

Transportation Conformity Demonstration:

Connections 2050 Long-Range Plan,
FY2024 New Jersey, and FY2023 Pennsylvania TIPs



September 2023



The Delaware Valley Regional Planning Commission

is the federally designated Metropolitan Planning Organization for the Greater Philadelphia region, established by an Interstate Compact between the Commonwealth of Pennsylvania and the State of New Jersey. Members include Bucks, Chester, Delaware, Montgomery, and Philadelphia counties, plus the City of Chester, in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer counties, plus the cities of Camden and Trenton, in New Jersey.

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DVRPC is funded through a variety of funding sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. The authors, however, are solely responsible for the findings and conclusions herein, which may not represent the official views or policies of the funding agencies.

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Glossary of Acronyms and Terms

AQ	Air Quality	Nonattainment Area	Area currently not meeting the NAAQS
CAA	Clean Air Act (as amended)	NO_x	Nitrogen Oxides
CFR	Code of Federal Regulations	NRS	Not Regionally Significant
CO	Carbon Monoxide	PATCO	Port Authority Transit Corporation
DEP	State Department of Environmental Protection	PennDOT	Pennsylvania Department of Transportation
DOT	State Department of Transportation	Plan	DVRPC's Long-Range Plan
DRPA	Delaware River Port Authority	PM	Particulate Matter
DVRPC	Delaware Valley Regional Planning Commission	PM_{2.5}	Fine Particulate Matter
FHWA	Federal Highway Administration	PM₁₀	Coarse Particulate Matter
Final Rule	Current conformity guidance under CAA	ppm	Parts per Million
FR	<i>Federal Register</i>	SIP	State Implementation Plan
FTA	Federal Transit Administration	SEPAT	Southeastern Transportation Authority
FY	Fiscal Year	SO_x	Sulfur Oxides
Maintenance Area	Area that previously did not meet NAAQS	TAZ	Traffic Analysis Zone
MOVES	Motor Vehicle Emissions Simulator: the most recent emissions estimation model approved by the US EPA	TCICG	Transportation Conformity Interagency Consultation Group
MPO	Metropolitan Planning Organization	TCM	Transportation Control Measure
MVEB	Motor Vehicle Emissions Budget	TDM	Travel Demand Model
NAAQS	National Ambient Air Quality Standards	TIP	Transportation Improvement Program
NH₃	Ammonia	U.S.C.	U.S. Code
NJT	New Jersey Transit	US EPA	U.S. Environmental Protection Agency
		VMT	Vehicle Miles Traveled
		VOCs	Volatile Organic Compounds

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 Amendment 2 (publication #24110) to the *Connections 2050* Long-Range Plan ('Plan') and amendments to the Fiscal Year (FY) 2023–2026 Pennsylvania TIP (TIP Action #23073) and a new FY 2024–2027 TIP for New Jersey (publication #24002).

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 Executive Summary highlights DVRPC's conformity demonstration for:

Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NO_x) 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 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_{2.5} Maintenance Area,
- the DVRPC portion of the New York–Northern New Jersey–Long Island, NY–NJ–CT Annual and 24-Hour PM_{2.5} Maintenance Area, and
- the Delaware County, PA Annual PM_{2.5} Maintenance Area.

This summary serves as an inclusive document that demonstrates the transportation conformity of the DVRPC Plan, New Jersey TIP, and Pennsylvania TIP with all applicable SIPs and NAAQS requirements

for the above pollutants within the noted areas. The full conformity determination document is available at www.dvrpc.org/airquality/conformity.

Analysis Approach

Regional Emissions Analysis of Plan and TIP Projects

The federal Final Conformity Rule (Final Rule) requires that all regionally significant and nonexempt projects that are funded in the Plan and TIP must be included in the regional Travel Demand Model (TDM). Emissions from those modeled projects are then quantified using the latest U.S. Environmental Protection Agency (US EPA)-approved emissions modeling system, in this case the Motor Vehicle Emissions Simulator version 3.1 (MOVES 3.1). DVRPC has used the MOVES 3.1 model for this transportation conformity demonstration.

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 PM_{2.5} standards, and 2006 24-Hour PM_{2.5} standards. 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 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 extending out to the horizon year of the Plan.

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_{2.5} 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_{2.5} 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, 2045, and 2050. Delaware County has an additional SIP budget analysis year for annual PM_{2.5} and the PM_{2.5} precursor chemical NO_x, which is 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 _{2.5}	Note
2025	√	√	Interim Year and PM _{2.5} SIP budget year
2030		√	PM _{2.5} SIP budget year (Delaware County only)
2035	√	√	Year within 10 years of previous analysis
2045	√	√	Year within 10 years of previous analysis
2050	√	√	DVRPC Plan horizon year

Source: DVRPC, 2023

Findings

The DVRPC Plan and the TIPs are found to be in conformity with the current Pennsylvania SIPs under the CAA. The forecasted emissions levels of VOCs, NO_x, and PM_{2.5} do not exceed the respective budgets established by the states' Departments of Environmental Protection (DEP) in accordance with the Final Rule under the current NAAQS governing applicable pollutants.

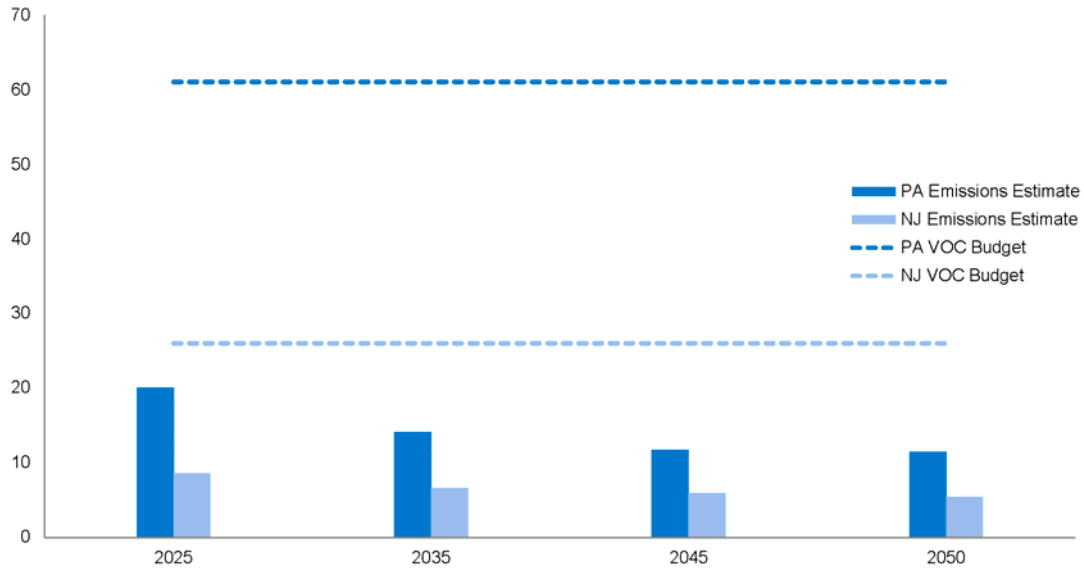
The transportation conformity analysis meets all applicable conformity criteria, including, but not limited to, the following:

- that the Plan and the TIP 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 TIP do not interfere with the timely implementation of transportation control measures (TCMs)¹ [40 CFR 93.113]; and
- that the Plan and the TIP 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 of the full conformity document. 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.

¹TCMs are strategies that reduce transportation-related air pollution, greenhouse gas emissions, and fuel use by reducing vehicle miles traveled and improving roadway operations.

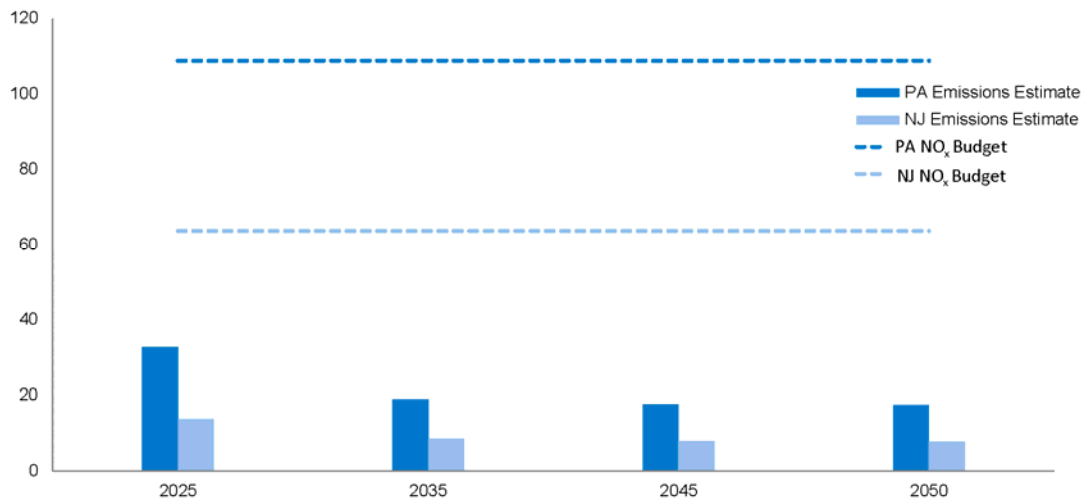
Figure 1: VOCs Emissions Analysis Results (Tons/Day)



