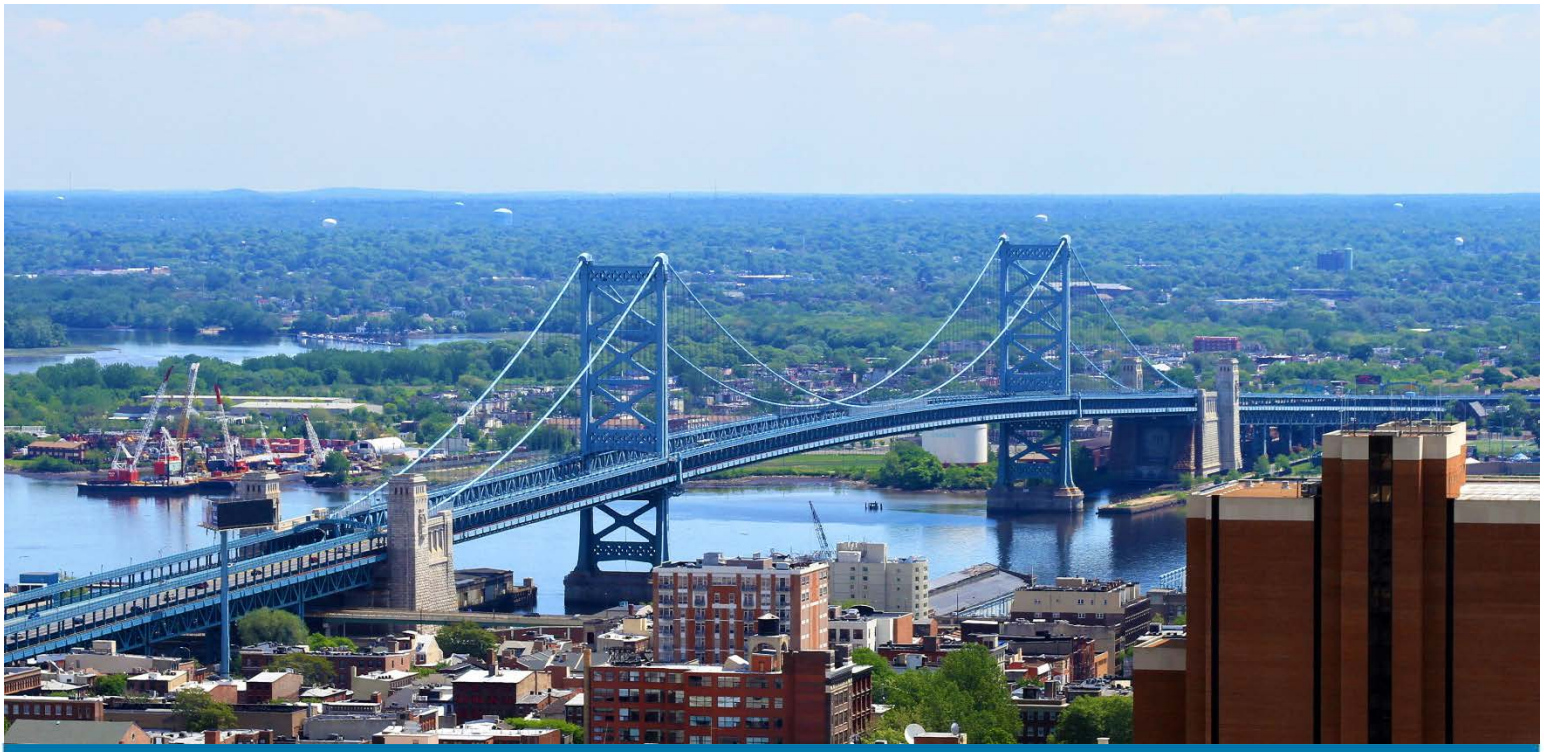
Transportation Conformity

Standard Operating Procedure for the New Jersey Subregion



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Technical Memo

Transportation Conformity Standard Operating Procedures for the New Jersey Subregion

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Introduction

This technical memo identifies DVRPC's standard operating procedure for conducting a transportation conformity determination for the Metropolitan Planning Organization's (MPOs) New Jersey counties—Burlington, Camden, Gloucester, and Mercer. It outlines the processes in place to:

- convene interagency consultation,
- identify and update planning assumptions used in the conformity determination,
- classify projects to determine that each project is properly accounted for in the regional transportation conformity determinations,
- use travel demand and emissions models to analyze future pollutant emissions from mobile transportation,
- conduct public outreach, and
- submit the findings to the New Jersey Department of Transportation (NJDOT) for submission to the relevant federal authorities.

