Maintaining Project Consistency throughout the Project Development Process

Project 0-6758

Project Title: Maintaining Project Consistency with Transportation Plans throughout the Project Life Cycle with an Emphasis on Maintaining Air Quality Conformity

November 2014
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<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>BRE</td>
<td>Biennial Revenue Estimate</td>
</tr>
<tr>
<td>CAA</td>
<td>Clean Air Act</td>
</tr>
<tr>
<td>CE</td>
<td>Categorical Exclusion</td>
</tr>
<tr>
<td>CMAQ</td>
<td>Congestion Mitigation and Air Quality</td>
</tr>
<tr>
<td>CO</td>
<td>Carbon Monoxide</td>
</tr>
<tr>
<td>DCIS</td>
<td>Design and Construction Information System</td>
</tr>
<tr>
<td>DES</td>
<td>Design Division</td>
</tr>
<tr>
<td>DOT</td>
<td>Department of Transportation</td>
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<tr>
<td>EA</td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td>ECOS</td>
<td>Environmental Compliance Oversight System</td>
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<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
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<tr>
<td>ENV</td>
<td>Environmental Affairs Division</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<tr>
<td>FHWA</td>
<td>Federal Highway Administration</td>
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<tr>
<td>FIN</td>
<td>Finance Division</td>
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<tr>
<td>FONSI</td>
<td>Finding of No Significant Impact</td>
</tr>
<tr>
<td>FTA</td>
<td>Federal Transit Authority</td>
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<tr>
<td>LRTP</td>
<td>Long-Range Transportation Plan</td>
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<tr>
<td>MPO</td>
<td>Metropolitan Planning Organization</td>
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<tr>
<td>MTP</td>
<td>Metropolitan Transportation Plan</td>
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<tr>
<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
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<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
</tr>
<tr>
<td>OPRs</td>
<td>Office of Primary Responsibility</td>
</tr>
<tr>
<td>P6</td>
<td>Primavera Version 6</td>
</tr>
<tr>
<td>PD</td>
<td>Project Development</td>
</tr>
<tr>
<td>PM</td>
<td>Particulate Matter</td>
</tr>
<tr>
<td>PS&amp;E</td>
<td>Plans, Specifications, and Estimates</td>
</tr>
<tr>
<td>PTN</td>
<td>Public Transportation Division</td>
</tr>
<tr>
<td>ROW</td>
<td>Right-of-Way</td>
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<tr>
<td>RTP</td>
<td>Regional Transportation Plan</td>
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<tr>
<td>SID</td>
<td>Supplementary Information Document</td>
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<tr>
<td>SIP</td>
<td>State Implementation Plan</td>
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<tr>
<td>SLRTP</td>
<td>Statewide Long-Range Transportation Plan</td>
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<td>STIP</td>
<td>Statewide Transportation Improvement Program</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------</td>
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<tr>
<td>TCEQ</td>
<td>Texas Commission on Environmental Quality</td>
</tr>
<tr>
<td>TFMP</td>
<td>Texas Freight Mobility Plan</td>
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<tr>
<td>TIP</td>
<td>Transportation Improvement Program</td>
</tr>
<tr>
<td>TP&amp;D</td>
<td>Transportation Planning and Development</td>
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<tr>
<td>TPP</td>
<td>Transportation Planning and Programming</td>
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<tr>
<td>TxDOT</td>
<td>Texas Department of Transportation</td>
</tr>
<tr>
<td>USC</td>
<td>United States Code</td>
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<tr>
<td>UTP</td>
<td>Unified Transportation Program</td>
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CHAPTER 1: OVERVIEW

This Supplementary Information Document (SID) was developed for transportation professionals responsible for project development and has a basic goal of providing an overview of the subjects that are deemed necessary for maintaining project consistency. It provides an overview of the transportation planning process, air quality conformity process, and environmental process under the National Environmental Policy Act (NEPA)—processes that either include or impact steps in the project development process—and identifies the entities responsible for advancing projects through the various steps in each process.

To meet this goal, this document is organized as follows:

- Chapter 2 provides an overview of the transportation planning and transportation funding.
- Chapter 3 covers transportation conformity.
- Chapter 4 gives an overview of the Texas Department of Transportation (TxDOT) project development and environmental review processes.

