

**WILMAPCO Council:**

## **MEMORANDUM**

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

**Robert J. Alt**  
*Mayor of Elkton*

**Jennifer Cohan**  
*Delaware Dept. of Transportation  
Secretary*

**Connie C. Holland**  
*Delaware Office of State Planning  
Coordination, Director*

**Alan McCarthy**  
*Cecil County Executive*

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

**Heather Murphy**  
*Maryland Dept. of Transportation  
Director, Office of Planning and  
Capital Programming*

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

**Michael Spencer**  
*Mayor of Newport*

**WILMAPCO Executive Director**  
*Tigist Zegeye*

**To:** Members of WILMAPCO's Air Quality Subcommittee (AQS)  
**From:** Bill Swiatek, Principal Planner  
**Date:** September 6, 2018  
**Re:** Air Quality Subcommittee

**Date:** Thursday, September 13, 2018  
**Time:** 10:00 a.m.  
**Place:** Webconference

### **REMOTE ACCESS**

**Via Phone:** USA Toll-Free 888-557-8511,  
Access Code: 5660767#

**Via WebEx meeting:** [wilmapco.webex.com/join/selcock](http://wilmapco.webex.com/join/selcock),  
Meeting Number: 888-557-8511, Access code: 5660767#

## **A G E N D A**

- 1. Acceptance of the notes from the July 16 and August 30 meeting notes**
- 2. CMAQ Performance Plan – B. Swiatek**  
The group will be asked to recommend approval of the draft CMAQ Performance Plan.
- 3. 2050 RTP Conformity – B. Swiatek**  
The group will discuss any updates of the ongoing conformity analysis for the new RTP.
- 4. Other**



**JOINT TECHNICAL ADVISORY COMMITTEE (TAC) AND  
AIR QUALITY SUBCOMMITTEE (AQS) MEETING  
August 16, 2018**

A meeting of the Joint Technical Advisory Committee (TAC) and Air Quality Subcommittee (AQS) was held on Thursday, August 16, 2018, at WILMAPCO, 850 Library Avenue, Suite 100, Newark, DE 19711.

**1. CALL TO ORDER:** Mr. Dahlstrom, TAC Chairperson, brought the TAC and AQS meeting to order at 10:00 a.m.

**2. TAC Members present:**

Ian Beam, Maryland Department of Transportation  
Alex Brun, MDE (via conference call)  
Stacey Dahlstrom, New Castle County Department of Land Use  
David Dahlstrom, Maryland Department of Planning  
Anthony DiGiacomo, Cecil County Land Use and Development Services  
Brian Mitchell, City of Wilmington Department of Public Works  
Jeanne Minner, Town of Elkton  
Jolyon Shelton, DNREC  
Joshua Thomas, Delaware Department of Transportation

**TAC Ex-Officio Members present:**

None

**TAC Members absent:**

City of Newark  
City of Wilmington Department of Planning and Development  
Delaware Division of Small Business, Development, and Tourism  
Delaware Transit Corporation  
Delaware River and Bay Authority  
Delaware State Planning Coordination  
Maryland Transit Administration

**TAC Ex-Officio Members absent:**

Amtrak  
Diamond State Port Corporation  
U.S. Environmental Protection Agency  
U.S. Federal Highway Administration  
U.S. Federal Transit Administration

**AQS Members Present**

Nathan Attard, DelDOT  
Kevin Black, FHWA (via conference call)  
Mike Du Ross, DelDOT (via conference call)  
Jolyon Shelton, DNREC  
Colleen Turner, MDOT (via conference call)

**Guests and Invitees:**

David Schlie, MDOT State Highway Administration  
 Bill Dunn, Civic League for New Castle County

**Staff:**

Dan Blevins, Principal Planner  
 Janet Butler, Administrative Assistant  
 Jacob Guise, Intern  
 Dave Gula, Principal Planner  
 Sharen Elcock, Executive Assistant  
 Randi Novakoff, Outreach Manager  
 Bill Swiatek, Principal Planner  
 Jacob Thompson, Transportation Planner  
 Tigist Zegeye, Executive Director

Minutes prepared by: Janet Butler

**3. MINUTES**

The following corrections were made to the July 19, 2018 TAC Minutes: On page 5, in the 7<sup>th</sup> paragraph, the word “identify” was changed to “include”; Mr. Tyson was changed to Mr. Byrne on pages 3 and 5; and Mr. Joylon was changed to Mr. Shelton on page 4.

**ACTION:** On motion by Mr. DiGiacomo and seconded by Mr. Mitchell, the TAC approved the July 19, 2018 minutes with corrections.

Motion passed.

(8-16-18 - 01)

**4. SUBCOMMITTEE UPDATES:****a. Nonmotorized Transportation Working Group (NMTWG)**

Ms. Zegeye said the NMTWG met on August 7, 2018. Presentation/discussion items included an update of the project to fill a gap in the greater Newark Regional trails network by a representative from the Delaware State Parks, and an overview of the Delaware Bicycle Council grant program and review of the 2018 applications. They also reviewed the draft amendments to the TIP including an update on the TAP, and bicycle and pedestrian projects. In addition, there was a discussion of the draft changes to the non-motorized transportation objectives, actions, and performance measures of the 2050 Regional Transportation Plan (RTP), and an update on the status of the New Castle County Bicycle Plan.

**5. PUBLIC COMMENT PERIOD:**

None.

**ACTION ITEMS:****6. To Recommend amending the FY 2019 Unified Planning Work Program (UPWP) with carry-over funds**

Ms. Zegeye said the total carryover amount is \$352,500.24, which matches the consultant funds remaining in the June 2018 WILMAPCO financial report distributed to TAC. On page 2 of the TAC packet, WILMAPCO's proposal is that the first nine projects would be carried over to the FY 2019 UPWP. Typographical errors are that the year should say 2019, not 2018, and the balance remaining should say 6/30/18 not 6/30/17, which will be corrected.

The next six projects have been completed. Of those, the first four projects were completed and were under budget, and the last two projects including Cecil County Travel Time for \$18,000, would be put back in the general funds. This is because regional traffic counts were done for New Castle and Cecil Counties and those funds are already available. In addition, the left over funding for \$48,000 from the Churchman's Crossing project would be put back into the general funds because there is leftover funding and WILMAPCO would like to finish the project using these unspent funds.

At the bottom of page 2, funds are listed that indicate what is left over after the fiscal year is closed out. The total amount to be carried over is \$732,850.50, minus the prior year's tasks, which were not completed by June 30, 2018, which equals \$269,738.48. The final amount is \$463,112.02, which would be programmed for future tasks.

**ACTION:** On motion by Mr. Thomas and seconded by Ms. Dahlstrom, the TAC recommended amendment of the FY 2019 UPWP with carry over funds including corrections.

