

# Items for public review:

## **DRAFT amendments to the FY 2019-2022 Transportation Improvement Program (TIP)**





- ❑ TIP funds the region's transportation projects
- ❑ Under consideration for Council amendment in September 2018
- ❑ \$2.4 billion in road, transit, rail, multimodal, bicycle & pedestrian projects
- ❑ 10% more funding than the TIP adopted in March 2018
- ❑ Four new projects:
  - University of Delaware Autonomous Shuttles
  - Subdivision Paving Pilot Project
  - BR 1-417 on Caldwell Corner Rd over Tributary to Sassafras River
  - BR 1-655 on SR7 Limestone Road over CSX Railroad

### Who is WILMAPCO?

WILMAPCO (Wilmington Area Planning Council) is the metropolitan planning organization (MPO) for Cecil County, Maryland and New Castle County, Delaware. As the MPO, we are required by the federal government to bring local government, state transportation agencies and the public into the transportation decision-making process. A range of stakeholders come together through WILMAPCO to develop a long-range Regional Transportation Plan (RTP) and the Transportation Improvement Program (TIP), as well as the Congestion Management System (CMS) and Regional, Corridor and Community Studies.

# TIP Development Process

## Timeline for the FY 2019-2022 TIP

<u>2017</u>	
<b>April</b>	<ul style="list-style-type: none"> <li>▪ Technical Advisory Committee (TAC) prioritizes project submissions</li> <li>▪ Air Quality Subcommittee (AQ) reviews submissions</li> </ul>
<b>May</b>	<ul style="list-style-type: none"> <li>▪ Council approves prioritized project list for submission to DOTs</li> </ul>
<b>December</b>	<ul style="list-style-type: none"> <li>▪ AQ/TAC review of draft TIP and Air Quality Conformity</li> </ul>
<u>2018</u>	
<b>January</b>	<ul style="list-style-type: none"> <li>▪  TIP released for public comment January 22-February 28</li> </ul>
<b>February</b>	<ul style="list-style-type: none"> <li>▪  Public Workshop – February 26, 4 -7 p.m</li> <li>• TAC (Feb. 15)/Public Advisory Committee (PAC) (Feb. 12) recommendation for adoption</li> </ul>
<b>March</b>	<ul style="list-style-type: none"> <li>▪ Revise TIP based on public comments</li> <li>▪ Council adoption of TIP (March 8)</li> </ul>
<b>June</b>	<ul style="list-style-type: none"> <li>▪ Delaware FY 2019 Bond Bill approved, provides state funding match for projects</li> </ul>
<b>July</b>	<ul style="list-style-type: none"> <li>▪  TIP amendments released for public comment July 23-September 4</li> </ul>
<b>August</b>	<ul style="list-style-type: none"> <li>▪ AQ (8/9), TAC (8/16), PAC (8/13) recommendation for adoption</li> </ul>
<b>September</b>	<ul style="list-style-type: none"> <li>▪  Public Workshop – TBD</li> <li>▪ Revise TIP based on public comments</li> <li>▪ Council adoption of amendments (September 13)</li> </ul>

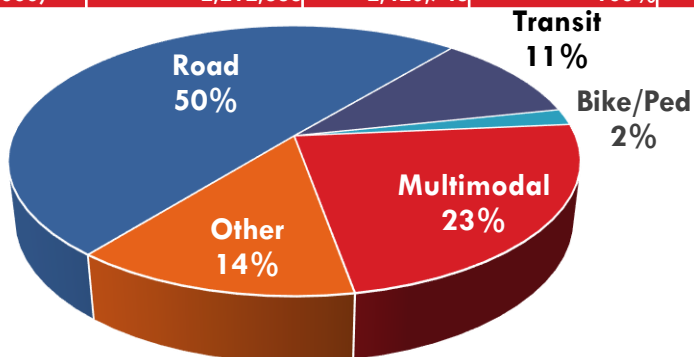
*Note: WILMAPCO also modifies and amends individual projects in the TIP periodically throughout the year.*

