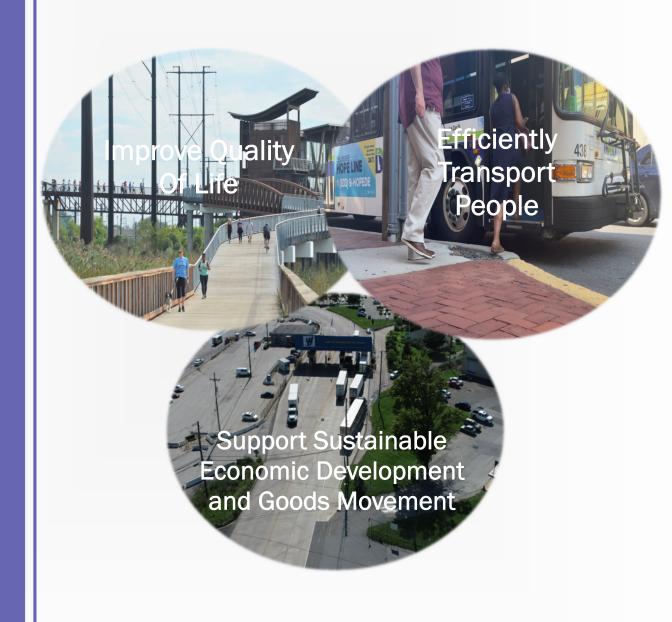


# 2022 Regional Progress Report



March 2022

The Tower at STAR Campus 100 Discovery Blvd, Suite 800 Newark DE 19713 302-737-6205; Fax 302-286-7131 Website: www.wilmapco.org

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WILMAPCO Executive Director Tigist Zegeye

#### **RESOLUTION**

## BY THE WILMINGTON AREA PLANNING COUNCIL (WILMAPCO) APPROVING THE 2022 REGIONAL PROGRESS REPORT

WHEREAS, the Wilmington Area Planning Council (WILMAPCO) has been designated the Metropolitan Planning Organization for Cecil County, Maryland and New Castle County, Delaware by the Governors of Maryland and Delaware, respectively; and

WHEREAS, WILMAPCO adopted the 2050 Regional Transportation Plan (RTP) on March 7, 2019; and

**WHEREAS,** the RTP identified objectives and actions to achieve the region's long-range transportation goals; and

**WHEREAS,** the RTP requires that a progress report be completed to monitor the progress of achieving our goals; and

**WHEREAS,** the *2022 Regional Progress Report* has been developed using the latest available data; and

**WHEREAS,** the *2022 Regional Progress Report* tracks the progress of each action identified in the RTP; and

**WHEREAS,** the *2022 Regional Progress Report* has undergone appropriate technical review;

**NOW, THEREFORE, BE IT RESOLVED** that the Wilmington Area Planning Council does hereby approve the *2022 Regional Progress Report*.

3/10/2022

Date: John Sisson, Chairperson

Wilmington Area Planning Council





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#### I. INTRODUCTION

The Wilmington Area Planning Council (WILMAPCO) is the Metropolitan Planning Organization (MPO) for Cecil County, Maryland and New Castle County, Delaware. We are charged with planning and coordinating transportation investments for the Wilmington region.



The Wilmington region is home to nearly 660,600 people, most of whom (84%) live in New Castle County. Wilmington, a national financial hub supporting a population of more than 70,000, serves as the principal city. Urbanized development stretches outside of Wilmington along the I-95 corridor, from the Town of Elkton to the Pennsylvania border. Natural and rural landscapes, sprawling suburbs, and small towns blanket the rest of the region.

WILMAPCO's mission is to create the best transportation plan for the region, one that meets all the requirements mandated by the Federal Clean Air Act and its Amendments (CAAA) and the Fixing America's Surface Transportation Act (FAST).



WILMAPCO's Regional Transportation Plan (RTP) establishes the region's long-term transportation goals and identifies objectives and actions to realize them. Below are the goals and objectives listed in the 2050 RTP adopted in 2018.

#### **WILMAPCO RTP Goals and Objectives**

#### Improve Quality of Life

- Protect public health and safety
- Promote active transportation
- Ensure transportation choice and equity
- Preserve natural and cultural resources

#### **Efficiently Transport People**

- Improve transportation system performance
- Promote accessibility and connectivity
- Engage the public via an open involvement process

#### Support Sustainable Economic Development and Goods Movement

- Maximize our investments
- Develop effective transportation networks
- Plan for energy security and resilience

The Regional Progress Report tracks the progress of *actions* associated with the objectives above. Each action is assessed individually with a quantitative or qualitative performance indicator or measure identified in the 2050 RTP. The Progress Report assigns one of three traffic light colors for each action to indicate its progress. Red indicates those actions for which there is little or no progress toward their objectives. Yellow is given to actions that show moderate or mixed progress toward achieving their targets; while green indicates actions which are on target.

Taken as a whole, the Progress Report identifies where we have made good progress with our long-range plan and where more attention is needed.



#### II. NATIONAL PERFORMANCE MANAGEMENT UPDATE

Performance measurement was a chief aspiration of Moving Ahead for Progress in the 21st Century, (MAP-21)—the preceding federal transportation legislation—and is carried over in the current FAST Act.

#### National Goal Areas and Performance Measures<sup>1</sup>

#### Safety

- Serious injuries per VMT
- Fatalities per VMT
- Number of serious injuries
- Number of fatalities

#### System Reliability

- Performance of the Interstate system
- Performance of the NHS (excluding Interstate)

#### Infrastructure Condition

- Bridge condition on the NHS
- Pavement condition on interstate system
- Pavement conditions on the NHS (excluding interstate)

# Freight Movement and Economic Vitality

• Freight movement on the Interstate

#### **Congestion Reduction**

Traffic congestion

### Environmental Sustainability

 On-road mobile source emissions

Reduced Project Delivery Days

Performance measures and targets have been developed by the Maryland and Delaware Departments of Transportation in coordination with WILMAPCO and other MPOs. Progress towards meeting these measures is reported with each WILMAPCO Transportation Improvement Program (TIP) (<a href="www.wilmapco.org/tip">www.wilmapco.org/tip</a>) and can be found on the Federal Highway Administration's (FHWA) transportation performance measure reporting website:

https://www.fhwa.dot.gov/tpm/reporting/state/index.cfm

While these National Performance Measures (NPMs) assess conditions, year-to-year, they do not examine the "why," of an observed trend. This report strives to do just that. While we include NPMs under actions where appropriate, our other indicators often take a deeper dive into the trends, and "connect the dots" as to why performance in one area is excelling, while in another it is struggling.

<sup>&</sup>lt;sup>1</sup> AASHTO. MAP-21 Analysis: Performance Management Provisions. July 2012.



#### III. SYSTEM STATUS AND DEVELOPMENT PATTERNS

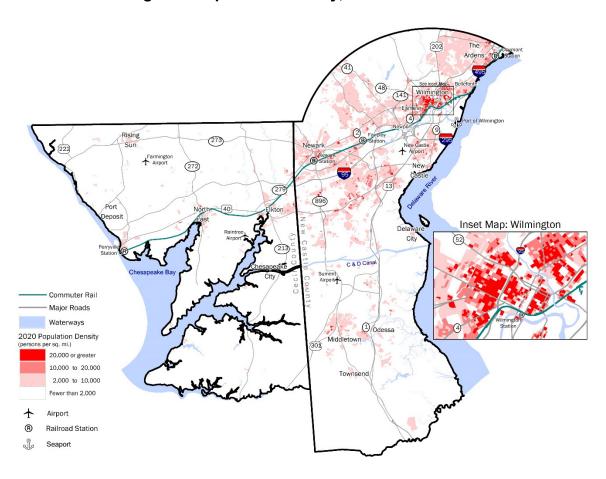
The WILMAPCO region is home to some 659,000 people and 327,000 jobs. Most people live and work along the I-95 and commuter/freight rail corridor in the region's north. The highways which run along this corridor, and those which connect it from the north and south, form the bedrock of the region's transportation system.

# C & D Car Commuter/Freight Rail Freight Rail Middletown Major Roads Municipalities Waterways Townsend Airport Railroad Station Seaport

#### **Regional Transportation Network**

During the past century, land and transportation policies combined with affordable fuel and technology to spur the dispersion of population and jobs from the City of Wilmington. In 1920 more than 74% of New Castle County's residents lived within that city's limits – today the figure is only about 13%. Housing developments along new suburban highways captured most of that outmigration, along with fresh waves of in-migration into the region.

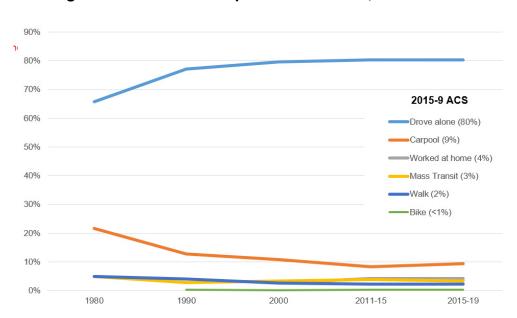




Regional Population Density, 2020 U.S. Census

Car travel became the mode of choice for this increasingly dispersed population. Today, more workers drive alone to work than ever before, according to the U.S. Census. Cars, and the increasingly advanced web of highways on which they operate, have brought fast, efficient, and unprecedented mobility to most of our region's residents and visitors. Indeed, almost 9 in 10 regional residents reported that the transportation system met their needs in a recent public opinion survey.





Regional Means of Transportation to Work, U.S. Census

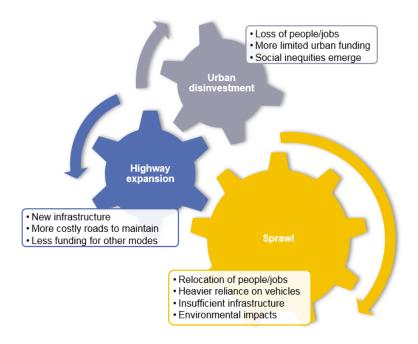
Land use and transportation policies continue to support further de-densification, and, by extension, car travel. Current laws make it more difficult to redevelop existing property than to develop open land. Crucially, regional transportation planning has little influence over land use planning. It is, historically, reactionary to it.

Sprawling suburban developments have led to roadway expansions, which encourage more driving and more sprawl. Less funding is available for developed urban areas, which discourages reinvestment there and sharpens social inequities. While the transportation system serves the needs of most well, only it only met the needs of half of our low-income residents.

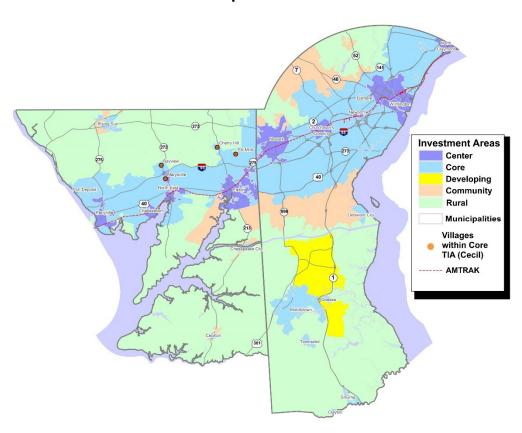
To support breaking this cycle of sprawl, WILMAPCO created Transportation Investment Areas (or TIAs). As discussed in the 2050 RTP, TIAs are an overarching guide for where the various types of transportation investments ought to go in recognition of transportation's close relationship with land use. More intensive investments are generally reserved for Center and Core areas, while expansion projects should be avoided in Rural areas.



The Cycle of Sprawl

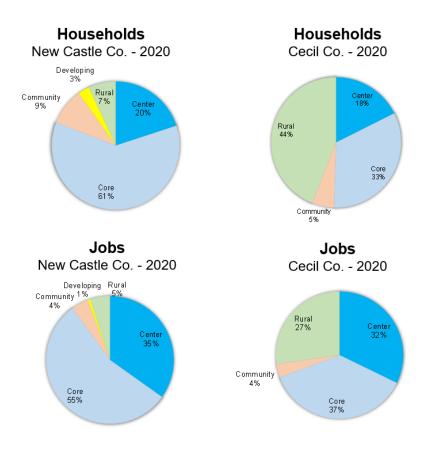


#### **Transportation Investment Areas**



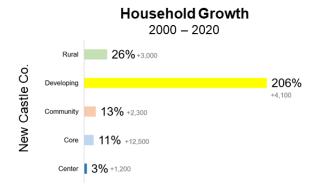
#### WILMAPCO

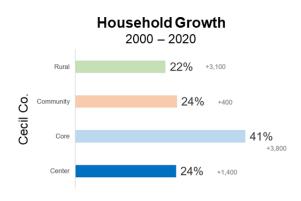
The pie graphs below show the portion of households and jobs found across TIAs in 2020. Center and Cores dominate New Castle County's development. They are home to 81% of the population and 90% of jobs. In Cecil County, Rural areas account for nearly half of households (44%), while jobs are generally evenly split between Rural, Center, and Core TIAs.

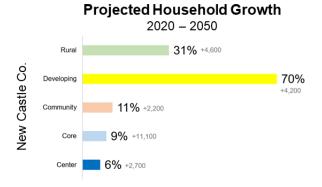


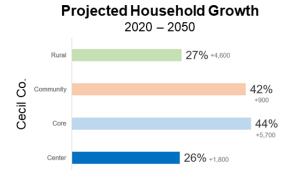
In New Castle County, Rural and Developing TIAs have, however, grown at remarkable rates since 2000. They are projected to continue doing so through 2050. Much of this growth is associated with residential expansion south of the C & D Canal. While this household growth will not have much impact on the proportion of the county's population residing within Rural and Developing TIAs by 2050, it has profoundly impacted transportation spending patterns. The growth has triggered several costly suburban highway projects – from the US 301 Expressway to SR 1 expansions to a widening of SR 299.







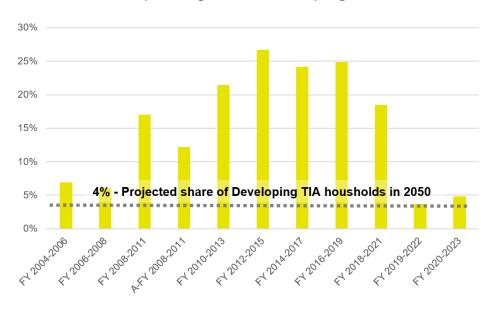




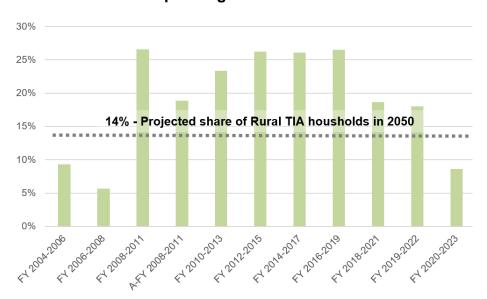
#### WILMAPCO

This spending is reflected in the graphs below. Developing and Rural TIAs have received an outsized proportion of spending within the Transportation Improvement Program (TIP), compared to their size. While the Developing TIA is projected to only account for 4% of regional households by 2050, it accounted for more than 20% of planned TIP spending between the 2010 and 2018 TIPs. Rural TIAs have also seen a heavy TIP spending in response to residential growth pressure there.

**TIP Spending within Developing TIAs** 

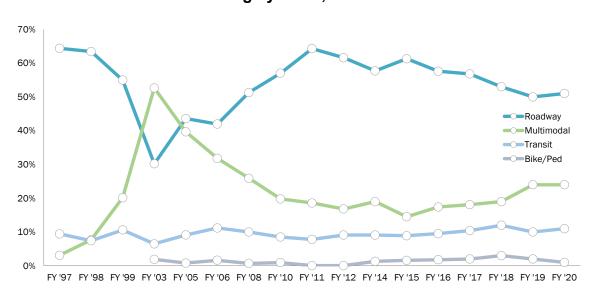


**TIP Spending within Rural TIAs** 





Continued sprawl has correlated with a roadway-dominate TIP during the last decade.<sup>2</sup> As shown in the graph below, roadway projects have typically received well over half of planned capital expenditures during the past quarter-century. Transit projects account for about 9% of capital spending, with even less assigned to dedicated pedestrian and bicycle projects.



TIP Funding by Mode, since FY 1997<sup>3</sup>

Highway funding and sprawl are helping push projected Vehicle Miles Traveled (VMT) to new heights in New Castle County. As shown in the graphs below, households there logged about 3,000 extra miles of travel in 2019 compared to 1996. Cecil County households, while driving more on average than their New Castle County counterparts, logged about 3,000 miles less during the same period. If the projections are correct, New Castle County will overtake Cecil County in VMT by 2040.

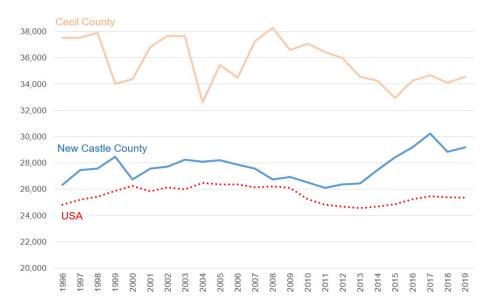
Regionally, it is expected VMT will increase by 26% between 2020 and 2050, although households are only expected to grow by 4% during that period. New Castle County's southwards growth is largely behind the figures, compelling future households to travel an additional eight miles of driving each day. While clear progress has been made in reducing Cecil County's VMT, these figures challenge our RTP action to lower VMT in New Castle County.

<sup>&</sup>lt;sup>2</sup> The TIP is an annually updated, four-year listing of planned transportation project spending.

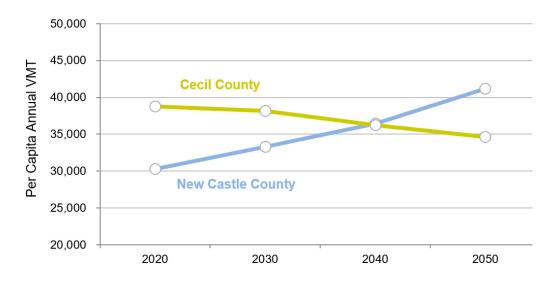
<sup>&</sup>lt;sup>3</sup> Source: WILMAPCO TIP. Note the chart does not include funding for projects categorized as "other."



Daily VMT per Households, 1996 - 2019<sup>4</sup>



#### Projected Daily VMT per Households, 2020 - 2050<sup>5</sup>



<sup>&</sup>lt;sup>4</sup> Source: DelDOT, MDOT, Census, and ACS with WILMAPCO analysis.

<sup>&</sup>lt;sup>5</sup> Source: DeIDOT and MDOT, DPC and MDP with WILMAPCO analysis. 2050 household projections in Cecil Co. are based on the trend between 2040 to 2045 figures.



#### IV. IMPACTS OF THE 2020 COVID-19 LOCKDOWN

The 2020 lockdown associated with the Coronavirus pandemic had a profound impact on many aspects of our daily lives, including travel. This section presents transportation-related data WILMAPCO measured in Spring 2020.

The graph below shows the spike in the percentage of people "sheltering in place" — or staying close to home—after lockdown orders were issued in March 2020. In late March, more than half of residents in the Philadelphia metropolitan region were staying close to home, more than double the normal rate. The graph also shows that higher-income residents were better able to follow the directive. In normal times, higher-income residents are more mobile than lower-income residents. During the lockdown this pattern reversed. Higher-income residents were more often able to perform work and other daily tasks from their homes. As of the summer of 2021, those in higher-income neighborhoods were once again more mobile, with only 16% staying closer to home versus 24% of those in lower-income neighborhoods.

#### Staying at Home in 2020, Philadelphia MSA, by Neighborhood Income Class<sup>6</sup>



With more residents staying at home in Spring 2020, major roads across the region emptied. Daily traffic declined by nearly half and travel times improved. During the afternoon peak, the trip from the Pennsylvania to the Maryland border on I-95 in Delaware, for example, became about 6 minutes faster than average in late March 2020. Driving from Newark to Wilmington along Kirkwood Highway, meanwhile, was

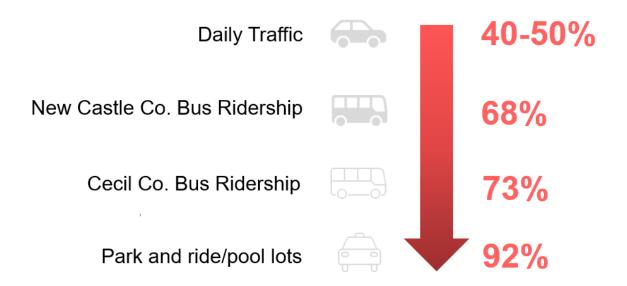
<sup>&</sup>lt;sup>6</sup> Data source: Cuebiq. These data are based on cell phone records of those living in the Philadelphia metropolitan region, which includes New Castle County and Cecil County.



5 minutes quicker. The trip across Cecil County along US 40 was about 3 minutes faster.

Meanwhile, most public buses never left their parking lots. DART cut its fixed route service by more than 60%. Cecil Transit cancelled the Elkton to Newark route and made its Glasgow route demand-response only. WILMAPCO provided data to both agencies during the height of the lockdown to show how vulnerable populations may be fairing with the severe cuts. In New Castle County, for example, about 14% of households in areas of high Social Determinants of Health<sup>7</sup> concern had poor access to good frequency bus service during the height of the lockdown.

#### Trends During the 2020 Lockdown, WILMAPCO Region<sup>8</sup>

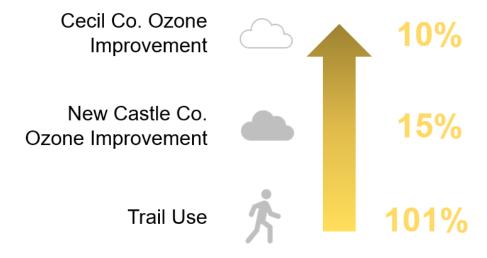


<sup>&</sup>lt;sup>7</sup> http://www.wilmapco.org/data/SDOH Data Report.pdf

<sup>&</sup>lt;sup>8</sup> Daily AADT compares April 2019 vs 2020 volumes on major routes; Park and Ride and Park and Pool Usage compares the median decrease at commuter lots in New Castle Co. in April 2019 versus the Spring averages in 2018 and 2019. The lots at Brandywine Springs Park and Delcastle Recreation Center, which saw increased use likely due to increased park use, are excluded.; Bus Ridership Decline - New Castle Co.: Percent decline of April 2020 fixed route bus ridership compared to the average monthly ridership of December 2019 and January and February 2020; Bus Ridership Decline - Cecil Co.: Percent decline of May 2020 fixed route bus ridership compared to the average monthly ridership of December 2019 and January and February 2020.



#### Trends During the 2020 Lockdown, WILMAPCO Region, Continued 9



With fewer vehicles on the road, our region's air quality improved. April 2020's ozone conditions were the best in at least the past two decades. Ozone air quality index ratings saw a 10% improvement compared to average in Cecil County. There was a 15% improvement in New Castle County.

Recreational trail use also increased during the lockdown with State Park trail use in New Castle County doubling. While most park-and-ride/pool lots declined (median decrease of 92%) the lots at Delcastle Recreation Center and Brandywine Springs Park were fuller than average, signifying increased County Park use.

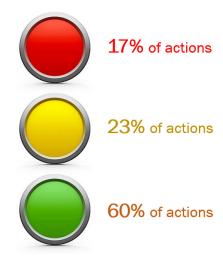
While we have seen many of these indicators return to more normal levels following the cautious economic reopening in 2021, the pandemic and associated economic and behavioral changes, will impact data presented for 2020 and 2021.

<sup>&</sup>lt;sup>9</sup> Air quality improvement compares April 2020's air quality index with average index readings over the past five years (EPA, AirNow); Trail use is the median change of use along State Park trails in New Castle County in April and May 2020 versus the previous year.