Motion passed

(8-16-18 - 02)

#### **7. To Recommend Amendment of the FY 2019-2022 TIP, including use of CMAQ, STP, TAP, and Transit 5310 and Urbanized Area funds for FY 2019**

Mr. Swiatek said the FY 2019-2022 TIP update is relatively unchanged. The full TIP is included in the packet. One public comment is regarding the status of James Street Bridge over the Christiana River project, which has been pushed back to 2020. Another question was about the Newport Rail Station project, which is being updated with ridership projections.

**ACTION:** On motion by Mr. Mitchell and seconded by Ms. Dahlstrom, the TAC recommended amending the FY 2019-2022 TIP, including use of CMAQ, STP, TAP, and Transit 5310 and Urbanized Area funds for FY 2019.

#### **PRESENTATION/DISCUSSION ITEMS:**

##### **8. Delaware CMAQ Target Setting**

Mr. Swiatek distributed Performance Management 3 and DelDOT's CMAQ Emissions Calculations, May 2018 spreadsheet (**Attachment A**).

Mr. Mike DuRoss, DelDOT, said a summary of the CMAQ Target Setting Process is found on page 15 of the handout. A list was developed for the FY2017-2021 period, which generated a five-year potential program of CMAQ supported projects. Then, DelDOT determined which projects could be estimated in a quantitative method, such as in a spreadsheet, or a qualitative method. Most were determined to be "quantitative" and were put into the spreadsheet. Then, they reviewed the emissions calculator, toolkit.

The spreadsheet process is a basic format to develop CMAQ estimates for emissions reductions. It uses estimates of dwelling units and population within a quarter of a mile of the project, mode-shift assumptions, and total project length. Assumed emission rates from the MOVES model are applied in the spreadsheet. For FY2018-FY2021, emissions from the four years were averaged. This average was then multiplied by two for the two-year target and multiplied by four for the four-year target.

DeIDOT is revising the spreadsheet for the baseline performance monitoring report that is due October 1, 2018. DeIDOT is also including the dwelling units and mode shifts and adding the emissions for PM<sub>2.5</sub>, which had not been provided on May 20, 2018.

DeIDOT will establish permanent counters; or get temporary counters to get good data on the bike/pedestrian usage to improve and refine the spreadsheet method. In addition, DeIDOT is about to hand off much of the monitoring process and annual generation of CMAQ emissions reduction estimates to consultants in a few months.

Mr. Swiatek said on the spreadsheet, the Christiana Bridge project was reassigned from CMAQ to STP; therefore, when you recalculate you can take that project off the spreadsheet. Mr. DuRoss agreed that some projects have shifted since May 20, 2018.

Ms. Turner, MDOT, asked if the targets are in kilograms per day. Mr. DuRoss replied they are just grams per day; however, we can change that.

Mr. Dahlstrom commented regarding Ride Share that there are no numbers associated with it, but there are totals in the right column. Mr. DuRoss replied there was a separate spreadsheet for Ride Share. It is a recurring project and we assume 1,000 trips per year, it has an average trip length, and there is a corresponding emissions rate for speed and distances. This has been a fixed rate for a long time.

Mr. Swiatek asked when WILMAPCO could expect finalized emissions data. Mr. DuRoss replied by the next Air Quality Subcommittee (AQS) meeting in September prior to the due date of the October 1, 2018 baseline report.

## 9. WILMAPCO's CMAQ Performance Plans

Mr. Swiatek distributed WILMAPCO's Baseline CMAQ Performance Plan and CMAQ Scoring for Cecil County (**Attachment B**). Mr. Swiatek said by October 1, 2018, we must come up with a performance plan, and he referred to the following schedule:

- August 16, 2018: Presentation to TAC/AQS
- August 30, 2018: Special AQS review of Cecil County emissions targets
- September 13, 2018: AQS to recommend endorsement
- September 20, 2018: TAC to recommend endorsement
- September 28, 2018: Submit CMAQ Performance Plan to DeIDOT/MDOT
- October 1, 2018: Submit CMAQ Performance Plan
- November 8, 2018: Council to adopt Performance Targets
- November 16, 2018: MPO Performance Targets are due

Mr. Swiatek also discussed specific pages of the Performance Plan: Rough Draft, dated August 13, 2018. He said there are three measures on page 6 for Peak Hour Excessive Delay. The Hours of Regional Delay Per Capita include the baseline of 6.8 hours in 2017 that increases to 17.2 targets in 2021. The Percent Non-SOV Travel: baseline is 27.9 %, the 2-year target is 28%; and the 4-year target is 28.1%.

Ms. Turner commented that regarding On-Road Mobile Source Emissions Targets on page 8: "MDOT's targets are based on previously-funded CMAQ projects (several roundabouts) that did not properly pass through our transportation planning process," MDOT could not support language that says we did not work properly through the process.

Mr. Swiatek explained that WILMAPCO does have a disagreement with MDOT regarding how to set the CMAQ targets in Cecil County. The issue is that the projects in Cecil County did not pass through WILMAPCO's process because they were not in the WILMAPCO TIP. In addition, more cost-effective projects could be funded via CMAQ and produce the same or better emissions results. Ms. Zegeye agreed.

Ms. Zegeye noted that the roundabout projects were not popular in Cecil County, and reiterated that they were not included in the WILMAPCO TIP. In addition, WILMAPCO staff believes that based on FHWA's cost benefits emission calculations, bike/ped projects have better emission benefits than roundabouts. Ms. Zegeye added our proposal is to use the priority letters that Cecil County and municipalities have submitted and use those projects to develop CMAQ targets. Mr. Swiatek said he would work with MDOT on the document language; the text was simply there to explain why WILMAPCO was creating its own targets.

Mr. Swiatek continued on page 9 in the New Castle County section. WILMAPCO will take what DelDOT has proposed as targets and adopt them. On page 10, the planned CMAQ projects will help to achieve the targets. In addition, page 11 provides the project descriptions to be developed in Cecil County. Both pages 10 and 11 are awaiting further details.

All the Cecil County bicycle and pedestrian projects that WILMAPCO staff proposes to use to develop a target for Cecil County came from the Priority Letters from Cecil County, North East, and Perryville.

Mr. Beam said to put MD, for state routes, instead of SR. Mr. Swiatek said he would correct that.

Mr. DiGiacomo commented that Cecil County does not have an adversarial relationship with MDOT but said that the roundabouts in question were not necessarily the top priority for the County government. He invited MDOT to the Cecil County Technical Meeting at 10:00 a.m., on September 6, 2018, and the Cecil County Tour on September 25, 2018.

## **10. WILMAPCO 2018 Interregional Report**

Mr. Thompson said the 2018 Interregional Report includes demographic changes and travel characteristics, which covers a 28-county study area in four states. The study area includes MPOs and counties within 60 miles of the WILMAPCO region. The report was last updated in 2012 and the 2018 update is in progress.

Data sources include the US Census Bureau, FHWA, State Data Access websites; MPOs; County Planning departments; and Transit providers. The population will grow from 11.1 to 12.4 million. In the 2012 report, Philadelphia was the only county expected to decline (3%). Philadelphia would grow by 8% by 2040. Both Cape May and Salem Counties, in New Jersey would lose population.

