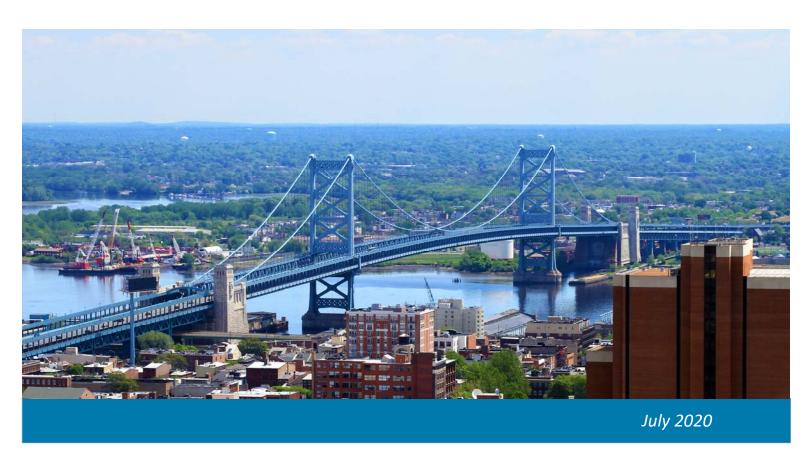
# Transportation Conformity Demonstration:

Draft Amended *Connections 2045*Long-Range Plan,
FY2020 New Jersey TIP,
and Draft FY2021 Pennsylvania TIP







The Delaware Valley Regional Planning Commission is the federally designated Metropolitan Planning Organization for a diverse nine-county region in two states: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey.



**DVRPC's vision** for the Greater Philadelphia Region is a prosperous, innovative, equitable, resilient, and sustainable region that increases mobility choices by investing in a safe and modern transportation system; that protects and preserves our natural resources while creating healthy communities; and that fosters greater opportunities for all.

**DVRPC's mission** is to achieve this vision by convening the widest array of partners to inform and facilitate data-driven decision-making. We are engaged across the region, and strive to be leaders and innovators, exploring new ideas and creating best practices.

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# **Table of Contents**

Executive Summary	1
Overview	1
Analysis Approach	2
Regional Emissions Analysis of Plan and TIP Projects	2
Conformity Test	2
Analysis Years	2
Findings	3
CHAPTER 1: Introduction	9
Overview	9
NAAQS	12
Transportation Conformity	13
CHAPTER 2: Conformity Demonstration Overview	15
DVRPC Plan and TIPs	15
DVRPC AQ Code	16
Analysis Year	
Emissions Analysis	19
Latest Planning Assumptions	19
Travel Demand Simulation	
Emissions Model	21
Conformity Tests	21
CHAPTER 3: Regional Emissions Analysis	25
Travel Demand Simulation Results	25
Emissions Estimate Results	25
Meeting the Conformity Criteria	27
CHAPTER 4: Stakeholder Participation	31
Interagency Consultation Group Meetings	31
Public Participation	31
CHAPTER 5: Conclusion	33

## Figures

Figure 1: VOCs Emissions Analysis Results (Tons/Day)	4
Figure 2: NO <sub>x</sub> Emissions Analysis Results (Tons/Day)	4
• Figure 3: Annual and 24-Hour Direct PM <sub>2.5</sub> Emissions Analysis Results (Tons/Year)	5
• Figure 4: Annual and 24-Hour NO <sub>x</sub> Precursor Emissions Analysis Results (Tons/Year)	5
• Figure 5: Delaware County Annual Direct PM <sub>2.5</sub> Emissions Analysis Results (Tons/Year)	6
• Figure 6: Delaware County Annual NO <sub>x</sub> Precursor Emissions Analysis Results (Tons/Year)	6
Figure 7: Philadelphia–Wilmington–Atlantic City PA–NJ–MD–DE Eight-Hour Ozone Nonattainment Area	10
Figure 8: DVRPC Annual and 24-Hour PM <sub>2.5</sub> Maintenance Areas	11
Tables	
Table 1: Mobile Source Analysis Years	3
Table 2: Current NAAQs	12
Table 3: AQ Codes for Projects in the Plan and TIPs	17
Table 4: Mobile Source Analysis Years	18
Table 5: Projects Included in the Regional Emissions Analysis	18
Table 6: Transit Operation Assumptions	20
Table 7: Ozone Emissions Budgets (Tons/Day)	22
Table 8: New Jersey PM <sub>2.5</sub> Emissions Budgets (Tons/Year)	22
Table 9: Pennsylvania PM <sub>2.5</sub> Emissions Budgets (Tons/Year)	22
Table 10: Delaware County PM <sub>2.5</sub> Emissions Budgets (Tons/Year) †	23
Table 11: VOCs Emissions Analysis Results (Tons/Day)	25
Table 12: NO <sub>x</sub> Emissions Analysis Results (Tons/Day)	26
Table 13: Annual and 24-Hour Direct PM <sub>2.5</sub> and NO <sub>x</sub> Emissions Analysis Results (Tons/Yea New Jersey	
<ul> <li>Table 14: Annual and 24-Hour Direct PM<sub>2.5</sub> and NO<sub>x</sub> Emissions Analysis Results (Tons/Yea Pennsylvania</li></ul>	·

A	ppendix A:	A-1
•	Table 16:         Evaluation of the Plan, TIPs, and Conformity Determination Criteria	28
	for Delaware County, PA	27
•	<b>Table 15:</b> 2012 Annual Direct PM <sub>2.5</sub> and NO <sub>x</sub> Emissions Analysis Results (Tons/Year)	

## **Executive Summary**

## Where is Transportation Conformity required?

**Nonattainment Areas:** a region that currently does not meet the NAAQS.

Maintenance Areas: a region that previously violated air quality standards but currently meets them and has an approved Clean Air Act (CAA) section 175(a) maintenance plan.

#### Overview

Transportation conformity is the process by which metropolitan planning organizations (MPOs) or departments of transportation (DOTs) demonstrate that transportation projects included in a region's Long-Range Plan (Plan) or Transportation Improvement Program (TIP) do not cause new air quality violations, worsen existing violations, or delay timely attainment of the National Ambient Air Quality Standards (NAAQS).

A transportation conformity demonstration is required at least once every four years or when an MPO: (1) adopts a new Plan or TIP; or (2) amends, adds, or deletes a regionally significant, nonexempt project in a Plan or TIP. This conformity demonstration is required due to amendments to the *Connections 2045* Long-range Plan, a new Fiscal Year (FY) 2021 TIP for Pennsylvania, and the addition of regionally significant and nonexempt projects to the FY2020 TIP for New Jersey.

The Delaware Valley Regional Planning Commission (DVRPC) region includes a complex combination of nonattainment and maintenance areas for ozone and fine particulate matter ( $PM_{2.5}$ ). The region's ozone nonattainment area encompasses the entire nine-county DVRPC region, while the  $PM_{2.5}$  maintenance areas encompass various portions of the region. The region is required to demonstrate transportation conformity for each of these standards in each of the appropriate geographic areas

covered by the nonattainment and maintenance areas.

This transportation conformity demonstration shows that the Draft Amended *Connections 2045* Long-Range Plan, Draft FY2021-2024 Pennsylvania TIP, and FY2020-2023 New Jersey TIP are following, or "conforming to," the State Implementation Plans (SIP) to meet the NAAQS.

This Executive Summary highlights DVRPC's conformity demonstration for:

Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NO<sub>x</sub>) meeting the 1997, 2008, and 2015 Eight-Hour Ozone NAAQS requirements in:

 the DVRPC portion of the Philadelphia—Wilmington—Atlantic City PA–NJ–MD–DE Ozone Nonattainment Area; and

Direct  $PM_{2.5}$  and precursor  $NO_x$  meeting the 1997 Annual, 2006 24-Hour, and 2012 Annual  $PM_{2.5}$  NAAQS requirements in:

- the DVRPC portion of the Philadelphia–Wilmington, PA–NJ–DE Annual and 24-Hour PM<sub>2.5</sub> Maintenance Area,
- the DVRPC portion of the New York–Northern New Jersey–Long Island, NY–NJ–CT Annual and 24-Hour PM<sub>2.5</sub> Maintenance Area, and
- the Delaware County, PA Annual PM<sub>2.5</sub> Maintenance Area.

This summary serves as an inclusive document that demonstrates the transportation conformity of the DVRPC Plan and Pennsylvania and New Jersey TIPs with all applicable SIPs and NAAQS requirements for the above pollutants within the noted areas. The full conformity determination document is available at <a href="https://www.dvrpc.org/airquality/conformity">www.dvrpc.org/airquality/conformity</a>.

## **Analysis Approach**

## **Regional Emissions Analysis of Plan and TIP Projects**

The federal Final Conformity Rule requires that all regionally significant and nonexempt projects that are funded in the Plan and TIP must be included in the regional Transportation Demand Model (TDM). Emissions from those modeled projects are then quantified using the latest United States Environmental Protection Agency (US EPA)-approved emissions modelling system. DVRPC uses the Motor Vehicle Emissions Simulator 2014b (MOVES 2014b) emissions model to demonstrate transportation conformity in order to meet this requirement.

## **Conformity Test**

Modeled emissions results from the projects in the Plan and TIPs are then compared to Motor Vehicle Emissions Budgets (MVEBs) contained in the SIPs to meet the NAAQS. When modeled emissions are less than the SIP budgets, the transportation conformity requirements have been met. This process is referred to as the "budget test."

New Jersey and Pennsylvania have approved SIP MVEBs for the 1997 Eight-Hour Ozone Standard, 1997 and 2012 Annual, and 2006 24-Hour PM<sub>2.5</sub> standards in both states. These budgets are used to demonstrate conformity for all of the current NAAQs requirements.

## **Analysis Years**

When performing the budget test, DVRPC identifies a series of analysis years. Analysis years are benchmarks for the projects that are included in the TDM and emissions analysis. All projects that are expected to be open to traffic by the beginning of that analysis year are included in that year's emissions analysis. The Final Conformity Rule includes guidance on the selection of analysis years. Analysis years must include: SIP budget years, the final year of the Plan, and interim analysis years that are no more than 10 years apart.

MVEBs are established in each state's SIP for specific years. The MVEBs set the emissions limits moving forward until the next SIP budget year. For example, the 2017 PM<sub>2.5</sub> SIP budgets in Pennsylvania establish emissions limits for all projects that are open to traffic after 2017 but before the new SIP budget year of 2025. The 2025 PM<sub>2.5</sub> SIP budgets establish emissions limits for all projects that are open to traffic after 2025 and until such time as a new SIP budget is approved by the US EPA.

To demonstrate conformity for the ozone NAAQS, projected VOC and  $NO_x$  emissions in all analysis years must be below the SIP MVEBs for the given analysis years. VOCs and  $NO_x$ , which are heat-sensitive ozone precursors, are estimated for a typical summer week workday.

To demonstrate conformity for the  $PM_{2.5}$  NAAQS, emissions are estimated for direct  $PM_{2.5}$  and the  $PM_{2.5}$  precursor chemical  $NO_x$ . The SIP budgets for  $PM_{2.5}$  are expressed in terms of annual emissions; therefore, conformity analyses are conducted for annual  $PM_{2.5}$  emissions.

In the DVRPC region, the analysis years are 2025, 2035, and 2045. Delaware County has additional SIP budget analysis years for annual  $PM_{2.5}$  and the  $PM_{2.5}$  precursor chemical  $NO_{x.}$  The additional Delaware County  $PM_{2.5}$  analysis years are 2022 and 2030.