#### V. SUMMARY OF PROGRESS REPORT FINDINGS

Like other previous Progress Reports, the present document has uncovered reasons for optimism and concern. Overall, more than half (60%) of our actions showed good progress and received green lights, 23% showed partial progress and received yellow lights and 17% showed poor progress and received red lights. These figures are improvements over the last Progress Report when only 50% of actions were judged to have shown good progress.



Key areas of success include but are not limited to conforming to air-quality requirements, sub-regional planning and implementation, congestion mitigation process, and our work in promoting active transportation.

Problem areas include but are not limited to encouraging future growth along the I-95 corridor in New Castle County, the subsequent continued growth in single occupancy vehicle trips and projected rise in vehicle miles traveled, and improving safety for all road users.

#### VI - GOAL: IMPROVE QUALITY OF LIFE

**Objective: Protect Public Health and Safety** 



Rectangular Rapid Flashing Beacon

#### **Actions**

- Promote a safer transportation network design and travel for all users
- Improve safety for people walking
- Support disaster planning efforts
- Exceed transportation conformity standards
- Fund CMAQ projects with the greatest air-quality Benefits
- Seek to improve multimodal access and connectivity to healthy and affordable food, employment, and services in all WILMAPCO studies



#### Promote a safer transportation network design and travel for all users



Regional Fatalities per VMT Number and rate of serious injuries and fatalities (NPM) Number of nonmotorized serious injuries and fatalities (NPM)

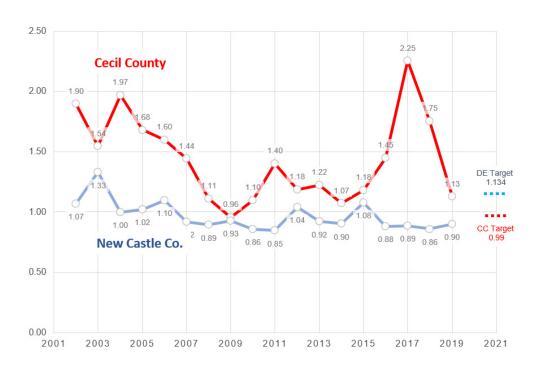
The RTP identifies safety as the "first priority" in making transportation investments. Safety factors into many aspects of planning at WILMAPCO. For example, staff support the development and interpretation of crash data in Delaware. These data are fed into our project prioritization processes. Additionally, staff provides annual feedback and technical support with the Delaware Department of Transportation's (DelDOT's) Hazard Elimination Program. This program aims to improve road safety at particularly dangerous locations.

Progress with improving safety can be measured via injury and fatality crash rates. A selection of these is presented below. While serious injury rates are inching downward, little progress has been made in reducing fatal crashes. The fatal crash rate on New Castle County and Cecil County roads has increased since 2010 and will likely rise further in 2020. The region will likely struggle to meet its national performance targets for fatal crashes in 2021, though New Castle County is on pace to meet Delaware's statewide fatal crash rate target.

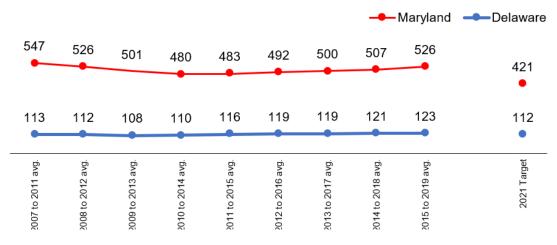
In the long view, vehicle travel has been made safer during the past century, but as these data show, more progress is necessary. Efforts to support alternative means of transportation could be stepped up, for example, through a pivot towards denser land development and redevelopment policy and rethinking highway design along stretches where people do or could walk.



#### Regional Road Fatal Crash Rates by 100m VMT<sup>1</sup>



#### Total Road Fatalities (NPM)<sup>2</sup>

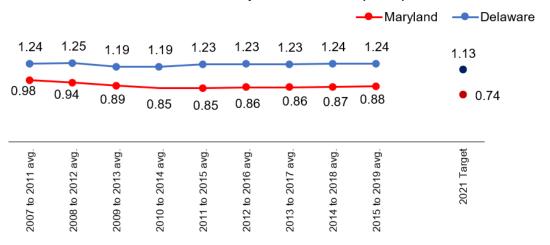


<sup>&</sup>lt;sup>1</sup> Sources: SHA, DelDOT, DSP, DOHS, Cecil County

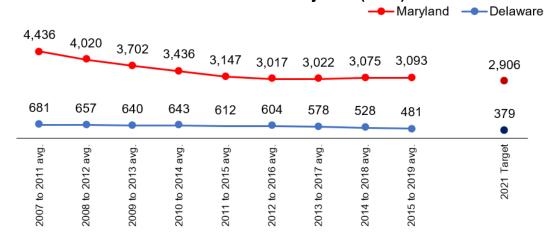
<sup>&</sup>lt;sup>2</sup> Sources: SHA, DelDOT, DSP



#### Road Fatalities per 100m VMT (NPM)<sup>3</sup>



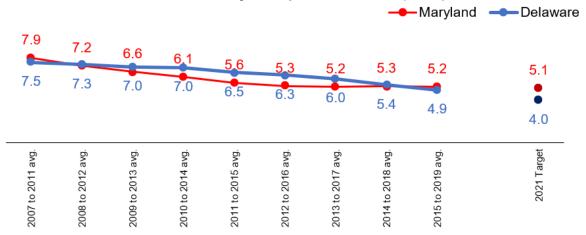
#### **Total Road Serious Injuries (NPM)**



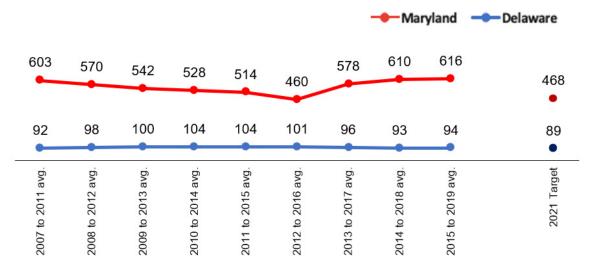
<sup>&</sup>lt;sup>3</sup> Sources: SHA, DelDOT, DSP



#### Road Serious Injuries per 100m VMT (NPM)<sup>4</sup>



#### Total Non-motorized Injuries and Fatalities (NPM)<sup>5</sup>



<sup>&</sup>lt;sup>4</sup> Sources: SHA, DelDOT, DSP

<sup>&</sup>lt;sup>5</sup> Source: SHA, DelDOT, DSP



#### Improve Safety for People Walking

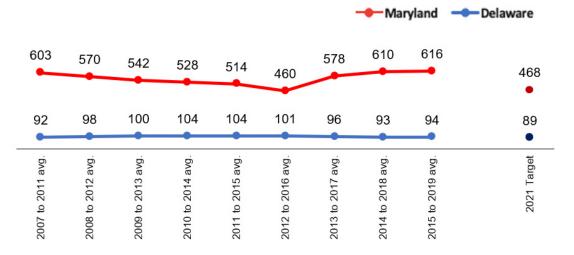


Number of nonmotorized serious injuries and fatalities (NPM)

The RTP calls specific attention to improving safety for people walking. As shown in the graph below, we are not on track to meeting our 2021 non-motorized safety performance targets.

Efforts to support alternative means of transportation must be stepped up. This could be a pivot towards denser land development and redevelopment policy and rethinking highway design along stretches where people do or could walk.





2022 Regional Progress Report

<sup>&</sup>lt;sup>6</sup> Source: SHA, DelDOT, DSP



#### Support Disaster Planning Efforts



Qualitative review of UPWP (RTP)

The Regional Transportation Plan (RTP) asks WILMAPCO to use our strength in technical analyses to support national security efforts and emergency preparedness planning.

WILMAPCO is meeting this charge. We have assisted with traffic data collection and analyses and have increased general awareness of emergency preparation. For example, we created a webpage (<a href="http://www.wilmapco.org/emergency-preparedness">http://www.wilmapco.org/emergency-preparedness</a>) to help prepare residents for emergencies. WILMAPCO also specifically highlighted the impacts to state-designated evacuation routes in our Sealevel Rise Vulnerability Assessment. We are also a member of DelDOT's Transportation Management Team, which seeks to find ways to quicken response time to travel incidents.

#### **Exceed Transportation Conformity Standards**



On road mobile source ozone and PM2.5 emissions (RTP) Qualitative review of UPWP (RTP)

New Castle County and Cecil County are in nonattainment for ozone and New Castle County is in maintenance for fine particulate matter (PM2.5). So, one action in the 2050 RTP involves conforming to our associated air quality standards.

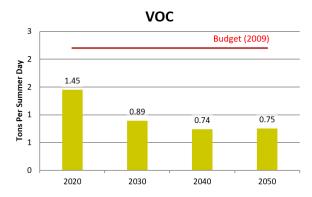
WILMAPCO has consistently shown that our planned projects do conform to these standards. As shown in the graphs below, projected emissions from the on-road transportation sector (including planned projects) fall below the required budgets and baselines<sup>7</sup>.

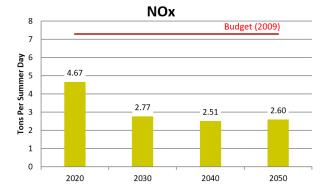
WILMAPCO is also a leader in promoting air quality awareness efforts through the Air Quality Partnership of Delaware. The partnership – a coalition of government agencies, businesses, and individuals – provides education about the health and environmental impacts of poor air quality, ways individuals can stay safe when air quality is particularly bad, and ways individuals can help reduce their contribution to air pollution.

<sup>&</sup>lt;sup>7</sup> Note that the projections indicate a slight uptick in transportation emissions during the 2040s. This is a result of increasing Vehicle Miles Traveled (VMT) and the implementation of all known vehicle technologies.

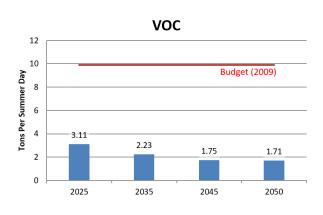


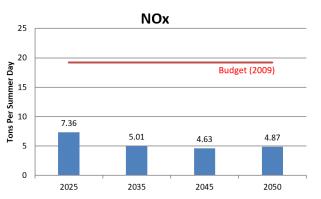
#### On-road Mobile Source Ozone Projections in Cecil County<sup>8</sup>



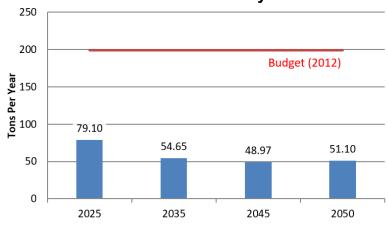


#### On-road Mobile Source Ozone Projections in New Castle County<sup>9</sup>





# On-road Mobile Source Direct Particulate Matter (PM2.5) Projections in New Castle County<sup>10</sup>



<sup>8</sup> Source: MDOT 9 Source: DelDOT

<sup>10</sup> Source: DelDOT



#### Fund CMAQ Projects with the Greatest Air Quality Benefits



WILMAPCO CMAQ prioritization vs. eventual funding (RTP) 2 and 4-year total emission reductions (NPM)

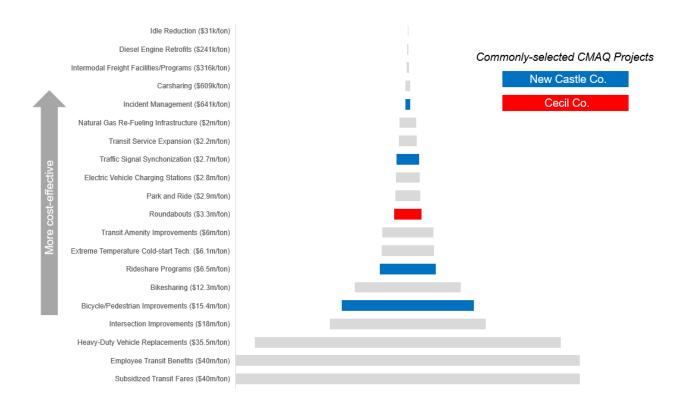
According to national guidance, Congestion Mitigation and Air Quality (CMAQ) funded projects should have clear air quality benefits. This both keeps with the spirit of the CMAQ program and maximizes funding available to benefit public health. According to this guidance, though decisions on which projects receive CMAQ funds ultimately lie with the state DOTs, MPOs like WILMAPCO ought to have a say in which projects are selected.

Following years of inattention, DelDOT has begun consulting WILMAPCO's prioritized list to help decide upon CMAQ project spending. This is good progress. MDOT, however, selects its CMAQ projects without WILMAPCO's consultation. This is partly because much is reserved for transit funding in Baltimore.

To judge a project type's air quality benefit, WILMAPCO uses data analyzed by the Federal Highway Administration (FHWA) on project cost benefits across the nation. These data are shown in the chart below. Project types at the top of the list – like idle reduction and diesel engine retrofits – have the best cost-per-pound emissions reductions. Those at the bottom – like employee transit benefits, and subsidized transit fares – have the worst. Delaware and Maryland typically fund CMAQ projects with mediocre cost/benefits.



# WILMAPCO's CMAQ Project Cost-Benefit Analysis vs. CMAQ Projects Typically Funded in Cecil County & New Castle County<sup>11</sup>



<sup>&</sup>lt;sup>11</sup> These data are based on FHWA's CMAQ Cost Effectiveness Tables (<a href="https://www.fhwa.dot.gov/environment/air\_quality/cmaq/reference/cost\_effectiveness\_tables/#ftn3">https://www.fhwa.dot.gov/environment/air\_quality/cmaq/reference/cost\_effectiveness\_tables/#ftn3</a>). The WILMAPCO analysis sums the median dollar/ton emission reductions for NOx, VOCs and PM2.5 only. Projects at the top of the graph are more cost effective. That is, they result in more emissions reduced per dollar spent. Note that Dust Mitigation projects are not considered as NOx and VOC reduction data were unavailable.



Nevertheless, these projects have reduced air emissions. As the tables below show, actual emission reductions made after two years ("2-year reductions") met the 2-year federal performance targets for emission reductions from CMAQ projects, except for VOCs in Cecil County. They are also on pace to meet 4-year federal targets.

#### **Cecil County's CMAQ On-road Mobile Source Emission Reductions** $(kg/day) (NPM)^{12}$

	Baseline	2-Year Target	2-Year Reductions	4-Year Target
VOC	0.12	0.038	0.03	0.059
NOx	0.30	0.085	0.11	0.134

#### **New Castle County's CMAQ On-road Mobile Source Emission Reductions** (kg/day) (NPM),<sup>13</sup>

	Baseline	2-Year Target	2-Year Reductions	4-Year Target
VOC	17.544	10.521	251.03	251.7
NOx	6.945	7.353	127.68	128.5
PM2.5	1.165	0.731	3.27	3.3

<sup>&</sup>lt;sup>12</sup> Source: 2020 Mid-Performance Period Progress Report: http://www.wilmapco.org/aq/ <sup>13</sup> Source: 2020 Mid-Performance Period Progress Report: http://www.wilmapco.org/aq/

# Seek to Improve Multimodal Access and Connectivity to Healthy and Affordable Food, Employment, and Services in all WILMAPCO Studies

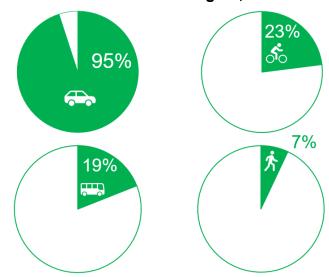


Connectivity analysis composite accessibility (new) Qualitative review of UPWP (new)

The RTP directs WILMAPCO to upgrade multimodal access and connections to key destinations in all studies.

A baseline regional connectivity analysis was completed in the 2019 Transportation Justice Plan<sup>14</sup>. Average connectivity to a composite of key destinations (libraries, employment, supermarkets, etc.) is shown below. Nearly all homes (95%) could easily reach key destinations by car. The same could be said for only 23% of homes regarding bike access; 19% of homes for bus access; and only 7% of homes for walking access. Future Progress Reports will update these figures to measure progress.

## Composite Connectivity: Homes to Destinations in the WILMAPCO Region, 2019<sup>15</sup>



While improvements are clearly needed, all recently completed and active WILMAPCO studies (such as the Concord Pike Master Plan and the Newport Transportation Plan) do seek to improve multimodal access and connectivity to healthy and affordable food, employment, and services.

<sup>&</sup>lt;sup>14</sup> Source: 2019 WILMAPCO TJ Plan: www.wilmapco.org/ti

<sup>&</sup>lt;sup>15</sup> Source: 2019 WILMAPCO TJ Plan: www.wilmapco.org/tj

#### **GOAL: IMPROVE QUALITY OF LIFE**

**Objective: Promote Active Transportation** 



Union Street's Bicycle Lane in Wilmington

#### Actions

- Fund transportation choices
- Apply a Complete Streets Policy in all WILMAPCO studies and in the TIP
- Fund TAP investments within areas of greatest need
- o Develop and implement SRTS Programs

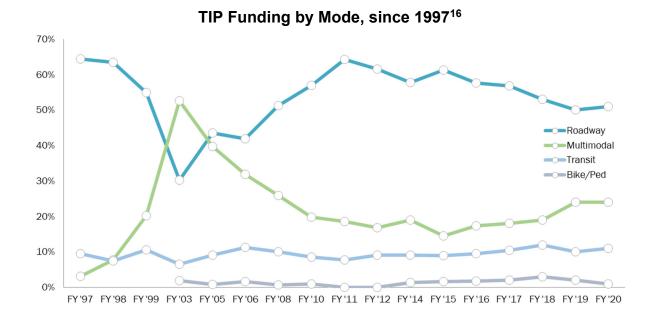


#### **Fund Transportation Choices**



TIP funding trends (RTP)
Percentage of non-SOV trips (NPM)
Percentage of local non-SOV trips (new)

The RTP calls for funding alternative transportation in the Transportation Improvement Program (TIP), a listing of planned projects that have received federal funding. While still accounting for over half of planned TIP spending this year, the percentage of funding dedicated to roadway-only projects has dropped seven percentage points since the 2015 fiscal year. Those dollars have shifted to multimodal, transit, and bicycle/pedestrian projects. In 2018, transit and bicycle/pedestrian projects enjoyed their highest share of funding on record – 12% and 3% respectively, though they dropped slightly in 2020.



The percentage of non-SOV trips is on the rise across the Philadelphia region, of which WILMAPCO is apart. Looking at WILMAPCO-specific data, however, this increase was quite marginal in New Castle County – from 20.0% at the beginning of the past decade to 20.2% at the end. And these figures declined in Cecil County. So, while TIP spending is has seen a modest shift away from highway-specific projects, it has not been enough to create a meaningful commuter mode shift or, as we will see later, reduce vehicle miles traveled.

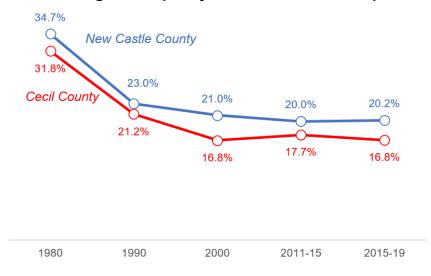
<sup>&</sup>lt;sup>16</sup> Source: WILMAPCO



# Philadelphia Metropolitan Region's Non-Single Occupancy Vehicle Commute Trips (NPM)<sup>17</sup>



# WILMAPCO Region's Non-Single Occupancy Vehicle Commute Trips<sup>18</sup>



#### Apply a Complete Streets Policy in all WILMAPCO Studies



Qualitative review of UPWP (RTP)

The 2050 RTP urged WILMAPCO to continue applying a complete streets policy in all studies.

This action was met. All recently completed and active WILMAPCO studies (such as the Concord Pike Master Plan and the Newport Transportation Plan) do seek to improve multimodal access and connectivity to healthy and affordable food, employment, and services.

<sup>&</sup>lt;sup>17</sup> Source: American Community Survey

<sup>&</sup>lt;sup>18</sup> Source: American Community Survey



#### Prioritize TAP Investments Within Areas of Greatest Need/Capacity

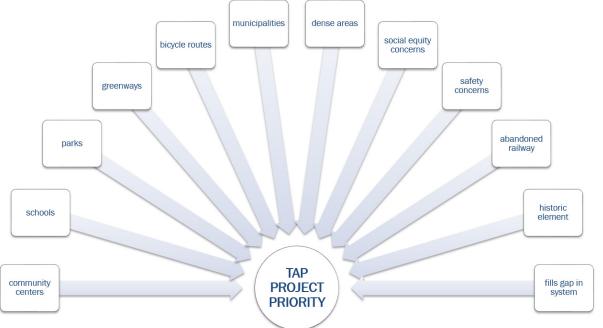


WILMAPCO TAP prioritization vs. eventual funding (RTP)

The 2050 RTP asked WILMAPCO to prioritize the Transportation Alternatives Program (TAP) investments within the areas of greatest need and capacity.

WILMAPCO has a separate project prioritization process to score TAP submissions and projects. Projects are scored based on the projects' proximity to pedestrian and bicycle generating activities, its support for redevelopment, social equity, and overall potential use. Criteria are mostly quantitative, though a few measures are judged qualitatively. Projects can receive up to 35 points, with factors such as safety (5 possible points), bus stop proximity (4 possible points) and filling a gap in the nonmotorized system (4 possible points) weighted heaviest. Ultimately, the WILMAPCO Council ranks the proposed projects, with input from the Technical Advisory Committee, considering their technical score, cost-effectiveness, and other factors.

# Elements of WILMAPCO's TAP Technical Scoring Index<sup>19</sup>



During the latest call for TAP projects, six New Castle County submissions were received but none from Cecil County. These submissions were prioritized in coordination with DelDOT. Out of the top four scoring projects, three were funded through TAP. The remaining project was not approved because it is already part of a TIP project.

<sup>&</sup>lt;sup>19</sup> For more information, and to see a full breakdown of the TAP project prioritization weighting, please visit: <a href="http://www.wilmapco.org/tap">http://www.wilmapco.org/tap</a>.



#### **Develop and Implement SRTS Programs**



Qualitative review of UPWP

The RTP seeks to help develop and implement Safe Routes to School (SRTS) Programs. This initiative provides improved infrastructure and educational support to encourage more children to walk and bike to school.

WILMAPCO continues to successfully address this effort. In New Castle County, we have partnered with DelDOT to support SRTS programs through the TAP Program at about a dozen schools. Construction on planned improvements is set to begin at the following schools: Claymont, Downes, Eisenberg, McCullough, and Wilmington Montessori. Implementation work at the former Elbert-Palmer Elementary School has been rolled into an active streetscape program. We are currently supporting the development of a program at Bayard. WILMAPCO has not actively led SRTS programs in Cecil County, where participation requirements for schools are more rigorous, which hampers their participation.

# **GOAL: IMPROVE QUALITY OF LIFE**

**Objective: Ensure Transportation Choice & Equity** 



Maryland Avenue in the Hedgeville neighborhood, Wilmington (Photo: DTC)

#### Actions

- Analyze the inequities EJ groups experience in the transportation network
- Reduce transportation costs
- o Equitably distribute TIP funding
- Generate beneficial transportation projects within EJ communities
- Plan for livable, sustainable, and prosperous neighborhoods



# Analyze the Inequities EJ Groups Experience in the Transportation Network



The RTP challenged WILMAPCO to analyze the inequities that low-income and ethnic and racial minorities, or Environmental Justice (EJ) groups, experience with the transportation system.

This action continues to be met. The 2019 Transportation Justice Plan analyzed transportation funding equity, food desert analysis, bus connectivity, and more. This provides staff and member agencies a look at which areas could be improved to address the region's transportation inequities.