1.1 WHY CARE ABOUT PROJECT CONSISTENCY?

Federal and state transportation planning and regulatory laws require transportation projects to be consistent with transportation plans and programs before the Federal Highway Administration (FHWA) or the Federal Transit Authority (FTA) can approve and sign off on a project. Below are the regulations that define and establish requirement for project consistency:

- Federal: 23 CFR 450
- Texas: 43 TAC 16
- Conformity Regulation: 40 CFR 93, subchapter A

Significant delays in project delivery can potentially occur as the federal funding would be withheld for such projects and the FHWA/FTA would not authorize their construction until the inconsistencies are fully addressed. Project consistency means the design concept, design scope, and project costs are required to be consistent in all planning documents. This is especially critical for projects in nonattainment and attainment maintenance areas because project-level conformity is directly linked to the consistency of the projects with appropriate transportation plans and improvement programs. A non-conforming project might trigger a conformity failure.
CHAPTER 2: TRANSPORTATION PLANNING AND PROJECT DEVELOPMENT PROCESS

This chapter provides an overview of the transportation planning process, including a description of the different planning documents and their role in the process, as well as a summary of transportation funding.

2.1. OVERVIEW OF TRANSPORTATION PLANNING

State and local governments use the transportation planning process to decide which transportation projects to fund (1). The transportation planning process involves developing a series of plans and programs that TxDOT, metropolitan planning organizations (MPOs), and partner agencies have prepared. These documents effectively guide the departments and local officials’ planning and programming activities to ensure that TxDOT plans and develops projects that best address state, regional, and local transportation needs. Figure 1 illustrates the most important transportation planning documents that TxDOT and MPOs have developed.

Table 1 summarizes the various plans and programs that TxDOT and its partner agencies have developed and used.

![Figure 1. Key Transportation Planning Documents.](image-url)
The transportation planning process starts with a look at existing conditions on the transportation system. Planners then analyze current and forecasted demographic, economic, and land use data to identify existing and future problems and needs (1). With input from stakeholders and the public, TxDOT and MPOs develop long-range plans that
define goals and strategies to address the problems and needs, as well as fiscally constrained short-range programs that contain projects that build and preserve infrastructure or provide services to achieve planning goals.

Transportation planning includes a number of steps:

- Preparing an inventory of existing systems and evaluating existing conditions.
- Forecasting future population and employment growth, including assessing projected land uses in the region and identifying major growth corridors.
- Identifying current and projected future transportation problems and needs, and analyzing, through detailed planning studies, various transportation improvement strategies to address those needs.
- Developing long-range plans and short-range programs of alternative capital improvement and operational strategies for moving people and goods.
- Estimating the impact of recommended future improvements to the transportation system on environmental features, including air quality.
- Developing a financial plan for securing sufficient revenues to cover the costs of implementing strategies.
- Constructing/implementing improvements and monitoring system performance.

As projects and services are delivered, TxDOT and MPOs monitor system performance, reevaluate needs and available funding, and update the respective plans and programs accordingly.

MPOs and the state department of transportation (DOT) are the major partners in the transportation planning process. Transportation planning is a cooperative process because no single agency has responsibility for the entire transportation system. In metropolitan areas, the MPO is responsible for actively seeking the participation of all relevant agencies including transit agencies and stakeholders in the planning process, whereas the state DOT is responsible for activities outside metropolitan areas. In addition to the transportation planning process, the MPO and state DOT also work together on individual transportation projects.

Figure 2 outlines the planning document process flow and identifies the offices of primary responsibility (OPRs) responsible for the development of individual transportation plans and programs.
Transportation Planning in Texas is conducted at the statewide and metropolitan levels. TxDOT is responsible for the state-maintained road network, the elements of which are commonly referred to as on-system facilities. MPOs are responsible for planning for transportation infrastructure in the current and expected urbanized areas over a 20-year forecast period.

**2.2. KEY TRANSPORTATION PLANNING DOCUMENTS**
2.2.1. Long-Range Transportation Plan (LRTP)

Long-range transportation plans such as TxDOT’s statewide LRTP and MPO Metropolitan/Regional Transportation Plans (MTPs/RTPs) contain goals and strategies to address transportation needs in the rural and metropolitan areas of the state.

The Transportation Planning and Programming (TPP) Division develops TxDOT’s statewide LRTP, which guides collaborative planning efforts with TxDOT’s stakeholders to reach consensus on the projects and services needed to address system deficiencies, and to accomplish the goals in TxDOT’s Strategic Plan. The statewide LRTP is multimodal and includes passenger and freight components. It is consistent with the Texas Freight Mobility Plan (TFMP) and other statewide mode-specific passenger and freight (e.g., rail, airport, water port) plans, and it includes MPO MTPs and RTPs by reference.

The statewide LRTP identifies statewide corridors (and projects within those corridors) that address mobility and connectivity between metropolitan areas. The projects included are long-range improvements being considered for development.

MPOs develop MTP/RTPs in cooperation with TxDOT and publicly owned transit services. MTP/RTPs identify needed transportation improvements within the metropolitan area boundaries based on a comprehensive analysis of an area’s current and projected demographic (i.e., population, household size, employment, household income, and land use), economic, and land use data and the existing transportation system conditions. MPOs should update MTPs every five years (four years for nonattainment and maintenance areas). The MTP must include sufficient financial information suggesting that all projects in the MTP can be implemented under available revenue sources (2).