 = Best opportunities for public input

# Transportation Improvement Program Summary

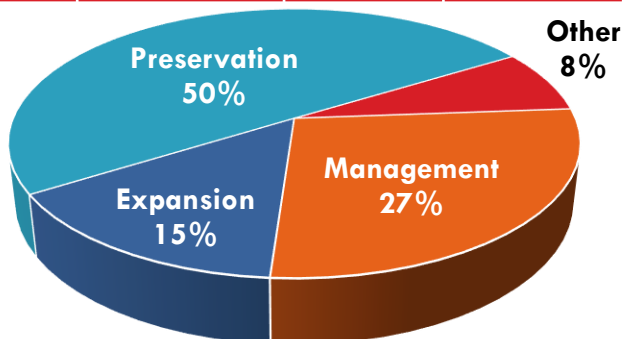
The TIP is the regionally agreed upon 4-year list of priority transportation projects, as required by federal law (FAST). The TIP must list all projects that intend to use federal funds, along with all non-federally funded projects that are regionally significant. We also include other State funded capital projects. The projects include bicycle, pedestrian, ITS, and freight related projects, as well as the more traditional highway and public transit projects.

FUNDING BY MODE	Approved 4/2018 FY 2019-22	Draft 7/2018 FY 2019-22	Draft % Mode	Percent Change
Bike/Pedestrian	40,803	46,520	2%	14%
Multimodal	532,267	570,970	23%	7%
Other	316,211	329,428	14%	4%
Road	1,096,663	1,216,805	50%	11%
Transit	226,388	257,024	11%	14%
<b>Total (\$s x 1000)</b>	<b>2,212,333</b>	<b>2,420,748</b>	<b>100%</b>	<b>9%</b>



- **Bike/pedestrian** – Walking and cycling transportation
- **Multimodal**—Serves cars, transit, freight, pedestrians and bicycles in a balanced way
- **Other**— Includes airport, port, contingency funds, environmental, equipment, planning, etc.
- **Road**-Exclusively for roads and highways
- **Transit**-Bus transit, passenger rail, or paratransit

FUNDING BY CATEGORY	Approved 4/2018 FY 2019-22	Draft 7/2018 FY 2019-22	Draft % Category	Percent Change
Preservation	1,120,288	1,213,592	50%	8%
Other	178,201	183,518	8%	3%
Management	599,922	660,744	27%	10%
Expansion	313,922	362,894	15%	16%
<b>Total (\$s x 1000)</b>	<b>2,212,333</b>	<b>2,420,748</b>	<b>100%</b>	<b>9%</b>



- **Preservation** – Maintain an existing facility or service
- **Management** – Enhance existing facility or service to sustain an acceptable level of service
- **Expansion** – New or expanded services and infrastructure
- **Other**--Engineering & contingency, education & training, environmental program and planning

## Funding by Source

- Delaware/Maryland funds from fuel taxes, tolls, motor vehicle and other fees, & bonds.
- Federal funds are provided from the US Highway Trust Fund which is funded through the federal gas tax.
- Other funding comes from local funds, developer contributions, toll bonds, and grants.

**\$1.2 billion Delaware/Maryland 50%**

**\$1.1 billion federal 47%**

**\$81 million other 4%**

## Funding by Location

The TIP document is grouped by Cecil County, New Castle County, and Delaware Statewide. Delaware Statewide projects are those that without specific funding for New Castle County.

**Cecil County 4%**

**New Castle County 40%**

**Delaware Statewide 56%**

# How is the TIP created?

The TIP is prepared by WILMAPCO in cooperation with the public and local transportation and land use agencies. Broad input is crucial since the TIP identifies regional priorities for how our federal, state and local transportation funding is spent.

## Public and agency ideas



Projects come from many sources. Many are drawn from transportation plans developed by WILMAPCO and our state, county and local partners.

WILMAPCO assesses project ideas to determine if they are affordable based on expected funding and if they help to improve our air quality.

## Regional Transportation Plan (RTP)

Every 4 years, WILMAPCO updates the plan for achieving our region's transportation goals during the next 20+ years

The RTP has three **Regional Goals**: 1. Improve Quality of Life; 2. Efficiently Transport People; & 3. Support Economic Growth, Activity and Goods Movement. Each goal has next step actions recommended to help achieve it. The RTP also lists specific projects aimed at meeting future needs. Projects are either "financially reasonable" reflecting what we can afford, or "aspirations" referring to good ideas without sufficient funding.