Source: DVRPC, 2023

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

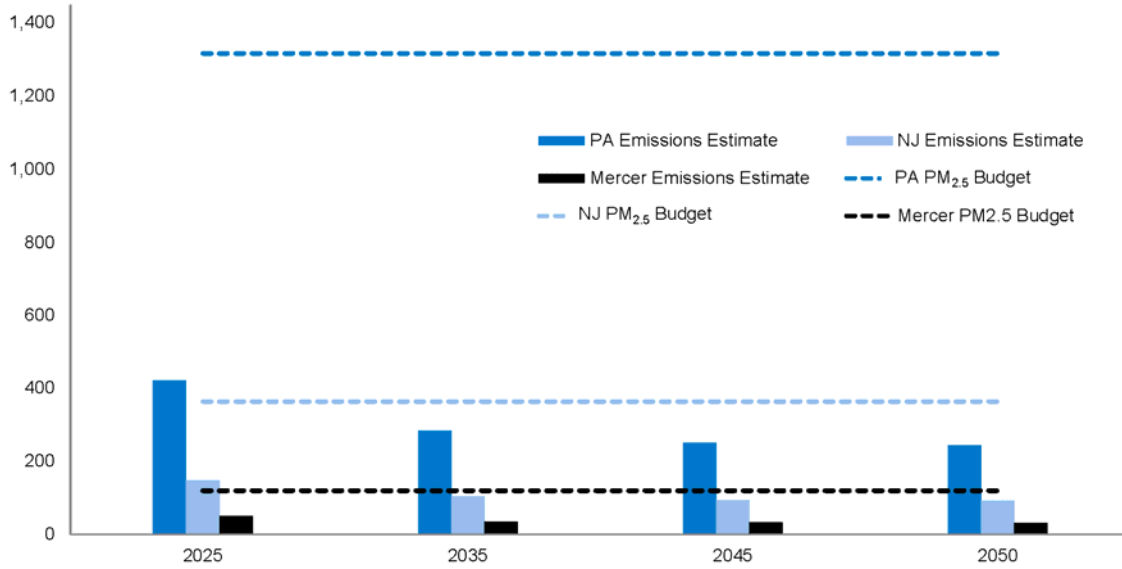
Figure 2: NO_x Emissions Analysis Results (Tons/Day)



Source: DVRPC, 2023

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

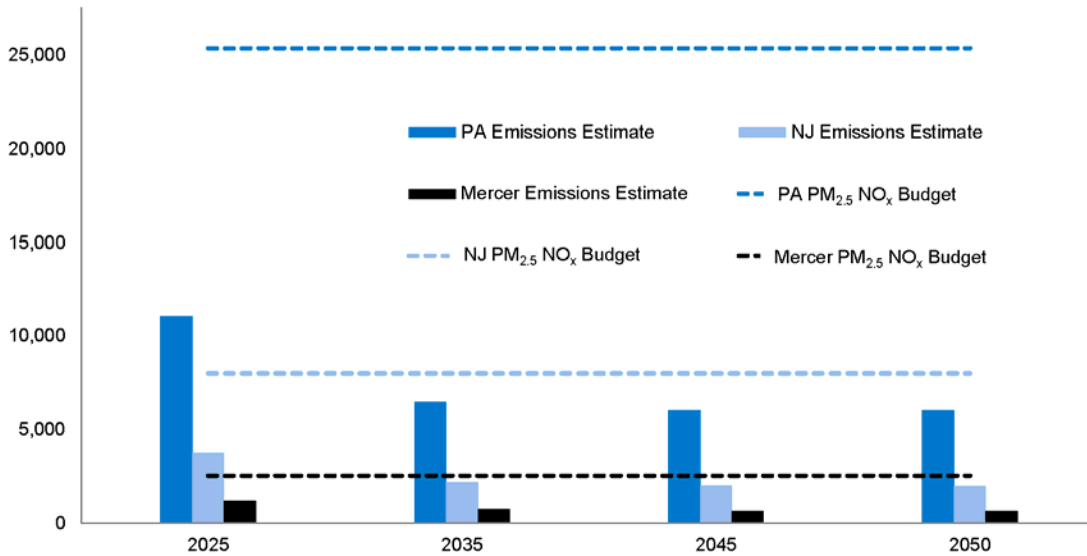
Figure 3: Annual and 24-Hour Direct PM_{2.5} Emissions Analysis Results (Tons/Year)



Source: DVRPC, 2023

The most recent MVEBs apply to all future analysis years.

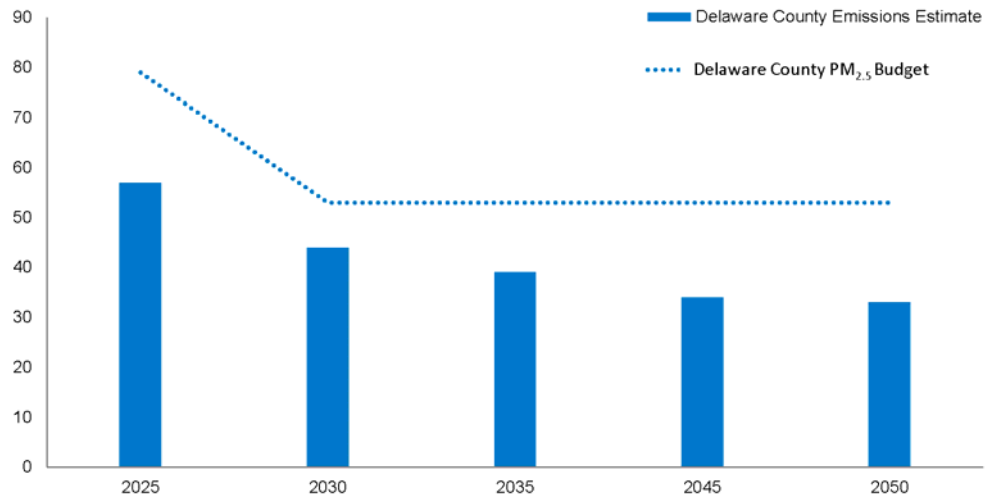
Figure 4: Annual and 24-Hour NO_x Precursor Emissions Analysis Results (Tons/Year)



Source: DVRPC, 2023

The most recent MVEBs apply to all future analysis years.

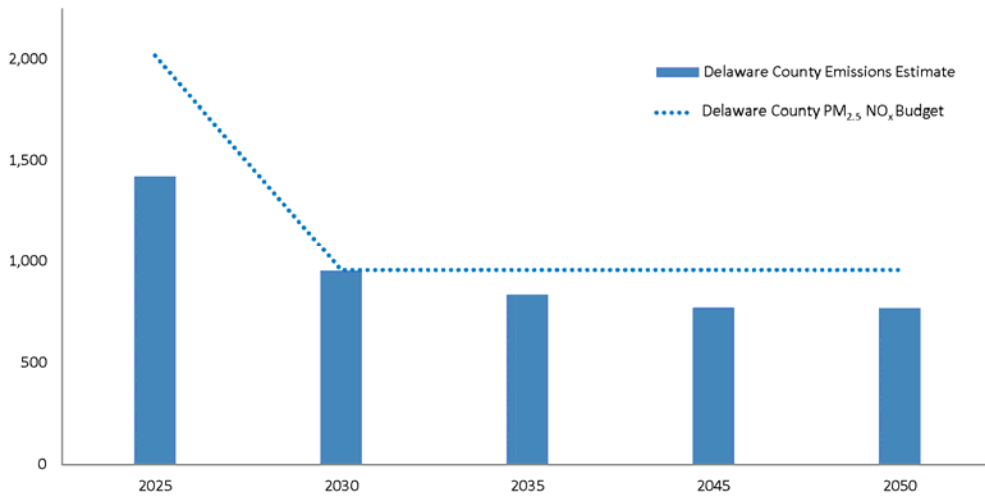
Figure 5: Delaware County Annual Direct PM_{2.5} Emissions Analysis Results (Tons/Year)



Source: DVRPC, 2023

The most recent MVEBs apply to all future analysis years.

Figure 6: Delaware County Annual NO_x Precursor Emissions Analysis Results (Tons/Year)



Source: DVRPC, 2023

The most recent MVEBs apply to all future analysis years.