#### **Overall Equity Indicators, 2019 TJ Plan**

		Low-income/Poverty	Black	Hispanic
	Transportation Access (in General)	×	×	
• 0 •	Neighborhood Transportation/Housing Costs	x		
$\times$	Neighborhood Connectivity			
0	Travel Time from Neighborhoods			
	Travel Time on Public Transit (in general)		x	
	Traffic Volumes	x	×	х
•	All Vehicle Crashes			
•	Pedestrian and Bike Crashes		×	
50	Bike Level of Traffic Stress			
	Public Electric Vehicle Stations	×	×	×
	Community Transportation Project Funding		×	
- <u>)</u>	WILMAPCO Community Planning			
	Knowledge of WILMAPCO	x	x	×



#### **Reduce Transportation Costs**

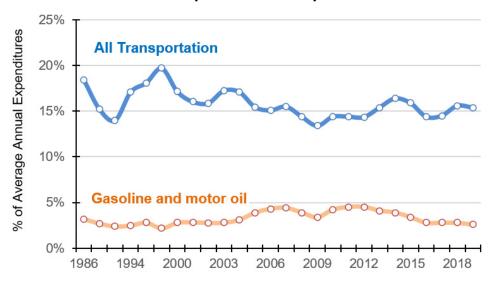


Transportation as a percentage of household spending (RTP) Inflation-adjusted bus/train fares (RTP)
Transportation and housing affordability data (RTP)

The RTP directed planners help ensure affordable transportation choices for residents. These include providing reliable alternative transportation options and reducing single occupancy vehicle trips.

The graph below tracks consumer spending on transportation generally and gasoline specifically in the Philadelphia Metropolitan Statistical Area, which includes the WILMAPCO region. Today's typical household in the Philadelphia MSA spends about 15% of their household expenses on transportation, down from about 20% in the late 1990s. In the past decade, spending on gasoline especially has slowly declined.

#### Percentage of Household Expenditures on Transportation and Gasoline, Metropolitan Philadelphia<sup>20</sup>



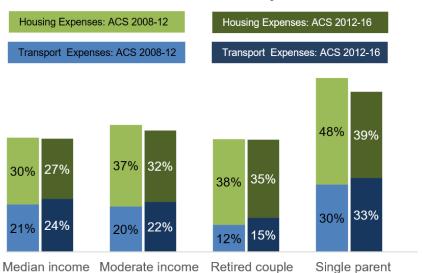
While positive, in the shorter and more localized view, transportation spending is up across the board across all household types. A moderate-income household in New Castle County spent about 22% of its budget on transportation during the five-year period between 2012-6. That's up from 20% during the previous five-year period. In Cecil County, those figures are 26% and 24%, respectively.

<sup>&</sup>lt;sup>20</sup> Source: BLS

#### VILMAPCO

Of the various household types, single-parent households spent the most on transportation. In New Castle County, transportation accounted for 33% of their spending during the five-year period between 2012-6. That's up from 30% during the previous five-year period. In Cecil County those figures were 38% and 36%, respectively. Interestingly, spending on housing – typically the biggest household expense – declined between the two five-year periods. And in Cecil County, the 38% spent on transportation for single-parent households actually outpaced housing spending, which was 37%.

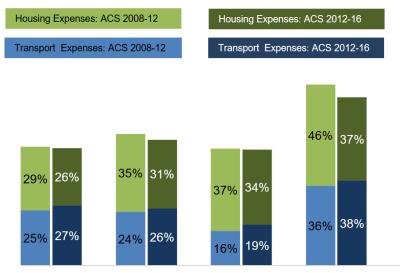
#### Spending on Housing and Transportation by Household Type, New Castle County<sup>21</sup>



<sup>&</sup>lt;sup>21</sup> Source: HUD Location Affordability indices, version 2 (ACS 2008-12) and version 3 (ACS 2012-16). Percentages are the median value of all block groups (v2) or Census tracts (v3) in each county.



# Spending on Housing and Transportation by Household Type, Cecil County<sup>22</sup>



Median income Moderate income Retired couple Single parent

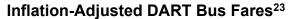
The cost of a typical bus ticket in Delaware is higher today than at the turn-of-the-century. Between 2013 and 2016, the average transit fare rose by 69% in inflation-adjusted dollars after DART lifted its fare price to the current \$2. Since inflation has continued, and fares have remained fixed, the effective price has since declined by 12% inflation-adjusted dollars. Cecil Transit, meanwhile, has maintained its \$2 charge since 2015. This has effectively resulted in a 13% decline in return when inflation is included. Finally, the cost of a SEPTA Regional Rail ticket from Newark to Philadelphia has increased since 2001 – rising from \$5.50 to \$6.75. But that increase has not kept pace with inflation. In 2021 inflation-adjusted dollars, the price of this rail trip has dropped by 21%.

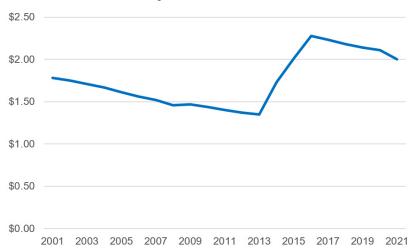
Transit agencies do provide cost savings options for regional riders. These include the DART card, the DART app, SEPTA key and reduced fares for seniors. However, efforts regarding this action could improve. Logical long-term steps include fostering more location efficient places, encouraging infill, exploring ways to make transit more affordable, and redistributing heavy planned transportation spending away from suburban highways and into alternative transportation and the redevelopment of urban transportation networks.

2022 Regional Progress Report

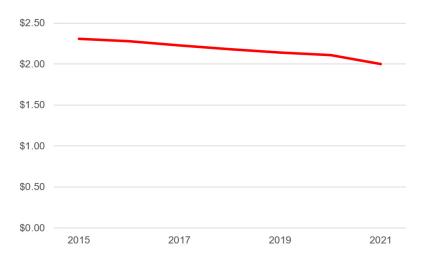
<sup>&</sup>lt;sup>22</sup> Source: HUD Location Affordability indices, version 2 (ACS 2008-12) and version 3 (ACS 2012-16). Percentages are the median value of all block groups (v2) or Census tracts (v3) in each county.







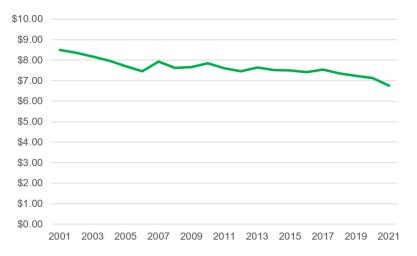
#### Inflation-Adjusted Cecil Transit Bus Fares<sup>24</sup>



Source: DTC; historic figures adjusted to 2021 dollars
 Source: Cecil Transit; historic figures adjusted to 2021 dollars



#### Inflation-Adjusted SEPTA Regional Rail Fare, Newark to Philadelphia<sup>25</sup>



#### **Equitably Distribute TIP Funding**



TIP spending within EJ communities (RTP)

The RTP asks WILMAPCO to ensure that EJ communities receive their fair share of transportation spending. The graph below shows our transportation equity benchmark analysis, found in the 2019 Transportation Justice Plan<sup>26</sup>. The analysis reveals the deviation from expected funding within various neighborhood demographic concentrations.

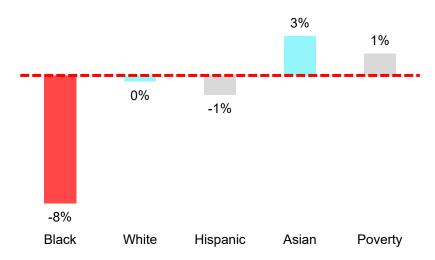
While most groups received their fair share of spending, concentrations of Black neighborhoods received about 8% less spending than expected on average (based on their population size) between FY 2002-20. This is a result of a greater percentage of funding being directed to suburban highway expansion projects during the past decade, along with concentrated investments in Wilmington's gentrifying districts. We must continue to work to reverse this inequitable spending pattern by developing and funding an equitable share of capital projects in Black neighborhoods.

<sup>&</sup>lt;sup>25</sup> Source: SEPTA; historic figures adjusted to 2021 dollars

<sup>&</sup>lt;sup>26</sup> 2019 Transportation Justice Plan: <a href="www.wilmapco.org/tj">www.wilmapco.org/tj</a> and updated analysis. This measure follows the same methodology, but it previously showed the *cumulative spending* deviation. It now shows the *average spending* deviation by TIP.



#### TIP Spending Equity, Deviation from Expected, FY 2002 – FY 2020 TIPs<sup>27</sup>



#### Generate Beneficial Transportation Projects within EJ Communities



TIP spending within EJ communities (RTP)
UPWP equity distribution within EJ communities (new)

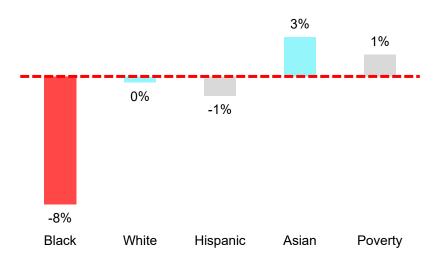
As shown in the analysis of our previous action, Black neighborhoods received about 8% less TIP spending than expected on average (based on their population size) between 2002-20.

There has not been, however, a corresponding absence of WILMAPCO local planning efforts (or UPWP projects) within Black communities. As shown in the graph below, the project areas of UPWP projects tend to be slightly overrepresented by Blacks. They also closely match regional demographics for Hispanics, Asians and those living in poverty. Taking it a step further, the 2019 TJ Plan found that 21 UPWP projects were within Black neighborhoods since 1999. The percentage of Blacks within UPWP project areas between 2018 and 2022 remains above the benchmark, but it has decreased compared to 2008-2017 projects. WILMAPCO must continue to support the development of capital projects in Black neighborhoods to reverse the region's inequitable spending pattern.

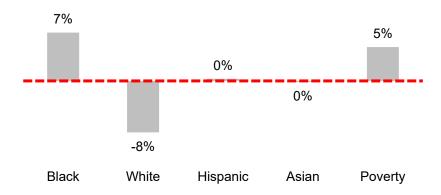
<sup>&</sup>lt;sup>27</sup> 2019 Transportation Justice Plan: <a href="www.wilmapco.org/tj">www.wilmapco.org/tj</a> and updated analysis. This measure follows the same methodology, but it previously showed the *cumulative spending* deviation. It now shows the *average spending* deviation by TIP.



TIP Spending Equity, Deviation from Expected, FY 2002 - FY 2020 TIPs<sup>28</sup>



# UPWP Project Area Equity, Deviation from Expected, 1999-2022<sup>29</sup>



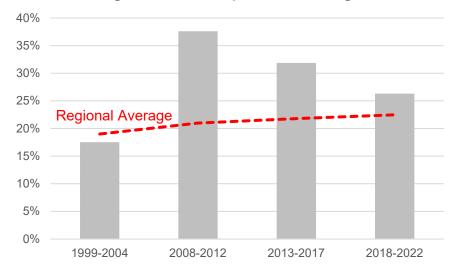
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<sup>&</sup>lt;sup>28</sup> 2019 Transportation Justice Plan: <a href="www.wilmapco.org/tj">www.wilmapco.org/tj</a> and updated analysis. This measure follows the same methodology, but it previously showed the *cumulative spending* deviation. It now shows the *average spending* deviation by TIP.

<sup>&</sup>lt;sup>29</sup> 2019 Transportation Justice Plan: <a href="https://www.wilmapco.org/tj">www.wilmapco.org/tj</a> and updated analysis.



Black Population within UPWP Project Areas vs. Regional Black Population Average<sup>30</sup>



#### Plan for Livable, Sustainable and Prosperous Neighborhoods



Qualitative review of UPWP (RTP)

The 2050 RTP directs WILMAPCO to plan for livable, sustainable, and prosperous neighborhoods. Recent studies such as the US 202 Master Plan, City of New Castle Transportation Update and Newport Transportation all addressed improvements to quality of life, environmental sustainability, and economic development. WILMAPCO ultimately strives for a comprehensive approach to planning, which harmonizes diverse interests to produce the best plan for our region and its places.

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<sup>&</sup>lt;sup>30</sup> 2019 Transportation Justice Plan: <a href="www.wilmapco.org/t">www.wilmapco.org/t</a> and updated analysis.

# GOAL: IMPROVE QUALITY OF LIFE

Objective: Preserve Natural and Cultural Resources



The Russel W. Peterson Urban Wildlife Refuge

#### **Actions**

- Support the designation and implementation of scenic byways
- Avoid TIP expansion projects in Rural TIAs and Sensitive Ecological Areas
- Seek to preserve and protect natural and cultural resources in all WILMAPCO studies
- O Support efforts to reduce negative transportation impacts on the environment and society
- Promote use of designs that minimize impervious surface and environmental impacts
- Establish a better relationship between transportation and tourism



# Support the Designation and Implementation of Scenic Byways

Qualitative review of UPWP (RTP) Corridor management plans (RTP)

The RTP sought to support the designation and implementation of scenic byways. WILMAPCO has met this charge. In 2021, the USDOT designated the Chesapeake Country National Scenic Byway an "All-American Road," the program's highest honor. In addition, the USDOT designated the Delaware Bayshore Byway a National Scenic Byway. In 2021, the Red Clay Valley Scenic Byway Committee approved an update to the 2008 Corridor Management Plan. Finally, New Castle County is drafting amendments to their Unified Development Code to provide a land use Scenic Byways Protection Strategy.

# Avoid TIP expansion Projects in Rural TIAs and Sensitive Natural Networks



Analysis of RTP/aspiration projects (RTP) Analysis of TIP Expansion projects (new)

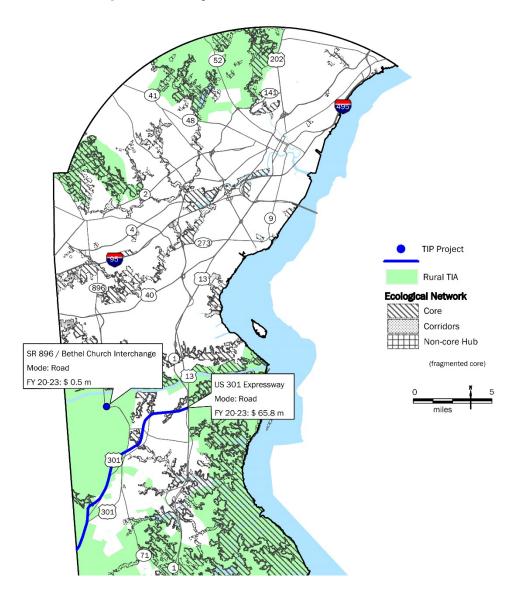
The RTP identified certain types of projects to be discouraged in Rural Transportation Investment Areas<sup>31</sup>. These include intersection capacity projects, park-and-ride expansions, road building and widening, mass transit expansions and so on. Similarly, the RTP also directs WILMAPCO to avoid planning projects within sensitive ecological areas.

The map below illustrates two expansion projects from the FY 2020-23 TIP which pass through rural lands and/or ecologically sensitive areas. The most significant of these is US 301 Expressway – a major new highway just north of Middletown. While both projects were approved after findings of no major local environmental impacts, both will bring lasting change to a sensitive landscape, and will encourage nearby land development.

<sup>31</sup> See <a href="https://www.wilmapco.org/rtp">www.wilmapco.org/rtp</a>



#### **Current TIP Expansion Projects in Rural and Sensitive Natural Areas**<sup>32</sup>



A map and listing of funded and unfunded projects which may impact our sensitive ecological networks can be found here:

http://www.wilmapco.org/Rtp/2050/Appendix\_N.pdf

<sup>32</sup> Source: WILMAPCO



# Seek to Preserve and Protect Natural and Cultural Resources in All WILMAPCO Studies



Qualitative review of subregional studies (RTP)

The RTP charged WILMAPCO with seeking to preserve and protect natural and cultural resources in all studies. All recent projects – from the Southern New Castle County Master Plan to the New Castle County Bicycle Plan to the Route 9 Paths Plan – have avoided negative impacts to natural and cultural resources while seeking to improve quality of life for area residents and visitors.

# Support Efforts to Reduce Negative Transportation Impacts on the Environment and Society



Qualitative review of UPWP (RTP)

The RTP directed WILMAPCO to support reducing the transportation system's burdens on the environment and society. We have met this directive. WILMAPCO was an early leader in examining and creating policy to reduce the transportation system's impact on global warming and to reduce the social and racial inequities widened by the transportation system. If feasible and equitably implemented to the benefit of existing residents, the I-95 Cap Feasibility Study, for example, may result in marked environmental and quality of life improvements in disadvantaged Wilmington neighborhoods.

# Promote use of Designs that Minimize Impervious Surface and Environmental Impacts



Qualitative review of subregional studies and TIP (RTP)

The RTP asked WILMAPCO to promote designs that minimized impervious surfaces and any environmental impacts. All recent projects – from the Governor Printz Boulevard Corridor Study to the City of New Castle Transportation Plan Update – have accomplished this. The Southbridge Neighborhood Plan, which WILMAPCO helped develop, for example, explicitly calls for more green infrastructure, implemented in a socially equitable way, in this chronically flooded Wilmington neighborhood.



#### Establish a Better Relationship Between Transportation and Tourism



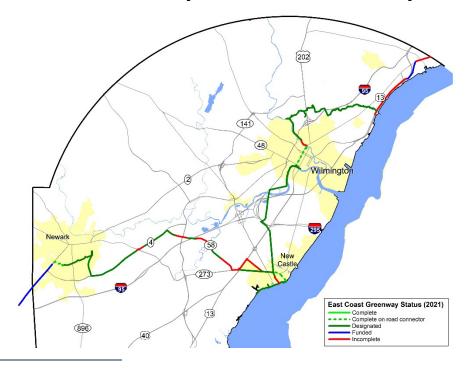
Greenway progress (RTP)

The RTP seeks to establish a better relationship between transportation and tourism. Optimizing the transportation system generally will further this action, through improved wayfinding signage and transportation communication technologies. Progress has been made developing mobile apps that communicate traffic conditions and real-time bus information.

WILMAPCO sub-regional studies also have an eye towards promoting tourism. In the Route 9 Corridor Master Plan, for example, increased attention to promoting the Harriet Tubman Underground Railroad Byway along the corridor was recommended. Meanwhile, our Red Clay Valley Scenic Byways Design Standard recommendations work to preserve and promote tourism along a key scenic corridor.

Another key initiative which helps promote local mobility and tourism is the East Coast Greenway. The Greenway is a 3,000-mile trail stretching from Canada to Key West. Part of it traverses the WILMAPCO region. Thanks to the completion of the Jack A. Markell Trail in September 2018, New Castle County has completed (or funded) 85.8% of its network, up from 78.5% in 2017. Cecil County, with only 8% completed or funded, continues to lag behind.

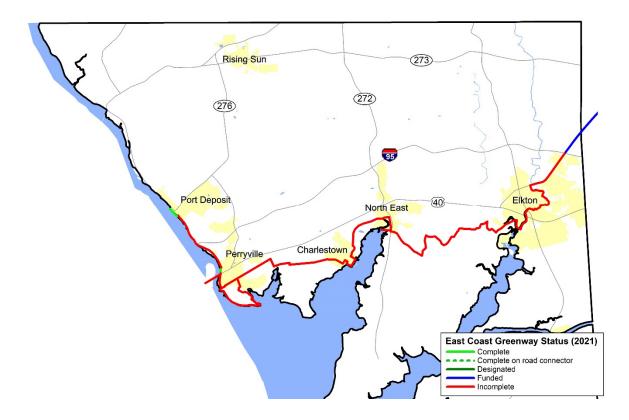




<sup>33</sup> Source: WILMAPCO



# East Coast Greenway Status in Cecil County<sup>34</sup>



<sup>34</sup> Source: WILMAPCO



# **GOAL: EFFICIENTLY TRANSPORT PEOPLE**

# **Objective: Improve system performance**



Passengers boarding a DART bus (Photo: DTC)

#### Actions

- Support high technology transportation projects
- Improve transit system performance
- Consider a connected and autonomous vehicle future in all WILMAPCO studies
- Support autonomous vehicle preparation and testing
- Fund infrastructure to support the use of our regional transportation network by connected and autonomous vehicles
- o Fund preservation projects first
- Examine, document, and support shared mobility initiatives to reverse our falling carpool rate



### Support High Technology Transportation Projects



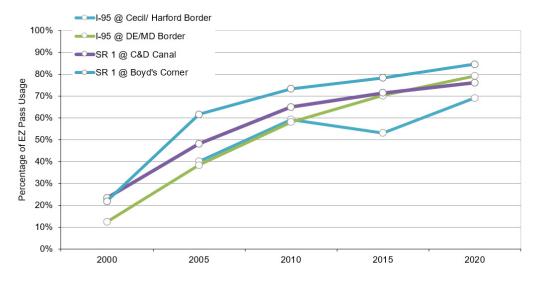
EZ-Pass use (RTP Commuter bus travel times (RTP)) DTC on-time performance (RTP)

The RTP asks WILMAPCO to support high technology transit and highway projects. These projects will help, at least temporarily, reduce traffic congestion without adding roadway capacity, make public transit a more user-friendly experience, and build the infrastructure needed for tomorrow's higher technology highway system.

Results here have been positive. Staff have provided support for successful signal retiming projects, shaving minutes off daily commutes, and EZ-Pass use (an automated toll transaction system) continues to rise along regional expressways.

The "on-time" performance of public buses too has improved in recent years. Some 75% of DART buses were on-time in New Castle County in 2021. While this figure is a well off from the 90% target set by the agency, it is an improvement from the 68% of on-time buses in 2016. On-time performance on buses in Cecil County has improved even more dramatically. In 2021, 88% of Cecil Transit buses reached their stops on-time. This exceeds the agency's 80% target and tops the 69% of buses on time in 2019. In both counties there have also been modest drops in the percentage of bus commutes of more than a half hour.

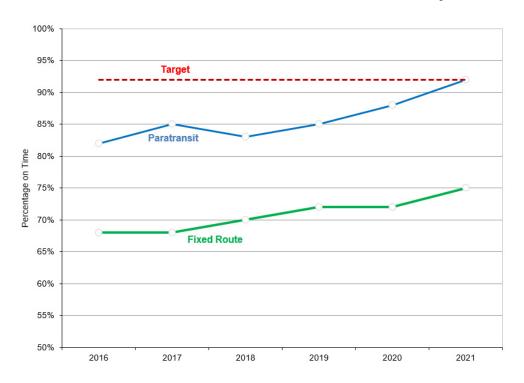
#### EZ-Pass Toll Transactions in the WILMAPCO Region<sup>35</sup>



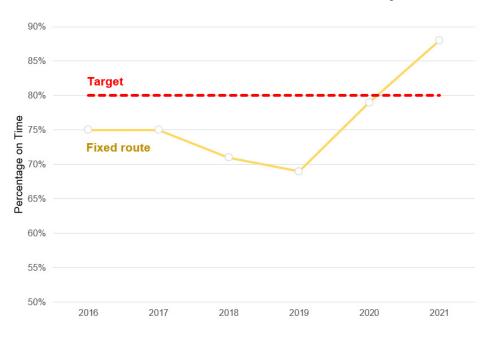
<sup>35</sup> Sources: DelDOT, MDOT/SHA



# On-time Bus Performance in New Castle County<sup>36</sup>



# On-time Bus Performance in Cecil County<sup>37</sup>

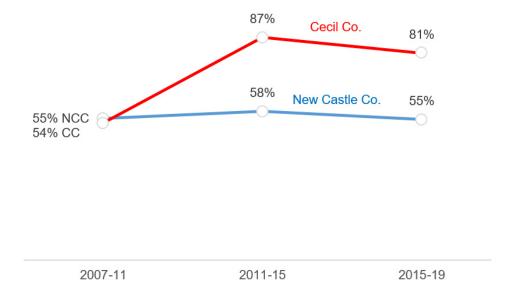


<sup>&</sup>lt;sup>36</sup> Source: DTC

<sup>&</sup>lt;sup>37</sup> Source: Cecil County Transit



#### Percentage of Bus Commutes More Than 30 Minutes<sup>38</sup>



#### Improve transit system performance



Commuter bus travel times (RTP))
DTC on-time performance (RTP)

The RTP directs WILMAPCO to improve transit system performance. Our bus systems have shown increased reliability in the past few years. In New Castle County, 75% of fixed route buses and 92% of paratransit buses were on-time in 2021. Five years ago, those figures were 68% and 82%, respectively. In Cecil County, meanwhile, on-time performance of fixed-route buses also improved. Eighty-eight percent of buses were on time in 2021, compared to 75% in 2016. In step with improved system performance has been a decline in the percentage of bus commutes greater than 30 minutes.