**Projects** that preserve existing infrastructure and address safety needs have the greatest priority.

**Policies & Actions**: Local and regional planning & analysis supports achieving the RTP goals. Analysis is used to rank projects.

**Prioritize project list**: Because identified project needs exceed available funding, projects are scored and prioritized by WILMAPCO Council

### Prioritization criteria scoring

- Air quality: Reduce emissions and increase access to alternatives to driving alone
- Environmental & transportation justice: Enhance environment in areas with high percentage of low-income, minority, zero-car households, elderly, or disabled populations
- Safety: Address high crash locations
- Congestion: Address congested corridors and intersections
- Pedestrian Priority: Address where people are most likely to walk
- Freight: Support major freight routes and eliminate bottlenecks
- Economic development: Support locations identified for development
- Funding contribution: Local/private commitment through funding support

**Draft TIP**: WILMAPCO seeks feedback on draft projects

### Public & Agency Comments

The TIP is changed as needed based on feedback from the public and WILMAPCO agencies.

**Final TIP**

**Amend as needed**: Throughout the year, the TIP is adjusted to reflect changes in costs and scope.

# What is the TIP?

## **The TIP is the agreed upon list of specific priority projects.**

The TIP lists all projects for which federal funds are anticipated, along with non-federally funded projects that are regionally significant. The TIP represents the transportation priorities of the region and is required by federal law. The list is multimodal; in addition to the roadway and transit projects, it includes bicycle, pedestrian, and freight projects.

## **The TIP shows estimated costs and schedule by project phase.**

The TIP lists specific projects, and also documents the anticipated schedule and cost for each project phase (project development/planning, preliminary engineering, right-of-way acquisition, and construction). Inclusion of a project phase in the TIP means that it is seriously expected to be implemented during the TIP time period.

## **The TIP implements the Regional Transportation Plan.**

Regionally significant projects must be drawn from the region's long range plan and all projects in the TIP must help implement the goals of the plan. The long range plan, required by federal law, is the document which helps direct transportation and land use decisions over the next 20-years. The TIP represents the translation of recommendations from WILMAPCO's long-range transportation plan, the 2040 RTP, into a short-term program of improvements.

## **The TIP covers 4 years and is updated annually.**

The TIP may be changed after it is adopted. Under the provisions of federal law and regulation, the approved TIP can be amended to add or delete projects, advance or delay projects, and accommodate cost and phase of work changes or major scope changes to a project. A public comment period will occur before any major amendments are approved.

## **The TIP is financially constrained.**

The list of projects in the TIP must be financially constrained to the amount of funds that are expected to be available. To add projects to the TIP, others must be deferred to maintain this financial constraint. As a result, the TIP is not a "wish list"; competition between projects for a spot on the TIP clearly exists.

## **The TIP is air quality conforming.**

The Clean Air Act Amendments of 1990 require that all transportation plans, programs and projects conform to state plans to attain air quality standards. A TIP is said to conform if it is drawn from a plan which meets the standards as determined by an emissions analysis. That is, if the regionally significant projects contained in a TIP are a subset of the regionally significant projects in the conforming transportation plan, the TIP conforms without the need for a separate emissions analysis.

## **The TIP is NOT a final schedule of project implementation.**

The time frame shown in the TIP is the "best estimate" at the time of TIP development, which is six to nine months prior to the beginning of the first fiscal year of the TIP period. Projects quite often cannot maintain that schedule and get reprogrammed to later years.

## **The TIP is NOT a guarantee of project implementation.**

Unforeseen problems may arise, such as engineering obstacles, environmental permit conflicts, changes in priorities, and additional financial constraints. These problems can slow a project, cause it to be postponed, or even dropped from further consideration.

