

# 2022 CMAQ PERFORMANCE PLAN

## 1<sup>st</sup> PERFORMANCE PERIOD

## Full Progress Report/Performance Plan

## 2<sup>nd</sup> PERFORMANCE PERIOD

## Baseline Report/Performance Plan

CONGESTION MITIGATION AND AIR QUALITY (CMAQ)



Wilmington Area Planning Council (WILMAPCO) Philadelphia, PA—NJ—DE—MD September 2022

WILMAPCO 2022 - CMAQ PERFORMANCE PLAN

## Introduction

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

- o Highway safety and assets
- o System performance
- o 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, produced ahead of our Regional Transportation Plan (RTP), tracks the performance of and informs the update to policy. Beyond surface trends, the Progress Report uses deep indicators that assess why certain policy actions are on course while others may not be. With mature, performance-based planning already in place, WILMAPCO is in a strong position to incorporate federally required performance measures and targets.

This report specifically addresses federal requirements to incorporate performance measurement into Congestion Mitigation and Air Quality (CMAQ) planning and programming. It is divided in the two sections. The first tracks the progress of our baseline CMAQ Performance Plan from 2018. The second section establishes a new 2022 Baseline Report to serve the region for the next several years. The following table identifies specific measures and data used throughout this report.

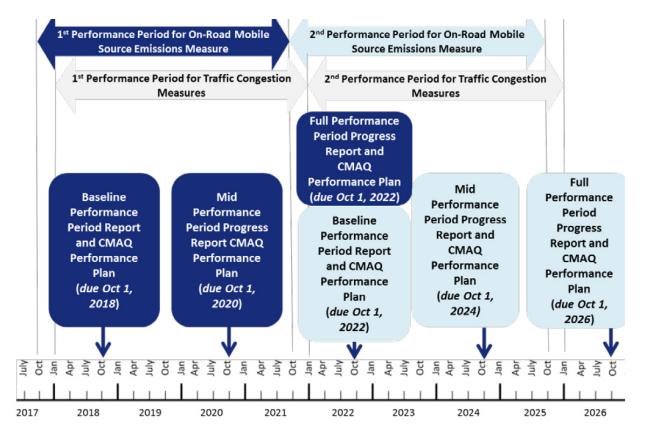
This report is part of a series of CMAQ Performance Plans and Reports WILMAPCO will submit. The graphic on the following page details the performance plans and progress reports and their deadlines.



#### 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		

#### 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.

## 1<sup>st</sup> Performance Period: Full Progress Report & CMAQ Performance Plan

As part of federal rulemaking, both the Delaware and Maryland Departments of Transportation (DelDOT and MDOT) were required to establish performance measures and targets ahead of MPOs. MPOs have the choice to either adopt the state measures and targets or come up with their own. With our strong coordination with both DelDOT and MDOT, as well as other regional partners, WILMAPCO has chosen to adopt all but one of the previously submitted state targets. The exception is MDOT's 2- and 4-year targets for CMAQ emissions reductions. In this case, WILMAPCO developed its own targets.

## 4-Year Condition/Performance

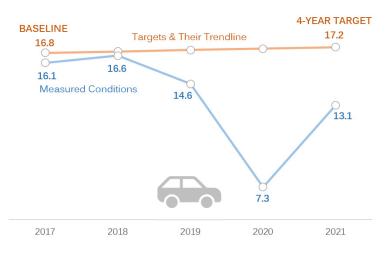
### Peak Hour Excessive Delay

The graph below displays baseline conditions, a 4-year target, and actual measured conditions for Peak Hour Excessive Delay (PHED) in the WILMAPCO region (both New Castle County, and Cecil County Maryland). PHED is the extra amount of time spent in congested traffic. A joint PHED baseline and target for the Philadelphia metropolitan region were set through a multiagency coordination process that occurred among relevant state DOTs and MPOs in Pennsylvania, New Jersey, Delaware, and Maryland.

