

# Items for public review:

## **DRAFT Amendments to FY 2014-2017 Transportation Improvement Program**

- Under consideration for Council adoption in September 2013
- Contains more than \$2 billion in road, transit, rail, multimodal & bicycle/pedestrian projects
- Contains 19 percent more funding than the FY 2014-17 TIP approved in March 2013
  - ▣ 2 added roadway projects:
    - Cavaliers Mitigation—Build berms and vegetative walls around the Cavaliers Community parallel to I-95.
    - SR 4, Christina Parkway: SR2-SR896— Reconstruct existing concrete roadway to provide two eastbound lanes on Christina Parkway from SR896, South College Avenue to SR 2, Elkton Road. Current westbound configuration of one lane from the Chrysler plant to Elkton Rd will remain.
  - ▣ 9 added bridge preservation projects

# TIP Development Process

## Timeline for the FY 2014-2017 TIP

<u>2012</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 Air Quality Conformity Determination</li> </ul>
<u>2013</u>	
<b>January</b>	 TIP released for public comment January 25-March 7. Air Quality Conformity public comment period in January 14 – March 7.
<b>February</b>	<ul style="list-style-type: none"> <li>➤ AQ (Feb. 14)/TAC (Feb. 21)/Public Advisory Committee (PAC) (Feb. 25) recommendation for adoption</li> <li> TIP Public Workshop – February 25. 4 -7 p.m.</li> </ul>
<b>March</b>	<ul style="list-style-type: none"> <li>➤ Revise TIP based on public comments</li> <li>➤ Council adoption of FY 2014-17 TIP (March 14)</li> </ul>
<b>June</b>	<ul style="list-style-type: none"> <li>➤ Delaware FY 2014 Bond Bill approved, provides state funding match for projects</li> </ul>
<b>July</b>	 TIP amendments released for public comment
<b>August</b>	<ul style="list-style-type: none"> <li>➤ AQ (Aug. 8)/TAC (Aug. 15)/Public Advisory Committee (PAC) (Aug. 26) recommendation for adoption</li> <li> TIP Public Workshop – Aug. 26 4 -7 p.m.</li> </ul>
<b>September</b>	<ul style="list-style-type: none"> <li>➤ Revise TIP based on public comments</li> <li>➤ Council adoption of FY 2014-17 TIP (Sept. 12)</li> </ul>

 = Best opportunities for public input

# The Planning Process

## 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), the Congestion Management System (CMS), Corridor and Area Studies and the Transportation Improvement Program (TIP).

## What is the WILMAPCO Planning Process?

Our planning process is designed to foster involvement by all interested parties, such as the business community, community groups, environmental organizations, and the general public, through a proactive participation process conducted in coordination with DelDOT and MDOT.

