DRAFT Transportation Conformity Demonstration:

Draft *Update:Connections 2050* Long-Range Plan,
DRAFT FFY2026 TIP for New Jersey,
FFY2025 TIP for Pennsylvania,
Executive Summary

August 2025

PUBLIC COMMENT PERIOD:

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DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

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 the standards 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 (LRP) 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 LRP or TIP; or (2) amends, adds, or deletes a regionally significant, nonexempt project in a LRP or TIP. This conformity demonstration is required due to a new long-range plan, *Update*: *Connections 2050*; a new Draft Federal Fiscal Year (FFY) 2026-2029 TIP for New Jersey; and amendments to the FFY 2025–2028 TIP for Pennsylvania.

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 24-Hour $PM_{2.5}$ Maintenance Area,
- the DVRPC portion of the New York–Northern New Jersey–Long Island, NY–NJ–CT 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 Draft DVRPC Long-Range Plan, Draft TIP for New Jersey, and TIP for Pennsylvania 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 LRP and TIP Projects

The federal Final Conformity Rule (Final Rule) requires that all regionally significant and nonexempt projects that are funded in the Long-Range Plan and TIP be included in the regional transportation conformity analysis. Areas designated as nonattainment or maintenance areas must conduct a regional emissions analysis to demonstrate conformity. Emissions analysis is conducted by including all existing and planned, regionally significant and non-exempt projects from the LRP and TIP in the regional Travel Demand Model (TDM). Emissions from those modeled projects are then quantified using the latest U.S. Environmental Protection Agency (U.S. EPA) approved emissions modeling system, in this case the Motor Vehicle Emissions Simulator version 5 (MOVES 5).

Areas that have demonstrated maintenance of the NAAQS for ten years are eligible for a limited maintenance plan. Once that plan is approved by U.S. EPA, emissions analyses are no longer required to demonstrate transportation conformity for that NAAQS. The U.S. EPA approved limited maintenance plans for $PM_{2.5}$ in New Jersey in March 2024. All other conformity requirements still apply to the $PM_{2.5}$ NAAQS in New Jersey.

Conformity Test

Modeled emissions results from the projects in the LRP 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. Pennsylvania has approved budgets for the 2006 24-Hour $PM_{2.5}$ standards, and 2012 Annual $PM_{2.5}$ standards. Future SIP revisions may make the emissions budgets stricter or establish additional budgets for future years. Figures 5 and 6 provide examples of emissions budgets becoming stricter over time. Emissions 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, NAAQS attainment dates, the final year of the LRP, and interim analysis years that are no more than 10 years apart extending out to the horizon year of the LRP.

MVEBs are established in each state's SIP for specific years. The MVEBs set the emissions limits moving forward. For example, the 2025 $PM_{2.5}$ SIP budgets in Pennsylvania 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 U.S. 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 2026, 2030, 2040, and 2050.

Table 1. identifies the mobile source emissions analysis years for this conformity demonstration.

Table 1: Mobile Source Analysis Years

Year	Ozone	$PM_{2.5}$ (PA only)	Note
2026	√	√	**2015 Ozone Attainment Year**
2030	√	√	**PM2.5 SIP budget year and interim year**
2040	√	√	**Year within 10 years of previous analysis**
2050	√	√	**DVRPC Long-Range Plan horizon year**

Source: DVRPC, 2025

Findings

The DVRPC LRP 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_x, and $PM_{2.5}$ do not exceed the respective budgets established by the states' departments of environmental protection (DEPs) in accordance with the Final Rule under the current NAAQS governing applicable pollutants.