However, employment would grow from 5.9 to 6.5 million. There will be 600,000 more jobs, which is a 10% increase. Lancaster County will be the largest contributor, adding 80,000 jobs. More than 70% of jobs will be in Maryland and Pennsylvania. In addition, New Castle, Delaware, Carrol, Maryland and Salem, New Jersey counties would lose jobs.

The average road segment carries more than 31,000 vehicles per day. The I-95 Corridor has more than 120,000 daily vehicles. The heaviest traffic volume that moves north to south is between Baltimore and Philadelphia. The population increases will drive increases in traffic.

From 2012 to 2045, there would be a 53% increase in traffic throughout the study area. The WILMAPCO region would see an 81% increase, and I-95 corridor would see a 51% increase.

From 2010 to 2016, the average commute time increased from 3.2 minutes to 28.7 minutes. More than half of the counties exceeded the regional average. The longest commutes are Philadelphia (33 minutes); Queen Anne's, Maryland (35 minutes); and Carroll, Maryland (21 minutes).

Regarding the driving mode share, the highest percentages of workers who drive alone include York County, Pennsylvania (86%) and Carroll County, Maryland (85%). The lowest percentages of workers who drive alone include Philadelphia (51%) and Baltimore City (59%). However, between 2010 and 2016 the overall percentage remained steady at 78%.

I-95 in the Mid-Atlantic is the most heavily traveled truck route in the US. In 2012, I-95 carried nearly 14,000 daily trucks (average by segment). Trucks comprise 8% of total traffic. Truck traffic is expected to grow by 55% by 2045, with growth occurring on roadways throughout the study area. I-95 truck traffic will grow by 50% reaching nearly 20,700 daily trucks. Long-distance truck traffic will increase from 24% to 27.5%.

Congestion is measured by volume to capacity ratio. Level of Service (LOS) is measured as A through F. By 2045, congestion is expected to significantly impede traffic flows, especially in the DVRPC and BMC regions. Roadways at and above capacity (E-F) are expected to increase by 65% from 2012.

Marine highways are alternatives to ground transportation. In 2010, USDOT identified 18 marine corridors, 8 projects, and 6 initiatives. From 2016-2018 additional funding enabled growth of the program, which now supports 21 projects. There are nine projects in or near the study area.

Transit scores are based on the ability to support transit investments. Factors include population density, employment density, and zero-car households. Since 2005, scores grew along Delaware Route 1 in Middletown, Smyrna, and Dover. Inter-county transit routes in the WILMAPCO region include DART Routes 301 and 302, Cecil Transit Routes 4 and 5, and the SEPTA Wilmington/Newark Line.

The inter-regional TIP projects extend or have impacts beyond WILMAPCO's borders. Completed projects include highway expansions and interchanges, freight rail feasibility studies, and passenger rail studies for commuter rail extension. Projects in progress are the highway and rail improvements.

Recommendations of the WILMAPCO 2018 Interregional Report include expanding inter-county transit services, continuing inter-agency coordination, supporting dense, walkable, land uses, and limiting outward growth. Next steps in the report are to update the data and analyses, update inter-regional activities, include analysis of key regional corridors, include potential new measures such as climate change impacts and new technologies, and produce a draft report by late September 2018.

Mr. DiGiacomo asked about the location of the long-range truck/short-range miles. Mr. Thompson replied that it goes outside the study areas from the Freight Analysis Framework. Mr. Dahlstrom asked if the 12% population increase and the 53% traffic increase are in the WILMAPCO region. Mr. Thompson replied 53% is in the study area, and 81% is the WILMAPCO increase.

### 11. AQ Conformity Update

Mr. Swiatek said on page 16 of the handout entitled Projects Modeled in summer 2018 (2050 RTP/FY20 TIP), there is a list of projects to be included in the 2018 Model. Members of staff were on a conference call with MDOT regarding the I-95 Interchange and Belvedere Road project to discuss getting it into the model with the draft model 2030 year.

The Project Schedule for the Conformity Analysis is on page 15. He added we are looking for the results of the Conformity Analysis by October 2018, which will be reviewed at the October 11, 2018 AQS meeting. The air quality document will be refined by AQS in December. Then it will go out for public comment along with the WILMAPCO 2050 RTP in January 2019 and be ready for the WILMAPCO Council approval at the March 2019 meeting.

Mr. Dunn asked why the air quality and congestion issues on the Stanton/Kirkwood Highway area at the Route 7/Route 4 split are being discussed. Mr. Swiatek said he would look at the TIP to see if that project is there, he believes there is a project funded at that intersection. He added that only the projects that are capacity-adding projects that are considered regionally significant are modeled for the conformity analysis. There are other projects that include congestion relief elements that are not on this list. Mr. Swiatek explained that this is not a ranked list; these projects are defined by descriptions that are already in the TIP and the RTP.

Mr. Dahlstrom asked if projects #12 and #23 indicate widening; however, others say they are widening from four to six lanes. Mr. Swiatek said he would investigate the project description and see if he can add that language. Mr. Dahlstrom also asked if the “Our Town” public meeting was a process. Mr. Swiatek said Our Town is usually a one-time event. The next WILMAPCO “Our Town” event will be held on February 7, 2019.

### 12. 2050 Regional Transportation Plan (RTP) Update

Mr. Blevins distributed the Draft 2050 RTP Transportation Investment Areas, July Version (**Attachment C**). He said the maps show the investment areas. The areas in blue are the centers, which are “urban.” The definitions are on the last page of the handout. Ms. Dahlstrom asked if they are not all “municipal” areas, but, also “suburban” areas. Mr. Blevins said will be able to change the wording and make things clearer. Ms. Zegeye said all of the 2050 RTP meetings are being set up with the Council members and not just with New Castle County.

Mr. Blevins added we cleaned up the boundaries around the investment areas. The City of Wilmington now stands as an “Urban Center”, with other municipalities designated as “Centers.” In Cecil County, some rural areas include villages that were added. The TIAs are the basis for where the various types of transportation investments should be made within the region. They draw the relationship between land use and transportation and provide input in the TIP project prioritization process criteria. In addition, tweaks were made to the TIAs based on newer data.

He provided the following draft 2050 TIA definitions for the investment areas:

- Center – Municipal areas with the highest concentrations of population and/or employment with well-established land uses, and development patterns and opportunities for significant re-development.
- Core – Non-municipal areas, which contain densely, settled population and employment patterns.
- Community – areas with well-established land uses and development patterns and where growth and development pressures are expected to be moderate.



- Developing – Areas where land uses and development patterns are not yet set and where they continue to emerge.
- Rural – Areas where limited growth and development exist or are expected, where transportation facilities and services are considered adequate to meet needs and where natural resources are to be preserved.
- Village (Cecil) – Areas that protect the character of the County's historic villages by separating them from surrounding rural or developed areas, which may feature a cluster of structures that include historic buildings, architectural elements, community focal points, and historic employment centers and commercial uses.