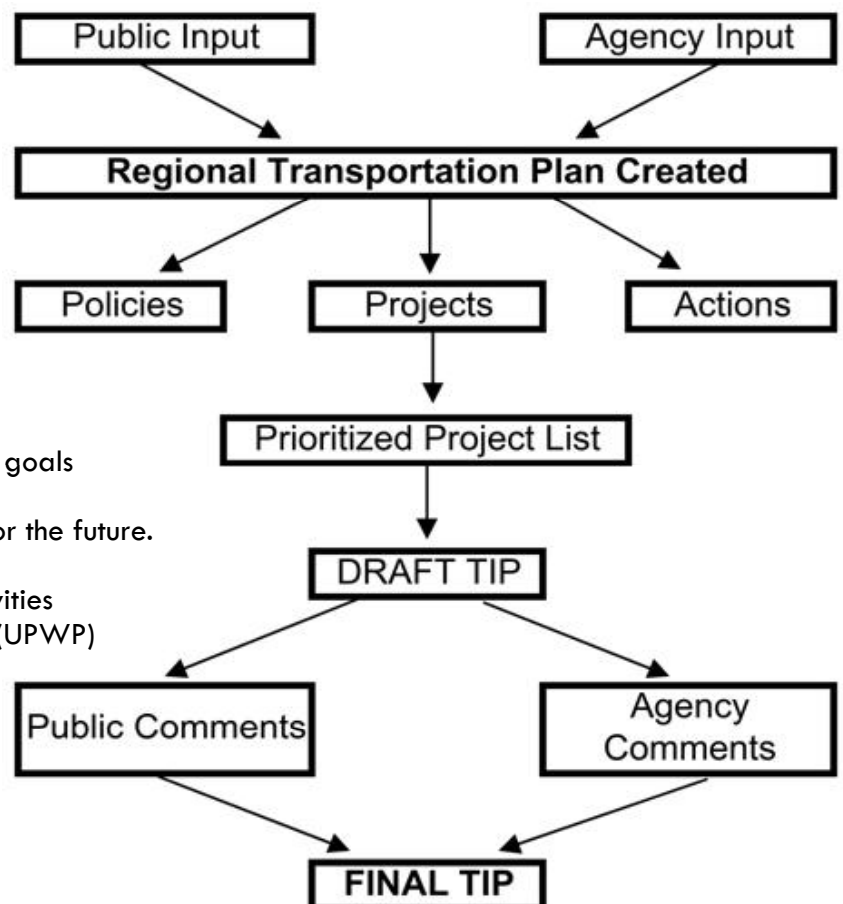
Key steps include:

- ▣ Monitoring existing conditions
- ▣ Forecasting future growth
- ▣ Assessing land uses
- ▣ Identifying needs and solutions, through detailed planning studies
- ▣ Developing capital and operating strategies for people and goods
- ▣ Estimating the impact of transportation on air quality

The RTP is an action plan for making our region's goals and visions a reality over the next 20 years. The plan identifies policies, strategies, and projects for the future.

It is from the RTP that we generate planning activities that go into the Unified Planning Work Program (UPWP) and specific projects that go into the TIP.

Additional projects are proposed from studies contained in the UPWP and feedback from member agencies and the public. Potential projects are prioritized based on criteria related to the RPT.



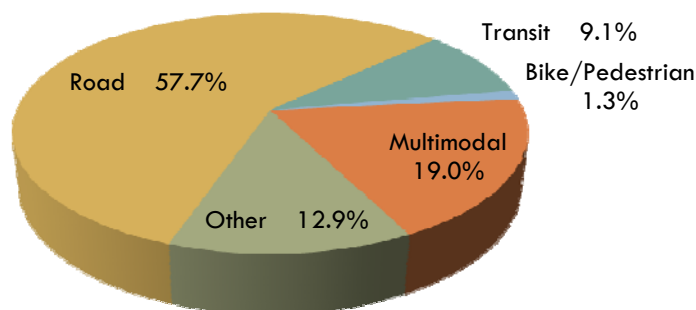
# What is the TIP?

- **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.

# Transportation Improvement Program Summary

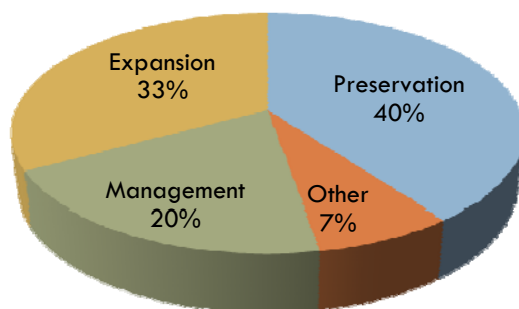
The TIP is the regionally agreed upon 4-year list of priority transportation projects, as required by federal law (MAP-21). The TIP must list all projects that intend to use federal funds, along with all non-federally funded projects that are regionally significant. We also include all other State funded 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 FY 2014-2017	FY 2014-17 Amendments	Draft % Category	Percent Change
Bike/Pedestrian	24,218	25,211	1.3%	4%
Multimodal	336,057	381,822	19.0%	14%
Other	258,079	260,253	12.9%	1%
Road	907,434	1,163,440	57.7%	28%
Transit	161,759	184,148	9.1%	14%
Total (\$s x 1000)	1,687,547	2,014,875		19%