# Prioritization Process

- Created to provide a quantitative method to compare projects proposed for our Transportation Improvement Program (TIP) and Regional Transportation Plan (RTP) using measurable criteria
- Criteria based on the goals of our long-range RTP
- Process was adopted by WILMAPCO Council on May 11, 2006
- Ranked projects get submitted to DeIDOT/MDOT for use in their statewide process

## STEP 1: Apply screening criteria

- Is project consistent with the Regional Transportation Plan and local, county and state transportation plans and land use plans?
- If not, project should not be ranked or plan amendments should be made prior to ranking

## STEP 2: Staff calculates technical score

- Staff calculates a score for each project based on the goals and objectives of the RTP
- Criteria are designed to be objective measures using data available to WILMAPCO

## STEP 3: TAC review

- Technical Advisory Committee (TAC) reviews technical scoring for accuracy and prepares comments for Council consideration

## STEP 4: WILMAPCO Council ranks submissions

Council considers:

- Technical score
- TAC comments
- Cost effectiveness
- Urgency of project
- Other considerations

## Goals and Scoring Criteria

Improve Quality of Life	Efficiently Transport People	Support Sustainable Economic Development and Goods Movement
<p><b>Air Quality:</b> Expected impact to air pollution based on project types.</p> <p><b>Environmental Justice:</b> Project enhances environment in location with high percentage low-income or minority residents</p> <p><b>Safety:</b> Project addresses high crash location</p>	<p><b>Congestion:</b> Project addresses congested area, with additional points awarded based on:</p> <ul style="list-style-type: none"> <li>• Average Annual Daily Traffic</li> <li>• Transit Use</li> </ul> <p><b>Transportation Justice:</b> Project improves mobility and eases access to transit and other transportation choices for zero-car households, elderly and persons with disabilities.</p> <p><b>Pedestrian Priority:</b> Project supports areas with greater use of walking.</p>	<p><b>Freight:</b> Project supports major freight routes.</p> <p><b>Economic Development:</b> Project supports economic development including access to brownfields, major employment centers, and existing communities based on Delaware State Strategies and Maryland Priority Funding Areas.</p> <p><b>Funding Contribution:</b> Local and/or private commitment demonstrated through funding contribution.</p>

# Congestion Management System (CMS)

Federal guidelines prohibit projects that increase capacity for single occupant vehicles unless the project comes the WILMAPCO analysis of congestion in the region—the CMS. Our CMS serves to:

- Measure multi-modal transportation system performance
- Identify the causes of congestion
- Assess alternative actions
- Implement cost-effective actions
- Evaluate the effectiveness of implemented actions

## Top-down Congestion Strategy Toolbox

Eliminate car trips or reduce Vehicle Miles Traveled (VMT) during peak congestion hours

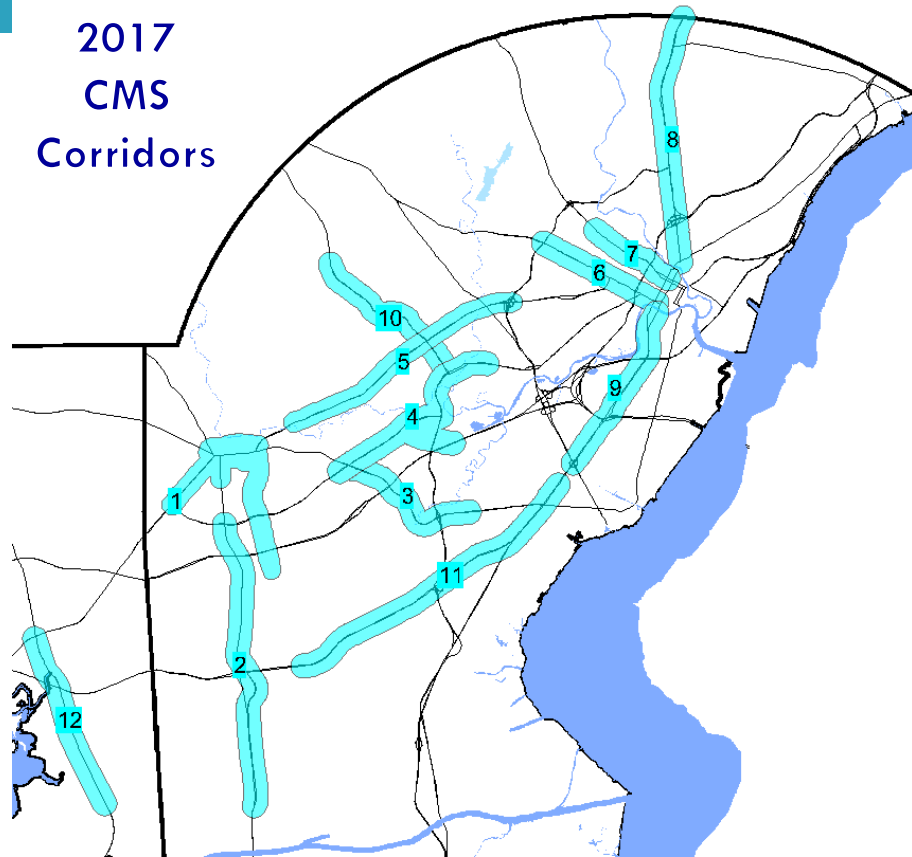
Shift trips from automobile to other modes of transportation