A Long-Range Transportation Plan (Plan) and Transportation Improvement Program (TIP) for areas in designated air quality nonattainment or maintenance areas are required to demonstrate regional transportation air quality conformity to the State Implementation Plan (SIP).

In New Jersey, a new TIP is adopted on a biennial schedule. A Plan is required to be updated every four years in a region that does not currently meet National Ambient Air Quality Standards (NAAQS), and every five years for those that meet these standards. Both Plan and TIP must meet multiple state and federal requirements such as:

- 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 an MPO has made the determination according to the applicable consultation procedures [40 CFR 93.112];
- that the Plan and the TIP are consistent with the Motor Vehicle Emissions Budgets (MVEBs) in the applicable SIPs [40 CFR 93.118].

Both of these documents are subject to amendment, which may also require a conformity determination if an air quality significant project is added or removed or changes are made to an air quality significant project's timing or scope. The regional conformity analysis requirement is separate and apart from any conformity requirements that apply to specific projects. The state DOT conducts project-level conformity determinations.

Regional transportation conformity analysis is performed in DVRPC's New Jersey subregion for ozone and fine particulate pollution ($PM_{2.5}$). The process demonstrates that the Plan and TIP "conform to" the SIP for the relevant pollutants. A regional transportation conformity determination is required by the Clean Air Act and the U.S. Environmental Protection Agency's (U.S. EPA) transportation conformity regulations (93 CFR Parts 51 and 93). Federal approval of the TIP, and the use of federal transportation funds, is contingent upon USDOT approving the conformity determination of the State TIP, TIP, and Plan.

Interagency Consultation

DVRPC staff consults with the Interagency Consultation Group (ICG), comprised of state and federal transportation and air quality partners, through each step of the conformity determination. DVRPC's ICG consists of representatives of the following agencies:

- U.S. EPA – Region 2
- U.S. Federal Transit Administration (FTA) – Region 2
- U.S. Federal Highway Administration (FHWA) – New Jersey Division
- New Jersey Department of Environmental Protection (NJDEP)
- NJDOT
- New Jersey Transit Corporation (NJT)
- Delaware River Port Authority / Port Authority Transit Corporation (DRPA/PATCO)

Additional members may be invited to participate in consultation when appropriate. Examples include NJDOT project consultants and toll or bridge authorities that may have projects included in the Plan or TIP.

Communication with the ICG is typically conducted through email, unless a discussion is required to resolve questions or issues regarding a conformity demonstration, project characterization, or procedure.

Coordination with the ICG includes identification of the most current planning assumptions, characterization of projects as exempt or nonexempt, and review of the draft and final conformity documents. The ICG provides guidance on the overall conformity determination process and resolves issues that are not clearly defined in the regulations.

DVRPC staff meet regularly with local, state and federal planning partners, many of whom are representatives of the ICG outside of the formal conformity review process, to identify regulations and project progress that might impact conformity of the region's Plan and TIP.

Applicability

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.

The 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.

Table 1 identifies the nonattainment and maintenance areas that include portions of the DVRPC region and whether or not regional emission analysis are required.

Table 1: Table 1 Relevant Nonattainment and Maintenance Areas in the New Jersey Portion of DVRPC Planning Area

Pollutant	County	Nonattainment or Maintenance Area	Regional Emissions Analysis Required?
Ozone	All	Philadelphia–Wilmington–Atlantic City, PA–NJ–MD–DE Ozone Nonattainment Area;	Yes
$PM_{2.5}$	Burlington, Camden, Gloucester	Philadelphia–Wilmington, PA–NJ–DE Annual and 24-Hour $PM_{2.5}$ Maintenance Area	No – Limited Maintenance Plan found Adequate by U.S. EPA in March 2024
$PM_{2.5}$	Mercer	New York–Northern New Jersey–Long Island, NY–NJ–CT Annual and 24-Hour $PM_{2.5}$ Maintenance Area	No – Limited Maintenance Plan found Adequate by U.S. EPA in March 2024

Source: DVRPC, 2024

Initiating a Conformity Determination

Once it is determined that a conformity determination is required. DVRPC will notify NJDOT and the New Jersey ICG of the agency's proposed schedule for conducting a transportation conformity demonstration.