- **Bike/pedestrian** – Project exclusively for walking/bicycling
- **Multimodal**– A complete street project, serves cars, transit, freight, pedestrians and bicycles in a balanced way
- **Other**– Includes aeronautics, port, contingency funds, environmental, equipment, planning, etc.
- **Road**-Project exclusively for road
- **Transit**-Project exclusively for bus transit, passenger rail, or paratransit

FUNDING BY CATEGORY	Approved FY 2014-2017	FY 2014-17 Amendments	Draft % Category	Percent Change
Preservation	700,677.8	803,185.9	39.9%	15%
Other	146,931.9	149,101.5	7.4%	1%
Management	346,822.3	398,611.9	19.8%	15%
Expansion	493,115.0	663,975.7	33.0%	35%
Total (\$s x 1000)	1,687,547	2,014,875		19%



- **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 YEAR \$s x 1000	Approved FY 2014-2017	Draft FY 2014-2017 Amendments	Percent Change
FY 2014	604,186	551,702	-8.69%
FY 2015	471,865	525,663	11.40%
FY 2016	322,161	497,107	54.30%
FY 2017	289,335	440,402	52.21%

Projects with the largest increases include:

- US 301: Maryland Line to SR 1
- Paving & Rehabilitation
- SR 1: Tybouts Corner to SR 273
- BR 748, I-95 Wilmington Viaduct
- Bridge Management/Inspection Program
- Transportation Management (inc. rideshare and signals)

# Prioritization Process

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

**Air Quality:** Project expected to improve air quality by

- Reducing emissions
- Reducing vehicle miles traveled
- Not adding capacity
- Increasing access to non-auto modes

**Environmental Justice:** Project enhances environment in location with high percentage low-income or minority residents

**Safety:** Project addresses high accident location based on the absolute number of crashes and the rate at which crashes occur

### Efficiently Transport People

**Congestion:** Project addresses congested area

- Points are awarded for projects addressing areas with Level of Service E or F/areas identified in the Congestion Management System
- For projects within these congested areas, additional points may be awarded based on:
  - Average Annual Daily Traffic
  - Transit Use

**Transportation Justice:** Project improves mobility and eases access to transit and other transportation choices for zero-car households, elderly and persons with disabilities

### Support Activity & Goods Movement

**Freight:** Project supports major freight routes, based on identified truck route bottlenecks

**Economic Development:** Project supports economic development including adding or improving access to brownfields, major employment centers, and existing communities based on defined Delaware State Strategies and Maryland Priority Funding Areas

**Funding Contribution:** Local and/or private commitment demonstrated through funding contribution



# 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

Using a “Summary-Style” approach, the CMS is a streamlined, data-oriented summary that serves as a resource for use in planning and selection of projects for the TIP. The report contains five sections:

## SECTION 1: Congestion Performance

**Measures**—A review annual performance measure data and the determination of the most congested locations based on a regional analysis

