Air Quality Conformity Analysis
For the 8-Hour Ozone NAAQS
For the Cecil County Portion of the
PA-NJ-MD-DE Nonattainment Area
FY2014–2017 Transportation Improvement Program
And 2040 Regional Transportation Plan

Prepared for:
WILMAPCO

In Conjunction with
Maryland Department of Transportation
And
Maryland Department of the Environment

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# Air Quality Conformity Analysis
For the 2040 Regional Transportation Plan and the Fiscal Year 2014-2017 Transportation Improvement Program for Cecil County, MD Portion of the PA-NJ-MD-DE 8-Hour Ozone Nonattainment Area

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# Introduction

This report demonstrates transportation conformity of the Wilmington Area Planning Council’s (WILMAPCO) Fiscal Year (FY) 2014-2017 Transportation Improvement Program (TIP) and 2040 Regional Transportation Plan (RTP) for the Cecil County, Maryland portion of the PA-NJ-MD-DE 8-hour ozone nonattainment area.

WILMAPCO is the metropolitan planning organization (MPO) for New Castle County, Delaware and Cecil County, Maryland. It is designated by the governors of both states to plan for, coordinate, and program the many transportation investments in the region. Under federal law and regulation, all plans and programs that involve federal funds or are of regional significance must be reviewed and approved through WILMAPCO.

WILMAPCO is responsible for developing a Transportation Improvement Program (TIP) and a regional long-range transportation plan (RTP) in cooperation with the Maryland Department of Transportation (MDOT), the Delaware Department of Transportation (DelDOT) and affected transit operators. In accordance with federal planning requirements, a collaborative process has been developed wherein state, county and local governments and transportation providers are partners in the planning and programming process.

As the Federally-designated MPO for New Castle County, DE and Cecil County, MD, WILMAPCO is required by law to demonstrate that the RTP and TIP conform to the transportation emission budgets set forth in the Statewide Implementation Plan (SIP) for each state. If emissions generated from the projects programmed in the TIP and RTP are equal to or less than the emission budgets in the SIPs, then conformity has been demonstrated.

## 8-hour Ozone Background

Ozone is an odorless, colorless, gas and is created by a reaction between nitrogen oxides (NOx) and volatile organic compounds (VOC) in the presence of sunlight. While ozone in the stratosphere forms a protective layer, shielding the earth from the sun’s harmful rays, ground level ozone is a key contributor to smog. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents, and natural sources all contribute to NOx and VOC emissions. Since ozone is formed in the presence of heat and sunlight, it is considered a summertime pollutant.

The health effects of ozone vary. Ozone can irritate lung airways and cause inflammation similar to sunburn. Other symptoms include wheezing, coughing, and pain when taking a
deep breath and breathing difficulties during exercise or outdoor activities. People with respiratory problems, children and the elderly are most vulnerable, but even healthy people that are active outdoors can be affected when ozone levels are high. Even at very low levels, ground-level ozone triggers a variety of health problems including aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses such as pneumonia and bronchitis.

In addition to adverse health effects, ground-level ozone also interferes with the ability of plants to produce and store food, which makes them more susceptible to disease, insects, other pollutants, and harsh weather. Furthermore, ozone damages the leaves of trees and other plants, ruining the appearance of cities, national parks, and recreation areas.

8-Hour Ozone National Ambient Air Quality Standards

1997 NAAQS

In 1997, the Environmental Protection Agency (EPA) issued the 8-hour ozone National Ambient Air Quality Standards (NAAQS) in order to protect public health. The standard is set at an 8-hour average concentration of 0.080 ppm. The fourth highest value in a year, rounded to the nearest 0.01 and averaged over three years, may not exceed this level at any monitor in the area.

Areas that have failed to meet the standards outlined above have been designated as nonattainment areas and, as a result, are subject to transportation conformity. Transportation conformity requires nonattainment and maintenance areas to demonstrate that all future transportation projects will not hinder the area from reaching and maintaining its attainment goals. In particular, the projects will not:

- cause or contribute to new air quality violations,
- worsen existing violations or
- delay timely attainment of the relevant NAAQS.

EPA originally designated areas via the Federal Register as nonattainment for the 8-hour ozone standard on April 15, 2004, which became effective in June. Following modifications, the designations became final on June 15, 2005. EPA designated the PA-NJ-MD-DE area as moderate nonattainment for the 8-hour ozone standard. This classification resulted in an attainment date of 6 years following the effective date of the original designations or, June 2010, for the PA-NJ-MD-DE nonattainment area. EPA published a final rule (76 FR 3840), which became effective on February 22, 2011, approving an extension of the attainment date from June 2010 to June 2011. EPA later published a final rule (77 FR 65488), which became effective on November 28, 2012, approving the attainment demonstration portion of the attainment plan and the 2009 motor vehicle emissions budgets submitted by the State of Maryland as a SIP by the applicable attainment date of June 2011.

2008 NAAQS

On May 21, 2012, EPA issued a final rule via the Federal Register (77 FR 30088) establishing initial air quality designations for the 2008 primary and secondary NAAQS for ozone. The 2008 standard is set at an 8-hour average concentration of 0.075 ppm and
retains the same general form and averaging time as the 0.080 ppm NAAQS set in 1997. The effective date of the 2008 ozone standard designations was July 20, 2012. Under the final rule for implementation of the 2008 NAAQS (77 FR 30160), also effective on July 20, 2012, the 1997 ozone NAAQS will be revoked for transportation conformity purposes 1 year after the effective date of designations for the 2008 ozone NAAQS, July 20, 2013. The PA-NJ-MD-DE area is classified as a marginal nonattainment area, resulting in an attainment date of December 31, 2015.

**PA-NJ-MD-DE 8-Hour Ozone Nonattainment Area**

The 1997 8-hour ozone nonattainment area is made up of 18 counties spanning four states, while the 2008 8-hour ozone nonattainment area is made up of 16 counties also spanning four states. The counties of Sussex and Kent, Delaware will no longer be included in the PA-NJ-MD-DE nonattainment area under the 2008 standard. Figure 1 illustrates the entire nonattainment area and the location of the areas covered by WILMAPCO (New Castle and Cecil Counties) for both the 1997 and 2008 ozone standards.

**Figure 1: Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE Nonattainment Areas**

**Status of the 2040 RTP and 2014-2017 TIP**

As the regional transportation-planning agency for Cecil County, Maryland and New Castle County, Delaware, WILMAPCO is charged with authoring a long-range
transportation plan with at least a 20-year planning horizon. The RTP presents recommendations for enhanced transportation efficiency and functionality, including the construction of new facilities, improved connectivity to multiple travel modes, and the enhancement of existing highway, transit, and bicycle/pedestrian facilities. Transportation projects that address challenges faced by the region are identified in this plan and placed on the four-year TIP that corresponds to that project’s development timetable.

The 2040 update of the RTP and the Fiscal Year 2014 – 2017 TIP were created by the WILMAPCO staff and member agencies. The RTP was adopted by the WILMAPCO Council in January 2011 and received federal approval in March 2011. The TIP, and an amended RTP will be formally adopted in March 2013.

**Interagency Consultation**

As required by the federal transportation conformity rule (40 CFR 93.105) the conformity process includes a significant level of cooperative interaction among the federal state and local agencies. Interagency consultation requirements include coordination with the local county representatives, the MPO and representatives from both state and federal agencies including:

- WILMAPCO
- Maryland Department of the Environment
- Maryland Department of Transportation
- Maryland SHA, MTA and MDTA
- Delaware Transit Corporation
- Delaware Department of Transportation
- Delaware Department of Natural Resources and Environmental Control
- Cecil County
- New Castle County
- FHWA
- EPA
- FTA

As part of the interagency consultation, the Technical Advisory Committee (TAC) and Air Quality Subcommittee (AQS) groups met and collaborated in order to achieve the following goals related to the transportation conformity process:

- Determine planning assumptions
- Develop a definitive list of future year projects to be analyzed
- Develop a format for presenting determination
- Develop and standardize the public participation process

The TAC met on November 15 and December 20, 2012 and the AQS met on December 13, 2012 and January 10, 2013. Please see Appendix D for meeting minutes and notes.
Determine Planning Assumptions

8-Hour Ozone Regional Emissions Test
The emissions resulting from the implementation of regionally significant transportation projects (those which do not qualify as exempt under 40 CFR 93.126 and 127) will be compared to the 2009 motor vehicle emissions budgets (MVEB), set forth in the document: Cecil County, Maryland 8-Hour Ozone State Implementation Plan and Base Year Inventory SIP Revision: 07-05, for conformity purposes. The document was submitted to EPA in June 2007. EPA found the 2009 MVEBs adequate for conformity purposes, effective on November 28, 2012 (77 FR 65488).

Analysis Years
EPA regulations, as outlined in the Final Transportation Conformity Rule, Section 93.118, Criteria and procedures: Motor Vehicle Emissions Budget, state that the regional emissions analysis may be performed for any years in the timeframe of the conformity determination provided that they:

- Are not more than ten years apart
- The analysis is performed for the attainment year (if it is in the timeframe of the transportation plan and conformity determination)
- Include the last year of the timeframe of the conformity determination

All analysis years were determined through the interagency consultation process. The attainment year for the 1997 standard was 2011, which is not within the timeframe of the transportation plan or conformity determination. The attainment year for the 2008 standard is 2015, which is within the timeframe of the transportation plan and conformity determination and also satisfies the requirements of Section 93.118. 2020 and 2030 have been selected as the intermediate years so that the analysis years are no more than 10 years apart. The last year of the plan is 2040. Thus the analysis years are: 2015, 2020, 2030, and 2040.

Components of the Regional Emissions Analysis
As discussed above, ozone formation is a direct result of VOC and NOx emissions reacting with each other in the presence of sunlight. The EPA has ruled that both precursor emissions, VOC and NOx, must be included in a regional analysis of 8-hour ozone for transportation conformity.

Future Year Projects
The projects listed in Table 3, located below, in the Travel Demand Modeling section of this document, were found to be regionally significant through the interagency consultation process and are analyzed in this conformity determination.

