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PERFORMANCE-BASED PLANNING AND PROGRAMMING

TxDOT uses performance-based planning and programming to support the agency's goals and objectives. This chapter describes the performance-based planning process; **Appendix E** defines the measures used by TxDOT to evaluate the performance of the state's transportation system.

Performance-Based Planning and Programming Process

TxDOT applies performance-based planning and programming to support performance outcomes for the state's transportation system. This includes a range of activities and products undertaken by TxDOT, together with its planning partners at the federal, regional, and local government levels. Performance-based planning and programming allows TxDOT to select transportation projects that demonstrate the greatest needs and potential benefits to the state system based on objective measurement.

TxDOT has established a coordinated performance-based approach to transportation decision making to support the national goals of the Federal-Aid Highway Program as required by 23 USC 150(b). The seven goals are shown in **Figure 6**.

Performance-based planning and programming is a strategic approach that uses performance data to support decisions to better achieve desired performance outcomes.

Figure 6. Federal-Aid Highway Program Performance Goals

SAFETY

INFRASTRUCTURE CONDITION

CONGESTION REDUCTION

SYSTEM RELIABILITY

FREIGHT MOVEMENT & ECONOMIC VITALITY

ENVIRONMENTAL SUSTAINABILITY

REDUCED PROJECT DELIVERY DELAYS

TxDOT has also established transit asset management goals, in accordance with 49 U.S.C. 5326, in order to measure the condition of capital assets including equipment, rolling stock, infrastructure, and facilities.

TxDOT assesses proposed projects based on their anticipated improvements to the established performance measures. Texas MPOs set similar performance measures that relate to their unique needs and goals. **Figure 7** illustrates the steps in TxDOT's performance-based planning process.

More information about how performance-based planning is implemented in each region and specific performance measures can be found in the individual MPO MTP and TIP documents.

As described in **Chapter 2**, TxDOT's performance-based planning process begins with development of the long-term vision in the Statewide Long-Range Transportation Plan and culminates in the implementation of the UTP through development of the STIP.

Figure 7. TxDOT's performance-based planning process

TxDOT's performance-based planning process includes:

- Cataloging all transportation infrastructure

- Analyzing existing conditions and performance and forecasting future conditions

- Developing statewide, regional, and/or local plans that include goals and objectives to maintain and enhance the transportation network

- Prioritizing needs and developing investment priorities

- Developing fiscally constrained programs that identify and allocate available funding resources to projects and services that are consistent with needs and investment priorities

- Evaluating the effectiveness of the implemented strategies

- Reporting information on system performance

- Implementing projects and services

- Monitoring changes in system conditions

TxDOT has developed performance measures and targets in line with each of the seven national goals as shown in **Figure 8**. The performance measures and targets that TxDOT is currently using to engage in performance-based planning and programming, aligned with the national goals, are included in **Appendix E**.

Figure 8. TxDOT Performance Measures Relating to the Federal-Aid Highway Program Performance Goals

SAFETY	INFRASTRUCTURE CONDITION	CONGESTION REDUCTION	SYSTEM RELIABILITY	FREIGHT MOVEMENT & ECONOMIC VITALITY	ENVIRONMENTAL SUSTAINABILITY	REDUCED PROJECT DELIVERY DELAYS
• Number of fatalities • Rate of fatalities per 100 Million Vehicle Miles Traveled (VMT) • Number of serious injuries • Rate of serious injuries per 100 Million VMT • Number of non-motorized fatalities & serious injuries	• Percentage of pavements of the interstate system in good condition • Percentage of pavements of the interstate system in poor condition • Percentage of pavements of the non-interstate NHS in good condition • Percentage of pavements of the non-interstate NHS in poor condition • Percentage of NHS bridges classified as in good condition • Percentage of NHS bridges classified as in poor condition	• Annual hours of peak hour excessive delay per capita in: Conroe--The Woodlands, TX Dallas--Fort Worth--Arlington, TX Denton--Lewisville, TX El Paso, TX--NM Houston, TX McKinney, TX San Antonio, TX • Percent of non-single occupancy vehicle travel in: Conroe--The Woodlands, TX Dallas--Fort Worth--Arlington, TX Denton--Lewisville, TX El Paso, TX--NM Houston, TX McKinney, TX San Antonio, TX	• Percent of the person-miles traveled on the interstate that are reliable • Percent of the person-miles traveled on the non-interstate NHS that are reliable	• Truck travel time reliability index	• Total emission reductions: NOX • Total emission reductions: VOC • Total emission reductions: PM10 • Total emission reductions: CO	• Percentage of construction contracts completed within 10% or less over the contract time frame • Percentage of construction contracts completed within 10 percent or less over the adjusted contract amount

State performance toward addressing Federal Transportation Performance Measures can be viewed at the State Performance Dashboard - Texas. Additional TxDOT performance measures can be viewed at the TxDOT Performance Dashboard.