8%	4%
22	0%	0%	0%	0%	0%	4%	8%	12%	8%	12%	8%	12%	12%	4%	4%	4%	0%	0%	8%	4%
23	15%	15%	15%	15%	15%	15%	15%	15%	10%	15%	10%	15%	15%	10%	15%	10%	15%	10%	15%	10%
24	0%	0%	0%	0%	0%	0%	2%	3%	2%	3%	2%	3%	3%	1%	1%	1%	0%	0%	2%	1%
25	0%	0%	0%	0%	0%	1%	2%	3%	2%	3%	2%	3%	3%	1%	1%	1%	0%	0%	2%	1%
26A	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%
26B	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%
27	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	5%	0%	0%	0%	0%	0%	0%	0%
28	0%	0%	0%	0%	0%	0%	5%	0%	0%	10%	5%	5%	5%	0%	0%	0%	0%	0%	0%	0%
29	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	50%	0%	50%	0%	0%	0%	0%
30	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	20%	70%	40%	70%	0%	0%	20%	25%
31	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	70%	0%	70%	0%	0%	0%	0%
32	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	50%	0%	50%	0%	0%	0%	0%
33	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
34	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%
35	0%	0%	0%	0%	0%	0%	5%	10%	0%	15%	15%	15%	0%	10%	0%	10%	0%	0%	10%	10%
36	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	30%	0%	30%	0%	0%	10%	10%
37	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	40%	0%	40%	0%	0%	0%	0%
38	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	20%	0%	0%	10%	10%
39	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	5%	0%	0%	0%	0%
40	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
41	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
42	0%	0%	0%	0%	0%	0%	5%	10%	10%	10%	10%	10%	10%	10%	0%	10%	0%	0%	10%	10%
43	0%	0%	0%	0%	0%	5%	5%	10%	10%	10%	10%	10%	10%	5%	5%	5%	0%	0%	5%	5%
44	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
45	0%	0%	0%	0%	0%	0%	5%	0%	0%	20%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%
46	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%
47	0%	0%	0%	0%	0%	0%	5%	10%	10%	15%	15%	15%	0%	10%	0%	10%	0%	0%	10%	10%
48	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
49	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
50	0%	0%	0%	0%	0%	1%	2%	3%	2%	3%	2%	3%	3%	1%	1%	1%	0%	0%	2%	1%
51	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
52	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	5%	5%	5%	0%	0%	10%	5%
53	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	10%	10%	10%	0%	0%	15%	10%
54	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
55	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Source: The Traffic Group via S/W MPO

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M		N		O		P	Q		R		S		T	U	V	W	X	Y	Z	AA		Total ADT	
Res.	Com.	Res.	Com.	Res.	Com.	Res.	Res.	Com.	Res.	Com.	Res.	Com.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Com.		
8961	492	777	209	3586	707	1663	7114	449	4473	302	577	77	751	1111	1044	916	3248	916	315	2505	2246	106608	link
25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	26,300	1
0%	0%	0%	5%	0%	5%	0%	0%	5%	0%	5%	25%	25%	25%	25%	0%	0%	0%	25%	25%	25%	45%	19,100	2
0%	5%	10%	10%	10%	10%	0%	15%	10%	15%	10%	50%	55%	50%	50%	0%	15%	15%	50%	50%	50%	15%	23,700	3
0%	5%	20%	15%	20%	15%	5%	30%	15%	40%	15%	0%	20%	15%	15%	5%	30%	40%	0%	15%	15%	0%	16,000	4
0%	5%	10%	5%	5%	5%	10%	40%	15%	50%	15%	15%	10%	15%	15%	10%	40%	50%	15%	15%	15%	0%	13,700	5
0%	0%	15%	6%	15%	6%	0%	5%	6%	50%	6%	15%	10%	15%	15%	0%	5%	50%	15%	15%	15%	2%	11,800	6
25%	30%	25%	20%	25%	20%	25%	25%	20%	25%	20%	0%	0%	0%	0%	25%	25%	25%	0%	0%	0%	30%	15,800	7A
25%	30%	25%	20%	25%	20%	25%	25%	20%	25%	20%	0%	0%	0%	0%	25%	25%	25%	0%	0%	0%	30%	15,800	7B
60%	5%	10%	20%	25%	20%	25%	25%	20%	25%	20%	0%	0%	0%	0%	25%	25%	25%	0%	0%	0%	30%	18,700	8
45%	20%	10%	10%	10%	10%	10%	10%	10%	10%	10%	0%	0%	0%	0%	10%	10%	10%	0%	0%	0%	20%	11,400	9
25%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	4,900	10
25%	10%	0%	10%	0%	10%	0%	0%	10%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	6,200	11
25%	10%	15%	45%	15%	45%	20%	10%	45%	0%	45%	0%	0%	0%	0%	20%	10%	0%	0%	0%	0%	10%	15,800	12
25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	50%	75%	65%	65%	25%	25%	25%	50%	65%	65%	25%	29,900	13
25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	75%	0%	25%	25%	25%	25%	75%	0%	25%	26,300	14
5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5,100	15
20%	25%	20%	25%	20%	25%	20%	20%	25%	20%	25%	20%	25%	20%	20%	20%	20%	20%	20%	20%	20%	25%	23,600	16
25%	30%	25%	30%	25%	30%	25%	25%	30%	25%	30%	25%	30%	25%	25%	25%	25%	25%	25%	25%	25%	30%	41,400	17
25%	0%	0%	0%	5%	0%	15%	5%	0%	5%	0%	0%	0%	0%	0%	15%	5%	5%	0%	0%	0%	0%	4,500	18
25%	15%	25%	10%	30%	25%	40%	30%	25%	20%	25%	0%	0%	0%	0%	40%	30%	20%	0%	0%	0%	20%	14,400	19
15%	8%	0%	0%	0%	5%	40%	30%	25%	20%	40%	0%	0%	0%	0%	40%	30%	20%	0%	0%	0%	8%	8,700	20
15%	8%	0%	4%	0%	4%	25%	40%	10%	10%	40%	0%	0%	0%	0%	25%	40%	10%	0%	0%	0%	8%	9,500	21
15%	8%	0%	4%	0%	4%	5%	10%	4%	10%	40%	0%	0%	0%	0%	5%	10%	10%	0%	0%	0%	8%	6,600	22
15%	10%	15%	10%	15%	10%	15%	15%	10%	65%	10%	15%	10%	15%	15%	15%	15%	65%	15%	15%	15%	10%	19,000	23
0%	2%	0%	1%	15%	20%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	1,500	24
0%	2%	5%	1%	15%	15%	0%	5%	10%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	2%	2,000	25
0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,600	26A
0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,600	26B
15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,500	27
15%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2,100	28
0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,000	29
0%	0%	15%	25%	10%	25%	0%	5%	25%	5%	25%	0%	0%	0%	0%	0%	5%	5%	0%	0%	0%	0%	8,200	30
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,000	31
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	800	32
100%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9,100	33
0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	400	34
15%	15%	15%	10%	15%	10%	15%	15%	10%	15%	10%	0%	0%	0%	0%	15%	15%	15%	0%	0%	0%	0%	7,400	35
0%	0%	0%	10%	0%	10%	0%	0%	10%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,900	36
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	800	37
0%	0%	0%	10%	0%	10%	0%	0%	10%	0%	10%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,400	38
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100	39
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	10%	10%	0%	0%	0%	25%	10%	10%	0%	800	40
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	1,500	41
10%	10%	25%	35%	15%	10%	0%	0%	10%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	5,000	42
10%	10%	55%	10%	20%	10%	5%	0%	10%	0%	5%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	10%	5,600	43
10%	10%	10%	15%	10%	15%	10%	10%	15%	10%	5%	15%	10%	0%	0%	10%	10%	10%	15%	0%	0%	10%	10,300	44
0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,200	45
0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	700	46
15%	15%	15%	10%	15%	10%	15%	15%	10%	15%	25%	0%	0%	0%	0%	15%	15%	15%	0%	0%	0%	10%	8,400	47
0%	0%	0%	0%	0%	0%	25%	0%	0%	15%	30%	0%	0%	0%	0%	25%	0%	15%	0%	0%	0%	0%	1,900	48
0%	0%	0%	0%	0%	0%	10%	0%	0%	25%	30%	0%	0%	0%	0%	10%	0%	25%	0%	0%	0%	0%	2,300	49
0%	2%	5%	1%	0%	1%	10%	90%	25%	0%	0%	0%	0%	0%	0%	10%	90%	0%	0%	0%	0%	2%	8,500	50
0%	0%	0%	0%	0%	0%	25%	0%	0%	15%	0%	0%	0%	0%	0%	25%	0%	15%	0%	0%	0%	0%	1,800	51
0%	0%	5%	5%	25%	15%	35%	30%	15%	5%	15%	0%	0%	0%	0%	35%	30%	5%	0%	0%	0%	0%	6,500	52
0%	0%	30%	30%	25%	30%	30%	30%	30%	5%	30%	0%	0%	0%	0%	30%	30%	5%	0%	0%	0%	0%	8,000	53
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	75%	0%	10%	10%	0%	0%	0%	75%	10%	10%	0%	1,600	54
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	55