Analysis Results
The results of the motor vehicle emissions budget tests are presented below in Tables 1 and 2. Table 1 presents the results of the budget test for VOC emissions. Table 2 outlines the results of the budget test for NOx emissions. The results show that all analysis years
Table 1: VOC Emissions Test Results – MVEB Test (tons/day)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeled</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cecil County Total</td>
<td>1.91</td>
<td>1.45</td>
<td>1.28</td>
<td>1.38</td>
</tr>
<tr>
<td>2009 Conformity Budget</td>
<td>2.20</td>
<td>2.20</td>
<td>2.20</td>
<td>2.20</td>
</tr>
<tr>
<td>Conformity Result</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
</tr>
</tbody>
</table>

Table 2: NOx Emissions Test Results – MVEB Test (tons/day)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeled</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cecil County Total</td>
<td>6.56</td>
<td>4.33</td>
<td>3.43</td>
<td>3.77</td>
</tr>
<tr>
<td>2009 Conformity Budget</td>
<td>7.30</td>
<td>7.30</td>
<td>7.30</td>
<td>7.30</td>
</tr>
<tr>
<td>Conformity Result</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
</tr>
</tbody>
</table>

**Travel Demand Modeling Methodology**

A travel demand model has been used to estimate future roadway traffic volumes and diversions related to regionally significant transportation improvement projects. The travel model was originally developed in 2006 and revalidated in 2012 for the upper eastern shore of Maryland including Cecil County.

The upper eastern shore (UES) model uses the TP+ software platform and encompasses Kent, Queen Anne's, and Cecil Counties in Maryland, as well as New Castle County, Delaware. This model is a traditional three-step model incorporating trip generation, trip distribution, and traffic assignment. The regional travel model does not contain a formal mode choice or transit assignment module. As a result, the model produces vehicle trips for 477 traffic analysis zones and assigns them to highway networks consisting of key regional roadway segments. The base year model is validated against survey data and traffic counts collected for the year 2010. A summary of the model components and validation are presented in a final report available from MDOT.

**Highway Networks**

For the purpose of this conformity analysis, model highway networks are created for each analysis year: 2015, 2020, 2030, and 2040. The networks are comprised of link segments representing freeways, principal arterials, minor arterials, and collectors within the nonattainment region (Figure 2). Links in the network are coded with attributes that portray the facilities respective capacities and travel speeds. For each horizon year, projects from the RTP and TIP are coded onto the networks by adding links for new
construction projects and adjusting the link capacities for projects that add lanes to existing roadways. A list of regionally significant highway projects (as defined in section 93.101 of the Final Transportation Conformity Rule) is shown in Table 3. The primary products of the model used in the air quality analysis are estimated volumes, link distances, free-flow speeds, and link capacities. The impacts of transit on regional vehicle trips are accounted for in the validation count data. Future changes to transit service (as reflected in regionally significant transit projects) can be accounted for using off-model analysis techniques, such as MAQONE.

Figure 2: Cecil County Network Map
**Table 3: Cecil and New Castle Counties Regionally Significant Highway Projects**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Project Name</th>
<th>County</th>
<th>Description</th>
<th>In-service Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I-95 / US 202 Interchange</td>
<td>NCC</td>
<td>Add 2nd NB 202 Ramp Lane</td>
<td>2015</td>
</tr>
<tr>
<td>2</td>
<td>SR 1 / 1-95 Interchange</td>
<td>NCC</td>
<td>Add capacity on ramps plus flyover</td>
<td>2015</td>
</tr>
<tr>
<td>3</td>
<td>SR 7: Newtown Road to SR 273</td>
<td>NCC</td>
<td>Widen from 2 to 4 lanes.</td>
<td>2015</td>
</tr>
<tr>
<td>4</td>
<td>US 301 Project (Green North + Spur Road Alternative)</td>
<td>NCC</td>
<td>4-lane, limited access tolled highway from DE/MD State line to Rte 1. Also includes a 2-lane, limited access spur road from Middletown to Summit Bridge</td>
<td>2020</td>
</tr>
<tr>
<td>5</td>
<td>SR 72: McCoy Road to SR 71</td>
<td>NCC</td>
<td>Widen from 2 to 4 lanes.</td>
<td>2020</td>
</tr>
<tr>
<td>6</td>
<td>Christina River Crossing</td>
<td>NCC</td>
<td>New bridge connecting US 13 South Market Street to the Wilmington Riverfront Development.</td>
<td>2020</td>
</tr>
<tr>
<td>7</td>
<td>Road A: Christiana Mall to SR 7</td>
<td>NCC</td>
<td>Add new lane in each direction</td>
<td>2020</td>
</tr>
<tr>
<td>8</td>
<td>SR 1: Tybouts Corner to SR 273</td>
<td>NCC</td>
<td>Reconstruction and widening from 4 to 6 lanes.</td>
<td>2020</td>
</tr>
<tr>
<td>9</td>
<td>MARC Expansion</td>
<td>CC</td>
<td>Expand MARC train service from Perryville, MD to Elkton, MD</td>
<td>2020</td>
</tr>
<tr>
<td>10</td>
<td>Tyler McConnell Bridge, SR141, Montchanin Road to Alapocas Road</td>
<td>NCC</td>
<td>Construction of a new 2 lane bridge to make segment a 4 lane arterial</td>
<td>2030</td>
</tr>
<tr>
<td>11</td>
<td>MD 213: Frechtown Road to US 40</td>
<td>CC</td>
<td>2 to 4 lane divided</td>
<td>2030</td>
</tr>
<tr>
<td>12</td>
<td>SR 141 / I-95 Interchange</td>
<td>NCC</td>
<td>Add capacity</td>
<td>2030</td>
</tr>
<tr>
<td>13</td>
<td>US 40 / SR 896</td>
<td>NCC</td>
<td>Grade separated intersection</td>
<td>2030</td>
</tr>
<tr>
<td>14</td>
<td>I-95 Widening DE Line to Susquehanna River</td>
<td>CC</td>
<td>Add one lane in each direction</td>
<td>2030</td>
</tr>
<tr>
<td>15</td>
<td>MD 272: US 40 to Lums Rd</td>
<td>CC</td>
<td>2 to 4 lane divided</td>
<td>2040</td>
</tr>
<tr>
<td>16</td>
<td>MD 222 / I-95 Interchange</td>
<td>CC</td>
<td>Modified partial cloverleaf will increase the number of lanes on the MD 222 bridge over I-95 from 2 to 4 plus a turning lane</td>
<td>2040</td>
</tr>
</tbody>
</table>

**Note**
NCC = New Castle County  
CC = Cecil County

**Land Use Forecast Methodology**

Land use estimates for the base and future year models for Cecil County are developed from existing data sources and county comprehensive plans, as well as through coordination with state and local planning agencies. The land use data for this model is
comprised of data describing the population, households, workforce, and employment for the region.

Land use for Cecil County, Maryland and New Castle County, Delaware came directly from the land use approved by WILMAPCO. WILMAPCO’s demographic projections for New Castle and Cecil Counties were adopted on May 10, 2012. Table 4 summarizes the land use data used for traffic modeling for analysis years 2015, 2020, 2030, and 2040 for Cecil County.

Table 4: Summary of Land Use Data Used for Modeling Runs

<table>
<thead>
<tr>
<th>Year</th>
<th>Population*</th>
<th>Households*</th>
<th>Labor Force*</th>
<th>Total* Employment</th>
<th>Retail* Employment</th>
<th>Non-Retail* Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>113,676</td>
<td>42,205</td>
<td>55,989</td>
<td>45,057</td>
<td>6,265</td>
<td>38,792</td>
</tr>
<tr>
<td>2020</td>
<td>125,017</td>
<td>46,842</td>
<td>60,741</td>
<td>50,586</td>
<td>7,055</td>
<td>43,531</td>
</tr>
<tr>
<td>2030</td>
<td>146,373</td>
<td>55,511</td>
<td>71,086</td>
<td>55,734</td>
<td>6,914</td>
<td>48,820</td>
</tr>
<tr>
<td>2040</td>
<td>165,765</td>
<td>63,118</td>
<td>80,442</td>
<td>60,000</td>
<td>7,481</td>
<td>52,519</td>
</tr>
</tbody>
</table>

Note: * Data Source: WILMAPCO Projections (Adopted 5-10-2012)

Estimation Process for Mobile Source Emissions

This conformity analysis uses MOVES2010a model, EPA’s state-of-the-art tool for estimating emissions from highway vehicles. Compared to previous tools, MOVES incorporates the latest emissions data, more sophisticated calculation algorithms, increased user flexibility, new software design, and significant new capabilities.

Analysis Methodology
The methodology used to produce the emission data conform to the recommendations provided in EPA’s technical guidance. A mix of local data and national default (internal to MOVES2010a) data has been used for the conformity analysis. Local data inputs to the analysis process reflect the latest available planning assumptions using data obtained from the Maryland Department of Environment (MDE), Motor Vehicle Administration (MVA), WILMAPCO and other local/national sources.

The analysis methodology includes the use of regional travel model outputs (as described above) for 2015, 2020, 2030, and 2040 to estimate the regional vehicle miles traveled (VMT) along with custom post-processing software (PPSUITE) to prepare key input files to the MOVES2010a emission model. PPSUITE consists of a set of programs that perform the following functions:

- Analyzes highway operating conditions.
- Calculates highway speeds.
- Compiles VMT and vehicle type mix data.
- Prepares MOVES runs and processes MOVES outputs.

The PPSUITE system has been used for previous inventory and conformity submissions in Maryland and in other states including Pennsylvania, Virginia, New Jersey, and New
York. The software has gone through a significant revision to ensure consistency with the MOVES emissions model. The PPSUITE process is also integral to producing other key input files to the MOVES emission model. Figure 3 summarizes the key functions of PPSUITE and the traffic-related input files prepared for MOVES.

Figure 3: Summary of Emission Calculation Process

Description of Input Data
A large number of inputs to MOVES are needed to fully account for the numerous vehicle and environmental parameters that affect emissions. These include traffic flow characteristics, vehicle descriptions, fuel parameters, inspection/maintenance program parameters, and environmental variables as shown in Figure 4.