Shift trips from single-occupancy vehicles to higher-occupancy vehicles (vans, buses, etc.)

Improve roadway operations (timing of lights, tolls, highway message boards)

Add road capacity (new lanes or roads)

## 2017 CMS Corridors



Corridor	Projects
#1	Elkton Road: MD Line-Casho Mill Rd
#1, 2	SR 4, Christina Parkway: SR 2 – SR 896
#1, 4, 6	Third Rail Track Expansion, Newark to Wilmington
# 2	US 40 and 896 interchange
#2	I-95 and SR 896 Interchange
#3	SR 273 / Chapman Road Intersection
#3	SR 273: Appleby Rd - Airport Rd
#3	Road A/SR7
#4	Fairplay Station Improvements
#4	SR 4/Harmony Rd,
#4	SR 4/SR 7

Corridor	Projects
#5	SR 2 / Red Mill Road
#6	Wilmington Transit Center
#6	Wilmington Riverfront Program
#6	4th St: Walnut St - I-95
#6, 7	King & Orange Sts: MLK - 13th
#6, 7	Walnut St: MLK to 13th St.
#6, 7, 8	Wilmington Signal Improvements, Phase III
#9	I-295 Improvements
#9	US 13: US 40 - Memorial Dr
#11	US 40 and SR 7 Intersection Improvements
#11	US 40 Widening: Salem Church Rd to Walther Rd

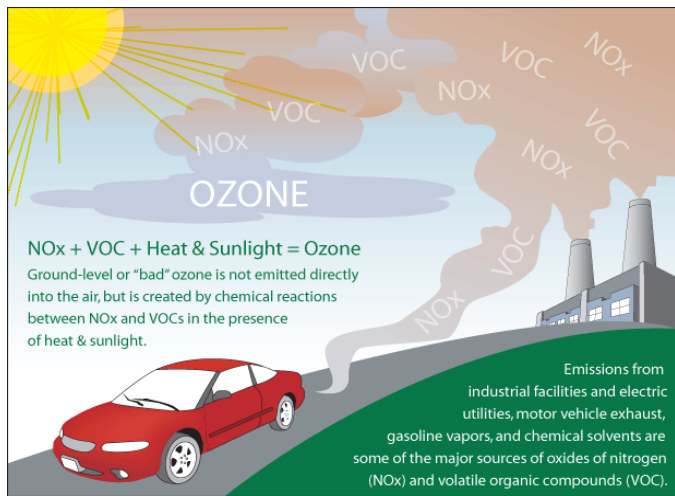
# Air Quality Conformity

In order to receive federal funding for transportation projects, we must show that our planned projects do not worsen air emissions. A recent analysis was completed in step with the FY 2017 -20 TIP and amended 2040 RTP for New Castle County and Cecil County.

In the conformity analysis, we test planned transportation projects, forecasted demographics, and known technological upgrades in the vehicle fleet against Delaware and Maryland's established on road transportation-related emission budgets. The good news is that we passed all required tests. Indeed, ozone and particulate emissions have been falling steadily for the last several decades, and are projected to continue to do so through 2035.

