



AAMPO

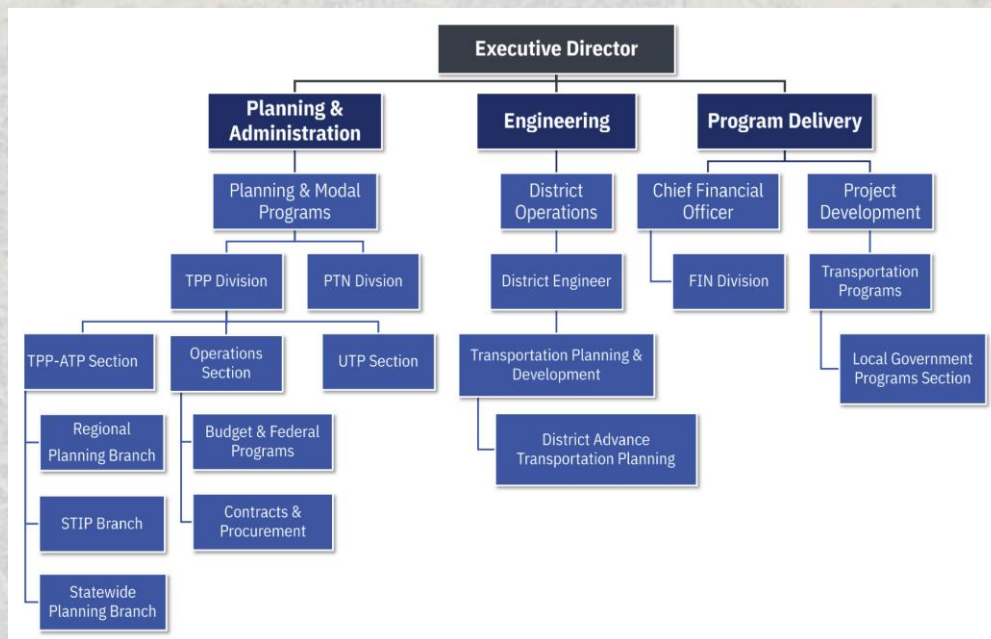
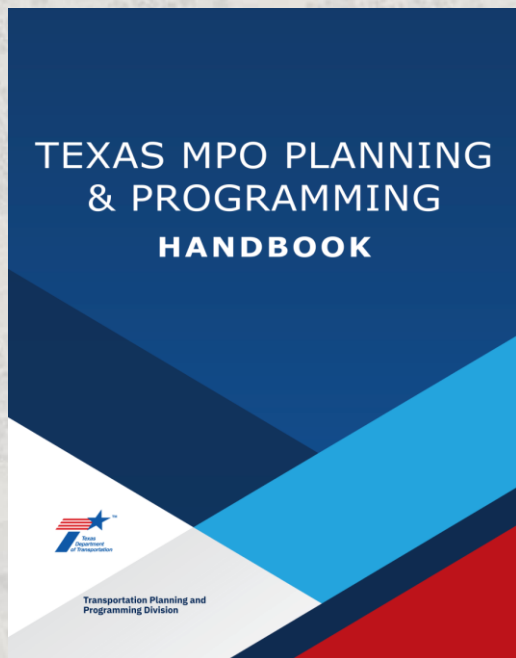
Fundamentals of MPO Planning and Programming

Transportation Policy Board **MPO 101**

May 18, 2026

Texas MPO Planning and Programming Handbook

NEW!!!



Available at

<https://www.txdot.gov/about/partnerships/metropolitan-planning-organizations/mpo-handbook.html>.

TxDOT MPO Support Structure

Chart Source: Texas MPO Planning and Programming Handbook, February 2026, Chapter 1, page 13. Available at <https://txdotapp.box.com/s/0n22oyrtaic9ka33neobkm5tp448e0bg>. Accessed May 2026.

What is Transportation Planning?