Figure 4: Examples of Key MOVES Input Data

<table>
<thead>
<tr>
<th>Traffic Data</th>
<th>Vehicle Descriptions</th>
<th>Fuel Parameters</th>
<th>Inspection Maintenance</th>
<th>Environmental Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hourly Temperatures</td>
<td></td>
<td>Vehicle Type Mix</td>
<td>VMT</td>
<td>Test Standards Source Types</td>
</tr>
<tr>
<td>Humidity</td>
<td>VMT</td>
<td>Sulfur Levels</td>
<td>RVP</td>
<td>Start Year Frequency</td>
</tr>
<tr>
<td>Vehicle Population</td>
<td>Vehicle Age Distribution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Speeds</td>
<td>Ethanol Volume</td>
<td>Stringency Waiver Rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VMT Fractions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Refueling Controls
MOVES includes a default national database of meteorology, vehicle fleet, vehicle activity, fuel, and emissions control program data for every county; but EPA cannot certify that the default data is the most current or best available information for any specific area. As a result, local data is recommended for use for conformity analysis. Local data sources are used for all inputs that have a significant impact on calculated emission rates. These data items are discussed in the following sections.

Roadway Data
The emission calculation process uses key traffic data from the regional travel demand model to estimate regional VMT and speeds. This data includes individual roadway traffic volumes and physical roadway descriptive characteristics including area type, facility type, lanes, distances, capacity, and free-flow speeds. Travel demand model runs are produced for future analysis years and include the impact of regionally significant transportation projects. The model provides a key resource for estimating the impact of population and employment growth on roadway volumes and calculating the diversions due to transportation projects.

VMT was determined for each roadway class/setting by multiplying the length of road by the number of vehicles using the road per day. Additional adjustments to VMT included: seasonal adjustments to reflect an average weekday for the summer season and highway performance monitoring system (HPMS) adjustments used to align annual VMT estimates with HPMS reported totals for the base year.

Speed data was calculated for each highway segment and hour of the day, based on roadway capacity, traffic volume and other physical roadway features (e.g. traffic signals) using the post processing software. Thus, average speeds reflect physical highway conditions and congestion caused by traffic volume. For future conditions, congestion (and thereby speed) is affected by traffic growth and changes in physical conditions due to transportation improvement projects.

Vehicle Class Data
Emission rates within MOVES vary significantly by vehicle type. The MOVES model produces emissions and rates by thirteen MOVES vehicle source types. However, VMT is input to MOVES by six HPMS vehicle groups.

For this emissions analysis, vehicle type pattern data was developed for the county by functional class based on SHA classification counts and internal MOBILE6.2 and MOVES defaults. As the first step, SHA count data was used to develop percentage splits to the four vehicle groups: Autos, heavy trucks, motorcycles and buses. Following procedures used for previous conformity analysis, the vehicle groups were expanded to the 28 MOBILE6.2 weight-based vehicle types. Using procedures provided in EPA technical guidance, the MOBILE6.2 vehicle classes were mapped to the MOVES source type and HPMS class groups.

The vehicle type percentages are also provided to the capacity analysis section of PPSUITE to adjust the speeds in response to trucks. That is, a given number of larger trucks take up more roadway space than a given number of cars, and this is accounted for
in the speed estimation process by adjusting capacity using information from the Highway Capacity Manual.

**Vehicle Age**

Vehicle age distributions are input to MOVES for the county by the thirteen source types. The distributions reflect the percentage of vehicles in the fleet up to 31 years old. The vehicle age distributions were prepared by MDE based on information obtained from MVA registration data.

The age distributions are based on 2011 MVA registration data that included cleaning of duplicate, expired, and non-eligible vehicles (from the emission standpoint such as trailers, farm tractors). The data was transformed into two sets of MOBILE6.2 vehicle types; one conforming to MOBILE6.2-28 vehicle type and the other to MOBILE6.2-16 composite vehicle type system using a SAS-based computer program.

The MOVES model input age distributions were produced utilizing the available EPA MS-Excel-based vehicle registration converter tool. This tool assisted in converting the MOBILE6.2-based data into the MOVES source type categories.

**Vehicle Population Data**

Vehicle fleet information such as, the number and age of vehicles has an impact on the forecasted start and evaporative emissions within MOVES. The MOVES model requires the population of vehicles be separated by the thirteen source type categories. This data was prepared and provided by MDE for the analysis year 2011 utilizing another SAS-based computer program similar to the one discussed in the previous vehicle age section. Maryland county vehicle registration data was used to estimate vehicle population for light-duty and heavy-duty vehicles for Cecil county.

For the analysis years 2015, 2020, 2030, and 2040, the vehicle population was forecasted based on projected household and population growth obtained from state and MPO sources. The growth rate methodology included:

- Choosing the highest growth rate between population, households and VMT growth.
- Default VMT/Population ratio for trucks, i.e., truck population growth based on Truck VMT.

**Environmental and Fuel Data**

Information on environmental, fuel, vehicle technology and other control strategy assumptions were determined based on a review of MOVES2010a default information by MDE.

**Fuel Data:** MDE obtains monthly fuel data reports regularly from the Maryland Fuel Laboratory, which is under the jurisdiction of Maryland Fuel Tax Division of the Office of the Comptroller of Maryland. These fuel reports are generated by testing samples collected in the field (gas stations) for the purpose of fuel regulation enforcement. Two sets of fuel data inputs (Fuel Formulation and Fuel Supply tables) required by the
MOVES model were developed for Cecil county. The fuel parameters that changed from the MOVES defaults include:

- **fuelFormulationID**: Unique ID used for easy recognition
- **fuelSubtypeID**: Selected per guidance based on ethanol content of gasoline
- **sulfurLevel**: Computed from the local fuel data
- **rvp**: Computed from the local fuel data
- **ETOHVolume**: Computed from the local fuel data
- **aromaticContent**: Computed from the local fuel data
- **olefinContent**: Computed from the local fuel data
- **benzineContent**: Computed from the local fuel data
- **E200**: Computed from the local fuel data
- **E300**: Computed from the local fuel data

**Meteorological Data**: Evaporative emissions are influenced significantly by the temperatures of the surrounding air. Ozone analysis temperature and humidity values were determined by MDE using the procedures documented in EPA’s technical guidance. On a triennial basis, meteorological data including hourly temperature and relative humidity is compiled to be used for periodic emission inventories. The data used for this analysis were updated in 2011. The month-by-month, raw hourly-data sets were obtained from the National Climate Data Center of NOAA. Hourly average temperature and humidity computations were developed from the 24 hourly values for every hour in a given month for the county.

**Other Vehicle Technology and Control Strategy Data**

The MOVES2010a default I/M data was reviewed and updated by MDE for Cecil County. The current I/M program known as the Vehicle Emission Inspection Program (VEIP) was utilized for these analysis runs and is described below.

**MD Vehicle Emission Inspection Program**: This program tests model year 1977 and newer gasoline powered vehicles weighing up to 26,000 pounds. The test is done biennially, and on change of ownership. There is a two-year grace period for new vehicles. Light duty vehicles model year 1996 and newer, and model year 2008 and newer vehicles weighing up to 14,000 pounds receive the OBD test. All other vehicles receive an idle test with a gas cap pressure test and a visual check for the presence of a catalytic converter. The compliance factors reflect the fail and waiver rates observed in the program, combined with an assumed 96% compliance rate for vehicles showing up for testing. Heavy duty vehicles have an additional factor, reflecting the fraction of vehicles in the weight range covered by the program. This was derived from documentation comparing the MOVES and MOBILE vehicle classes. The significantly higher compliance rate for the gas cap check reflects the much higher retest pass rate for this check.

**Federal Programs**: Current federal vehicle emissions control and fuel programs are incorporated into the MOVES2010a software. These include the National Program standards covering model year vehicles through 2016. Modifications of default emission rates are required to reflect the early implementation of the National Low Emission...
Vehicle Program (NLEV) program in Maryland. To reflect these impacts, EPA has released instructions and input files that can be used to model these impacts. This inventory utilized the August 2010 version of the files: (http://www.epa.gov/oms/models/moves/tools.htm).

State Vehicle Technology Program:

MD Clean Car Program: Under the Maryland Clean Cars Act of 2007 Maryland adopted the California Low Emission Vehicle (LEV II) program. The program was implemented in 2011 and requires all 2011 model year and newer vehicles (GVWR up to 14,000 lbs.) registered in Maryland to meet California emission standards for both criteria and greenhouse gas pollutants. This program also contains a zero emission vehicles component that requires the manufactures to produce a certain percentage of zero emission vehicles (electric, fuel cell, etc.) for purchase in the state. California has just adopted new amendments to the Low-Emission Vehicle regulation entitled LEV III (third generation low emission vehicle standards). These amendments create more stringent emission standards for new motor vehicles. These new standards will be phased-in over the 2015-2025 model years.

The impacts of this program were modeled for all analysis years using EPA’s guidance document, Instructions for Using LEV and NLEV Inputs for MOVES, EPA-420-B-10-003, January 2010. EPA provided input files to reflect the CAL LEVII program with the standard phase-in schedules for new emission standards. Modifications to those schedules were done as per EPA’s instructions, to reflect a later start for the State of Maryland beginning with vehicle model year 2011.

2040 RTP and FY 2014-2017 TIP Conformity Determination

Financial Constraint

The planning regulations, Sections 450.322(b) (11) and 450.324(c) require the transportation plan to be financially constrained while the existing transportation system is being adequately operated and maintained. Only projects for which construction and operating funds are reasonably expected to be available are included. WILMAPCO has developed an estimate of the cost to maintain and operate existing roads and bridges in the MPO area and has compared that with the estimated revenues and maintenance needs of the new roads. WILMAPCO has found that the projected revenues are sufficient to cover the costs, therefore satisfying the financial constraint requirement.

Public Participation

This conformity document has undergone the public participation requirements set forth in the Final Conformity Rule, and Final Statewide / Metropolitan Planning Rule. The draft document was made available for public review and comment beginning on January 14, 2013 and ending March 7, 2013. The public review and comment period was announced using the following outlets:

- Notices in the Delaware News Journal and Cecil Whig
- WILMAPCO website (www.wilmapco.org)
The documentation of the observed 30-day public comment period can be found in Appendix E. No comments specific to our determination were made.