For this conformity demonstration, the mobile source emissions analysis years are identified in Table 1.

Table 1: Mobile Source Analysis Years

Year	Ozone	PM <sub>2.5</sub>	Note
2022		$\checkmark$	PM <sub>2.5</sub> SIP budget year (Delaware County only)
2025	$\checkmark$	$\checkmark$	Interim Year and PM <sub>2.5</sub> SIP budget year
2030		$\sqrt{}$	PM <sub>2.5</sub> SIP budget year (Delaware County only)
2035	$\checkmark$	$\checkmark$	Year within 10 years of previous analysis
2045	$\checkmark$	$\checkmark$	DVRPC Plan horizon year

Source: DVRPC, 2020.

## **Findings**

The DVRPC Plan and the TIPs are found to be in conformity with the current New Jersey and Pennsylvania SIPs under the CAA. The forecasted emissions levels of VOCs, NO<sub>x</sub>, and PM<sub>2.5</sub> do not exceed the respective budgets established by the state departments of environmental protection (state DEP) in accordance with the Final Rule under the current NAAQS governing applicable pollutants.

The transportation conformity analysis meets all applicable conformity criteria, including, but not limited to, the following:

- that the Plan and the TIPs are fiscally constrained [40 CFR 93.108];
- that this determination is based on the latest planning assumptions [40 CFR 93.110];
- that this determination is based on the latest emissions estimation model available [40 CFR 93.111];
- that DVRPC has made the determination according to the applicable consultation procedures [40 CFR 93.112];
- that the Plan and the TIPs do not interfere with the timely implementation of transportation control measures (TCMs) [40 CFR 93.113]; and
- that the Plan and the TIPs are consistent with the MVEBs in the applicable SIPs [40 CFR 93.118].

Figures 1 through 6 detail the emissions analysis results for transportation projects included in the Plan and TIPs for New Jersey and Pennsylvania. The data for these figures is detailed beginning on page 25. These estimates of emissions results confirm that the transportation projects in the Plan and TIPs conform to the respective SIP and Final Rule conformity requirements.

PA Emissions Estimate
NJ Emissions Estimate
PA VOC Budget
NJ VOC Budget
NJ VOC Budget

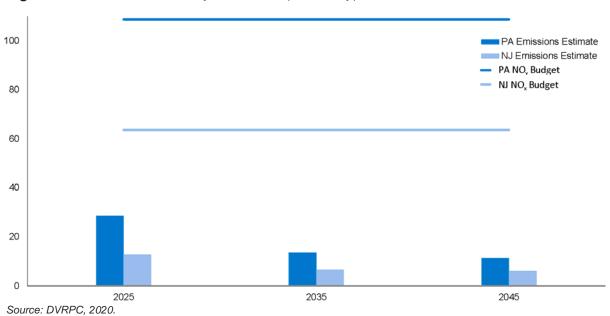
2035

Figure 1: VOCs Emissions Analysis Results (Tons/Day)

Source: DVRPC, 2020.

0

The most recent Eight-Hour Ozone SIP MVEBs will apply to all future analysis years.



**Figure 2:** NO<sub>x</sub> Emissions Analysis Results (Tons/Day)

2025

The most recent Eight-Hour Ozone SIP MVEBs will apply to all future analysis years.

2045

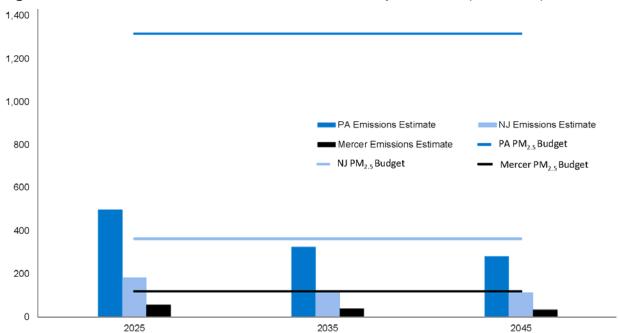


Figure 3: Annual and 24-Hour Direct PM<sub>2.5</sub> Emissions Analysis Results (Tons/Year)

Source: DVRPC, 2020

The most recent MVEBs apply to all future analysis years.

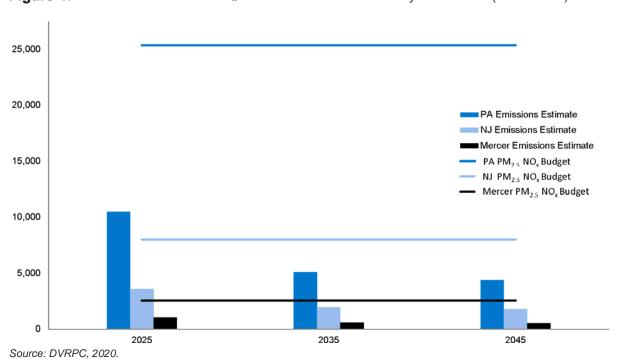
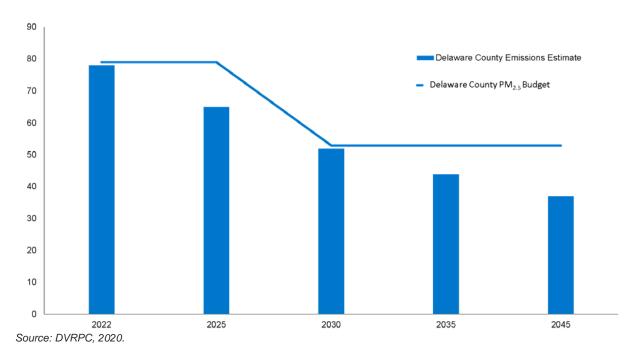


Figure 4: Annual and 24-Hour NO<sub>x</sub> Precursor Emissions Analysis Results (Tons/Year)

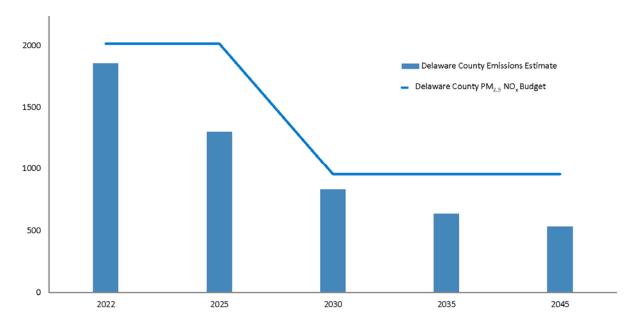
The most recent MVEBs apply to all future analysis years.

Figure 5: Delaware County Annual Direct PM<sub>2.5</sub> Emissions Analysis Results (Tons/Year)



The most recent MVEBs apply to all future analysis years.

Figure 6: Delaware County Annual NO<sub>x</sub> Precursor Emissions Analysis Results (Tons/Year)



Source: DVRPC, 2020.

The most recent MVEBs apply to all future analysis years.

These findings demonstrate transportation conformity of the DVRPC Draft Amended *Connections 2045* Long-Range Plan, FY2020 New Jersey TIP, and Draft FY2021 Pennsylvania TIP, with the state SIPs and the Final Rule requirements under CAA, including:

- the 1997, 2008, and 2015 Eight-Hour Ozone NAAQS in the Philadelphia–Wilmington–Atlantic City, PA–NJ–MD–DE Ozone Nonattainment Area;
- the 1997 Annual and 2006 24-Hour PM<sub>2.5</sub> NAAQS in the Philadelphia–Wilmington, PA–NJ–DE PM<sub>2.5</sub> Maintenance Area;
- the 1997 Annual and 2006 24-Hour PM<sub>2.5</sub> NAAQS in the DVRPC portion of the New York–Northern New Jersey–Long Island, NY–NJ–CT PM<sub>2.5</sub> Maintenance Area; and
- the 2012 Annual PM<sub>2.5</sub> Delaware County, Maintenance Area.

## **CHAPTER 1: Introduction**

#### Overview

This report documents the demonstration of transportation conformity for the DVRPC Draft Amended *Connections 2045* Long-Range Plan, FY2020 New Jersey TIP, and Draft FY2021 Pennsylvania TIP with the respective SIPs and applicable NAAQS requirements under the CAA, as amended.

This report documents transportation conformity for the following specific pollutants within the stated designation areas. Those pollutants are:

## VOCs and NO<sub>x</sub> meeting the 1997, 2008, and 2015 Eight-Hour Ozone NAAQS requirements in:

 the DVRPC portion of the Philadelphia—Wilmington—Atlantic City, PA–NJ–MD–DE Ozone Nonattainment Area; and

# Direct $PM_{2.5}$ and precursor $NO_x$ meeting the 1997 Annual, 2006 24-Hour, and 2012 Annual $PM_{2.5}$ NAAQS requirements in:

- the DVRPC portion of the Philadelphia–Wilmington, PA–NJ–DE Annual and 24-Hour PM<sub>2.5</sub>
   Maintenance Area,
- the DVRPC portion of the New York–Northern New Jersey–Long Island, (NY–NJ–CT) Annual and 24-Hour 24 PM<sub>2.5</sub> Maintenance Area; and
- the Delaware County, PA Annual PM<sub>2.5</sub> Maintenance Area.

In July 2013, the US EPA revoked the 1997 Ozone Standard with the publication of the Implementation Rule for the 2008 Ozone Standard. In February 2018, the District of Columbia Court of Appeals ruled in the case of *South Coast Air Quality Management District v. EPA* that the implementation of this revocation of the standard violated the CAA. Subsequent court rulings and US EPA guidance declared that states with SIP budgets whose 1997 Ozone Nonattainment areas are contained within the 2008 Ozone Nonattainment areas meet the 1997 conformity requirements by demonstrating conformity to the 2008 standard.

On August 24, 2016, the US EPA revoked the 1997 Annual PM<sub>2.5</sub> Standard. The DVRPC region was in maintenance of this standard and although DVRPC is not required to demonstrate conformity to this standard due to this action, DVRPC is affirming that this conformity finding does also demonstrate transportation conformity to the revoked 1997 PM<sub>2.5</sub> NAAQs, as well as to the 2006 and 2012 PM<sub>2.5</sub> NAAQs.

The DVRPC planning area also includes former carbon monoxide (CO) maintenance areas for portions of the cities of Philadelphia, Pennsylvania and Burlington, Camden, and Trenton in New Jersey. These areas have achieved their 20-year maintenance plans (New Jersey on July 10, 2016, and Pennsylvania on December 4, 2017) and are no longer required to demonstrate conformity for CO.<sup>1</sup>

Figures 7 and 8 detail the current ozone and PM<sub>2.5</sub> nonattainment and maintenance areas that are relevant to the DVRPC region.