Projects are strategically arranged within the statewide LRTP or an MTP/RTP based on several key factors:
- A project’s complexity related to its development timeline.
- A project’s projected cost and its ability to fit within the plan’s overall funding constraints as well as the annual forecasts of allocated revenues.
- A project’s priority based on a statewide, regional, or local need.

The planning process may result in more than one solution to address a problem or need, and there is no guarantee that any particular project will be implemented. A project may be delayed for financial or environmental reasons, or canceled if no longer needed.

2.2.2. Unified Transportation Program (UTP)

The TPP develops TxDOT’s UTP in cooperation with MPOs and TxDOT Districts and Divisions. The UTP includes transportation projects and services identified in the first 10 years of the statewide LRTP and MTP/RTPs, for which TxDOT can reasonably anticipate funding. Projects in the UTP have Texas Transportation Commission authorization for:
- Preliminary engineering work.
- Environmental analysis.
- Right-of-way acquisition.
• Final geometric design.
• Construction.

Projects that are beyond the first 10 years of a long-range plan are generally not authorized for preliminary engineering work other than environmental studies. The UTP is financially constrained, and it becomes the basis for the District to prepare its financially constrained Transportation Improvement Program (TIP) (2).

The Finance (FIN) Division developed TxDOT’s Cash Forecast (3), a component of the UTP, which is comprised of revenues, expenditures, and fund balances. This forecast is essential to project selection and the timing of project development and implementation. The forecast is based on an analysis that considers:
- Historical trends.
- The Comptroller’s Biennial Revenue Estimate (BRE).
- Current laws.
- Current events.
- Other appropriate sources.

Expenditures are carefully balanced with incoming revenues to ensure that sufficient funds will be available beyond the biennium to make project payouts over several years. Additionally, FIN projects future expenditure totals based on:
- Budgets established under the General Appropriations Act.
- Planned contract-letting amounts in the UTP.
- Remaining obligations on previously let projects.
- Other relevant data.

Finally, the Cash Forecast enables TxDOT to establish its annual “letting” budget. Letting is the process of providing notice, issuing proposals, receiving bids, and awarding vendor contracts for transportation improvements.

2.2.3. Transportation Improvement Program and Statewide Transportation Improvement Program (STIP)

As projects move closer to construction or implementation, they will advance from the UTP into either a rural TIP that a TxDOT District had developed or an MPO TIP. A TIP is a four-year program that contains a fiscally constrained list of multimodal (e.g., highway, transit, bicycle) transportation projects in a specific rural or metropolitan area that accomplish the planning goals set out in a long-range plan (statewide LRTP or MTP/RTP).

The STIP is the four-year program of the transportation projects to be constructed or implemented statewide. In cooperation with TxDOT Districts and MPOs, TPP developed this program that includes all of the rural and MPO TIPs, as well as statewide federal programs. The STIP includes highway and transit projects funded under Title 23 United States Code (USC) and Title 49 USC, Chapter 53, and any modal projects with phases or components funded under those titles. Regionally significant projects that will be implemented with state or local funds are included for planning, coordination, and public disclosure purposes. In an air quality nonattainment area, only those projects determined to conform to the
requirements of the Clean Air Act (CAA) and the State Implementation Plan (SIP) may be included in the STIP.

Projects that TxDOT and MPOs have not considered to be of appropriate scale for individual identification in a given program year (e.g., minor rehabilitation, preventive maintenance, non-urbanized transit projects) may be grouped by function, geographic area, or work type. In nonattainment and maintenance areas, classification must be consistent with the exempt project classifications contained in the Environmental Protection Agency (EPA) conformity regulations.

The TIP and the STIP are similar in that they are fiscally constrained, four-year programs that are consistent with applicable long-range plans. However, there are also important differences between the two documents.
- A TIP is a standalone document, approved at the local level, that includes projects within a rural area or MPO boundary. TIPs do not require federal approval.
- The STIP is subject to a statewide public involvement process that culminates in a single public hearing in Austin, Texas, before its adoption by the Commission.
- Once adopted, the STIP is then approved by both the Federal Highway Administration (FHWA) and the Federal Transit Authority (FTA).
- Federal dollars cannot be expended on a project in a TIP unless that project is listed, individually or by reference, in the STIP. With few exceptions, projects must generally be included in a TIP and the STIP in order to advance to construction or implementation.

2.2.4. Letting Schedule

The letting schedule lists projects that will be let within the next two years. At this point, the final contract documents (i.e., the plans, specifications, and estimates [PS&E] that provide a detailed description of the project, how it will be constructed, and the estimated cost) have been or are nearing completion.

2.3. OVERVIEW OF TRANSPORTATION FUNDING

Transportation funds come from a range of sources, including the federal government, state governments, public or private tolls, local assessment Districts, local government general fund contributions (such as local property and sales taxes), and impact fees.