Conformity Statement

The conformity rule, as it applies to the Cecil County, MD portion of the PA-NJ-MD-DE 8-hour ozone nonattainment area, requires the RTP and TIP to conform to the motor vehicle emissions budgets established in the SIP. Appendix A contains a matrix, which provides responses to all of EPA’s criteria as applicable to this conformity determination.

The results of the conformity analysis for the Cecil County portion of the PA-NJ-MD-DE 8-hour ozone nonattainment area indicate that the projected mobile source emissions are below the EPA-approved motor vehicle emission budgets for the established analysis years of 2015, 2020, 2030 and 2040. Based on the conformity analysis, WILMAPCO, in its capacity as the MPO, has concluded that the implementation of the 2040 RTP and 2014-2017 TIP will not worsen the region’s air quality or delay the timely attainment of the National Ambient Air Quality Standards.
References

Transportation Conformity Regulations as of April, 2012, EPA-420-B-12-013;  
http://www.epa.gov/otaq/stateresources/transconf/conf-reg.htm

FHWA, 23 CFR PART 450 – Planning Assistance and Standards, Subpart C --  
Metropolitan Transportation Planning and Programming;  
http://www.ecfr.gov/

FY 2014-2017 Transportation Improvement Program; Wilmington Area Planning  
Council;  
http://www.wilmapco.org/tip/

Regional Transportation Plan, 2040 Update; Wilmington Area Planning Council;  
http://www.wilmapco.org/rtp/

Modeling Page within EPA’s Office of Mobile Sources Website  
(http://www.epa.gov/omswww/models.htm) contains a downloadable model, MOVES  
users guide and other information.

Policy Guidance on the Use of MOVES2010 and Subsequent Minor Revisions for  
SIP Development, Transportation Conformity, and Other Purposes, US EPA  
Office of Air and Radiation, EPA-420-B-12-010, April 2012.

Using MOVES to prepare Emission Inventories in State Implementation Plans  
and Transportation Conformity: Technical Guidance for MOVES2010, 2010a and  
2010b. US EPA Office of Air and Radiation, and Office of Transportation and Air  
Quality, EPA-420-B-12-028, April 2012.

Motor Vehicle Emission Simulator, User Guide for MOVES2010a, EPA-420-B-  
10-036, August 2010.


Traffic Trends System Report Module, 2011 Data, State Highway Administration  
2005.
Appendix A

Conformity Question Checklist
<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
<th>Y/N</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 CFR 93.110</td>
<td>Is the conformity determination based on the latest planning assumptions?</td>
<td>Y</td>
<td>See below.</td>
</tr>
<tr>
<td></td>
<td>(a) Is the conformity determination, with respect to all other applicable criteria in §§93.111 - 93.119, based upon the most recent planning assumptions in force at the time of the conformity determination?</td>
<td>Y</td>
<td>The conformity analysis uses the UES travel demand model that is validated to 2010 conditions. Assumptions regarding vehicle mix, hourly patterns, monthly/seasonal factors, and vehicle fleet registration data are based on the latest available (2011) information from MDE &amp; SHA.</td>
</tr>
<tr>
<td></td>
<td>(b) Are the assumptions derived from the estimates of current and future population, employment, travel, and congestion most recently developed by the MPO or other designated agency? Is the conformity determination based upon the latest assumptions about current and future background concentrations?</td>
<td>Y</td>
<td>Land use for Cecil County, Maryland and New Castle County, Delaware came directly from the land use approved by WILMAPCO. WILMAPCO demographic projections for Cecil and New Castle Counties were adopted on May 10, 2012.</td>
</tr>
<tr>
<td></td>
<td>(c) Are any changes in the transit operating policies (including fares and service levels) and assumed transit ridership discussed in the determination?</td>
<td>Y</td>
<td>Future changes to transit service (as reflected in regionally significant transit projects) can be accounted for using off-model analysis techniques. However, it is assumed that the impacts of the MARC expansion included in Table 3 will be captured by the assumptions inherent in the regional travel demand model.</td>
</tr>
<tr>
<td></td>
<td>(d) The conformity determination must include reasonable assumptions about transit service and increases in transit fares and road and bridge tolls over time.</td>
<td>Y</td>
<td>See above.</td>
</tr>
<tr>
<td></td>
<td>(e) The conformity determination must use the latest existing information regarding the effectiveness of the TCMs and other implementation plan measures, which have already been implemented.</td>
<td>Y</td>
<td>There are no TCM's identified in the SIP.</td>
</tr>
<tr>
<td>Section</td>
<td>Requirement</td>
<td>Y/N</td>
<td>Response</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>(f) Key assumptions shall be specified and included in the draft documents and supporting materials used for the interagency and public consultation required by §93.105.</td>
<td>Y</td>
<td>Summary provided in Interagency Consultation Section with supporting documents in Appendix D &amp; E.</td>
</tr>
<tr>
<td>40 CFR</td>
<td>Is the conformity determination based on the latest emissions model?</td>
<td>Y</td>
<td>EPA’s latest emissions model, Motor Vehicle Emissions Simulator (MOVES) was used for this conformity determination.</td>
</tr>
<tr>
<td>93.111</td>
<td></td>
<td></td>
<td>Consultation procedures were followed in accordance with the Federal Transportation Conformity Rule. WILMAPCO consulted appropriate agencies and provided a scope of work to the following agencies: MDOT, MDE, DelDOT, DNREC, FHWA, FTA and EPA.</td>
</tr>
<tr>
<td>40 CFR</td>
<td>Did the MPO make the conformity determination according to the consultation procedures of the conformity rule or the state conformity SIP?</td>
<td>Y</td>
<td>Consultation procedures were followed in accordance with the Federal Transportation Conformity Rule. WILMAPCO consulted appropriate agencies and provided a scope of work to the following agencies: MDOT, MDE, DelDOT, DNREC, FHWA, FTA and EPA.</td>
</tr>
<tr>
<td>93.112</td>
<td></td>
<td></td>
<td>Consultation procedures were followed in accordance with the Federal Transportation Conformity Rule. WILMAPCO consulted appropriate agencies and provided a scope of work to the following agencies: MDOT, MDE, DelDOT, DNREC, FHWA, FTA and EPA.</td>
</tr>
<tr>
<td>40 CFR</td>
<td>Are the horizon years correct?</td>
<td>Y</td>
<td>The horizon years chosen: 2015, 2020, 2030, and 2040 represent the appropriate horizon years needed for the 8-hour ozone NAAQS conformity determinations.</td>
</tr>
<tr>
<td>93.106</td>
<td>Does the plan quantify and document the demographic and employment factors influencing transportation demand?</td>
<td>Y</td>
<td>A summary is provided in the Land Use Forecast Methodology section and the relevant data is summarized in Table 4.</td>
</tr>
<tr>
<td>93.106(a)</td>
<td></td>
<td></td>
<td>A summary of regionally significant projects can be found in the land use section and Table 3.</td>
</tr>
<tr>
<td>(2)(i)</td>
<td></td>
<td></td>
<td>A summary of regionally significant projects can be found in the land use section and Table 3.</td>
</tr>
<tr>
<td>93.106(a)</td>
<td></td>
<td></td>
<td>A summary of regionally significant projects can be found in the land use section and Table 3.</td>
</tr>
<tr>
<td>(2)(ii)</td>
<td></td>
<td></td>
<td>A summary of regionally significant projects can be found in the land use section and Table 3.</td>
</tr>
<tr>
<td>93.106(a)</td>
<td></td>
<td></td>
<td>A summary of regionally significant projects can be found in the land use section and Table 3.</td>
</tr>
<tr>
<td>(2)(ii)</td>
<td></td>
<td></td>
<td>A summary of regionally significant projects can be found in the land use section and Table 3.</td>
</tr>
<tr>
<td>93.108</td>
<td>Is the Transportation Plan Fiscally Constrained?</td>
<td>Y</td>
<td>See Financial Constraint Section.</td>
</tr>
<tr>
<td>93.113(b)</td>
<td>Are TCMs being implemented in a timely manner?</td>
<td>N/A</td>
<td>There are no TCMs in the SIP.</td>
</tr>
<tr>
<td>40 CFR</td>
<td>Is the Transportation Plan consistent with the motor vehicle emissions budget in the applicable SIP?</td>
<td>Y</td>
<td>The conformity determination was performed using the 2009 motor vehicle emissions budgets contained in the SIP and found adequate by EPA.</td>
</tr>
<tr>
<td>93.118</td>
<td></td>
<td></td>
<td>The conformity determination was performed using the 2009 motor vehicle emissions budgets contained in the SIP and found adequate by EPA.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The conformity determination was performed using the 2009 motor vehicle emissions budgets contained in the SIP and found adequate by EPA.</td>
</tr>
</tbody>
</table>

* A-2
Appendix B

Conformity Results
Detailed VMT and Emissions
By County
By Functional Class
By Analysis Year
### Table B-1: 2015 Emissions Budget Test Results

<table>
<thead>
<tr>
<th>Road Type</th>
<th>VMT</th>
<th>Speed (mph)</th>
<th>VOC (tons/day)</th>
<th>NOX (tons/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off-Network</td>
<td>-</td>
<td>-</td>
<td>1.18</td>
<td>1.10</td>
</tr>
<tr>
<td>Rural Restricted Access</td>
<td>1,913,095</td>
<td>62.4</td>
<td>0.27</td>
<td>2.72</td>
</tr>
<tr>
<td>Rural Unrestricted Access</td>
<td>2,202,795</td>
<td>35.2</td>
<td>0.35</td>
<td>2.18</td>
</tr>
<tr>
<td>Urban Restricted Access</td>
<td>106,485</td>
<td>59.9</td>
<td>0.02</td>
<td>0.15</td>
</tr>
<tr>
<td>Urban Unrestricted Access</td>
<td>345,613</td>
<td>19.5</td>
<td>0.09</td>
<td>0.41</td>
</tr>
<tr>
<td><strong>Nonattainment Area Total</strong></td>
<td>4,567,987</td>
<td>40.5</td>
<td><strong>1.91</strong></td>
<td><strong>6.56</strong></td>
</tr>
</tbody>
</table>