Source: The Traffic Group via S/W MPO

Existing and Projected AADTS

Segment	AADT 2014	K Factor	D Factor	Existing Peak Hour Directional Flow	Existing v/c	Projected External Trips	Projected Internal Trips	Projected Total AADT	Projected Peak Hour Directional Flow	Projected v/c
1	23,040	7.4%	53%	891	0.21	26,300	16,700	66,040	2,555	0.59
2	19,022	7.7%	54%	792	0.18	19,100	9,400	47,522	1,979	0.46
3	37,782	8.9%	52%	1,765	0.41	23,700	9,000	70,482	3,293	0.77
4	25,372	8.0%	50%	1,027	0.24	16,000	4,200	45,572	1,845	0.43
5	24,212	8.1%	55%	1,079	0.25	13,700	3,200	41,112	1,833	0.43
6	17,102	7.9%	52%	701	0.16	11,800	1,900	30,802	1,262	0.29
7A	17,210	8.4%	54%	770	0.35	15,800	11,400	44,410	1,988	0.91
7B	20,650	7.9%	57%	936	0.43	15,800	11,400	47,850	2,169	0.99
8	24,140	8.3%	60%	1,202	0.40	18,700	11,900	54,740	2,726	0.91
9	17,390	8.0%	50%	695	0.32	11,400	11,900	40,690	1,627	0.75
10	20,090	8.2%	50%	823	0.27	4,900	5,700	30,690	1,257	0.42
11	19,820	8.3%	56%	923	0.31	6,200	4,600	30,620	1,426	0.48
12	17,280	8.0%	51%	698	0.32	15,800	6,100	39,180	1,583	0.73
13	40,220	8.2%	52%	1,693	0.78	29,900	14,900	85,020	3,579	1.64
14	28,540	8.2%	50%	1,176	0.54	26,300	1,800	56,640	2,334	1.07
15	6,085	9.2%	56%	315	0.26	5,100	200	11,385	590	0.49
16	30,832	7.7%	57%	1,341	0.61	23,600	10,200	64,632	2,812	1.29
17	37,106	9.8%	50%	1,818	0.61	41,400	16,700	95,206	4,665	1.55
18	32,052	7.0%	52%	1,182	0.54	4,500	3,300	39,852	1,470	0.67
19	32,782	7.2%	50%	1,192	0.55	14,400	7,700	54,882	1,995	0.91
20	22,492	7.1%	52%	832	0.38	8,700	6,500	37,692	1,395	0.64
21	18,422	8.0%	54%	797	0.37	9,500	5,100	33,022	1,428	0.65
22	12,051	8.3%	50%	501	0.23	6,600	2,500	21,151	880	0.40
23	26,537	10.2%	53%	1,430	0.66	19,000	0	45,537	2,454	1.12
24	10,683	8.4%	53%	478	0.22	1,500	1,400	13,583	608	0.28
25	12,121	8.5%	52%	537	0.45	2,000	1,600	15,721	697	0.58
26A	18,400	7.8%	60%	864	0.72	1,600	2,400	22,400	1,052	0.88
26B	12,300	9.0%	65%	719	0.60	1,600	2,400	16,300	953	0.79
27	3,861	7.8%	58%	175	0.15	1,500	1,800	7,161	325	0.27
28	4,813	9.6%	53%	246	0.21	2,100	1,100	8,013	410	0.34
29	2,013	9.3%	58%	109	0.09	1,000	300	3,313	179	0.15
30	15,842	8.3%	51%	665	0.30	8,200	4,000	28,042	1,177	0.54
31	7,704	9.0%	53%	366	0.31	1,000	400	9,104	433	0.36
32	4,944	9.6%	56%	268	0.22	800	1,000	6,744	365	0.30
33	8,850	7.3%	50%	325	0.27	9,100	3,800	21,750	798	0.67
34	9,251	7.9%	60%	435	0.36	400	0	9,651	454	0.38
35	9,413	8.4%	57%	452	0.21	7,400	3,400	20,213	971	0.44
36	10,651	7.5%	54%	427	0.36	1,900	1,500	14,051	564	0.47
37	4,460	8.7%	52%	199	0.17	800	200	5,460	244	0.20
38	4,622	9.6%	57%	254	0.21	1,400	3,700	9,722	534	0.45
39	13,692	8.4%	54%	615	0.51	100	100	13,892	624	0.52
40	7,973	9.1%	58%	422	0.35	800	0	8,773	465	0.39
41	1,962	9.4%	60%	110	0.09	1,500	300	3,762	211	0.18
42	10,252	7.9%	53%	429	0.36	5,000	2,600	17,852	747	0.62
43	9,282	8.8%	54%	441	0.37	5,600	2,200	17,082	812	0.68
44	4,252	9.8%	53%	219	0.18	10,300	600	15,152	780	0.65
45	5,662	8.2%	55%	255	0.21	1,200	3,600	10,462	471	0.39
46	5,662	8.2%	55%	255	0.21	700	1,800	8,162	367	0.31
47	10,531	8.5%	56%	499	0.42	8,400	3,300	22,231	1,054	0.88
48	2,991	8.8%	60%	156	0.13	1,900	1,600	6,491	339	0.28
49	1,471	10.0%	53%	78	0.07	2,300	500	4,271	227	0.19
50	8,082	9.1%	53%	393	0.33	8,500	700	17,282	840	0.70
51	10,603	8.7%	63%	578	0.48	1,800	1,900	14,303	780	0.65
52	14,891	8.3%	52%	636	0.29	6,500	3,400	24,791	1,059	0.49
53	15,842	8.3%	51%	665	0.30	8,000	4,300	28,142	1,181	0.54
54	3,212	8.7%	53%	148	0.12	1,600	600	5,412	250	0.21
55	8,681	8.0%	51%	353	0.16	0	0	8,681	353	0.16

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Source: The Traffic Group via S/W MPO

Appendix D
Traffic Trend Analysis

Appendix D: Traffic Trend Analysis

Sussex County

A trend analysis using DelDOT historical AADT counts reveals high-growth segments for selected roadways in the S/WMPO area over the 2019 to 2022 period. Data Source: DelDOT via S/WMPO.

Road Number	Road Name	Begin MP	End MP	2019	2020	2021	2022
SC-00020-F	HIGH ST EXT ROAD	0.00	0.55	5078	4037	4713	4364
SC-00020-F	CONCORD ROAD	0.55	0.98	7537	5992	7145	5844
SC-00020-F	SR20 CONCORD ROAD	1.51	2.83	6803	5408	6448	5972
SC-00020-F	SR20 CONCORD ROAD	2.83	7.42	6623	5265	6740	6665
SC-00020A-F	CHURCH ROAD	0.00	0.37	967	769	962	992
SC-00020A-F	CHURCH ROAD	0.37	0.67	1489	1184	1758	1814
SC-00021-F	SR20 STEIN HIGHWAY	0.00	3.25	5677	4513	6387	6173
SC-00021-F	SR20 STEIN HIGHWAY	3.56	4.34	9015	7167	8787	8137
SC-00021-F	SR20 STEIN HIGHWAY	4.34	4.67	18625	14200	17332	16050
SC-00542-F	BUTLER BRANCH ROAD	0.00	1.28	209	166	208	215
SC-00542A-F	CRAIGS MILL ROAD	0.00	0.18	380	302	194	200
SC-00543-F	PINE ST EXT	0.00	1.28	1782	1417	1690	1565
SC-00543-F	ROSS STATION ROAD	1.28	2.59	4835	3844	5475	3287
SC-00544-F	HEARNS POND ROAD	0.00	1.08	949	754	663	804
SC-00544-F	HEARNS POND ROAD	1.08	2.49	1490	1185	1482	1093
SC-00544A-F	SWAIN ROAD	0.00	0.11	2883	2292	2867	2000
SC-00544B-F	HEARNS MILL ROAD	0.00	0.09	52	41	51	53
SC-00546-F	CONRAIL ROAD	0.00	2.50	895	712	1014	1229
SC-00547-F	BOYCE ROAD	0.00	1.74	564	448	638	774
SC-00552-F	SHUFELT ROAD	0.00	1.71	674	536	416	505
SC-00553-F	NEALS SCHOOL ROAD	0.00	2.25	103	82	339	411
SC-00556-F	FIGGS ROAD	0.00	1.50	287	228	273	332

Road Number	Road Name	Begin MP	End MP	2019	2020	2021	2022
SC-00524-F	CONCORD POND ROAD	0.00	0.17	3429	2726	2568	2650
SC-00524-F	CONCORD POND ROAD	0.17	0.33	6274	4988	5719	5902
SC-00524-F	GERMAN ROAD	0.33	2.71	844	671	956	1159
SC-00525-F	KING ROAD	0.00	1.05	1007	801	1002	1034
SC-00525-F	COVERDALE ROAD	1.05	4.68	3270	2600	3702	2025
SC-00526-F	HASTINGS FARM ROAD	0.00	3.85	351	279	512	620
SC-00526A-F	DOVE ROAD	0.00	0.86	4276	3399	2942	3036
SC-00530-F	OLD MEADOW ROAD	0.00	1.61	2629	2090	2615	1238
SC-00531-F	ESKRIDGE ROAD	0.00	2.12	1142	908	1135	661
SC-00532-F	CAMP ROAD	0.00	1.72	1065	847	1059	658
SC-00533-F	SANFILIPO ROAD	0.00	1.84	633	503	716	869
SC-00534-F	HERRING RUN ROAD	0.00	1.28	1534	1220	1526	4249
SC-00534-F	HERRING RUN ROAD	1.28	1.61	11997	9538	11932	12314
SC-00534-F	THARP ROAD	1.61	2.69	6897	5483	6860	5204
SC-00535-F	HIGH STREET	0.00	0.94	8929	7099	8464	7838
SC-00535-F	MIDDLEFORD ROAD	0.94	2.90	7483	5949	7403	7640
SC-00535A-F	NORTH SHORE DRIVE	0.00	0.69	99	79	99	102
SC-00535B-F	POPLAR STREET	0.00	0.12	1295	1030	1288	1329
SC-00535B-F	POPLAR STREET	0.12	0.22	1167	928	1161	847
SC-00536-F	WOODLAND ROAD	1.94	3.47	1603	1274	1520	885
SC-00536-F	WOODLAND ROAD	3.47	3.51	1436	1142	1166	1080
SC-00536-F	WOODLAND ROAD	3.51	4.21	1609	1279	1525	1077
SC-00536-F	SHIPLEY STREET	4.21	4.30	5185	4122	4915	4552
SC-00536-F	PENNSYLVANIA AVENUE	4.30	4.61	1168	929	1107	1025
SC-00536-F	HIGH STREET	4.61	4.68	7127	5666	6755	6256
SC-00536A-F	NANTICOKE STREET	0.00	0.33	63	63	79	81
SC-00539-F	SUSSEX AVENUE	0.00	0.59	1432	1138	1357	1257