Federal funding is made available to state DOTs through the Federal Highway Trust Fund, which is the primary funding source for major transportation plans and programs. State DOTs administer federal program funds and are responsible for distributing those funds to metropolitan areas through the UTP. The state DOT has authority to allocate the money to urban and rural areas based on state and local transportation needs; however, some federal programs are allocated to areas based on population size, are competitive, or are under specific criteria such as the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. Transit funds for urban areas are mostly distributed directly from the FTA to the transit operator. Some federal transit program funds are managed and distributed by the
Public Transportation Division (PTN), and other programs funds are distributed directly to the operators but are still managed and monitored by PTN.

The federal funding process for transportation projects is not a cash-up-front system; rather, eligible expenditures are reimbursed. The process follows:

- States are notified that they have federal funds available for their use. Projects are approved and work is started. The federal government then reimburses the states, MPOs, and transit operators for costs as they are incurred, reimbursing up to the limit of the federal share (1).
- Funding recipients are liable for complying with all applicable federal laws. When local governments directly oversee a federally funded project, the state DOT monitors local government compliance with state and federal laws (1).
- Fiscal constraint is a “demonstration of sufficient funds from federal, state, local, or private sources to implement proposed transportation system improvements, as well as to operate and maintain the entire system, through the comparison of revenues and costs” (4). The MTP, TIP, and STIP must be fiscally constrained in order to meet federal requirements.
CHAPTER 3: PROJECT DEVELOPMENT AND ENVIRONMENTAL REVIEW

This chapter provides an overview of the TxDOT project development and environmental review processes.

3.1. PROJECT DEVELOPMENT (PD) PROCESS

TxDOT identifies four general stages in the project lifecycle: project initiation, planning, development, and construction. TxDOT Districts, in conjunction with MPOs and Divisions, manage the project through these four stages. More details on project development phases, steps, and parties responsible for each step in the process can be found in Appendix A: Overview of Project Development Process. Figure 3 shows a simplified overview of the TxDOT PD process and where key TxDOT Divisions are involved.

Source: Adapted from TxDOT Project Development Process Flowchart (5).

Figure 3. Overview of TxDOT Project Development Process.
Project development can take between 3 and 20 years to complete, based on factors such as the scope of the project, environmental impacts, and time necessary to acquire the needed right-of-way (ROW); however, 6 to 10 years is considered typical. Project development is initiated when a project advances from a planning document into the UTP. The process occurs in the following phases:

1. Planning (project-specific planning activities).
2. Design.
3. Environmental.
4. ROW acquisition.
5. Plans, specifications, and estimates.

3.2. ENVIRONMENTAL REVIEW PROCESS

The U.S. Congress developed and approved NEPA in 1967 as a framework policy legislation to protect the environment. Under NEPA, federal agencies are required to consider environmental issues before making any major decisions on federally funded projects. Federally funded transportation projects are therefore subject to the provisions of NEPA.

TxDOT’s environmental review process involves a number of activities to ensure that proposed projects meet all relevant environmental laws, regulations (including NEPA provisions), and policies. Numerous federal laws and regulations govern the environmental process.

Figure 4 illustrates where the environmental process falls within TxDOT’s project development process and the typical activities that comprise the environmental process.
The environmental review process occurs when projects advance from long-range plans into the UTP and the project develop phase of planning. Transportation project effects can vary from very minor to significant impacts on the natural and human environments. To account for the variability of project impacts, three basic classes of action are allowed and determine how compliance with NEPA and/or state regulatory requirements is carried out and documented. These classes of action are as follows:

- **Categorical Exclusions** (CEs)—CEs are issued for actions that do not individually or cumulatively have a significant effect on the environment.
- **Environmental Assessment** (EA)—An EA is prepared for actions in which the significance of the environmental impact is not clearly established. Should environmental analysis and interagency review during the EA process find a project to have no significant impact on the quality of the environment, a Finding of No Significant Impact (FONSI) is issued.
- **Environmental Impact Statement** (EIS)—An EIS is prepared for projects where it is known that the action will have a significant effect on the environment.

**Figure 4. Overview of Environmental Review Process Activities.**

The environmental review process occurs when projects advance from long-range plans into the UTP and the project develop phase of planning. Transportation project effects can vary from very minor to significant impacts on the natural and human environments. To account for the variability of project impacts, three basic classes of action are allowed and determine how compliance with NEPA and/or state regulatory requirements is carried out and documented. These classes of action are as follows:

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- **Environmental Impact Statement** (EIS)—An EIS is prepared for projects where it is known that the action will have a significant effect on the environment.
Preparing the environmental document often requires gathering data from ground surveys, as well as federal, state, and local agency databases. Mitigation measures must be detailed and the required permits disclosed in the environmental document as applicable. A final environmental document is developed based on the feedback received from resource agencies and the public.