#### 2009 Budgets
- 2.20
- 7.30
- PASS
- PASS

### Table B-2: 2020 Emissions Budget Test Results

<table>
<thead>
<tr>
<th>Road Type</th>
<th>VMT</th>
<th>Speed (mph)</th>
<th>VOC (tons/day)</th>
<th>NOX (tons/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off-Network</td>
<td>-</td>
<td>-</td>
<td>0.96</td>
<td>0.99</td>
</tr>
<tr>
<td>Rural Restricted Access</td>
<td>2,166,510</td>
<td>59.7</td>
<td>0.19</td>
<td>1.75</td>
</tr>
<tr>
<td>Rural Unrestricted Access</td>
<td>2,143,503</td>
<td>35.6</td>
<td>0.22</td>
<td>1.23</td>
</tr>
<tr>
<td>Urban Restricted Access</td>
<td>121,191</td>
<td>59.7</td>
<td>0.01</td>
<td>0.10</td>
</tr>
<tr>
<td>Urban Unrestricted Access</td>
<td>375,998</td>
<td>18.7</td>
<td>0.07</td>
<td>0.27</td>
</tr>
<tr>
<td><strong>Nonattainment Area Total</strong></td>
<td>4,807,202</td>
<td>40.5</td>
<td><strong>1.45</strong></td>
<td><strong>4.33</strong></td>
</tr>
</tbody>
</table>

#### 2009 Budgets (Submitted)
- 2.20
- 7.30
- PASS
- PASS

### Table B-3: 2030 Emissions Budget Test Results

<table>
<thead>
<tr>
<th>Road Type</th>
<th>VMT</th>
<th>Speed (mph)</th>
<th>VOC (tons/day)</th>
<th>NOX (tons/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off-Network</td>
<td>-</td>
<td>-</td>
<td>0.89</td>
<td>1.03</td>
</tr>
<tr>
<td>Rural Restricted Access</td>
<td>2,658,798</td>
<td>61.6</td>
<td>0.15</td>
<td>1.28</td>
</tr>
<tr>
<td>Rural Unrestricted Access</td>
<td>2,542,793</td>
<td>34.5</td>
<td>0.18</td>
<td>0.88</td>
</tr>
<tr>
<td>Urban Restricted Access</td>
<td>151,495</td>
<td>59.8</td>
<td>0.01</td>
<td>0.07</td>
</tr>
<tr>
<td>Urban Unrestricted Access</td>
<td>423,199</td>
<td>18.2</td>
<td>0.05</td>
<td>0.18</td>
</tr>
<tr>
<td><strong>Nonattainment Area Total</strong></td>
<td>5,776,285</td>
<td>40.5</td>
<td><strong>1.28</strong></td>
<td><strong>3.43</strong></td>
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</table>

#### 2009 Budgets (Submitted)
- 2.20
- 7.30
- PASS
- PASS
### Table B-4: 2040 Emissions Budget Test Results

<table>
<thead>
<tr>
<th>Road Type</th>
<th>VMT</th>
<th>Speed (mph)</th>
<th>VOC (tons/day)</th>
<th>NOX (tons/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off-Network</td>
<td>-</td>
<td>-</td>
<td>0.93</td>
<td>1.17</td>
</tr>
<tr>
<td>Rural Restricted Access</td>
<td>3,069,598</td>
<td>57.4</td>
<td>0.18</td>
<td>1.38</td>
</tr>
<tr>
<td>Rural Unrestricted Access</td>
<td>2,938,976</td>
<td>33.6</td>
<td>0.20</td>
<td>0.96</td>
</tr>
<tr>
<td>Urban Restricted Access</td>
<td>181,663</td>
<td>59.4</td>
<td>0.01</td>
<td>0.08</td>
</tr>
<tr>
<td>Urban Unrestricted Access</td>
<td>466,473</td>
<td>18.0</td>
<td>0.06</td>
<td>0.19</td>
</tr>
<tr>
<td><strong>Nonattainment Area Total</strong></td>
<td><strong>6,656,711</strong></td>
<td><strong>39.2</strong></td>
<td><strong>1.38</strong></td>
<td><strong>3.77</strong></td>
</tr>
<tr>
<td>2009 Budgets (Submitted)</td>
<td></td>
<td></td>
<td>2.20</td>
<td>7.30</td>
</tr>
</tbody>
</table>

PASS PASS
Appendix C

MOVES Input Files and Parameters
For
Cecil County, MD
Sample Cecil County MOVES Run Specification File Settings for Analysis Year 2015

Sample xml file format

```xml
<moves>
  <importer mode="county">
    <filters>
      <geographicselections>
        (Specify County to be run)
        <geographicselection type="COUNTY" key="24015" description="MARYLAND - Cecil County"/>
      </geographicselections>
    </filters>
    <timespan>
      <year key="2015" />
      <month id="07" />
      <day id="2" />
      <day id="5" />
      <beginhour id="1" />
      <endhour id="24" />
      <aggregateBy key="Hour" />
    </timespan>
    <onroadvehicleselections>
      <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypename="Combination Long-haul Truck"/>
      <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypename="Combination Short-haul Truck"/>
      <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypename="Intercity Bus"/>
      <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypename="Light Commercial Truck"/>
      <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypename="Motor Home"/>
      <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypename="Motorcycle"/>
      <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypename="Passenger Car"/>
      <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypename="Passenger Truck"/>
    </onroadvehicleselections>
  </importer>
</moves>
```
<onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="51" sourcetypename="Refuse Truck"/>
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<onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
<onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
<onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="42" sourcetypename="Transit Bus"/>
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<onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
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<onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline" sourcetypeid="51" sourcetypename="Refuse Truck"/>
<onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline" sourcetypeid="43" sourcetypename="School Bus"/>
<onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline" sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
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Appendix D

Interagency Consultation
January 4, 2013

Ms. Tigist Zegeye  
Executive Director  
Wilmington Area Planning Council  
830 Library Avenue, Suite 100  
Newark, DE 19711

Dear Ms. Zegeye:

This letter is to inform you that the Maryland Department of the Environment (MDE) concurs with the Cecil County Conformity Analysis for WILMAPCO’s Fiscal Year (FY) 2014–2017 Transportation Improvement Program (TIP).

Sincerely,

Brian J. Hug  
Deputy Program Manager  
Air Quality Planning Program

cc: Howard Simons, MDOT
TECHNICAL ADVISORY COMMITTEE MEETING  
November 15, 2012  

A meeting of the Technical Advisory Committee (TAC) was held on Thursday, November 15, 2012, at WILMAPCCO, 950 Library Avenue, suite 100, Newark, Delaware 19711.

1. CALL TO ORDER: Mr. Ian Beam, Vice Chair, on behalf of Ms. Catherine Smith, Chair, brought the TAC meeting to order at 10:05 a.m.

2. TAC Members present:
Ian Beam, Maryland Department of Transportation  
Dave Blankenship, City of Wilmington Department of Public Works  
Anthony DiGiacomo, Cecil County Office of Planning and Zoning  
Marc Dixon, U.S. Federal Highway Administration  
Mark Eastburn, Delaware Department of Transportation  
Mike Forthner, City of Newark  
Herb Inden, Delaware Office of State Planning Coordination  
John Janacek, New Castle County  
Gwen Lamkey, City of Wilmington Department of Planning  
Tania Mahtani, Maryland State Highway Administration  
Jeanne Minner, Town of Elkton  
Cathy Smith, Delaware Transit Corporation

TAC Members absent:  
Delaware Economic Development Office  
Delaware River and Bay Authority  
Maryland Department of Planning  
Division of Air Quality, DNREC

TAC Ex-Officio Members absent:  
Amtrak  
Diamond State Port Corporation  
U.S. Federal Transit  
US Environmental Protection Agency

Guests and Invitees:  
Mike DuRoss, DelDOT  
Kevin Racine, Citizen

Staff:  
Dan Blevins, Principal Planner  
Heather Dunigan, Principal Planner  
Sharen Eldred, Executive Assistant  
Tamika Graham, Senior Planner  
David Gula, Principal Planner  
Randi Novakoff, Outreach Manager  
Bill Swiatle, Senior Planner  
Tigist Zergeye, Executive Director

Minutes prepared by: Janet Butler

3. MINUTES

The TAC meeting minutes of October 18, 2012, were approved.
**ACTION:** On motion by Mr. DiGiacomo seconded by Mr. Fortner, the TAC approved the minutes of October 18, 2012 meeting.

Motion passed.  (11-15-12 - 01)

4. SUBCOMMITTEE UPDATES:

a. Air Quality Subcommittee (AQS)

Mr. Swistek said the Air Quality Subcommittee (AQS) did not meet this month; however, Delaware’s Air Quality Interagency Consultation Workgroup met instead on November 8, 2012. The group decided to complete the conformity run in concert with the FY2014-17 TIP. The reason for this is meeting the 2008 ozone standard, which we must do by July 20, 2013. WILMAPCO expects to have the numbers run by December 2012, and they should be presented at the next TAC meeting. A public comment period will coincide with the TIP’s public comment period, from January 14 to March 7, 2013, with Council adoption anticipated on March 14, 2013.

5. PUBLIC COMMENT PERIOD:

None.

**ACTION ITEMS:**

None.

**PRESENTATION/DISCUSSION ITEMS:**

6. State Smart Transportation Initiative (SSTI)

Mr. Mike DuBois, DelDOT, presented information about the Delaware State Smart Transportation Initiative (SSTI). He said the SSTI has included the work of fifteen state DOTs, which started about three years ago at the University of Wisconsin in Madison. DelDOT received a grant to expand DelDOT’s modeling.

He compared the old model with the new model. He said the most important aspect of the new model is showing growth of population and employment forecasts, and managing where future growth would occur. The new model uses traffic analysis zones and demographic projections of about thirty years.

DelDOT also uses tax parcels as the level of analysis for traffic forecasting. For instance, five traffic zones in downtown Newark include a greater level of detail. Travel models usually only include collectors, but, these include all the modes, such as auto, bus, and pedestrian. There are also color-coded levels of service (LOS). Analysis can include any area up to 30,000 tax parcels. This geographic model shows all the roads, all the streets, and all the driveways and has a 3D option.