Road Number	Road Name	Begin MP	End MP	2019	2020	2021	2022
SC-00013-F	BISTATE BOULEVARD	0.00	0.74	3206	2549	3039	2814
SC-00001-F	US13 SUSSEX HIGHWAY.	0.00	3.20	26746	21263	30342	25503
SC-00001-F	US13 SUSSEX HIGHWAY.	3.20	6.87	22259	17696	25252	24972
SC-00013-F	BISTATE BOULEVARD	0.74	6.02	2388	1898	2264	2096
SC-00013-F	CENTRAL AVENUE	6.02	7.07	3951	3141	3745	3468
SC-00013-F	CENTRAL AVENUE	7.07	7.60	6659	5294	6461	5984
SC-00013-F	CENTRAL AVENUE	7.60	7.74	6660	5295	6508	6027
SC-00503B-F	OLD CROW ROAD	0.00	1.07	416	331	464	563
SC-00512-F	WEST LINE ROAD	0.00	2.63	2105	1673	187	227
SC-00002-F	US13 SUSSEX HIGHWAY	0.00	1.13	25804	20514	25151	23291
SC-00002-F	US13 SUSSEX HIGHWAY	1.13	6.32	23437	18632	24349	22549
SC-00003-F	US13 SUSSEX HIGHWAY	0.00	0.53	34831	27691	33948	31438
SC-00003-F	US13 SUSSEX HIGHWAY	0.53	0.66	37935	30158	36973	34240
SC-00003-F	US13 SUSSEX HIGHWAY	0.66	0.84	34263	27239	33395	30926
SC-00003-F	US13 SUSSEX HIGHWAY	0.84	1.39	24654	19600	24029	22253
SC-00003-F	US13 SUSSEX HIGHWAY	1.39	3.08	22834	18153	22255	20610
SC-00003-F	US13 SUSSEX HIGHWAY	3.08	4.10	31797	25279	30991	28700
SC-00013-F	SEAFORD ROAD	7.74	12.68	4280	3403	4057	3757
SC-00013-F	MARKET STREET	12.68	13.06	6673	5305	6325	5858
SC-00013-F	MARKET STREET	13.06	13.51	9108	7241	8634	7996
SC-00013-F	FRONT STREET	13.51	13.94	6319	5024	5990	5547
SC-00013-F	FRONT STREET	13.94	15.07	13698	10890	12984	12024
SC-00013-F	BRIDGEVILLE HIGHWAY	15.07	16.67	4507	3583	4272	3956
SC-00004-F	US13 SUSSEX HIGHWAY	0.00	1.63	22255	17693	25248	24968
SC-00093-F	SHIPLEY ST (SEAFORD)	0.00	0.58	0	3113	2049	1898
SC-00028A-F	E. POPLAR STREET	0.22	0.43	3178	2784	3586	3701
SC-00030-F	ATLANTA ROAD	0.00	0.46	4457	3543	4225	3912

Road Number	Road Name	Begin MP	End MP	2019	2020	2021	2022
SC-00030-F	ATLANTA ROAD	0.46	2.77	5520	4388	5617	4034
SC-00064-F	SR30 DOROTHY ROAD	0.00	0.54	1596	1269	1552	1572
SC-00064-F	SR30 WHITESVILLE ROAD	0.54	2.69	1881	1495	1829	1853
SC-00068-F	OLD STAGE ROAD	0.00	3.33	1267	1007	1260	1301
SC-00069-F	OAK LANE	0.00	0.48	2473	1966	2460	2539
SC-00071-F	KING ST (LAUREL)	0.00	0.26	561	446	558	576
SC-00076-F	SR54 STATE ROAD	0.00	0.51	5746	4568	5847	5783
SC-00076-F	SR54 DELMAR ROAD	0.51	1.49	5318	4228	6022	7302
SC-00046-F	ELKS ROAD	0.00	1.06	2261	1797	1200	1238
SC-00046-F	OLD FURNACE ROAD	1.06	2.87	2191	1742	2076	2143
SC-00078-F	WOODLAND FERRY ROAD	0.00	2.55	1545	1228	1750	2122
SC-00046-F	OLD FURNACE ROAD	2.87	5.53	5208	4140	4937	4572
SC-00078A-F	OLD SAILOR ROAD	0.00	1.00	163	130	185	224
SC-00515-F	BACONS ROAD	2.03	3.03	652	518	648	669
SC-00516-F	CONCORD POND ROAD	0.00	1.79	878	698	873	740
SC-00516-F	CONCORD POND ROAD	1.79	3.21	373	297	422	244
SC-00488-F	JOHNSON ROAD	0.00	1.18	428	340	485	588
SC-00488-F	AIRPORT ROAD	1.18	4.60	1235	982	1228	1267
SC-00490-F	RIVER ROAD	0.74	2.54	1901	1511	2152	1365
SC-00490-F	RIVER ROAD	2.54	2.68	3632	2887	3613	2576
SC-00492-F	PORTSVILLE ROAD	0.00	3.26	1061	843	761	923
SC-00492-F	SIXTH STREET	3.26	3.53	528	420	526	328
SC-00492-F	SIXTH STREET	3.53	4.18	638	507	634	655
SC-00492-F	GORDY ROAD	4.18	4.66	1385	1101	1568	1901
SC-00493-F	BETHEL ROAD	4.94	6.62	0	2351	1251	1517
SC-00499-F	DUKES ROAD	0.00	0.91	784	623	445	539
SC-00501-F	SAINT GEORGE ROAD	4.31	5.12	501	398	568	383

Road Number	Road Name	Begin MP	End MP	2019	2020	2021	2022
SC-00502-F	OLD RACETRACK ROAD	0.98	2.44	1293	1028	1464	1511
SC-00480-F	WALLER ROAD	0.00	2.39	315	250	448	543
SC-00481-F	BRICKYARD ROAD	0.00	1.36	5137	4084	1603	1655
SC-00481-F	BRICKYARD ROAD	1.36	1.55	1906	1515	1896	1943
SC-00482-F	BOYCE ROAD	0.00	0.38	1368	1088	1005	1037
SC-00482-F	BOYCE ROAD	0.38	1.09	182	145	206	81
SC-00483-F	BAKER MILL ROAD	0.00	2.13	1929	1534	635	770
SC-00485-F	ONEALS ROAD	0.00	2.30	1937	1540	1254	1294
SC-00485-F	CONCORD ROAD	2.30	4.94	2849	2265	3227	937
SC-00485A-F	EASTER HILL ROAD	0.00	0.49	697	554	880	908
SC-00486-F	HENRY DRIVE	0.00	0.46	236	188	117	121
SC-00486A-F	HENRY DRIVE	0.00	0.06	146	116	145	267
SC-00486A-F	HENRY DRIVE	0.06	0.19	145	115	144	148
SC-00451-F	SALT BARN ROAD	0.00	0.67	1509	1200	1296	1572
SC-00452-F	WEST SNAKE ROAD	0.00	0.63	448	356	507	615
SC-00454A-F	ALLENS MILL ROAD	0.00	0.74	2152	1711	2437	2955
SC-00460-F	HORSEY ROAD	0.00	0.06	20	16	20	21
SC-00461-F	OLD STAGE ROAD	0.00	1.46	2013	1600	1066	1293
SC-00462-F	TRUSSUM POND ROAD	0.00	3.43	1480	1177	1676	352
SC-00465-F	CHIPMANS POND ROAD	0.00	1.94	2709	2154	1272	1543
SC-00466-F	DELAWARE AVENUE	0.00	0.28	1535	1220	1527	1576
SC-00466-F	DELAWARE AVENUE	0.28	0.57	1798	1429	1788	1846
SC-00466-F	DELAWARE AVENUE	0.57	0.87	1687	1341	1678	1732
SC-00466-F	SYCAMORE ROAD	0.87	2.04	1268	1008	1678	2035
SC-00468-F	DISCOUNT LAND ROAD	0.00	0.80	5082	4040	3244	3347
SC-00468-F	DISCOUNT LAND ROAD	0.80	2.72	754	599	854	517
SC-00470-F	CAMP ROAD	0.00	0.67	1163	925	1317	1597

Road Number	Road Name	Begin MP	End MP	2019	2020	2021	2022
SC-00645-F	EIGHTH STREET	0.00	0.19	1259	1001	1252	878
SC-00646-F	SECOND STREET	0.00	0.25	826	657	822	478
SC-00649-F	BROOKLYN AVENUE	0.00	0.26	811	645	319	330
SC-00650-F	TOWNSEND STREET	0.00	0.14	3206	2549	3189	2690
SC-00021-F	SR20 STEIN HIGHWAY	4.67	5.07	17531	13937	17087	15824
SC-00021-F	SR20 STEIN HIGHWAY	5.07	5.49	17298	13752	16860	15613
SC-00021-F	SR20 NORMAN ESKRIDGE	5.49	6.31	12997	10333	12668	11731
SC-00024-F	SR24 SHARPTOWN RD	6.15	7.20	3943	3135	3834	3884
SC-00024-F	SR24 WEST ST	7.20	7.97	5333	4240	5186	5253
SC-00024-F	SR24 MARKET ST	7.97	8.48	2916	2318	2836	2873
SC-00024-F	SR24 LAUREL RD	8.48	8.84	3664	2913	3563	3610
SC-00024-F	SR24 LAUREL RD	8.84	10.16	7530	5986	7410	6064
SC-00021-F	SR20 STEIN HIGHWAY	3.25	3.56	8423	6696	8209	7603
SC-00018-F	SR18 CANNON ROAD	3.89	6.67	2236	1778	2174	2203
SC-00018-F	SR18 CANNON ROAD	6.67	7.58	2236	1959	2174	2203
SC-00018-F	SR18 CANNON ROAD	7.58	7.87	3186	2791	3098	3139
SC-00018-F	SR18 CANNON ROAD	7.87	9.07	3187	2534	3099	3139
SC-00080-F	WOODPECKER ROAD	1.33	3.98	2287	1818	2589	3140
SC-00028-F	GEORGETOWN ROAD	0.00	0.61	5698	4530	5540	5613
SC-00028-F	US9 COUNTY SEAT HIGH	0.61	2.22	10049	7989	8317	8426
SC-00639-F	VIRGINIA AVENUE	0.00	0.82	2563	2038	2429	2773
SC-00534A-F	HELENS LANE	0.00	0.06	92	73	91	94
SC-00556-F	CHAPEL BRANCH ROAD	1.50	3.27	175	139	198	240
SC-00419-F	SR54 STATE STREET	0.00	0.53	6716	5339	6835	6759
SC-00419-F	SR54 STATE STREET	0.53	0.86	8075	6420	8217	8126
SC-00419-F	SR54 STATE STREET	0.86	1.03	19430	15447	19772	7034
SC-00419-F	SR54 LINE ROAD	1.03	3.50	9053	7197	9213	5942