### **INFORMATION ITEMS:**

#### **13. Staff Report**

Ms. Zegeye reported on the following plans and events:

- Staff has been participating in the Wilmington Comprehensive Plan meetings.
- The Elkton Pedestrian Plan was presented for approval to the Elkton Mayor and Commissioners.
- Staff exhibited at the Southbridge Weekend Health Fair on July 21, 2018.
- The Route 202 Master Plan public meeting was held at Talleyville Fire Hall on July 25, 2018, which had 200 attendees, and a visioning workshop is planned for the fall.
- Staff exhibited at the 55+ Healthy Lifestyles Expo on August 9, 2018 at Elkton High School.
- The Route 9 Corridor Master Plan Steering Committee meeting will be held on August 21, 2018.
- Staff continues to support the development of the Newark Sustainability Plan. Their next Steering Committee meeting is set for August 22, 2018.
- The joint WILMAPCO and DelDOT public workshop will be held on September 5, 2018 from 4-7 p.m. at the Newark Free Library.
- The Cecil County Pre-Tour meeting will be held on September 6, 2018, and the Cecil County Public Tour meeting will be held on September 25, 2018.
- Staff will exhibit at Newark Community Day on September 16, 2018.
- Staff is working on the Environmental Justice (EJ) and Transportation Justice (TJ) Report updates. TAC members who wish to serve on the committee please contact Mr. Swiatek.
- Staff will conduct New Castle County Bike Plan public outreach with municipalities and civic associations during the fall 2018.
- The Newark Area Transit Study Management Committee met on August 7, 2018. The consultant team and WILMAPCO surveyed transit riders and drivers for DART, Unicity, Cecil County Transit and the University transit systems. Online survey is available for business/organizations and Newark residents.
- Staff held the 12<sup>th</sup> Street Connector Alignment Public Meeting and 7<sup>th</sup> Street Peninsula Public Workshop.
- The Southern New Castle County Master Plan Request for Proposal (RFP) went out and Whitman, Requardt, and Associates were selected. A kick-off meeting will be scheduled soon.

### **OTHER BUSINESS:**

None.

### **ADJOURNMENT:**

The meeting adjourned at 11:35 a.m.

**Attachments (3)**

DRAFT

## Meeting Notes

### Air Quality Subcommittee (AQS)

August 30th, 2018

#### Attendees

Gregory Becoat, EPA (teleconference)  
 Kevin Black, FHWA (teleconference)  
 Alex Brun, MDE (teleconference)  
 Lauren DeVore, DNREC (teleconference)  
 Lindsay Donnellon, FHWA (teleconference)  
 Heather Dunigan, WILMAPCO  
 Jay Gerner, DelDOT (teleconference)  
 Jacob Guise, WILMAPCO  
 Jolyon Shelton, DNREC (teleconference)  
 Cathy Smith, DTC (teleconference)  
 Bill Swiatek, WILMAPCO  
 Tigist Zegeye, WILMAPCO

#### WILMAPCO's Baseline CMAQ Performance Plan Timeline – Bill Swiatek

- Mr. Swiatek reviewed that the purpose of the special meeting was to discuss the way WILMAPCO staff attempted to set some performance targets for Congestion Mitigation and Air Quality (CMAQ) mobile source emissions in Cecil County.
- Mr. Swiatek reminded everybody about the disagreement between WILMAPCO staff and MDOT with how MDOT was setting the targets for the Cecil County. Therefore, WILMAPCO staff set their own targets using a different methodology.
- There is a conference call scheduled between WILMAPCO and MDOT on September 5<sup>th</sup>, 2018 as MDOT representatives could not attend today.
- Mr. Swiatek asked if anybody had any questions about the timeline; no one did.

#### Revised Draft of CMAQ Performance Plan – Bill Swiatek

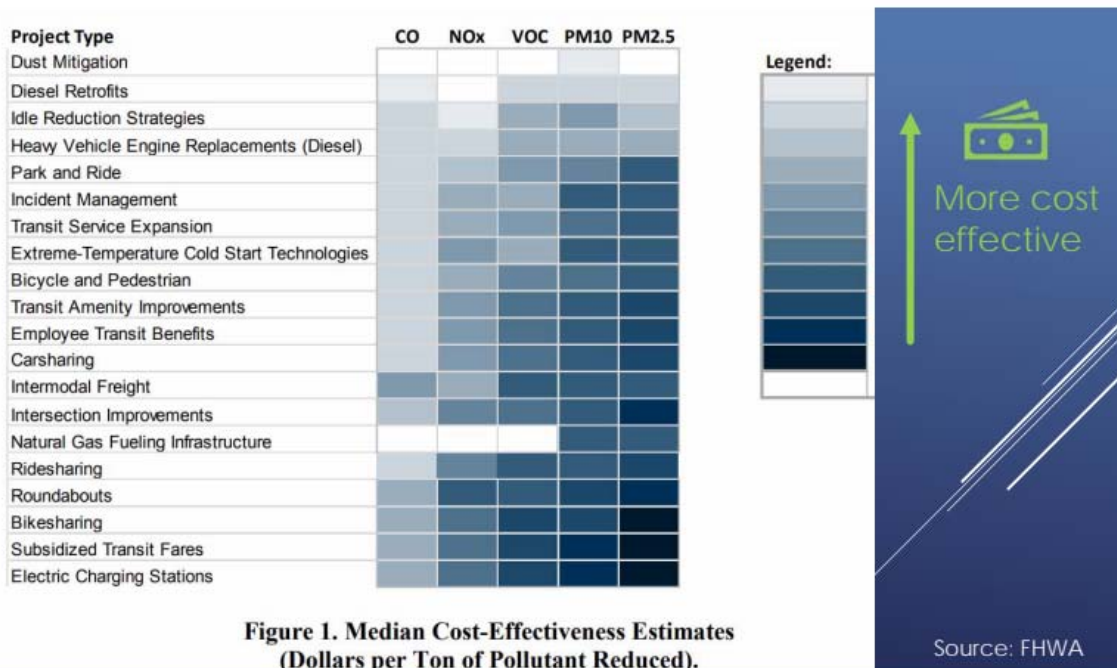
- Mr. Swiatek discussed the updated draft of the Performance Plan. In relation to the previous version, some of the verbiage changed while the original data remained the same.
- Mr. Swiatek mentioned that WILMAPCO staff is waiting on Mike DuRoss to compile numbers pertaining to New Castle County's particulate matter (PM2.5) emission and target as well as a baseline figure.
- Mr. Swiatek asked the group if they had any questions about the revised draft. No one did.

- Ms. Zegeye asked Ms. Donnellon and Mr. Black if WILMAPCO staff must submit the performance plan to both Departments of Transportation (DOTs) or just one. Ms. Donnellon did not have an official answer, but she believes it can be sent to both DOTs.