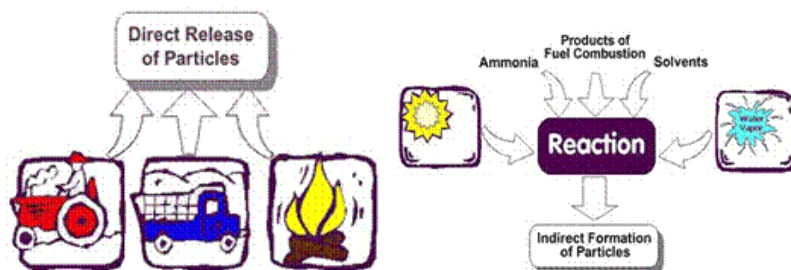
Like many other metropolitan regions in the USA, however, we predict an increase in these emissions as we near 2040. This is attributable to the implementation of known emission reduction technologies and our ever-increasing Vehicle Miles Traveled (VMT). Checking VMT growth through better land-use decisions and promoting alternative transportation would lower emissions now and in the long-term. This would also stifle our rising greenhouse gas emissions which contribute to global warming, and reduce our overdependence on oil.

## Ozone formation & impacts



Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground level ozone also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. Plants and wildlife are also at risk because high ozone levels can stunt plant growth and damage leaves.

## Fine particulate formation & impacts



Irritating the membranes of the respiratory system, particulate matter can result in increased respiratory problems and disease, decreased lung function, alterations of the body's defense systems, and early death.

Particulates can also cause reduced driver visibility (haze), cause harm to the natural environment by settling into water, and stain monuments and buildings.