<sup>38</sup> Source: ACS



# On-time Bus Performance in New Castle County<sup>39</sup>



# On-time Bus Performance in Cecil County<sup>40</sup>

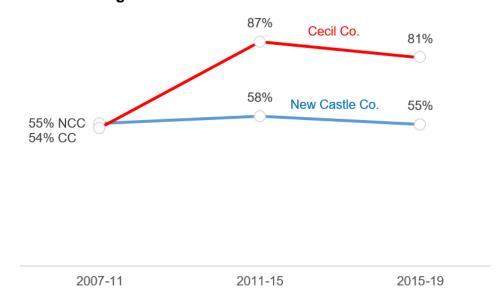


<sup>39</sup> Source: DTC

<sup>&</sup>lt;sup>40</sup> Source: Cecil County Transit



#### Percentage of Bus Commutes More Than 30 Minutes<sup>41</sup>



# Consider a Connected and Autonomous Vehicle Future in All WILMAPCO Studies



UPWP Review (RTP)

The RTP asks WILMAPCO to plan for a future where connected and autonomous vehicles will be the norm. Recent efforts, such as the Route 9 Master Plan, have called for trimming away unnecessary vehicle lanes and reallocating excessive area parking to mixed-use development. Autonomous vehicle adoption, coupled with a projected plateauing of population in future decades, should allow for further reallocations of existing road and parking space across the region.

# Support Autonomous Vehicle Preparation and Testing



**UPWP** Review (RTP)

The RTP asks WILMAPCO to support autonomous vehicle preparation and testing. We have accomplished this through our support of using Congestion Mitigation and Air Quality (CMAQ) funding to Delaware's Integrated Transportation and Management System (ITMS). Millions of dollars are spent each building the technological infrastructure to support connected and autonomous vehicles, provide real-time travel information, and enhance traffic signal timings. DelDOT, meanwhile, convened an Advisory Council on Connected and Autonomous Vehicles that met during 2017 and 2018 to better prepare the state for this technological transition.<sup>42</sup> For their part, DART is currently testing a pair of autonomous shuttles that will help inform future operations.

<sup>&</sup>lt;sup>41</sup> Source: ACS

<sup>42</sup> https://deldot.gov/Programs/autonomous-vehicles/



# Fund Infrastructure to Support the use of our Regional Transportation Network by Connected and Autonomous Vehicles



Review of TIP (RTP)

The RTP directs WILMAPCO to fund infrastructure to support our connected and autonomous vehicle future. We have accomplished this through our support of using Congestion Mitigation and Air Quality (CMAQ) funding to Delaware's Integrated Transportation and Management System (ITMS). Millions of dollars are spent each building the technological infrastructure to support connected and autonomous vehicles, provide real-time travel information, and enhance traffic signal timings.

#### **Fund Preservation Projects First**

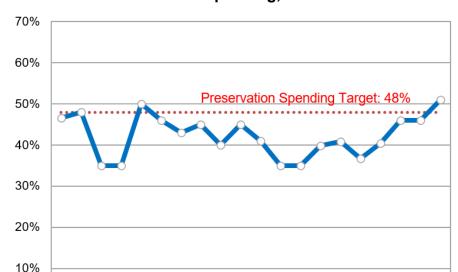


Road and bridge conditions (NPM)
Set target for preservation spend (RTP)

The RTP directs WILMAPCO to fund projects that preserve infrastructure first. We have never had a proper way to gauge this measure and have, in past Progress Reports, simply relied on examining trends in capital preservation project spending. The 2050 RTP sought to correct this by calling for the establishment of preservation spending targets as part of the action's performance measures.

We established a target of 48% for TIP preservation spending. We arrived at that figure after examining the last 20 TIPs and selecting the top three (15%) highest preservation shares of spending. As shown in the graph below, preservation's share of TIP spending has increased steadily over the past several years, following a period of decline beginning at the turn of the century.





TIP Preservation Spending, since FY 1999<sup>43</sup>

Capital preservation projects help maintain our roads and bridges – without expanding their capacity. As shown in the graphs that follow, road pavement and bridge conditions in Delaware and Maryland could be better.

FY '09

FY '16

FY '12

FY '19

While most established federal performance targets are likely to be met in 2021, conditions are tracking negatively in a few key areas. In Delaware, the quality of non-Interstate pavement dropped from 60% in good condition in 2017 to 55% in 2019. In Maryland, only 34% of non-Interstate roadways were in good condition in 2017. That figure slipped further to 32% by 2019. And while bridge conditions in Delaware have recently improved, the percentage of Maryland bridge decks in good condition fell from 27% in 2017 to 24% in 2019.

0%

FY '99

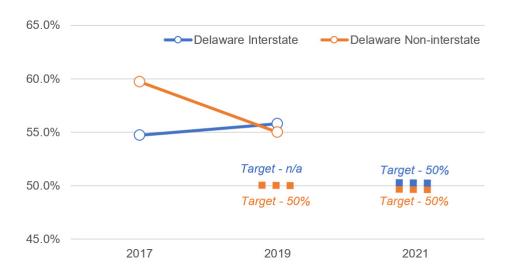
FY '02

FY '05

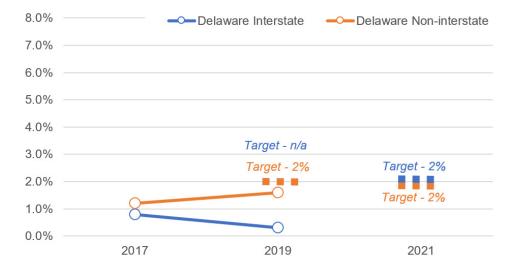
<sup>&</sup>lt;sup>43</sup> Source: WILMAPCO



#### Delaware Pavement in Good Condition<sup>44</sup>



#### Delaware Pavement in Poor Condition<sup>45</sup>

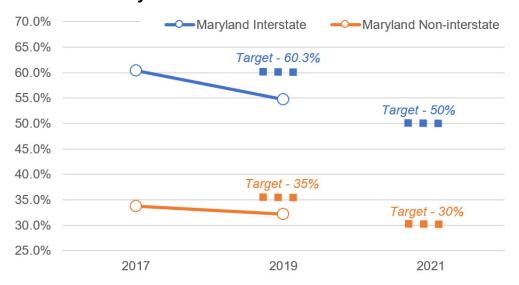


<sup>&</sup>lt;sup>44</sup> Sources: DelDOT; FHWA

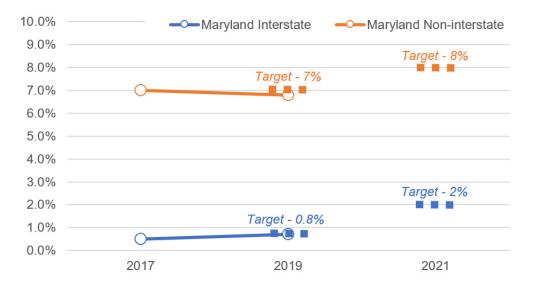
<sup>&</sup>lt;sup>45</sup> Sources: DelDOT; FHWA



#### Maryland Pavement in Good Condition<sup>46</sup>



#### Maryland Pavement in Poor Condition<sup>47</sup>



<sup>46</sup> Sources: SHA; FHWA

<sup>&</sup>lt;sup>47</sup> Sources: SHA; FHWA



# Delaware Bridges in Good Condition<sup>48</sup>



# Delaware Bridges in Poor Condition<sup>49</sup>

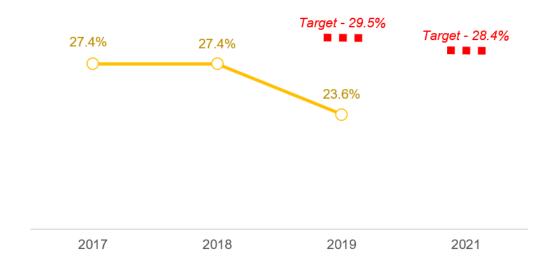


 $<sup>^{\</sup>rm 48}$  Sources: DeIDOT, FHWA. The condition is that of bridge deck areas.

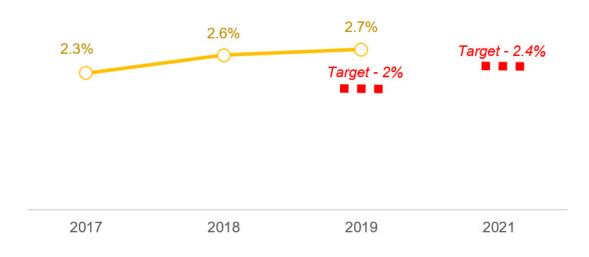
<sup>&</sup>lt;sup>49</sup> Sources: DelDOT, FHWA. The condition is that of bridge deck areas.



# Maryland Bridges in Good Condition<sup>50</sup>



#### Maryland Bridges in Poor Condition<sup>51</sup>



 $<sup>^{\</sup>rm 50}$  Sources: SHA, FHWA. The condition is that of bridge deck areas.

<sup>&</sup>lt;sup>51</sup> Sources: SHA, FHWA. The condition is that of bridge deck areas.



# Examine, Document, and Support Shared Ability Initiatives to Reverse our Falling Carpool Rate



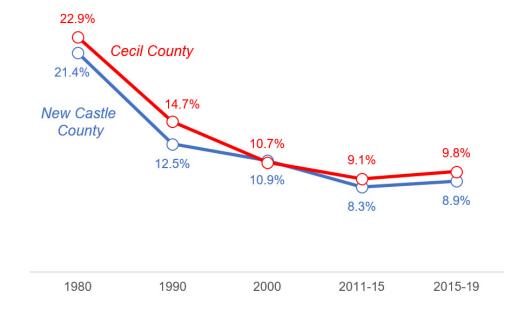
Percentage of workers carpooling (RTP)
Park-and-Ride lot use (RTP)

Following a sharp decline in carpooling rates, the 2050 RTP directed WILMAPCO to redouble its efforts to bolster carpooling. Results here have been mixed.

Staff has not undertaken a major effort to support carpooling, as the RTP imagined. This is in some part due to the COVID-19 pandemic, which has disrupted and made uncertain daily travel patterns – perhaps none more so than carpooling. As we documented in the introduction, during the 2020 lockdown, park and ride lot use fell by about half in most lots. Because recent park and ride data are so skewed by the pandemic, we are not presenting it here.

As the pandemic settles and the region moves into our "new normal," it is important WILMAPCO make progress on this action. The good news is that during the 2010s, data show a slight rebound in the percentage of shared ride commutes.

#### Percentage of Workers Commuting via Carpool, since 1980<sup>52</sup>



<sup>52</sup> Source: Census, ACS

# VII - GOAL: EFFICIENTLY TRANSPORT PEOPLE

# Objective: Promote accessibility & connectivity



Bus passengers (Photo: DTC)

#### **Actions**

- o Improve access to public transportation
- Analyze barriers TJ groups experience in the transportation network
- Plan and fund public transit expansion and management projects
- Develop a complete, low-stress non-motorized transportation network



#### Improve Access to Public Transportation



Percentage of commutes by transit (RTP)
Employment and population within walking distance to bus stops (RTP)

Improving access to public transportation was an action in the RTP. After marginal but steady improvements in the rate of public transit use among regional workers, the rate slipped in New Castle County from 4.3% of trips in the first half of the 2010s to 3.6% in the second (data pre-pandemic). Cecil County, meanwhile, saw a slight increase from 1.1% to 1.4%.

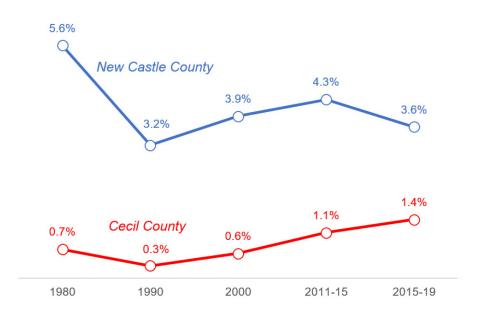
These rates would likely improve if more jobs and people were located closer to the system. As shown on the graph below, only 58% of jobs in New Castle County are located nearby a bus stop – defined as a quarter mile. In Cecil County, that figure was 21%. Both percentages have dropped over the past ten years.

While the percentage of people living nearby bus stop has steadily grown in Cecil County, it has fallen in New Castle County since the turn-of-the-century. In 2000, 55% of that county's population were within walking distance to a bus stop. By 2020, owing to increasing suburban sprawl, it slipped to 45%.

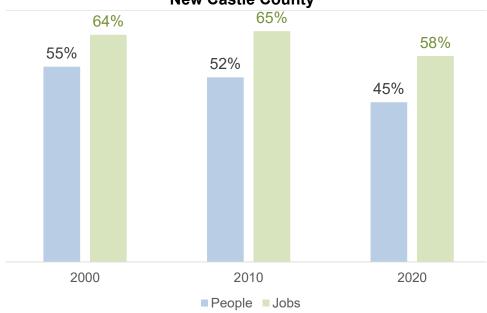
Encouraging a denser development pattern while increasing spending to produce a more robust and reliable public transportation system will help make public transportation more viable.



# Percentage of Workers Commuting via Mass Transit<sup>53</sup>



People and Jobs within Walking Distance to a Bus Stop in New Castle County<sup>54</sup>

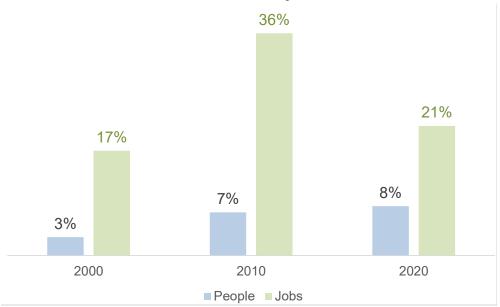


<sup>&</sup>lt;sup>53</sup> Source: Census, ACS

<sup>&</sup>lt;sup>54</sup> Sources: WILMAPCO, DTC







### Analyze Barriers TJ Groups Experience in the Transportation Network



Maintain a TJ Report (RTP) Connectivity matrix (RTP)

The RTP called for the analysis of mobility barriers faced by Mobility Challenged (MC) groups. MC groups include seniors, the disabled, and households without motorized vehicles. These groups were formerly known as Transportation Justice (TJ) groups prior to the 2019 TJ Plan<sup>56</sup>. The 2019 TJ Plan examined the needs of both Environmental Justice (low-income and minority) populations and these MC populations.

Of the MC groups, those without vehicles face the most mobility challenges. Our 2018 Public Opinion Survey found that 54% reported transportation difficulties, compared to a regional average of 17%. The same was true for about 1 in 3 people with disabilities. Seniors, whether disabled or not, do not have the same difficulty with the transportation system. Slightly fewer than the regional average of seniors report transportation difficulties. Seniors, however, risk social isolation if they lose the ability or confidence to drive. They also have an increased risk of injury or death from crashes, due to greater bodily fragility.

<sup>&</sup>lt;sup>55</sup> Sources: WILMAPCO, Cecil Transit

<sup>&</sup>lt;sup>56</sup> www.wilmapco.org/tj



Specific to neighborhood connectivity, a "connectivity matrix" in the 2019 TJ Plan measures the connectivity between concentrations of TJ populations and key destinations (libraries, grocery stores, hospitals, and senior centers) with four modes of travel (walking, biking, public bus, and car). We found that people living in neighborhoods with concentrations of seniors and people with disabilities often had more limited transportation connectivity than average. As shown in the graphic below, for example, senior and disabled concentrations had poorer bus connectivity to pharmacies by bus than average.

#### **Transportation Connectivity Concerns by MC Neighborhood Concentration**



# Plan and Fund Public Transit Expansion and Management Projects



TIP transit funding trends (RTP)
Ridership and transit use analysis (RTP)
Filling the commuter rail gap progress (RTP)

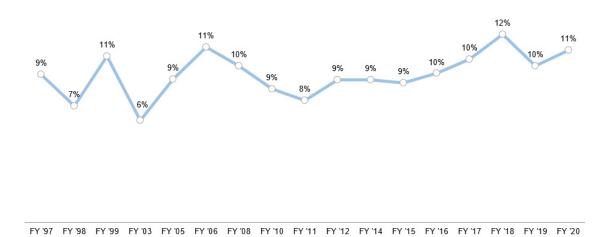
Funding strategic improvements to our regional transit system was an action of the RTP. On the positive side, as shown in the graph below, funding for public transit has increased slightly as a percentage of total funding in recent TIPs. In addition, our largest regional transit project remains on the books. The effort to fill the commuter rail gap in Cecil County project aims to link the Baltimore (MARC) and Philadelphia (SEPTA) regional rail systems together. The Maryland Transit Administration is following through on requirements of the MARC Service Expansion Act, which includes examining the expansion of its northern reach to Newark<sup>57</sup>. The effort remains in the planning stages.

<sup>&</sup>lt;sup>57</sup> http://www.wilmapco.org/Tac/TAC-Minutes-4-21.pdf

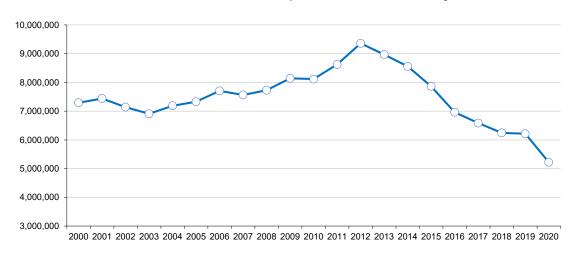


On the other hand, bus ridership is down across the region. Though Cecil County saw its highest ridership ever in the pre-pandemic year 2019, bus ridership in New Castle County has been in steady decline. It fell by 34% between the years 2012 and 2019. Better land development policy, coupled with more intensive investment in transit and walking and biking projects will work to reverse this trend.

#### Percentage of TIP Spending on Transit Projects<sup>58</sup>



Fixed Route Bus Ridership, New Castle County<sup>59</sup>

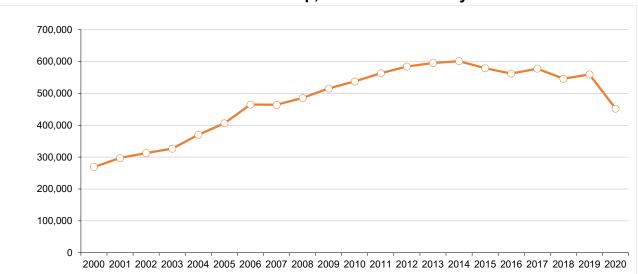


<sup>58</sup> Source: WILMAPCO

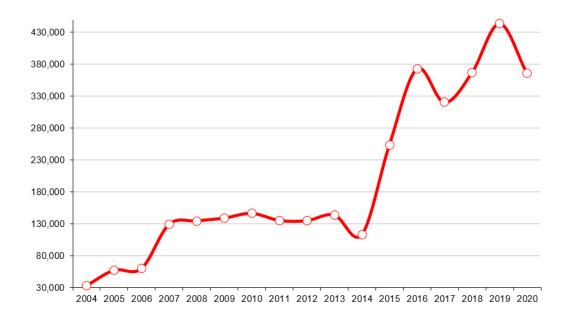
<sup>&</sup>lt;sup>59</sup> Source: DTC







#### Fixed Route Bus Ridership, Cecil County<sup>61</sup>

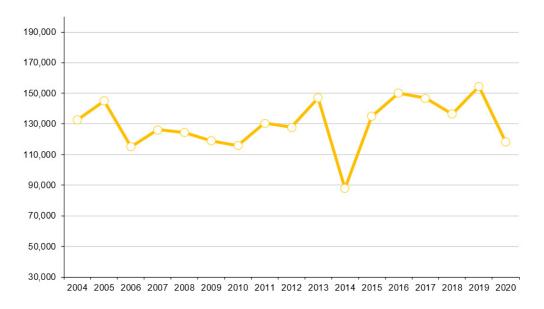


<sup>&</sup>lt;sup>60</sup> Source: DTC

<sup>&</sup>lt;sup>61</sup> Source: Cecil County Transit



#### Demand Response Bus Ridership, Cecil County<sup>62</sup>



#### Develop a Complete, Low-Stress Nonmotorized Transportation Network



Bicycle, pedestrian, and multimodal TIP projects vs. the Prioritized Pedestrian Network (RTP) Greenway progress (RTP)

Trail counts (RTP)

Percentage of commutes by walking/biking (RTP)

The RTP called for the development of a complete and safe nonmotorized transportation network. Results here have been mixed.

Steady progress has been made completing the East Coast Greenway in New Castle County. The percentage of completed or funded segments rose from 68% in 2011 to 86% today. Unfortunately, little progress has been made on the Greenway in Cecil County.

We have also found that the majority (64%) of multimodal and dedicated pedestrian and bike TIP projects are occurring in areas flagged as priorities for walking improvements. But that figure was 86% in the previously analyzed TIP (FY 2018).

Trail use spiked during the 2020 lockdown associated with Coronavirus pandemic, as discussed earlier. Median trail use in the month of May in New Castle County more than doubled between 2019 and 2020. While it has since fallen, trail use in

<sup>&</sup>lt;sup>62</sup> Source: Cecil County Transit



2021 is still up by 63%, compared with 2019. But much of this is recreational use. Estimates for walking and bike commutes to work have shown either minor increase between the first half of the last decade and the last in New Castle County or declines in walking and biking to work in Cecil County.

Fully translating the emerging nonmotorized network into a functional and safe transportation network requires revisions to land development policy and rethinking the design and use of our highways.

Bicycle, Pedestrian, and Multimodal FY 2020 - 2023 TIP Projects vs.