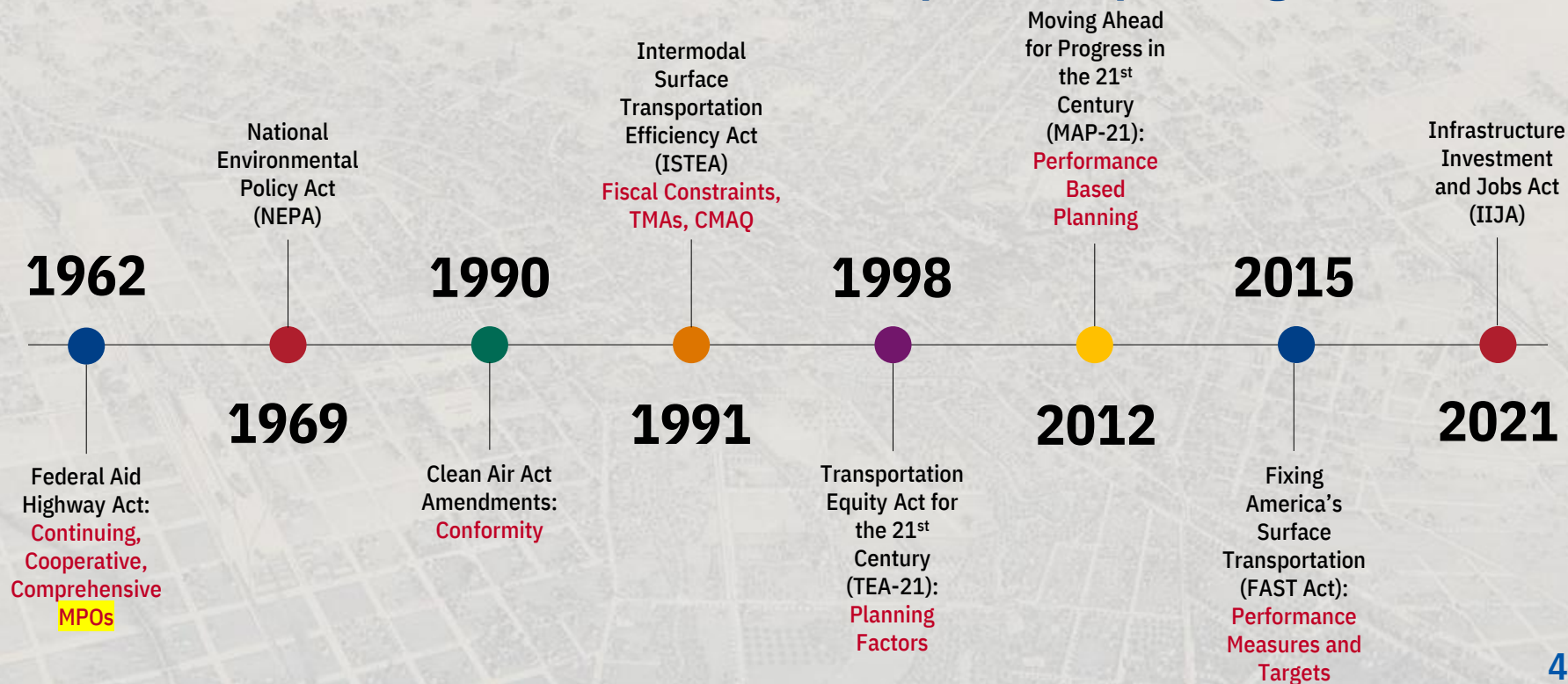
Continuing

Cooperative



Comprehensive

What have been some notable events in transportation planning?