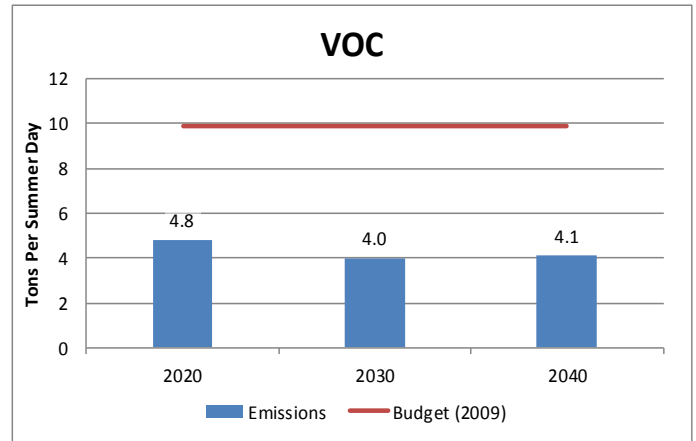




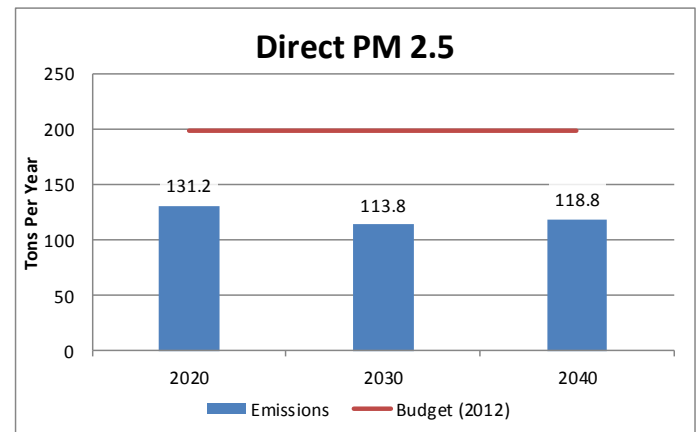
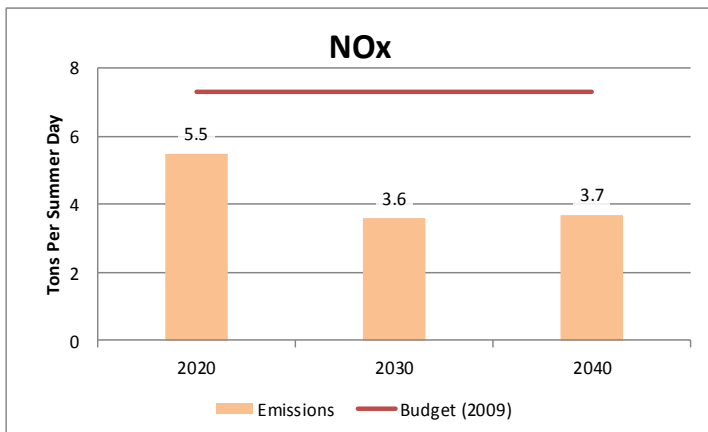
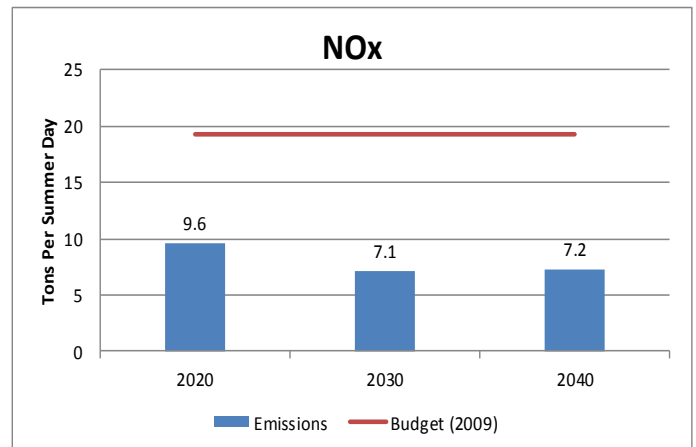
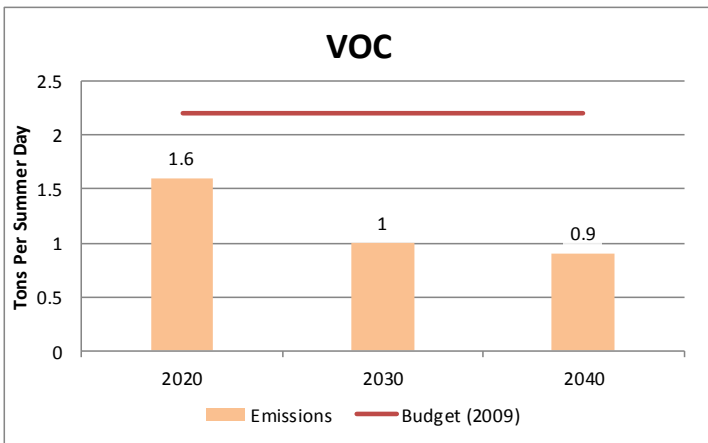
# Conformity Analyses

New Castle and Cecil Counties are in nonattainment for ozone; New Castle County is in maintenance for fine particulate matter (PM<sub>2.5</sub>). These graphs show that the planned transportation system meets all applicable emissions budgets.

