



# 2024 CMAQ PERFORMANCE PLAN

2<sup>nd</sup> PERFORMANCE PERIOD

Mid-Period Report/Performance Plan

CONGESTION MITIGATION AND AIR QUALITY (CMAQ)



**Wilmington Area Planning Council (WILMAPCO)**

Philadelphia, PA—NJ—DE—MD

July 2024

# Wilmington Area Planning Council

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## RESOLUTION

### BY THE WILMINGTON AREA PLANNING COUNCIL (WILMAPCO) APPROVING THE 2024 CONGESTION MITIGATION AND AIR QUALITY (CMAQ) PERFORMANCE PLAN

**WILMAPCO Council:**

**John Sisson, Chair**  
*Delaware Transit Corporation  
Chief Executive Officer*

**Geoff Anderson**  
*Maryland Dept. of Transportation  
Chief, Office of Planning,  
Programming and Delivery*

**David L. Edgell**  
*Delaware Office of State Planning  
Coordination, Director*

**Danielle Hornberger**  
*Cecil County Executive*

**Nicole Majeski**  
*Delaware Dept. of Transportation  
Secretary*

**Matthew Meyer**  
*New Castle County Executive*

**Michael S. Purzycki**  
*Mayor of Wilmington*

**Eric Scott Thompson**  
*Mayor of Elsmere*

**Vacant**  
*Cecil County Municipalities  
Representative*

**WILMAPCO Executive Director**  
*Tigist Zegeye*

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

**WHEREAS**, Federal surface transportation legislation established performance management requirements for States and MPOs under the Transportation Performance Management (TPM) program; and

**WHEREAS**, as part of this legislation, WILMAPCO must incorporate ongoing performance measurement into CMAQ planning and programming; and

**WHEREAS**, the 2024 CMAQ Performance Plan underwent significant interagency coordination during its development with the Air Quality Subcommittee, generally, and the Maryland and Delaware Departments of Transportation and the Delaware Valley Regional Planning Commission and Baltimore Metropolitan Council, specifically; and

**WHEREAS**, the 2024 CMAQ Performance Plan is comprised of a Mid-Period Progress Report for the 2<sup>nd</sup> Performance Period; and

**WHEREAS**, the 2024 CMAQ Performance Plan tracks performance against baseline conditions and two and four-year targets for traffic congestion measures and on-road mobile source emissions measures; and

**WHEREAS**, the 2024 CMAQ Performance Plan describes how CMAQ projects have and will continue to help achieve performance targets;

**NOW THEREFORE BE IT RESOLVED** that WILMAPCO approves the 2024 CMAQ Performance Plan.

7/11/24  
Date:

  
John Sisson, Chairperson  
Wilmington Area Planning Council



Partners with you in transportation planning

## Introduction

Federal transportation legislation calls for a performance-based approach to transportation planning. States, Metropolitan Planning Organizations (MPOs), and public transportation providers must link investment priorities to certain performance-based measures and targets. These measures and targets lie in the following areas:

- Highway safety and assets
- System performance
- Transit safety and transit asset management

As the MPO for the Wilmington, Delaware region (which includes New Castle County, Delaware and Cecil County, Maryland) the Wilmington Area Planning Council (WILMAPCO) has a long history of incorporating performance measurement into the planning process. The Regional Progress Report, for example, uses deep indicators that assess why certain policy actions are on course while others may not be. It tracks the performance of actions within the Regional Transportation Plan (RTP), informing policy adjustments.