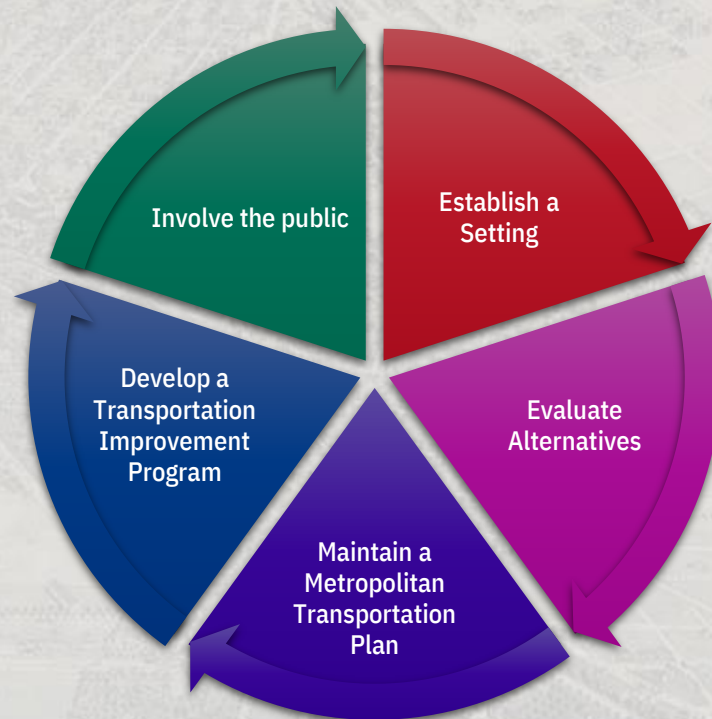
United States Code (USC)	Code of Federal Regulations (CFR)	Texas Administrative Code (TAC)
Title 23 - Highways • Section 134, Metropolitan Planning • Section 135, Statewide and Non-Metropolitan Planning Title 49 - Transit • Section 5303, Metropolitan Planning • Section 5304, Statewide and Non-Metropolitan Planning	23 CFR, Section 420 – Planning and Research Program Administration • Subpart A, Administration of FHWA Planning and Research Funds (§§ 420.101 – 420.121) 23 CFR, Section 450 - Highways • Subpart A, Definitions (§§ 450.100 - 450.104) • Subpart B, Statewide and non-metropolitan transportation planning (§§ 450.200 - 450.226) • Subpart C, Metropolitan transportation planning (§§ 450.300 - 450.340) 49 CFR, Section 613 - Transit • Subpart A, Metropolitan transportation planning and programming (§ 613.100) • Subpart B, Statewide and non-metropolitan transportation planning and programming (§ 613.200)	Title 1 – Administration Part 1, Office of the Governor • Chapter 5, Subchapter A, Division 2, Metropolitan Planning Organizations Title 30 – Environmental Quality Part 1, Texas Commission on Environmental Quality Title 43 - Transportation Part 1, Texas Department of Transportation • Chapter 5, Finance • Chapter 11, Design • Chapter 15, Financing and Construction of Transportation Projects • Chapter 16, MPO Planning and Programming • Chapter 26, Regional Mobility Authorities • Chapter 31, Public Transportation



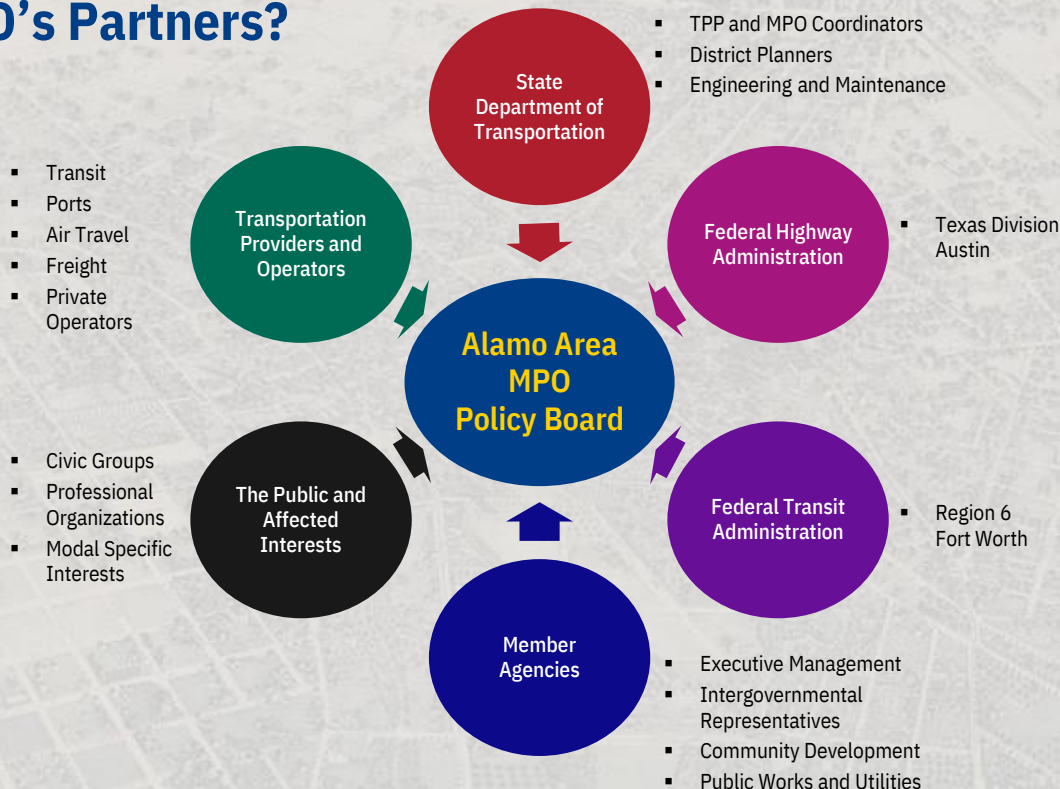
What is a Metropolitan Planning Organization (MPO)?