These findings demonstrate transportation conformity of the DVRPC *Connections 2050* Long-Range Plan, FY2024 New Jersey TIP, and FY2023 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 2006 24-Hour PM_{2.5} NAAQS in the Philadelphia–Wilmington, PA–NJ–DE PM_{2.5} Maintenance Area;
- the 2006 24-Hour PM_{2.5} NAAQS in the New York–Northern New Jersey–Long Island, NY–NJ–CT Annual and 24-Hour PM_{2.5} Maintenance Area, and
- the 2012 Annual PM_{2.5} Delaware County, PA Maintenance Area.

CHAPTER 1: Introduction

Overview

This report documents the demonstration of transportation conformity for the DVRPC *Connections 2050* Long-Range Plan, FY2024 New Jersey TIP, and FY2023 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_x 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 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_{2.5} Maintenance Area,
- the DVRPC portion of the New York–Northern New Jersey–Long Island, (NY–NJ–CT) Annual and 24-Hour PM_{2.5} Maintenance Area; and
- the Delaware County, PA Annual PM_{2.5} 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.

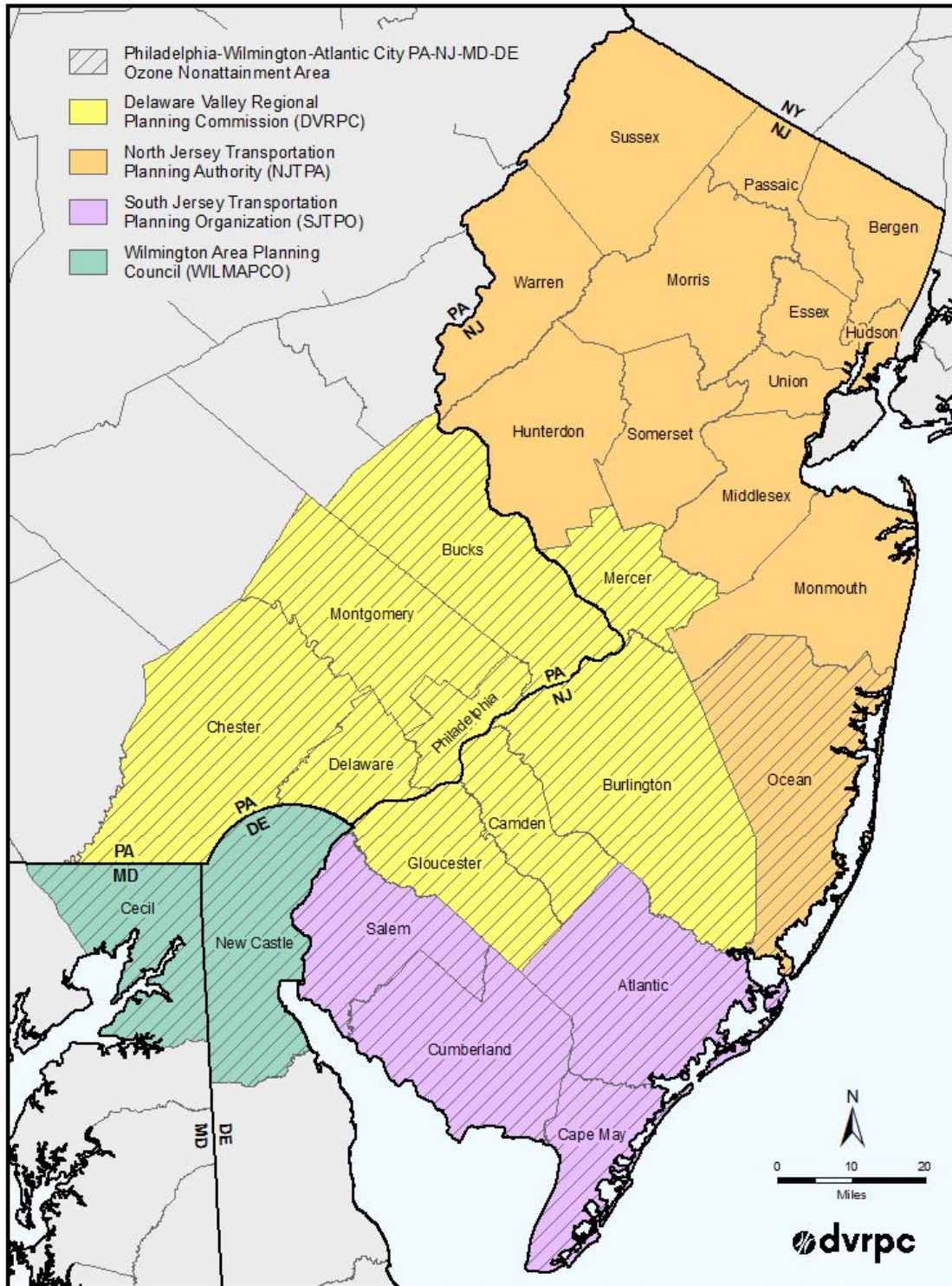
On August 24, 2016, the US EPA revoked the 1997 Annual PM_{2.5} Standard. The DVRPC region was in maintenance of this standard and DVRPC is not required to demonstrate conformity to this standard due to this action.

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.²

Figures 7 and 8 detail the current ozone and PM_{2.5} nonattainment and maintenance areas that are relevant to the DVRPC region.

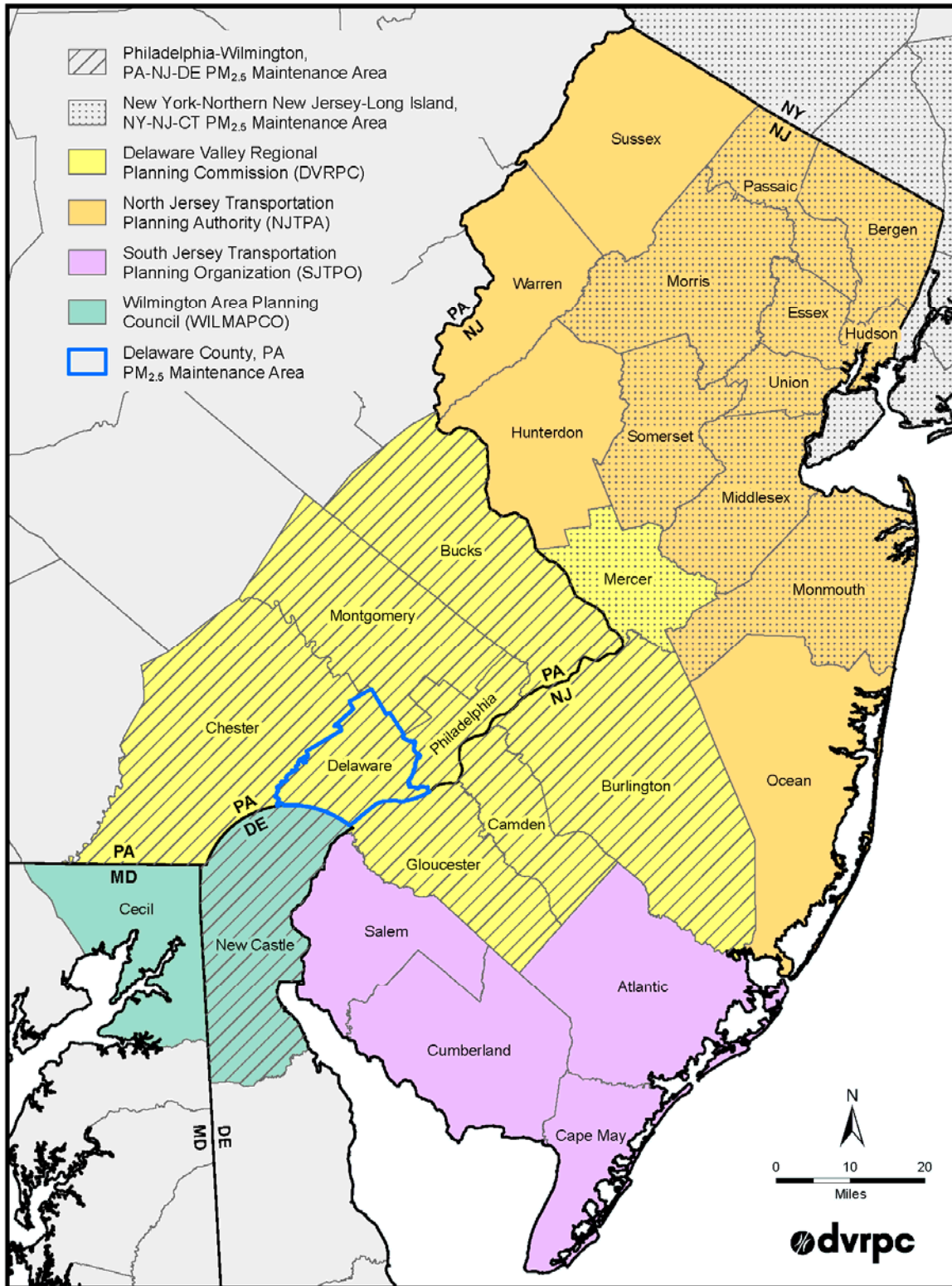
² *Transportation Conformity Guidance for Areas Reaching the End of the Maintenance Period*, EPA-420-B-14-093

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



Source: DVRPC, 2023

Figure 8: DVRPC Annual and 24-Hour PM_{2.5} Maintenance Areas



Source: DVRPC, 2023

NAAQS

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 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 (PM₁₀ and PM_{2.5}, respectively), sulfur dioxide, nitrogen dioxide, and lead.