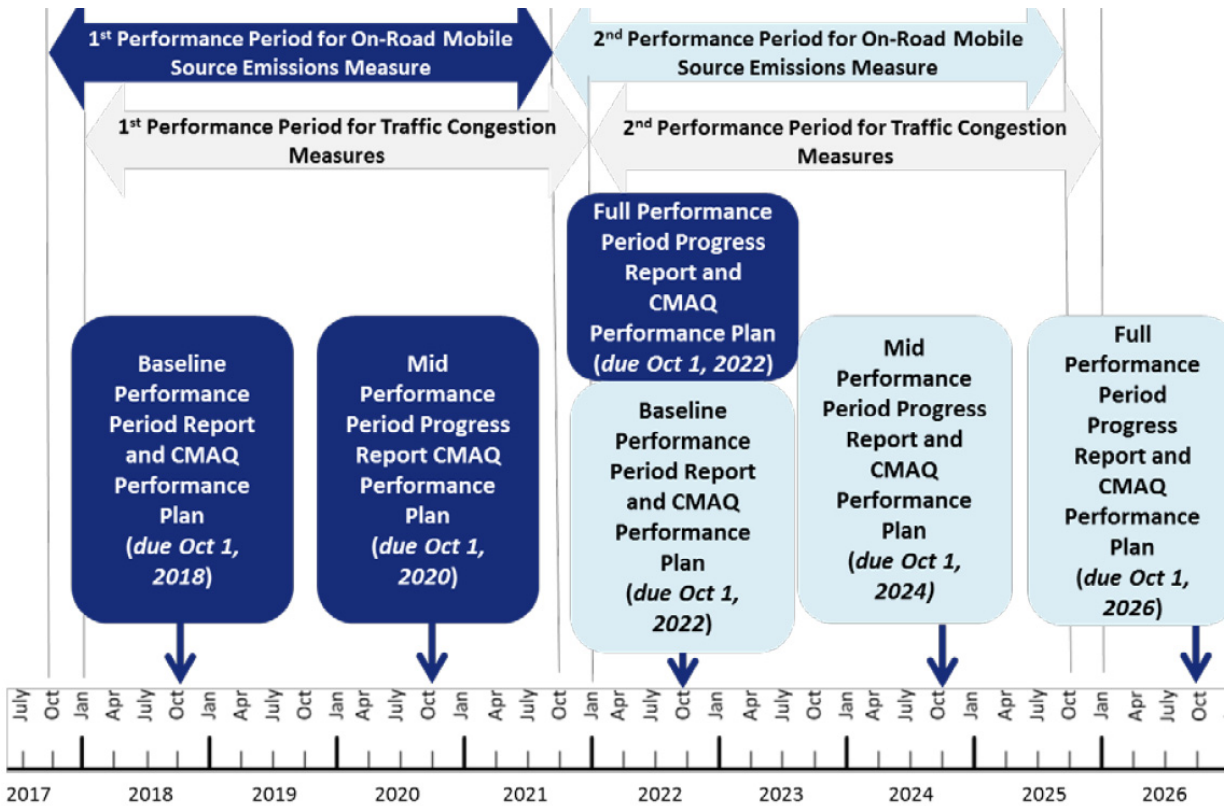
This report specifically addresses federal requirements to incorporate performance measurement into Congestion Mitigation and Air Quality (CMAQ) planning and programming. It specifically satisfies the requirement for the 2<sup>nd</sup> Performance Period's Mid Period Progress Report and Performance Plan. Performance is reported for the two urbanized areas that fall within the WILMAPCO region: Philadelphia (PA, NJ, DE, and MD) and Aberdeen—Bel Air South—Bel Air North (MD). The following table identifies specific measures and data used throughout this report.

### DATA PRESENTED IN THIS REPORT

CMAQ Program	Performance Measure	Data
Traffic Congestion	Peak Hour Excessive Delay	Annual hours of peak hour excessive delay per capita
Traffic Congestion	Mode Share	Percent of non-Single Occupancy Vehicle work trips
Mobile Source Emissions	CMAQ funded project emissions	NOx, VOC and PM2.5 reductions from CMAQ projects

This document is part of a series of CMAQ Performance Plans and Reports WILMAPCO has submitted, as detailed on the following page.