<sup>&</sup>lt;sup>1</sup> Transportation Conformity Guidance for Areas Reaching the End of the Maintenance Period, EPA-420-B-14-093

**Figure 7:** Philadelphia–Wilmington–Atlantic City PA–NJ–MD–DE Eight-Hour Ozone Nonattainment Area

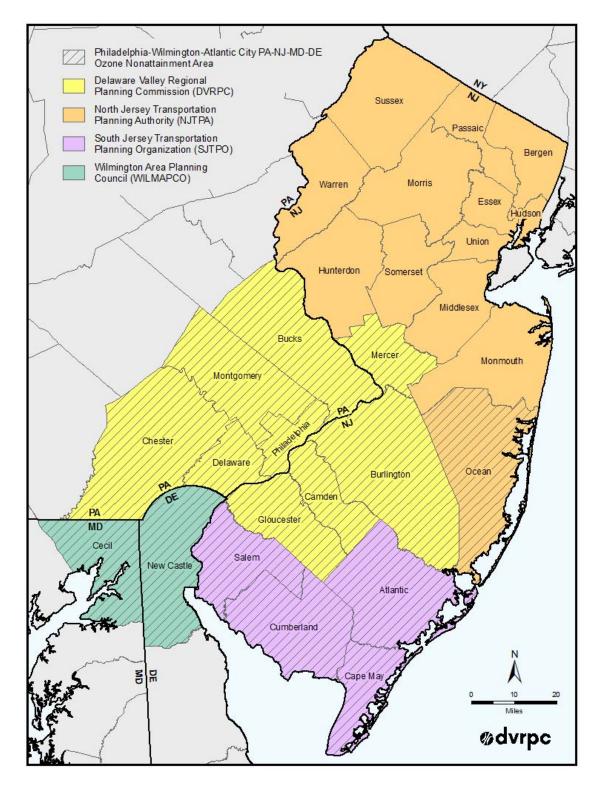
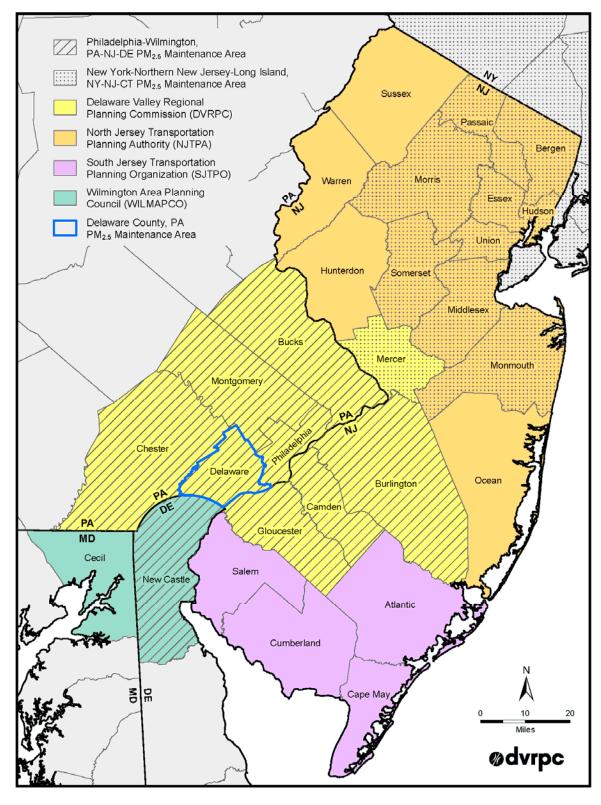


Figure 8: DVRPC Annual and 24-Hour PM<sub>2.5</sub> Maintenance Areas



## **NAAOS**

The CAA, first enacted in 1963 and last amended in 1990, mandates the US EPA to set national air quality standards for air pollutants that are considered harmful to public health and the environment. The CAA requires the agency to periodically review the standards to ensure that they provide adequate health and environmental protection, and to update those standards as necessary. These standards are set at the level required to provide an ample margin of safety to protect public health and welfare.

The US EPA has set NAAQS for several principal air pollutants, which are called criteria pollutants. The NAAQS criteria pollutants include ozone, CO, coarse and fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>, respectively), sulfur dioxide, nitrogen dioxide, and lead.

The DVRPC region must demonstrate transportation conformity for ozone and PM<sub>2.5</sub>, and Table 2 lists the current NAAQS for ozone and PM<sub>2.5</sub> and the date of adoption by the US EPA.

Table 2: Current NAAQs

NAAQS	Standard	Date Adopted	Final NAA Designations	FR Notice
Ozone (2015)	70 ppb	October 2015	June 2018	80 FR 65292
Annual PM <sub>2.5</sub> (2012)	12 μg/m³	December 2012	April 2015	78 FR 3086
24-Hour PM <sub>2.5</sub> (2006)	35 μg/m³	October 2006	December 2009	71 FR 61144

Source: US EPA 2020.

Note: NAA = Nonattainment Area; FR = Federal Register.

When a region is designated as a nonattainment area by the US EPA, states are required to developed SIPs. The SIP represents the state's roadmap to meet or "attain" air quality standards contained in the NAAQS. Implemented SIPs contain an MVEB. Regional emissions estimates are compared against these budgets to determine progress toward meeting air quality goals.

The nonattainment areas for each of the criteria pollutants can be viewed at: <a href="www.epa.gov/green-book">www.epa.gov/green-book</a>. Detailed information on the SIPs can be viewed at:

https://www.epa.gov/air-quality-implementation-plans/sip-status-reports.

## **Public Health Impacts**

**Ozone** is a photochemical oxidant and a major component of smog. Ozone is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of VOCs and NO<sub>x</sub> in the presence of sunlight. Although ozone in the upper atmosphere shields and protects the earth from harmful radiation from the sun, high concentrations of ozone at ground level are a serious health and environmental concern. Even at low levels, ozone can damage lung tissue, reduce lung function, and sensitize the respiratory system to other irritants. Additionally, scientific evidence has indicated that ambient levels of ozone not only affect people with pulmonary conditions, such as asthma, but also normal, healthy adults and children.

Particulate Matter (PM) includes both solid particles and liquid droplets found in air. Many man-made and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM. These solid and liquid particles come in a wide range of sizes. The coarse particles, less than 10 micrometers ( $\mu$ m) in diameter (PM<sub>10</sub>), pose a health concern since they can be inhaled into and accumulate in the respiratory system. The fine particles, less than 2.5  $\mu$ m in diameter (PM<sub>2.5</sub>), are believed to pose even greater health risks. Because of their small size, these fine particles can lodge deep in the lungs. Individuals particularly sensitive to PM<sub>2.5</sub> exposure include older adults, people with heart and lung disease, and children. Health studies have shown a significant association between exposure to PM<sub>2.5</sub> and premature mortality.

 $PM_{2.5}$  can be emitted directly from combustion engines or chemically formed in the atmosphere when certain gases are present. Direct  $PM_{2.5}$  emissions can result from particles in exhaust fumes, from brake and tire wear, from road dust kicked up by vehicles, and from highway and transit construction. Indirect  $PM_{2.5}$  emissions can result from one or more of several exhaust components, including VOCs,  $NO_x$ , sulfur oxides  $(SO_x)$ , and ammonia  $(NH_3)$ .

## **Transportation Conformity**

The CAA section 176(c) (42 US Code [U.S.C.] 7506(c)) requires that federally funded highway and transit project activities "conform to" state air quality goals found in SIPs. This process ensures that transportation and air quality agencies are consulting one another to look for strategies to relieve traffic congestion, improve air quality, and provide communities with a safe and efficient transportation system.

The transportation conformity process is required in areas that have been designated by the US EPA as nonattainment or maintenance areas (see Figures 7 and 8 on pages 10 and 11). A transportation conformity demonstration is required at least once every four years; or when an MPO adopts a new Plan or TIP; or when an MPO amends, adds, or deletes a regionally significant, nonexempt project in a Plan or TIP.

Transportation conformity is demonstrated when federally funded highway and transit activities are determined not to cause new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS. The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) jointly make conformity determinations within air quality nonattainment and maintenance areas to ensure that federal actions are consistent with corresponding SIPs. The U.S. Department of Transportation cannot fund, authorize, or approve federal actions to support programs or projects that are not found to conform to the CAA requirements governing the current NAAQS for transportation conformity.

This conformity demonstration is based on the current Final Rule under the CAA, including 40 CFR Part 93, as revised, and applies to ozone and PM<sub>2.5</sub>. The Final Rule dictates that conformity findings within the DVRPC planning area must be based on the applicable SIP budgets in all target analysis years. The demonstration process estimates emissions that will result from the region's transportation system and determines whether those emissions are within the limits outlined in respective SIPs and other applicable NAAQS requirements.

## **CHAPTER 2: Conformity Demonstration Overview**

## **DVRPC Plan and TIPs**

The New Jersey and Pennsylvania TIPs are staged, multiyear, intermodal programs of transportation projects covering the nine counties in the DVRPC planning area. The DVRPC TIPs are consistent with

There are three categories of projects in the Plan and TIPs:

Regionally Significant
Project: a nonexempt
highway or transit project
on a facility that, regardless
of its length, serves
regional needs and is
normally included in the
regional travel demand
model.

Exempt Project: a project listed in Table 2 or Table 3 of the Final Rule (40 CFR 93) that primarily enhances safety or aesthetics, maintains mass transit, continues current levels of ridesharing, or builds bicycle and pedestrian facilities.

## Not Regionally Significant Project/Nonexempt: a

nonexempt highway or transit project on a facility that does not serve regional needs or is not normally included in the regional travel simulation model, and does not fit into an exempt project category in Table 2 or Table 3 of the Final Rule (40 CFR 93).

the Plan and are developed, pursuant to 23 CFR Part 450, to meet the federal requirement of being financially constrained to a funding level that is available to the region as established in the financial guidance provided by the respective states. All Plan and TIP project descriptions have been reviewed and approved by DVRPC's Transportation Conformity Interagency Consultation Group (TCICG) for appropriate Air Quality (AQ) code and analysis year.

The Connections 2045 Long-Range Plan, adopted in October 2017, provides a broad planning framework for the region. The transportation component of the Plan articulates a vision and a comprehensive long-range transportation blueprint for the DVRPC planning area. The Connections 2045 Plan includes over \$67 billion from traditional sources for regional transportation improvements. The Plan is fiscally constrained and focuses transportation funding on rebuilding the region's transportation infrastructure, but it also includes new major regional transportation projects to achieve its goals and objectives. The Plan advances and supports the region's land use plans and policies and proposes strategies to carry out those policies.

The Plan's financial component reflects current and projected federal authorization levels. Projected costs for future Plan projects have been adjusted to account for inflation and to reflect the year of expenditure, as required by the FHWA/FTA Final Rule on Statewide and Metropolitan Transportation Planning and Programming.<sup>2</sup>

The CAA requires that, in nonattainment or maintenance areas, all regionally significant and nonexempt projects included in a Plan or TIP on principal arterials and higher classifications—that is, those that can impact regional air quality—meet the conformity requirements established in the Final Rule. DVRPC must identify these projects in the Plan and TIPs and conduct an emissions analysis on those projects in order to demonstrate that the projects included in the Plan and TIPs do not worsen air quality or inhibit the region's progress toward meeting the NAAQS.

<sup>&</sup>lt;sup>2</sup> See 23 CFR 450.216(1), 23CFR 450.322(f) (10) (iv), and 23 CFR 450.23(h).

The project set includes all those projects in the Plan, those in the current TIP, and those that have been introduced in previous TIPs but are not yet completed. Each project is classified by the first year that the project is included in the regional emissions analysis, also known as the analysis year. The emissions estimates for a particular analysis year include all of the projects that are expected to be open to traffic by that year.