The conformity process can take up to four months to identify and code projects, conduct the required emissions analysis, hold a 30-day public comment period on the draft public conformity document, and present the document to the DVRPC Regional Technical Committee and Board for approval before submission to NJDOT. NJDOT submits the conformity document to FHWA for review and FHWA forwards the document to the U.S. EPA and FTA for federal approval. The approval of the transportation conformity finding is jointly issued by the U.S. Department of Transportation and the U.S. EPA.

Planning Assumptions[1] and Emissions Model Inputs.

The Final Transportation Conformity Rule (Final Rule),[2] and subsequent amendments require that DVRPC utilize the latest available planning assumptions when demonstrating conformity. The specific planning assumptions include estimates of current and future population, employment, travel, and congestion most recently developed by the MPO or other agency authorized to make such estimates and approved by the MPO. This includes estimates of vehicle miles travelled (VMT) and vehicle fleet characteristics.

The specific latest planning assumptions are outlined in 40 CFR 93.110 (b)-(f):

"(b) Assumptions must be derived from the estimates of current and future population, employment, travel, and congestion most recently developed by the MPO or other agency authorized to make such estimates and approved by the MPO. The conformity determination must also be based on the latest assumptions about current and future background concentrations.

(c) The conformity determination for each transportation plan and TIP must discuss how transit operating policies (including fares and service levels) and assumed transit ridership have changed since the previous conformity determination.

(d) The conformity determination must include reasonable assumptions about transit service and increases in transit fares and road and bridge tolls over time.

(e) The conformity determination must use the latest existing information regarding the effectiveness of the transportation control measures (TCMs) and other implementation plan measures which have already been implemented.[3]

(f) Key assumptions shall be specified and included in the draft documents and supporting materials used for the interagency and public consultation required by §93.105."

U.S. EPA and USDOT strongly encourage state DOTs and MPOs to review and update planning assumptions on a regular basis or at least every five years. If there is good reason that the latest planning assumptions will not be used in a conformity demonstration, DVRPC must justify why the other data is being used and this justification is approved by the ICG prior to the start of analysis. DVRPC works with NJDOT and NJDEP to update the planning assumptions that are inputs for the DVRPC travel demand model (TDM) and the latest planning assumptions are reviewed and approved by the ICG prior to DVRPC beginning the conformity analysis.

The interagency consultation process must be used to determine which planning assumptions are considered the latest and best assumptions for conformity determinations. The conformity rule specifically requires that the interagency consultation process be used to evaluate and choose assumptions to be used in conformity analyses (40 CFR 93.105(c)(1)(i)).

[1] US EPA / US DOT: Guidance for Use of Latest Panning Assumptions for Transportation Conformity, 2004
[2] 69 FR 40004
[3] A TCM is any measure that is specifically identified and committed to in the applicable implementation plan or any other measure for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Approved TCMs are defined in the Clean Air Act.

The Final Rule also requires that the latest emissions model approved by the U.S. EPA for conformity determinations is employed to estimate the emissions from the regionally significant and nonexempt projects identified in the DVRPC Long-Range Transportation Plan and TIP and modeled in the TDM.

Project Coding for Conformity Analysis

DVRPC works closely with NJDOT, NJ Transit, DRPA/PATCO, and regional partners to identify projects that will be included in the Plan and TIP. DVRPC staff reviews the project descriptions and codes the projects for air quality analysis. DVRPC also works with external bridge, toll, and transportation agencies to identify projects that need to included in the conformity analysis.

The Final Rule requires that all regionally significant and nonexempt projects in nonattainment and maintenance areas, included in the fiscally constrained TIP and Plan must be analyzed for emissions to demonstrate that the projects' emissions will not prevent the region from making progress toward SIP goals.[4]

There are three project categories in the Plan and TIP:

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).

DVRPC staff evaluates the projects descriptions and identifies regionally significant projects as well as projects that are exempt from conformity analysis. Staff then applies a coding scheme to identify projects that are included in the emissions analysis and the project's analysis year. The coding scheme also identifies 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 40 CFR 93.126 and 127. Table 2 shows the exempt project categories identified in the regulation and their corresponding DVRPC AQ codes. The most representative code is assigned in cases where multiple codes can apply to a project. 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 ICG reviews all projects and concurs on all assigned AQ codes in the Plan and the TIP.