The DVRPC region must demonstrate transportation conformity for ozone and PM_{2.5}, and Table 2 lists the current NAAQS for ozone and PM_{2.5} 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 _{2.5} (2012)	12 µg/m ³	December 2012	April 2015	78 FR 3086
24-Hour PM _{2.5} (2006)	35 µg/m ³	October 2006	December 2009	71 FR 61144

Source: US EPA, 2023

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

When a region is designated as a nonattainment area by the US EPA, states are required to develop 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: www.epa.gov/green-book. Detailed information on the SIPs can be viewed at: 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_x 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 (µm) in diameter (PM₁₀), pose a health concern since they can be inhaled into and accumulate in the respiratory system. The fine particles, less than 2.5 µm in diameter (PM_{2.5}), are believed to pose even greater health risks. Due to their small size, these fine particles can lodge deep in the lungs. Individuals particularly sensitive to PM_{2.5} exposure include older adults, people with heart and lung disease, and children. Health studies have shown a significant association between exposure to PM_{2.5} 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 (called fugitive road dust), 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 (NH₃).

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; adds or deletes a regionally significant, nonexempt project in a Plan or TIP, or when an MPO amends the scope or timing of construction.

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. 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 TIP

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 2050* Long-Range Plan, adopted by the DVRPC Board in September 2021, 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 2050* Long-Range 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.³

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.

³ See 23 CFR 450.216(1), 23CFR 450.322(f) (10) (iv), and 23 CFR 450.23(h).

The project set, analyzed for conformity, includes all regionally significant projects funded in the Plan,⁴ those in the current TIPs, 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

DVRPC has developed an AQ coding scheme to identify projects that are included in the emissions analysis and the project's analysis year. The coding scheme is also used to identify which projects are exempt from the emissions analysis. 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 TIP.

⁴ The *Connections 2050* Plan also includes a list of unfunded aspirational projects that are consistent with the Plan's vision, but can be not afforded within fiscal constraint. As a result, these projects are not included in the Conformity analysis.

Table 3: AQ Codes for Exempt and Not Regionally Significant Projects in the Plan and TIPs

	Exempt Project Category†	AQ Code		Exempt Project Category†	AQ Code	
Safety Projects	Railroad/highway crossing	S1	Air Quality Projects	Continuation of ridesharing and vanpooling promotion activities at current levels	A1	
	Hazard elimination program	S2		Bicycle and pedestrian facilities	A2	
	Safer non-federal-aid system roads	S3		Other Projects	Specific activities that do not involve or lead directly to construction, such as planning and technical studies	X1
	Shoulder improvements	S4			Grants for training and research programs	X2
	Increasing sight distance	S5			Planning activities conducted pursuant to title 23 and 49 U.S.C.	X3
	Safety improvement program	S6			Federal aid systems revisions	X4
	Traffic control device and operating assistance other than signalization projects	S7	Engineering to assess social, economic, and environmental effects of the proposed action or alternatives to that action		X5	
	Railroad/highway crossing warning devices	S8	Noise attenuation		X6	
	Guardrails, median barriers, crash cushions	S9	No Regional Emissions Analysis Required		Advance land acquisitions (23 CFR 712 or 23 CFR 771)	X7
	Pavement resurfacing and/or rehabilitation	S10			Acquisition of scenic easements	X8
	Pavement marking demonstration	S11			Plantings, landscaping, etc.	X9
	Emergency relief (23 U.S.C. 125)	S12			Sign removal	X10
	Fencing	S13			Directional and informational signs	X11
	Skid treatments	S14			Transportation enhancement activities (except rehabilitation and operation of historic transportation buildings, structures, or facilities)	X12
	Safety roadside rest areas	S15			Repair of damage caused by natural disasters, civil unrest, or terrorist acts, except projects involving substantial functional, locational, or capacity changes	X13
	Adding medians	S16		Not Regionally Significant	Projects determined to be "Not Regionally Significant" and do not fit into an exempt category	NRS
	Truck-climbing lanes outside the urbanized area	S17				
	Lighting improvements	S18				
	Widening narrow pavements or reconstructing bridges (no additional travel lanes)	S19				
	Emergency truck pullovers	S20				
Mass Transit Projects	Operating assistance to transit agencies	M1	No Regional Emissions Analysis Required	Intersection channelization projects	R1	
	Purchase of support vehicles	M2		Intersection signalization projects at individual intersections	R2	
	Rehabilitation of transit vehicles	M3		Interchange reconfiguration projects	R3	
	Purchase of office, shop, and operating equipment for existing facilities	M4		Changes in vertical and horizontal alignment	R4	
	Purchase of operating equipment for vehicles (e.g., radios, fare boxes, lifts, etc.)	M5		Truck size and weight inspection stations	R5	
	Construction or renovation of power, signal, and communications systems	M6		Bus terminals and transfer points	R6	
	Construction of small passenger shelters and information kiosks	M7	Not Regionally Significant	Projects determined to be "Not Regionally Significant" and do not fit into an exempt category	NRS	
	Reconstruction or renovation of transit buildings and structures	M8				
	Rehabilitation or reconstruction of track structures, track, and tracked-in existing rights-of-way	M9				
	Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet	M10				
	Construction of new bus or rail storage/maintenance facilities categorically excluded in 23 CFR part 771	M11				

Source: DVRPC, 2023

†40 CFR 93 Sections 126 and 127.

Analysis Year

Required analysis years include SIP budget years, designated NAAQS attainment dates, and the 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_{2.5} SIP budget year), 2030 (PM_{2.5} SIP budget year for Delaware County only), and 2050 (the Plan horizon year) are required analysis years, and 2035 and 2045 are interim years within 10 years of the previous analysis.

Table 4: Mobile Source Analysis Years

Year	Ozone	PM _{2.5}	Note
2025	√	√	Interim Year and PM _{2.5} SIP budget year
2030		√	PM _{2.5} SIP budget year (Delaware County only)
2035	√	√	Year within 10 years of previous analysis
2045	√	√	Year within 10 years of previous analysis
2045	√	√	Year within 10 years of previous analysis
2050	√	√	Horizon Year of the Plan

Source: DVRPC, 2023

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
2025 (PM _{2.5} 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 in Delaware County
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 (interim 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
2050 (DVRPC Plan horizon year)	All regionally significant highway and transit projects in the 2045 model network and Additional highway and transit projects that are scheduled to open from 2045 to 2049

Source: DVRPC, 2023

Emissions Analysis

Once the regionally significant and nonexempt projects in the Plan and TIP 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 (Travel Improvement Model version 2.5.1). The TDM represents the regional transportation network and uses inputs like 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 TIP according to the projects' analysis years.

Outputs of the TDM are then processed and entered into the emissions estimation model, MOVES 3.1. 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, land use assumptions, VMT, vehicle mix percentages, travel time-of-day patterns, transit ridership, and vehicle fleet age are critical inputs to the TDM.

Planning assumptions are updated following US EPA and FHWA joint guidance (EPA420-B-08-901) that clarifies the implementation of the latest planning assumption requirements in 40 CFR 93.110. This analysis utilizes the best available latest traffic, vehicle fleet, and environmental data to estimate regional highway emissions.

In New Jersey, the New Jersey Department of Environmental Protection (NJ DEP) updates many of the planning assumptions to meet the transportation conformity requirements. For this conformity determination, NJ DEP has updated vehicle age distribution assumptions using 2022 vehicle registration data provided by the New Jersey Department of Motor Vehicles. VMT were also adjusted to the latest available Highway Performance Monitoring System factors, which are from 2021.

In Pennsylvania, the Pennsylvania Department of Transportation (PennDOT) updates the key planning assumptions on a triennial basis to support the US EPA's National Emissions Inventory and FHWA's latest planning assumption requirements for transportation conformity. The PennDOT triennial data update is typically used to inform the planning assumptions for the future analysis years used for transportation conformity.

Due to the impacts that Coronavirus Disease 2019 (COVID-19) has had on the latest 2020 triennial data update, PennDOT has determined that these estimates of VMT, vehicle mix percentages, travel time-of-day patterns, transit ridership, and vehicle fleet age may not be reflective of future conditions or longer-term trends. The 2020 information indicates significant reductions in passenger vehicle travel and transit ridership. In addition, vehicle registration data shows very low vehicle sales and older vehicle scrappage. The 2020 information is not reflective of other historic data collected over the last 15–20 years, other than in 2010

during the last economic recession. PennDOT, in coordination with the Pennsylvania Air Quality Workgroup (which serves as the TCICG), decided not to use the 2020 VMT, traffic, and transit data to inform future VMT projections for conformity. The MPO's travel model continued to utilize the latest socioeconomic forecasts to guide VMT growth rates, although in most cases these had not been updated with data from the COVID-19 period. In addition, PennDOT, in consultation with the Air Quality Workgroup, decided not to use the 2020 vehicle age data to inform future age distributions and vehicle sales as this information is not reflective of historic trends. For both cases, the VMT growth and vehicle age assumptions relied on previous planning assumptions used for past conformity analyses.