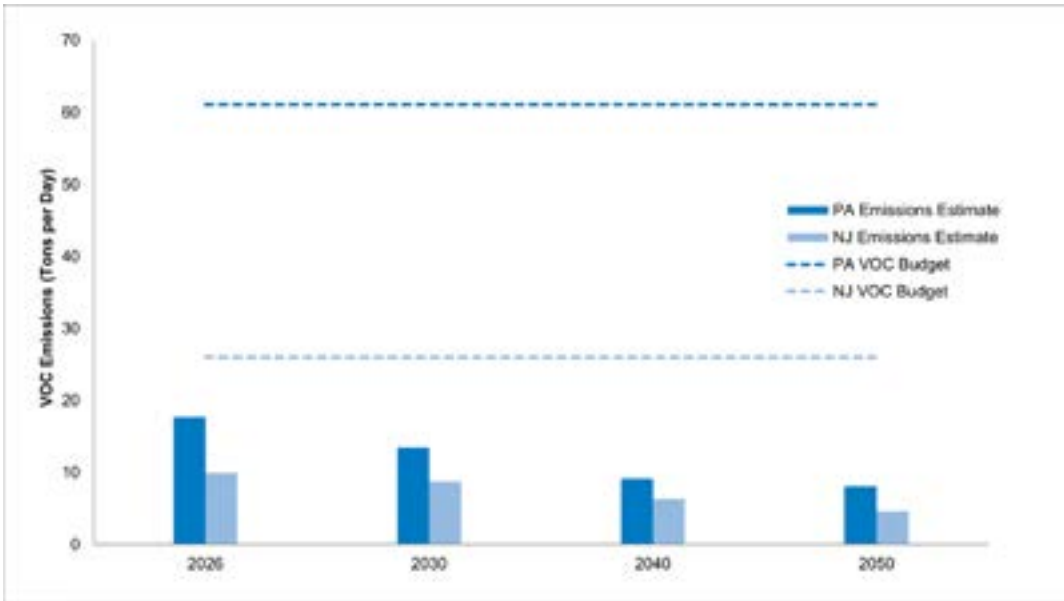
The transportation conformity analysis meets all applicable conformity criteria, including, but not limited to, the following:

- that the LRP 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 LRP and the TIPs do not interfere with the timely implementation of transportation control measures (TCMs)[1] [40 CFR 93.113]; and
- that the LRP 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 LRP 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 LRP and TIP conform to the respective SIP and Final Rule conformity requirements.

[1]TCMs are strategies that reduce transportation-related air pollution and fuel use by reducing vehicle miles traveled and improving roadway operations.

Figure 1: VOCs Emissions Analysis Results (Tons/Day) for the DVRPC Region

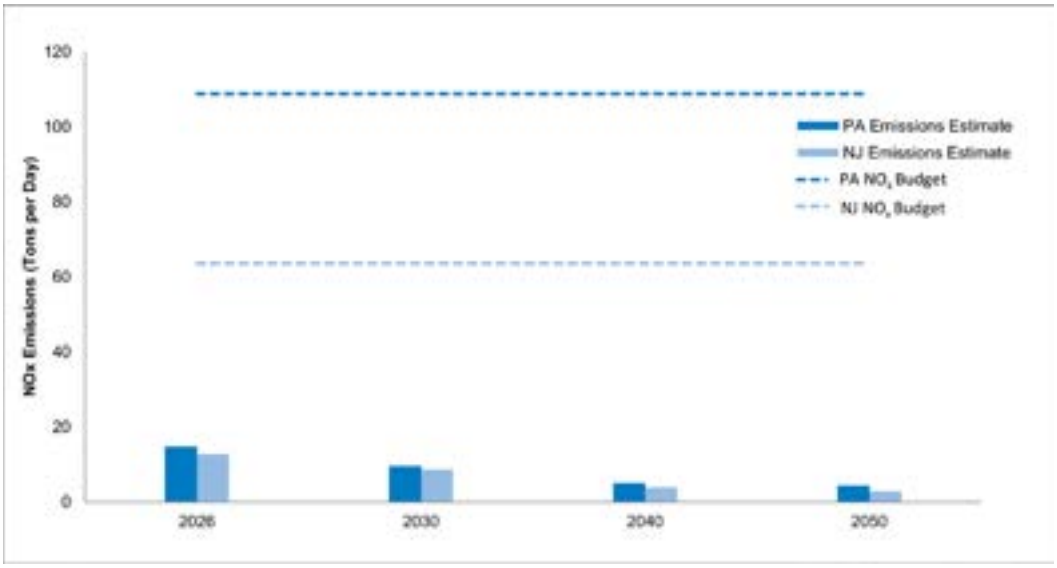


The recent Eight-Hour Ozone SIP MVEBs apply to all future analysis years.