### Cecil County CMAQ On-Road Mobile Source Emissions Presentation – Bill Swiatek

[http://www.wilmapco.org/Aq/files/2018/other/CMAQ\\_CecilCo\\_8.30.18.pdf](http://www.wilmapco.org/Aq/files/2018/other/CMAQ_CecilCo_8.30.18.pdf)

- Mr. Swiatek gave a summary of what the presentation was going to be about, stating: “WILMAPCO is trying to set some targets for the CMAQ mobile source emissions for Cecil County”. The performance plan includes the targets for peak hour excessive delay, non-State Occupancy Vehicle (SOV) trip, and the CMAQ mobile source emission targets.
- Mr. Swiatek discussed how MDOT and WILMAPCO set their mobile source emission targets. Mr. Swiatek said that MDOT’s targets were set based on historical projects (all roundabouts) in Cecil County and funded by CMAQ. WILMAPCO staff was unaware of this process, and, after discussing with MDOT, believes that roundabouts are not the best projects to fund with CMAQ money moving forward. MDOT agrees, but nevertheless believes that the historical projects should still be used to set the targets.
- Mr. Swiatek said that WILMAPCO staff wants to set targets on Cecil County based on unfunded Ped/Bike projects. WILMAPCO shows how Ped/Bike projects are more cost/beneficial than roundabouts in the chart below:

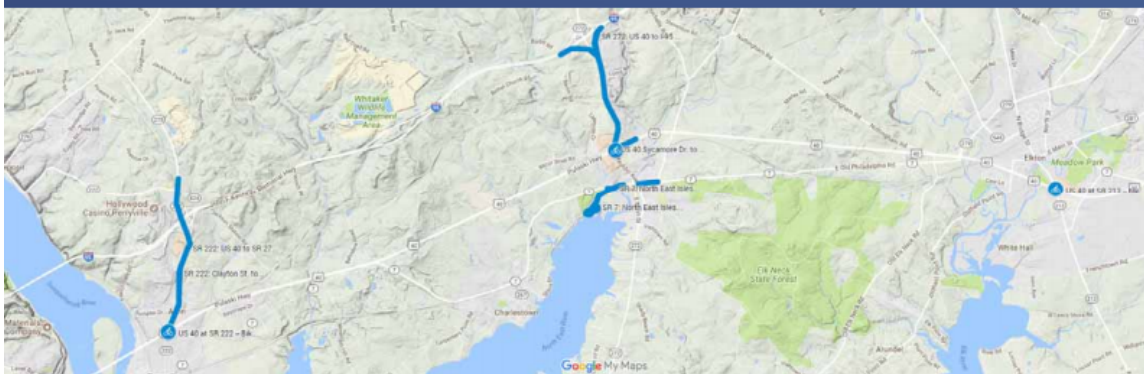


- While looking at the cost benefits emission vs cost, roundabouts are towards the bottom of the chart whereas Bike/Ped projects are in the middle.

- Next Mr. Swiatek showed ten unfunded pedestrian and bike projects; which can be seen below.

## UNFUNDED PEDESTRIAN AND BICYCLE PROJECTS

- ▶ County and town priority letters
- ▶ 10 projects
- ▶ Base targets off these projects



- WILMAPCO staff proposes to base their targets off these specific Ped/Bike projects.
- Mr. Swiatek discussed the use of developing their targets based off a model borrowed from the Atlanta Regional Commission. WILMAPCO staff ran the ten projects through the model to determine the 2018 target (base year) and the 2020 target (2-year target). With the use of these two targets, they were able to find the 2022 target using extrapolation. 4-year targets were determined to be the sum of the 2020 results and 2022 results. The targets, along with the MDOT reference targets, can be found below.

2-year Targets (kg/day)			
	VOC	NOx	PM2.5
WILMAPCO	0.04	0.09	0.01
MDOT	0.04	0.1	0.05
4-year Targets (kg/day)			
	VOC	NOx	PM2.5
WILMAPCO	0.06	0.13	0.01
MDOT	0.07	0.18	0.09

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- WILMAPCO staff put together graphs for each emission with the ten projects and MDOT's targets.
- Mr. Swiatek asked if there were any questions or concerns about the methodology. There was none from the group, or further discussion about the presentation.
- Ms. Zegeye asked if WILMAPCO had to show PM2.5 emissions and a target for Cecil County since it is in attainment for PM2.5. Representatives from EPA and FHWA will investigate it and get back to WILMAPCO.

#### **Other Business**

- No other business was discussed.

9/6/2018

**WILMAPCO's Baseline CMAQ Performance Plan**  
Timeline

# DRAFT

	Aug '18	Sep '18	Oct '18	Nov '18	Dec '18
All requested data submitted to WILMAPCO	1				
Draft plan produced	14				
AQS/TAC presentation	16				
Special AQS full review of Cecil Co. emissions targets (send to MDOT)	30				
Conference call w/MDOT to discuss emissions targets		5			
AQS recommends endorsement		13			
TAC recommends endorsement		20			
Submit CMAQ Performance Plan to DelDOT/MDOT		24			
CMAQ Performance Plan Due			1		
Council adoption of performance targets; endorsement of CMAQ Performance Plan				8	
MPO Performance Targets Due				16	
If conflict occurs over targets: Amend CMAQ Performance Plan with agreed targets and submit to DelDOT/MDOT (previous dates on schedule will be revised)					14

**Bill Swiatek**

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**From:** Bill Swiatek  
**Sent:** Wednesday, September 12, 2018 10:44 AM  
**To:** Bill Swiatek  
**Subject:** Special WILMAPCO AQS Meeting

**From:** Donnellon, Lindsay (FHWA) <lindsay.donnellon@dot.gov>  
**Sent:** Friday, September 07, 2018 4:33 PM  
**To:** Bill Swiatek <bswiatek@wilmapco.org>; Black, Kevin (FHWA) <Kevin.Black@dot.gov>  
**Cc:** Gregory Beacoat <Becoat.Gregory@EPA.gov>; Tigist Zegeye <tzegeye@wilmapco.org>  
**Subject:** RE: Special WILMAPCO AQS Meeting

Good afternoon Bill,

Kevin and I discussed the following inquiries with a FHWA Office of the Environment Air Quality Specialist.

**Whether WILMAPCO has to report CMAQ PM2.5 on-road emissions targets for both Cecil County (in attainment) and New Castle County (in maintenance):**

MPOs and States only need to report for areas in non-attainment or maintenance. WILMAPCO only needs to report emissions for New Castle County. More on this in the CMAQ On-Road Mobile Source Emissions: Total Emission Reductions section of the FAQs here: <https://www.fhwa.dot.gov/tpm/faq.cfm#road>

**Whether WILMAPCO has to submit the CMAQ performance plan for both DelDOT and MDOT:**

WILMAPCO needs to coordinate and come to an agreement with both states on which state will submit with only ONE state needing to submit.

Please feel contact me if further clarification is needed.