All other data assumptions for the conformity analysis relied on the latest available planning assumptions or national/local defaults consistent with methods used for past conformity analyses and the US EPA's technical guidance. This includes information and characteristics related to fuels, inspection and maintenance program parameters, heavy-truck long duration idling, and environmental data (e.g., temperatures and humidity).

Planning assumptions, as well as the list of Plan and TIP projects, are reviewed and approved by the TCICG in each state 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 June 1, 2023, for New Jersey and June 6, 2023, 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 and employment forecasts were adopted by the DVRPC Board on June 24, 2021. These estimates include forecasts for the Plan horizon year of 2050 and are posted on the DVRPC website under the Quick Links at <https://www.dvrpc.org/plan/>. This data can also be reviewed upon request.

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 2019 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	Specified in the transit network by operator and by analysis year; held constant in year 2019 dollars	Specified in the transit network by operator and by analysis year
SEPTA Suburban Victory Division		
SEPTA Suburban Frontier Division		
SEPTA Regional Rail Division		
NJ Transit Mercer Division		
NJ Transit Southern Division		
NJ Transit Railroad Division		
PATCO High-Speed Line (DRPA)		
Pottstown Area Rapid Transit		
Krapf's Coaches		

Source: DVRPC, 2023

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

Travel Demand Simulation

DVRPC’s TDM was validated in 2019 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 TIP. Travel patterns and modal splits are then run through a postprocessor in preparation for emissions analysis by MOVES 3.1. 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 January 2023, MPOs and state DOTs are required to use the MOVES 3.1 emissions model to demonstrate transportation conformity. For a detailed description of the MOVES model, please visit: www.epa.gov/moves.

Conformity Tests

The DVRPC region must demonstrate transportation conformity for ozone and PM_{2.5}, 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). The Philadelphia Ozone Nonattainment Area did not meet the August 2021 designated attainment date for ozone (87 FR 21842), and each state is currently revising the Ozone SIPs to redesignate the area to moderate nonattainment for the 2015 Ozone Standard.

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 MOVES 3.1. Analysis is conducted for ozone emissions for a typical summer work weekday.

The US EPA has approved maintenance plans for the 2006 24-Hour PM_{2.5} 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_{2.5} standard in Delaware County in November 2019. All of these state SIPs contain MVEBs for direct PM_{2.5} and precursor NO_x to be used to demonstrate transportation conformity. All PM_{2.5} 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_{2.5} emissions but has also ruled that fugitive road dust does not need to be included in this analysis in the DVRPC region. Thus, the only components of direct PM_{2.5} emissions in this DVRPC conformity iteration are tailpipe exhaust and brake/tire wear.

For the indirect PM_{2.5} emissions (also called PM_{2.5} precursors), the US EPA has identified four potential transportation-related PM_{2.5} precursors: VOCs, NO_x, SO_x, and NH₃. Both New Jersey and Pennsylvania DEPs have determined that NO_x is contributing to regional PM_{2.5} formation and therefore must be included in the PM_{2.5} 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 [†]	Pennsylvania Subregion (tons/day)	New Jersey Subregion (tons/day)
VOCs	2008 Budget (tons per day)	61.09 (all counties)	-
	2009 Budget (tons per day)	-	25.98 (all counties)
NO _x	2008 Budget (tons per day)	108.78 (all counties)	-
	2009 Budget (tons per day)	-	63.66 (all counties)

Source: DVRPC, 2023

[†]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_{2.5} Emissions Budgets (Tons/Year)

Pollutant	Budget [†]	Burlington, Camden, and Gloucester counties (tons/year)	Mercer County (tons/year)
Annual and 24-Hour Direct PM _{2.5} ♦	2025 Budget (tons per year)	363	119
Annual and 24-Hour Precursor NO _x ♦		8,003	2,551

Source: DVRPC, 2023

[†]PM_{2.5} budgets are rounded off to the nearest integer in accordance with the SIP.

♦Both state SIP budgets for Annual and 24-Hour PM_{2.5} are the same value expressed in tons/year.

Table 9: Pennsylvania PM_{2.5} Emissions Budgets (Tons/Year)

Pollutant	Budget [†]	Pennsylvania Subregion (tons/year)
Annual and 24-Hour Direct PM _{2.5} ♦	2025 Budget (tons per year)	1,316
Annual and 24-Hour Precursor NO _x ♦		25,361

Source: DVRPC, 2023

[†]PM_{2.5} budgets are rounded off to the nearest integer in accordance with the SIP.

♦Both state SIP budgets for Annual and 24-Hour PM_{2.5} are the same value expressed in tons/year.

Table 10: Delaware County PM_{2.5} Emissions Budgets (Tons/Year)

Pollutant	Budget [†]	Delaware County (tons/year)
Annual and 24-Hour Direct PM _{2.5} ♦.	2022 Budget (tons per year)	79
Annual and 24-Hour Precursor NO _x ♦.		2,016
Annual and 24-Hour Direct PM _{2.5} ♦.	2030 Budget (tons per year)	53
Annual and 24-Hour Precursor NO _x ♦.		956

Source: DVRPC, 2023

[†]PM_{2.5} budgets are rounded off to the nearest integer in accordance with the SIP.

♦Both state SIP budgets for Annual and 24-Hour PM_{2.5} 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 June 1, 2023 in New Jersey and June 6, 2023 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 *Connections 2050* Long-Range Plan, the FY2024 TIP for New Jersey, and the FY2023 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 3.1 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 3.1 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_x emissions estimates for a typical summer work weekday.

Emissions Estimate Results

Mobile source emissions estimates are outputs of the MOVES 3.1 model. The regional emissions analysis must meet all conformity tests in the Final Rule. Specifically, emissions of VOCs, NO_x, and PM_{2.5} must be less than the approved MVEBs.

Tables 11 and 12 present the results of these calculations for the transportation conformity simulation for the critical ozone precursors. 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	2050 Emissions
New Jersey	Emissions from MOVES 3.1	–	25.98	8.63	6.63	5.96	5.41
Pennsylvania	Emissions from MOVES 3.1	61.09	–	20.07	14.05	11.73	11.49

Source: DVRPC, 2023

[†]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_x Emissions Analysis Results (Tons/Day)

		2008 SIP MVEB†	2009 SIP MVEB†	2025 Emissions	2035 Emissions	2045 Emissions	2050 Emissions
New Jersey	Emissions from MOVES 3.1	-	63.66	13.74	8.54	7.86	7.71
Pennsylvania	Emissions from MOVES 3.1	108.78	-	32.76	18.85	17.55	17.45

Source: DVRPC, 2023

†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.

Tables 13 and 14 provide the emissions estimate results for the 2006 PM_{2.5} Maintenance Areas in New Jersey and Pennsylvania, and Table 15 provides the emissions estimates and MVEB for the Delaware County 2012 Annual PM_{2.5} Maintenance Area.

Governing SIP MVEBs for the year 2025 were approved for both the Annual and 24-Hour PM_{2.5} standards in September 2013 in New Jersey and April 2015 in Pennsylvania. In Delaware County, Pennsylvania, governing SIP MVEBs were approved for the 2012 Annual PM_{2.5} standard in November 2019.

Since the PM_{2.5} SIPs provide MVEBs expressed in annual values (tons/year), conformity is demonstrated by comparing emissions estimates against these budgets in those terms. Each future-year emissions estimate needs to be less than its associated SIP MVEB budget.

Table 13: Annual and 24-Hour Direct PM_{2.5} and NO_x Emissions Analysis Results (Tons/Year) for New Jersey

		2025 SIP MVEB†	2025 Emissions	2035 Emissions	2045 Emissions	2050 Emissions
Direct PM _{2.5}	Burlington, Camden, and Gloucester counties*	363	148	105	94	92
	Mercer County [¶]	119	50	35	32	31
PM _{2.5} Precursor (NO _x)	Burlington, Camden, and Gloucester counties*	8,003	3,759	2,189	2,026	1,986
	Mercer County [¶]	2,551	1,216	733	675	662

Source: DVRPC, 2023

† The most recent MVEBs apply to all future analysis years. All emissions are rounded to the nearest integer.

*Results are only for Burlington, Camden, and Gloucester counties, which are the New Jersey portion of the Philadelphia–Wilmington, PA–NJ–DE PM_{2.5} Maintenance Area.

¶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_{2.5} Maintenance Area.