Road Number	Road Name	Begin MP	End MP	2019	2020	2021	2022
SC-00020-F	SR20 CONCORD ROAD	0.98	1.51	7184	5711	6810	6306
SC-00028A-F	E. POPLAR STREET	0.00	0.22	3178	2631	3066	3164
SC-00081-F	JEWELL STREET	0.00	0.10	0	0	120	145
SC-00001-R	US13 SUSSEX HIGHWAY.	10.54	13.75	26746	21263	30342	25503
SC-00001-R	US13 SUSSEX HIGHWAY.	6.87	10.54	22259	17696	25252	24972
SC-00002-R	US13 SUSSEX HIGHWAY	11.50	12.61	25804	20514	25151	23291
SC-00002-R	US13 SUSSEX HIGHWAY	6.32	11.50	23437	18632	24349	22549
SC-00003-R	US13 SUSSEX HIGHWAY	7.65	8.19	34831	27691	33948	31438
SC-00003-R	US13 SUSSEX HIGHWAY	7.51	7.65	37935	30158	36973	34240
SC-00003-R	US13 SUSSEX HIGHWAY	7.35	7.51	34263	27239	33395	30926
SC-00003-R	US13 SUSSEX HIGHWAY	6.79	7.35	24654	19600	24029	22253
SC-00003-R	US13 SUSSEX HIGHWAY	5.09	6.79	22834	18153	22255	20610
SC-00003-R	US13 SUSSEX HIGHWAY	4.10	5.09	31797	25279	30991	28700
SC-00004-R	US13 SUSSEX HIGHWAY	17.10	18.76	22255	17693	25248	24968
SC-00021-R	SR20 STEIN HIGHWAY	7.61	7.87	17531	13937	17087	15824
SC-00021-R	SR20 STEIN HIGHWAY	7.18	7.61	17298	13752	16860	15613
SC-00021-R	SR20 NORMAN ESKRIDGE	6.31	7.18	12997	10333	12668	11731

Appendix E
Trip Generation Projections

Trip Generation for Proposed Development of Salisbury Area

TAZ	RESIDENTIAL			COMMERCIAL				Total 2045 AADT
	Equivalent Dwelling Units		2045 AADT				2045 AADT	
	Full Buildout	2045 Development		Acres	Land Use	Sq. Ft.		
A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B	1121	784.7	7,510	4.0	Retail	30,000	2,576	10,086
C	2784	1948.8	18,650	75.0	Light Ind.	816,750	2,846	21,496
D	1409	986.3	9,439	N/A	N/A	N/A	N/A	9,439
E	294	205.8	1,970	N/A	N/A	N/A	N/A	1,970
F	173	121.1	1,159	51.0	Retail	555,390	23,848	25,007
G	686	480.2	4,596	140.0	Light Ind.	1,524,600	5,313	10,808
	N/A	N/A	N/A	15.0	Office	163,350	899	N/A
H	329	230.3	2,204	N/A	N/A	N/A	N/A	2,204
I	362	253.4	2,425	2.5	Office	27,225	150	3,159
	N/A	N/A	N/A	2.5	Retail	27,225	585	N/A
J	908	635.6	6,083	8.5	Office	92,565	510	8,112
	N/A	N/A	N/A	6.5	Retail	70,785	1,520	N/A
K	183	128.1	1,226	12.0	Office	130,680	719	4,283
	N/A	N/A	N/A	10.0	Retail	108,900	2,338	N/A
L	1997	1397.9	13,378	8.5	Office	92,565	510	14,706
	N/A	N/A	N/A	3.5	Retail	38,115	818	N/A
M	1849	1294.3	12,386	20.0	Light Ind.	217,800	759	13,730
	N/A	N/A	N/A	2.5	Retail	27,225	585	N/A
N	160	112	1,072	2.5	Office	27,225	150	1,689
	N/A	N/A	N/A	2.0	Retail	21,780	468	N/A
O	740	518	4,957	6.0	Retail	65,340	1,403	6,720
	N/A	N/A	N/A	6.0	Office	65,340	360	N/A
P	343	240.1	2,298	N/A	N/A	N/A	N/A	2,298.0
Q	1468	1027.6	9,834	6.0	Retail	65,340	1,403	11,237
R	923	646.1	6,183	2.0	Retail	21,780	468	7,030
	N/A	N/A	N/A	10.0	Light Ind.	108,900	380	N/A
S	119	83.3	797	5.0	Light Ind.	54,450	190	987
T	155	108.5	1,038	N/A	N/A	N/A	N/A	1,038.0
U	229	160.3	1,534	N/A	N/A	N/A	N/A	1,534.0
V	215	150.5	1,440	N/A	N/A	N/A	N/A	1,440.0
Y	189	132.3	1,266	N/A	N/A	N/A	N/A	1,266
X	670	469	4,488	N/A	N/A	N/A	N/A	4,488
Y	189	132.3	1,266	N/A	N/A	N/A	N/A	1,266
Z	65	45.5	435	N/A	N/A	N/A	N/A	435
AA	517	361.9	3,463	30.0	Retail	326,700	7,014	10,478
	18077	***12,654***	***121,098***			***4,369,665***	***54,107***	***176,907***

Notes:

1) Full buildout based on 2010 Development Capacity Analysis prepared by the Maryland Department of Planning.
2) 2045 Development assumes an even distribution across TAZs, which is equal to 70 percent total buildout occurring by 2045.
3) ADTs for residential land use are based on ITE rates for single-family detached dwelling units.
4) Sq. ft. of commercial land uses to be developed by 2045 is 25 percent of total acres.

Source: The Traffic Group via S/WMPO

Analysis of Internal and External Trips

			COMMERCIAL TAZ																
			B	C	F	G	I	J	K	L	M	N	O	Q	R	S	AA		
		2045 RESIDENTIAL AADT	2576	2846	23848	6212	734	2029	3057	1328	1344	617	1763	1403	847	190	7014	INTERNAL TRIPS	EXTERNAL TRIPS
RESIDENTIAL TAZ	A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	B	7,510	96	106	887	231	27	75	114	49	50	23	66	52	32	7	261	2076	5434
	C	18,650	238	263	2204	574	68	187	282	123	124	57	163	130	78	18	648	5157	13493
	D	9,439	120	133	1115	291	34	95	143	62	63	29	82	66	40	9	328	2610	6829
	E	1,970	25	28	233	61	7	20	30	13	13	6	17	14	8	2	68	545	1425
	F	1,159	15	16	137	36	4	12	18	8	8	4	10	8	5	1	40	322	837
	G	4,596	59	65	543	141	17	46	70	30	31	14	40	32	19	4	160	1271	3325
	H	2,204	28	31	260	68	8	22	33	15	15	7	19	15	9	2	77	609	1595
	I	2,425	31	34	287	75	9	24	37	16	16	7	21	17	10	2	84	670	1755
	J	6,083	78	86	719	187	22	61	92	40	41	19	53	42	26	6	211	1683	4400
	K	1,226	16	17	145	38	4	12	19	8	8	4	11	9	5	1	43	340	886
	L	13,378	171	189	1581	412	49	134	203	88	89	41	117	93	56	13	465	3701	9677
	M	12,386	158	175	1464	381	45	125	188	81	82	38	108	86	52	12	430	3425	8961
	N	1,072	14	15	127	33	4	11	16	7	7	3	9	7	4	1	37	295	777
	O	4,957	63	70	586	153	18	50	75	33	33	15	43	34	21	5	172	1371	3586
	P	2,298	29	32	272	71	8	23	35	15	15	7	20	16	10	2	80	635	1663
	Q	9,834	126	139	1162	303	36	99	149	65	65	30	86	68	41	9	342	2720	7114
	R	6,183	79	87	731	190	22	62	94	41	41	19	54	43	26	6	215	1710	4473
	S	797	10	11	94	25	3	8	12	5	5	2	7	6	3	1	28	220	577
	T	1,038	13	15	123	32	4	10	16	7	7	3	9	7	4	1	36	287	751
	U	1,534	20	22	181	47	6	15	23	10	10	5	13	11	6	1	53	423	1111
	V	1,440	18	20	170	44	5	14	22	9	10	4	13	10	6	1	50	396	1044
	W	1,266	16	18	150	39	5	13	19	8	8	4	11	9	5	1	44	350	916
	X	4,488	57	63	530	138	16	45	68	30	30	14	39	31	19	4	156	1240	3248
	Y	1,266	16	18	150	39	5	13	19	8	8	4	11	9	5	1	44	350	916
	Z	435	6	6	51	13	2	4	7	3	3	1	4	3	2	0	15	120	315
	AA	3,463	44	49	409	107	13	35	52	23	23	11	30	24	15	3	120	958	2505
		INTERNAL TRIPS 60%	1546	1708	14311	3729	441	1215	1836	797	805	371	1056	842	507	113	4207	33484	87613
		EXTERNAL TRIPS 40%	1030	1138	9537	2483	293	814	1221	531	539	246	707	561	340	77	2807		

Source: The Traffic Group via S/WMPO

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Appendix F
Constrained and Unfunded Projects
2023 – 2050