## PERFORMANCE PERIODS FOR CMAQ MEASURES AND REPORTING TIMELINE



Source: "Congestion Mitigation and Air quality Improvement Program: A Guidebook for Preparing Performance Plans for Metropolitan Planning Organizations." FHWA.

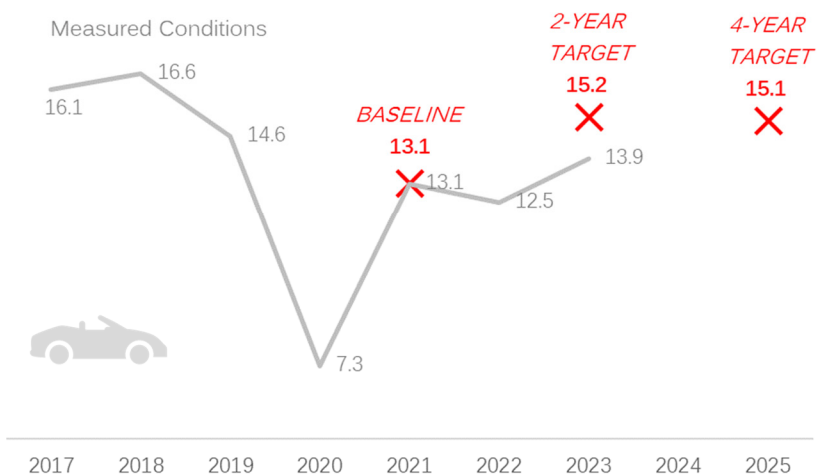
## 2-Year Condition/Performance

### Peak Hour Excessive Delay

The following graphs display the measured performance of Peak Hour Excessive Delay (PHED) through 2023 against baseline conditions and the 2- and 4-year targets for the Philadelphia (PA, NJ, DE, and MD) and Aberdeen—Bel Air South—Bel Air North (MD) regions. PHED is the extra amount of time spent in congested traffic during peak hours.

In the Philadelphia region, PHED rose to 13.9 hours delay per capita in 2023, up from 12.5 in 2022. While this is the most traffic congestion recorded since the 2020 pandemic, it is still below pre-pandemic levels. The 2-year target of 15.2 hours delay per capita was, however, easily achieved.

**PHILADELPHIA (PA-NJ-DE-MD) URBANIZED AREA**  
**PEAK HOUR EXCESSIVE DELAY: HOURS OF REGIONAL DELAY PER CAPITA<sup>1</sup>**



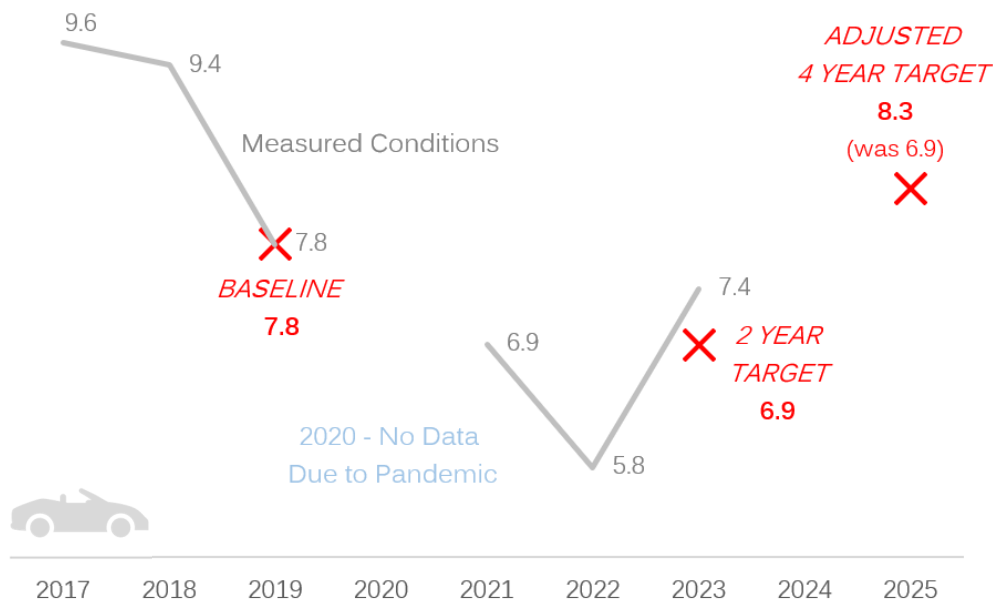
<sup>1</sup> Source: Philadelphia PA-NJ-DE-MD and Trenton, NJ Urbanized Area TPM PM3 CMAQ Traffic Congestion Coordination Group Meeting, April 25th, 2024.