As shown in the graph, peak-hour congestion was expected to worsen on regional highways over the near term. Measured data, however, showed a 9% dip in PHED between 2017 and 2019. The COVID-19 pandemic, associated lockdown, and changes to travel behavior resulted in a still further 50% reduction in PHED between 2019 and 2020. PHED increased 79% over the next year as the pandemic eased and travel increased. The measured 13.1 hours spent in delay in 2021, however, still fell well below the region's 4-year target of 17.2.



#### PEAK HOUR EXCESSIVE DELAY: HOURS OF REGIONAL DELAY PER CAPITA<sup>1</sup>



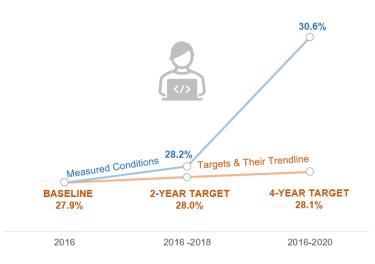
#### Percent Non-SOV Travel

The graph below displays baseline conditions, 2- and 4-year targets, and reported conditions in 2018 for the percentage of non-Single Occupancy Vehicle (non-SOV) trips in the WILMAPCO region. Data for 2021 were not available at the time of writing. These data, from the American Community Survey, are based on how people report commuting to work. Non-SOV trips include working from home, carpooling, public transit, walking, and bicycling. Joint non-SOV baseline and targets for the Philadelphia metropolitan region were set through a multiagency coordination process that occurred among relevant state DOTs and MPOs in Pennsylvania, New Jersey, Delaware, and Maryland.

<sup>&</sup>lt;sup>1</sup> Source: Target Setting: Philadelphia PA-NJ-DE-MD UZA PHED Measure, Supported 2- and 4- Year Targets (2022-25). TPM PM3 CMAQ Traffic Congestion Coordination Group. June 2022. https://wilmapco.sharefile.com/d-s92ffcd443bf245298e4489b0b6487626



#### PERCENT OF REGIONAL NON-SOV TRAVEL<sup>2</sup>



As shown in the graph, non-SOV travel increased at a rate slightly higher than expected between 2016 and 2018, but then increased to a greater extent through 2020 with the onset of the COVID-19 pandemic. The measured data presented shows 5-year rolling averages. When examining individual years, single year 2020 shows a much higher non-SOV travel rate of 38.2%. A substantial increase in those working from home was likely the key driver, helping the region easily achieve its 4-year target<sup>3</sup>.

### **On-Road Mobile Source Emissions**

The tables in this section display baseline conditions, and 2- and 4-year targets for onroad mobile source emissions stemming from CMAQ projects, and estimated emissions reductions through 2021 as reported in the CMAQ Public Access System. Data here are broken up between the State of Delaware and Cecil County. They are presented for NOx, VOCs, and PM2.5. We do not present PM2.5 data for Cecil County based on guidance from the FHWA.

WILMAPCO 2022 - CMAQ PERFORMANCE PLAN

<sup>&</sup>lt;sup>2</sup> Source: Target Setting: Philadelphia PA-NJ-DE-MD UZA PHED Measure, Supported 2- and 4- Year Targets (2022-25). TPM PM3 CMAQ Traffic Congestion Coordination Group. June 2022. https://wilmapco.sharefile.com/d-s92ffcd443bf245298e4489b0b6487626

<sup>&</sup>lt;sup>3</sup> Residents "sheltering in place," or staying close to home, more than doubled during Spring 2020's pandemicrelated lockdown. See: <u>http://wilmapco.org/Cms/Bus\_Analysis\_June\_20.pdf</u>



In New Castle County, we adopted the emissions targets set by DelDOT for the State of Delaware. These are presented below. After DelDOT overhauled its process for calculating CMAQ emissions in 2020, we moved in step with the state to adopt revised 4-year emissions targets<sup>4</sup>.

	Baseline	2-Year Target	2-Year Reductions	4-Year Target*	4-Year Reductions
VOC	17.544	10.521	251.03	251.7	251.9
NOx	6.945	7.353	127.68	128.5	131.5
PM2.5	1.165	0.731	3.27	3.3	6.9

\*The 4-year target was revised in 2020.