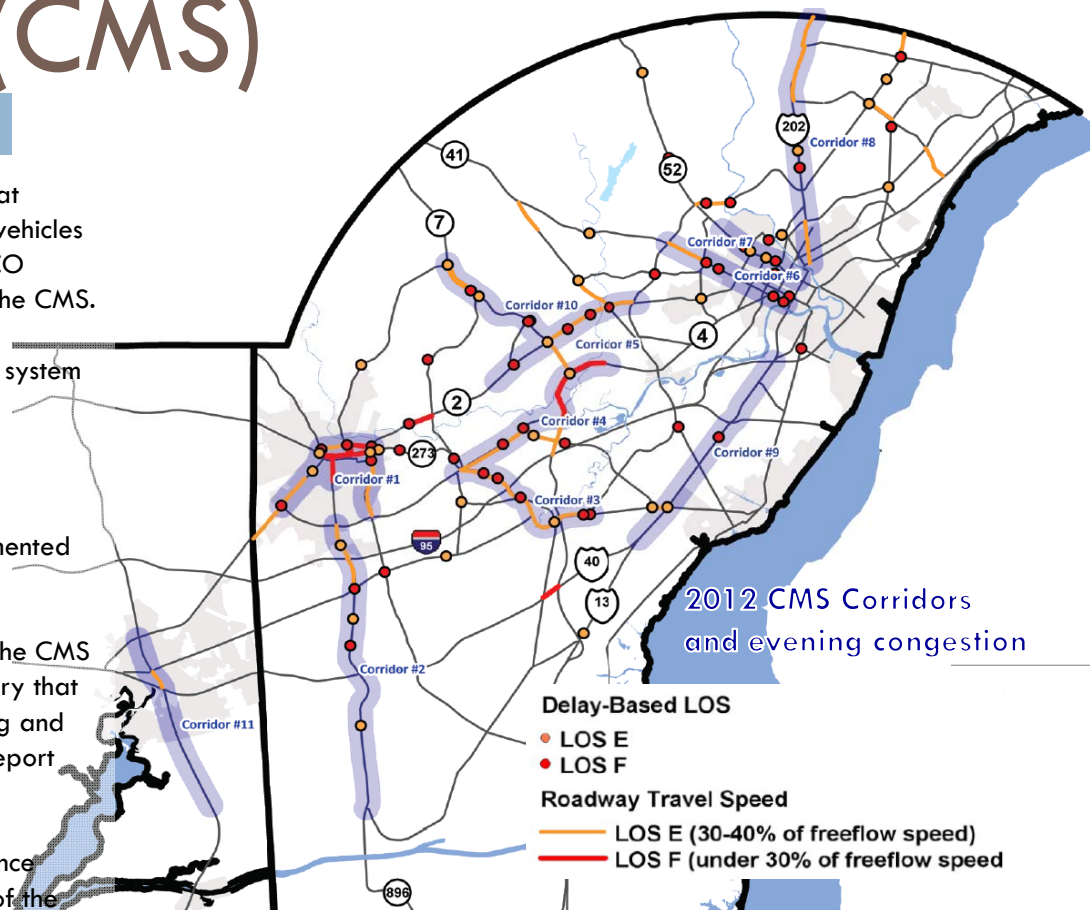
## SECTION 2: Intersection Operational Analysis

Detailed analysis to determine if a deficient intersection is suffering from a signal timing issue or has it truly reached a level of volume in which it requires more physical, on-road improvements

**SECTION 3: Strategy Evaluation**—Identification (by consensus) congested corridors, perform a detailed analysis of each corridor and determine which mitigation strategies are feasible

**SECTION 4: System Monitoring**—Track congestion trends and changes to transportation characteristics over time

**SECTION 5: Data Collection & Inventory**—A display of ongoing data collection activities that relate to congestion.



CMS Corridor	Projects that address CMS corridors
#1	Elkton Road: Casho Mill Rd to Delaware Ave, Reconstruction, Improve intersection
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#1	Pomeroy Trail, Construction of Bicycle & Pedestrian Pathway
#1,4,6	Third Rail Track Expansion, Newark to Wilmington
#2	US 40 and 896 interchange - Grade Separated Intersection
#3	Road A/SR 7, Widening & reconfiguration of intersections
#3	SR 7: Newtown Road to SR 273, Widen from 2 to 4 lanes
#4	Churchman's Crossing, Fairplay Station - Parking Expansion
#5	SR 141:Kirkwood Hwy to Faulkland Rd, Construct 4-Lane Arterial
#6	S Union Street, SR 2: Railroad Bridge to Sycamore St, Sidewalk & Curb Replacement
#6	Wilmington Riverfront - AAA Parking Garage
#6	Market Street Safety Improvements
#6,7,8	Wilmington Signal Improvements, Phase II
#7	Wilmington Transit Hub
#8	I-95 and US 202 Interchange, Widening of Ramp
#9	I-295 Improvements, from I-295 to US 13