Meeting Notes: <https://wilmmapco.sharefile.com/public/share/web-se8f8edd046754c6c987505606b2a9280>

Meeting Presentation: <https://wilmmapco.sharefile.com/public/share/web-s7e816f3f0f38426b923efa15be222fc3>

Traffic delays increased in the Aberdeen region as well. More than seven (7.4) hours delay per capita were recorded in 2023, up from 5.8 in 2022. This sharp increase exceeded the 2-year target of 6.9 hours delay per capita, and led to the adjustment of the 4-year target from 6.9 to 8.3 hours delay per capita.

**ABERDEEN – BEL AIR SOUTH – BEL AIR NORTH (MD) URBANIZED AREA  
PEAK HOUR EXCESSIVE DELAY: HOURS OF REGIONAL DELAY PER CAPITA<sup>2</sup>**



## Percent Non-SOV Travel

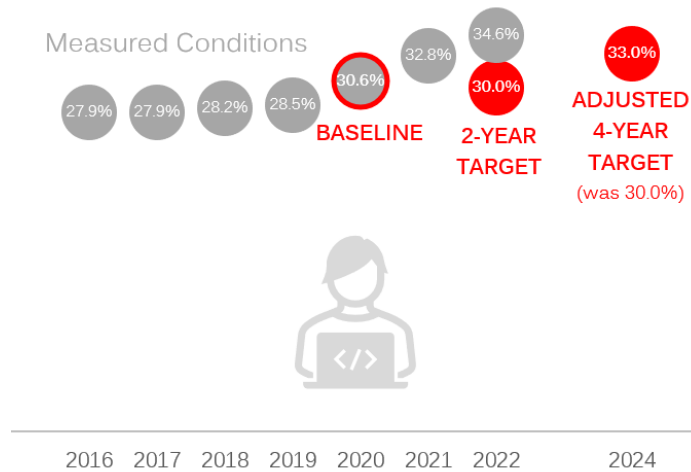
The following graphs display both baseline conditions and 2- and 4-year targets for the percentage of non-Single Occupancy Vehicle (non-SOV) trips in the WILMAPCO region. These data, gathered from the American Community Survey, are estimates based on the form of transportation people use to reach jobs. Non-SOV trips include working from home, carpooling, public transit, walking, and bicycling.

<sup>2</sup> Source: Correspondence between WILMAPCO and Baltimore Metropolitan Council, May 2024: <https://wilmapco.sharefile.com/public/share/web-s6e5f7eca028c4ae3bc4462af03f597a1>

In the Philadelphia region, non-SOV commutes have increased steadily as a share of work commutes. They represented 27.9% of work commutes in 2016, 30.6% of commutes in 2020 (the baseline figure) and 34.6% of commutes in 2022. The two-year target of 30.0% was thus easily achieved. Given the apparent sustainability in non-SOV trips in the post-pandemic era, the 4-year target (in year 2024) of 30.0% was raised to 33.0%.

In Aberdeen, meanwhile, non-SOV commutes have also steadily increased as a share of work commutes. They represented 16.1% of trips in 2019, the baseline year. In 2020 that figure rose to 17.8% and rose again to 20.1% in 2021.