Obtaining the environmental clearance is a critical requirement to proceed with the design phase. It involves obtaining approval of the environmental document. Review and approval of the environmental document is the responsibility of a designated state agency (for non-federal aid projects) or FHWA (for federal aid projects). An environmental reevaluation is sometimes required after the approval of the environmental document. Situations that could warrant an environmental reevaluation include:

- Changes in design, scope, land use, or ROW requirements.
- New environmental impacts or changes to environmental impacts since the approval of the environmental document.
- Changes in regulations.
- After five years of no activity (e.g., no design work or ROW acquisition).

3.3. TRANSPORTATION PLANNING AND NEPA

Transportation plans and programs are not subject to the environmental review process under NEPA, but federal planning rules provide guidance that has allowed TxDOT to better incorporate information, analysis, and products from its planning process into project-level NEPA documents by engaging in the following activities during plan and program development:

- Consultations with resource agencies, such as those responsible for land use management, natural resources, environmental protection, conservation, and historic preservation, which involve, as appropriate, comparisons of resource maps and inventories.
- Discussion of potential environmental mitigation activities.
- Development and documentation of a consultative process for stakeholder participation that is separate and discreet from the public involvement process.
- Inclusion of visualization techniques to describe plans, programs, and projects.
- Increased accessibility to published plans, programs, and public involvement proceedings using multiple electronic formats.
CHAPTER 4: TRANSPORTATION CONFORMITY

This chapter provides an overview of transportation conformity including the elements and requirements of general conformity and project-level conformity as well as the consequences of failing conformity.

4.1 AIR QUALITY

The CAA of 1970 established the National Ambient Air Quality Standards (NAAQS) for criteria pollutants to protect public health. The NAAQS defined nonattainment areas as areas not meeting the air quality standards and regulated the emissions of hazardous or toxics air pollutants for stationary and mobile sources. In 1990, the CAA was amended to provide the Environmental Protection Agency (EPA) broader authority to implement and enforce regulations reducing both criteria pollutant and air toxics emissions. The amendments also expanded on-road and off-road vehicle and fuel advancements to reduce emissions and established the quantitative analysis for transportation conformity and its formal review process.

The NAAQS establish concentrations for various pollutants that should not be exceeded in order to protect public health and welfare. The NAAQS are set for six principal pollutants referred to as criteria pollutants, which include:

- Ground Level Ozone (O₃)
- Nitrogen Dioxide (NO₂)
- Carbon Monoxide (CO)
- Particulate Matter (PM₁₀, PM₂.₅)
- Lead (Pb)
- Sulfur Dioxide (SO₂)

The transportation sector contributes to emissions of Ozone (O₃) precursors, Nitrogen Dioxide (NO₂), Carbon Monoxide (CO), and Particulate Matter (PM₁₀, PM₂.₅). Ground Level Ozone is created by chemical reactions between oxides of nitrogen (NOₓ) and volatile organic compounds (VOC) in the presence of sunlight.

The EPA uses the term designation to describe the air quality in a given area for any of the six criteria pollutants. After EPA establishes a primary and/or secondary NAAQS, EPA is required to designate areas in the following criteria: attainment (meeting air quality standards), non-attainment (not meeting air quality standards), and maintenance (previously in nonattainment and now meeting air quality standards). The designation is determined from air quality data collected by TCEQ air monitoring stations. Once nonattainment designations take effect, the state and local governments have three years to develop implementation plans to reduce air pollutant emissions. The severity of the designation determines the time deadline an area has to meet the standards. Specific designation levels apply for each pollutant. For example ozone has five: marginal, moderate, serious, severe, and extreme. CO and PM₁₀ only have moderate and serious levels.
4.2. AIR QUALITY PLANNING AND TRANSPORTATION CONFORMITY

Air quality planning is the principal framework for national, state, and local efforts to protect air quality from certain manmade pollution sources. In Texas, the Texas Commission on Environmental Quality (TCEQ) administers air quality planning through the development of the State Implementation Plan. Transportation conformity is the process that links transportation planning and air quality planning, as shown in Figure 5.

![Transportation Conformity Diagram](image)

**Figure 5. Transportation Conformity.**

The CAA requires transportation conformity. The goal of conformity is to ensure that FHWA and FTA funding and approvals are given to transportation projects that will not:

- Cause or contribute to any new violations of the National Ambient Air Quality Standards (NAAQS).
- Increase the frequency or severity of NAAQS violations.
- Delay timely attainment of the NAAQS or any required interim milestone.

The CAA requires that transportation and air quality planning be integrated in areas designated as nonattainment or maintenance areas by EPA. Nonattainment or maintenance areas are those that fail or failed in the past to meet NAAQS for the criteria pollutants defined in the CAA. A simplified representation of the transportation conformity process developed by FHWA can be found in Appendix B: Transportation Conformity Process.