DelDOT’s modeling can generate a traffic stimulation model. The GIS is linked to a travel model that is linked to simulation software. Linking all three reduces time to create detailed scenarios. There was a training session with Maryland, North Carolina, and Virginia at the Georgetown Center for Climate Change.

One case study showed traditional vs. smarter growth, and the smarter growth results revealed ten percent more pedestrian trips, five percent more biking trips, and twenty percent less VMT per dwelling unit.

DelDOT held a Planning Charette with Smyrna, the Dover/Kent County MPO, Kent County, and Delaware Office of State Planning using a four-unit scenario and an eight and a half-unit scenario.
Because of additional connectivity points, the model showed an increase in biking and walking and a decrease in auto trips, which reduced emissions.

There was a question as to whether or not school bus routing could use SSTI. Mr. DuRoss replied yes, it is possible; however, we are trying to keep it in GIS as much as possible. He said we could also use the process to support TID. There was a question regarding traditional modeling compared to the current modeling. Mr. DuRoss explained that if you used the old method you would get different results, which include a higher level of detail. Another question was asked if this model can be used to pick up new trends early. Mr. DuRoss replied, yes. For additional information on SSTI, visit www.esl.us/2011/05/8suite.

7. Cecil County Bicycle Plan

Ms. Graham said the purpose of the Cecil County Bike Plan is to promote bicycling for transportation, recreation, fitness, and tourism; promote safety and comfort; create links to other transportation modes; target investments; and provide an action plan. The plan goals include: 1) Planning/Engineering; 2) Education; 3) Encouragement; 4) Enforcement; and 5) Evaluation.

Public outreach has included: Fairhill Mountain Bike Jamboree (October 2011); Open House Public Workshop #1 (November 2011); Local Workshops (February – May 2012); Open House Public Workshop #2 (Spring 2012); and Open House Public Workshop #3 (Fall 2012).

When Cecil County residents were asked why they do not bicycle, most replied it is because they drive; there is congestion on roadways; the County roads are too hilly and feel unsafe; there are no bike paths or room on roads; motorists speed; and there are easier ways to get around.

Countywide, various improvements are needed including enhanced visual cues/motorist awareness, enhanced intersection conditions, bike parking at shopping and work centers, natural, historic and cultural connectivity, education and enforcement programs, and encouragement and promotional activities.

We have worked with the Plan’s Advisory Committee to identify a countywide bicycle network that emphasizes bike routes of countywide significance that connect to or are located in the County’s designated growth area. This will promote north-south/east-west connectivity; access to destinations of countywide significance; cross-jurisdictional connectivity; and inclusion in other county and regional plans.

Local bicycle routes are also identified that are located in incorporated areas. There is access to key local destinations and parts of the County; connections to existing or planned bike facilities; linkages to transit services and inclusion in local plans.

For example, in the Town of North East several proposed treatments and segments include: MD 272/Main Street (southbound) between MD 7 (Cecil Ave.) and Innsbrook Road; MD 272/Main St. between MD 7 & (Cecil Avenue) and US 40; MD 272/Main St. (northbound) between Innsbrook Road and MD 7 (Cecil Avenue); MD 7/Cecil Avenue (on-road improvements and off-road improvements); MD 272 and US 40; MD 272 Bridge over Amtrak; MD 7 from Mechanics Valley Road, east to Elkton; Rolling Mill Road from Mechanics Valley Road to proposed shared use trail (Elk Neck); Mechanics Valley Road between US 40 and MD 7; and MD 272/S. Mauldin Avenue and MD 7/ Cecil Road. Elk Neck trails access points.

Recommendations for bicycle parking include provisions through ordinances (Cecil County model); installing preferred rack designs; and providing signage and links to transit. Bicycle-transit integration includes buses equipped with bike racks; better accommodations on rail, parking at key stops; and bike routes that feed into transit service.

Non-infrastructure improvements include enforcement of bike-safety laws; education through active learning and campaigns using safety materials; encouraging bike to Work Weeks/Month events; and making connections for residents to bicycle resources.
Recommended infrastructure improvements include striping, pavement markings, signage, and parking. Additionally, non-infrastructure improvements include enhancements of bicycle language to existing zoning ordinances, subdivision regulations, bike parking ordinances, and maintenance policies. A variety of funding sources can be pursued including the Maryland Bike Retrofit and Bikeways Grant Programs, establishing dedicated streams, and private sources.

Next steps include a public comment period from October 15, 2012 through November 20, 2012; a final Open House Workshop; finalizing the draft document; and seeking adoption of the plan.

8. Port Deposit Transit Feasibility Study

Ms. Dunigan said the Town of Port Deposit requested a Transit Feasibility Study through the WILMAPCO Unified Planning Work Program (UPWP). The purpose of the study is to assess the feasibility and community interest for expanding transit to Port Deposit and related transit amenities within Port Deposit. It will support the transportation goal in the town’s Comprehensive Plan, which states: “Provide for the safe and efficient movement of people and goods that promotes walkability and use of non-motorized forms of transportation.” Currently, Port Deposit is not connected by any fixed route transit service.

To date, we have been working with an advisory committee made up of residents and local and county officials; we have held two Advisory Committee meetings and a public workshop, and we attended the Port Palooza Festival which provided information and garnered feedback.

Ms. Dunigan discussed existing services including the C.T. Cruiser, a countywide curb-to-curb service for all ages, and the Taxi Voucher Program, which supplements the cost of taxis for senior citizens, people with disabilities, and low income individuals.

The scope of work includes: 1) refine scope of work and identify advisory committee, 2) review existing conditions, 3) identify issues, opportunities, and constraints, 4) recommend draft transportation solutions and cost estimates, 5) identify implementation strategies and potential funding sources, and 6) seek adoption by Port Deposit Mayor and Commissioners and WILMAPCO.

Port Deposit’s demographics from the 2006-2010 American Community Survey 5-Year Estimates indicate a small population with a need for low cost transportation including transit. There are 262 households, 621 residents, 24 percent with household income is less than $25k, five percent are zero car households, and fourteen percent persons are below poverty. Regarding current commuting, 34 percent commute by driving alone, six percent by carpool, six percent walk, and less than one percent take transit, because no fixed route transit serves the community.

Using public and advisory committee feedback, we identified several alternative route alignments for further analysis. Analysis developed draft operating statistics. Ridership was estimated using the Transit Cooperative Research Program (TCRP) method for estimating rural transit demand, formulas are based on service hours, service miles and population.

There was a question if Bainbridge impacts had been assessed. Ms. Dunigan replied that we originally planned to include planned Bainbridge development in the analysis, but were told by representatives on the advisory committee from the Bainbridge Development Corporation that implementation was too far in the future for its inclusion in our study.

9. Two-Way King Street Study and Delaware Avenue 11th/12th Streets Curve Study

Mr. Giles said the Downtown Circulation Study recommendations had included looking closer at the Two-Way King Street (1500 block) and the Delaware Avenue 11th/12th Streets.

Regarding the Two-Way King Street Study, Market Street runs parallel to King Street, and then at 15th Street it ties back into King Street, and it becomes a two-way street north of the intersection with 10th Street. Travelers on Market Street are forced to proceed across King Street along 15th Street, make a left turn onto French Street, and then on French Street to make a left turn onto 16th Street, which brings them to the intersection of King Street, S. Park Drive and Market Street. This project is to design changes to
the 1500 block of King Street that would allow two-way traffic, and enable travelers to turn left from Market Street onto King Street, which would allow them to either proceed northbound to the Market Street bridge, or make a left turn onto S. Park Drive.

McCormick & Taylor, who completed a Mini-Circulation Study regarding traffic movement, reported traffic volumes in the AM are heavy southbound from Market to King, and in the PM from the eastbound approach to Market/King from 16th Street but are functionally fairly consistently. We asked for alternatives and options, and analysis of existing conditions revealed that there are adequate sidewalks and crosswalks, but they may not be in the right spots.

We were also looking at other elements, such as the signal-timing for the Sixteenth Street intersection and concerns for pedestrian safety on crosswalks. Other recommendations included that the switch to two-way traffic on the 1500 block of King Street can work, but there will be a need for signal realigning. Results of the analysis were that at the 16th/King/Market/S Park intersection we will be removing an existing median island and keeping the two right turn lanes, signed as no right turns on red, and the one straight/let turn lane; however, one crosswalk was taken out because of a safety concern. We also looked at shared lanes and bike lanes, but, bike lanes are not currently supported by the City. We recommended converting King Street to two-way with a northbound thru lane and separate left turn lane to S. Park Drive. This will require the removal of on-street parking and a bulb-out. The cost estimate is approximately $300,000.

Regarding the Delaware Avenue/13th/12th Streets Curve Study, there are safety concerns around the existing westbound “S” curve that often functions like a racetrack. The lanes are 12-feet wide and there are no signals between Washington and Adams Streets. One issue is concern for pedestrian safety. A jersey barrier had been installed near the sidewalk to prevent pedestrians from crossing between the signals and for some sidewalk protection through the curve. This is a heavily used pedestrian corridor that leads from the CSS to residential neighborhoods near Trolley Square. We wanted to know how to make it safe, and we decided to signalize an existing U-turn intersection to assist pedestrian crossings and to slow down traffic that is racing to get to the I-95 ramp. There will also be signage improvements. There are no major roadway changes, because that work would drastically increase costs due to ROW limits. Lane striping changes and intersection reconfiguration will allow for improved pedestrian and bike safety while remaining within the existing roadway, however, streetscaping and shared lanes additions are part of the proposal. The cost estimate is approximately $1.75 million for all of the improvements (a pedestrian improvement project).

INFORMATION ITEMS:

12. Staff Report

Ms. Dunigan reported on the following information and events.