### PHILADELPHIA (PA-NJ-DE-MD) URBANIZED AREA PERCENT OF REGIONAL NON-SOV COMMUTES TO WORK<sup>3</sup>

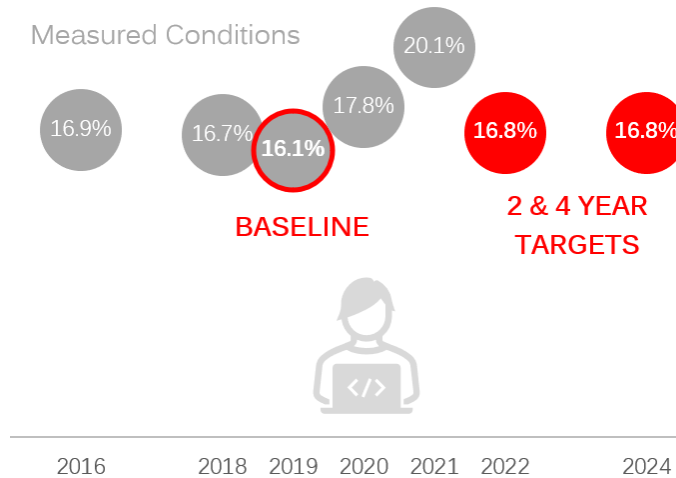


<sup>3</sup> Source: Philadelphia PA-NJ-DE-MD and Trenton, NJ Urbanized Area TPM PM3 CMAQ Traffic Congestion Coordination Group Meeting, April 25th, 2024.

Meeting Notes: <https://wilmapco.sharefile.com/public/share/web-se8f8edd046754c6c987505606b2a9280>

Meeting Presentation: <https://wilmapco.sharefile.com/public/share/web-s7e816f3f0f38426b923efa15be222fc3>

**ABERDEEN – BEL AIR SOUTH – BEL AIR NORTH (MD) URBANIZED AREA  
PERCENT OF REGIONAL NON-SOV COMMUTES TO WORK<sup>4</sup>**



## On-Road Mobile Source Emissions

The figures below display both baseline conditions and 2- and 4-year targets for on-road mobile source emissions stemming from CMAQ projects. Data here are divided between Delaware<sup>5</sup> and Cecil County and are presented for NO<sub>x</sub>, VOCs, and PM<sub>2.5</sub>. We do not present PM<sub>2.5</sub> data for Cecil County based on guidance from the FHWA.

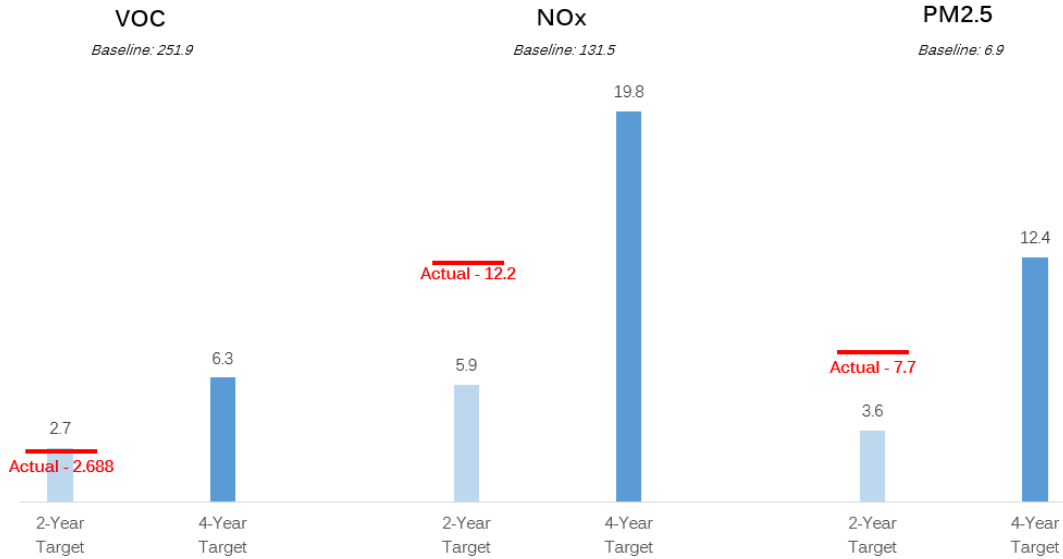
In Delaware a series of pedestrian and bicycle projects, along with support for the state’s rideshare program and Intelligent Transportation Systems program yielded emissions reductions of 2.688 kg/day of VOCs, 5.9 kg/day of NO<sub>x</sub>, and 7.7 kg/day of PM<sub>2.5</sub> in 2022/2023. These figures fell just short of the 2-year VOC target of 2.7 kg/day, but easily met the NO<sub>x</sub> and PM<sub>2.5</sub> targets of 5.9 and 3.6 kg/day, respectively.