Source: DVRPC, 2025

The current VOC emissions in the Pennsylvania subregion are estimated at 17.71 tons per day and are projected to decline to 8.08 tons per day by 2050. This is well below the SIP budget of 61.09 tons per day. In the New Jersey subregion emissions are estimated at 9.93 tons per day and are projected to decline to 4.59 tons per day by 2050. This is well below the SIP budget of 25.98 tons per day.

Figure 2: NOx Emissions Analysis Results (Tons/Day) for the DVRPC Region

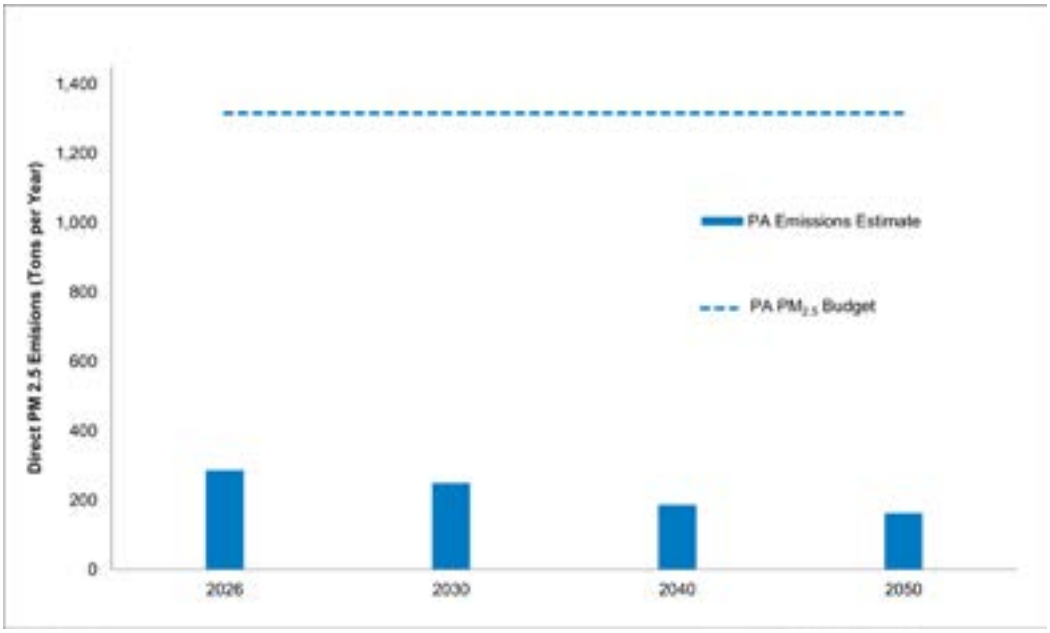


The most recent Eight-Hour Ozone SIP MVEBs apply to all future analysis years.

Source: DVRPC, 2025

The current NO_x emissions in the Pennsylvania subregion are estimated at 14.79 tons per day and are projected to decline to 4.37 tons per day by 2050. This is well below the SIP budget of 108.78 tons per day. In the New Jersey subregion emissions are estimated at 12.80 tons per day and are projected to decline to 2.84 tons per day by 2050. This is well below the SIP budget of 63.66 tons per day.