In Cecil County, we adopted MDOT's baseline measure<sup>6</sup> in our 2018 CMAQ Performance Plan but elected to set our own 2- and 4-year emissions targets. The baseline figure is based on summed emissions reductions from Cecil County's CMAQ projects from 2014 through 2017 placed in the FHWA CMAQ Public Access System. MDOT's targets were based on these previously funded CMAQ projects.

WILMAPCO's targets were based on ten cost-beneficial bicycle and pedestrian projects listed in various Cecil County and municipal priority letters. Using the Atlanta Regional Commission's CMAQ calculator, WILMAPCO determined the median emissions benefits for these projects for the years 2018 and 2020. We extrapolated benefits for the year 2022, based on those figures. The 2020 results became the 2-year target. The sum of the 2020 results and the 2022 results became the 4-year target.<sup>7</sup>

<sup>&</sup>lt;sup>4</sup> See the 2020 Mid-Period CMAQ Performance Report for more information: <u>http://www.wilmapco.org/Aq/CMAQ\_Performance\_2020.pdf</u>

<sup>&</sup>lt;sup>5</sup> 4-year reductions were calculated within FHWA's CMAQ Public Access System on July 8, 2022.

<sup>&</sup>lt;sup>6</sup> Baseline source: MDOT's "CMAQ On-Road Mobile Source Emissions" presentation to the WILMAPCO Air Quality Subcommittee. <u>http://www.wilmapco.org/Aq/files/2018/other/WILMAPCO\_CMAQBriefing\_041018.pdf</u>

<sup>&</sup>lt;sup>7</sup> More information: WILMAPCO's "Cecil County On-Road CMAQ On-Road Mobile Source Emissions" presentation to the WILMAPCO Air Quality Subcommittee. http://www.wilmapco.org/Aq/files/2018/other/CMAQ\_CecilCo.\_8.30.18.pdf



Three roundabout projects initiated in Cecil County in 2012, 2015, and 2016 appear in the CMAQ Public Access System (PAS)<sup>8</sup> as having received subsequent year funding between 2018, 2019, and 2021. Emissions benefits for the 2012 roundabout (SHA MD 273, Telegraph Road, at Appleton Road) were belatedly quantified and entered in the PAS in 2019. These benefits, along with the baseline figure and unchanged 2-year and 4-year targets are presented in the table below.

The 2012 roundabout (SHA MD 273, Telegraph Road, at Appleton Road) was the only WILMAPCO-tagged Cecil County project listed in the PAS with emissions benefits. On the strength of those reductions alone, only the 2-year NOx target was met. The 2-year VOC target, along with both the 4-year NOx and VOC targets were not met.

#### CMAQ ON-ROAD MOBILE SOURCE EMISSION REDUCTIONS IN CECIL CO. (KG/DAY)

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

<sup>&</sup>lt;sup>8</sup> These are: MD 273 (Telegraph Road) at Appleton Road – Proposed Roundabout (MD 20120009); MD 281 at Muddy Lane – Roundabout (MD 20150008); MD 273 (Telegraph Road) at Blue Bird Road – Roundabout CO (MD 20160003). Source: FHWA CMAQ Public Access System. Accessed October 19, 2020 and July 8, 2022.

## **Assessment of Progress**

This report shows that the WILMAPCO region met most established 4-year targets.

Measured PHED conditions were better than expected. Some 14.6 hours were spent in per capita delayed traffic in 2019, below the 16 hours measured in the previous two years and below the four-year target of 17.2. The contraction of traffic during the COVID-19 pandemic and associated lockdown produced even lower figures. In 2020, PHED was halved to 7.3, before rebounding to 13.1 in 2021 as travel restrictions eased and activity increased.

Non-SOV travel also outperformed expectations. 28.2% of workers utilized non-SOV modes to reach work in 2018, edging out both the 2-year target (28.0%) and the 4-year target (28.1%). The rise of telework and subsequent contraction of traffic during the pandemic led to further increases. Spurred on by these changes from 2020, the five-year 2016-2020 non-SOV figure jumped to 30.6%.