Appendix F: Constrained Projects, 2023 - 2050

Agency	Facility/System	Location	Description	Cost (Thousands $)	Available Capital Funds (Thousands $)	Funding Source	Project Source	Manage System	Safety + Security	Access + Mobility	Multimodal	Environ-mental	Economic Development
2020 Highway Needs Inventory – Roadway (MD)													
Maryland State Highway Administration	U.S. Route 13 – N. Salisbury Boulevard/ Ocean Highway	Salisbury Bypass to Delaware State line	Divided highway reconstruct with access control improvements, 4.4 miles	$138,900.0	$0	SHA	1	●	●	●			
Maryland State Highway Administration	U.S. Route 13 – S. Fruitland Boulevard	Somerset County line to U.S. Route 13 Business	Divided highway reconstruct, 0.6 miles	$8,100.0	$0	SHA	1	●	●	●			
Maryland State Highway Administration	U.S. Route 50 – Ocean Gateway	Salisbury Bypass to E. of Walston Switch Road	Divided highway reconstruct, 2.6 miles (includes interchanges)	$237,700.00	$0	SHA	1	●	●	●			
Maryland State Highway Administration	MD 350 – Mt. Hermon Road	Beaglin Park Drive to Walston Switch Road	Two-lane reconstruct, 3.3 miles	$57,400.0	$0	SHA	1	●	●	●			
Maryland State Highway Administration	MD 12 – Snow Hill Road	Worcester County line to south of U.S. Route 13 Bypass	Two-lane reconstruct, 4.2 miles	$58,900.0	$0	SHA	1	●	●	●			
Maryland State Highway Administration	MD 12 – Snow Hill Road	U.S. Route 13 Bypass to Johnson Road	Multi-lane urban reconstruct, 1.0 miles	$116,500.0	$0	SHA	1	●	●	●			
Maryland State Highway Administration	MD 349 – Nanticoke Road	N. Upper Ferry Road to U.S. Route 50	Multi-lane reconstruct, 4.9 miles	$66,900.0	$0	SHA	1	●	●	●			
Maryland State Highway Administration	U.S. Route 50 – Ocean Gateway	MD 731A to White Lowe Road	Access control improvements, 9.7 miles	$289,900.0	$0	SHA	1	●	●	●			
			SHA Total Identified Projects	**$974,300.0**									
			SHA Constrained		**$0.0**								
			SHA Unfunded	**$974,300.0**									

Agency	Facility/System	Location	Description	Cost (Thousands $)	Available Capital Funds (Thousands $)	Funding Source	Project Source	Manage System	Safety + Security	Access + Mobility	Multimodal	Environ-mental	Economic Development
System Preservation – Roadway, Bicycle/Pedestrian, Freight (MD)													
Maryland State Highway Administration	Roadways	Various in Wicomico County (county-wide)	Resurface / Rehabilitate	$8,381.0	$8,381.0	SHA	2	●					
Maryland State Highway Administration	Roadways	Various in Wicomico County (county-wide)	Safety and resurfacing	$9,810.0	$9,810.0								
Maryland State Highway Administration	Roadways	MD 12 at Robins Avenue	Geometric improvements	$3,338.0	$3,338.0								
Maryland State Highway Administration	Bridge 2200400	US 13 Business over East Branch of Wicomico River	Bridge replacement	$8,836.0	$8,836.0	SHA and FHWA	4	●	●				
Maryland State Highway Administration	U.S. Route 50 – Ocean Gateway	West of MD347 and East of Rockawalkin Road	Geometric improvements	$8,499.0	$8,499.0	SHA	2	●	●				
Maryland State Highway Administration	Salisbury Bike Network	Carroll Street	Construction	$400.0	$400.0	SHA and FHWA							
Maryland State Highway Administration	Eastside Bike Network	Salisbury	Implementation	$200.0	$200.0	SHA and FHWA		●	●				
Maryland State Highway Administration	Naylor Mill Connector Bikeway	Salisbury	Construction	$100.0	$100.0	SHA	2	●			●		
Maryland State Highway Administration	Salisbury Bike Ped	Salisbury	Counters	$49.3	$49.3	SHA	2	●	●				
Maryland State Highway Administration	Salisbury Rail Trail, Phases 2 & 3	Salisbury	Design	$139.7	$139.7	SHA	2						
Maryland State Highway Administration	Salisbury Bike Network	Salisbury	Design	$597.0	$597.0	SHA	2	●	●				
Maryland State Highway Administration	Eastern Shore Drive Multi-Use Path	Salisbury	Design	$120.0	$120.0	SHA and FHWA	2	●	●				
Maryland State Highway Administration	Trail Construction	Pirates Wharf	Construction	$156.3	$156.3	FHWA and SHA	4		●				●
Maryland State Highway Administration	National Electric Vehicle Infrastrucutre (“NEVI”)	Various in Wicomico County	Vehicle charging stationd	$1,207.0	$1,207.0	SHA, FHWA, and Private	4	●		●			

Agency	Facility/System	Location	Description	Cost (Thousands $)	Available Capital Funds (Thousands $)	Funding Source	Project Source	Manage System	Safety + Security	Access + Mobility	Multimodal	Environ-mental	Economic Development
			SHA Total Identified Projects	**$41,833.3**									
			SHA Constrained		**$41,833.3**								
			SHA Unfunded	**$0.0**									

Agency	Facility/System	Location	Description	Cost (Thousands $)	Available Capital Funds (Thousands $)	Funding Source	Project Source	Manage System	Safety + Security	Access + Mobility	Multimodal	Environ-mental	Economic Development
System Preservation – Roadway, Bicycle/Pedestrian, Freight (MD)													
City of Salisbury	Mill Street Bridge	Salisbury	Deck replacement	$1,500.0	$1,500.0	SHA	4	●	●				
City of Salisbury	Pedestrian network	Salisbury	Installation of pedestrian signals and rapid flashing beacons	$250.5	$250.5	SHA and FHWA	4	●	●				
City of Salisbury	Fitzwater-Parsons Road	Salisbury	Safety improvements	$172.7	$172.7	SHA	4	●	●				
			Total Identified Projects	**$1,923.2**									
			Constrained		**$1,923.2**								
			Unfunded	**$0.0**									

Agency	Facility/System	Location	Description	Cost (Thousands $)	Available Capital Funds (Thousands $)	Funding Source	Project Source	Manage System	Safety + Security	Access + Mobility	Multimodal	Environ-mental	Economic Development
System Preservation – Roadway, Bridge/Dams, Bicycle/Pedestrian, Freight (DE)													
Delaware Department of Transportation	Discount Land Road	Laurel	Roadway widening, bicycle lanes, and construction of sidewalk or multi-use path adjacent to roadway	$5,810.0	$5,810.0	PE: 100% State; ROW: 100% State and Const: 100% State	3	●	●				
Delaware Department of Transportation	BR 3-314	Laurel Road over James Branch	Bridge rehabilitation	$30.0	$30.0	PE: 100% State; and ROW: 100% State	3	●	●				
Delaware Department of Transportation	BR 3-237	Old Furnace Road over Nanticoke River	Engineering study – R.O.W	$100.0	$100.0	ROW: 100% State	3	●	●				
Delaware Department of Transportation	Various bridges – open end	Sussex County	Scour countermeasures, Open End (FY 22-24)	$4,102.1	$4,102.1	Const: 100% State; and Utility: 100% State	3	●	●				
			DelDOT Total Identified Projects	**$10,042.1**									
			DelDOT Funded		**$10,042.1**								
			DelDOT Unfunded	**$0.0**									

Agency	Facility/System	Location	Description	Cost (Thousands $)	Available Capital Funds (Thousands $)	Funding Source	Project Source	Manage System	Safety + Security	Access + Mobility	Multimodal	Environ-mental	Economic Development
System Preservation – Transit (MD)													
Maryland Transit Administration	Medium Duty Bus Replacement (406)	Shore Transit	FY 2019 (5339)	$165.0	$165.0	FTA, MTA, + Local (PTP)	2	●					
Maryland Transit Administration	Medium Duty Bus Replacements - 2 (260 & 411)	Shore Transit	FY 2022 (5339)	$219.0	$219.0	FTA, MTA, + Local (PTP)	2	●					
Maryland Transit Administration	Small Duty Bus Replacements - 3 (231, 245 & 97)	Shore Transit	FY 2022 (5339)	$241.0	$241.0	FTA, MTA, + Local (PTP)	2	●					
Maryland Transit Administration	Support Vehicle (partial)	Shore Transit	FY 2022 (5339)	$18.0	$18.0	FTA, MTA, + Local (PTP)	2	●					
Maryland Transit Administration	Propane Conversions – 6	Shore Transit	FY 2019 (5339 Discretionary)	$100.0	$100.0	FTA, MTA, + Local (PTP)	2	●				●	
Maryland Transit Administration	Disinfectant Module	Shore Transit	FY 2020 (CARES)	$2.0	$2.0	FTA, MTA, + Local (PTP)	2	●	●				
Maryland Transit Administration	Preventative Maintenance	Shore Transit	FY 2023 (5307)	$800.0	$800.0	FTA, MTA, + Local (PTP)	2	●					
Maryland Transit Administration	Mobility Management	Shore Transit	FY 2022 & 2023 (5307)	$286.0	$286.0	FTA, MTA, + Local (PTP)	2	●					
Maryland Transit Administration	Small Duty Bus Replacement – 1	Shore Transit	FY 2023 (5307)	$85.0	$85.0	FTA, MTA, + Local (PTP)	2	●					
Maryland Transit Administration	Small Duty Bus Replacements – 2 (100 & 101)	Shore Transit	FY 2023 (5339)	$225.0	$225.0	FTA, MTA, + Local (PTP)	2	●					
Maryland Transit Administration	Bus Security Cameras	Shore Transit	FY 2020 (CARES)	$400.0	$400.0	FTA, MTA, + Local (PTP)	2	●	●				
Maryland Transit Administration	Fixed Route Management System	Shore Transit		$590.0	$590.0	FTA, MTA, + Local (PTP)	2	●	●				
Maryland Transit Administration	Transportation Development Program	Shore Transit	FY 2021	$95.0	$95.0	FTA, MTA, + Local (PTP)	2	●					
			MTA Total Identified Projects	**$3,226.0**									
			MTA Constrained		**$3,226.0**								
			MTA Unfunded	**$0.0**									