Sincerely,

**Lindsay Donnellon**  
 Community Planner  
 Federal Highway Administration  
 George H. Fallon Federal Building  
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 Baltimore, MD 21201  
 410.779.7157





# PERFORMANCE PLAN

## CONGESTION MITIGATION AND AIR QUALITY (CMAQ)

Wilmington Area Planning Council (WILMAPCO)

Philadelphia, PA—NJ—DE—MD

**DRAFT – September 12, 2018**



## Introduction

Both the Moving Ahead for Progress in the 21st Century (MAP-21) and the Fixing America's Surface Transportation (FAST) Acts called for a more performance-based approach to transportation planning. Under this federal legislation, 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, produced every two years, tracks the performance of and informs the update to policy in the Regional Transportation Plan, our long-range Plan. Looking 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 new 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 establishes baseline conditions/performance and two and four-year targets for both traffic congestion and on-road mobile source emission measures. The table on the following page identifies specific measures and data used. Going further, it then provides a description of future projects which may be funded by CMAQ monies and notes how they will help to achieve the identified targets.

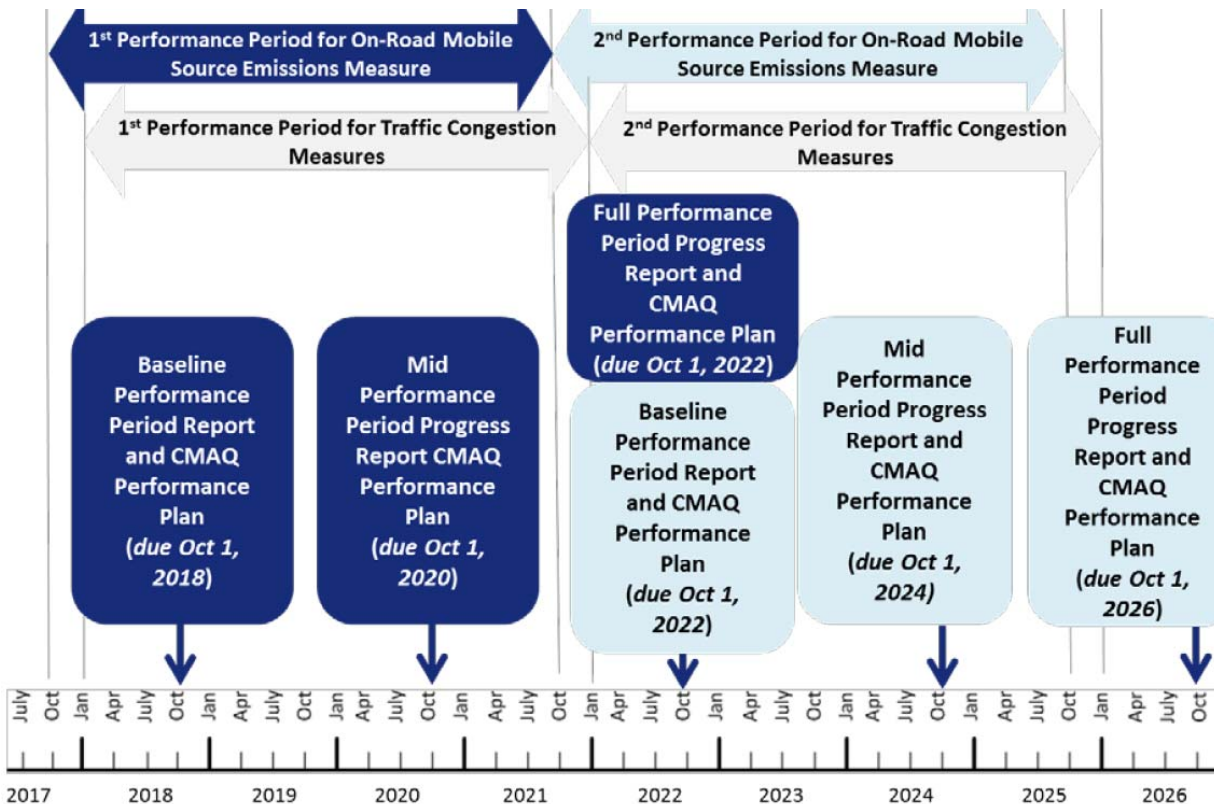
### DATA PRESENTED IN THIS REPORT

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

As part of federal rulemaking, both the Delaware and Maryland Departments of Transportation (DelDOT and MDOT) had 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 between WILMAPCO and both DelDOT and MDOT, along with 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 presents its own targets.

This plan will be the first in a series of CMAQ Performance Plans WILMAPCO will submit through the next decade. The graphic on the following page, from the Federal Highway Administration, details the performance plans and progress reports and their deadlines.

## PERFORMANCE PERIODS FOR CMAQ MEASURES AND REPORTING TIMELINE



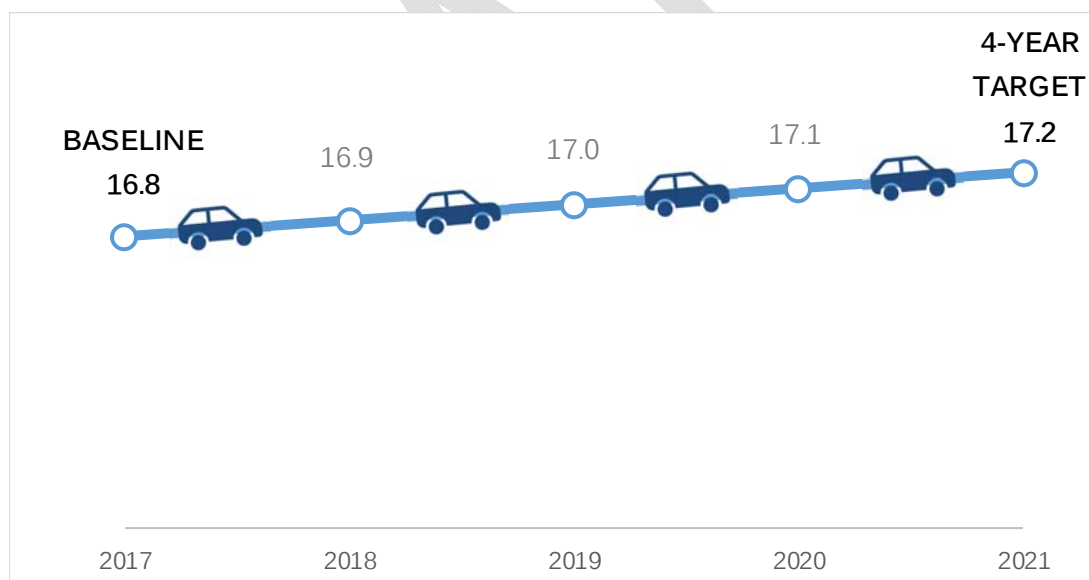
Source: "Congestion Mitigation and Air quality Improvement Program: A Guidebook for Preparing Performance Plans for Metropolitan Planning Organizations." FHWA.



## Peak Hour Excessive Delay

The graph below displays both baseline conditions and a 4-year target 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 is expected to worsen on regional highways over the near term.