CMAQ mobile source emission reductions met the 4-year target in Delaware. Ozone emission reductions (VOCs and NOx) just edged over the targets. Four-year VOC reductions exceeded the target by 0.2 kg/day, while NOx reductions were 3 kg/day greater than the target. PM2.5 emissions reductions, meanwhile, were more than double the target (6.9 kg/day vs. a target of 3.3 kg/day).

Projects funded with CMAQ monies in Delaware include transportation management improvements, a variety of bicycle and pedestrian projects, and support for the state's rideshare program. Together, these projects help reduce emissions, PHED, and increase non-SOV travel.

In Cecil County, the 4-year emissions targets were missed because there was only one CMAQ-funded project with reported emissions benefits. The numerous potential bicycle and pedestrian projects WILMAPCO proposed for CMAQ funding in the 2018 Performance Plan and 2020 Mid-Period Performance Report did not receive CMAQ funding. Only a single Cecil County project, a roundabout (SHA MD 273, Telegraph Road, at Appleton Road), had reported benefits during the period. On the strength of that single project, emissions reductions reported for the 2-year period nearly met the 2-year target for VOCs



and exceeded the target for NOx. Neither of the 4-year targets were not achieved, however.

It should be noted, however, that CMAQ funding did support a statewide signal systemization project with benefits in Cecil County. Of the 40 signals upgraded with the "Statewide Signal Systemization/TDSD FY20-FY22" project in 2021, 4 occurred in Cecil County. A calculation was not made to determine the emissions benefits of just those 4 signals (all along MD 222), but they could have helped the county meet the 4-year targets<sup>9</sup>.

Recognizing the overall shortcoming, however, MDOT/SHA has agreed to shift CMAQ funding to implement a battery of pedestrian projects in Cecil County during the second performance period. These projects should result in CMAQ-funded emissions reductions in the years to come. WILMAPCO will report on the status of these projects in October 2024, when the Mid-Period Performance Report is due.

<sup>&</sup>lt;sup>9</sup> Total emission benefits for Maryland's Statewide Signal Systemization/TDSD FY20-FY22 project (CMAQ Project ID: MD20210002) were reported as 1.128 kg/day reductions in NOx and 0.892 kg/day reductions in VOCs. CMAQ PAS. Accessed July 8, 2022.

## 2<sup>nd</sup> Performance Period: Baseline Report & CMAQ Performance Plan

As part of federal rulemaking, both the Delaware and Maryland Departments of Transportation (DelDOT and MDOT) were required to establish performance measures and targets in coordination with MPOs. MPOs can either adopt the state measures and targets or come up with their own. Given our strong coordination with both DelDOT and MDOT, as well as other regional partners, WILMAPCO has chosen to adopt all state targets for the 2<sup>nd</sup> Performance Period.

## **Baseline Condition/Performance**

### Peak Hour Excessive Delay

The graph below displays both baseline conditions and 2- and 4-year targets for Peak Hour Excessive Delay (PHED) in the WILMAPCO region (both New Castle County, and Cecil County Maryland). PHED is the extra amount of time spent in congested traffic.

Two urbanized areas fall within the WILMAPCO region: Philadelphia (PA, NJ, DE, and MD) and Aberdeen—Bel Air South—Bel Air North (MD). WILMAPCO must report both baseline conditions and targets for each area during the second reporting period. A joint PHED baseline and target for the Philadelphia metropolitan region were set through a multiagency coordination process that occurred among relevant state DOTs and MPOs in Pennsylvania, New Jersey, Delaware, and Maryland<sup>10</sup>. In the Aberdeen region, the Baltimore Regional Transportation Board (BRTB) coordinated with MDOT and WILMAPCO to establish baselines and targets<sup>11</sup>.