#### **DVRPC AQ Code**

For all Plan and TIP projects, an AQ coding scheme has been developed and is applied by DVRPC for the conformity determination and exempt eligibility identification purposes. All regionally significant, nonexempt projects are assigned a five-character alphanumeric AQ code that begins with a four-digit analysis year followed by the letter "M" to indicate that it was included in the TDM. For instance, a Plan or TIP project may have an AQ code of 2025M, in which case the project is identified as a regionally significant, nonexempt project, the emissions estimates of which are (1) included in the 2025 and all subsequent future analysis years, and (2) performed using the TDM network analysis technique.

DVRPC has also developed an internal coding scheme to identify each exempt project type based on those defined in the Final Rule. Table 3 shows the exempt project categories in the Final Rule and their corresponding DVRPC AQ codes. In cases in which multiple codes can apply to a project, the most representative code is assigned. The AQ code for each project is shown in the respective Plan and TIP documents.

Projects that have been determined not to be regionally significant as defined in the Final Rule, and do not fit into an exempt category, are labeled as "NRS." The TCICG has reviewed all projects and concurred on all assigned AQ codes in the Plan and the TIPs.

Table 3: AQ Codes for Projects in the Plan and TIPs

	Exempt Project Category <sup>†</sup>	AQ Code		Exempt Project Category <sup>†</sup>	AQ Code
	Railroad/highway crossing		Air Quality	Continuation of ridesharing and vanpooling promotion activities at current levels	A1
	Hazard elimination program	S2	Projects		A2
	Safer non-federal-aid system roads	S3		Bicycle and pedestrian facilities  Specific activities that do not involve or lead	AZ
	Shoulder improvements	S4		directly to construction, such as planning and	X1
	Increasing sight distance	S5		technical studies	
	Safety improvement program	S6		Grants for training and research programs	X2
	Traffic control device and operating assistance other than signalization projects	S7		Planning activities conducted pursuant to title 23 and 49 U.S.C.	Х3
	Railroad/highway crossing warning devices	S8		Federal aid systems revisions	X4
	Guardrails, median barriers, crash cushions	S9		Engineering to assess social, economic, and environmental effects of the proposed action or	X5
Safety	Pavement resurfacing and/or rehabilitation	S10		alternatives to that action	7.0
Projects	Pavement marking demonstration	S11		Noise attenuation	X6
	Emergency relief (23 U.S.C. 125) Fencing	S12 S13	Other Projects	Advance land acquisitions (23 CFR 712 or 23 CFR 771)	X7
	Skid treatments	S14		Acquisition of scenic easements	X8
	Safety roadside rest areas	S15		Plantings, landscaping, etc.	X9
	Adding medians	S16		Sign removal	X10
	Truck-climbing lanes outside the urbanized area	S17		Directional and informational signs	X11
	Lighting improvements	S18		Transportation enhancement activities (except rehabilitation and operation of historic	X12
	Widening narrow pavements or reconstructing bridges (no additional travel lanes)	S19		transportation buildings, structures, or facilities)	
	Emergency truck pullovers	S20		Repair of damage caused by natural disasters, civil unrest, or terrorist acts, except projects involving substantial functional, locational, or	X13
	Operating assistance to transit agencies	M1		capacity changes	
	Purchase of support vehicles	M2		Intersection channelization projects	R1
	Rehabilitation of transit vehicles  Purchase of office, shop, and operating	M3 M4	No Regional	Intersection signalization projects at individual intersections	R2
	equipment for existing facilities	1014	Emissions Analysis	Interchange reconfiguration projects	R3
	Purchase of operating equipment for vehicles (e.g., radios, fare boxes, lifts, etc.)	M5	Required	Changes in vertical and horizontal alignment	R4
	Construction or renovation of power, signal, and	M6		Truck size and weight inspection stations	R5
Mass Transit	communications systems  Construction of small passenger shelters and	M7	Not	Bus terminals and transfer points	R6
Projects	information kiosks  Reconstruction or renovation of transit buildings  and structures	M8	Not Regionally Significant	Projects determined to be "Not Regionally Significant" and do not fit into an exempt category	NRS
	Rehabilitation or reconstruction of track structures, track, and tracked-in existing rights-of-way	M9	Study and Development	Project in the Study and Development Program expected to result in an exempt project	SDX
	Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet	M10	(New Jersey Only)	Project in the Study and Development Program expected to result in a nonexempt project	SDN
	Construction of new bus or rail storage/maintenance facilities categorically excluded in 23 CFR part 771	M11			

 $<sup>^{\</sup>dagger}$ 40 CFR 93 Sections 126 and 127.

## **Analysis Year**

Required analysis years include SIP budget years, designated NAAQS attainment dates, and Plan horizon year. All other analysis years must be no more than 10 years apart.

The analysis years for this conformity demonstration are listed in Table 4. The years 2025 (PM<sub>2.5</sub> SIP budget years in both states) and 2045 (the Plan horizon year) are required analysis years in both states, and 2035 is an interim year within 10 years of the previous analysis.

In November 2019, the US EPA approved an Attainment SIP for the Delaware County PM<sub>2.5</sub> Nonattainment Area. This SIP included MVEBs for 2022 and 2030; therefore, 2022 and 2030 are analysis years for PM<sub>2.5</sub> for projects in Delaware County only.

Table 4: Mobile Source Analysis Years

Year	Ozone	PM <sub>2.5</sub>	Note
2022		$\sqrt{}$	PM <sub>2.5</sub> SIP budget year (Delaware County only)
2025	$\checkmark$	$\sqrt{}$	Interim Year and PM <sub>2.5</sub> SIP budget year
2030		$\checkmark$	PM <sub>2.5</sub> SIP budget year (Delaware County only)
2035	$\checkmark$	$\checkmark$	Year within 10 years of previous analysis
2045	$\checkmark$	$\checkmark$	DVRPC Plan horizon year

Source: DVRPC, 2020.

Table 5 describes the project sets that are considered in each future-year analysis.

Table 5: Projects Included in the Regional Emissions Analysis

Analysis Year	Project Set
2022 (SIP budget year) for Delaware County, PA only	All regionally significant highway and transit facilities, services, and activities currently in place and All regionally significant highway and transit projects that are scheduled to open prior to 2022.
2025 (PM <sub>2.5</sub> budget years and interim year)	All regionally significant highway and transit facilities, services, and activities currently in place and Additional highway and transit projects that are scheduled to open prior to 2025
2030 (SIP budget year) for Delaware County, PA only	All regionally significant highway and transit projects in the 2025 model network and  Additional highway and transit projects that are scheduled to open from 2025 to 2029.
2035 (Interim year)	All regionally significant highway and transit projects in the 2025 model network and  Additional highway and transit projects that are scheduled to open from 2025 to 2034.
2045 (DVRPC Plan horizon year)	All regionally significant highway and transit projects in the 2035 model network and  Additional highway and transit projects that are scheduled to open from 2035 to 2044.

## **Emissions Analysis**

Once the regionally significant and nonexempt projects in the Plan and TIPs are identified and analysis years are assigned, regional emissions estimates are developed through a series of models that simulate travel demand in the region and then convert those travel characteristics into estimates of emissions of the pollutants of concern.

Plan and TIP projects are coded into the DVRPC TDM (TIM 2.0). The TDM represents the regional transportation network and uses inputs such as population, employment, and land use data to develop estimates for trip length, vehicle miles traveled (VMT), and traffic volumes on the transportation network. The model includes the base transportation network of roads and transit projects that have been constructed, and new networks are built to include projects from the Plan and TIPs according to the projects' analysis years.

Outputs of the TDM are then processed and entered into the emissions estimation model, MOVES 2014b. The MOVES model will then take the TDM outputs, information on meteorology, fuel information, data on vehicle types and vehicle populations, and other critical inputs to develop a projected emissions estimate for a given analysis year and pollutant, which is then compared against SIP MVEBs to demonstrate conformity.

## **Latest Planning Assumptions**

The Final Rule requires that the most current available planning assumptions be used in determining transportation conformity. In addition to the Plan and TIP projects that are included in the conformity analysis, planning assumptions, such as population and employment estimates, transit and toll road policies, and land use assumptions are critical inputs to the TDM. Planning assumptions, as well as the list of Plan and TIP projects, are reviewed and approved by the TCICG before DVRPC begins the regional emissions analysis.

The planning assumptions and project lists used in this demonstration are the latest and most current assumptions available as of March 19, 2020, for New Jersey and April 16, 2020 for Pennsylvania. These dates function as the "start of analysis" dates for the conformity determination in each state.

## Population and Employment Estimates

The population and employment estimates used in this conformity determination are the latest available at the traffic analysis zone (TAZ) level. Population forecasts were adopted by the DVRPC Board in July 2016, and employment forecasts were adopted in October 2016. These estimates include forecasts for the Plan horizon year of 2045 and can be reviewed in *Regional, County, and Municipal Population Forecasts, 2015—2045* (August 2016, DVRPC publication number ADR022) and *Regional, County, and Municipal Employment Forecasts, 2015—2045* (October 2016, DVRPC publication number ADR023).

### Transit and Toll Road Policies

As part of the latest planning assumptions, current transit operations policies and road toll structures are considered. The transit person trips produced by the modal split component of the DVRPC TDM are considered "linked" in the sense that they do not include any transfers that may have occurred either between transit trips or between auto approaches and transit lines. Therefore, the transit assignment procedure accomplishes two major tasks. First, the transit trips are "unlinked" to include transfers; and second, these "unlinked" transit trips are associated with specific transit facilities to produce link, line, and station volumes. These tasks are performed simultaneously within the transit assignment model, which assigns the transit trip matrix to paths built through the transit network, which is not capacity constrained.

All fares entering the transit network are "blended" by operating entity. For each operator, different existing fare types (e.g., cash; transfer charge; and daily, weekly, and monthly passes) are blended into a single fare

policy based on the percentage of each fare type and use in the 2015 fare structure. Then the future fare for each operator is held constant in current dollars. All current operating plans, ridership, and service levels of transit systems are built into the transit network and incorporated into the future-year networks, as well. Future-year transit networks are also augmented with any new services identified in the corresponding DVRPC Plan and TIPs. Table 6 details all transit operators included in the transit network and their operational assumptions.

Other transportation-related costs, such as automobile operating costs, gasoline costs, parking costs, and road/bridge tolls, are also based on current and available data and are held constant in current dollars into the future analysis years.

**Table 6:** Transit Operation Assumptions

Transit Companies	Fares	Operating Plan /Service Level
SEPTA City Transit Division		
SEPTA Suburban Victory Division		
SEPTA Suburban Frontier Division		
SEPTA Regional Rail Division	Specified in the	0 '6 1: "
NJ Transit Mercer Division	transit network by operator and by	Specified in the transit networks by
NJ Transit Southern Division	analysis year; held constant in	operator and by analysis year.
NJ Transit Railroad Division	year 2015 dollars	anarysis year.
PATCO High-Speed Line (DRPA)		
Pottstown Area Rapid Transit		
Krapf's Coaches		

Source: DVRPC, 2020.

Note: SEPTA = Southeastern Pennsylvania Transportation Authority; NJ Transit = New Jersey Transit; DRPA = Delaware River Port Authority; PATCO = Port Authority Transit Corporation.

#### **Travel Demand Simulation**

TIM 2.0 has been validated in 2017 following FHWA guidance and features an expanded geography to improve travel simulation within, through, and across the region. The current model includes detailed transportation network data on the DVRPC region, plus less detailed information on the transportation network in the 16 counties surrounding the DVRPC region. The current DVRPC TDM meets the federal transportation authorization and planning requirements, as well as requirements included in the CAA and the Final Rule.