Table 14: Annual and 24-Hour Direct PM_{2.5} and NO_x Emissions Analysis Results (Tons/Year) for Pennsylvania

		2025 SIP MVEB†	2025 Emissions	2035 Emissions	2045 Emissions	2050 Emissions
Direct PM _{2.5}	DVRPC—PA	1,316	421	283	250	244
PM _{2.5} Precursor (NO _x)	DVRPC—PA	25,361	11,060	6,470	6,060	6,039

Source: DVRPC, 2023

†The most recent MVEBs apply to all future analysis years. All emissions are rounded to the nearest integer.

Table 15: 2012 Annual Direct PM_{2.5} and NO_x Emissions Analysis Results (Tons/Year) for Delaware County, Pennsylvania

		2022 SIP MVEB†	2025 Emissions	2030 SIP MVEB†	2030 Emissions	2035 Emissions	2045 Emissions	2050 Emissions
Direct PM _{2.5}	Delaware County	79	57	53	44	39	34	33
PM _{2.5} Precursor (NO _x)	Delaware County	2,016	1,422	956	953	833	771	766

Source: DVRPC, 2023

† Associated 2022 and 2030 MVEBs apply to all future analysis years. All emissions are rounded to the nearest integer.

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.

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.

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 2025, 2030 (Delaware County, Pennsylvania, only), 2035, 2045, and 2050 correspond to the SIP budget, interim years within a 10-year timeframe, and the 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 <i>Connections 2050</i> 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 TIP 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 _{2.5} , VOCs, and NO _x MVEBs have been approved by the US EPA. DVRPC performs budget tests to demonstrate the PM _{2.5} and ozone conformity of the Plan and the TIPs.

<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 June 1, 2023 (New Jersey) and June 6, 2023 (Pennsylvania), the start of analysis dates for this conformity determination for the Plan and TIP.
	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 June 2021. 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. 20–21).
	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. 20–21).
	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 TIP is based on MOVES 3.1.
§93.112	Did the MPO make the conformity determination according to the consultation procedures of the Final Rule or the state's conformity SIP?	<p>Yes. Formal interagency consultation meetings with the US 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.</p> <p>In compliance with 23 CFR 450, a 30-day public comment period and public meetings were held to receive comments regarding the transportation conformity of the Plan and the TIP under all governing NAAQS.</p>
§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, TIP, or project consistent with the established MVEB(s) in the applicable SIP?	Yes. Projects contained in the Plan and the TIP 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 TIP 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 off-network 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 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, 2023

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 TIP.

For New Jersey, a TCICG meeting was held via video conference on June 1, 2023. Prior to the meeting DVRPC provided the TCICG with the proposed conformity schedule, the lists of planning assumptions and MOVES model inputs for the emissions analysis, and the lists of projects from the Plan and FY2024 New Jersey TIP that will be analyzed for this conformity determination. The TCICG reviewed the planning and model inputs and project lists and approved DVRPC to start the conformity analysis on June 1, 2023.

In Pennsylvania, consultation with the TCICG was conducted through email and phone discussions. Planning assumptions, model inputs, and project lists that included amendments to the Plan and Pennsylvania TIP were discussed and approved by the TCICG. All comments approving the DVRPC conformity process were submitted to PennDOT by the TCICG by June 6, 2023.

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, NJ Transit, NJ 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 scheduled a mandated 30-day public comment period to begin on July 24, 2023, 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 July 17, 2023. Announcement of the public comment period appeared in DVRPC's July and August newsletters, which goes to nearly 13,000 subscribers. This conformity document was made available online at www.dvrpc.org/AirQuality/Conformity/.

Hard copies of the Executive Summary of the draft document were made available at 42 libraries throughout the region and at DVRPC's offices.

As part of the comment period, an in-person public information session was held on July 31, 2023, at 5:00 PM, and an online meeting was held on August 10, 2023 at 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 August 25, 2023, at 5:00 PM.

DVRPC accepted public comments on the draft conformity document:

- online at www.dvrpc.org/AirQuality/Conformity/,
- by email at airconformity@dvrpc.org; and
- by mail at the address at the end of this document, Attention: TIP/Plan/Conformity Comments.

Summary of Comments Received

One public comment was submitted during the Public Comment Period.

Comment

Good Morning

I have recently read and looked over the Long Range Plans for New Jersey and Pennsylvania. I was amazed on the topics that were covered from air quality to mass transit. In my opinion, air quality needs to be addressed by the public more. There are many people living in the region that suffer health problems from air pollution and New Jersey and Pennsylvania are the most affected by air pollution. I think it is good that air quality has been brought up in this topic and I like how it gives in detail about the effects and find a solution.

I also like how the long range plan is set up county by county in the Greater Philadelphia area which highlights every project that has been completed, in the works or in construction and it pinpoints the locations that needs construction.

Thank you very much

Response

Thank you for your comments. The Transportation Conformity process is one way that DVRPC works to address improving public health and reducing transportation related emissions. DVRPC will continue to support efforts to improve regional air quality in our communities through projects and programs such as the Air Quality Planning project, that is funded under DVRPC's Unified Planning Work Program. DVRPC appreciates and encourages public participation in these efforts. Thank you for your involvement in the regional planning process.

The DVRPC Board adopted the conformity findings on September 28, 2023

CHAPTER 5: Conclusion

The DVRPC Plan, FY2024 New Jersey TIP, and FY2023 Pennsylvania TIP are found to be in conformity with the current Pennsylvania and New Jersey SIPs under the CAA. The forecasted emissions levels of VOCs, NO_x, and PM_{2.5} do not exceed the respective budgets established by the state 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 TIP 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 *Connections 2050* Long-Range Plan, FY2024 TIP for New Jersey, and the FY2023 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 2006 24-Hour PM_{2.5} NAAQS in the Philadelphia–Wilmington, PA–NJ–DE PM_{2.5} Maintenance Area;
- the 2006 24-Hour PM_{2.5} NAAQS in the New York–Northern New Jersey–Long Island, NY–NJ–CT Annual and 24-Hour PM_{2.5} Maintenance Area, and
- the 2012 Annual PM_{2.5} NAAQS in the Delaware County, PA, PM_{2.5} Maintenance Area.



Appendix

Appendix: Regionally Significant and Nonexempt Projects in the *Connections 2050* Long-Range Plan, FY2024 TIP for New Jersey, and FY2023 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 number.

Air Quality Significant New Jersey *Connections 2050* Long-Range Plan Major Regional Projects (MRPs)

MRP ID	Project Title	Improvements	AQ Analysis Code
Highway			
36	I-295 Scudder Falls Bridge Replacement	Complete replacement of the existing four-lane, 4.4-mile Scudder Falls Bridge over the Delaware River from the Route 332 interchange in Bucks County, Pennsylvania, to the Bear Tavern Road interchange in New Jersey.	2025M
75	I-295/NJ 42 (Missing Moves)	Add missing movements to interchange at I-76/NJ 42.	2035M
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.	2035M
84	US 1 Alexander Road to Mapleton Road	Widen from six to eight lanes from Dinky Bridge to Scudders Mill Road; intersection improvements at Washington Road and Harrison Street.	2035M
103	Atlantic City Expressway	Construction of a third lane in the westbound direction from milepost 31 to milepost 44.	2035M
159	US 130 Corridor Improvements	Realign sections of US 130 corridor and redesign multiple intersections with new signals.	2050M
168	AC Expressway Electronic Tolling & ITS Upgrades	Upgrade of toll collection using innovative technology through electronic tolling. Atlantic City Expressway milepost 0.0-44, ACE Connector (South Jersey Transportation Authority).	2035M
172	I-295 and Route 38 Interchange Operational Improvements	Add missing movements to interchange at NJ 38	2035M
209	NJ 73 from Dutch Road to NJ 70	Intersection improvements at NJ 73 and Evesham Road (CR 544).	2035M
210	NJ 73 and Church Road	Intersection improvements at Church Road (CR 616) and Fellowship Road (CR 673).	2035M
237	US 322 Bypass near Rowan University	Bypass around US 322 and NJ 55 Intersection; intersection improvements at US 322 and Joseph Bowe Boulevard; corridor improvements in campus/downtown area between Lehigh and Yale streets.	2045M
307	Trenton City traffic signal upgrades	Mark comprehensive upgrades and interconnect 127 urban traffic signals.	2045M

MRP ID	Project Title	Improvements	AQ Analysis Code
308	Trenton Station Area Access	Revise operations to Market, Clinton, Wallenberg, and Greenwood to improve multimodal access to Trenton Transit Center.	2045M
311	NJ 133 / Cranbury Station Road Interchange	Construct new interchange to facilitate access to distribution centers.	2035M
320	I-295, Sloan Avenue to CR 583	The project involves ramp widening within the interchange, a new ramp to segregate US 1 northbound local/mall traffic to outer lanes, and widening a portion of US 1.	2035M
401	Delaware River Joint Tollbridge Commission All Electronic Tolling - Multiple Bridges	Design and construction of implementing All Electronic Tolling at Trenton-Morrisville (US 1);.	2035M
403	I-95 at PA Turnpike Interchange - Stage 3 - Replacement of the Delaware River Bridge	Includes the complete replacement of the Delaware River Bridge and the reconstruction of the approach roadways.	2045M
412	NJ Turnpike Interchange 1 to 4 Widening Program	Widening of one additional lane in each direction from the existing four-lane Interchange 1 at milepost 0.0 to just north of the existing Interchange 4 at milepost 36.5.	2045M
Transit			
CF	Franklin Square Station	New station on PATCO Line in Philadelphia.	2025M

Source: DVRPC, 2023.