Prioritized Pedestrian Network<sup>63</sup>

8
8
1-7/See Inset
22
23
124
22
23
124



<sup>&</sup>lt;sup>63</sup> Source: WILMAPCO

FY2020-2023 TIP Bike/Ped and Multimodal Projects by Pedestrian Priority Area

2020 Prioritized Pedestrian Network

High Priority Areas

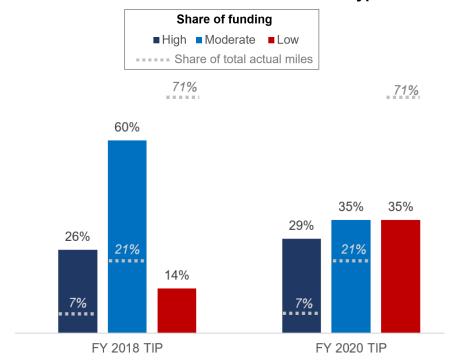
High Moderate Low

#### VILMAPCO

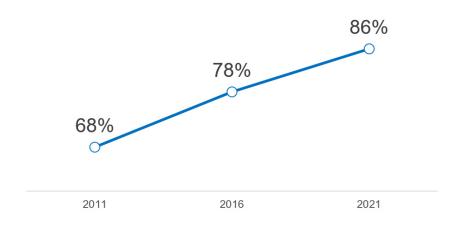
Map ID	Project	Pedestrian Priority Area	Mode
1	Walnut St: Front St - 13th St	High	Multimodal
2	King & Orange Sts: MLK Blvd - 13th St	High	Multimodal
3	4th St: Walnut St - I-95	High	Multimodal
4	Wilmington Riverfront Program	High	Multimodal
5	Christina River Bridge	Moderate	Multimodal
6	Garasches Lane	Moderate	Multimodal
7	Southbridge Transportation Network	High	Multimodal
8	Tyler McConnell Bridge	Moderate	Multimodal
9	Little Baltimore Pike	Low	Multimodal
10	Old Capital Trail: Newport Rd - Stanton Rd	Low	Multimodal
11	SR 141: I-95 - Jay Dr	Moderate	Multimodal
12	US 13: US 40 - Memorial Dr Pedestrian	Moderate	Bike/Pedestrian
13	SR 9: Landers Ln - A St	High	Multimodal
14	Possum Park Rd / Old Possum Park Rd	Low	Multimodal
15	SR 2 / Red Mill Rd	Moderate	Multimodal
16	SR 2 / Harmony Rd	Low	Multimodal
17	SR 4 / SR 7	Moderate	Multimodal
18	SR 4 / Harmony Rd	Moderate	Multimodal
19	SR 273 / Chapman Rd	Low	Multimodal
20	Elkton Rd: MD Line - Casho Mill Rd	Moderate	Multimodal
21	SR 4: SR 2 - SR 896	Moderate	Multimodal
22	SR 896 Widening	Moderate	Mulitmodal
23	US 40: Salem Church Rd - Walther Rd	High	Multimodal
24	US 40 / SR 7 Intersection	High	Multimodal
25	MD 272 Bridge over Amtrak	High	Multimodal
26	Glasgow Ave	Moderate	Multimodal
27	Denny Rd / Lexington Pkwy	Low	Multimodal
28	SR 72: McCoy Road - SR 71	Low	Multimodal
29	Lorewood Grove Rd: Rt 412A - SR 1	Low	Multimodal
30	Jamison Corner Rd: Relocated to Boyds Corner Rd	d Low	Multimodal
31	Boyds Corner Rd: Cedar Lane - US 13	Low	Multimodal
32	Cedar Ln: Marl Pit Rd - Boyds Corner Rd	Low	Multimodal
33	SR 299: SR 1 - Catherine St	High	Multimodal
34	US 13: Duck Creek - SR 1	Low	Multimodal



Bicycle, Pedestrian, and Multimodal FY 2020 – 2023 TIP Spending by Pedestrian Prioritization Network Area Type<sup>64</sup>



## Completed and Funded Segments of the East Coast Greenway in New Castle County <sup>65</sup>

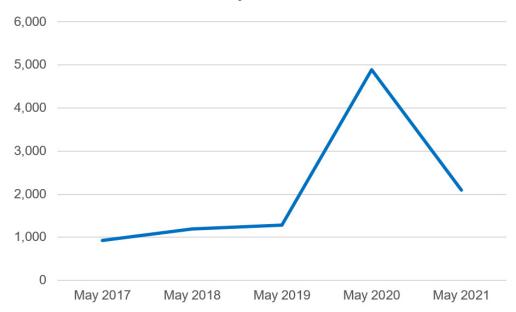


<sup>&</sup>lt;sup>64</sup> Source: WILMAPCO. To put these numbers in perspective, low priority stretches of roadway account for about 71% of roadway miles in the region. Moderate priority miles account for about 21%; high priority for 7%. Funding going towards moderate and high priority pedestrian areas is, therefore, more than triple what we would expect simply based on mileage. It is mostly being directed towards places with some clear pedestrian need.

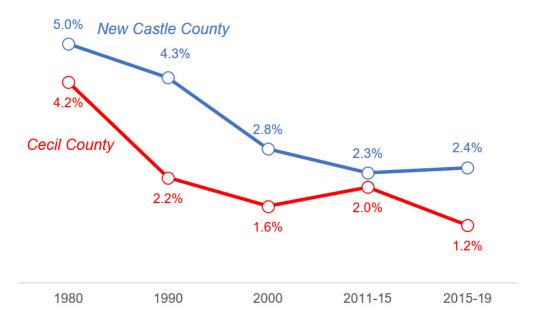
<sup>&</sup>lt;sup>65</sup> Source: WILMAPCO. Data for 2016 is an estimate. In 2015, we calculated that 77% of the ECGW was either funded or completed. In 2017 that figure was 79%.



New Castle County: Median Trail Count<sup>66</sup>



#### Percentage of Workers Commuting via Walking<sup>67</sup>



<sup>&</sup>lt;sup>66</sup> These data represent the median May count from the following state and local walking trails: BC Brandywine Trail, BC Nature Center, LP Lums XC, Newark Res, WCC BOA, WCC Bryans Field IR, WCC Paper Mill Tunnel, WCC Pomeroy North/Hopkins IR, WCC Pomeroy South/Towers, WCC Tri State, WCC Whitely Farms Trail, James Hall – West (beginning in 2019), Redd - Fiberglass Bridge (beginning in 2019), WCC Whitely Farms Accessible (beginning in 2019), WCC Trail Valley Trail 2 (beginning in 2020).

<sup>&</sup>lt;sup>67</sup> Source: Census, ACS



#### Percentage of Workers Commuting via Bicycling<sup>68</sup>



<sup>&</sup>lt;sup>68</sup> Source: Census, ACS

#### GOAL: EFFICIENTLY TRANSPORT PEOPLE

#### Engage the public via an open involvement process



Youth conducting surveys during the Southbridge Neighborhood Plan

#### **Actions**

- o Reach a wide and growing public audience
- Achieve an early, open, ongoing, and transparent public dialogue in all WILMAPCO projects
- Promote inclusionary public participation regardless of age, race, class, or any socio-cultural community
- o Increase the racial/ethnic diversity of PAC membership



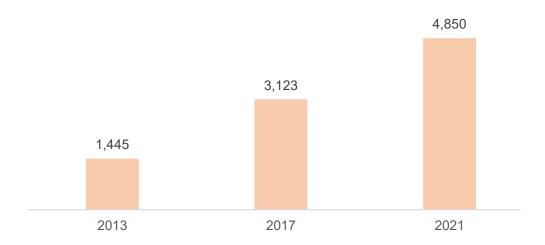
#### Reach a Wide and Growing Public Audience



Transporter distribution (RTP)<sup>69</sup> Electronic reach (RTP) Familiarity with WILMAPCO (RTP)

The RTP urged WILMAPCO to reach a wide and growing public audience. Results here are mixed. While WILMAPCO has gained more than 500 new Facebook followers and more than 1,700 new newsletter subscribers in the past several years, hits on the WILMAPCO website have not increased during the past decade and a declining percentage of residents are familiar with the agency. According to results from our Regional Public Opinion survey, 33% of residents were familiar with WILMAPCO in 2010 and 2014. That figure fell to 31% in 2017 and further still to 29% in 2022.

#### WILMAPCO E-Newsletter Subscribers<sup>70</sup>

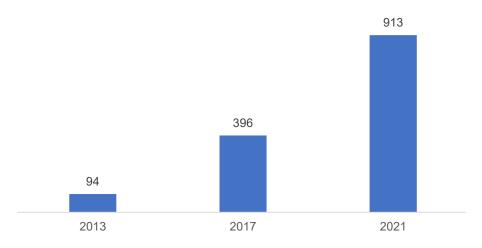


<sup>&</sup>lt;sup>69</sup> This action is no longer relevant as WILMAPCO ended mass hardcopy distribution of the Transporter in 2021.

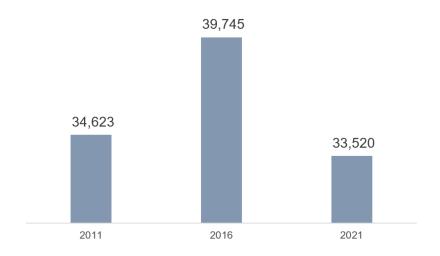
<sup>70</sup> Source: WILMAPCO



WILMAPCO Facebook Followers<sup>71</sup>



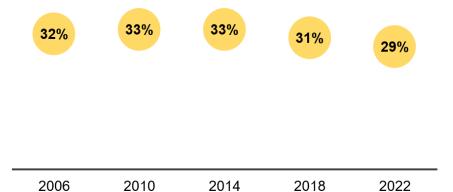
#### Website Views<sup>72</sup>



<sup>&</sup>lt;sup>71</sup> Source: WILMAPCO <sup>72</sup> Source: WILMAPCO



#### Percentage of Residents Familiar with WILMAPCO<sup>73</sup>



<sup>&</sup>lt;sup>73</sup> Source: WILMAPCO Public Opinion Surveys.



## Achieve an early, open, ongoing, and transparent public dialogue in all WILMAPCO Projects



Review of public participation components of studies (RTP)

The RTP directs WILMAPCO to foster strong community engagement in all projects. While this largely has been achieved, there is room for improvement. The matrix below assesses key aspirational outreach components, as documented in the Public Participation Plan, against each recent sub-regional study. Project managers were asked to assess how well their study met each of the outreach components — achieved (green), somewhat achieved (yellow), not achieved (red) not relevant (dark gray), or too early to tell (light gray). This year, given the impact of the pandemic on public involvement, we have a new category noting where complications with pandemic-related requirements interfered with achievement. It is colored blue.

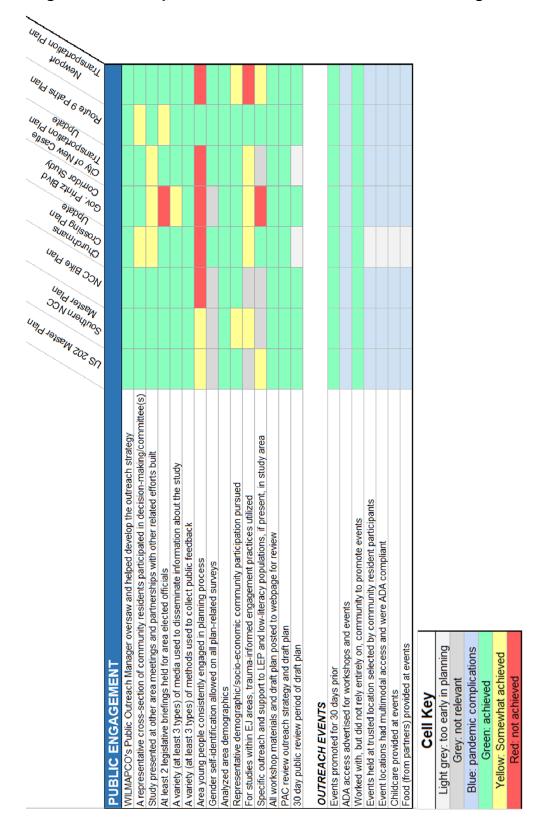
Overall, our studies achieved most components of good public outreach. In total, 75% of relevant measures were achieved. This is down from 92% in 2017. The drop is mostly due to new, stronger public outreach recommendations that were made in the 2020 Public Participation Plan.

Specific areas for improvement include better engaging young people in studies, using trauma-informed engagement strategies<sup>74</sup> when working within EJ areas, and having tailored outreach to both people with limited English proficiency and low literacy, if large numbers are present within study areas.

<sup>&</sup>lt;sup>74</sup> See the 2019 TJ Plan: www.wilmapco.org/tj



#### Achieving Public Participation Plan Recommendations in Sub-Regional Plans





## Promote Inclusionary Public Participation Regardless of Age, Race, class, or any Socio-cultural community



Transporter distribution (RTP)<sup>75</sup>

The RTP challenged WILMAPCO to promote an inclusionary public participation process. Overall, this has been achieved. The 2019 TJ Report made sweeping recommendations to promote greater equity both at our agency and in our planning projects. These recommendations were both regional and local in scale and were carried forward by the 2020 Public Participation Plan. In 2021, a "Social Justice for Planners Outreach Training," was made available to staff. This training covered the importance of recognizing and accounting for unconscious bias and strategies to engage with marginalized populations. About half of the staff participated.

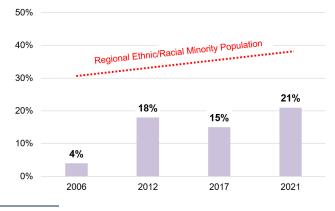
#### Increase the Racial/Ethnic Diversity of PAC Membership



Racial/ethnic makeup of PAC (RTP)

The RTP directed WILMAPCO to increase the racial and ethnic diversity of its Public Advisory Committee (PAC) membership. As shown in the chart below, 21% of PAC members are racial or ethnic minorities – compared to a base regional population of 38%. While an improvement over past years, WILMAPCO should investigate ways to diversify its membership, including rethinking the requirements and asks of PAC members to promote inclusivity.

#### Racial and Ethnic Minority Public Advisory Committee Members<sup>76</sup>



<sup>&</sup>lt;sup>75</sup> This action is no longer relevant as WILMAPCO ended mass hardcopy distribution of the Transporter in 2021. Future Progress Report iterations should include progress in improving WILMAPCO familiarity with low-income and racial and ethnic minorities, which was found to be lacking in the 2019 TJ Plan. However, the 2021 Public Opinion Survey was not complete enough at the time of writing to present updated data.

<sup>&</sup>lt;sup>76</sup> Source: WILMAPCO; Minority Population from American Community Survey (2015, 5-year estimates)

## VIII - GOAL: SUPPORT SUSTAINABLE ECONOMIC DEVELOPMENT & GOODS MOVEMENT

**Objective: Maximize our investments** 



East Market Street in Newport

#### Actions

- Encourage increased density and future growth in Center TIAs
- Use WILMAPCO's project prioritization process to select projects for TIP funding
- Support the examination of additional and sustainable funding sources for transportation projects
- Create and support the implementation of subregional plans



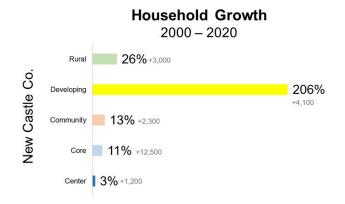
#### Encourage Increased Density and Future Growth in Center TIAs

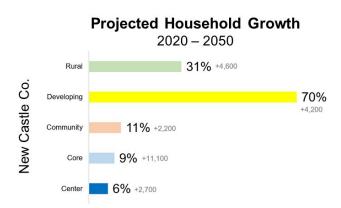


Household and employment growth by TIA (RTP)
TIP spending by TIA (RTP)
Demographic projections and TIP spending in Center vs. Rural TIAs (RTP)
Percent of location efficient places (RTP)

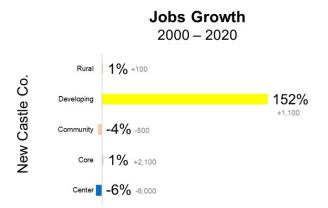
The RTP calls for increased density and future growth within Center Transportation Investment Areas (TIAs). These are cities, towns, and unincorporated areas identified in the RTP for the highest level of transportation investment. Meaningfully meeting this action has been a chronic challenge, however, especially in New Castle County.

As shown in the graphs below Centers in New Castle County showed the weakest household (+3%) and employment (-6%) growth since 2000 of any TIA type. That trend is projected to continue through 2050. Centers are set to experience just a 6% growth in households and a 2% loss in employment. Past and future growth in households is led, in absolute numbers, by growth in Core TIAs. These are generally inner suburban areas that surround Centers. In terms of rate, however, there has been substantial household growth in outer suburban Developing and Rural TIAs. Since 2000, Developing TIAs have grown by 206% and are expected to increase a further 70% by 2050. Those figures for Rural TIAs are 26% and 31%, respectively. In Cecil County, past and future growth in homes and jobs are more balanced across the various TIAs, with Core TIAs leading in terms of both absolute and rate increases.

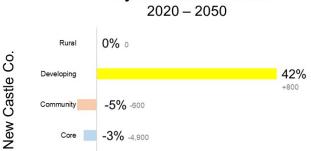




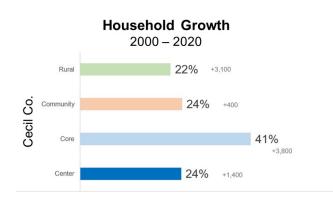


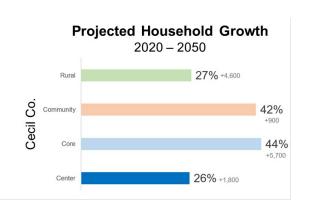


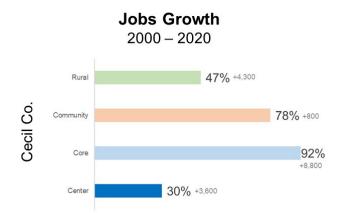
#### Projected Jobs Growth



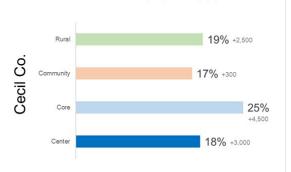
**-2%** -2,500







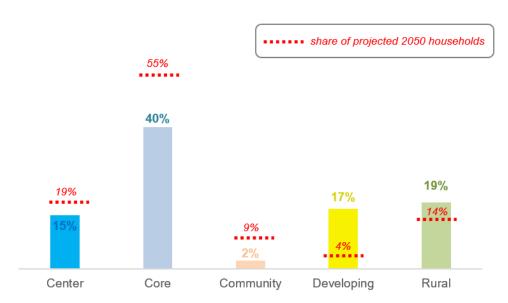
## Projected Jobs Growth 2020 – 2050





Heavy recent and expected household growth outside the Center and Core TIAs is reflected in transportation spending patterns. Fresh growth in these previously less developed areas triggered highway upgrades – such as the new US 301 Expressway, SR 1 Expansion, and several road widenings in Southern New Castle County. Since the FY 2004 TIP, Developing and Rural TIAs have, in turn, received a greater share of project dollars than their share of regional households today or their projected share by 2050. Median spending within Developing TIAs has been about 17% in the near dozen TIPs since FY 2004, for example, though the share of households within Developing TIAs is projected to be only 4% of all households by 2050. In Rural TIAs, those figures were 19% and 14%, respectively. By contrast, spending within Center, Core and Community TIAs, meanwhile, fell under their projected share of 2050 households.

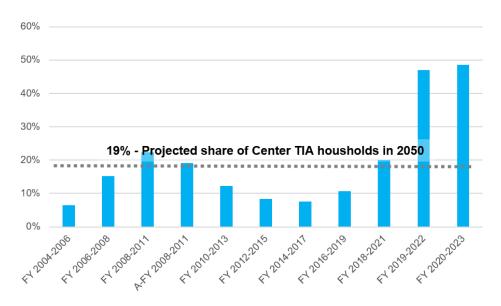
## Median Spending by TIA vs. Future Projected Households: FY 2004 TIP to FY 2020 TIP<sup>77</sup>



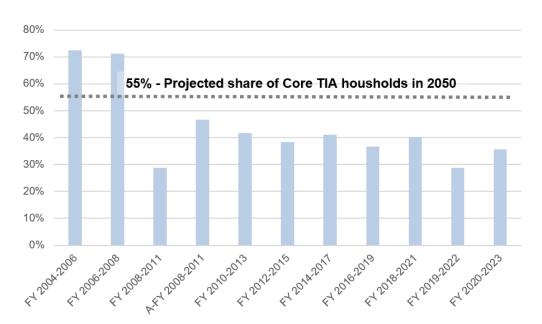
<sup>&</sup>lt;sup>77</sup> The bars on this graph show the median funded amount by TIA, of the total mappable TIP spending for that year, in the eleven most recent TIPs. These data are compared to the "expected" spend for each TIA, which is the percentage share of 2050 households in that TIA.



**TIP Spending within Center TIAs** 

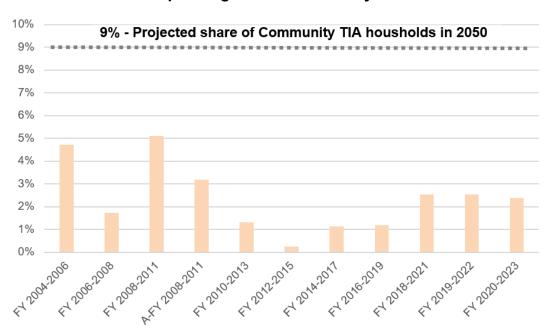


**TIP Spending within Core TIAs** 

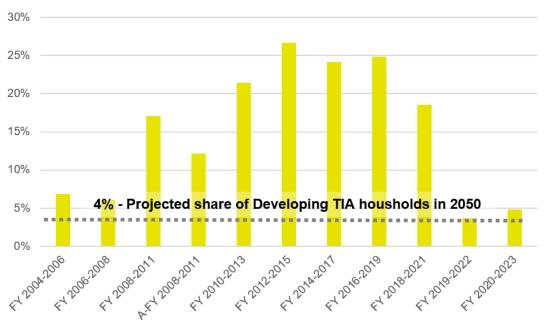




**TIP Spending within Community TIAs** 

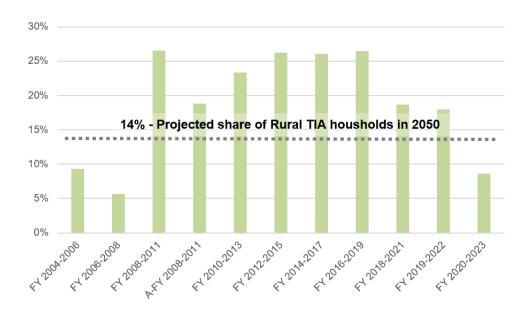


#### **TIP Spending within Developing TIAs**





#### **TIP Spending within Rural TIAs**



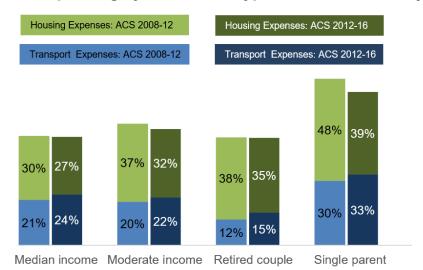
The RTP specifically seeks to encourage more development within Center TIAs, while discouraging development within Rural TIAs. Household and job growth in Rural TIAs, however, has outpaced growth in Center TIAs – both in absolute terms and by rate – since 2000 in both counties. Moreover, projections indicate it will continue to do so. New and expected growth has led to Rural TIAs receiving an outsized proportion of TIP spending since the FY 2004 TIP as transportation upgrades are made to keep pace with this new suburban development. Center TIAs, meanwhile, have received a median spend of only 15% since FY 2004 – lower than the 19% of regional households projected to fall within Centers in 2050.

This continued suburban sprawl is behind several troubling indicators in the Progress Report – from high driving alone commutes to projected rises in VMT to a fall in the number of people living nearby bus stops and declining bus ridership.

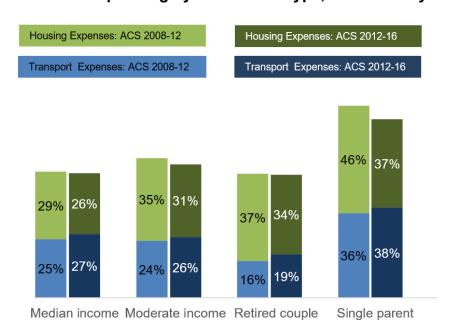
Another key indicator it impacts is location efficiency. As more and more households are built in car dependent outer suburbs, average household spending on transportation has too increased. As the charts below show, while spending on housing decreased, transportation increased for all household types between the two periods of 2008-2012 and 2012-2016. For the average moderate-income household in New Castle County, for example, spending on transportation grew from 20% to 22% during this period. For single parent households, the figures increased from 30% to 33%.



#### Household Spending by Household Type, New Castle County<sup>78</sup>



#### Household Spending by Household Type, Cecil County<sup>79</sup>



<sup>&</sup>lt;sup>78</sup> These data compare median household spending on housing and transportation expenses by census tract/block group for different household types. Data are from HUD's Location Affordability Index. The percentages shown were calculated by WILMAPCO. They represent the median of all block groups (v2 – ACS 2008-12) or Census tracts (v3 – ACS 2012-6) in the county. Source: https://www.hudexchange.info/programs/location-affordability-index/

<sup>&</sup>lt;sup>79</sup> See the previous footnote.