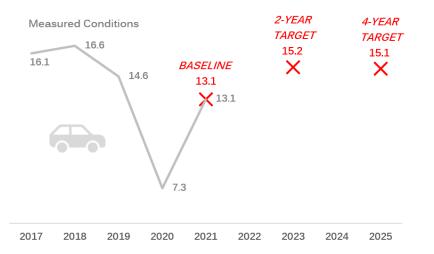
<sup>&</sup>lt;sup>10</sup> Source: Target Setting: Philadelphia PA-NJ-DE-MD UZA PHED Measure, Supported 2- and 4- Year Targets (2022-25). TPM PM3 CMAQ Traffic Congestion Coordination Group. June 2022. https://wilmapco.sharefile.com/d-s92ffcd443bf245298e4489b0b6487626

<sup>&</sup>lt;sup>11</sup> Source: BRTB Resolution #23-5. "Adopting the CMAQ Performance Plans for the Baltimore and Aberdeen Urbanized Areas." August 2022. <u>https://wilmapco.sharefile.com/d-s5ac46c71261347f1a65d3f45467d0e3c</u>

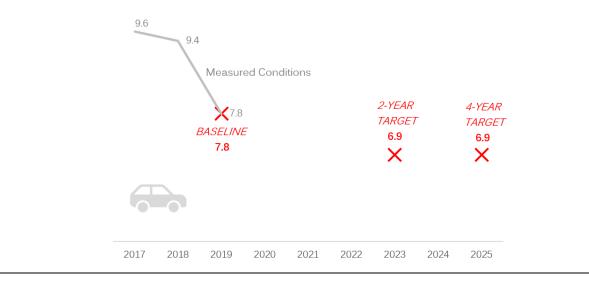


In the Philadelphia region, the 2021 baseline figure of 13.1 hours delay per capita was selected, with a 2-year target of 15.2 and a 4-year target of 15.1. These targets represent a further expected rebound of travel in the wake of the pandemic. In Aberdeen, meanwhile, the 7.8 hours of delay per capita measured in 2019 serve as the baseline. Data from 2020 and 2021 are not considered to omit travel impacts of the pandemic. A 2-year and 4-year target of 6.9 was selected.

### PHILADELPHIA (PA-NJ-DE-MD) URBANIZED AREA PEAK HOUR EXCESSIVE DELAY: HOURS OF REGIONAL DELAY PER CAPITA



ABERDEEN – BEL AIR SOUTH – BEL AIR NORTH (MD) URBANIZED AREA PEAK HOUR EXCESSIVE DELAY: HOURS OF REGIONAL DELAY PER CAPITA



## Percent Non-SOV Travel

The graph below displays 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, from the American Community Survey, are based how people report commuting to work. Non-SOV trips include working from home, carpooling, public transit, walking, and bicycling.

Two urbanized areas fall within the WILMAPCO region: Philadelphia (PA, NJ, DE, and MD) and Aberdeen—Bel Air South—Bel Air North (MD). WILMAPCO must report both baseline conditions and targets for each area. A joint PHED baseline and target for the Philadelphia metropolitan region were set through a multiagency coordination process that occurred among relevant state DOTs and MPOs in Pennsylvania, New Jersey, Delaware, and Maryland<sup>12</sup>. In the Aberdeen region, the Baltimore Regional Transportation Board (BRTB) coordinated with MDOT and WILMAPCO to establish baselines and targets<sup>13</sup>.

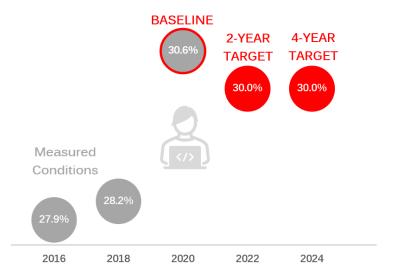
In the Philadelphia region, the 2020 baseline figure of 30.6% non-SOV mode trips to work was selected, with a 2-year and 4-year target of 30.0%. These targets represent a further expected rebound of vehicle travel in the wake of the pandemic. In Aberdeen, meanwhile, the 16.1% non-SOV mode trips to work measured in the 5-year 2019 American Community Survey serve as the baseline. Data from 2020 are not considered to omit travel irregularities stemming from the pandemic. A 2-year and 4-year target of 16.8% was selected.