A consultative group of reviewing agencies representing EPA, FHWA, FTA, TCEQ, TxDOT, and MPOs located in nonattainment and maintenance areas carries out the transportation conformity process. Table 2 shows that the timeframe for the Texas transportation conformity process, when not accelerated, is typically 12–18 months for the completion of technical work, review, revisions to address comments (if needed), and public involvement.
### Table 2. Texas Transportation Conformity Process.

<table>
<thead>
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<th>Step</th>
<th>Responsible Entities</th>
<th>Action</th>
<th>Time Frame</th>
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<tbody>
<tr>
<td>1</td>
<td>MPO</td>
<td>Prepares a pre-analysis plan to collectively reach a conformity determination and presents it to the consultative partners for review and consensus</td>
<td>1–2 months</td>
</tr>
<tr>
<td>2</td>
<td>MPO (or consultant), TPP Traffic Analysis Staff</td>
<td>Runs the travel demand model, including all new projects; calculates emissions using latest EPA-approved emission factor model; validates input/output data</td>
<td>6–12 months</td>
</tr>
<tr>
<td>3</td>
<td>MPO</td>
<td>Completes calculations, prepares narrative, and finalizes conformity documentation</td>
<td>2 months</td>
</tr>
<tr>
<td>4</td>
<td>MPO</td>
<td>Alerts reviewing agencies that public involvement is commencing; completes a public involvement process that includes one or more public meetings and a 30-day comment period; responds to public comments, incorporating any necessary changes into conformity documentation</td>
<td>1–2 months</td>
</tr>
<tr>
<td>5</td>
<td>MPO Policy Board</td>
<td>Adopts conformity determination and submits conformity documentation to reviewing agencies (30-day review)</td>
<td>&lt; 1 month</td>
</tr>
<tr>
<td>6</td>
<td>FHWA, FTA, EPA, TCEQ, TxDOT TPP Planning &amp; Traffic Analysis staff, ENV Air Quality staff</td>
<td>Reviews and submits questions or comments to MPO to be addressed</td>
<td>1 month</td>
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<tr>
<td>7</td>
<td>MPO</td>
<td>Considers and responds to comments (copying all consultative partners); MPO may schedule conference calls to expedite review/resolution of comments</td>
<td>1 month</td>
</tr>
<tr>
<td>8</td>
<td>MPO, FHWA, FTA, EPA, TCEQ, TxDOT (TPP Planning/Traffic Analysis Staff, ENV Air Quality Staff)</td>
<td>Follows up with additional questions/responses until all issues are resolved</td>
<td>2 weeks</td>
</tr>
<tr>
<td>9</td>
<td>TPP Planning Staff, TCEQ, EPA</td>
<td>Submits individual concurrence letters to FHWA</td>
<td>1 week</td>
</tr>
<tr>
<td>10</td>
<td>FHWA, FTA</td>
<td>Issues a final joint conformity determination letter and notifies MPO and review partners</td>
<td>1 week</td>
</tr>
</tbody>
</table>

A conformity determination is applicable to the MTP, RTP, or TIP and is required:

- When an MPO MTP/RTP or TIP is amended to include new project(s), or changes to existing projects, of air quality significance that were not included in a previously conforming MTP/RTP and TIP.
- When a region’s air quality goals change (typically under the NAAQS).
- When there are changes in the SIP related to an area’s motor vehicle emissions budget.
• Every four years (as required under federal regulation).

4.3. PROJECT-LEVEL CONFORMITY

In addition to regional transportation conformity, some projects are also required to conform to project-level conformity requirements. A transportation project is subject to transportation conformity if it meets all of the following:

• Is located within a nonattainment or maintenance area for ozone, carbon monoxide (CO), nitrogen dioxide, or particulate matter (PM).
• Is not exempt from transportation conformity per 40 CFR 93.126.
• Has FHWA/FTA funding, needs an FHWA/FTA decision, or is regionally significant (regardless of federal involvement).

All transportation projects subject to conformity are required to meet the following project-level conformity requirements:

• Come from the currently conforming MTP and TIP.
• Have a design concept and scope that have not changed significantly from those in the MTP and TIP.

In PM nonattainment and maintenance areas, projects coming from currently conforming MTPs and TIPs must demonstrate compliance with any control measures in the SIP.

In carbon monoxide and PM nonattainment and maintenance areas, additional analysis may be necessary to determine if a project has localized air quality impacts. This localized air analysis is referred to as a hot-spot analysis (6). Appendix C: Federal Laws and Regulations on Transportation Conformity lists references for federal and state laws and regulation pertaining to transportation conformity.