## Use WILMAPCO's Approved Project Prioritization Process to Select Projects for Funding



Prioritization versus eventual funding (RTP)

The RTP directs WILMAPCO to use our approved project prioritization process in selecting projects for funding. While the approved prioritization exercise is utilized with each TIP, many high-scoring projects remain on the shelf while lower-scoring projects have received funding.

The WILMAPCO prioritization process is centered around a geographically based, largely quantitative analysis of the project's ability to realize the goals of the RTP. Projects located in congested corridors, areas of heavy freight and transit movement, Transportation Justice neighborhoods, and several other measures receive points in the analysis<sup>80</sup>. This technical analysis informs but does not serve as the ultimate prioritized ranking of the projects. Because of the ambiguity of other parts of our prioritization process – such as the priority given by a project's sponsoring agency and "special considerations" that ultimately may influence their ranking – it is difficult to measure how successfully we have met this measure.

An analysis can be done, however, of project technical scores and the projects that found their way into and out of the TIP, our mechanism for funding the projects. Of the projects in the FY 2020-23 TIP, the median technical score was 13, with 19 funded projects scoring under 13. We actively track unfunded projects not currently in the TIP that were in a recent TIP. Of those projects, 8 have earned technical scores over 13. Four of these projects are roadway projects, three are transit and one is pedestrian/bike.

These figures represent an improvement over our previous analysis of the FY 2018-2023 TIP. That year, 15 unfunded projects had high median technical scores. Nevertheless, high-scoring unfunded projects ought to be considered strongly for adding into the next TIP.

<sup>80</sup> See: http://www.wilmapco.org/priority



#### Funded Projects in the TIP vs Unfunded Projects in a Previous TIP81

# above median technical score below median technical score 15 unfunded projects below median technical score 18 funded projects 19 funded projects

## Support the Examination of Additional and Sustainable Funding Sources for Transportation Projects



Alternative funding sources secured (RTP)

Qualitative review of Unified Plan Work Program (RTP)

The RTP asks WILMAPCO to support the use of different funding sources for transportation projects. Traditional sources (i.e., gasoline taxes) are not economically sustainable. This action continues to be accomplished. WILMAPCO has supported the work of the I-95 Corridor Coalition and the Transportation and Climate Initiative. Though separate, both efforts have examined alternative pricing strategies for transportation. We have also included questions about alternative tax options in our regional public opinion surveys to inform the discussion.

Locally, WILMAPCO has supported the use of public health funding to help implement transportation planning initiatives. Staff were instrumental in securing \$150,000 in Healthy Community Delaware funds and the staff support of a Public Ally, for example, to implement projects along the Route 9 corridor. WILMAPCO also hosted a public health intern during the summer of 2021 who helped construct this report. Their salary was covered by the University of Delaware's Epidemiology Program.

<sup>&</sup>lt;sup>81</sup> Source: WILMAPCO



#### Create and Support the Implementation of Subregional Plans

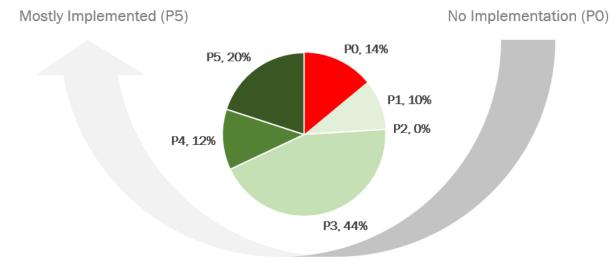


Qualitative review of Unified Plan Work Program (RTP) Implementation progress of subregional plans (RTP)

The RTP directs WILMAPCO to create and support the implementation of subregional plans. This has largely been accomplished. After a plan is endorsed by the WILMAPCO Council, staff assists with its implementation by relevant agencies though technical support.

A scan of our current Unified Planning Work Program reveals that since 1995, the agency has created at least 50 corridor and community plans. As shown in the graph and detailed table below, most have proceeded to at least some stage of implementation. Only 7 plans (14%) have seen no progress towards implementation, coded as "P0." Conversely, 10 plans (P5, 20%) are mostly or fully implemented. Most WILMAPCO sub-regional plans (P2 though P4 - 66%) have seen some level of implementation already, with more needed.

#### Implementation Status of WILMAPCO Sub-Regional Plans, Summary 82



Some Implementation (P3)

<sup>82</sup> Source: WILMAPCO. P0 = No progress; P1 = Minor project Project Development (PD) or Project Engineering (PE) funding identified in TIP; P2 = Minor project(s) Construction © funding identified or major project(s) PD or PE funding identified; P3= Some policy change realized and/or minor project(s) fully constructed and/or major project(s) C funding identified; P4= Major project(s) fully constructed; P5= Plan mostly implemented; most recommended projects/programs/policy changes fully constructed or realized.



#### Implementation Status of WILMAPCO Sub-Regional Plans, Detail 83

		P0	P1	P2	P3	P4	P5
Name	Year adopted	No progress	Minor project PD or PE funding identified	Minor project(s) C funding identified or major project(s) PD or PE funding identified	Some policy change realized and/or minor project(s) fully	Major project(s) fully constructed	Plan mostly implemented most recommended projects/programs/policy changes fully constructed realized
Churchmans Crossing Implementation	1995						
(ongoing) Middletown Mobility Friendly Design Standards	1997						
City of New Castle Transportation Plan	1999						
Centreville Village Plan	2002						
East Coast Greenway	2003						
New Castle County Greenway Plan	2003						
Tyler McConnell Bridge	2004						
Claymont Transportation Plan	2008						
Claymont Regional Transportation Center	2008						
Southbridge Circulation Study	2008						
Wilmington Bicycle Plan	2008						
Delaware City Transportation Plan	2009						
Town of Chesapeake City Parking Plan	2009						
Cecil County Transit Study	2010						
Delaware Avenue/11th/12th Streets Curve Study	2010						
City of Newark Planning (Transportation/Traffic Calming/Bike Plan)	2011						
Route 301	2011						
Town of Elkton TOD Feasibility Study	2011						
Town of Elkton Bike Plan	2011						
Downtown Wilmington Circulation Study	2011						
Lower Susquehanna Heritage Greenways Management Plan	2012						
Cecil County Bicycle Plan	2012						
Town of Perryville Greenway Plan	2012						
Town of Perryville Transit Oriented Development (TOD)	2012						
Newark Regional Transportation Center	2013						
Wilmington Initatives Implementation (ongoing) Town of Port Deposit Transit	2013						
Feasibility Study	2013						
Wilmington Transit Moving Forward	2014						
Route 40 Corridor Improvements, New Castle Co. (ongoing)	2014						
Town of North East Transportation and Land Use Maps Update	2014						
Town of North East Transit Oriented Development	2014						
Village of Marshallton Circulation Study	2014						
Cecil County Route 40 Program  Development Support	2015						
Red Clay Valley Scenic Byway Standards Route 141 Land Use and	2016						
Transportation Plan Ardentown Paths Plan	2017						
North Claymont Area Master Plan	2017						
Route 9 Corridor Master Plan	2017						
Glasgow Avenue Planning Study	2017						
Elkton Pedestrian Plan	2018						
7th Street Peninsula Study	2019						
12th Street Connector Study	2019						
Newark Area Transit Study Southern New Castle County Master	2019						
Plan New Castle County Bicycle Plan	2020						
Concord Pike Master Plan	2020						
Maryland, Monroe & MLK Safety Improvement Study	2021						
Gov. Printz Corridor Study	2021						
Newport Transportation Plan Route 9 Paths Plan	2021						

<sup>83</sup> Source: WILMAPCO. PO = No progress; P1 = Minor project Project Development (PD) or Project Engineering (PE) funding identified in TIP; P2 = Minor project(s) Construction © funding identified or major project(s) PD or PE funding identified; P3= Some policy change realized and/or minor project(s) fully constructed and/or major project(s) C funding identified; P4= Major project(s) fully constructed; P5= Plan mostly implemented; most recommended projects/programs/policy changes fully constructed or realized.



#### Support Municipalities and Existing Communities



Qualitative review of Unified Plan Work Program (RTP) Summarize recommendations of local plans (RTP)

The RTP directs WILMAPCO to support municipalities and existing communities. This has largely been accomplished through the previous successful action – creating and supporting the implementation of sub-regional plans. WILMAPCO's leadership on both Wilmington Initiatives and the South Wilmington Planning Network have provided an extra layer of ongoing project implementation support to our largest city. Staff has provided extra support to the City of Newark as well, through our support of Bike Newark, Newark's Transportation Improvement District, and the traffic committee.

Transportation and land use-related recommendations from comprehensive plans across the region are summarized in the Appendix. We keep this list current with each progress report to support maintain a list of these local aspirations.

# GOAL: SUPPORT SUSTAINABLE ECONOMIC DEVELOPMENT & GOODS MOVEMENT

**Objective: Develop effective transportation networks** 



Traffic on I-95

#### Actions

- Manage congestion
- o Streamline freight movement
- o Enhance intermodal systems connectivity
- o Promote seamless interregional travel



#### **Manage Congestion**



Percent of the Interstate system providing reliable travel times (NPM)
Percent of the non-Interstate NHS providing reliable travel times (NPM)
Percent of the Interstate system where peak hour travel times meet expectations (NPM)
Percent of the non-Interstate NHS where peak hour travel times meet expectations (NPM)
Annual hours of excessive delay per capita (NPM)
Maintain a Congestion Mitigation System Report (RTP)
Integrate Congestion Mitigation System into the Transportation Improvement Program (RTP)

Free flowing traffic helps facilitate economic development. WILMAPCO identifies the region's most congested traffic corridors through our Congestion Management Process. Transportation projects within these corridors receive extra points in our project prioritization process to help speed their implementation.

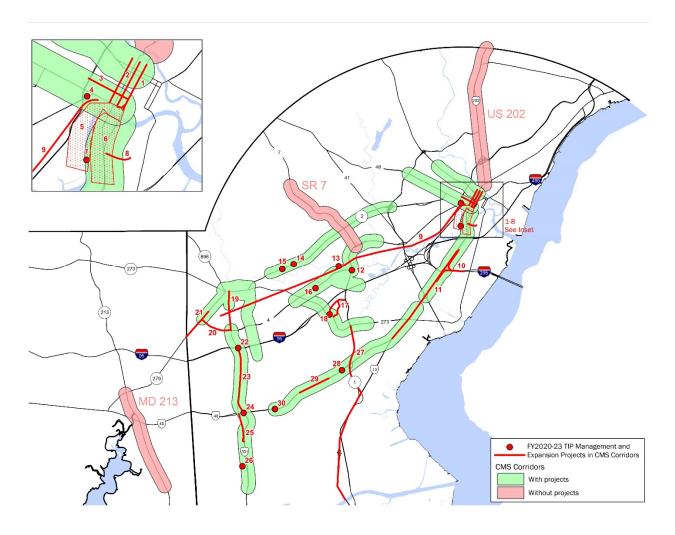
The map below shows our congested corridors, which we call our Congestion Management System (CMS) corridors, and the planned/funded projects that fall within them. As shown, more than \$269 million in spending between FY 2020 and FY 2023 has been set aside to complete 30 management and expansion projects within these corridors. These projects are mostly road projects – rebuilds of intersections and new road and bridges – but also include enhancements for people walking and bicycling, and improvements to the commuter rail system.

All but three of the CMS corridors has at least one management and expansion project funded through FY 2023. The corridors that do not are US 202 and SR 7 in New Castle County and MD 213 in Cecil County. More consideration should be given to projects within these corridors to help alleviate congestion.

As shown by the line graphs that follow the maps, all traffic congestion-related targets are all on pace to be met. Impacts of the pandemic play a role here for some measures. In Maryland, for example, Interstate travel reliability improved from 69% in 2019 (falling below the state target of 72%) to more than 93% in 2020. However, regional per capita peak hour excessive delay was already falling in the years prior to the pandemic – slipping from 16.7 hours in 2018 to 14.6 in 2019, for example, before halving to 7.4 hours in 2020.



#### FY 2020-23 TIP Management and Expansion Projects in Congested Corridors<sup>84</sup>



<sup>84</sup> Source: WILMAPCO



Map ID	CMS Corridor(s)	Project	FY 2020-2023
1	SR 48, SR 52	Walnut St: Front St - 13th St	\$5 M
2	SR 48, SR 52	King & Orange Sts: MLK Blvd - 13th St	\$5.3 M
3	SR 48	4th St: Walnut St - I-95	\$1.25 M
4	SR 48	Maryland Ave / Monroe St	\$0
5	SR 48, US 13	Wilmington Riverfront Program	\$600 K
6	US 13	South Wilmington Infrastructure Improvements	\$38.5 M
7	US 13	Christina River Bridge	\$31.2 M
8	US 13	Garasches Lane	\$4.9 M
9	SR 48, SR4/Churchmans Rd,	Third Rail Track Expansion, Newark - Wilmington	\$22.5 M
9	Del. 2/Elkton Rd	Third Rail Hack Expansion, Newark - Willington	
10	US 13	I-295 Improvements	\$3 M
11	US 40	US 13: US 40 - Memorial Dr Pedestrian	\$8.4 M
12	SR 4/Churchmans Rd.	SR 4 / SR 7	\$1.2 M
13	SR 4/Churchmans Rd.	Fairplay Train Station	\$7.75 M
14	Kirkwood Highway	SR 2 / Harmony Rd	\$0
15	Kirkwood Highway	SR 2 / Red Mill Rd	\$5.5 M
16	SR 4/Churchmans Rd.	SR 4 / Harmony Rd	\$600 K
17	SR 273	Road A/SR 7	\$10.9 M
18	SR 273	SR 273 / Chapman Rd	\$3 M
19	Del. 2/Elkton Rd, SR 896	S College Ave Gateway	\$600 K
20	Del. 2/Elkton Rd, SR 896	SR 4: SR 2 - SR 896	\$3.1 M
21	Del. 2, Elkton Rd.	Elkton Rd: MD Line - Casho Mill Rd	\$36.2 M
22	SR 896	I-95 / SR 896 Interchange	\$29 M
23	SR 896	SR 896 Widening	\$1.7 M
24	SR 896	US 40 / SR 896 Interchange	\$16 M
25	SR 896	Glasgow Ave	\$800 K
26	SR 896	Denny Rd / Lexington Pkwy	\$50 K
27	US 40, SR 273	SR 1: Roth Bridge - SR 273	\$11.8 M
28	US 40	US 40 / SR 7 Intersection	\$2 M
29	US 40	US 40: Salem Church Rd - Walther Rd	\$8.8 M
30	US 40	US 40 / SR 72 Interchange	\$9.5 M

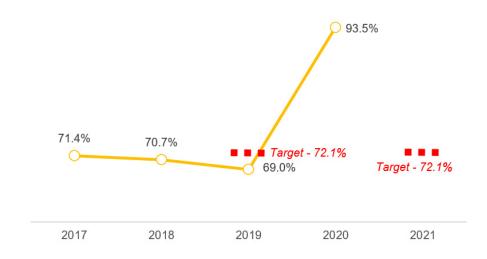
#### Delaware's Percent of the Interstate System Providing Reliable Travel Times<sup>85</sup>



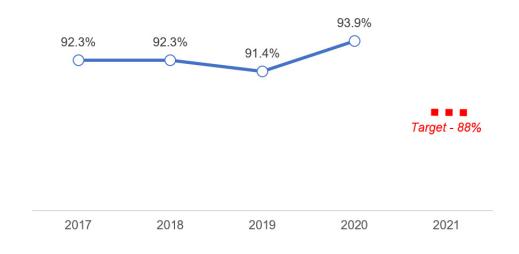
<sup>85</sup> Source: FHWA, DelDOT



#### Maryland's Percent of the Interstate System Providing Reliable Travel Times<sup>86</sup>



#### Delaware's Percent of the Non-Interstate National Highway System Providing Reliable Travel Times<sup>87</sup>

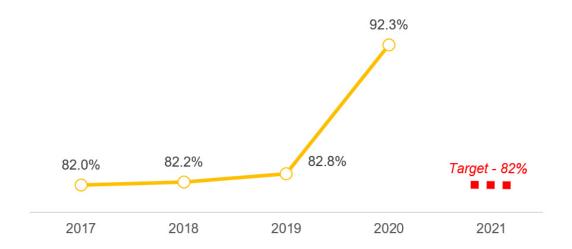


<sup>86</sup> Source: FHWA, SHA

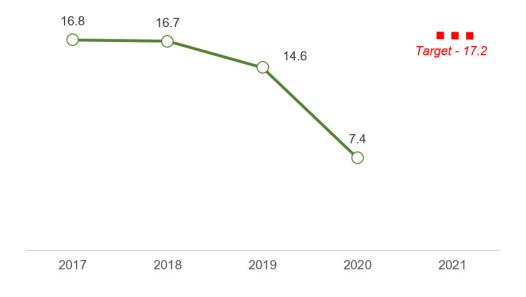
<sup>87</sup> Source: FHWA, DelDOT, SHA



Maryland's Percent of the Non-Interstate National Highway System Providing Reliable Travel Times<sup>88</sup>



## Philadelphia Metropolitan Region's Annual Hours of Peak Hour Excessive Delay per Capita<sup>89</sup>



<sup>88</sup> Source: FHWA, DelDOT, SHA

<sup>89</sup> Source: FHWA



#### Streamline Freight Movement



Maintain a freight plan (RTP)

Management and expansion TIP projects vs. freight bottlenecks (RTP)

Percent of the interstate system mileage providing for reliable truck travel times (NPM)

Percent of the interstate system mileage uncongested (NPM)

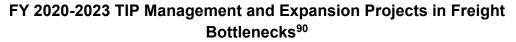
The RTP directs WILMAPCO to help support streamlined freight movement. About 15 years ago, WILMAPCO produced a regional Freight Plan, in which freight traffic bottlenecks were identified. In the years since, we have improved data collection efforts and have developed a better understanding of regional freight patterns through studies such as the Chesapeake Connector Study, the Delmarva Freight Study, and the First/Final Mile Freight Network Development.

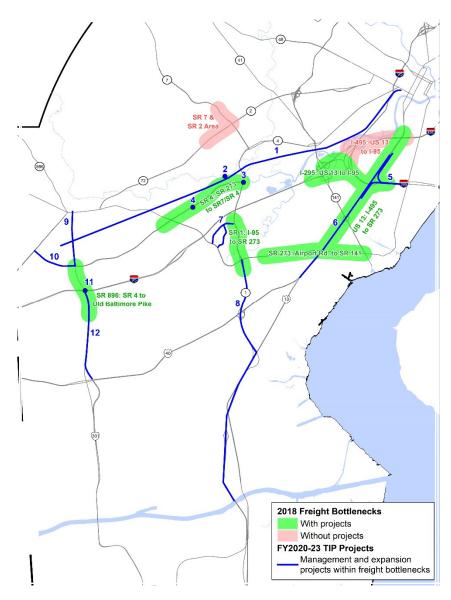
Freight bottlenecks ultimately factor into our project prioritization process. Proposed projects located within the bottlenecks receive points to help streamline their implementation.

A map of the current freight bottlenecks and management and expansion TIP projects within them are found below. Most of the bottlenecks have active management and expansion projects in the FY 2020-2023 TIP, while a pair of others do not. The SR 2/SR 7 area and a portion of I-495 linking I-95 with US 13 should be considered for future freight enhancement projects.

Overall, freight travel time reliability has been improving along both Delaware and Maryland Interstates. As shown in the graphs that follow, both states met targets set by within a "Truck Travel Time Reliability Index" in 2019. Less vehicle traffic during the pandemic resulted in a sharp improvement in travel time in 2020.







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<sup>&</sup>lt;sup>90</sup> Source: WILMAPCO. In WILMAPCO's 2007 freight and goods movement report (<a href="http://www.wilmapco.org/wilmapco-freight-goods-movement">http://www.wilmapco.org/wilmapco-freight-goods-movement</a>) a scoring index was developed to identify freight bottlenecks along our highways. The scoring criteria used include: Average Annual Daily Traffic (AADT), Volume/Capacity (V/C), Travel Time (Percent Below Posted Speed), Average Daily Truck Percentage, Daily Truck Generation by Traffic Analysis Zone (TAZ), and Aggregate Crash Score. Each road segment was then scored and categorized as: Significant (2.0+), Moderate (1.5-2.0), and Minor (1.01-1.5). The freight bottlenecks shown on this map represent significant and moderate bottlenecks using updated data.



MAP ID	Freight Bottleneck Name	Project	FY 2020-2023
1	SR 4: SR 273 to SR7/SR 4	Third Rail Track Expansion, Newark - Wilmington	\$22.5 M
2	SR 4: SR 273 to SR7/SR 4	Fairplay Train Station	\$7.8 M
3	SR 4: SR 273 to SR7/SR 4	SR 4 / SR 7	\$1.2 M
4	SR 4: SR 273 to SR7/SR 4	SR 4 / Harmony Rd	\$600 K
5	Multiple	I-295 Improvements	\$3.0 M
6	Multiple	US 13: US 40 - Memorial Dr Pedestrian	\$8.4 M
7	SR 1: I-95 to SR 273	Road A/SR 7	\$10.9 M
8	SR 1: I-95 to SR 273	SR 1: Roth Bridge - SR 273	\$11.8 M
9	SR 896: SR 4 to Old	S College Ave Gateway	\$600 K
	Baltimore Pike	3 College Ave Gateway	
10	SR 896: SR 4 to Old	SR 4: SR 2 - SR 896	\$3.1 M
	Baltimore Pike	3h 4. 3h 2 - 3h 690	
11	SR 896: SR 4 to Old	I-95 / SR 896 Interchange	\$29.0 M
	Baltimore Pike	1-93 / SN 890 Interchange	
12	SR 896: SR 4 to Old	SR 896 Widening	\$1.7 M
	Baltimore Pike	Sit 630 Widefiling	Ψ1.7 Ν

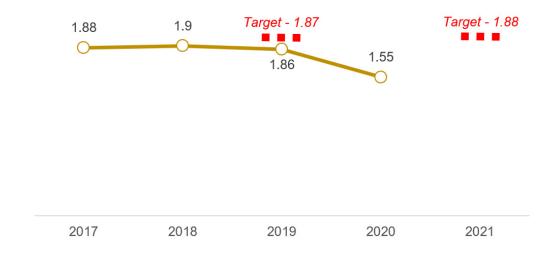
#### Delaware's Interstate Highway Truck Travel Time Reliability (TTTR) Index<sup>91</sup>



<sup>91</sup> Source: FHWA



#### Maryland's Interstate Highway Truck Travel Time Reliability (TTTR) Index92



#### **Enhance Intermodal Systems Connectivity**



Qualitative review of UPWP (RTP)

The RTP directs WILMAPCO to enhance intermodal systems connectivity. This has been largely accomplished through sub-regional planning studies. In the Route 9 Corridor Master Plan, for example, new road and highway connections to the Port of Wilmington were proposed to streamline current and future freight movement. These are being actively studied in the Port of Wilmington Truck Access Study. Other key regional studies, such as the Chesapeake Connector Study, the Delmarva Freight Study, and the Delaware Statewide Truck Parking Study all promote intermodal systems connectivity.

<sup>92</sup> Source: FHWA



#### **Promote Seamless Interregional Travel**



Maintain an interregional plan (RTP)
Status of major interregional projects (RTP)

The RTP directs WILMAPCO to promote seamless travel between the Wilmington region to neighboring regions, like Philadelphia and Baltimore.