DVRPC's TDM is a four-step process that ultimately assigns travel patterns among and within TAZs and modes of transportation using the built transportation networks, along with the planned highway and transit networks described by the Plan and the TIPs. Travel patterns and modal splits are then run through a postprocessor in preparation for emissions analysis by MOVES 2014b. The TCICG has reviewed and approved DVRPC's travel demand modeling process.

#### **Emissions Model**

The CAA requires the US EPA to regularly update emissions models. In 2009, the US EPA required that the MOVES model become the official emissions estimation model used for SIP development and transportation conformity determinations. The MOVES family of models estimates on-road mobile emissions based on an operational mode that accounts for different driving patterns and emissions profiles from various vehicle types. Beginning in October 2016, MPOs and state DOTs were required to use the MOVES 2014 emissions model to demonstrate transportation conformity; MOVES 2014 has subsequently been updated to the MOVES 2014b emissions model that is used for this conformity determination. For a detailed description of the MOVES model, please visit: <a href="https://www.epa.gov/otaq/models/moves/index.htm.">www.epa.gov/otaq/models/moves/index.htm.</a>

## **Conformity Tests**

The DVRPC region must demonstrate transportation conformity for ozone and PM<sub>2.5</sub>, and governing SIPs are in place for these pollutants in New Jersey and Pennsylvania. DVRPC utilizes the budget test to demonstrate conformity using applicable SIP budgets.

The DVRPC region was designated as a marginal nonattainment area for the 2015 Ozone Standard on June 4, 2018. Implementation guidance for this standard was released by the US EPA in December 2018 and this conformity determination was conducted following the 2015 Eight-Hour Ozone NAAQS implementation guidance (83 FR 62988).

DVRPC is using the 2008 Ozone SIP Budget in Pennsylvania and 2009 Ozone SIP Budget in New Jersey. These budgets were approved by the US EPA for conformity purposes in February 2011 and May 2009, respectively. All ozone budgets have been established by the state DEPs using MOBILE 6.2. The regional emissions analysis for ozone was conducted using the MOVES 2014b. Analysis is conducted for ozone emissions for a typical summer work weekday.

The US EPA has approved maintenance plans for both the 1997 Annual and 2006 24-Hour PM<sub>2.5</sub> standards in the New Jersey and Pennsylvania counties in the DVRPC region (approved by the US EPA in September 2013 and April 2015, respectively). The US EPA approved a maintenance plan for the 2012 Annual PM<sub>2.5</sub> standard in Delaware County in November 2019. All of these state SIPs contain MVEBs for direct PM<sub>2.5</sub> and precursor NO<sub>x</sub> to be used to demonstrate transportation conformity. All PM<sub>2.5</sub> MVEBs are expressed in tons of emissions per year for both the annual and 24-hour standards.

The US EPA has ruled that exhaust and brake/tire wear must be included in the regional analysis of direct PM<sub>2.5</sub> emissions but has also ruled that fugitive road dust does not need be included in this analysis in the DVRPC region. Thus, the only components of direct PM<sub>2.5</sub> emissions in this DVRPC conformity iteration are tailpipe exhaust and brake/tire wear.

For the indirect PM<sub>2.5</sub> emissions (also called PM<sub>2.5</sub> precursors), the US EPA has identified four potential transportation-related PM<sub>2.5</sub> precursors: VOCs, NO<sub>x</sub>, SO<sub>x</sub>, and NH<sub>3</sub>. Both New Jersey and Pennsylvania DEPs have determined that NO<sub>x</sub> is contributing to regional PM<sub>2.5</sub> formation and therefore must be included in the PM<sub>2.5</sub> precursor analysis.

Tables 7–10 show governing MVEBs to be utilized in this iteration of conformity demonstration.

**Table 7:** Ozone Emissions Budgets (Tons/Day)

Pollutant	Budget <sup>†</sup>	Pennsylvania Subregion (tons/day)	New Jersey Subregion (tons/day)
VOCa	2008 Budget (tons per day)	61.09 (all counties)	-
VOCs	2009 Budget (tons per day)	-	25.98 (all counties)
NO	2008 Budget (tons per day)	108.78 (all counties)	-
NO <sub>x</sub>	2009 Budget (tons per day)	-	63.66 (all counties)

Source: DVRPC, 2020.

<sup>†</sup>Ozone budgets are reported to the second decimal in accordance with the SIP. Both state SIP budgets for Ozone are for a typical July day.

**Table 8:** New Jersey PM<sub>2.5</sub> Emissions Budgets (Tons/Year)

Pollutant	Budget <sup>†</sup>	Burlington, Camden, and Gloucester counties (tons/year)	Mercer County (tons/year)
Annual and 24-Hour Direct PM <sub>2.5</sub> ♦	2025 Budget	363	119
Annual and 24-Hour Precursor NO <sub>x</sub> ♦	(tons per year)	8,003	2,551

Source: DVRPC, 2020.

†PM2.5 budgets are rounded off to the nearest integer in accordance with the SIP.

**Table 9:** Pennsylvania PM<sub>2.5</sub> Emissions Budgets (Tons/Year)

Pollutant	Budget <sup>†</sup>	Pennsylvania Subregion (tons/year)
Annual and 24-Hour Direct PM <sub>2.5</sub> ♦	2017 Budget	1,679
Annual and 24-Hour Precursor NO <sub>x</sub> ♦	(tons per year)	37,922
Annual and 24-Hour Direct PM <sub>2.5</sub> ♦	2025 Budget	1,316
Annual and 24-Hour Precursor NO <sub>x</sub> ♦	(tons per year)	25,361

Source: DVRPC, 2020.

<sup>†</sup>PM<sub>2.5</sub> budgets are rounded off to the nearest integer in accordance with the SIP.

<sup>\*</sup>Both state SIP budgets for Annual and 24-Hour PM2.5 are the same value expressed in tons/year.

<sup>\*</sup>Both state SIP budgets for Annual and 24-Hour PM2.5 are the same value expressed in tons/year.

**Table 10:** Delaware County PM<sub>2.5</sub> Emissions Budgets (Tons/Year)

Pollutant	Budget <sup>†</sup>	Pennsylvania Subregion (tons/year)
Annual and 24-Hour Direct PM <sub>2.5</sub> ♦ in Delaware County PA only.	2022 Budget	79
Annual and 24-Hour Precursor NO <sub>x</sub> ♦ in Delaware County PA only	(tons per year)	2,016
Annual and 24-Hour Direct PM <sub>2.5</sub> ♦ in Delaware County PA only.	2030 Budget	53
Annual and 24-Hour Precursor NO <sub>x</sub> ♦ in Delaware County PA only	(tons per year)	956

<sup>&</sup>lt;sup>†</sup>PM<sub>2.5</sub> budgets are rounded off to the nearest integer in accordance with the SIP. \*Both state SIP budgets for Annual and 24-Hour PM<sub>2.5</sub> are the same value expressed in tons/year.

## **CHAPTER 3: Regional Emissions Analysis**

## **Travel Demand Simulation Results**

Quantitative analyses for this iteration of transportation conformity determination for the DVRPC region began on March 19, 2020, in New Jersey and April 16, 2020, in Pennsylvania. All planning assumptions utilized in this demonstration are the latest and most current as of that date. The TDM analysis includes all regionally significant and nonexempt projects from the Draft Amended *Connections 2045* Long-Range Plan, the amended FY2020 TIP for New Jersey, and the Draft FY2021 TIP for Pennsylvania segregated into networks according to the anticipated date that the facilities will be open to traffic.

Results from the TDM, including speed distribution, VMT by vehicle type, road-type distribution, ramp fraction, VMT by day and month, and VMT by hour, were input into the MOVES 2014b emissions analysis model. These input files are provided to the US EPA for review and are available upon request.

For ozone analysis, a second speed distribution is performed before being analyzed by the MOVES 2014b model. The postprocessor applies a factor to the assigned volumes from the TDM that increases the annual average weekday volume to an average July weekday volume (these factors vary by county and functional class). This speed distribution is then organized into a MOVES-formatted input file, and the daily speed distribution is used for ozone emissions analysis to determine VOC and NO<sub>x</sub> emissions estimates for a typical summer work weekday.

#### **Emissions Estimate Results**

Mobile source emissions estimates are outputs of the MOVES 2014b model. The regional emissions analysis must meet all conformity tests in the Final Rule. Specifically, emissions of VOCs, NO<sub>x</sub>, and PM<sub>2.5</sub> must be less than the MVEBs established by the states.

Tables 11 and 12 present the results of these calculations for the transportation conformity simulation for the critical ozone precursors of VOCs and NO<sub>x</sub>. The Final Rule requires that until MVEBs are established for the 2008 or 2015 Eight-Hour Ozone NAAQS, the approved SIP MVEBs for the 1997 Ozone Standard are to be used to demonstrate conformity.

Table 11: VOCs Emissions Analysis Results (Tons/Day)

		2008 SIP MVEB†	2009 SIP MVEB†	2025 Emissions	2035 Emissions	2045 Emissions
Pennsylvania	Emissions from MOVES 2014b	61.09	-	22.09	13.36	10.29
New Jersey	Emissions from MOVES 2014b	-	25.98	9.45	5.84	5.08

<sup>&</sup>lt;sup>†</sup>The most recent Eight-Hour Ozone SIP MVEBs will apply to all future analysis years. All emissions are rounded off to the nearest hundredth of a ton per day.

**Table 12:** NO<sub>x</sub> Emissions Analysis Results (Tons/Day)

		2008 SIP MVEB <sup>†</sup>	2009 SIP MVEB†	2025 Emissions	2035 Emissions	2045 Emissions
Pennsylvania	Emissions from MOVES 2014b	108.78	-	28.66	13.64	11.47
New Jersey	Emissions from MOVES 2014b	-	63.66	12.73	6.71	6.19

Source: DVRPC, 2019.

Tables 13 and 14 provide the emissions estimate results for the PM<sub>2.5</sub> maintenance areas in each state, and Table 15 provides the emissions estimates and MVEB for the Delaware County 2012 Annual PM<sub>2.5</sub> Maintenance Area.

In New Jersey, governing SIP MVEBs for the years 2009 and 2025 were approved for both the Annual and 24-Hour PM<sub>2.5</sub> standards in September 2013. In Pennsylvania, governing SIP MVEBs for the years 2017 and 2025 were approved for both the Annual and 24-Hour PM<sub>2.5</sub> standards in April 2015. In Delaware County, Pennsylvania, governing SIP MVEBs were approved for the 2012 Annual PM<sub>2.5</sub> standard in November, 2019.

Since the PM<sub>2.5</sub> SIPs in each state provide MVEBs expressed in annual values (tons/year), conformity is demonstrated by comparing emissions estimates against these budgets in those terms.

**Table 13:** Annual and 24-Hour Direct PM<sub>2.5</sub> and NO<sub>x</sub> Emissions Analysis Results (Tons/Year) for New Jersey

		2025 SIP MVEB†	2025 Emissions	2035 Emissions	2045 Emissions
Direct PM <sub>2.5</sub>	Burlington, Camden, and Gloucester Counties*	363	183	122	113
	Mercer County <sup>«</sup>	119	57	39	35
PM <sub>2.5</sub> Precursor	Burlington, Camden, and Gloucester Counties*	8,003	3,555	1,971	1,778
(NO <sub>x</sub> )	Mercer County <sup>«</sup>	2,551	1,042	581	522

<sup>&</sup>lt;sup>†</sup>The most recent Eight-Hour Ozone SIP MVEBs will apply to all future analysis years. All emissions are rounded off to the nearest hundredth of a ton per day.