- On November 8, 2012 WILMAPCO Council approved four items: 1) FY2013 UPWP Carryover tasks were approved; 2) FY 2013 UPWP Consultant Support was approved; 3) FY 2040 RTP was amended; and 4) FY2012-2015 TIP was amended for the MD 272 Bridge replacement in Cecil County.
- The Maryland CTP Tour was rescheduled due to Hurricane Sandy on November 2, 2012.
- On November 7, 2012 staff held the second Advisory Committee Meeting for the Port Deposit Transit Feasibility Study.
- On November 14, 2012 “Our Town Rail in the WILMAPCO Region: Making the Connections” was held at Embassy Suites Hotel, Newark, from 4:00 p.m. to 7:00 p.m., which was well-attended.
- On November 13, 2012, North East Corridor Partners met regarding the Newark Train Station Project.
- The Newark-Ellington Forecast Rail Ridership contract was signed, which will support Cecil County Rail projects.
- The final Cecil County Bike Plan meeting will be held on November 20, 2012.
- On November 27, 2012 the Port Deposit Transit Feasibility Study will be presented to Town Council.
- On December 6, 2012, the Newark Bike Plan Workshop will be held.
- Delaware City received a grant to work on a climate study, and a kickoff meeting will be held in December.
- On December 5, 2012 Delaware AIP's annual meeting will be held in Smyrna.
- On November 28, 2012 Wilmington Initiatives (WI) Public Workshop will be held.

OTHER BUSINESS:
None.

ADJOURNMENT:
The meeting was adjourned at 11:55 a.m.

Attachments (0)
Air Quality Subcommittee (AQS) Meeting Notes

December 13, 2012

Attendees

Bruce Allen, DelDOT
Gregory Becoat, EPA (teleconference)
Deanna Cucinnello, DNREC
Marc Dixon, FHWA
Heather Dunigan, WILMAPCO
Mike DuRoss, DelDOT
Brian Hugg, MDE (teleconference)
Asrah Khadr, EPA person (teleconference)
Martin Kotsch, EPA (teleconference)
Bill Swiatek, WILMAPCO
Phil Wheeler, DNREC
Tigist Zegeye, WILMAPCO

Acceptance of the Notes from the October 11 Meeting

- Mr. Wheeler said that he was not at the meeting, and his name should be removed from the attendance list. With that adjustment the notes were accepted.

New Castle County Conformity Analysis

- Mr. Swiatek and Mr. DuRoss provided an overview of this agenda item.

- Handouts: Projects Modeled in Winter 2013; WILMAPCO’s FY 2014 to 2017 TIP and 2040 RTP Conformity Analysis Timeline; New Castle County Conformity Analysis (DelDOT presentation)

- Mr. Swiatek reviewed the draft conformity timeline. The conformity analysis began in November. The draft results to be reviewed today will be seen by the TAC on December 20. The conformity document will be put together in early January, and will be released by the Council for public review between January 14 and March 7. Formal Council adoption is expected March 14.

- Mr. Swiatek also went over the project list that was modeled. Changes from the last determination include: removal of projects that are completed/will be completed by 2015, the addition of an I-95 at MD 222 Interchange project (horizon year 2040), and horizon year changes for the I-95 widening project in
Cecil County (2040 to 2030), and the MD 272 project (2020 to 2040).

- Mr. DuRoss provided a presentation regarding the conformity analysis in New Castle County, generated with MOVES. The presentation highlighted the inputs to the model, and conformity results. Both state environmental agencies will be reviewing the results separately. The group accepted these results, which are shown below:

### Cecil County Conformity Analysis

- Mr. Swiatek provided an overview of this agenda item.

- Handouts: *Cecil County conformity results*

- Mr. Swiatek reviewed the conformity results for Cecil County, which are shown below. BAKER is still running through its checks to verify the results, and these figures should be considered draft.

#### New Castle County

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<th>VOC (tpd)</th>
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<th>NOx (tpy)</th>
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#### Cecil County

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- Mr. Kotsch noted that the 2009 budgets are the budgets of record, and 2008 can be deleted.

- Mr. Swiatek said that the results were generated using MOBILE, and not MOVES. Any conformity analysis beginning after March 2013 will have to use MOVES. MDOT must coordinate with MDE to establish MOVES-based budgets in the meantime.

- Mr. Zegeye said that a concurrence letter from both DNREC and MDE on these conformity results was required.

- The group accepted the draft results.

Transportation Alternatives Project (TAP) Prioritization

- Mr. Swiatek provided an overview of this agenda item.


- Mr. Swiatek reviewed the air quality scoring criteria developed for WILMAPCO’s prioritization process. He said it was the most subjective of the different technical scores given. Generally, the AQS has favored giving one point towards most pedestrian and bicycle projects, and a full three points for pedestrian and bicycle projects which may have a more significant benefit to air quality.

- With the new transportation legislation, MPOs (with over 200,000 population) are required to be more involved in the selection of Transportation Alternative Projects (which the former Transportation Enhancements (TE) projects now fit into). Subsequently, WILMAPCO was given a list of FY 2013 TE projects by DelDOT and asked to prioritize them. Unfortunately, a prioritization process specific to TAP projects is still under development by WILMAPCO staff. In lieu of this, the air quality technical score in the larger prioritization process will serve in the interim.

- Mr. Swiatek reviewed the list of scored projects with the group. Each received a score of 1, with the exception of the Marshall Steam Museum which scored a 0.

- Mr. DuRoss expressed concern over the legitimacy of the air quality scoring criteria in the overall prioritization process. It was agreed to review this at the next meeting.
- The group agreed that the overall prioritization process’ air quality scoring criteria was not fully appropriate for scoring TAP projects, but will suffice in the interim. The group accepted the staff’s scoring.

Activities of the Air Quality Partnership of Delaware

- Ms. Novakoff provided an overview of this agenda item.

- Handouts: none

- Ms. Novakoff said that since March of 2012 the Partnership has been busy. A kickoff event was held on Earth Day in partnership with the Nature Society. The event, which targeted kids, featured a skit and an appearance from Batman, along with T-shirt handouts. The group also partnered with other Earth Day events across the state.

- The group will continue its strategy of targeting children for outreach. And in that vein, they are developing a mascot to represent the Partnership. A proposal solidifying the new mascot and an outreach strategy is under development. The group will seek funding after it is completed.

- The group will, at minimal, again partner with the Nature Society for an Earth Day event this year.

Other

- Mr. Wheeler asked about the Port Truck Parking Study. Mr. Swiatek said that there is an internal draft of the report. We would like the Steering Committee to get together in early January to review the work, ahead of a planned civic meeting in later January. For more information please visit: wilmapco.org/portparking

- Mr. Swiatek invited AQS members to the WILMAPCO holiday lunch, which will follow the TAC meeting at noon on December 20.
A meeting of the Technical Advisory Committee (TAC) was held on Thursday, December 20, 2012, at WILMAPCO, 850 Library Avenue, Suite 100, Newark, Delaware 19711.

1. CALL TO ORDER: Mr. Ian Beam, Vice Chair, on behalf of Ms. Catherine Smith, Chair, brought the TAC meeting to order at 10:00 a.m.

2. TAC Members present:
   Ian Beam, Maryland Department of Transportation
   Eric Beckett, Maryland State Highway Administration
   Dave Blankenship, City of Wilmington Department of Public Works
   Anthony DiGiacomo, Cecil County Office of Planning and Zoning
   Marc Dixon, U.S. Federal Highway Administration
   Mike Kirkpatrick, Delaware Department of Transportation
   Mike Fortner, City of Newark
   Valerie Gray, DNREC Division of Air Quality
   Herb Inden, Delaware Office of State Planning Coordination
   Jeanne Minner, Town of Elkton
   Owen Robatino, New Castle County

2. TAC Members absent:
   City of Wilmington Department of Planning
   Delaware Economic Development Office
   Delaware River and Bay Authority
   Delaware Transit Corporation
   Maryland Department of Planning

2. TAC Ex-Officio Members absent:
   Amtrak
   Diamond State Port Corporation
   U.S. Federal Transit
   US Environmental Protection Agency

2. Guests and Invitees:
   Nicole Katsikides, MDOT
   Tania Mahtani, Maryland State Highway Administration
   Bill Osborne, Citizen
   Kevin Racine, Citizen
   Eleanor Rafalli, Citizen

2. Staff:
   Dan Blevins, Principal Planner
   Heather Dunigan, Principal Planner
   Sharen Elcock, Executive Assistant
   Tamika Graham, Senior Planner
   David Gula, Principal Planner
   Randi Novakoff, Outreach Manager
   Bill Swiatek, Senior Planner
   Tigist Zegeye, Executive Director

Minutes prepared by: Janet Butler
3. MINUTES

The TAC meeting minutes of November 15, 2012, were approved.

**ACTION:** On motion by Mr. Fortner seconded by Mr. Di Giacomo, the TAC approved the minutes of November 15, 2012 meeting.

Motion passed.

(12-20-12 - 01)

4. SUBCOMMITTEE UPDATES:

a. Air Quality Subcommittee (AQS)

Mr. Swiatek said the AQS met on December 13, 2012. AQS reviewed the conformity analysis results from New Castle County and Cecil County. The analysis met all applicable budgets and baselines. The group also reviewed the air-quality technical scores new TE projects in New Castle County. The interim scoring methodology uses the TIP prioritization process. The AQS also received an update on the activities of the air-quality partnership of Delaware, which has been busy developing a mascot and campaign for outreach events across Delaware.

b. Congestion Management Subcommittee (CMS)

Mr. Blevins said CMS met on December 11, 2012. We discussed changes to our reporting method for expressway and interchange Level of Service (LOS) practices. We are using data from the TMC. Some portions of the ramp are failing; therefore, we are looking more closely at convergence points on the ramps. We discussed the collection of travel time and travel speed data on SR1. We are looking at reliability time on segments. We also covered the list of intersections for the 2013 CMS, which is a total of 142. We had a discussion on use of data for signals. We also briefly discussed installing blue tooth detectors along arterials. We are looking along the arterial networks for regular travel time data and we will also determine where to put the blue tooth detectors, which will be a topic for discussion at the next CMS meeting in January 2013.

There was a question about the wavetronics equipment and what data it is currently collecting. Mr. Blevins answered it collects volumes, speeds, and classifications.

c. Data and Demographics Subcommittee (DDS)

Mr. Blevins said the DDS met on December 10, 2012. They endorsed the 2010 Urbanized Area boundaries for New Castle County. Because of the 2010 Census, we are updating the roadway functional classification map. We will be drafting the criteria along with what arterials and collectors mean, and summarize how to handle the process. We are looking toward March 2013 for starting the revisions. For the 2013 Demographics Projections Update, we will re-do the TAZ allocations. We will use the new consortium figures and new figures from Maryland Department of Planning and re-adjust the totals this spring.