## New Castle County



## Cecil County



# Air Quality

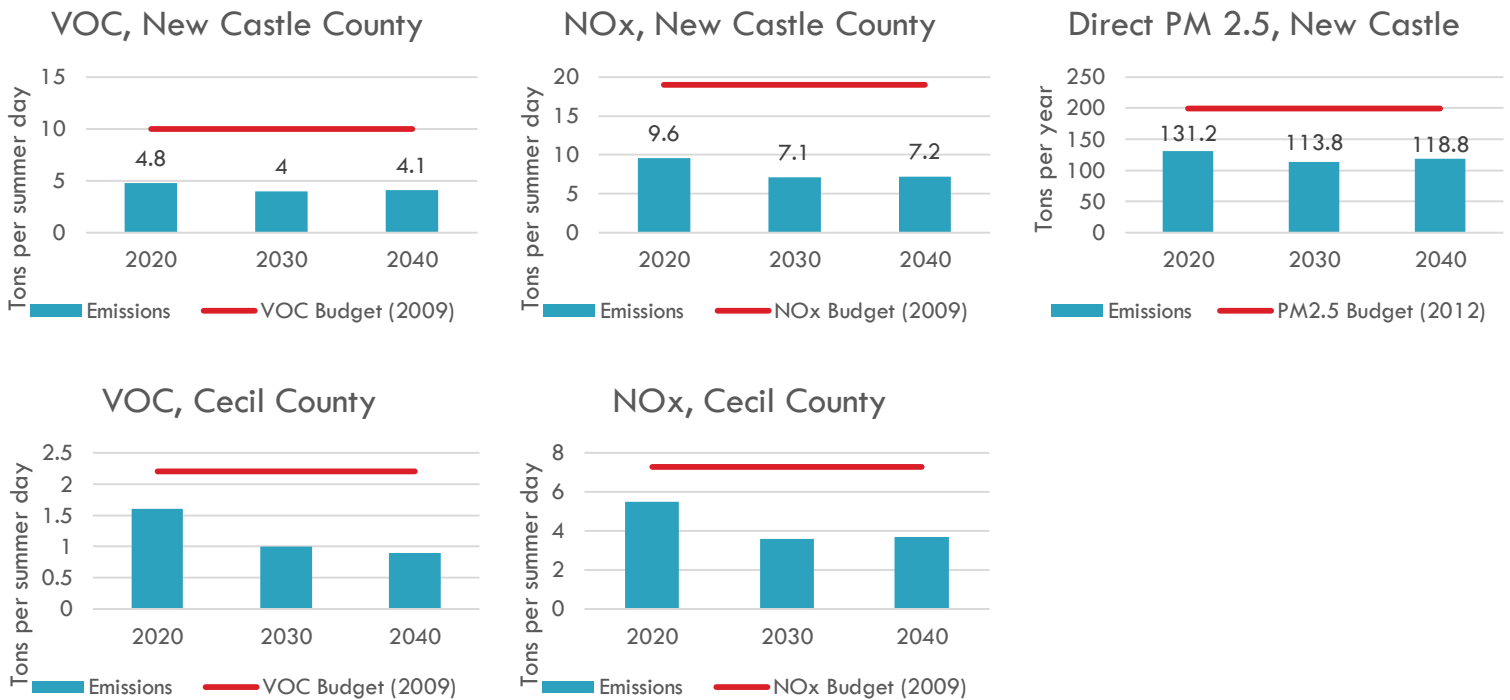
While ozone and fine particulate emissions have and continue to drop dramatically, WILMAPCO's region still does not meet the federal air quality standards. Both New Castle and Cecil Counties are designated in moderate non-attainment for ozone. New Castle County is considered in maintenance for fine particulate matter (PM2.5). These pollutants come in large part from transportation sources and health effects of mobile source air pollution affect thousands of people in our region, especially those who live near busy roads.

## Air Quality Conformity

To receive federal funding for transportation projects, we must show that our planned projects do not worsen air emissions. A recent analysis was completed in step with the FY 2017 -20 TIP and amended 2040 RTP for New Castle County and Cecil County. We test planned transportation projects, forecasted demographics, and known technological upgrades in the vehicle fleet against Delaware and Maryland's established on road transportation-related emission budgets. The good news is that we ozone and particulate emissions have been falling steadily for the last several decades, and are projected to continue to do so through 2035.

Like many other metropolitan regions in the USA, however, we predict an increase in these emissions as we near 2040. This is attributable to the implementation of known emission reduction technologies and our ever-increasing Vehicle Miles Traveled (VMT). Checking VMT growth through better land-use decisions and promoting alternative transportation would lower emissions now and in the long-term. This would also stifle our rising greenhouse gas emissions which contribute to global warming, and reduce our overdependence on oil.

These graphs show that the planned transportation system meets all applicable emissions budgets.



# Environmental Justice

**Environmental Justice (EJ)** entails the fair treatment of people from all races, cultures, and incomes regarding the development of environmental laws, regulations, and policies. An outgrowth of Title VI of the Civil Rights Act of 1964, EJ can primarily be thought of as measures ensuring the non-discriminatory distribution of federal funds.

## □ 2013 EJ Report

- Refines EJ area identification process
- Systems analysis: food deserts, bus access, project spending
- EJ public opinion survey

## □ 2015 Transportation Justice (TJ) Report

- Extension of EJ
- Delineates clusters of seniors, disabled and zero-car homes
- Connectivity analyses: destinations, adult housing
- TJ public opinion survey



## Current EJ Initiatives

- South Wilmington Planning Network
- Urban Bike Project Support
- Delaware Hispanic Commission