<sup>&</sup>lt;sup>†</sup> The most recent MVEBs apply to all future analysis years.

<sup>\*</sup>Results are only for Burlington, Camden, and Gloucester counties, which are the New Jersey portion of the Philadelphia–Wilmington, PA–NJ–DE PM<sub>2.5</sub> Maintenance Area.

<sup>&</sup>quot;Results are only for Mercer County, which is the DVRPC New Jersey portion of the New York—Northern New Jersey—Long Island, NY–NJ–CT PM<sub>2.5</sub> Maintenance Area.

**Table 14:** Annual and 24-Hour Direct PM<sub>2.5</sub> and NO<sub>x</sub> Emissions Analysis Results (Tons/Year) for Pennsylvania

	j	2025 SIP MVEB <sup>†</sup>	2025 Emissions	2035 Emissions	2045 Emissions
Direct PM <sub>2.5</sub>	DVRPC—PA	1,316	498	325	281
PM <sub>2.5</sub> Precursor (NO <sub>x</sub> )	DVRPC—PA	25,361	10,491	5,098	4,386

Source: DVRPC, 2020.

**Table 15:** 2012 Annual Direct PM<sub>2.5</sub> and NO<sub>x</sub> Emissions Analysis Results (Tons/Year) for Delaware County, PA

		2022 SIP MVEB†	2022 Emissions	2025 Emissions	2030 SIP MVEB†	2030 Emissions	2035 Emissions	2045 Emissions
Direct PM <sub>2.5</sub>	Delaware County	79	78	66	53	52	44	37
PM <sub>2.5</sub> Precursor (NO <sub>x</sub> )	Delaware County	2,016	1,847	1,301	956	832	636	534

Source: DVRPC, 2020.

## Meeting the Conformity Criteria

Collectively, these tables show that the estimated emissions of VOCs,  $NO_x$ , and  $PM_{2.5}$  do not exceed the respective MVEBs included in approved SIPs discussed in the previous sections of this conformity demonstration. Tables 11 through 15 cumulatively demonstrate that the Plan and the TIPs conform to the SIPs with respect to the MVEBs in the corresponding analysis year. The Plan and the TIPs meet all requirements under the governing ozone and  $PM_{2.5}$  regulations for all analysis years tested. The DVRPC region has satisfied the 20-year maintenance plan requirements for CO, and the region is no longer required to demonstrate conformity for this pollutant.

Table 16 indicates DVRPC's responses to the evaluation criteria for the Plan and TIPs, as well as the conformity evaluation criteria from 40 CFR Part 93.

<sup>&</sup>lt;sup>†</sup>The most recent MVEBs apply to all future analysis years.

<sup>&</sup>lt;sup>†</sup> Associated 2022 and 2030 MVEBs apply to all future analysis years.

Table 16: Evaluation of the Plan, TIPs, and Conformity Determination Criteria

Corresponding 40 CFR Part 93 Section(s)	Evaluation Criteria	DVRPC Response
§93.106(a)(1)	Are the transportation plan horizon years correct?	Yes. The analysis years of 2022 (Delaware County, Pennsylvania, only), 2025, 2030 (Delaware County, Pennsylvania, only), 2035, and 2045 correspond to the SIP budget years in both states, interim years within a 10-year time frame, and the current DVRPC Plan horizon year.
§93.106(a)(2)(i)	Does the plan quantify and document the demographic and employment factors influencing transportation demand?	Yes. The Connections 2045 Long-Range Plan does quantify and document demographic and employment factors influencing transportation demand. Future population and employment forecasts were developed with member counties and adopted by the DVRPC Board.
§93.106(a)(2)(ii)	Is the highway and transit system adequately described in terms of regionally significant additions or modifications to the existing transportation network that the transportation plan envisions to be operational in horizon years?	Yes. The regionally significant additions and modifications to the network utilized in this conformity analysis are listed and described. Detailed information regarding each project can be found in the respective Plan and TIP documents.
§93.108	Are the transportation Plan and TIPs fiscally constrained?	Yes. The Plan and the TIPs are constrained to reasonably anticipated financial resources, as required by federal regulations, and are based on year-of-expenditure costs.
§93.109(c)	Are the regional conformity tests requirements met for all nonattainment and maintenance areas?	Yes. PM <sub>2.5</sub> , VOCs, and NO <sub>x</sub> MVEBs have been approved by the US EPA. DVRPC performs budget tests to demonstrate the PM <sub>2.5</sub> and ozone conformity of the Plan and the TIPs. The region has satisfied CO maintenance plan requirements, and no conformity demonstration for CO is required.

<continued>

Corresponding 40 CFR Part 93 Section(s)	Evaluation Criteria	DVRPC's Response
	Are the conformity determinations based upon the latest planning assumptions?	Yes.
	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 that the conformity determination began?	Yes. This conformity determination utilizes the most recent planning assumptions as of March 19, 2020, in New Jersey and April 16, 2020, in Pennsylvania, the respective start of analysis dates for this conformity determination for the Plan and TIPs.
	Are the assumptions derived from the estimates of current and future population, employment, travel, and congestion the 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?	Yes. This conformity determination utilizes the most recent demographic and employment data, which were adopted by the DVRPC Board in July and October 2016, respectively. Also, other planning assumptions and travel data are derived from the most current information available to DVRPC.
§93.110	Are any changes in the transit operating policies (including fares and service levels) and assumed transit ridership discussed in the determination?	Yes. Applicable transit operating policies and transit ridership are discussed in this document and were verified through the consultation process. (See Chapter 2, pp. 19–20).
	Does the conformity determination include reasonable assumptions about transit service and increases in transit fares and road and bridge tolls over time?	Key transit and toll assumptions outlined in this document were verified through the consultation process. (See Chapter 2, pp. 19–20).
	Does the conformity determination use the latest existing information regarding the effectiveness of the TCMs and other implementation plan measures that have already been implemented?	Currently, there are no adopted TCMs in the corresponding SIPs.
	Are key assumptions specified and included in the draft documents and supporting materials used for the interagency and public consultation, as required by §93.105?	Key assumptions are specified and other supporting documents are included in this conformity determination document, which is available to the TCICG and the public.

<continued>

Corresponding 40 CFR Part 93 Section(s)	Evaluation Criteria	DVRPC's Response
§93.111	Is the conformity determination based upon the latest emissions model?	Yes. The transportation conformity determination for the Plan and the TIPs is based on MOVES 2014b, the latest available emissions model.
§93.112	Did the MPO make the conformity determination according to the consultation procedures of the Final Rule or the state's conformity SIP?	Yes. Formal interagency consultation meetings with EPA, FHWA, FTA, and state environmental and transportation agencies were held according to the consultation procedures consistent with the requirements of all applicable regulations, including §93.105(a) and (e), to consider input assumptions and to review findings regarding transportation conformity.  In compliance with 23 CFR 450, a 30-day public comment period and public meetings in the respective states were held to receive comments regarding the transportation conformity of the Plan and the TIPs under all governing NAAQS.
§93.113(b) §93.113(c)	Are TCMs being implemented in a timely manner?	There are currently no adopted TCMs in the SIPs.
§93.118	For areas with SIP Budgets: is the Plan, TIPs, or project consistent with the established MVEB(s) in the applicable SIP?	Yes. Projects contained in the TIPs and the Plan result in fewer emissions than the established budgets for all applicable pollutants in each analysis year.
§93.122(a)(1)	Does the conformity analysis include all regionally significant projects?	Yes. The project sets for the Plan and the TIPs include all regionally significant projects.
§93.122(a)(6) §93.122(a)(7)	Are reasonable methods and factors used for the regional emissions analysis consistent with those used to establish the emissions budget in the applicable SIP?	Yes. The ambient temperatures and other factors used in the analysis, including the methods for offnetwork VMT and speed, have been reviewed by the TCICG and deemed reasonable.
§93.122(b)	Is there a network-based travel model of reasonable methods to estimate traffic speed and delays for the purpose of transportation-related emissions estimates?	Yes. DVRPC uses a network-based model that runs iteratively using the Evans algorithm to obtain convergence on input/output highway and transit travel speed. It is sensitive to travel time, costs, and other factors affecting travel choices.

Source: DVRPC, 2019.

# **CHAPTER 4: Stakeholder Participation**

## **Interagency Consultation Group Meetings**

DVRPC participated in a series of TCICG meetings and correspondence for this iteration of the transportation conformity demonstration of the Plan and the TIPs, although the process is different in each state.

In Pennsylvania, consultation takes place at quarterly Air Quality Working Group (AQWG) meetings and through a Pennsylvania Department of Transportation (PennDOT)-hosted SharePoint website. Planning assumptions and model inputs were discussed and approved for the Draft FY2021 TIP for Pennsylvania at the AQWG meeting on February 4, 2020.

The list of projects being amended to the *Connections 2045* Long-Range Plan, and Draft FY2021 Pennsylvania TIP and the proposed AQ codes and analysis years, were posted on the PennDOT Share Point site for review by the Pennsylvania TCICG.

Interagency consultation for the New Jersey portion of the region was conducted via conference call on March 18, 2020. At that meeting the conformity timeline, planning assumptions, model inputs, project lists, and AQ codes for this conformity determination were reviewed and approved by the New Jersey TCICG.

Additional consultation occurred via email and phone correspondence between TCICG members throughout the conformity determination process. Final decisions on items of discussion were summarized and shared with the TCICG.

Represented federal, state, and local partners on the TCICG included US EPA Region II and III offices, FHWA NJ Division Office, FHWA PA Division Office, New Jersey Department of Transportation, New Jersey Transit, New Jersey DEP, Pennsylvania DEP, PennDOT, SEPTA, and DRPA/PATCO. The consultant firm of Michael Baker Jr., Inc., also participated in the TCICG process because of its extensive involvement and expertise in the transportation conformity processes in both Pennsylvania and New Jersey.

### **Public Participation**

DVRPC opened a mandated 30-day public comment period on June 3, 2020, to receive comments on the draft conformity findings. The announcement for the public comment period for the conformity determination of the Plan and the TIPs appeared in five major newspapers throughout the region during the week of June 1, 2020. Announcement of the public comment period appeared in DVRPC's June newsletter, which goes to at least 12,000 subscribers. This draft conformity document was made available online at <a href="https://www.dvrpc.org/airquality/conformity">www.dvrpc.org/airquality/conformity</a>.

Previously, hard copies of the draft document would be made available at a number of large libraries throughout the region and at DVRPC's offices. However, due to state and local Stay-At-Home orders, DVRPC's offices and public libraries were closed or under restricted visitation rules during the comment period. DVRPC's Office of Communications & Engagement conducted a survey of its library partners to gather recommendations for how DVRPC can bridge the "digital divide" and requested that the libraries use their online platforms to promote the public comment period.

In New Jersey, DVRPC is working with FHWA to engage tribal governments to comment on planning projects and core planning activities through FHWA contacts. These strategies will continue to evolve as FHWA guidance is further developed.

As part of the comment period, two online public information sessions were held on June 17 at 2:00 PM and 7:00 PM, via webinar and a call-in function. The meeting presentations were recorded and posted on the DVRPC website for additional access to the public. The comment period closed on July 6, 2020 at 5:00 PM.