<sup>4</sup> Source: American Community Survey, Selected Economic Conditions (DP03): <https://data.census.gov/table/ACSDP5Y2020.DP03?q=DP03&g=400XX00US00199>; Correspondence between WILMAPCO and Baltimore Metropolitan Council, May 2024: <https://wilmapco.sharefile.com/public/share/web-s6e5f7eca028c4ae3bc4462af03f597a1>

<sup>5</sup> In the 2022 CMAQ Performance Plan, WILMAPCO adopted the emissions targets set by DelDOT for Delaware for the New Castle County portion of the region.



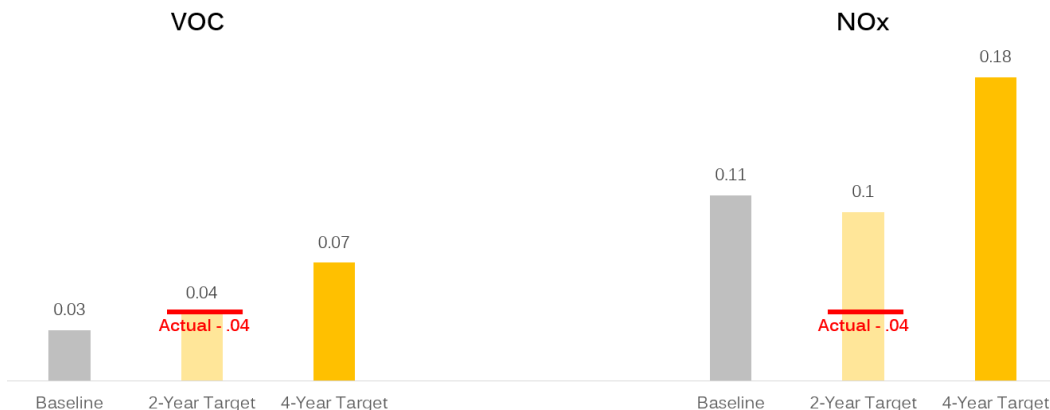
## CMAQ ON-ROAD MOBILE SOURCE EMISSION REDUCTIONS IN DELAWARE (KG/DAY)<sup>6</sup>



In Cecil County, a pair of bicycle and pedestrian projects produced a total of 0.04 kg/day emissions reductions in both VOCs and NOx in 2022/2023. These reductions were enough to achieve the 2-year VOC emission target (also 0.04 kg/day), but not enough to meet the NOx target (0.1 kg/day). A third CMAQ project was completed in Cecil County involving geometric improvements to relieve traffic congestion at an important intersection. Unfortunately, no quantitative emissions benefits were calculated for this project. It is likely that had these benefits been calculated the NOx target would have also been met.