Agency	Facility/System	Location	Description	Cost (Thousands $)	Available Capital Funds (Thousands $)	Funding Source	Project Source	Manage System	Safety + Security	Access + Mobility	Multimodal	Environ-mental	Economic Development
System Preservation – Transit (DE)													
DART	Transit Vehicle Replacement Paratransit Buses Sussex	Sussex County	FY 2020 – FY 2026	$ 18,494.9	$ 18,494.9	DelDOT	3	●					
DART	Transit Vehicle Replacement (12) 29' Buses	Sussex County	FY 2023	$5,988.0	$5,988.0	DelDOT	3	●					
			DART Total Identified Projects	**$24,482.9**									
			DART Funded		**$24,482.9**								
			DART Unfunded	**$0.0**									

Project Identification Sources (Codes):
1 = Maryland SHA Highway Needs Inventory – Wicomico County 2020 Revised
2 = MDOT Consolidated Transportation Program (FY 2024 to 2029)
3 = Delaware DOT Capital Transportation Program (FY 2023 to 2028)
4 = S/WMPO TIP (FY 2024 – FY 2027)

Appendix G
MDOT Financial Forecast for Wicomico County

Appendix G: MDOT Financial Forecast for Wicomico County

In August 2022, MDOT developed revenue projections of reasonably available funds that can be used for transportation projects in Wicomico County. According to USDOT, this includes information on how the MPO reasonably expects to fund the projects included in the plan, including anticipated revenues from FHWA and FTA, state government, regional or local sources, the private sector, and user charges. **Connect 2050** must demonstrate that there is a balance between the expected revenue sources for transportation investments and the estimated costs of the projects and programs described in the plan. In other words, the plan must be fiscally (or financially) constrained. The following information represents the complete MDOT Financial Forecast for Wicomico County:

Salisbury/Wicomico Metropolitan Planning Organization Regional Transportation Plan

Financial Projections for Wicomico County

Prepared by

Maryland Department of Transportation

August 2022

DOCUMENTATION OF ASSUMPTIONS

Date: August 2022

Subject: Methodology and Assumptions used to derive the 2022 – 2050 Constrained Long-range Transportation Plan

Total Program Revenues/Expenditures (operating and capital):

- FY 1981 to FY 2021 figures are actual expenditures from historical records. FY 2022 to FY 2027 are from the FY 2022-2027 Transportation Trust Fund (TTF) Financial Plan and the Final FY 2022-2027 Consolidated Transportation Plan (CTP).
- The federal funds received directly by the Washington Metropolitan Area Transit Authority (WMATA) are **not** included in this exercise.
- FY 2028 to FY 2050 projections of state funds use a historical annual average growth rate of 5.0%. Federal fund projections for the same period are based on an average growth rate of 3.0% for highway and 2.33% for transit program funds.

Operating Expenditures:

- FY 1981 to FY 2021 figures are actual expenditures from historical records. Expenditures for FY 2022 to FY 2027 are the operating budget projections contained in the FY 2022-2027 TTF Financial Plan. For the 2020 and prior CLRP updates, operating budget projections were taken from the financial plan published in January that supports the Final CTP. For the current 2022 CLRP update, operating budget projections were again based on the financial plan published in January that supports the Final CTP, with updates for actions taken during the legislative session.
- FY 2028 to FY 2050 projections are derived by inflating the previous year with an estimate for the percentage change in the Consumer Price Index for All Urban Consumers (CPI-U) plus 2%. CPI-U is a generally accepted measure of inflation. The projected annual change in index figures is based on information received from two economic forecasting firms. To account for the additional operating costs associated with new capital expansions, 2% is added to the forecasted rate.
- For the Purple Line Light Rail Transit project, the operating and maintenance portion of availability payments from the April 2022 project forecast were included as part of the operating budget projections.

Capital - Systems Preservation:

- Department records were used to determine the split between systems preservation and expansion for FY 1981 to FY 2021. Amounts for FY 2022 to FY 2027 are from the Final FY 2022-2027 CTP.
- For the period FY 2028 – FY 2050, an annual growth rate of 2.5% is assumed for systems preservation projects, not to exceed 70% of the total program.
- For the period FY 2028 to FY 2050, it is assumed that the State's General Fund will fund Maryland's share of the new dedicated capital funding for WMATA ($167 million annually).

Capital - Expansion:

- Expenditures for capital expansion were derived by subtracting both operating and systems preservation expenditures from the total program expenditures for each year.

Wicomico County – Percentage of Capital Expansion:

- Total capital figures from FY 1981 to present were split into surface and non-surface. Surface included highway (State Highway Administration (SHA)) and transit (Maryland Transit Administration (MTA) and WMATA) costs. Non-surface included expenses for the Maryland Port Administration, Maryland Aviation Administration, Motor Vehicle Administration and the Secretary's Office.
- The surface / non-surface data and the system preservation / expansion data were combined, analyzed, and evaluated to produce estimates of the percentage of Maryland expansion associated with surface transportation for the various time periods.
- Surface capital in Wicomico County was derived from historical records and used with the above-mentioned projections to produce the estimates for Wicomico County as a percent of Total Surface Expansion and as a percent of Total Maryland Expansion.

MDOT Operating & Capital Expenditures - Statewide
History, Program & Forecast
(Millions of Dollars)

Fiscal Year	Operating	Systems Preservation	Operating & Systems Pres.	Expansion	Statewide Total
1981	265	111	376	247	623
1982	287	136	423	236	659
1983	322	164	486	284	770
1984	352	167	519	246	765
1985	385	204	589	319	908
1986	428	234	662	403	1,065
1987	441	264	705	506	1,211
1988	478	260	738	615	1,353
1989	508	227	735	677	1,412
1990	551	270	821	760	1,581
1991	591	268	859	773	1,632
1992	577	187	764	542	1,306
1993	638	254	892	418	1,310
1994	689	279	968	393	1,361
1995	709	400	1,109	497	1,606
1996	784	391	1,175	465	1,640
1997	770	417	1,187	493	1,680
1998	808	451	1,259	411	1,670
1999	868	515	1,383	420	1,803
2000	913	476	1,389	455	1,844
2001	979	578	1,557	632	2,189
2002	1,045	612	1,657	772	2,429
2003	1,158	620	1,778	772	2,550
2004	1,178	619	1,797	762	2,559
2005	1,237	714	1,951	780	2,731
2006	1,303	729	2,032	793	2,825
2007	1,396	724	2,120	701	2,821
2008	1,488	766	2,254	680	2,934
2009	1,527	974	2,501	368	2,869
2010	1,583	957	2,540	275	2,815
2011	1,548	908	2,456	325	2,781
2012	1,572	1,096	2,668	366	3,034
2013	1,638	1,154	2,792	416	3,208
2014	1,843	1,324	3,167	477	3,644
2015	1,859	1,438	3,297	603	3,900
2016	1,917	1,389	3,306	806	4,112
2017	1,948	1,217	3,165	1,341	4,506
2018	2,048	1,147	3,195	1,264	4,459
2019	2,128	1,117	3,245	1,196	4,441
2020	2,173	1,593	3,766	1,200	4,966
2021	2,179	1,389	3,568	985	4,553
2022	2,208	1,931	4,139	1,147	5,286
2023	2,396	2,045	4,441	631	5,072
2024	2,418	1,907	4,325	515	4,840
2025	2,469	1,775	4,244	447	4,691
2026	2,518	1,816	4,334	455	4,789
2027	2,609	1,887	4,496	465	4,962
2028	2,734	1,637	4,371	701	5,072
2029	2,849	1,715	4,564	735	5,299
2030	2,968	1,799	4,767	771	5,538
2031	3,091	1,890	4,981	810	5,791
2032	3,217	1,985	5,202	851	6,053
2033	3,350	2,084	5,434	893	6,327
2034	3,488	2,188	5,676	938	6,614
2035	3,633	2,297	5,930	985	6,915
2036	3,787	2,357	6,144	1,087	7,231
2037	3,946	2,416	6,362	1,200	7,562
2038	4,112	2,476	6,588	1,320	7,908
2039	4,286	2,538	6,824	1,446	8,270
2040	4,467	2,601	7,068	1,581	8,649
2041	4,656	2,666	7,322	1,725	9,047
2042	4,853	2,733	7,586	1,877	9,463
2043	5,060	2,801	7,861	2,039	9,900
2044	5,275	2,871	8,146	2,212	10,358
2045	5,500	2,943	8,443	2,392	10,835
2046	5,735	3,017	8,752	2,585	11,337
2047	5,981	3,092	9,073	2,789	11,862
2048	6,238	3,169	9,407	3,006	12,413
2049	6,504	3,249	9,753	3,237	12,990
2050	6,783	3,330	10,113	3,483	13,596

SALISBURY / WICOMICO COUNTY

Percentage of Capital Expansion

(Millions of Dollars)

Surface Expansion % of Maryland Expansion:	
1981-2021	84.9%

Salisbury Expansion % of Surface Expansion:	
1981-2021	0.9%

Fiscal Year	Statewide Expansion Funds	Surface Percentage	Private Funds	Total Surface Available	Salisbury Percentage	Total Salisbury Expansion Funds
2020	1,200					3.3
2021	985					3.2
2022	1,147					2.1
2023	631					1.9
2024	515					2.1
2025	447					2.4
2026	455					2.7
2027	465					2.7
2028	701	595	24	619	5.8	5.8
2029	735	624	24	648	6.0	6.0
2030	771	655	24	679	6.3	6.3
2031	810	688	25	713	6.6	6.6
2032	851	722	25	747	7.0	7.0
2033	893	758	25	783	7.3	7.3
2034	938	796	25	821	7.6	7.6
2035	985	836	25	861	8.0	8.0
2036	1,087	923	25	948	8.8	8.8
2037	1,200	1,019	25	1,044	9.7	9.7
2038	1,320	1,121	25	1,146	10.7	10.7
2039	1,446	1,228	25	1,253	11.6	11.6
2040	1,581	1,342	25	1,367	12.7	12.7
2041	1,725	1,464	25	1,489	13.9	13.9
2042	1,877	1,593	25	1,618	15.1	15.1
2043	2,039	1,731	25	1,756	16.3	16.3
2044	2,212	1,878	25	1,903	17.7	17.7
2045	2,392	2,031	25	2,056	19.1	19.1
2046	2,585	2,194	25	2,219	20.6	20.6
2047	2,789	2,368	25	2,393	22.3	22.3
2048	3,006	2,552	25	2,577	24.0	24.0
2049	3,237	2,748	25	2,773	25.8	25.8
2050	3,483	2,957	25	2,982	27.7	27.7
Total '28-'50	38,663	32,821	572	33,393	310.6	310.6
Total '20-'50	44,509					331.0

MDOT - Office of Finance
August 2022

Appendix H
DelDOT Financial Forecast for Sussex County

Appendix H: DelDOT Financial Forecast for Sussex County

The Delaware Department of Transportation developed revenue projections of reasonably available funds that can be used for transportation projects in Sussex County. According to USDOT, this includes information on how the MPO reasonably expects to fund the projects included in the plan, including anticipated revenues from FHWA and FTA, state government, regional or local sources, the private sector, and user charges. **Connect 2050** must demonstrate that there is a balance between the expected revenue sources for transportation investments and the estimated costs of the projects and programs described in the plan. In other words, the plan must be fiscally (or financially) constrained. The complete DelDOT Financial Forecast for Sussex County is below.