Traffic signal synchronization projects (per 40 CFR 93.128) may be approved, funded, and implemented without satisfying the requirements of this subpart. However, all subsequent regional emissions analyses

[4] DVRPC's Plan includes a fiscally constrained major regional project list of what can be afforded with reasonably anticipated federal, state, and local revenues and an unfunded, aspirational project list. The latter contains a list of desired investments that cannot be afforded with reasonably anticipated revenues, these projects are not included in the conformity analysis. All projects listed in the TIP are considered to be fiscally constrained within reasonably anticipated revenues.

required for transportation TIP and Plan must include such regionally significant traffic signal synchronization projects. In short, traffic signal synchronization projects are exempted from the first regional conformity analysis from which they would otherwise be included, but the project must be included in all subsequent analyses.

The ICG reviews all project code lists. Questions and concerns are resolved through group emails, or virtual or in-person meetings. DVRPC works with project partners to clarify any project detail questions to provide the ICG with sufficient information to approve the project coding proposals. The AQ code for each project is shown in the respective Plan and TIP documents.

Table 2: DVRPC Exempt Project Air Quality (AQ) Codes

	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		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			
	Adding medians	S16	No Regional Emissions Analysis Required	Intersection channelization projects	R1
	Truck-climbing lanes outside the urbanized area	S17		Intersection signalization projects at individual intersections	R2
	Lighting improvements	S18		Interchange reconfiguration projects	R3
	Widening narrow pavements or reconstructing bridges (no additional travel lanes)	S19		Changes in vertical and horizontal alignment	R4
	Emergency truck pullovers	S20		Truck size and weight inspection stations	R5
Mass Transit Projects	Operating assistance to transit agencies	M1		Bus terminals and transfer points	R6
	Purchase of support vehicles	M2	Not Regionally Significant	Projects determined to be “Not Regionally Significant” and do not fit into an exempt category	NRS
	Rehabilitation of transit vehicles	M3	Source: DVRPC, 2024		
	Purchase of office, shop, and operating equipment for existing facilities	M4	Note †40 CFR Sections 126 and 127		
	Purchase of operating equipment for vehicles (e.g., radios, fare boxes, lifts, etc.)	M5			
	Construction or renovation of power, signal, and communications systems	M6			
	Construction of small passenger shelters and information kiosks	M7			
	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

Conformity Analysis

Once the ICG approves the planning assumptions and regionally significant and nonexempt project codes and analysis years, DVRPC establishes a "start of analysis" date and begins TDM and emissions analysis. The analysis has the following steps:

- Plan and TIP projects are coded into the DVRPC TDM. 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. 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.

- The TDM simulates travel in the region.

- Travel outputs from the TDM are then entered into the latest U.S. EPA approved emissions estimation model. The emissions model processes the TDM outputs, information on meteorology, fuel information, data on vehicle types and vehicle populations, and other critical inputs to develop projected emissions estimates for a given analysis year and pollutant.

- Estimates of pollutants of concern from the emissions model are then compared against SIP Motor Vehicle Emissions Budgets (MVEBs) to demonstrate conformity.

The U.S. EPA is provided with the emissions model inputs and outputs to review for approval of the conformity determination.

Draft Conformity Documentation and Public Outreach

DVRPC publishes a draft transportation conformity document that provides both a public information publication and an opportunity for the public to review and comment on the conformity analysis findings. The ICG is provided with the draft document prior to the opening of the public comment period.

DVRPC holds a mandated minimum 30-day public comment period of the determination and holds a minimum of one public meeting in the DVRPC New Jersey counties. The public meetings are open for virtual attendance and recordings are posted online.

DVRPC posts the announcement for the public comment period for the conformity determination of the Plan and the TIPs in major newspapers throughout the region. DVRPC also promotes the public comment period via a webpage, newsletter, and social media announcements. The document is available by request as well as available at the DVRPC offices, posted online and has a dedicated webpage. The executive summaries are mailed to libraries in the region. Comments are accepted online, via email, and by mail.

Public comments become part of the final submitted conformity determination.

Submission of Final Adopted Conformity Determination

DVRPC presents the final conformity document and the responses to public comments to the MPO's Regional Technical Committee (RTC) and Board for approval before submission to NJDOT. The RTC and Board meetings allow for additional opportunity for public comment and also afford the DVRPC planning partners the opportunity to review the conformity findings before passing a resolution to adopt the document.

DVRPC staff submits the Final Conformity finding and Board resolution to NJDOT with a request to forward the documentation to FHWA for review and approval. FHWA coordinates the agency review of the conformity determination with the FTA and U.S. EPA. The U.S.DOT notifies NJDOT and DVRPC when the conformity review is concluded and approved.