<sup>6</sup> Source: DelDOT's CMAQ Update. May 16, 2024. <https://wilmapco.sharefile.com/public/share/web-s60961e144fd149a3a3776007a219b61b>

**CMAQ ON-ROAD MOBILE SOURCE EMISSION REDUCTIONS  
IN CECIL COUNTY, MD (KG/DAY)<sup>7</sup>**



## CMAQ Projects

The tables on the following page list projects that may be funded by CMAQ over the next several years. Included are the project’s expected emission benefits, and benefits to reducing PHED and increasing non-SOV travel.

Potential projects in New Castle County were identified by WILMAPCO as CMAQ-eligible and tabbed by DeIDOT, along with other projects in Delaware, for future CMAQ spending. In a coordinated process, we submit a ranked list of CMAQ-eligible projects in New Castle County in the Transportation Improvement Program to DeIDOT. In turn, DeIDOT works through that list to assign future CMAQ spending.

Potential projects in Cecil County are gathered from local government bicycle and pedestrian project requests. In response to WILMAPCO’s requests to use CMAQ funding to support the development of non-motorized infrastructure in previous CMAQ Performance Plans, MDOT worked with the State Highway Administration to do so.

<sup>7</sup> Source: MDOT’s CMAQ MPP Review. May 16, 2024. <https://wilmapco.sharefile.com/public/share/web-s0f1a68d60a9f4a0ab2eb4dea19f1d5fb>

## POTENTIAL CMAQ PROJECT DESCRIPTIONS<sup>8</sup>

<i>Delaware</i>							
PROJECT	DESCRIPTION	YEAR(S) OF CMAQ FUNDING	VOC REDUCTION (kg/day)	NOx REDUCTION (kg/day)	PM2.5 REDUCTION (kg/day)	PHED BENEFIT	NON-SOV BENEFIT
Intelligent Transportation Systems (ITS) (grouped)	Signal timing and traffic and weather monitoring enhancements; mobile app and radio development; dynamic messaging signs.	2024	1.003	5.741	4.143	Yes - better traffic flow	No
Bicycle and Pedestrian Improvements (grouped)	South Little Creek Shared Use Path (Horsepond Road to US 13)	2024	0.058	0.063	0.003	Yes - fewer vehicle trips	Yes - improved pedestrian and bicycle network
Rideshare Program (grouped)	Support for carpooling program.	2024	0.093	0.067	0.196	Yes - fewer vehicle trips	Yes - fewer vehicle trips

<i>Cecil County, MD</i>						
PROJECT	DESCRIPTION	YEAR(S) OF CMAQ FUNDING	VOC REDUCTION (kg/day)	NOx REDUCTION (kg/day)	PHED BENEFIT	NON-SOV BENEFIT
Bicycle and Pedestrian Improvements (grouped)	Construction of new sidewalks, trails and pathways	2024+	n/a	n/a	Yes - fewer vehicle trips	Yes - improved pedestrian and bicycle network

<sup>8</sup> Source: For Delaware specific data, see: <https://wilmapco.sharefile.com/public/share/web-s73d09ff59f894757a90ec0ee419c2b49>