Capital Funding Forecast by County (FY25-FY50)[1]

July 22, 2022

Calculation of County Percentages, Using Population and Mileage Factors

	Population (2020 Census)	Population Ratio	Population Factor (Ratio *.4)
New Castle	570,719	0.58	0.23
Kent	181,851	0.18	0.07
Sussex	237,378	0.24	0.10
Total	989,948	1.00	0.40

	Number of Lane Miles (2022)	Mileage Ratio	Mileage Factor (Ratio *.6)
New Castle	5,823.04	0.41	0.25
Kent	3,371.80	0.24	0.14
Sussex	5,008.73	0.35	0.21
Total	14,203.57	1.00	0.60

Population Factor + Mileage Factor

	Population Factor + Mileage Factor	Final Percentage
New Castle	0.48	48%
Kent	0.21	21%
Sussex	0.31	31%
Total	1.00	100%

%

Calculation of Estimated[1] Capital Dollars[2] Through 2050, Using County Percentages

Total Funds Available for Capital Expenditures	$13,549,754
"Total State Capital Spend" Dollars Removed	-$6,264,851
Net Amount Available for Capital Projects	$3,091,553

Multiply the Net Amount by the Final Percentage

	Final Percentage	Capital Forecast Amount
New Castle	48%	$1,483,946
Kent	21%	$649,226
Sussex	31%	$958,381
Total	100%	$3,091,553

[1] *These numbers are estimates of capital transportation funding that are to be used* ***for planning purposes only*** *and are subject to change.*

[2] ***All figures are in 000's.*** *Capital expenditure estimates were taken from DelDOT Base Financial Plan through 2050, as of July 2022.*

Appendix I
S/WMPO Performance Measures

Appendix I: Performance Measures[1]

Transportation Performance Measure 1: Safety Performance Target Setting

In compliance with the FHWA's 23 CFR Part 490, Subpart B - National Performance Management Measures for the Highway Safety Improvement Program ("HSIP"), the following is a summary of S/WMPO, DelDOT, and MDOT targets to meet or make significant progress toward the five (5) required safety performance goals. The targets were set by the DOTs in August 2017 and S/WMPO opted to adopt and support the statewide targets set both DOTs on February 27, 2018 via Resolution 02.-2018.

Methodology: Both states have adopted the Toward Zero Deaths ("TZD") approach. TZD is a data-driven effort to reduce fatalities and serious injuries by developing strong leadership in organizations that directly impact highway safety. For consistency with the 2015 Strategic Highway Safety Plan ("SHSP"), DelDOT and Office of Highway Safety ("OHS") agreed to use the SHSP annual targets as the basis for developing Delaware's 2018 targets for each safety measure. Annually, Delaware's an additional reduction of at least 3 fatalities and 15 serious injuries over the previous year to achieve a 50% reduction by 2035. In Maryland the annual targets for each of the measures are set using an exponential trend line connecting the historical data to the 2030 goal found in their SHSP.

The chart shows the Delaware and Maryland established statewide targets (2018-2021, 5 year rolling averages) for each of the five (5) measures. Once 2022 Fatality Analysis Reporting System ("FARS"), Highway Performance Monitoring System ("HPMS"), and FARS Annual Report File ("ARF") data becomes finalized (December 2023) it will be compared to these targets to determine whether Delaware, Maryland, and S/WMPO and MPOs have met or made significant progress toward our crash reduction targets.

Details on the HSIP projects can be found in the TIP.

State/MPO Established Safety Targets*	Maryland	Delaware
Number of Fatalities	432.8	108.2
Rate of Fatalities per 100 million VMT	0.74	1.11
Number of Serious Injuries	2,916.2	424.3
Rate of Serious Injuries per 100 million VMT	5.12	4.35
Number of Non-motorized Fatalities and Non-motorized Serious Injuries	477.4	82.4

* Projected 2017-2021 5-year rolling averages

[1] Source: Salisbury/Wicomico Metropolitan Planning Organization Transportation Improvement Program, Fiscal Year 2023-2026, Adopted December 5, 2022.

The following charts show the historical trends composed of 5-year rolling averages, 2018 HSIP baseline figures and 2018-2022 targets for all five (5) safety performance measures. Figures include all injuries and fatalities which occurred on all public roads.

MARYLAND					
Performance Measure	***2018***	***2019***	***2020***	***2021***	***2022***
Number of Fatalities	416	435	425.7	420.6	466.6
Rate of Fatalities per 100 million VMT	0.680	0.771	0.750	0.742	0.774
Number of Serious Injuries	3,171	3,211.1	3,029.4	2,905.8	2,263.9
Rate of Serious Injuries per 100 million VMT	5.64	5.702	5.372	5.075	3.815
Number of Non-motorized Fatalities and Non-motorized Serious Injuries	459	439.9	465.8	467.7	554.7

DELAWARE					
Performance Measure	***2017***	***2018***	***2019***	***2020***	***2021***
Number of Fatalities	119	111	132	116	139
Rate of Fatalities per 100 million VMT	1.14	1.09	1.29	1.39	1.38
Number of Serious Injuries	477	377	402	447	553
Rate of Serious Injuries per 100 million VMT	4.56	3.70	3.91	5.37	5.50
Number of Non-motorized Fatalities and Non-motorized Serious Injuries	79	93	104	95	109

Transportation Performance Measure 2: Pavement and Bridge Conditions

Pavement conditions are reported to FHWA by states through the HPMS for Federal-aid highways. The reporting agency will use the International Roughness Index ("IRI") to measure the smoothness of pavement, as well as the ride quality. Minimum pavement condition for the Interstate System is not to exceed 5 percent classified in Poor condition. The following performance measures are utilized in assessing the condition of the National Highway System:

MARYLAND Performance Measures: Pavement Condition*	Baseline	Two-Year	Four-Year
% of Interstate pavement in GOOD condition (2018 - 2022)	60.4	54.7	50.0
% of Interstate pavement in POOR condition (2018 - 2022)	0.5	0.7	2.0
% of non-Interstate NHS pavements in GOOD condition (2018 - 2022)	33.0	32.2	30.0
% of non-Interstate NHS pavement POOR condition (2018 - 2022)	7.0	6.8	8.0

DELAWARE Performance Measures: Pavement Condition*	Baseline	Two-Year	Four-Year
% of Interstate pavement in GOOD condition (2017 - 2021)	54.7	N/A	50.0
% of Interstate pavement in POOR condition (2017 - 2021)	0.8	N/A	2.0
% of non-Interstate NHS pavements in GOOD condition (2017 - 2021)	59.7	50.0	50.0
% of non-Interstate NHS pavement POOR condition (2017 - 2021)	1.2	2.0	2.0

* NOTES:
Good condition: Suggests no major investment is needed
Poor condition: Suggests major investment is needed

TPM 2 targets were set by the DOTs and S/WMPO opted to adopt and support the statewide targets set by both DOTs on November 15, 2018, via Resolutions 11-2018 and 12-2018.

Transportation Performance Measure 3: Infrastructure condition targets for the National Highway System ("NHS") – Bridge Conditions

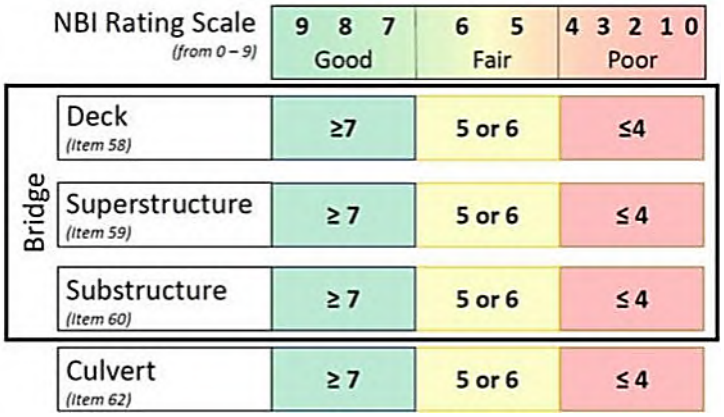
States and MPOs must establish two and four-year targets for all bridges carrying the NHS. This includes on-and off-ramps connected to the NHS within a state, as well as bridges carrying the NHS across a state border (regardless of ownership. States must maintain NHS bridges at less than 10.0 percent of a deck area as being structurally deficient.

TPM 3 targets were set by the DOTs and S/WMPO opted to adopt and support the statewide targets set by both DOTs.

MARYLAND Performance Measures: Bridge Condition*	Baseline	Two-Year	Four-Year
% of bridges on NHS in GOOD condition (2018 - 2022)	27.4	23.6	28.4
% of bridges on NHS in POOR condition (2018 - 2022)	2.3	2.7	2.4

DELAWARE Performance Measures: Bridge Condition*	Baseline	Two-Year	Four-Year
% of bridges on NHS in GOOD condition (2017 - 2021)	17.0	15.0	15.0
% of bridges on NHS in POOR condition (2017 - 2021)	1.0	5.0	5.0

* NOTES:
Good condition: Suggests no major investment is needed
Poor condition: Suggests major investment is needed



Measure: Deck area based on National Bridge Inventory ("NBI") condition ratings for the deck, superstructure, substructure and / or culvert. Overall, condition is determined by the lowest of the four ratings.