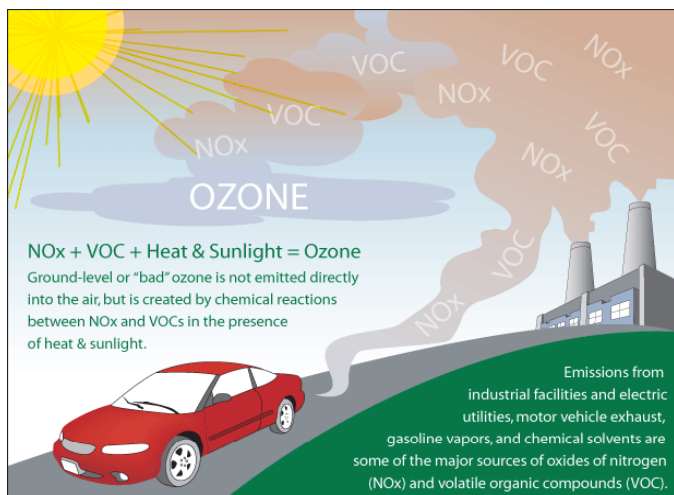
# Air Quality Conformity

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 draft FY 2014 -17 TIP and amended 2040 RTP.

We tested planned transportation projects, forecasted demographics, and known technological upgrades in the vehicle fleet against Maryland and Delaware's established and pending transportation-related emission budgets and baselines. Budgets are in place for ozone—nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOC)—in both our counties. Baselines and pending budgets for fine particulate matter (PM<sub>2.5</sub>) are set for New Castle County. 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.

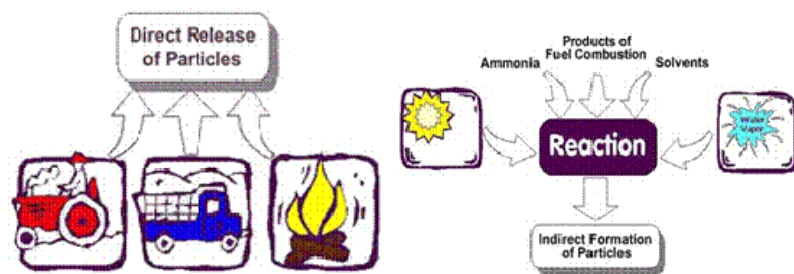
Like many other metropolitan regions in the USA, however, we predict an increase in these emissions as we near 2040. This is attributable to the implementation of known emission reduction technologies and our ever-increasing Vehicle Miles Traveled (VMT). Checking VMT growth through better land-use decisions and promoting alternative transportation would lower emissions now and in the long-term. This would also stifle our rising greenhouse gas emissions (not federally regulated) which contribute to global warming, and reduce our dependence 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.