<sup>&</sup>lt;sup>12</sup> Source: Target Setting: Philadelphia PA-NJ-DE-MD UZA PHED Measure, Supported 2- and 4- Year Targets (2022-25). TPM PM3 CMAQ Traffic Congestion Coordination Group. June 2022. https://wilmapco.sharefile.com/d-s92ffcd443bf245298e4489b0b6487626

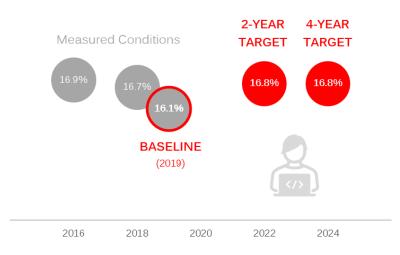
<sup>&</sup>lt;sup>13</sup> Source: BRTB Resolution #23-5. "Adopting the CMAQ Performance Plans for the Baltimore and Aberdeen Urbanized Areas." August 2022. <u>https://wilmapco.sharefile.com/d-s5ac46c71261347f1a65d3f45467d0e3c</u>



## PHILADELPHIA (PA-NJ-DE-MD) URBANIZED AREA PERCENT OF REGIONAL NON-SOV TRAVEL



### ABERDEEN – BEL AIR SOUTH – BEL AIR NORTH (MD) URBANIZED AREA PERCENT OF REGIONAL NON-SOV TRAVEL



## **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 Cecil County and Delaware and are presented for NOx, VOCs, and PM2.5. We do not present PM2.5 data for Cecil County based on guidance from the FHWA.

In New Castle County, we adopt the emissions targets set by DelDOT for Delaware. These are presented on the following page.

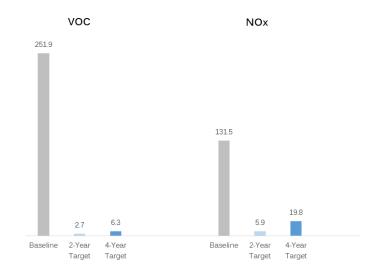
DelDOT's methodology for developing these targets was described at WILMAPCO's July 2022 Technical Advisory Committee meeting<sup>14</sup>. The baseline figure, meanwhile, is based on emissions reductions from Delaware's CMAQ projects from 2018 through 2021 placed in the FHWA CMAQ Public Access System database<sup>15</sup>. Estimates for emissions reductions were developed for each year, by project, between fiscal years 2022 and 2025. The sum of emissions reductions for all projects for the years 2022 and 2023 became the 2-year target. The sum of emission reductions for all projects between the years 2022 and 2025 became the 4-year target. DelDOT also provided WILMAPCO with estimates for PM2.5 emission reductions that we include here.

<sup>&</sup>lt;sup>14</sup> Technical Advisory Committee meeting minutes, July 2022: <u>http://www.wilmapco.org/Tac/TAC-Minutes-7-</u> <u>22.pdf</u>

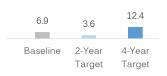
 $<sup>^{\</sup>rm 15}$  CMAQ PAS. Accessed July 8, 2022. .



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

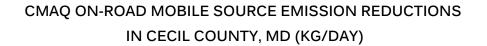


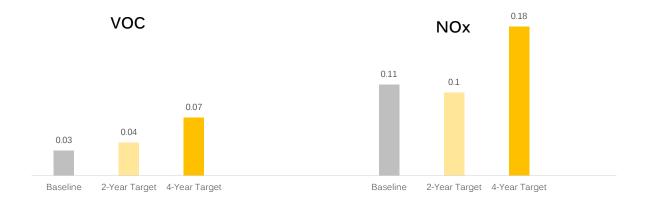
#### PM2.5





In Cecil County, we adopt MDOT's 2- and 4-year emissions targets. The baseline figure is based on emissions reductions from Cecil County's CMAQ projects from 2018 through 2021 placed in the FHWA CMAQ Public Access System database. MDOT's targets are based on a combined approach utilizing historic project selection from the FFY 2018-2021 reporting period as well as anticipated CMAQ projects programmed in Cecil County over the next 4-years. Emissions reductions expected from anticipated projects assume generalized typical project parameters associated with pedestrian facilities and traffic flow improvements.<sup>16 17</sup> As shown in the graph below, the 4-year emissions reduction targets of 0.07 kg/day for VOCs and 0.18 kg/day for NOx outpace the 4-year emissions reductions realized during the previous reporting period.