Transportation Performance Measure 3: Travel Time Reliability Measures – Level of Travel Time Reliability

Level of Travel Time Reliability ("LOTTR") is defined as the ratio of the longer travel times (80th percentile) to a "normal" travel time (50th percentile), using data from FHWA's National Performance Management Research Data Set ("NPMRDS"). Reliability is measured during the full calendar year broken down into four (4) time periods: AM Peak; Midday; PM Peak; and Weekends. If any of these segments have a LOTTR above 1.50, the segment is determined not reliable. All non-reliable segments are then calculated in combination with daily traffic volumes and average vehicle occupancy to produce the total number of person-miles impacted by each unreliable segment.

Illustration of Reliability Determination

Performance Measures: Travel Time Reliability
Interstate Travel Time Reliability Measure: Percent of person-miles traveled on the Interstate that are reliable
Non-Interstate Travel Time Reliability Measure: Percent of person-miles traveled on the non-Interstate that are reliable

Monday – Friday	6am – 10am	$LOTTR = \frac{44\ sec}{35\ sec} = 1.26$
	10am – 4pm	LOTTR = 1.39
	4pm – 8pm	LOTTR = 1.54
Weekends	6am – 8pm	LOTTR = 1.31
Must exhibit LOTTR below 1.50 during all of the time periods		Segment IS NOT reliable

MARYLAND Performance Measures: Travel Time Reliability	Baseline (2018)	Two-Year (2020)	Four-Year (2022)
% of miles traveled on interstate that are reliable	71.4	69.0	72.1
% of miles traveled on non-interstate NHS that are reliable	82.0	82.8	82.0

DELAWARE Performance Measures: Travel Time Reliability	Baseline (2017)	Two-Year (2019)	Four-Year (2021)
% of miles traveled on interstate that are reliable	80.7	77.3	73.3
% of miles traveled on non-interstate NHS that are reliable	92.3	N/A	89.5

Transportation Performance Measure 3: Travel Time Reliability Measures – Truck Level of Travel Time Reliability ("TTTR")

Measure: The sum of maximum TTTR for each reporting segment, divided by the total miles of Interstate system only. Reporting is divided into five (5) periods: morning peak (6-10 A.M.); midday (10 a.m. – 4 p.m.); afternoon peak (4-8 p.m.); and overnights for all days (8 p.m. – 6 a.m.). The TTTR ratio is generated by dividing the 95th percentile time by the normal time (50th percentile) for each segment. The measure is based on the worst performing time period for each segment, averaged together to create a single file.

Illustration of Truck Reliability Determination

Monday – Friday	6 – 10 a.m.	$TTTR = \frac{63 \text{ sec}}{42 \text{ sec}} = 1.50$
	10 a.m. – 4 p.m.	$TTTR = \frac{62 \text{ sec}}{45 \text{ sec}} = 1.38$
	4 – 8 p.m.	$TTTR = \frac{85 \text{ sec}}{50 \text{ sec}} = 1.70$
Weekends	6 a.m. – 8 p.m.	$TTTR = \frac{52 \text{ sec}}{40 \text{ sec}} = 1.30$
Overnight	8 p.m. – 6 a.m.	$TTTR = \frac{46 \text{ sec}}{38 \text{ sec}} = 1.21$
Maximum TTTR		1.70

MARYLAND Performance Measures: Truck Travel Time Reliability Index	Baseline (2018)	Two-Year (2020)	Four-Year (2022)
Truck Travel Time Reliability Index	1.88	1.86	1.88

DELAWARE Performance Measures: Truck Travel Time Reliability Index	Baseline (2017)	Two-Year (2019)	Four-Year (2021)
Truck Travel Time Reliability Index	2.05	2.25	2.45

Transit Asset Management Plans ("TAM Plan")

On October 1, 2016 the Federal Transit Administration ("FTA") published its Final Rule (49 CFR 625 and 630) on the Federal Requirements for the development of TAM Plans by all transit agencies that receive federal funding. A TAM Plan involves an inventory and assessment of all assets used in the provision of public transportation. The term "asset" refers to physical equipment including rolling stock, equipment and facilities. The goal of asset management is to ensure that an agency's assets are maintained and operated in a consistent State of Good Repair ("SGR").

The TAM Final Rule distinguishes requirements between larger and smaller or rural transit agencies:
— Tier I provider: "owns, operates, or manages either 1): 101 or more vehicles in revenue service during peak regular service or in any one non-fixed route mode, or 2): rail transit."
— Tier II provider: "owns, operates, or manages 1): 100 or fewer vehicles in revenue service during peak regular service across all non-rail fixed route modes or in any one non-fixed route mode, 2): a subrecipient under the 5311 Rural Area Formula Program, and 3): or any American Indian tribe."

In the S/WMPO region, DTC DelDOT is considered a Tier I provider, and Shore Transit is considered a Tier II provider. As statewide transit agencies, DTC DelDOT and MDOT MTA have completed their TAM Plans in 2018. Per federal regulations, MDOT MTA created a group TAM Plan on behalf of the Tier II Locally Operated Transit Systems (LOTS) in the State of Maryland that supports their implementation of asset management practice and the federal requirements. This group TAM Plan applies only to the 23 LOTS in Maryland that are recipients of 5311 funding, operate less than 100 vehicles, or serve an American Indian tribe.

Measures: The TAM Rule requires transit agencies establish SGR performance measures and targets for each asset class. Tier I providers must report on the SGR measures for the following asset categories:

— Rolling stock (revenue vehicles): Percent of vehicles that have either met or exceeded their Useful Life Benchmark ("ULB");
— Equipment (including non-revenue service vehicles): Percent of vehicles that have either met or exceeded their ULB;
— Infrastructure (rail fixed-guideway, track, signals, and systems): Percent of track segments with performance restrictions; and
— Facilities: Percent of facilities rated below condition 3 on the FTA TERM scale

DTC DelDOT is not responsible for infrastructure, as they are not a grantee that directly operates, maintains or stores rail cars, and has no associated rail infrastructure in its asset portfolio.

As Tier I providers, DTC DelDOT must develop its own TAM Plan with all the elements listed below. As required by the TAM Final Rule, Tier I Provider TAM Plans must include the following:

- Include the capital asset inventory;
- Provide asset condition assessment information;
- Describe the decision support tools used to prioritize capital investment needs;
- Identify project-based prioritization of investments;
- Define the TAM and SGR policy;
- Discuss the TAMP implementation strategy;
- Describe the key TAM activities to be undertaken during the plan's four-year horizon period;

- List resources needed to carry out the TAMP; and
- Outline how the TAMP will be monitored and updated to support continuous TAM improvement.

As a Tier II provider, Shore Transit was included in MDOT MTA's group TAM Plan with 22 other LOTS. As required by the TAM Final Rule, Tier II Provider TAM Plans must include the following:

- Maintain an Asset Inventory that includes all vehicles, facilities, and equipment used in the delivery of transit service;
- Identify all Safety-Critical assets within the Asset Inventory and prioritize efforts to maintain those Safety-Critical assets in a SGR;
- Clearly define ownership, control, accountability, and reporting requirements for assets, including leased and third-party assets;
- Set annual asset performance targets and measure, monitor, and report on progress towards meeting those targets;
- Consider asset criticality, condition, performance, available funding, safety considerations, and the evaluation of alternatives that consider full lifecycle benefits, costs, and risks in capital project prioritization and other asset management decisions; and
- Maintain a group asset management plan, in coordination with MDOT MTA and LOTS safety policies and plans, as a means of delivering this policy.

Data: In this initial Tier I TAMP, DTC will use FTA ULB measures for transit assets and rolling stock. Targets for revenue/non-revenue vehicles are expressed as a percentage of the assets that are at or the ULB. Targets for equipment are expressed as a percentage of the assets that are at or beyond the ULB. Facility targets are based on the overall condition score in terms of a percentage of facilities failing to meet the target score.

DTC ASSET PERFORMANCE TARGETS – ROLLING STOCK AND EQUIPMENT

ASSET CLASS	ASSET USE	DTC UL	FTA ULB	TARGET %	RATIONALE
Rolling Stock - Revenue Vehicles					
Commuter Rail Car (RP)	Rail	-	39	<10%	DTC's policy is to replace at end of UL. Less than 10% is acceptable.
Over-the-Road Bus (BR)	Commuter	12	14	<10%	
40ft/30ft Buses (BU)	Fixed-route	12	14	<10%	
Cutaway Bus (CU)	Paratransit	5	10	<10%	
Equipment - Non-Revenue Vehicles					
Car (AO)	Support Services	8	8	<20%	With current funding levels DTC will meet target goal within 4 years.
SUV (SV)	Support Services	8	8		
Truck/Van (VN)	Support Services	10	8		

DTC ASSET PERFORMANCE TARGETS – FACILITIES

ASSET CLASS	CONDITION BENCHMARK	TARGET %	RATIONALE
Facilities	3	20%	With DTC's Facility Preventative Maintenance plan goals, a 20% target is reasonable

For Shore Transit, based on the reported asset condition, targets have been set for each asset class taking the projected funding levels into consideration. The table below summarizes the FY 2017 performance and FY 2019 targets for Tier II LOTS assets. Targets have been set based on the anticipated funding availability and the priorities of both the LOTS and MDOT MTA.

FY22 TARGET ASSET PERFORMANCE FOR ALL ASSETS

NTD Vehicle Type	Baseline	FY 2022 Target
Revenue Vehicles		
Bus	21%	22%
Cutaway Bus	24%	28%
Automobile	41%	47%
Van	5%	11%
Equipment		
Trucks and Other Rubber Tire Vehicles (Non-Revenue Vehicles)	53%	3%
Facilities		
Administrative/Maintenance	0%	0%
Passenger/Parking	0%	0%