New Air Quality Significant New Jersey Connections 2050 Long-Range Plan MRPs

MRP ID	Project Title	Improvements	AQ Analysis Code
Highway			
172	I-295 and Route 38 Interchange Operational Improvements	Add missing movements to interchange at NJ 38	2035M
320	I-295, Sloan Avenue to CR 583	The project involves ramp widening within the interchange, a new ramp to segregate US 1 northbound local/mall traffic to outer lanes, and widening a portion of US 1.	2035M
403	I-95 at PA Turnpike Interchange - Stage 3 - Replacement of the Delaware River Bridge	Includes the complete replacement of the Delaware River Bridge and the reconstruction of the approach roadways.	2045M

Source: DVRPC, 2023

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 Pennsylvania *Connections 2050* Long-Range Plan MRPs

MRP ID	Project Title	Improvements	AQ Analysis Code
Highway			
20	I-95 and I-476 Interchange	One new lane in each direction on I-95 through the interchange. Addition of lane on ramp from southbound I-476 to southbound I-95.	2050M
32	I-476 (PA Turnpike Northeast Extension) Widening	Reconstruct and widen to six lanes from Lansdale to Quakertown.	2035M
34	County Line Road	Reconstruct and widen between US 202 and Stump Road and between Kulp Road and PA 611.	2035M
35	I-95 at PA Turnpike Interchange - Stage 2	New partial interchange directly connects these two highways. Includes Sections A, C, D30, and E, which are primarily the Turnpike mainline reconstruction and widening; and D40, which completes the remaining movements at the new interchange.	2035M
36	I-95 at Scudders Falls Bridge Widening	Complete replacement of the existing four-lane, 4.4-mile, Scudder Falls Bridge over the Delaware River from the Route 332 interchange in Bucks County, PA, to the Bear Tavern Road interchange in Mercer County, NJ. Includes six lanes of through traffic (three in each direction), two auxiliary northbound lanes for entry/exit travel, and one auxiliary southbound lane for entry/exit travel.	2025M
37	US 1 at PA Turnpike	Reconstruct from I-276 (PA Turnpike) to NJ state line; widen from PA Turnpike to PA 413.	2045M
48	US 30/Coatesville-Downingtown Bypass (Western Section)	Reconstruct from PA 10 to just west of Reeceville Road; complete missing movements at PA 82, Airport Road, and Bus. 30/PA 10 interchanges.	2035M
50	US 322 from Clayton Park Drive to I-95	Reconstruct and widen from Clayton Park Drive 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.	2045M
56	US 202 (Section 600) Widening	Widen and reconstruct from Johnson Highway to PA 309.	2035M
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 Road; interchange improvements at Vine, Girard, Allegheny, Betsy Ross Bridge, Bridge, and Cottman interchanges.	2045M
98	US 422 Mainline Widening (River Crossing)	Reconstruct and widen from four to six 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.	2050M
110	Route 611 Improvements Willow Grove Interchange	The project will be widening the southbound PA 611 ramp to the PA Turnpike from one lane to two lanes.	2035M
111	I-276 and Virginia Drive.	Add full movements.	2035M

MRP ID	Project Title	Improvements	AQ Analysis Code
112	I-276 and Henderson Road	New interchange.	2045M
113	I-276 and Lafayette Street/Ridge Avenue Ramp Modifications	Phases 4 and 5 of a new cashless tolling interchange at the intersection of I-276 / Lafayette Street/Ridge Pike in Norristown, PA.	2035M
114	I-276 and PA 63 Welsh Road	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.	2035M
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 Avenue at I-76 Interchange	Widen Belmont Avenue to provide additional lanes, intersection, and streetscape improvements; modify I-76 and railroad overpasses.	2045M
123	US 202 and US 1 Loop Road	Complete southwestern loop road.	2030M
130	I-476 Active Traffic Management	Part-time shoulder use and other operational strategies from PA 3 to I-95.	2035M
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 and either part-time shoulder use or flex lanes from just west of Reeceville Road to Quarry Road including six interchange projects.	2035M
158	PA Turnpike	All-Electronic Tolling whereby drivers will pay their tolls using either E-ZPass or the PA Turnpike TOLL BY PLATE program.	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 three to four lanes from Church Lane to Philadelphia. Interconnect signals.	2035M
207	Hillman Drive Extension	This project will complete the remaining unfinished section of the loop road system surrounding the intersection of US Routes 1 and 202. Completion will fully mitigate operational issues, including traffic and pedestrian safety and traffic delays.	2030M
226	Ship Road and US 30 Business Couplet	Convert present location of Ship Road to northbound only and construct a southbound leg, as well as a 10-foot-wide multimodal trail.	2035M
238	PA 663 from Portzer Road to Hickory Drive	Widen to four lanes between Portzer Road and Hickory Drive, including turn lanes; and construct eight-foot-wide bike/pedestrian pathway.	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.	2035M

MRP ID	Project Title	Improvements	AQ Analysis Code
247	Ashburn Road Extension	0.34-mile extension to Township Line Road.	2035M
255	Route 332 bypass	Increase capacity of the Route 332 bypass between Stony Hill Road and the I-295 interchange in Lower Makefield Township, Bucks County.	2035M
264	US 202 at PA 100	Establishment of two southbound and two northbound lanes at the US 202 and High Street (US 322 Business) Interchange and additional eastbound left turn lane on Matlack to US 202 northbound.	2045M
401	Delaware River Joint Tollbridge Commission All Electronic Tolling-Multiple Bridges	Design and construction of implementing All Electronic Tolling at Trenton-Morrisville (US 1).	2035M
402	PA Turnpike Reconstruction & Widening - milepost 324-326	Total reconstruction and widening between the Valley Forge Road overpass and the Valley Forge interchange, Chester and Montgomery counties.	2025M
403	I-95 at PA Turnpike Interchange - Stage 3 - Replacement of the Delaware River Bridge	Includes the complete replacement of the Delaware River Bridge and the reconstruction of the approach roadways.	2045M
407	PA Turnpike Reconstruction & Widening - milepost 312-319	Total reconstruction and widening from four to six lanes of eight miles of the PA Turnpike (I-76) from just west of the Downingtown interchange to the Route 29 interchange in Chester County.	2025M
408	HILCO S. Philly Refinery Site Redevelopment	Reconfiguration of circulation paths and patterns, including signalization and possible new roadways at HILCO development site.	2035M
416	Collegeville Road Safety Improvements/ Multiuse Trail	The proposed project will widen PA 29/Collegeville Road from two-lanes to four-lanes; will add turn lanes and signalization/crosswalk at the Hopwood Road intersection and will build a multiuse trail extension from the intersection to Perkiomen Trail.	2035M
Transit			
P	Media-Elwyn Line Rail Extension	Extend from Elwyn to Middletown, Pennsylvania.	2025M
Q	Norristown High Speed Line King of Prussia Extension	Extend Norristown High Speed Line from Hughes Park to King of Prussia.	2045M
CF	Franklin Square Station	New station on PATCO Line in Philadelphia.	2025M

Source: DVRPC, 2023

New Air Quality Significant Pennsylvania Connections 2050 Long-Range Plan MRPs

MRP ID	Project Name	Improvements	AQ Code
Highway			
110	Route 611 Improvements Willow Grove Interchange	The project will be widening the southbound PA 611 ramp to the PA Turnpike from one lane to two lanes.	2035M
403	I-95 at PA Turnpike Interchange - Stage 3 - Replacement of the Delaware River Bridge	Includes the complete replacement of the Delaware River Bridge and the reconstruction of the approach roadways.	2045M
416	Collegetown Road Safety Improvements/ Multiuse Trail	The proposed project will widen PA 29/Collegetown Road from two-lane to four-lane roadway; will add turn lanes and signalization/crosswalk at the Hopwood Road intersection and will build a multiuse trail extension from the intersection to Perkiomen Trail.	2035M