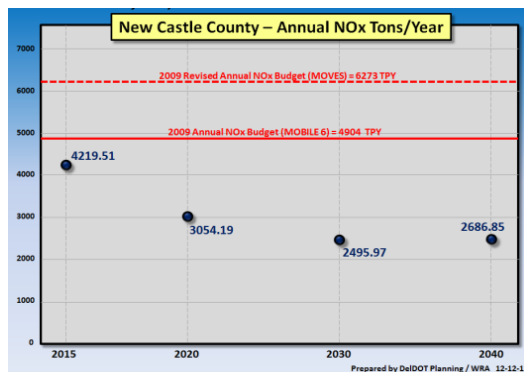
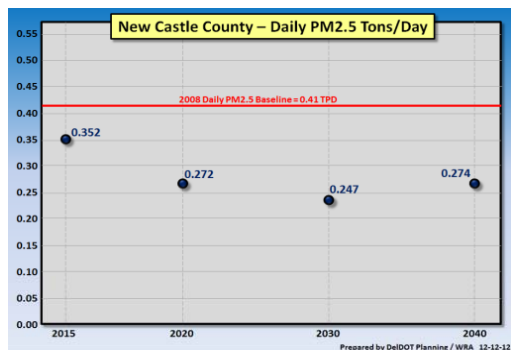
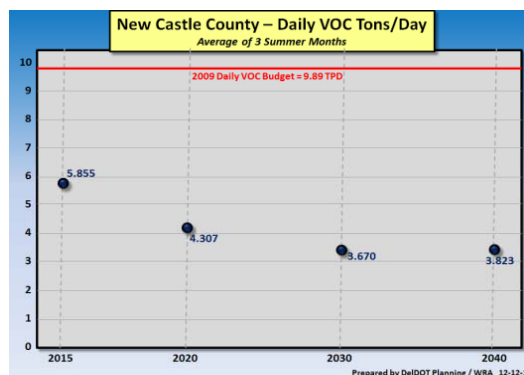
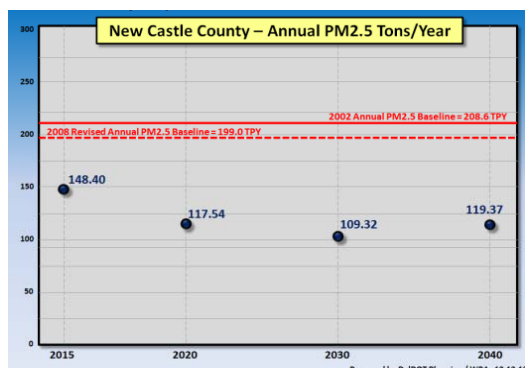




# Conformity Analyses

## New Castle County

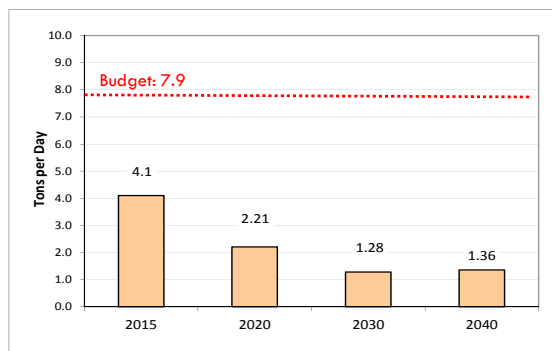
New Castle County is in nonattainment for both of ozone and fine particulate matter (PM<sub>2.5</sub>). The graphs below show that the planned transportation system for the county meets all applicable and pending budgets and baselines through 2040.



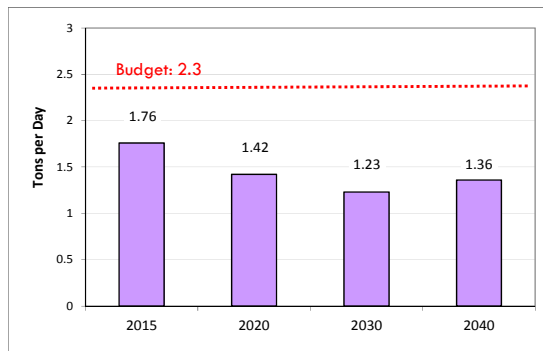
## Cecil County

Cecil County is in nonattainment for ozone. The graphs below show that the planned transportation system for the county meets all applicable budgets through 2040.