4.4. FAILURE OF TRANSPORTATION CONFORMITY

If a regional conformity determination is not made on the MTP, RTP, or TIP during the required schedule, the area has a one-year grace period to make the determination before there is a conformity lapse. During a conformity lapse, only the following types of projects can proceed:

• Exempt projects.
• Transportation control measures in approved SIP.
• Projects approved by FHWA/FTA before the grace period.
### APPENDIX A: OVERVIEW OF PROJECT DEVELOPMENT PROCESS

<table>
<thead>
<tr>
<th>Phase</th>
<th>Step</th>
<th>Action</th>
<th>Responsible Entities*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Need and Purpose Determination</td>
<td>Project need and purpose determined by factors such as: safety, system preservation, conformance with current standards, and improved mobility</td>
<td>TxDOT District, DES, MPOs, Local officials, the Public</td>
</tr>
<tr>
<td></td>
<td>Project Authorization</td>
<td>Project must be authorized by the Commission for further development by either inclusion in the UTP or through a project-specific minute order</td>
<td>Texas Transportation Commission, TPP</td>
</tr>
<tr>
<td></td>
<td>Compliance with Planning/Study Requirements</td>
<td>Project is scoped/assessed to determine that it meets study requirements, is integrated and documented consistently in state and local plans and programs, and is compliant with state and federal planning requirements – including conformity if applicable</td>
<td>TxDOT, MPOs</td>
</tr>
<tr>
<td>Construction Funding Identified</td>
<td>Sources of funding (federal, state, local, private or any combination) for the construction of the project are identified</td>
<td>TxDOT District, TPP, FIN, MPOs</td>
<td></td>
</tr>
</tbody>
</table>

### Design

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Responsible Entities*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Concept</td>
<td>Meeting is conducted to establish the fundamental aspects of a project, reach consensus on basic project features, and enhance relationships between TxDOT and key stakeholders</td>
<td>TxDOT District, DES, MPOs</td>
</tr>
<tr>
<td>Data Collection</td>
<td>Project and context-specific data is collected and analyzed to make engineering and environmental decisions that will result in the best possible project design</td>
<td>TxDOT District, DES, ENV</td>
</tr>
<tr>
<td>Public Meetings</td>
<td>Informal public meeting(s) are held to solicit and incorporate public input into the project design, address any issues or concerns, and make revisions to the design if necessary</td>
<td>TxDOT District, MPO</td>
</tr>
<tr>
<td>Preliminary Geometric Schematics</td>
<td>Engineering solutions are developed and engineers perform an operational analysis to evaluate the level of service of each alternative</td>
<td>TxDOT District, DES</td>
</tr>
<tr>
<td>Value Engineering</td>
<td>A Value Engineering study may be used to assess the functionality of project alternatives to determine the most cost-effective solution for meeting the identified need while maintaining the quality and adding value to project</td>
<td>TxDOT District, DES</td>
</tr>
<tr>
<td>Schematic Approval</td>
<td>Schematics approved; TxDOT must approve geometric schematics for projects requiring control of access or an Environmental Impact Statement (EIS)</td>
<td>TxDOT District, DES</td>
</tr>
<tr>
<td>Public Hearing</td>
<td>A public hearing is held and schematics may be revised based on public input</td>
<td>TxDOT District</td>
</tr>
</tbody>
</table>

### Environmental

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Responsible Entities*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Environmental Issues</td>
<td>Preliminary environmental and social issues are identified to plan for the appropriate public involvement needed to clear the project</td>
<td>TxDOT District, ENV</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Responsible Entities</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------------------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Interagency Coordination</td>
<td>Coordination of project with environmental regulatory and resource agencies to identify, assess, and mitigate potential impacts to resources, and to obtain any required permits</td>
<td>TxDOT District, ENV</td>
</tr>
<tr>
<td>Environmental Documentation</td>
<td>Draft environmental documentation is prepared to include the project's social, economic, and environmental impacts, and any required mitigation</td>
<td>TxDOT District, MPO, Local sponsor</td>
</tr>
<tr>
<td>Public Hearing</td>
<td>A public hearing is held and environmental document/schematics may be revised based on public input</td>
<td>TxDOT District</td>
</tr>
<tr>
<td>Environmental Clearance</td>
<td>Environmental documentation is finalized and approved by TxDOT or submitted to the FHWA for approval</td>
<td>TxDOT District, ENV, FHWA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROW Acquisition</th>
<th>Description</th>
<th>Responsible Entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROW/Utility Data Collection</td>
<td>Identification of existing ROW limits, restrictions, and the ownership of ROW and adjacent property or utilities that will be impacted or acquired for a project</td>
<td>TxDOT District, ROW</td>
</tr>
<tr>
<td>Mapping and Property Description</td>
<td>ROW maps and property descriptions are prepared by the project manager, project engineers and surveyors in advance of any property acquisition</td>
<td>TxDOT District, ROW</td>
</tr>
<tr>
<td>Appraisal and Acquisition</td>
<td>Offers made, contracts negotiated, property acquired, and relocation assistance provided (as required)</td>
<td>TxDOT District, ROW</td>
</tr>
<tr>
<td>Utility Adjustment</td>
<td>Utility adjustments coordinated with owner and completed before work begins</td>
<td>Utility owner</td>
</tr>
</tbody>
</table>

| Plans, Specifications, and Estimates (PS&E) | Final contract documents prepared prior to project implementation that describe how a project will look, operate, and be constructed, and the estimated project cost | TxDOT District, DES |

| Letting | Provide notice to construct, issue proposals, receive bids, and award contracts for transportation improvement projects | TxDOT District, FIN, DES, CST, Texas Transportation Commission |