5. PUBLIC COMMENT PERIOD:

Mr. Racine has been speaking with transit representatives from Greyhound Bus Services. He said local Greyhound services between Wilmington and Baltimore have been extended for another year and they are looking to add more bus stops including Havre de Grace, Maryland. He has also been talking with transit representatives in Washington, DC about MD/DE transit connections.
ACTION ITEMS:

6. To Recommend Amending the 2040 Regional Transportation Plan
Ms. Dunigan said these amendments to the RTP project list are needed in order for the RTP to remain consistent with the updated in service dates in the air quality conformity analysis, including adding the I-95/Md222 Interchange to the project list, adjusting the in-service years for I-95 from Susquehanna to the Delaware from 2040 to 2030; and MD 222 project to Lums Road from 2020 to 2040.

ACTION: On motion by Mr. Di Giacomo seconded by Mr. Kirkpatrick, the TAC recommended amending the 2040 Regional Transportation Plan.
Motion passed.
(12-20-12 - 02)

7. To Recommend Releasing the 2040 Regional Transportation Plan and FY 2014-2017 Transportation Improvement Program (TIP) Air Quality Conformity for Public Review
Mr. Swiatek said they conducted an air quality conformity analysis needed to meet the 2008 Federal Ozone Standard by summer of 2013. The analysis was completed for emissions impact in our transportation network. The analysis met all baselines and budgets. The New Castle County table in the handout needs two administrative changes, which include: 1) the 2008 VOC line that was blank needs to be changed to 10.61, and 2) the 2008 NOx line needs to be changed from 21.26 to 21.35.

ACTION: On motion by Mr. Inden seconded by Mr. Kirkpatrick, the TAC recommended releasing the 2040 Regional Transportation Plan and FY2014-2017 Transportation Improvement Program Air Quality Conformity for Public Review from January 14, 2013-March 7, 2013, with two changes to the New Castle County Table.
Motion passed.
(12-20-12 - 03)

8. To Recommend Approving the Proposed Project Prioritization of FY 2013 Transportation Enhancement Program projects
Ms. Dunigan said staff is recommending we use the existing TIP prioritization process for FY 2013 while we develop a process specific to the Transportation Alternatives Program during the next couple of months. The list of New Castle County projects is sorted by technical score. There was a question about if the term “sharrow” is considered public knowledge. Ms. Dunigan said that DelDOT is planning to provide information to educate the public on what sharrows are and how to use them.

ACTION: On motion by Mr. Blankenship seconded by Mr. Inden, the TAC recommended approving the Proposed Project Prioritization of FY2013 Transportation Enhancement Program projects.
Motion passed.
(12-20-12 - 04)

9. To Recommend Approving the Cecil County Bicycle Plan
Ms. Graham said WILMAPCO worked with Cecil County and an advisory committee to develop a countywide bike plan that covers the incorporated and unincorporated areas of the county, connects the various communities, and integrates recently adopted bicycle and greenway plans. The proposed network builds on regional routes, including the East Coast Greenway. The final plan includes recommendations for improved safety, as well as non-infrastructure elements.
Public outreach efforts included more than a dozen meetings and open house workshops, and
the draft document was available for 30 days for public comments.

We have coordinated with the Towns, and there have been some changes to maps and a few
wording changes. We also have letters of endorsement from the Towns and the Lower
Susquehanna Heritage Greenway. However, we have one more meeting with Rising Sun,
Maryland that will take place before the next Council meeting. The Town of North East has been
very responsive and plans to incorporate the Bicycle Plan into the transportation section of their
Comprehensive Plan. We are hoping that Cecil County will do the same. The final presentation
went before the Cecil Commissioners in October and was adopted on November 27, 2012. PAC
did not vote on the Plan, but, approved the outreach, and now the Plan is up for TAC’s approval.

There was a comment that Elkton’s population was not included in the population chart. Ms.
Graham said it would be added.

**ACTION:** On motion by Mr. Di Giacomo seconded by Ms. Minner, the TAC
recommended approval of the Cecil County Bicycle Plan with the addition of
Elkton’s population statistics.

Motion passed.

(12-20-12 - 05)

10. To Endorse the Adjusted Urban Boundaries for the New Castle Portion of the
Wilmington (Philadelphia) Urbanized Area

Mr. Blevins said every ten years we receive information on the urban boundaries from the
Census. The main goal is to allow for smoother boundaries for functional classification. Once the
information is released, we will look at how some of the boundaries go from rural to urban and
back to rural again. We are working with DelDOT and Dover/Kent MPO on this information, which
will combined with what they have. The map included in your packet shows the roads in yellow
what we have looked at, as we keep them consistent with urban vs. rural. We will then submit this
information to Federal Highway to be included in the Update.

**ACTION:** On motion by Mr. Kirkpatrick seconded by Mr. Inden, the TAC endorsed the
Adjusted Urban Boundaries for the New Castle Portion of the Wilmington
(Philadelphia) Urbanized Area.

Motion passed.

(12-20-12 - 06)

**PRESENTATION/DISCUSSION ITEMS:**

11. Maryland Interim Rail Plan

Ms. Nicole Katsikides, MDOT, said the Passenger Rail Investment and Improvement Act (PRIIA)
requires that states complete a rail plan. The PRIIA requires the inclusion of projects in rail plans
for federal funding eligibility. The Maryland Statewide Rail Plan will be a comprehensive plan that
includes both passenger and freight completed in 2014.

We need to establish priorities and implementation strategies. The Maryland Interim Rail Plan
serves for the basis of federal and state rail investments. We need to inventory the existing
services and facilities; provide an explanation of the passenger rail service objectives; and assess
the environmental impact. We are currently coordinating our efforts with our state agencies and
the neighboring states in the region.

The process includes a draft being finalized internally, and by the second or third week of January
2013 we expect to have the plan available for a public comment period of 30 days. The plan also
includes a section on the history of rail in Maryland.
There are some class-three, short-line railroads in Maryland. We contract with Maryland and Delaware for them. Because of the Chesapeake Connector project and bridge projects we need to make sure that our rail infrastructure can connect them.

The total rail tonnage hasn’t changed very much; however, we are expecting it to increase in the future, and therefore, there is a lot of work to do to expand capacity to accommodate more users. The new industry standard is 286-pound car capacity (instead of 263-pound car capacity). We would like to have all the cars come up to the industry standard. We are looking at MARC, Amtrak, and freight as part of our plan. The map is a good tool that captures what is happening with rail.

We are evaluating projects based on the following rail plan goals: 1) Quality of Service; 2) Safety and Security; 3) System Preservation and Performance; 4) Environmental Stewardship; and 5) Connectivity for Freight or Passenger Mobility. We expect that these goals will change, and we want to make sure everything syncs together.

Some current projects include HSIPR, Freight, Transit Oriented Development (TOD), NEC Commission, NEC Futures MARC, and Rail Yard. Some long-range projects include the double stack options and NEC Futures. There are some double-stacked height issues. Regarding the short-line south of Cecil County, we have large exports of soy beans, which have become one of the top exports in the East Coast region; therefore, we need to enhance this rail service.

There was a question about the height issues of the double-stacked trains. Ms. Katsikides responded that this is part of our analysis to find how to work with them differently, including the possibility of lowering the catenaries. There was a question on the short-lines on the Eastern Shore, and if they are all operating at 286-pound capacity. Ms. Katsikides responded that only some sections are operating at 286, for instance in Seaford, only a portion of them are at 286-pound capacity.

**INFORMATION ITEMS**

12. **Staff Report**

- The Cecil County Bike Plan final Public Workshop was held on November 20, 2012 and the plan was adopted by Cecil County on November 27, 2012.
- On November 26, 2012 Staff attended the Maryland Safe Routes to School (SRTS) Grant Seminar.
- On November 28, 2012 Staff held the Wilmington Initiatives (WI) Public Workshop with 20 attendees.
- On November 26, 2012 Staff presented at the Chesapeake Mayor and Council Meeting on the Chesapeake City Walkable Community Workshop results.
- On November 27, 2012 Staff presented to Port Deposit Mayor and Council information on the draft Port Deposit Transit Feasibility Study recommendations.
- On December 4, 2012 an SRTS Public Workshop was held at Thomas Edison Charter School.
- On December 5, 2012 the Delaware APA Annual Meeting was held; Mr. Bill Swiatek was elected president of the APA.
- On December 5, 2012 the Kick-off Meeting for the Delaware City Sea Level Rise Advisory Committee was held.
- On December 8, 2012 Newark Bike Plan Public Workshop was held with 30 attendees.
- Staff attended the Delaware Valley Regional Planning Commission Aviation Committee Meeting on December 13, 2012.
- On December 8, 2012 the Newark Regional Transportation Center Study Meeting was held to discuss station design, ridership modeling, and progress on NEPA.
- On December 19, 2012 the South Wilmington Planning Network Holiday Lunch was held.
- On January 8, 2013 Staff will participate in the Advisory Committee Meeting for the MDOT Pedestrian and Bike Master Plan meeting.
- January 11, 2013 is the deadline for Newark Parking Surveys.
- On January 14, 2013 and January 15, 2013 two Health Impact Assessment Training Workshops will be held in Delaware City.
- On January 16, 2013, an APA Webcast on Zoning for Small Scale Businesses will be held at WILMAPCO.
- Regarding the Chesapeake Connector Study, we are working with the consultant to develop the final report, and then a final advisory committee meeting will be held.
- For the Elkton Train Station project, four meetings were held. We are working with consultant WRA on ridership modeling, which will be coordinated with Newark Transportation Center. The next project meeting will be held on February 13, 2013.

There was a question about how the rail studies are being coordinated and if they will fit into their master plans. Ms. Dunigan said she expects that they will. Mr. Gula agreed that coordination is very strong, and many of the projects are being rolled into bigger projects, because they are too expensive to complete on their own.

OTHER BUSINESS
None.

ADJOURNMENT
The meeting was adjourned at 11:25 a.m.

Attachments (0)
Appendix E

Public Participation Materials

Please visit:

wilmapco.org/tip

wilmapco.org/aq