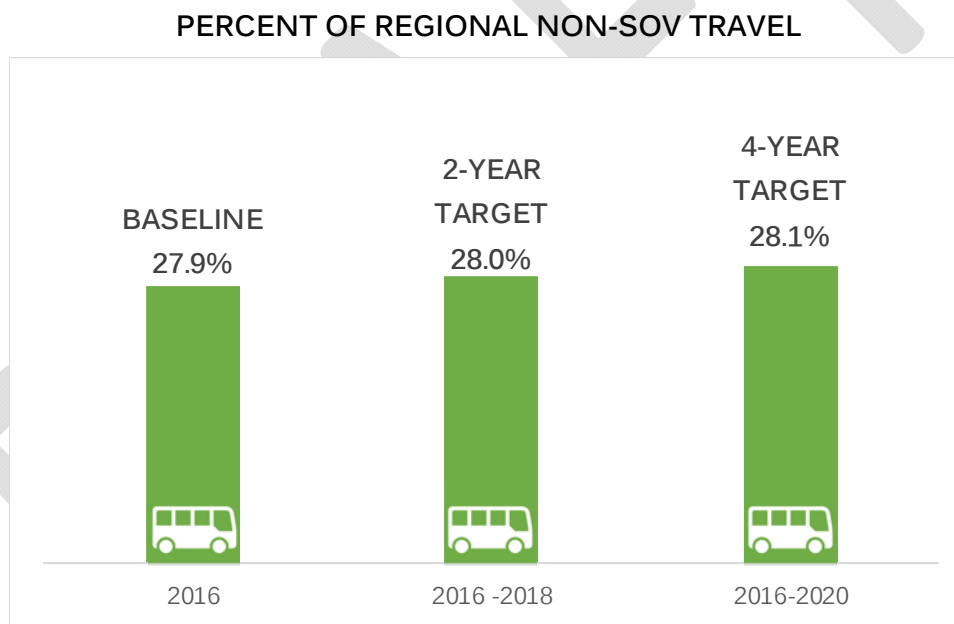
PEAK HOUR EXCESSIVE DELAY: HOURS OF REGIONAL DELAY PER CAPITA



Source: "Performance Management 3." Delaware DOT Division of Planning. May 20, 2018.

## 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: 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. As shown in the graph, we expect non-SOV travel to slightly increase through 2020 data.



Source: "Performance Management 3" Delaware DOT Division of Planning. May 20, 2018.

## 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 broken up between Cecil County and New Castle 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 Cecil County, we adopt MDOT's baseline measure<sup>1</sup> but elect 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 database. MDOT's targets are based on these previously-funded CMAQ projects, several roundabouts.

WILMAPCO proposes targets 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>2</sup>.

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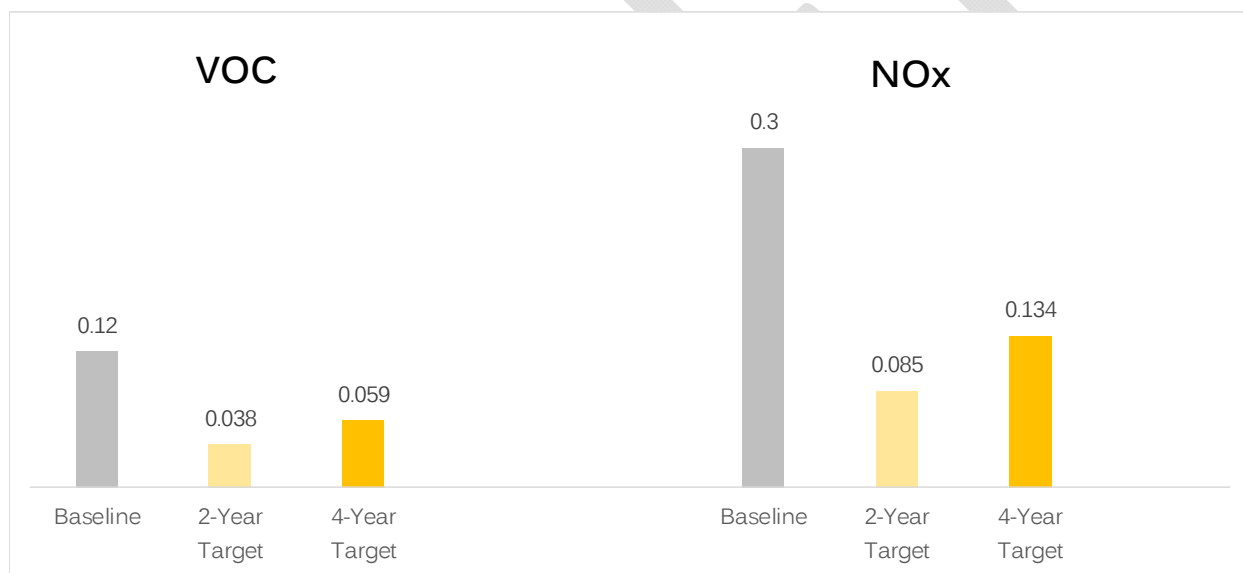
<sup>1</sup> Baseline source: MDOT's "CMAQ On-Road Mobile Source Emissions" presentation to the WILMAPCO Air Quality Subcommittee. [http://www.wilmapco.org/Aq/files/2018/other/WILMAPCO\\_CMAQBriefing\\_041018.pdf](http://www.wilmapco.org/Aq/files/2018/other/WILMAPCO_CMAQBriefing_041018.pdf)

<sup>2</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](http://www.wilmapco.org/Aq/files/2018/other/CMAQ_CecilCo_8.30.18.pdf)

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

	Baseline	2-Year Target	4-Year Target
<b>VOC</b>	0.12	0.038	0.059
<b>NOx</b>	0.30	0.085	0.134