### NO<sub>x</sub> Emissions



### VOC Emissions

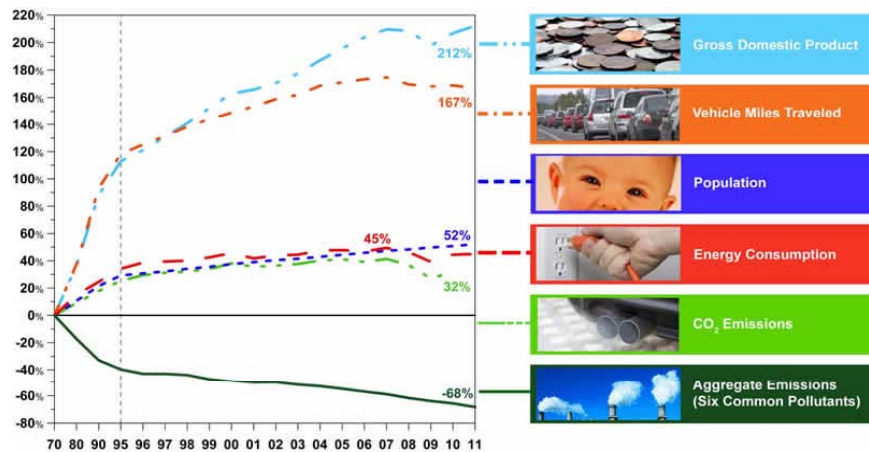


# Air Quality & Vehicle Miles Traveled

There is some good news and bad news when it comes to air quality trends and projections.

The good news is that the USA's emissions from the six common pollutants (including ozone and particulates) have been falling for decades.

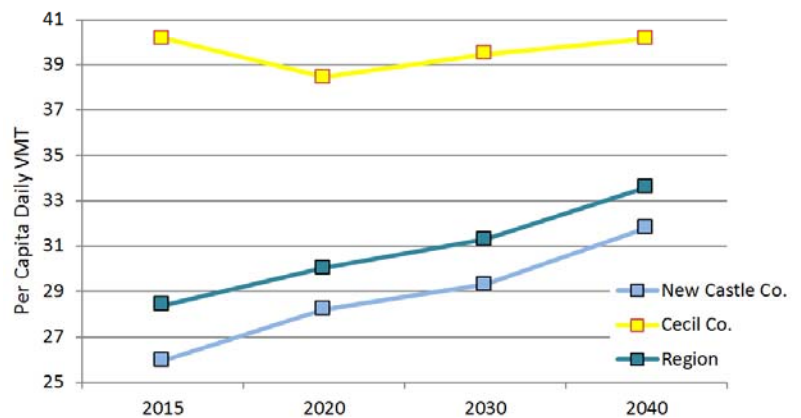
The bad news is twofold. First, carbon emissions have increased—by nearly 1/3 across the board in the USA since 1970—speeding global warming. Second, as our regional air quality analysis showed, ozone and PM<sub>2.5</sub> transportation emissions are expected to increase in the 2030s.



Graphic: EPA

Spurring the increases in these emissions is vehicle miles traveled (VMT) growth. We are becoming more dependent on cars to get around. In fact, a higher percentage of us drive alone to work today than 10 or 20 years ago. And between now and 2040 we expect VMT to rise by 38%, while our population is only expected to grow by 17%.

Residents of the more rural and less populous Cecil County drive more than their counterparts in New Castle County. Between now and 2040, however, per capita VMT in NCC is poised to rise sharply—closing this gap. Continued and planned heavy residential building outside the I-95 corridor, with little nearby commercial expansion, is a key factor.



Shifts in policy and culture would help reduce our VMT and mobile source emissions. Here are some ideas:

- Prioritize and direct growth into existing communities, forming dense, mixed use centers
- Set VMT reduction targets
- Institute more and more frequent bus routes; and construct new rail lines and pathways
- Champion idle reduction, and diesel engine retrofit projects
- Raise public awareness (consumption behavior, housing/work choice, etc.)

# 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.

## □ **2007 Transportation Justice (TJ) Report**

- Delineated concentrations of elderly, disabled, and zero-car households
- System analysis (transit access, walkability, senior survey, etc.)
- Provided funding sources, public outreach measures

## □ **2009 Environmental Justice (EJ) Report**

- Delineating concentrations of low-income, and minority groups
- Enhanced system analysis (goods/employment access, survey, etc.)
- Comprehensive strategies to improve public outreach



## □ **2013 EJ Report**

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

## **Current EJ Initiatives**

- South Wilmington Planning Network
- Palmer & Edison Safe Routes to School
- Nemours Asthma Action Plan