DVRPC accepted public comments on the draft conformity document online at <a href="mailto:www.dvrpc.org/airquality/conformity">www.dvrpc.org/airquality/conformity</a>, by email at <a href="mailto:airconformity@dvrpc.org">airconformity@dvrpc.org</a>; by fax at (215) 592-9125; by mail at the address at the end of this document, Attention: TIP/Plan/Conformity Comments. The DVRPC Board adopted the conformity findings on July 23, 2020.

There were no comments submitted by the public regarding the conformity finding.

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## CHAPTER 5: Conclusion

The DVRPC Plan and TIPs are found to be in conformity with the current Pennsylvania and New Jersey SIPs under the CAA. The forecasted emissions levels of VOCs, NO<sub>x</sub>, and PM<sub>2.5</sub> do not exceed the respective budgets established by the states in accordance with the Final Rule under the current NAAQS governing applicable pollutants. DVRPC confirms that the transportation conformity analysis meets all applicable conformity criteria, including, but not limited to, the following:

- that the Plan and the TIPs are fiscally constrained [40 CFR 93.108];
- that this determination is based on the latest planning assumptions [40 CFR 93.110];
- that this determination is based on the latest emissions estimation model available [40 CFR 93.111];
- that DVRPC has made the determination according to the applicable consultation procedures [40 CFR 93.112];
- that the Plan and the TIPs do not interfere with the timely implementation of TCMs [40 CFR 93.113];
   and
- that the Plan and the TIPs are consistent with the MVEBs in the applicable SIPs [40 CFR 93.118].

These findings demonstrate transportation conformity of the DVRPC Draft Amended *Connections 2045* Long-Range Plan, FY2020 TIP for New Jersey, and Draft FY2021 TIP for Pennsylvania with the corresponding state SIPs and the Final Rule requirements under the CAA, including:

- the 1997, 2008, and 2015 Eight-Hour Ozone NAAQS in the Philadelphia-Wilmington-Atlantic City PA– NJ–MD–DE Ozone Nonattainment Area;
- the 1997 Annual and 2006 24-Hour PM<sub>2.5</sub> NAAQS in the Philadelphia–Wilmington, PA–NJ–DE PM<sub>2.5</sub> Maintenance Area;
- the 1997 Annual and 2006 24-Hour PM<sub>2.5</sub> NAAQS in the DVRPC portion of the New York–Northern New Jersey–Long Island, NY–NJ–CT PM<sub>2.5</sub> Maintenance Area;
- the 2012 Annual PM<sub>2.5</sub> NAAQS in the Delaware County, PA, PM<sub>2.5</sub> Maintenance Area.



# Appendix A: Regionally Significant and Nonexempt Projects in the Draft Amended *Connections 2045* Long-Range Plan, FY2020 TIP for New Jersey, and FY2021 Draft TIP for Pennsylvania

The projects listed in this Appendix were included in the regional conformity analysis. Descriptions of the improvements for Plan projects are included in the tables. Full descriptions of TIP projects are available in the relevant TIP documents by referencing the MPMS (Pennsylvania TIP) or DB Number (New Jersey TIP).

## Pennsylvania Long-Range Plan Projects

MRP ID	Project Name	Improvements	Air Quality Code
Highway		On a married and the state of t	
20	I-95 and I-476 Ramps	One new lane in each direction on I-95 through the interchange. Addition of lane on ramp from SB I-476 to SB I-95.	2035M
32	I-476 (PA Turnpike Northeast Extension) Widening	Reconstruct and widen to 6 Lanes from Lansdale to Quakertown.	2035M
34	County Line Road	Widen and reconstruct from PA 309 to PA 611.	2035M
35	I-95 at PA Turnpike Interconnection	New partial interchange at I-276; widen Pennsylvania Turnpike from US 1 to NJ; widen I-95 from PA 413 to Pennsylvania Turnpike.	2025M
36	I-95 at Scudders Falls Bridge Widening	Widen I-95 from PA 332 to the NJ 29 Interchange.	2025M
37	US 1 Widening	Reconstruct from I-276 (PA Turnpike) to NJ state line; widen from PA Turnpike to PA 413.	2045M
40	I-76 (PA Turnpike) Widening	Reconstruct and widen from Morgantown, Berks County, to Valley Forge.	2045M
44	US 1, Baltimore Pike	Selective widening from two lanes in each direction to three lanes in each direction and relocate the School House Road. intersection.  Add left turn lanes on US 1 at School House Road. and install new traffic signals.	2025M
48	US 30/Coatesville- Downingtown Bypass (Western)	Widen and reconstruct from Reeceville Road to PA 10.	2035M
50	`US 322 ´	Widen and reconstruct from US 1 to I-95	2035M
54	Henderson Road and South Gulph Road	Widen Henderson Road from South Gulph Road to Shoemaker; Widen South Gulph Road from Crooked Lane to I-76 Gulph Mills intersection.	2035M
55	Lafayette Street Extension	Extend roadway from Barbadoes Street to Diamond Avenue.	2025M
56	US 202 (Section 600) Widening	Widen and reconstruct from Johnson Highway to PA 309.	2025M
57	PA 309 Connector Road	Construct new road from Allentown Road to County Line Road; improve PA 309 Interchange.	2035M
65	I-95 North Reconstruction	Reconstruct from Race Street to State Street; interchange improvements at Vine, Girard, Allegheny, Betsy Ross Bridge, Bridge, and Cottman interchanges.	2035M
66	North Delaware Avenue Extension	Extend roadway from Orthodox Street to Buckius Street.	2025M
68	Adams Avenue Connector	Extend roadway to new ramps at I-95 and Aramingo Avenue.	2025M

MRP ID	Project Name	Improvements	Air Quality Code
96	US 422 Bridge and PA 23 Interchange (River Crossing)	Bridge replacement and new bridge over Schuylkill River - existing bridge is 5 lanes, new bridge will have 6 lanes; intersection/interchange improvements at US 422 and PA 23 interchange.	2025M
98	US 422 Mainline Widening (River Crossing)	Reconstruct and widen from 4 to 6 Lanes from US 202 to PA 363.	2045M
101	Bryn Mawr Avenue Extension	Bypass for PA 3 West Chester Pike and PA 252  Newtown Street intersection.	2045M
113	I-276 and Lafayette Street/Ridge Avenue Ramp Modifications	New interchange	2035M
115	I-95/US 322/Highland Avenue Interchange Ramp Modifications	Realign I-95 and add new movements at interchange to US 322, Bethel Road, and Highland Avenue	2045M
116	PA 113	Widen from US 30 to Peck Road.	2045M
117	Bridgewater Road Extension	Extend roadway from Concord Road to PA 452/US 322.	2035M
119	Bristol Road Extension	Extend roadway from US 202 to Park Avenue.	2035M
120	Belmont Ave at I-76 Interchange	Widen Belmont Avenue to provide additional lanes, intersection improvements and streetscape improvements; modify I-76 and railroad overpasses.	2035M
123	US 202 and US 1 Loop Road	Complete southwestern loop road.	2025M
125	Guthriesville Loop Road	Extend new road from Reeceville Rd. to Horseshoe Pike.	2045M
126	G.O. Carlson Boulevard Extension	New 2 lane collector road and bridge between two unconnected portions of G.O. Carlson Boulevard (PA 340 to Lloyd Avenue.)	2045M
130	I-476 Active Traffic Management	From PA 3 to I-95	2045M
132	I-76 Integrated Corridor Management	Variable speed limits, queue detection, dynamic lane assignments, junction control improvements, adaptive ramp metering, continuous monitoring systems, and responsive traffic control, coordination with SEPTA.	2035M
137	US 30/Coatesville- Downingtown Bypass (Eastern)	Reconstruct from Exton Bypass to PA 10; interchange improvements at Airport Road and PA 113; potential addition of through lanes and capacity enhancements between PA 113 and PA 340 could include part-time shoulder use from PA 82 to US 202.	2035M
158	PA Turnpike	All Electronic Tolling	2035M
161	PA 23 and Trout Creek Road Bridge	Replace weight restricted bridge on a new alignment; realign roadway between Moore Road and Vandenberg Road providing two westbound lanes and one eastbound lane.	2035M
163	Ridge Pike	Reconstruct from Butler Pike to Philadelphia City Line; widen from 3 to 4 lanes from Church Lane to Philadelphia. Interconnect signals.	2035M
237	Ashburn Road Extension	0.34 mile extension to Township Line Road	2025M
238	PA 663 and Portzer/Hickory Roads	Widen to 4 lanes between Route 309 and the PA Turnpike, including turn lanes.	2025M

MRP ID	Project Name	Improvements	Air Quality Code
241	West Chester Pike (PA 3)	Widen with additional through travel lane from College Avenue. to Ellis Avenue.	2025M
244	Horsham Road Widening	Widen to two through lanes in each direction from Limekiln Pike to Davis Grove. widen Limekiln Pike to two through lanes at intersection with Horsham Road.	2025M
Transit			
E	Paoli Station	Multimodal center, access, and parking improvements.	2035M
Р	Media-Elwyn Line Rail Extension	Extend from Elwyn to Wawa, PA.	2025M
Q	Norristown High Speed Line King of Prussia Extension	Extend Norristown High Speed Line from Hughes Park to King of Prussia.	2045M
AF	Amtrak Keystone Corridor Stations	Station enhancements at Parkesburg and Coatesville.	2035M
AG	Exton Station	High-level platforms, station building, bus circulation loops, and a multi-level parking garage.	2035M
АН	Ardmore Station	Multimodal center, access, and parking improvements including parking garage.	2045M
Al	Fern Rock Station	Intermodal facility enhancements including parking.	2045M
AJ	Levittown Station	Intermodal facility enhancements including parking.	2025M
AL	69th Street Transportation Center	Rehabilitate parking structure, Transportation  Center enhancements.	2035M
АО	Roosevelt Boulevard Enhanced Bus A	Stations, signal prioritization, and painted bus only lane along Roosevelt Boulevard between Frankford Transportation Center and Neshaminy Mall.	2035M
BS	Regional Rail Parking Expansion	At Gwynedd Valley, North Wales, Lansdale and along the Norristown Line.	2035M
СВ	Noble Station	Station improvements, new parking garage, and storage track.	2035M
CF	Franklin Square Station	New station on PATCO Line in Philadelphia.	2025M

Source: DVRPC, 2020.

Note: AQ Codes for Long-Range Plan projects indicate when the project is expected to be complete. Phases of these projects are often programmed in the TIP as breakout projects. These phases are analyzed for conformity when the breakout project is expected to open to traffic.