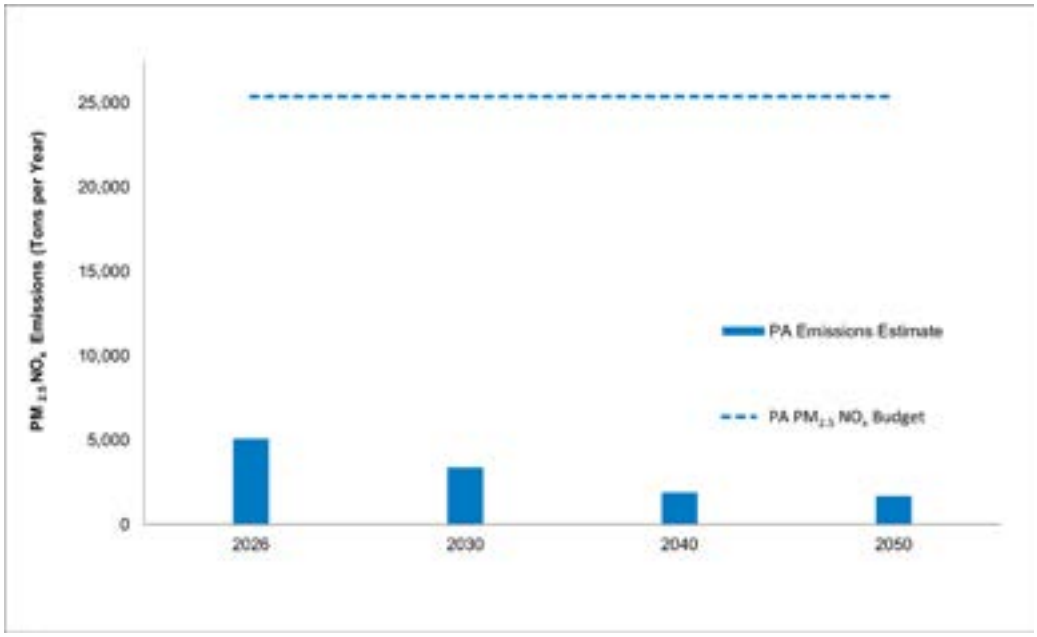
Figure 3: 24-Hour Direct $PM_{2.5}$ Emissions Analysis Results (Tons/Year) for the DVRPC Region



The most recent MVEBs apply to all future analysis years.
Source: DVRPC, 2025

The current Direct $PM_{2.5}$ emissions in the Pennsylvania subregion are estimated at 340 tons per year and are projected to decline to 194 tons per year by 2050. This is well below the SIP budget of 1,316 tons per year.

Figure 4: 24-Hour NO_x Precursor Emissions Analysis Results (Tons/Year) for the DVRPC Region

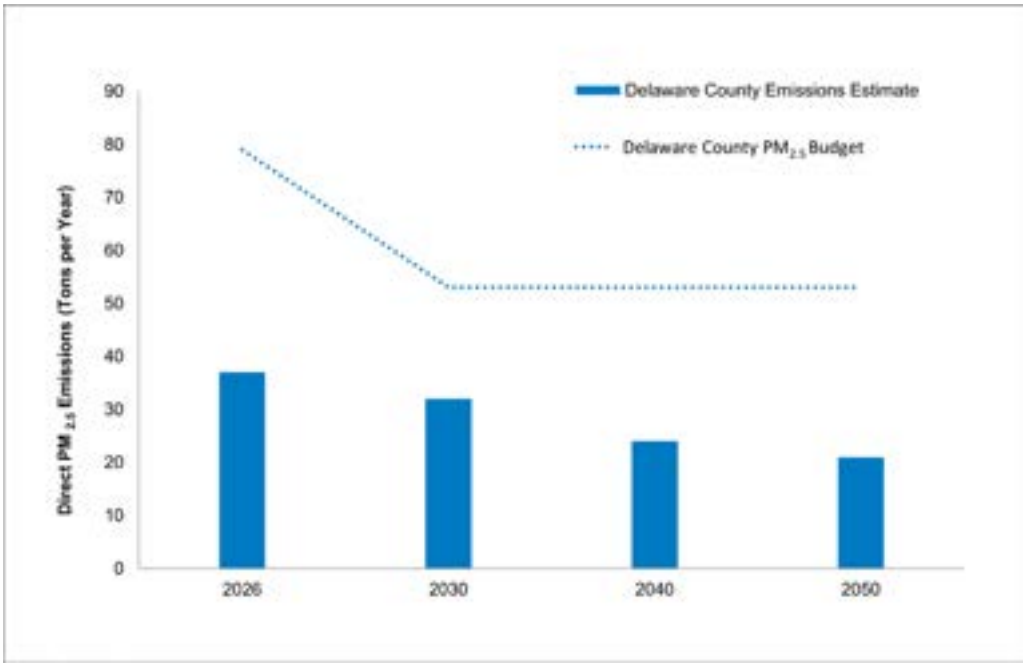


The most recent MVEBs apply to all future analysis years.