Source: DVRPC, 2023

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 FY2024 New Jersey TIP

DB Number	Project Title	AQ Analysis Code
Highway		
Burlington County		
12307	NJ 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	NJ 73, Dutch Road to NJ 70 Improvements	2035M
21311	I-295 and Route 38 Interchange Operational Improvements	2035M
Camden County		
355E	Route 295/42/I-76, Direct Connection, Contract 4	2035M
D1914	Mount Ephraim Avenue Safety Improvements, Ferry Avenue (CR 603) to Haddon Avenue (CR 561)	2035M
Mercer County		
17419	US 1, Alexander Road to Mapleton Road/Plainsboro-Cranbury Road	2035M
18353	I-295, Sloan Avenue (CR 649) to CR 583 (Princeton Pike) Improvements	2035M
D1910	Parkway Avenue (CR 634), Scotch Road (CR 611) to Route 31 (Pennington Road)	2035M
D2023	Circulation Improvements Around Trenton Transit Center	2035M
Transit		
D1801	Reopening of Franklin Square Station	2025M

Source: DVRPC, 2023

New Air Quality Significant Projects in the FY2024 New Jersey TIP

DB Number	Project Title	AQ Analysis Code
Highway		
Burlington County		
13319	NJ 73, Dutch Road to NJ 70 Improvements	2035M
21311	I-295 and Route 38 Interchange Operational Improvements	2035M
Mercer County		
18353	I-295, Sloan Avenue (CR 649) to CR 583 (Princeton Pike) Improvements	2035M

Source: DVRPC, 2023

Air Quality Significant Projects in the FY2023 Pennsylvania TIP

MPMS Number	Project Title	AQ Analysis Code
Highway		
Bucks County		
12923	Bristol Road Extension	2035M
13549	US 1 (Bridges) Design (Section 03S) SR:0001	2025M
93445	Route 1 Improvement-North (Section RC2)	2035M
107794	Langhorne Yardley Road at Woodbourne Road and Bridgetown Pike Intersection Improvements	2035M
110309	I-95/US 13/PA 132 Slip Ramp Operation Improvement	2035M
110310	Almshouse at Jacksonville Road Roundabout	2035M
111024	Easton Road Roundabouts	2025M
115418	Route 113 and Minsi Trail Road Roundabout	2035M
115419	US 202 & York Road Roundabout	2035M
115420	Penndel Borough Intersection Improvements	2035M
118020	Bustleton Pike/Second Street Pike Roundabout	2035M
118022	US 202 and Route 179 Roundabout	2035M
Chester County		
14532	US 30, Coatesville Downingtown Bypass Reconstruction Design SR:0030	2045M
85949	PA 896 Safety Improvement (Roundabout)	2035M
87781	US 30, Coatesville Downingtown Bypass (CER-Eastern Section)	2045M
102708	PA 41 at PA 841 Improvements	2035M
102709	PA 41 & SR 926 Improvements	2025M
107553	US 30 and Airport Road Interchange Improvement	2045M
110963	Manor Road Roundabout	2025M
115422	West Chester Pike Safety Improvements	2035M
115425	High Street Pedestrian Improvements	2025M
118025	PA 100 Northbound at Exton Station	2035M
Delaware County		
15477	I-95/ US 322/Conchester Highway Interchange Improvements	2035M
69817	US 322, Featherbed Lane to I-95 (Section 102)	2045M
79329	Bridgewater Road Extension	2035M
95429	US 202 and US 1 Intersection Area Improvements	2030M
104821	I-476 Travel Management	2030M
107642	Smithbridge Road Corridor	2025M
110951	Macdade Blvd. Corridor Safety Improvements	2025M
111022	Chichester Avenue Safety Corridor Improvements	2025M

MPMS Number	Project Title	AQ Analysis Code
114034	US 322, Chelsea Parkway to Market Street Interchange (Section 103)	2035M
114112	Media Bypass ITS (Competitive CMAQ)	2030M
118029	Bethel Roundabout	2035M
118030	Bryn Mawr Avenue Extension	2035M
118392	Hillman Drive Extension	2030M
Montgomery County		
16334	PA 73, Church Road Intersection and Signal Improvements	2035M
16577	Ridge Pike: Harmon Road to Crescent Avenue	2035M
48172	PA 23, Moore to Allendale and Trout Creek Road Bridge	2035M
48174	PA 63, Welsh Road SR:0063	2035M
48175	Ridge Pike: Belvoir Road to Chemical Road	2035M
48187	Henderson/Gulph Road Widen near I-76 Ramps	2045M
63486	US 202, Johnson Highway to Township Line Road (61S)	2035M
Montgomery County		
63491	US 202, Morris Road to Swedesford Road (65S)	2025M
63493	PA 309 Five-Points Intersection Improvements	2035M
64795	Belmont Road/Rock Hill Road Widening: I-76 Ramps to Rock Hill Road	2045M
77211	PA 309 Connector, Allentown Road to Souderton Pike (HT2)	2035M
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
110971	Main Street Safety Improvements	2035M
111005	Conshohocken Garage (I-76 ICM)	2035M
114944	Bethlehem Pike Safety Improvements	2035M
115429	Belmont Avenue and Saint Asaph's Road Roundabout	2035M
118032	Dekalb Street Two-Way Reconstruction	2035M
118387	Collegeville Road Safety Improvement/Multiuse Trail	2035M
118389	Route 611 Improvements Willow Grove Interchange	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
79827	I-95, Southbound, Columbia to Ann Street N (GR4)	2025M
79828	I-95, Race to Shackamaxon (GR5)	2035M
79905	I-95, Betsy Ross Mainline (BR3)	2035M
79908	I-95, Kennedy to Levick (Section BS1)	2025M
79910	I-95, Margaret to Kennedy (Section BS2)	2035M
79912	I-95, Allegheny Avenue and Castor Avenue Interchanges Connection (Section AF2)	2025M
103553	I-95, Southbound: Race to Shackamaxon (Section GR6)	2035M
103555	I-95, Corridor ITS (Section GR8)	2035M
103557	I-95, Ann Street to Wheatsheaf Lane (Section AF3)	2035M
103558	I-95, Southbound: Ann Street to Wheatsheaf Lane (Section AF4)	2035M
103559	I-95, Betsy Ross Mainline Southbound (Section BR4)	2035M
103563	I-95, Delaware Avenue Extension (Section BS5)	2035M
106993	Frankford Avenue Signal Improvements	2025M
110958	Castor Avenue Roundabout	2035M

MPMS Number	Project Title	AQ Analysis Code
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
115687	I-95, Allegheny & Castor Avenue Interchanges	2025M
118035	Fifth Street Improvements	2035M
Transit		
60540	Regional Parking Improvements	2035M
60636	Elwyn to Middletown Rail Restoration	2025M
77183	Transit and Regional Rail Station Program	2035M
93586	Downingtown Train Station Rehabilitation	2035M
115472	Projects of Significance	2035M

Source: DVRPC, 2023

Air Quality Significant Projects in the Delaware County PM_{2.5} Networks

MPMS Number	Project Title	AQ Analysis Code
Highway		
60636	Elwyn to Middletown Service Restoration	2025M
107642	Smithbridge Road Corridor	2025M
95429	US 202 and US 1 Intersection Area Improvements	2030M
104821	I-476 Travel Management	2030M
110951	Macdade Boulevard Corridor Safety Improvements	2025M
111022	Chichester Avenue Corridor Safety Improvements	2025M
114112	Media Bypass ITS	2030M
118392	Hillman Drive Extension	2030M

Source: DVRPC, 2023

New Air Quality Significant Projects in the FY2023 Pennsylvania TIP

MPMS Number	Project Title	AQ Analysis Code
Highway		
Delaware County		
118392	Hillman Drive Extension	2030M
Montgomery County		
118387	Collegeville Road Safety Improvement/Multiuse Trail	2035M
118389	Route 611 Improvements Willow Grove Interchange	2035M

Source: DVRPC, 2023

Transportation Conformity Demonstration

Connections 2050 Long-Range Plan, FY2024 New Jersey TIP, and FY2023 Pennsylvania TIP

Publication Number: 24111

Date Published: September 2023

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, *Connections 2050* Long-Range Plan, Multijurisdictional Nonattainment Area, National Ambient Air Quality Standards, Nonattainment Area, NO_x, Ozone, State Implementation Plan (SIP), Transportation Conformity, Transportation Improvement Program (TIP), Volatile Organic Compounds (VOCs).

Abstract:

The Delaware Valley Regional Planning Commission (DVRPC) demonstrates transportation conformity of its *Connections 2050* Long-Range Plan, Fiscal Year (FY) 2024 New Jersey Transportation Improvement Program (TIP), and FY2023 Pennsylvania TIP. A transportation conformity demonstration is required at least once every four years or when a metropolitan planning organization: (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 June 2023.

Staff Contact:

Sean Greene
Manager, Office of Freight and Clean
Transportation
(215) 238-2860
sgreene@dvrpc.org



190 N Independence Mall West
8th Floor
Philadelphia, PA 19106-1520
215.592.1800 | fax: 215.592.9125
www.dvrpc.org



190 N Independence Mall West
8th Floor
Philadelphia, PA 19106-1520
215.592.1800 | fax: 215.592.9125
www.dvrpc.org

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