* Includes entities most commonly responsible for each step
APPENDIX B: TRANSPORTATION CONFORMITY PROCESS

Transportation Conformity Process for Metropolitan Transportation Plans/TIPs

Plan/TIP conformity requiring a New regional emissions analysis

Ensure timely implementation of SIP TCMs, fiscal constraint, etc.

Conduct regional emissions analysis using latest planning assumptions and emissions model

Are there adequate approved SIP budgets?

Use interim emissions test(s)

Is conformity test met?

Meets all other requirements (e.g., public involvement)

Complete plan/TIP conformity determination

Transportation Conformity Process for Projects

Is project a non-exempt Federal project?

Yes

Does the project come from a conforming plan and TIP?*

Yes

Is the project in a CO and/or PM area?

Yes

Is hot-spot analysis required?

Yes

Perform hot-spot analysis

Are hot-spot requirements met?

Yes

Meet other project-level conformity requirements (e.g., compliance with control measures in PM areas)

Complete project-level conformity determination

No

No

Add mitigation, etc.

No

No

Use budget test

Shading denotes key interagency consultation points

* Does not apply to donut or isolated rural areas

APPENDIX C: FEDERAL LAWS AND REGULATIONS ON TRANSPORTATION CONFORMITY

FHWA, Office of Planning, Environment, & Realty, has assembled all documents regarding air quality provisions and conformity regulations listed in the following (7).

- The air quality provisions of the Clean Air Act as amended (42 USC Sections 7401-7671q) establish restrictions on emissions reductions from transportation sources.
- Regulations governing transportation conformity are found in Title 40 of the Code of Federal Regulations (40 CFR Parts 51 and 93).
- Baseline Year for the Baseline Year Test (in 40 CFR 93.119)—Refer to this page for a table showing the baseline year to be used for each NAAQS and the regulatory provision where it is found.
- Complete Transportation Conformity Rule (HTML version) or (PDF version).
- Transportation Conformity Rulemakings—Chronological listing of all amendments (and related documents) to the Transportation Conformity Rule since the original rule was implemented in 1993.
- 23 USC Part 135—Statewide Transportation Planning.
- 23 USC Part 134—Metropolitan Transportation Planning.
- Title 23 CFR Part 450—Statewide and Metropolitan Transportation Planning and Programming.
- Title 40 CFR Part 51—Requirements for preparation, adoption, and submittal of implementation plans.
- Title 40 CFR Part 93—Determining conformity of federal actions to state or federal implementation plans.
- 49 USC Part 53—Public Transportation.
- Clean Air Act—Section 176(c)—Section 176 (42 USC 7506) requires that transportation plans, Transportation Improvement Programs (TIPs), and projects conform to the purpose of the SIP. Conformity to the purpose of the SIP means that the transportation activities will not cause new violations of the National Ambient Air Quality Standards (NAAQS), worsen existing violations, or delay timely attainment of the NAAQS.
- Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—Section 6011 details the SAFETEA-LU changes impacting Section 176(c)(2) of the Clean Air Act.
- NAAQS—Details on air quality standards for criteria pollutants, along with information related to the implementation of control programs for each pollutant.
- 2006 PM2.5 and PM10 Standards—Details on the particulate matter (PM10 and PM2.5) standards that the EPA established.
- 2008 8-hour Ozone Standards—Details on the 8-hour ozone standards that the EPA established.
- 2012 PM2.5 and PM10 Standards—Details on the particulate matter (PM10 and PM2.5) standards that the EPA established.
- **Nonattainment Designations under the 1997 8-Hour Ozone and PM2.5 Standards**—Details on EPA’s designation of nonattainment areas for the 1997 8-hour ozone and PM2.5 air quality standards.
- **NEPA**—Contains the laws, regulations, and guidance that guide NEPA implementation at FHWA.

Additional information about these and other laws, regulations, policies, and guidance documents can be found at [http://www.txdot.gov/inside-txdot/forms-publications/consultants-contractors/publications/environmental-resources.html#documentation](http://www.txdot.gov/inside-txdot/forms-publications/consultants-contractors/publications/environmental-resources.html#documentation).
REFERENCES