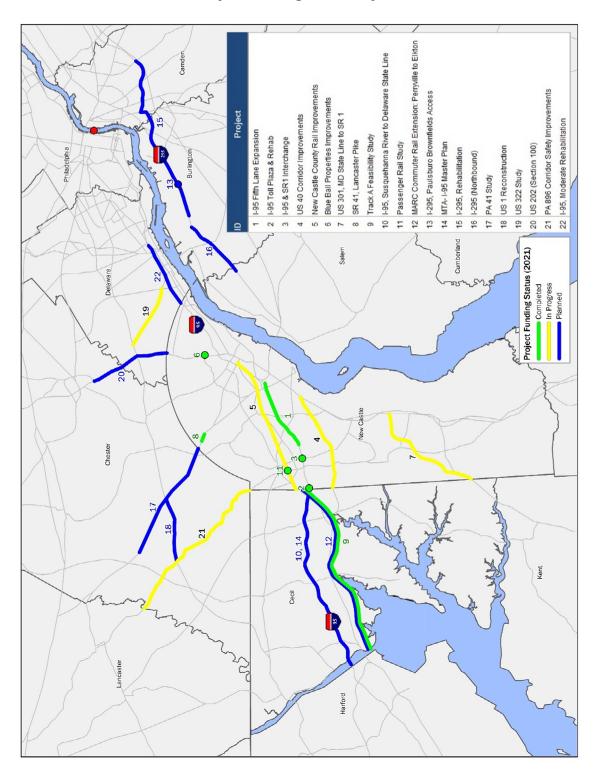
We have accomplished this through maintaining an Interregional Report<sup>93</sup>. Updated about every four years, the report is a broad demographic and traffic survey of the WILMAPCO region and beyond. It identifies major interregional travel corridors and lists the planned transportation projects of significance for interregional travel. The Interregional Report was last updated in 2018.

The map below provides a status update to major transportation projects identified in the previous Interregional Report. Each of the projects identified in New Castle County have been completed or are funded. In Cecil County, projects to expand both I-95 and extend commuter rail service are planned, but not funded. In the other surrounding counties, most of the projects are still planned but without funding. One key exception is safety improvements along the SR 896 corridor in Pennsylvania, which is in progress.

<sup>93</sup> http://www.wilmapco.org/interregional/



### 2021 Status of Major Interregional Projects and Studies<sup>94</sup>



<sup>94</sup> Source: WILMAPCO, DVRPC, NJDOT, Chester County, PA.

# GOAL: SUPPORT SUSTAINABLE ECONOMIC DEVELOPMENT & GOODS MOVEMENT

Objective: Plan for energy security and resilience



An electric vehicle charging station

#### Actions

- Reduce VMT
- Support cleaner vehicle infrastructure, fuels, and technology
- Adapt to sea level rise, storm flooding, and other environmental challenges



#### Reduce Vehicle Miles Traveled



Percentage of SOV trips (NPM) Regional Modal Spilt (new) Per capita VMT (RTP)

The RTP aspires to reduce the amount of Vehicle Miles Traveled (VMT), regionally. Delaware's recently released Climate Action Plan has the same goal – seeking a 10% reduction by the end of the decade. As shown on the graph below, there has been a marginal rise in non-driving alone work commutes in the Philadelphia region, of which WILMAPCO is apart. This rise however, has not been significant enough lower VMT. The typical household in the WILMAPCO region clocks more VMT than the national average.

On the positive side, though currently higher than New Castle County, per capita VMT has been falling steadily in Cecil County for the past decade. It is projected to continue doing so through 2050. Meanwhile, per capita VMT in New Castle County began increasing around the same time and is projected to continue doing so through 2050.

Unchecked suburban sprawl and relatively low fuel prices are behind the rise in VMT. Encouraging a denser development pattern while simultaneously transitioning to a direct tax on VMT and providing alternative transportation options will help reverse the trend.

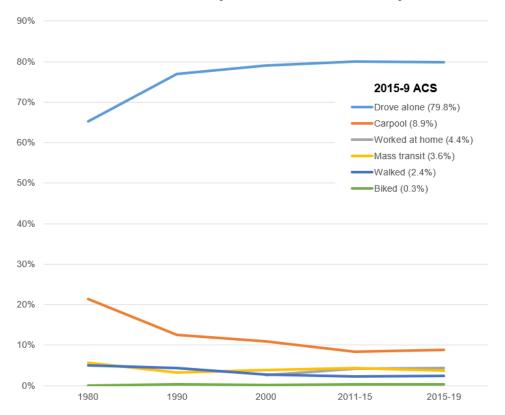
### Philadelphia Metropolitan Region's Non-Single Occupancy Vehicle Commute Trips<sup>95</sup>



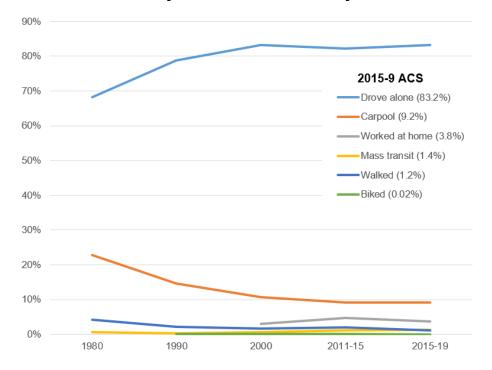
<sup>&</sup>lt;sup>95</sup> Source: American Community Survey



### **New Castle County's Commute to Work by Mode**

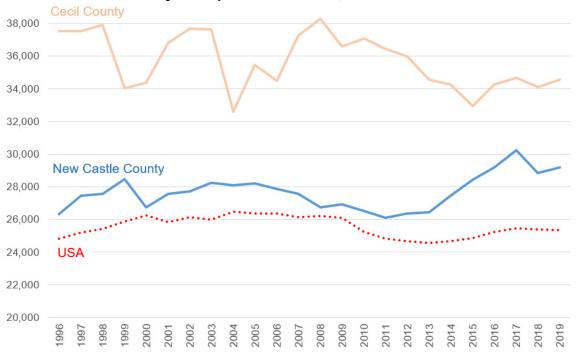


### Cecil County's Commute to Work by Mode

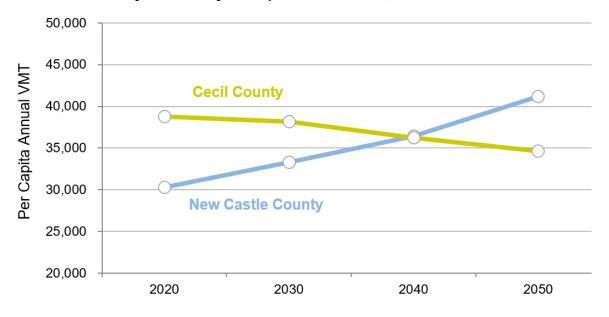








### Projected Daily VMT per Households, 2020 - 205097



<sup>96</sup> Sources: DelDOT, SHA, FHWA, ACS

<sup>&</sup>lt;sup>97</sup> 2050 household projections in Cecil Co. are based on the trend between 2040 to 2045 figures.



### Support Cleaner Vehicle Infrastructure, Fuels, and Technology

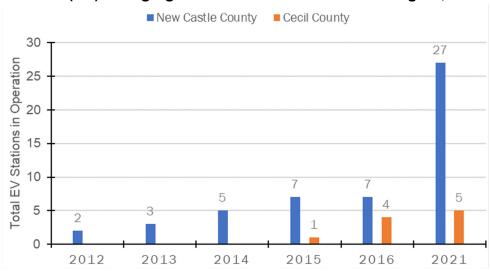


Qualitative review of UPWP (RTP)
Number of public EV charging stations (RTP)
Transportation GHG Emissions Analysis (RTP)

The RTP directs WILMAPCO to support the deployment of cleaner vehicle infrastructure. We have accomplished this action. In 2014, WILMAPCO developed a methodology and report to help support the implementation of electric vehicle charging stations. The report was key in securing grant funds to implement Elkton's first public charging station. Additionally, we have coordinated with DNREC and Electrify America to help bring additional propane and electric charging stations to the Wilmington area. Staff continues to provide technical support to various climate initiatives, such as Delaware's Climate Action Plan.

As shown in the graph below, public EV charging infrastructure has expanded since 2012. Today, there are 32 public charging stations across the region, compared to 11 in 2016 and only two in 2012. While almost certainly on the rise, data showing the percentage of our clean fuel vehicle fleet was unavailable.

#### Electric Vehicle (EV) Charging Stations in the WILMAPCO Region, Since 201298

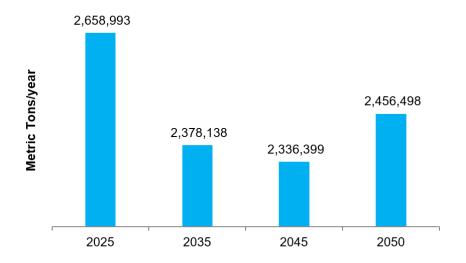


Given suburban sprawl and rising VMT regionally, discussed earlier, the conversion of our vehicle fleets to electric will be a key tool in helping lower greenhouse gas emissions from transportation. As it stands, models predict a fall in carbon dioxide emissions equivalent (CO2e) transportation emissions through 2040/5 regionally, but then a rise thereafter as known technologies are implemented and VMT rises.

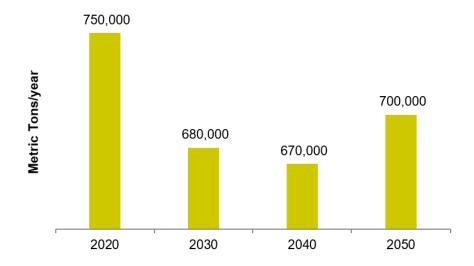
<sup>98</sup> Source: Alternative Fuels Data Center



New Castle County's Projected CO2e Transportation Emissions<sup>99</sup>



### Cecil County's Projected CO2e Transportation Emissions<sup>100</sup>



<sup>99</sup> Source: New Castle County FY 2023-2026 TIP / Amended 2050 RTP Conformity Analysis (www.wilmapco.org/aq)
100 Source: Cecil County 2050 RTP / FY 2020-2023 TIP Conformity Analysis (www.wilmapco.org/aq)



### Adapt to Sea Level Rise, Storm Flooding, and other Environmental Challenges

Qualitative review of UPWP (RTP)
SLR vulnerability vs. planned and funded projects (RTP)

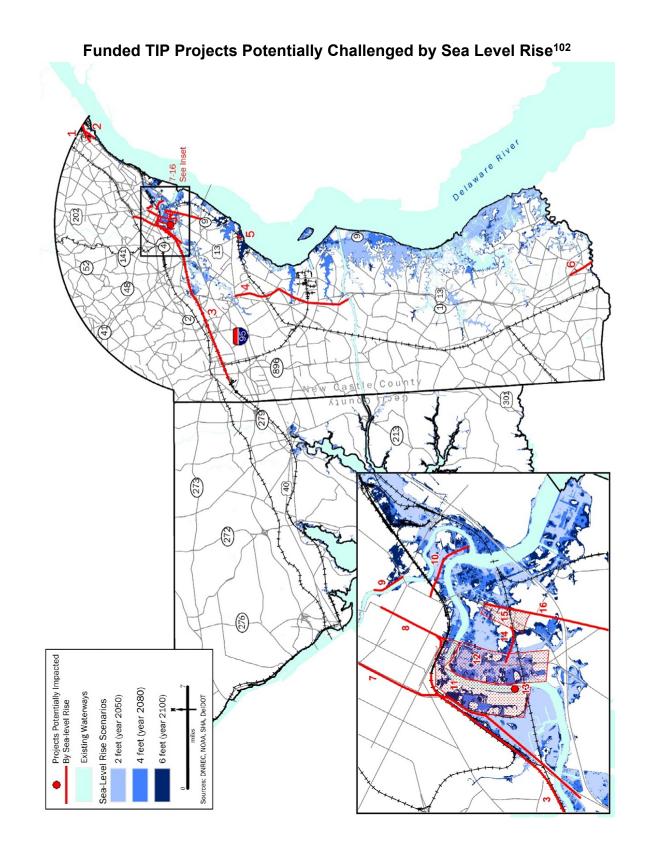
The RTP asks WILMAPCO to understand and adapt to Sea Level Rise (SLR), storm flooding, and other environmental challenges. We have met this charge. In 2011, we became one of the first Metropolitan Planning Organizations to assess the vulnerability of transportation infrastructure and planned projects to SLR. In the years since, the work has informed both national and state-level dialogues, methodologies, and reports about SLR vulnerability and adaptation.

In 2020, WILMAPCO completed a reassessment of transportation infrastructure and projects vulnerable to SLR, based on updated scenarios. The analysis considered both funded and unfunded projects called for in the 2050 RTP<sup>101</sup>.

The map and table below illustrates 16 currently-funded projects which may be challenged by SLR. The majority of these projects are in the City of Wilmington, mostly along the Christiana River. These projects should receive a closer examination for potential SLR mitigation measures – such as reconstructing a roadway or railway to a higher elevation, strengthening the foundations of a bridge, rethinking the long-term routing of a bus line – and/or being rethought entirely as projects.

<sup>&</sup>lt;sup>101</sup> See <u>www.wilmapco.org/slr</u>





<sup>&</sup>lt;sup>102</sup> Source: WILMAPCO, NOAA, SHA, DelDOT



### Funded TIP Projects Potentially Challenged by Sea Level Rise<sup>103</sup>

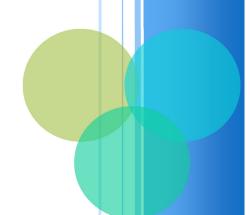
Map ID	Project	FY 2020-2023	Level Impact
1	US 13: I-495 - PA Line	\$0	2 ft
2	Claymont Train Station	\$65.4 M	2 ft
3	Third Rail Track Expansion, Newark - Wilmington	\$22.5 M	2 ft
4	SR 1: Roth Bridge - SR 273	\$11.8 M	4 ft
5	SR 9, River Road Flood Remediation	\$0.4 M	6 ft
6	US 13: Duck Creek - SR 1	\$1 M	4 ft
7	I-95: I-495 - N. of Brandywine River	\$268.8 M	2 ft
8	Walnut St: Front St - 13th St	\$3 M	4 ft
9	12th St Connector	\$0	2 ft
10	E. 7th St	\$0	2 ft
11	Wilmington Riverfront Program	\$596 K	2 ft
12	South Wilmington Infrastructure Improvements	\$38.5 M	2 ft
13	Christina River Bridge	\$31.2 M	2 ft
14	Garasches Lane	\$4.9 M	4 ft
15	Southbridge Transportation Network	<b>\$</b> 0	4 ft
16	SR 9: Landers Ln - A St	\$600 K	4 ft

<sup>103</sup> Source: WILMAPCO, NOAA, SHA, DelDOT

### IX - APPENDIX

### **Contents**

- Summary of Updated Transportation Recommendations in Sustainable Community Action Plans in Cecil County
- Summary of Transportation Recommendations in 2019-21 Priority Letters
- Summary of Transportation Recommendations in Comprehensive Plans





### Summary of Transportation Recommendations in Sustainable Community Action Plans in Cecil County

Transportation Recommendations							
	·						
Cecilton (2016)	<ol> <li>Implement safety crosswalk signals and acquire school crossing guards for key locations such as the intersection of MD 213 and MD 282.</li> <li>Create a bicycle link from MD 282 to MD 213 by way of the Town Park.</li> <li>Reduce volume and speed of truck traffic on MD 213.</li> </ol>						
Charlestown (2017)	1. Create a colonial traffic circle at the Firehouse corner including a landscaped circle and statue, possibly as a community safety enhancement project.  2. Incorporate traffic calming measures into street improvements and safer walking and driving routes to the elementary school.  3. Add crosswalks with signs, and use town land to develop parking area.  4. Add period street lighting and provide for a walkable streetscape in the historic district.  5. Use greenways and trails to connect open space and parks, including trails to Peddlers Creek and all parks.						
Chesapeake City (2018)	Encourage Cecil Transit to provide weekly transportation services for residents.     Town to consider providing partial funding of the service charge for residents to use public transit.     Install sidewalks where none currently exist along town streets.						
<b>Elkton</b> (2017)	1. Extend MARC passenger rail service to Elkton. 2. Construct a multi-modal transit center. 3. Construct Phase III streetscape on North Street and Railroad Avenue to establish the "Train to Main" pedestrian link. 4. Implement the prioritized pedestrian and ADA improvements recommended in the Elkton Pedestrian Plan. 5. Construct improvements to sidewalk and bicycle infrastructure. 6. Improve public and private parking lots.						
North East (2020)	1. Implement the Transit Oriented Development Plan. 2. Continue to carry out the policies and projects laid out in the 2014 TOD Plan. 3. Explore bringing a commuter rail station to North East. 4. Continue to fill in sidewalk gaps in the community, with an emphasis on paths to/from schools and connection to the downtown area. 5. Conduct a sidewalk inventory to identify gaps and prioritze projects. 6. Create a list of projects to complete and identify funding sources.						
Perryville (2021)	1. Encourage Cecil Transit and local employers to work together to align bus schedules with shifts at the employment centers. 2. Create more parking areas for the MARC station. 3. Work on implementation of the Greenway Plan. 4. Promote Walktober. 5. Install sidewalks where none currently exist along state roads, specifically Route 222 to provide access to the high school for pedestrian students. 6. Install EV charging stations in close proximity to our major highways, US Route 40 and I-95.						
Port Deposit (2018)	<ol> <li>Install pedestrian access from S. Main Street directly to and in the area of the Visitor Center.</li> <li>Design and install new sidewalks.</li> <li>Seek funding through SHA for sidewalk reconstruction/modifications and ensure they are compatible with the Town's historic character.</li> <li>Complete waterfront promenade loop to connect Marina Park to Vannort Drive off N. Main Street.</li> <li>Install guide and warming signs for drivers and directional signs for pedestrians in advance of Marina Park and Visitor Center entrance.</li> <li>Provide bicycle racks along Main Street and install "Share the Road" signs on MD Route 222 and 275.</li> <li>Explore feasibility of using public boat dock for a water taxi service between Port Deposit, Perryville, and Havre de Grace.</li> </ol>						
Rising Sun (2014)	1. Invest in streetscaping, parking, sidewalks, lighting, and trails. 2. Complete a series of connecting pedestrian pathways and bike trails between parks and surrounding neighborhoods. 3. Incorporate bike racks and provide a comfort station at the bike trail near the Volunteer Fire Department site. 4. Expand sidewalks along Hopewell Road. 5. Explore shared parking in the downtown area. 6. Explore the feasibility of providing transit services to Cecil College and County employment areas.						



### Summary of Transportation Recommendations in 2017 Priority Letters

	Transportation Recommendations
Cecil County (2021)	<ol> <li>Implement the new Belvidere Road I-95 interchange, including the expansion of Belvidere Road between I-95 and US 40.</li> <li>Implement stormwater management improvements along Route 222.</li> <li>Implement road and intersection improvements to state highways around the Bainbridge development.</li> </ol>
<b>Elkton</b> (2019)	<ol> <li>Construct the MD 7D (Delaware Avenue) Sidewalk and Pedestrian Bicycle Bridge project between MD 281 and Creswell Avenue.</li> <li>Extend the MARC Penn Line commuter rail service to Elkton and Newark, Delaware.</li> <li>Implement intersection improvements to MD 213 and US 40.</li> <li>Implement sidewalk improvements on MD 213 and US 40, as described in the Elkton Pedestrian Plan.</li> </ol>
North East (2021)	1. Continue implementation of the I-95 interchange at Belvidere Road. 2. Widen Route 7 (West Cecil Avenue), west of Route 272 (Main Street) and Route 7 intersection. Elevate and widen the State Highway Bridge over the North East Creek on Route 7. Install pedestrian sidewalk, bicycle lane, and pedestrian lighting between North East Isles Drive and Catherine Street. 3. Resurface North Main Street and South Main Street. 4. Repair the entrance of the Route 7 underpass from West Cecil Avenue. Address flooding in the roadway under the Route 7 underpass. 5. Install a pedestrian sidewalk linkage along Route 40 between Sycamore Drive and Route 272. 6. On Route 7, East Cecil Avenue adjacent to North East Middle School, install two traffic reduction devices with intermitting signal lights, with timers for school opening and dismissal. 7. Install sidewalk on Route 272 between Jethro Street and the southeast corner of the bridge over Amtrak. 8. Install sidewalk from the existing sidewalk on Route 7 (East Cecil Avenue) to Mechanics Valley Road. 9. Install bicycle/walking/share the road pavement markings along Route 7 from Mechanics Valley Road to Ridgely Forest Drive. 10. Review impacts of rail service to State Highway systems in North East. 11. Extend MARC train service to North East.
Perryville (2021)	<ol> <li>Redesign and construct a new MD 222/I-95 interchange, to include an upgraded bridge over I-95.</li> <li>Continue to investigate options to deal with the high toll rates and the diversion that results from the high toll rates on the Tydings Bridge.</li> <li>Install sidewalks on MD 222 from Clayton Street to St. Marks Church Road (the entrance to Perryville High School).</li> <li>Increase MARC Penn Line service to include midday and weekend service for the entire line (DC to Perryville) and special event trains.</li> <li>Replace the bridge over Amtrak on MD 327 and ensure maintenance of traffic during construction.</li> <li>Study MD 222 from US 40 to Heather Lane, including the need for additional traffic control at the intersections with Franklin Street and Cedar Corner Road.</li> </ol>
Port Deposit (2021)	1. Secure funding for the storm drain improvement project on MD Route 222. 2. Implement innovative stormwater strategies to reduce the risk of flash floods on Main Street, Granite Avenue, and Race Street. 3. Develop a Streetscape Plan on Main Street to improve safe vehicle, pedestrian, and bicycle connections throughout Main Street. 4. Enhance traffic control measures for improved vehicle transportation that reduces speeding and impacts from tractor trailer traffic on weight-restricted Route 222.

## Summary of Transportation Recommendations in Comprehensive Plans

	Counties									
	Den	nographics		Transportation Recommendations		Land Use / Zoning	Recommendations			
Municipality (Year updated.)	2010 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts			
Cecil County (2010)	103,828	129,996 (2020) 154,954 (2030)	Widen I-95 through Cecil County.     Upgrade MD 213 from US 40 to Frenchtown Rd. to 4 lanes.     Upgrade MD 272 from US 40 to Lums Road to 4 lanes.     Complete North-South connection between MD 7 and US 40 to serve mixed use employment area west of Elkton.     Continue general bridge rehabilitation and replacement.	Extend MARC commuter rail service to North East and Elkton and possibly to Newark.     Extend SEPTA service from Newark to Elkton.     Develop a countywide transit system.     Promote ridesharing through expanded park and ride locations.     Encourage accessible transit to area commercial airports.	Develop bicycle and pedestrian facilities in accordance to 2020 Bicycle and Pedestrian Access Master Plan.     Develop pedestrian access to new community facilities as they are developed.     Create a trails network building on the Land Preservation Parks and Recreation Plan.	Continue to concentrate development in the Designated Growth Area to bolster necessary transit ridership.     Maintain scenic land uses to maintain scenic byway program.	Develop a watershed based, land use framework.     Create an effective TDR program.     Cluster residential development to preserve open space.     Coordinate land use between towns and counties to avoid haphazard development.			
New Castle County (2012)	538,170	567,764 (2020) 589,267 (2030) 606,881 (2040)	Improve designated roadways as shown in the WILMAPCO 2040 Regional Transportation Plan.	Coordination with DeIDOT and DART to identify bus stop and Park and Ride facilities in development review process.     Participate in articulating transportation investment priorities that ensure concurrent delivery of service.     Encourage expansion of commuter rail system by encouraging transit supportive density.	Revise the UDC to improve walkability and interconnectivity and support mobility friendly development and design.     Promote walking and bicycling by enhancing pedestrian and bicycle connections in the county.     Coordinate with DelDOT in producing a statewide pedestrian action plan.	Support mixed-use, mobility- oriented growth and infill development.     Guide development in Northern New Castle County to use existing infrastructure and public resources such as transportation.     Coordinate with WILMAPCO and DelDOT to implement sub-regional plans.	Create open space districts to preserve and protect land from development.     Guide residential development in Southern New Castle County to designated growth areas and incorporated areas.     Increase preserved land through TDR program.			