## POTENTIAL CMAQ PROJECTS IN CECIL COUNTY, MD

PROJECT	TYPE	SOURCE	STATUS	FUNDING YEAR	TOTAL FUNDING*
MD 222 - Cedar Corner Road to Saint Marks Church Road	Bike/Ped	2022 CMAQ Performance Plan	Funded	2023	\$120 k
MD 7D - MD 281 to South of Elk Creek Bridge	Bike/Ped	2022 CMAQ Performance Plan	Funded	2023	\$1.4 m
US 40 - @ Nottingham Road	Congestion & Flow	2022 CMAQ Performance Plan	Funded	2023	\$2.5 m
MD 7D - MD 281 to Cresswell Avenue (CO)	Bike/Ped	2022 CMAQ Performance Plan	Anticipated	-	-
MD 7/MD 281 - South Street to Hermitage Drive (PE & CO)	Bike/Ped	2022 CMAQ Performance Plan	Anticipated	-	-
MD 268 - Main Street to MD 279	Bike/Ped	2022 CMAQ Performance Plan	Anticipated	-	-
Elkton Pedestrian Plan (2018) Implementation: Sidewalks, MD 213, MD 7D, and US 40	Bike/Ped	Elkton Priority Letter 2023	Requested	-	-
MD 279 and US 40	Bike/Ped	Elkton Priority Letter 2023	Requested	-	-
MD 268 and MD 213 in Downtown Elkton	Bike/Ped	Elkton Priority Letter 2023	Requested	-	-
MD 7 at North East Creek Bridge	Bike/Ped	North East Priority Letter 2022/2023/2024	Requested	-	-
MD 7 - North East Middle School to Ridgely Forest Drive	Bike/Ped	North East Priority Letter 2022/2023/2024	Requested	-	-
MD 7 - Mauldin Avenue to North Main Street	Bike/Ped	North East Priority Letter 2024	Requested	-	-
US 40 - Sycamore Drive to MD 272	Bike/Ped	North East Priority Letter 2022/2023/2024	Requested	-	-
MD 272 - Jethro Street to North East Creek Bridge	Bike/Ped	North East Priority Letter 2022/2023/2024	Requested	-	-
Port Deposit - Main Street Streetscape	Bike/Ped	Port Deposit Priority Letter 2023	Requested	-	-


\*Funding year is subject to change

These projects reflect the current priorities for CMAQ spending. These priorities may shift, and other projects may be funded via CMAQ monies in the future. Reasons for this may include but are not limited to changes to a project's scope, evolving priorities for spending CMAQ monies based on a better understanding of benefits, and evolving state DOT priorities or needs.

### Assessment of Progress

This report shows that, after two years, the WILMAPCO region is well within reach of meeting established (and, in the case of the Aberdeen region's PHED measure and the Philadelphia region's non-SOV measure, re-established) 4-year targets.

Measured PHED conditions in 2022 and 2023 were under or slightly above both the 2- and 4-year targets. 13.9 hours were spent in delayed peak hour traffic in the Philadelphia region in 2023, below pre-pandemic levels and below the 4-year target of 15.1. The Aberdeen region's 7.4 hours of delay exceeded the 2-year target of 6.9, but still fell short of pre-pandemic levels and below the re-established 4-year target of 8.3.



Non-SOV travel outperformed expectations. More than one-third (34.6%) of the Philadelphia region's workers utilized non-SOV modes in 2021. This exceeded both the 2-year target (30.0%) and the new 4-year target (33.0%). The 4-year target was raised from 30% following sustained increases in non-SOV travel since 2017. Non-SOV trips also increased in the Aberdeen region, reaching 20.1% in 2021. This exceeded both the 2- and 4-year targets of 16.8%.

CMAQ mobile source emission reductions are on track to meet the 4-year target in Delaware. VOCs reductions of 2.688 kg/day slightly missed the 2-year target of 2.7 kg/day, while both NO<sub>x</sub> and PM<sub>2.5</sub> emission reductions comfortably exceeded their 2-year targets.

Projects identified for future CMAQ funding in Delaware remain of the same types as previously identified – ITS improvements, a bicycle and pedestrian project, and funding for the state's rideshare program. Together, these projects would help reduce emissions, support a reduction of PHED, and support an increase in non-SOV travel.

In Cecil County, emissions reductions reported for the 2-year period met the 2-year target for VOCs but fell short of the target for NO<sub>x</sub>. This was due to the most significant of the three CMAQ projects not being modeled for emissions benefits. It is likely that had these benefits been calculated the NO<sub>x</sub> target would have been met. The 4-year targets of 0.07 kg/day for VOCs and 0.18 kg/day for NO<sub>x</sub>, should be attained with the CMAQ projects in the queue and those that could be funded with CMAQ-monies.

WILMAPCO will report on the status of these CMAQ projects, as well as the progress of meeting the targets presented in this plan in October 2026.