<sup>&</sup>lt;sup>16</sup> See the "CMAQ On-road Mobile Emissions Target Setting FFY 2022-2025" Memorandum on May 6, 2022: <u>https://wilmapco.sharefile.com/d-s0b8e9b964b4f4b3cac3c43ce6b0f5337</u>

<sup>&</sup>lt;sup>17</sup> See the "CMAQ On-road Mobile Source Emissions Reductions: FFY 2022-2025 Targets & FFY 2018-2021 Performance" presentation provided to the WILMAPCO Air Quality Subcommittee on June 16, 2022: https://wilmapco.sharefile.com/d-sa93b097c901e450c88af9f3a1956465a

## **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.

The projects in New Castle County, meanwhile, were identified by WILMAPCO as CMAQeligible and tabbed by DelDOT, 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 DelDOT. In turn, DelDOT works through that list to assign future CMAQ spending.

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.

Potential projects in Cecil County are listed below. 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 identify these projects. Several are high priority projects for local governments and their timely implementation should result in emissions reductions.

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 2024.



### POTENTIAL CMAQ PROJECTS IN CECIL COUNTY, MD

PROJECT	TYPE	PHASE	FY FUNDING*
MD 7D - MD 281 to Cresswell Avenue	Sidewalks	UT	2024
MD 7D - MD 281 to Cresswell Avenue	Sidewalks	CO	2024/25
MD 222 - Cedar Corner Road to Saint Marks Church Road	Sidewalks	CO	2024/25
US 40 - @ Nottingham Road	Geometric Improvements	CO	2023
MD 7/MD 281 - South Street to Hermitage Drive	Sidewalks	PE	2023/24
MD 7/MD 281 - South Street to Hermitage Drive	Sidewalks	CO	2024/25
MD 268 - Main Street to MD 279	Sidewalks	PE	2023/24
MD 268 - Main Street to MD 279	Sidewalks	CO	2024/25

\*Funding year is subject to change

#### POTENTIAL CMAQ PROJECT DESCRIPTIONS

	Delaware						
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
Traffic Flow (grouped)	US 40 at SR 896 Grade Separated Intersection & Old Capitol Trail, Newport Road to Stanton Road - Two Roundabouts	2024-2025	1.3	6.9	4.0	Yes - better traffic flow	Yes - improved pedestrian and bicycle network with the two roundabouts
Intelligent Transportation Systems (ITS) (grouped)	Signal timing and traffic and weather monitoring enhancements; mobile app and radio development; dynamic messaging signs.	2023, 2025	1.7	10.0	7.0	Yes - better traffic flow	No
Bicycle and Pedestrian Improvements (grouped)	Construction of new sidewalks, trails, and pathways. Includes US 13 (Llangollen Blvd. to Bacon/Boulden Blvd.).	2022 - TBD	2.8	2.7	0.1	Yes - fewer vehicle trips	Yes - improved pedestrian and bicycle network
Rideshare Program (grouped)	Support for carpooling program.	2022, 2023, 2025	0.5	0.3	1.3	Yes - fewer vehicle trips	Yes - fewer vehicle trips

Cecil County, MD									
PROJECT	PROJECT DESCRIPTION		VOC REDUCTION (kg/day)	NOx REDUCTION (kg/day)	PHED BENEFIT	NON-SOV BENEFIT			
Sidewalk Projects Construction of (grouped) new sidewalks		2023 - 2025	n/a	n/a	Yes - fewer vehicle trips	Yes - improved pedestrian network			
US 40 @ Nottingham Road	Geometric improvements	2023	n/a	n/a	Yes - reduced delay	No			