Air Quality Significant Projects in the Draft FY2021 Pennsylvania TIP

MPMS Number	Project Title	AQ Analysis Code
<b>Bucks County</b>		
12923	Bristol Road Extension	2035M
13549	US 1 (Bridges) Design (Section 03S) SR:0001	2025M
93444	Route 1 Improvement-South (Section RC1)	2025M
93445	Route 1 Improvement-North (Section RC2)	2035M
110309	I-95/US 13/PA 132 Slip Ramp Operation Improvement	2035M
111024	Easton Road Roundabouts	2025M
115418	Route 113 and Minsi Trail Road Roundabout	2035M
115419	Buckingham Road and Old Arch Road Roundabout	2035M
115420	Penndel Borough Intersection Improvements	2035M
Chester County		
85949	PA 896 Safety Improvement (Roundabout)	2025M
87781	US 30, Coatesville Downingtown Bypass (CER-Eastern Section)	2035M
102708	PA 41 at PA 841 Improvements	2025M
102709	PA 41 & SR 926 Improvements	2025M
107553	US30 and Airport Road Interchange Improvement	2035M
110963	Manor Road Roundabout	2025M
115425	High Street Pedestrian Improvements	2035M
Delaware County		
15477	I-95/ US 322/Conchester Highway Interchange	2035M
69817	Improvements US 322, Featherbed Lane to I-95 (Section 102)	2035M
79329	Bridgewater Road Extension	2035M
95429		2025M
104821	US 202 and US 1 Loop Road	
107642	I-476 Travel Management	2035M 2025M
10/642	Smithbridge Road Corridor Road Diet Macdade Boulevard Corridor from Fairview to	2023IVI
110951	Ashland	2025M
110965	Marshall Road Corridor Safety Improvements	2025M
111021	District-Wide Roundabout Program-Bethel Road at Mill Road	2025M
111022	Chichester Avenue Safety Corridor Improvements	2025M
111762	PA 3, Ellis to St. Albans Connector	2025M
114034	US 322, Chelsea Parkway to Market Street Interchange (Section 103)	2035M
Montgomery County		
16334	PA 73, Church Road Intersection and Signal Improvements	2025M
16334	PA 73, Church Road Intersection and Signal Improvements PA 309 Connector Project	2025M
16577	Ridge Pike, Butler Pike to Crescent Avenue Reconstruction	2025M
48172	and Signal Upgrade PA 23, Moore to Allendale and Trout Creek Road Bridge	2035M
48174	PA 63, Welsh Road SR:0063	2035M
48175	Ridge Pike, PA Turnpike to Butler Pike	2025M
48187	Henderson/Gulph Road Widen near I-76 Ramps	2035M
63486	US 202, Johnson Highway to Township Line Road (61S)	2035M
63491	US 202, Morris Road to Swedesford Road (65S)	2035M
63493	PA 309 Five-Points Intersection Improvements	2025M
64795	Belmont Road/Rock Hill Road Widening: I-76 Ramps to Rock Hill Road	2035M
74816	Whitemarsh Street Improvements	2020M
77211	PA 309 Connector, Allentown Road to Souderton Pike (HT2)	2035M
11411	FA 308 Connector, Allentown Road to Souderton Pike (HTZ)	ZUJJIVI

MPMS Number	Project Title	AQ Analysis Code
102273	Ridge Pike and Germantown Pike Realignment	2035M
105803	PA 309 Connector: Souderton Pike to PA 309 (HT3)	2035M
106662	I-76 Integrated Corridor Management	2035M
110315	Philmont Avenue/Tomlinson Road/Pine Road Improvements–6 Point Intersection	2035M
110961	District-Wide Roundabout Program–Old Skippack Road at Schwenksville Road	2025M
111005	Conshohocken Garage (I-76 ICM)	2035M
115429	Belmont Avenue and Saint Asaph's Road Roundabout	2035M
Philadelphia County		
17697	Island Avenue Signals	2025M
17821	I-95, Shackamaxon Street to Ann Street (GIR)	2035M
47811	Bridge Street Design (Section BSR) (IMP) SR:0095	2035M
47812	I-95, Betsy Ross Interchange (BRI)–Design (IMP)	2035M
47813	I-95, Ann Street to Wheatsheaf Lane (AFC)	2035M
79686	I-95, Columbia Avenue to Ann Street (GR1)	2025M
79827	I-95 Southbound, Columbia to Ann Street N (GR4)	2035M
79828	I-95, Race to Shackamaxon (GR5)	2035M
79905	I-95, Betsy Ross Mainline (BR3)	2035M
79910	I-95, Margaret to Kennedy (Section BS2)	2035M
103555	I-95, Corridor ITS (GR8)	2035M
103557	I-95, Ann Street to Wheatsheaf Lane (AF3)	2035M
103559	I-95, Betsy Ross Mainline Southbound (BR4)	2035M
103563	I-95, Bridge Street Ramps (Section BS5)	2035M
105290	Ben Franklin Bridge Eastbound Operational Improvements	2035M
106993	Frankford Avenue Signal Improvements	2025M
110958	Castor Avenue Roundabout	2025M
115431	Veree Road Corridor Safety Improvements	2025M
115433	Welsh Road Corridor Safety Improvements	2025M
115434	Frankford Avenue Corridor Safety Improvements	2035M
115435	63rd Street Corridor Safety Improvements	2035M
115440	Washington Lane Corridor Safety Improvements	2035M
Transit		
60540	Regional Parking Improvements	2035M
60574	Paoli Transportation Center	2035M
60636	Elwyn to Wawa Rail Restoration	2025M
73214	Ardmore Transportation Center	2035M
77183	Transit and Regional Rail Station Program	2035M
93588	Exton Station	2035M

Source: DVRPC, 2020.

New Air Quality Significant Projects in the Draft Pennsylvania FY2021 TIP

MPMS Number	Project Title	AQ Analysis Code
<b>Bucks County</b>		
115418	Route 113 and Minsi Trail Road Roundabout	2035M
115419	Buckingham Road and Old Arch Road Roundabout	2035M
115420	Penndel Borough Intersection Improvements	2035M
Chester County		
115425	High Street Pedestrian Improvements	2035M
Delaware County		
114034	US 322, Chelsea Parkway to Market St. Interchange (Section 103)	2035M
Montgomery County		
102273	Ridge Pike and Germantown Pike Realignment	2035M
115429	Belmont Avenue and Saint Asaph's Road Roundabout	2035M
Philadelphia County		
115431	Veree Road Corridor Safety Improvements	2025M
115433	Welsh Road Corridor Safety Improvements	2025M
115434	Frankford Avenue Corridor Safety Improvements	2035M
115435	63rd Street Corridor Safety Improvements	2035M
115440	Washington Lane Corridor Safety Improvements	2035M

Source: DVRPC, 2020.

## Air Quality Significant Projects in the Delaware County PM<sub>2.5</sub> Networks

MPMS Number	Project Title	AQ Analysis Code
69816	US 1 to Featherbed Lane (Section 101)	2022M
107639	Route 3 Adaptive Signal Controls	2022M
111762	PA 3, Ellis to St. Albans Connector	2022M
15477	I-95/US 322/Conchester Highway Interchange Improvements	2030M
79329	Bridgewater Road Extension	2030M
104821	I-476 Travel Management	2030M
60636	Elwyn to Wawa Rail Extension	2030M

Source: DVRPC, 2020.

**New Jersey Long-Range Plan Projects** 

MPR ID	Project Title	Improvements	AQ Analysis Code
Highway			
33	Vaughn Drive Connector	Extend Vaughn Drive to Princeton Hightstown Road (County Route 571).	2045M
75	I-295/NJ 42 (Missing Moves)	Add Missing Movements to Interchange at I-76/NJ 42	2025M
77	I-295 (Direct Connect)	Direct Connection of I-295 Through Interchange at I-76/NJ 42.	2035M
79	US 322	Widen from US 130 to NJ Turnpike.	2045M
83	West Trenton Bypass	New Connector from Bear Tavern Road to Intersection of Decou Avenue and Parkway Avenue.	2045M
84	US 1, Alexander Road to Mapleton Road/Plainsboro-Cranbury Road	Alexander Road to Mapleton Road/Plainsboro Cranbury Road; widen from 6 to 8 lanes from Dinky Bridge to Scudders Mill Road; intersection improvements at Washington Road and Harrison Street	2035M
99	Quakerbridge Road (CR 533)	Grade separate interchange by adding one flying express lane in each direction on CR 533 over Grovers Mill Road/Clarksville Road (CR 638).	2045M
103	Atlantic City Expressway	Construction of a third lane in the westbound direction from milepost 31 to milepost 44.	2035M
127	Sylvia Avenue Extension	Connect Sylvia Avenue through Ewing Town Center	2035M
159	US 130 Corridor Improvements	Various intersection improvements throughout corridor, including adding missing movements and new connector roads.	2045M
209	Route 73 and CR 544 (Evesham Road/Marlton Parkway)	Widen from NJ 70 to Evesham Road / Ardsley Drive.	2035M
210	Route 73 and Church Road	Intersection Improvements at Church Road (CR 616) and Fellowship Road (CR 673)	2035M
Transit			
T	Glassboro-Camden Line	Construct new transit line from Camden to Gloucester County.	2045M
X	South Jersey BRT	New BRT from Avondale Park-and-Ride and Delsea Drive to Center City, Philadelphia.	2045M
CF	Franklin Square Station	New station on PATCO Line in Philadelphia	2025M

Source: DVRPC, 2020.

Note: AQ Codes for Long-Range Plan projects indicate when the project is expected to be complete. Phases of these projects are often programmed in the TIP as breakout projects. These phases are analyzed for conformity when the breakout project is expected to open to traffic.

## **FY2020 New Jersey TIP Projects**

DB Number	Project Title	AQ Analysis Code
Highway	·	
173900	Local Freight Improvement Fund Projects	2025M
Burlington County		
12307	Route 38, South Church Street (CR 607) to Fellowship Road (CR 673), Operational and Safety Improvements	2035M
12380	Route 73, Church Road (CR 616) and Fellowship Road (CR 673) Intersections	2035M
13319	Route 73, CR 544 (Evesham Rd/Marlton Parkway)	2035M
Camden County	D 4 005/40 M; 1 M D II	222514
355A	Route 295/42, Missing Moves, Bellmawr	2025M
355E	Route 295/42/I-76, Direct Connection, Contract 4	2035M
Mercer County		
D1910	Parkway Avenue (CR 634), Scotch Road (CR 611) to Route 31 (Pennington Road)	2035M
17419	Route 1, Alexander Road to Mapleton Road/Plainsboro- Cranbury Road	2035M
Transit		
D1801	Reopening of Franklin Square	2025M

Source: DVRPC, 2020.

# **Transportation Conformity Demonstration**

Draft Amended *Connections 2045* Long-Range Plan, FY2020 New Jersey TIP, and Draft FY2021 Pennsylvania TIP

**Publication Number: 20015** 

Date Published: July 2020

#### **Geographic Area Covered:**

The nine-county DVRPC planning area, which covers the counties of Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey.

#### **Key Words:**

Air Quality, National Ambient Air Quality Standards, Nonattainment Area, State Implementation Plan (SIP), Transportation Conformity, Air Quality, Ozone, Volatile Organic Compounds (VOCs), Nitrogen Oxides, Multijurisdictional Nonattainment Area, *Connections 2045* Long-Range Plan, Transportation Improvement Program (TIP),

#### **Abstract:**

The Delaware Valley Regional Planning Commission (DVRPC) demonstrates transportation conformity of its *Connections 2045* Long-Range Plan, Fiscal Year (FY) 2020 New Jersey Transportation Improvement Program (TIP), and Draft FY2021 Pennsylvania TIP. A transportation conformity demonstration is required at least once every four years or when an MPO: (1) adopts a new Plan or TIP; or (2) amends, adds, or deletes a regionally significant, nonexempt project in a Plan or TIP. This conformity finding of the DVRPC Plan and TIPs shows that they meet the National Ambient Air Quality Standards requirements governing ozone and fine particulate matter. This conformity finding reflects all amendments to the Plan and TIPs through April 2020.

#### **Staff Contact:**

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