Source: DVRPC, 2025

The current Precursor NO_x $PM_{2.5}$ emissions in the Pennsylvania subregion are estimated at 7,160 tons per year and are projected to decline to 2,284 tons per year by 2050. This is well below the SIP budget of 25,361 tons per year.

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

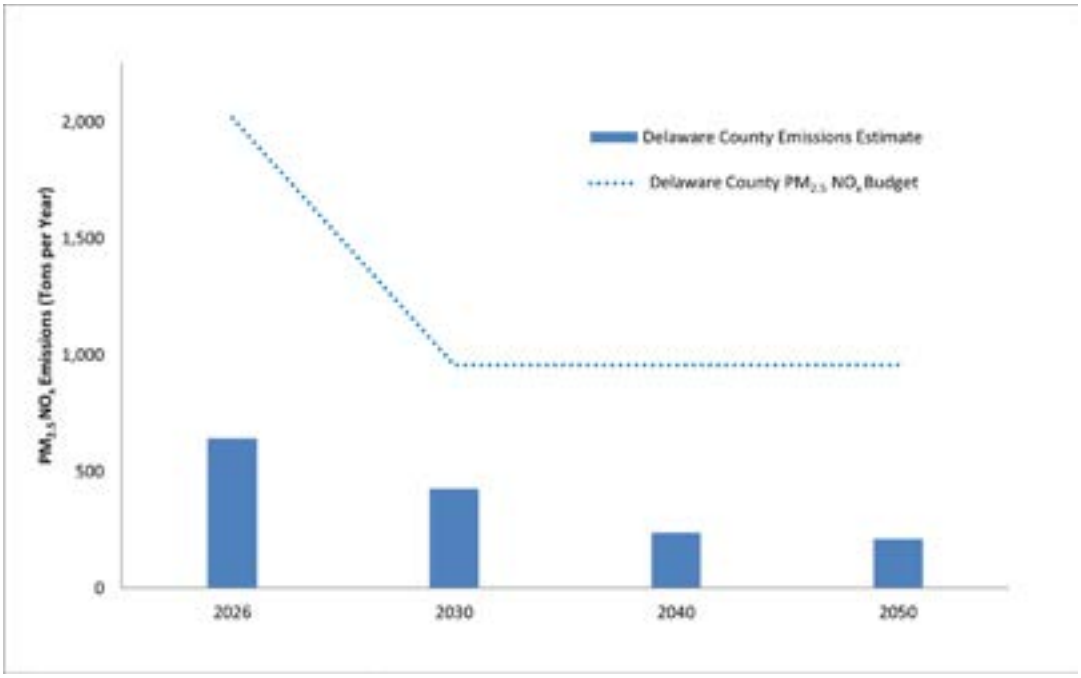


The most recent MVEBs apply to all future analysis years.

Source: DVRPC, 2025

The current Direct $PM_{2.5}$ emissions in the Delaware County, Pennsylvania subregion are estimated at 37 tons per year and are projected to decline to 21 tons per year by 2050. This is well below the SIP budget of 79 tons per year.

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



The most recent MVEBs apply to all future analysis years.

Source: DVRPC, 2025

The current Precursor NO_x $PM_{2.5}$ emissions in the Pennsylvania subregion are estimated at 643 tons per year and are projected to decline to 211 tons per year by 2050. This is well below the SIP budget of 2,016 tons per year.

These findings demonstrate transportation conformity of the DVRPC Draft *Update: Connections 2050* Long-Range Plan, Draft FFY2026 TIP for New Jersey, and FFY2025 TIP for Pennsylvania 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.

DRAFT Transportation Conformity Demonstration

Draft *Update: Connections 2050* Long-Range Plan, Draft FFY 2026 TIP for New Jersey, and FFY 2025 TIP for Pennsylvania

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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, *Update: 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 Draft *Update: Connections 2050* Long-Range Plan, Draft FFY 2026 TIP for New Jersey, and FFY 2025 TIP for Pennsylvania. A transportation conformity demonstration is required at least once every four years or when a metropolitan planning organization: (1) adopts a new LRP or TIP; or (2) amends, adds, or deletes a regionally significant, nonexempt project in a LRP or TIP. This conformity finding of the DVRPC LRP and TIP 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 LRP and TIPs through June 2025.

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