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





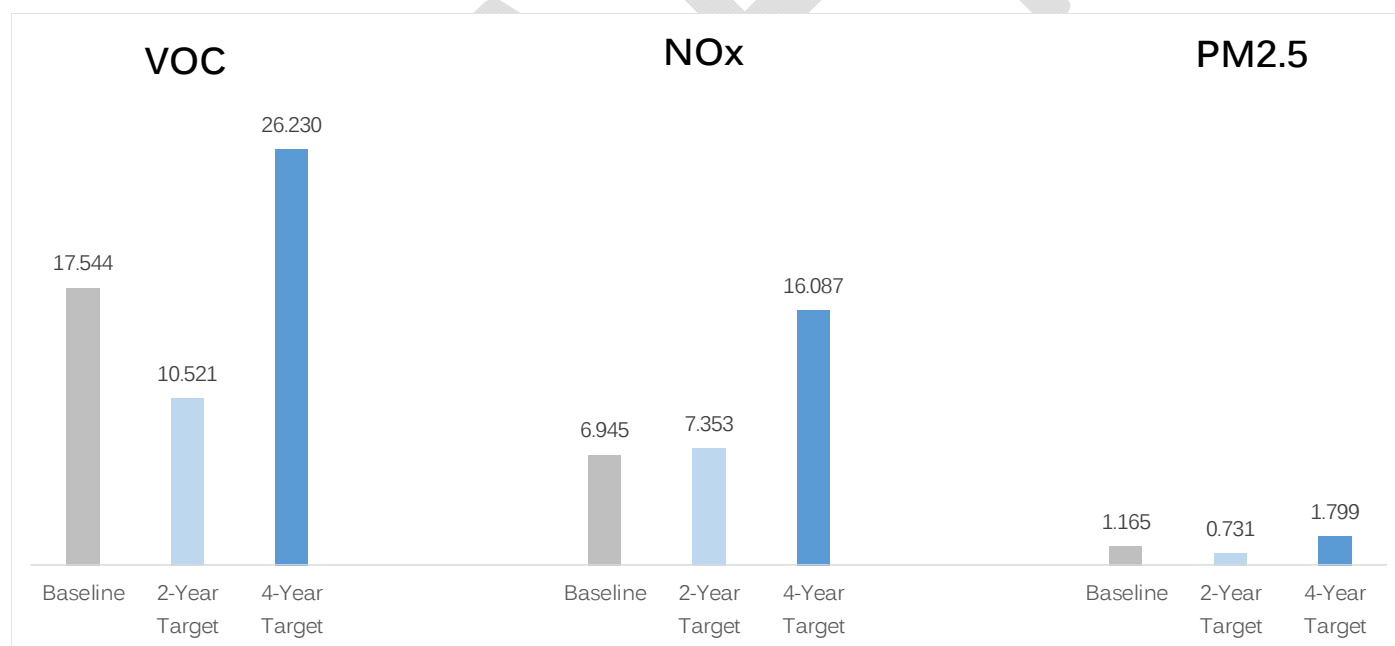
In New Castle County, we adopt the emissions targets set by DelDOT for the State of Delaware. These are presented on the following page.

DelDOT's methodology for developing these targets for VOC and NOx emissions is described in their "Performance Management 3" submission to FHWA in May 2018. First, a listing of potential CMAQ projects through 2021 was compiled. (A listing of these can be found in the next section.) Next, projects which could, quantitatively, have their emissions reductions estimated were identified. These projects were run through a DelDOT Planning emission reduction spreadsheet tool. Estimates for emissions reductions were developed for each year, by project, between the years 2017 and 2021. The sum of emissions reductions for all projects for the years 2018 and 2019 became the 2-year target. The sum of emission reductions for all projects between the years 2018 and 2021 became the 4-year target. DelDOT also provided WILMAPCO with estimates for PM2.5 emission reductions that we include here.

WILMAPCO sets the baseline figures for VOC, NOx, and PM2.5 reductions based on the potential reductions for all Delaware statewide projects in year 2017 provided by DelDOT. Emission reduction estimates for historic CMAQ projects between the years 2014 and 2016 were not available at the time of writing.

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

	Baseline	2-Year Target	4-Year Target
<b>VOC</b>	17.544	10.521	26.230
<b>NOx</b>	6.945	7.353	16.087
<b>PM2.5</b>	1.165	0.731	1.799

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

## CMAQ Projects

The table on the following page lists 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 Cecil County are unfunded projects that are priorities for local government. These are listed below.

### POTENTIAL CMAQ PROJECTS IN CECIL COUNTY, MD

PROJECT	SOURCE
MD 7: East Cecil Ave. to Mechanics Valley Rd. -- Sidewalks	2017 North East Priority Letter
MD 7: North East Isles Dr. to Catherine St. -- Full Bike/Ped Enhancements	2017 North East Priority Letter
MD 7: North East Isles Dr. to Catherine St. -- Interim Bike/Ped Enhancements	2017 North East Priority Letter
US 40 Sycamore Dr. to MD 272 -- Sidewalk	2017 North East Priority Letter
US 40 at MD 272 -- Bike/Ped Improvements	2018 Cecil Co Priority Letter
MD 222: US 40 to MD 275 -- Bike/Ped Improvements	2018 Cecil Co. Priority Letter
MD 272: US 40 to I-95 -- Bike Lanes and Sidewalks	2018 Cecil Co. Priority Letter
US 40 at MD 213 -- Bike/Ped Improvements	2018 Cecil Co. Priority Letter
US 40 at MD 222 -- Bike/Ped Improvements	2018 Cecil Co. Priority Letter
MD 222: Clayton St. to St. Mark's Church Rd. -- Sidewalk	2018 Perryville Priority Letter

The projects in New Castle County, meanwhile, were identified by WILMAPCO as CMAQ-eligible 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 each year. 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.

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 2020.

## POTENTIAL CMAQ PROJECT DESCRIPTIONS

<i>Cecil County, MD</i>						
PROJECT	DESCRIPTION	YEAR(S) OF CMAQ FUNDING	VOC REDUCTION (kg/day, year 2020)	NOx REDUCTION (kg/day, year 2020)	PHED BENEFIT	NON-SOV BENEFIT
Bicycle and Pedestrian Improvements (grouped)	Construction of new sidewalks, trails and pathways	2019-2022	0.038	0.085	Yes - fewer vehicle trips	Yes - improved pedestrian and bicycle network

<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
Transportation Management Improvements (grouped)	Signal timing and traffic and weather monitoring enhancements; mobile app and radio development; dynamic messaging signs.	2018 – 2021	<i>qualitative</i>			Yes - better traffic flow	No
Bicycle and Pedestrian Improvements (grouped; sum of all planned projects)	Construction of new sidewalks, trails, and pathways	2018 – 2021	21.180	5.635	0.791	Yes - fewer vehicle trips	Yes - improved pedestrian and bicycle network
Elkton Road, MD Line to Casho Mill Road	Multimodal improvement of an arterial roadway. Bicycle and pedestrian elements are CMAQ-eligible.	2019 – 2021	2.044	0.544	0.133	Yes - potentially fewer vehicle trips	Yes - improved pedestrian and bicycle network
Rideshare Program/Trip Mitigation (sum of four years)	Support for carpooling program.	2018 – 2021	2.600	9.800	0.260	Yes - fewer vehicle trips	Yes - fewer vehicle trips

9/6/2018

**WILMAPCO's 2050 Regional Transportation Plan and FY 2020 Transportation Improvement Program**  
 Air Quality Timeline

# DRAFT

	Aug '18	Sep '18	Oct '18	Nov '18	Dec '18	Jan '19	Feb '19	Mar '19
Finalize regionally significant project list	16							
Run conformity analysis	August 16 - October 10							
Conformity results due for review			11					
Conformity results approved by AQS, draft document reviewed				13				
Conformity document approved by the AQS and released for comment					20			
Official RTP public comment period						January 14 - March 6		
Our Town public meeting							7	
AQS recommends adoption							14	
TAC recommends adoption							21	
Council adoption								14
Submission to federal agencies								