### **Cecil County Municipalities**

	Dem	ographics	Transportation	Recommendations		Land Use / Zoning Recommendations		
Municipality (Year updated.)	2010 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts	
Cecilton (2010)	663	541 (2010) 673 (2020) 800 (2030)	Extend Center St. to Douglas Lane to form connection to MD 213.     Traffic calming devices on MD 213 at north and south entrances to town.     If dualization of MD 213 occurs, consider a boulevard concept that is compatible with growth patterns.		Proposed greenbelt system surrounding growth areas, anchored by Cecilton Park and Cecilton Elementary School.     Consider bike link from MD 282 to MD 213 via Cecilton Park.     Provide safe ped. links to and from Cecilton Elementary School.     Implement network of ped. trails and greenways.     Improve sidewalks.	Consider strategies to provide transportation access to interior town lots lacking access to MD 213 and MD 282.     Consider alley system to create parking opportunities away from main arterials.	Promote the development of mixed use and planned neighborhoods.     Require new residential developments to provide bike and ped. access to existing adjacent neighborhoods/Tow n Center where possible.	
Charlestown (2008)	1,183		Increase route choices by providing for additional access to Route 40.		Improve pedestrian connectivity to activity centers (e.g., waterfront, town hall, recreation areas, shopping).     Recommended pedestrian link between the subdivisions Scott Gardens, Trinity Woods, and Cool Springs.	Residential streets should be narrow, discourage through traffic, and be well-landscaped.     Signage should be informative without being intrusive.     Alleys should be considered for all residential neighborhoods.     Traffic calming techniques should be used in neighborhoods.	All Annexations     must be consistent     with the Town's     MGE.     Promote mixed-use     development by     revising town's     zoning ordinance.	
Chesapeake City (2009)	673	900 (2010) 1,080 (2020)	Add southern route to Biddle Street.     Add roundabout at Lock and Hemphill Streets.     Add connection to Boat Yard Road.     Extend Hemphill Street eastward to provide direct access to Rt. 213.     Access management along Rt. 213.     Traffic study to identify improvements needed for Boat Yard Road, Biddle Street, & Lock Street.	Add bus service to Elkton if commuter rail is re-introduced to Elkton.	Develop town-wide trail network plan.     Require that roads in growth areas include bike and ped. facilities.     Include bike lanes along Hemphill Rd. & Bridgeview Dr. extension.     Sidewalk study.     Expand C&D Canal greenway.	Include shared parking in new development areas.	Encourage mixed- use development of Village Center.	
<b>Elkton</b> (2010)	15,443	14,403 (2010) 18,277 (2020) 22,070 (2030)	Construct Northern loop road around Elkton, from MD 281 to MD 279, through Elkton west to Marley Road and to US 40.     Intersection upgrade at US 40 and MD 213.     Extension of Chesapeake Boulevard to Frenchtown Road.     Divided 2 to 4 lane on MD 213 from US 40 to Frenchtown Road.     Highway reconstruction projects as outlined by MDOT.     Reconstruction to improve drainage on Delaware Avenue between Main St. and Whitehall Road.     Beautification project for US 40.     Adopt an access management program to limit the number of new entry points along US 40.     Improve north-south connections between US 40 and I-95.     Improve east-west connections on MD 279, 281 and US 40.	Support expansion of MARC, SEPTA and bus transit service.	Include right-of-way for bicycles in road widening plans.     Install sidewalks on MD 213 between US 40 and MD 279, and along MD 7 from US 40 to Main Street.     Bicycle improvement projects as outlined by MDOT.     Support development of East Coast Greenway and Mason Dixon Trail plans and create a trail network.     Ensure multiple safe crossings across US 40, MD 213, and MD 279.	Protect residential areas from excessive through traffic.     Support future mixed-use and transit-oriented development around the Elkton train station.     Encourage designs for residential neighborhoods that include common open spaces streetscapes, sidewalks, trails, buffers, and signage.     Enhancement of US 40 as the primary commercial corridor.     Promote Ozone Action Days and ridesharing by establishing and expanding park and ride lots.     Require a traffic impact analysis for all major proposed projects.     Ensure that residential areas are compact, attractive, and well-designed with an arrangement that supports pedestrian and bicycle activity.	1. Prevent isolated residential development. 2. Require developers to pay for alterations, improvements, and additions to transportation facilities that are needed to support their development.	

### **Cecil County Municipalities**

	Den	nographics	Transportation Recommendations			Land Use / Zoning Recommendations		
Municipality (Year updated.)	2010 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts	
North East (2012)	3,572	3,187 (2010) 3,306 (2020)	Reconstruct MD 272 bridge over Amtrak line.     MD 7 from east Charlestown to MD 272. MD 7, Ridgely Forest impacts. A Traffic Signal Warrant Study at the MD 7/Mechanics Valley Road-Cemetery Road intersection.     MD 272 from the north end of the couplet in the North East to Lums Road.     US 40 from MD 272 to the DE line.     Reconstruction of East Cecil Avenue.	identify the transportation impacts of rail service to the town in relationship to the State Highway Systems.      Add North East as one of the stops for the extension of the existing MARC Penn Line commuter rail service.     Create appropriate design guidelines and standards to implement Transit Oriented Design (TOD) principles and practices.	Create a more pedestrian/ bike friendly CBD.     Extend sidewalks along Cecil Ave to connect with proposed Greenway.     Extend other existing sidewalks, bike paths, etc. to connect with the County's proposed Greenway on the east side of town.     Link between MD Rt. 7 at the Mechanics Valley crosswalk and the Elk Neck State Forest and Park Trail. This will provide recreational and mobility improvements to the Town's residents.			
Perryville (2010)	4,361	4,691 (2010) 5,783 (2020) 6,336(2025)	Create an improved access road that bears off to the left from IKEA Way and continues across Mill Creek to the Perryville Community Park.     Create a Riverfront loop system beginning on Broad Street at MD 222.     Resurface Broad Street; Construct New River Road.     New access street where current municipal driveway is located.     Extension of Coudon Boulevard Across US 40 to MD 222.     Reserve a right-of-way, redirect MD 222, and extend Aiken Avenue to 4 lanes to better handle traffic at the MD 222/US 40 intersection.     Widen and extend Front Street to Susquehanna Avenue.     Connect the west ends of Franklin and Charles Streets.	1. Redesign MARC station with additional parking and bike paths. 2. Extended MARC service times and routes; and consider links with SEPTA. 3. Pier, boat ramp, and water taxi. 4. Addition of AMTRAK service.	Create pedestrian and bicycle travel over the Susquehanna River.     Build boardwalk along shore at Rodgers Tavern.     Adopt greenway plans, specifically the Lower Susquehanna Heritage Greenway.     Improve sidewalk along MD 7.     Create a bike loop to connect major community facilities.     Create a pedestrian and bike path that follows most of the proposed loop road.     Undertake a sidewalk study to find which areas need repair or replacement.	Amend zoning ordinance to require space for bicycle parking in non-residential developments.     All new streets should have required tree planting.     Consolidate individual highway access/entry points.	Avoid leap-frog development.     Encourage waterfront development.	
Port Deposit (2019)	653	735 (2020) 1,820 (2030)	Increase the ease of access to and from I-95 with new vehicle connections through the former Bainbridge Naval Training Center	Consider alternative transit options particularly as a tourist attraction. These include a steam locomotive connection to the Perryville Station and water taxi service between Havre de Grace, Perryville and Port Deposit.	Create a pedestrian connection from Old Town to the Tome School     Link the Town's pedestrian system with the former Bainbridge Naval Training Center.     Support completion of the Lower Susquehanna Heritage Greenway.	Conserve existing residential by protecting from incompatible uses.     Encourage new infill and redevelopment.     Grourage a diverse mix of development and housing types.     Provide a full array of commercial services.     Maintain portions of the waterfront for marine use.	Consider     future     annexations to     the north, east     and south of     existing     boundary.	
Rising Sun (2010)	2,781	1,913 (2010) 2,106 (2020) 2,252 (2030)	Control truck traffic on MD 274, possibly by diverting traffic from MD 274 to US 1 on an alternative route.     Secure a "roundabout" intersection at MD 1 and N. Walnut Street.     Develop outer loop system to divert east and westbound traffic on MD 273.     Investigate issues with the intersection at MD 273 and 274.	Cooperate with the state to plan and provide possible "park and ride" facilities.	Amend zoning to require bike parking in non-residential developments.     Plan for bikeways along town streets.     Adopt proposed Greenways and Pedestrian trails.     Develop abandoned railroad right of way as ped/bicycle path.     Pay special attention to creating pedestrian-friendly streets and streetscapes.	"Beautification scheme" for the town, including new street signage, furniture, ped. Crossings, and landscaping     Protect residential areas from through traffic.     Create two off-street parking areas on the periphery of town.     Prepare a transportation systems management program.     Create an access management program.	Avoid strip growth.	

### **New Castle County Municipalities**

	Den	nographics		Land Use / Zoning	Land Use / Zoning Recommendations		
Municipality (Year updated.)	2010 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts
Bellefonte (2017)	1,361	1,452 (2020) 1,507 (2030)		Promote bus service, rideshare, and explore local shuttle service	Improve availability and safety of non-vehicle transportation     Explore beautification improvements to support economic development		Possible areas of future annexation are Riverview Gardens, Phillips Heights over to Rodman Rd., and the North side of Rodman Rd. on the West side of Brandywine Blvd. to Philadelphia Pike.
Delaware City (2014)	1,695	2,053 (2010) 2,372 (2020) 2,616 (2030)	Implement traffic-calming pedestrian and bicycle elements to SR 9.     Improvements to Washington Street based on comprehensive corridor proposal.     Seek state improvements to SR 9 and SR 72 for evacuation purposes.	Coordinate with DART to extend Route 25 and 72 transit service into Delaware City.	Implement series of proposals to increase bicycle and pedestrian facilities.     Adopt regulations requiring developers to construct sidewalks.     Encourage bike/ped connections to adjacent developments.	Strengthen access to C&D Canal recreation area with greenway connection.     Maintain city's compact size with a surrounding greenbelt buffer.	1. Balance mix of retail uses so residents and tourists are served. 2. Preserve city's historic nature while allowing private or public-private uses. 3. Pursue annexation of Governor Bacon/Fort DuPont site. 4. Minimize impact of suburban development.
Clayton (2019)	2,918	3,557 (2020) 3,734 (2030) 3,991 (2040) 4,191 (2050)		Coordinate with Delmarva Central Railroad to ensure trains do not spend much time at Clayton rail crossings.     investigate potential funds for a railroad station	Eliminate the gaps in the current sidewalks.     Retain public rights-of-way that could serve as pedestrian paths, bicycle links, or access to in-fill development.	Evaluate on and off-street parking to determine if these areas could have a better use.     Update land-use and building standards to protect environmental resources	Require annexed properties to connect to Clayton's water and sewer system.     Create open spaces in "Old Clayton".
<b>Elsmere</b> (2010)	6,131	5,687 (2010) 5,569 (2020) 5,441 (2030)	Address safety and noise issues associated with North Dupont Road.     Work to reduce speed on Kirkwood Highway by decreasing posted speed limits.     Rearrange traffic patterns on Kirkwood Highway to accommodate new Main Street.	Upgrade bus stops on Kirkwood Hwy,     Continue to monitor activities of CSX.	Revise code to require sidewalks in all new residential and non-residential development.     Implement a sidewalk inspection-and-repair program.     Review right-of-way maintenance programs.     Update sidewalks to ADA standards and add striped crosswalks at necessary intersections.	Implement a Main Street program.     Redesign downtown, better accessibility (for tourists and residents).     Create connectivity between parks and open space.     Build relationship with WILMAPCO and become part of their Transportation Improvement Program.     Develop greenway trail along the existing rail line to connect Maple Avenue Park and Fairgrounds Park.	Encourage affordable housing.     Create re-greening of Elsmere program.     Prevent indiscriminate mixture of land uses.     Review zoning and subdivision codes (complete).     Monitor for brownfield redevelopment opportunities.

Wilmington Area Planning Council

<b>New Castle County</b>	Municipalities
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	Den	nographics		Transportation Recommendations		Land Use / Zoning Recommendations		
Municipality (Year updated.)	2010 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts	
Middletown (2012)	18,871	23,000-33,000 (2020)	Create a new limited access highway for US 301 from the state line to SR1 and a spur from the Armstrong Corner Road and Summit Bridge Road vicinity.     Construct new connector road from Bunker Hill Road to St. Anne's Church Road, and Industrial Drive to Level's Road.     Reconstruct portions of US 301, Bunker Hill Road, Level's Road, St. Anne's Church Road, and Wiggins Mill Road.     Project Development for SR 299 from Silver Lake Road to SR 1.     Reconstruct Cedar Lane Road from Marl Pit Road to Boyd's Corner Road.     Creation of a connection to the planned scenic byway along the Chesapeake and Delaware Canal.	1. Explore a rail route from Wilmington and Newark to Middletown (Study Complete). 2. Provide passenger rail service south to Dover as development along SR 1 continues.	Develop a multi-modal plan that identifies ped/bike routes.     Brick sidewalks downtown should be repaired.     Maximize pedestrian and bicycle interconnectivity, and new and existing development.     Discuss with Odessa and Townsend regarding bikeways and trains connecting the three towns.	Continue Main Street revitalization program.     Maintain sufficient land appropriate for industrial zoning and future employment uses.     Adhere to mobility-friendly design standards in Westown.	Continue to preserve open space through subdivision and development dedication and maintain community accessibility.     Review existing land uses and identify areas suitable for mixed uses.     Review projects proposed in Middletown that are reviewed through the Preliminary Land Use Service (PLUS) process.     Annexation of areas within and around Middletown.	
New Castle (2009)	5,285	5,530 (2010) 6,324 (2020) 6,894 (2030)	Implement Delaware State Plan for improvements to Rt. 273 as described in TIP.     Install clear signage on Rt. 9 (New Castle Street, Ferry Cut-off, 7th Street).     Determine feasibility of a Rt. 9 bypass south of downtown.     Prohibit large trucks from utilizing small City streets (6th Street & Delaware Street).     Implement traffic calming on 7th Street.     Gateway improvements (Rt. 273, Rt. 9, Rt. 141).		1. Revise city codes to include requirements for sidewalks along all streets. 2. Addition of bike lanes and appropriate signage to roadways. 3. Plan for routing, construction, and maintenance of East Coast Greenway through the City. 4. Pursue grant funding to improve ped. safety at intersections.	Pave, stripe, and sign gravel parking lots at southern terminus of 3rd Street and foot of Chestnut Street.     Create new visitor/employee parking areas on fringes of Historic District.     Encourage shared parking downtown and improve signage.     Revise existing zoning/land use regulations to incorporate traffic impact and mitigation requirements.	1. Encourage mixed residential/retail/office uses. 2. Develop remaining undeveloped parcels, brownfields, and redevelopment areas. 3. Develop and adopt long-term redevelopment vision plans for Ferry Cut-off and 7th & South Street areas.	
Newark (2016)	31,454	30,738 (2010) 31,066 (2015) 31,119 (2020) 31,612 (2025) 31,971 (2030)	Implement traffic calming.     Designate new DE 896 truck route.     Request that DeIDOT study and implement an upgraded synchronized traffic signal system for Newark's major roadways.	Expand scope of TMA; increase TDM.     Provide public vanpool service.     Establish transit center downtown.     Increase CBD circulation.     Implement express Elkton-Newark-Wilmington bus service, and additional and enhanced bus service to Elkton and US 40 Corridor.     Enhance bus stop facilities, intermodal connections at rail station.     Potential extension of commuter rail.     Study alternatives for CSX line.     Upgrade Unicity Bus Service.     Provide a park and ride at the Suburban Plaza Shopping Center.	Develop Greenway/Bike route system.     Develop an integrated bike system and enhanced pedestrian amenities downtown.     Provide bike safety programs and better bike maintenance.     Improve signage, marking, and signalization to accommodate pedestrians and cyclists.     Increase level of education and enforcement.     Implement "bikes on transit" service.	Promote transit-friendly development.     Develop new park and ride locations.     Preserve Pomeroy Branch for bike/ped.     Continue parking management initiatives in Newark and Elkton.	Increase preservation and acquisition of open space.     Promote business friendly development for downtown.     Expand housing opportunities for all income levels.     Preserve historic properties.     Limit sprawl development.	

Wilmington Area Planning Council iX

	Dem	ographics	Tra	Transportation Recommendations			Land Use / Zoning Recommendations		
Municipality (Year updated.)	2010 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts		
Newport (2014)	1,055		Manage traffic on SR 141/41 and SR 4: limit speed though town, buffer noise creation, reduce pollution.     Evaluate traffic calming methods, especially downtown, and development design standards (such as on street parking) to enhance nonmotorized safety and mobility.     Regularly monitor vehicle traffic and air quality.	Periodically survey Town citizens to see if their mass transit needs are fulfilled. Report findings to DART.	Improve ped. accessibility along SR 4, install signalized ped. crossings through Market Street section of SR 4.     Develop pathfinder signage throughout Newport.	1. Consider bike/ped paths linking residential to commercial as well as to the boat ramp and nature center. Consider extending this path along the Christina River.  2. Possibly develop centrally located metered parking; explore shared parking amongst businesses; rear parking lots; and other partnerships to alleviate the Town's parking issues.	Remake the downtown using smart growth (mixed use) design principles; market the town's accessibility to major roadways.     The short-term annexation of lands off the Bestfield Road, Clover Circle, Cedar Street, and Larch Avenue border (37.6 acres) and long-term annexation of additional land to the north, east, west, and southeast.		
<b>Smyrna</b> (2012)	10,023	8,813 (2010) 9,207 (2015) 9,579 (2020)	Upgrade Carter Rd. from Sunnyside Rd. to Route 300 and traffic improvements to Route 300/ Glenwood Ave.     Construct Carter Rd. to SR 1 Connector and Green Meadows/ Locust Street Connector     Possible widening and improvements to Sunnyside Rd.     Enhance Downtown Street Network and reconfigure Main St./Commerce St. Intersection     Route 13 improvements consistent with a Commercial Corridor Concept Plan     Conduct a Regional Westerly Connection Study to address traffic congestion, including a new connector/bypass west of the railroad	Conduct a transit study that identifies potential services     Relocate DART bus stop from Route 13 to a site within the community closer to walk/ride and park/ride options     Identify and develop potential locations for a Park and Ride Plan	Improvements to Duck Creek Parkway and North Main Street Extended to accommodate all user types     Establish a Bike and Pedestrian Plan	Develop new zoning classifications to enhance the town's appearance and facilitate mobility	Conduct Southern     Development Area Study     Encourage in-fill of vacant land parcels and encourage cluster of planned residential developments     Encourage mixed downtown use and commercial corridors     Annexation of the town's boundary within the recommended growth areas		
<b>Townsend</b> (2010)			1. Traffic-calming improvements to Brook Ramble Lane and conduct a traffic survey of the new Townsend Early Childhood Center. 2. Coordinate with DelDOT regarding the U.S. Rt. 301 connector project and how it will affect traffic in Townsend. 3. Annexation of park at intersection of South and Commerce Streets and replacing it with a safe intersection with a new traffic pattern. 4. Address crossing at the Route 71 and Main Street Intersection through a crosswalk and a turning lane. 5. Coordinate with DelDOT to secure emergency access to SR 1 north at Pine Tree Corners.	1. Continue to communicate with county and DART First State concerning the acquisition of public transportation stops and routes servicing Townsend. 2. Completion of a feasibility study of what types of public transportation would be appropriate for the area. 3. Continue the multi-year study to determine feasibility, cost, and preliminary planning to restore passenger-rail service between New Castle County and Dover.	Complete the sidewalk system and make sure that all new development is pedestrian oriented.     Consider extending the sidewalks on Main Street in front of the fire hall or paint in an extended crosswalk.     Investigate a pedestrian cut-through or trailhead from the end of Gray Street west toward the proposed park.     Petition DeIDOT to install a well-marked and signalized crosswalk at the intersection of Main Street and Summit Bridge.     Continue negotiations with the rail line to mitigate pedestrian conflicts and potentially redesign the confluence of Main Street and the railroad tracks.     Re-stripe and nominally realign the town's crosswalks to ensure they are readily visible to pedestrians and drivers.     Consult with DeIDOT and hire an engineering firm to scope out the feasibility of large-scale streetscaping to bury utilities, widen sidewalks, etc.     Mark bicycle lanes on Main Street and Wiggins Mill Road.	1. Continue its partnership with UD for the Healthy Walkable Communities Project and secure funding to complete the Main Street streetscape to ensure walkability.  2. Include Townsend Village I into the Regional Greenway that serves as a pedestrian or bicycle path to connect the open spaces in the M-O-T area.  3. Consider the annexation of properties on the eastern side of town fronting Main Street in order to facilitate the installment of sidewalks where there are currently gaps.  4. Work closely with the county to assure that the proposed park is connected to Townsend's transportation network.  5. Due to truck traffic, consider reserving right-of-way within the annexed, but undeveloped, parcels to the northeast and/or southeast to allow for connector roads to SR 71.  6. Create a network of nature trails, walkways, and shared pathways connecting Main Street, the historic section, open areas, the new Municipal Park, the future Carter Farm Park, and areas near the school.  7. Attempt to acquire the church property on Railroad Avenue to provide access to the new Municipal Park.  8. Coordinate with Middletown to create a greenway.	More open spaces should be planned to include trails that enhance the connectivity of these open spaces.     Amend the zoning code to allow for agricultural and or agribusiness uses to be specified in the future greenbelt.     Promote protection of forested areas by prohibiting clearing and require reforestation of open space with appropriate plants.     Zone appropriate parts of the newly annexed lands including floodplains, wetlands, and dedicated open space as "Preservation".     Consider changes to the comprehensive plan and Unified Development Ordinance to encourage a more vibrant and varied mix of businesses along Main Street.     Build livable communities.     Preserve historic resources.		

Wilmington Area Planning Council X

	New Castle County Municipalities										
	Den	nographics		Transportation Recommendations		Land Use / Zoning	Recommendations				
Municipality (Year updated.)	2010 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts				
Wilmington (2019)	70,851	71,263 (2014) 75,579 (2030)	1. Determine the necessity of removing the sweep at King Street and Martin Luther King Jr. Boulevard. 2. Examine the possibility of consolidating the 10 off ramps to 1-95. 3. Examine Maryland and Monroe Streets, along with the renovation of 1-95 to determine how to reduce traffic accidents. 4. Identify key corridors and transform them into great streets.	Continue coordination with DART transit.     Use technology to improve the experience for those using DART     Investigate the reconnection of the street grid.     Coordinate with SEPTA and DART to expand regional rail service between Wilmington and Philadelphia     Limit the amount of truck traffic traveling throughout Wilmington's neighborhoods.	Update sidewalks to meet ADA standards. Also implement curb extensions, pedestrian refuge islands, and lowering the traffic speed.     Attempt to implement a Complete Streets policy.     Expand and invest in the Safe Routes to school program.     Add bicycle facilities on Walnut Street, Harrison Street, and the construction of Brandywine to Christina Bike Trail.     Add additional bike lanes and bike parking throughout the city.	Redevelop underutilized parking areas to create more open and utilized space.     Promote walkable neighborhoods.	Plan more open space areas throughout the city.     Protect the historic character of the city.     Encourage mixed use development in neighborhood commercial corridors     Evaluate former public buildings for redevelopment.     Update zoning codes; encouraging mixed uses, creating a more flexible code with the parking requirement.     Protect affordable housing when improving transportation.     Increase green space in vacant lots and vards				