The **policy board** of an agency created and designated to carry out the metropolitan transportation planning process for urbanized areas with populations greater than 50,000 and designated by local officials and the Governor of the State.

Membership also defines an MPO.



Who are an MPO's Partners?



What is the relationships between the MPO, TxDOT, and other agencies in their transportation planning process?

Transportation planning must be cooperative.

23 U.S.C. § 134 and 43 T.A.C. § 16

No single agency has responsibility for the entire system within an MPO's planning area.

CONSIDER:

State DOTs typically operate and maintain the highest volume roadways.

Cities and Counties, the MPO's member agencies, operate and maintain other principal roadways.

Transit Operators provide public transportation services in the planning area.

MPOs are responsible for actively seeking participation of ALL agencies and stakeholders in the metro transportation planning process.

TxDOT works within an MPO's planning process to advise on the state system with policy board representation.

TxDOT also ensures an MPO meets federal and state requirements in their transportation planning process.

What are some MPO Statistics?



US Census Bureau designates an urban area as an MPO when **population exceeds 50,000.**



There are more than **430 MPOs** designated nationwide.

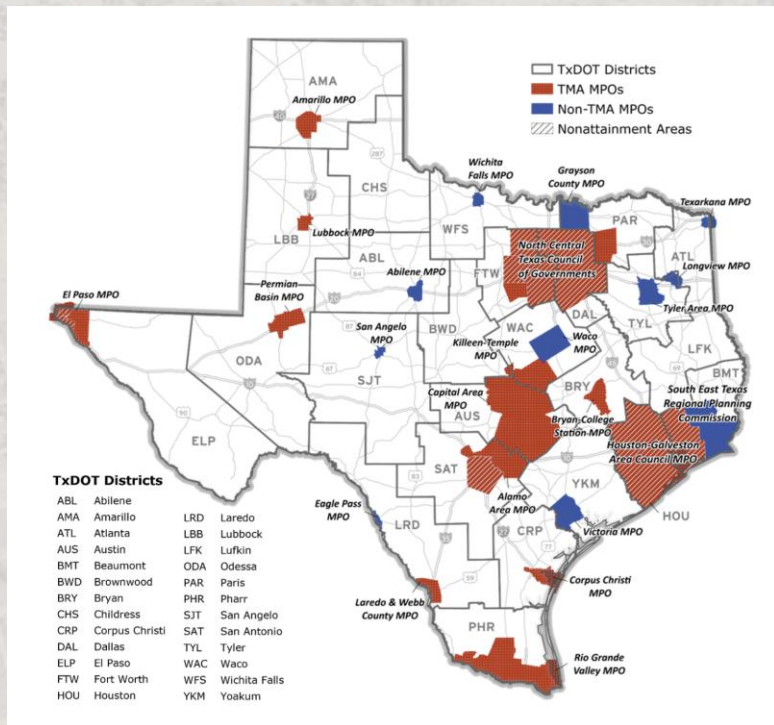


There are presently **24 MPOs** in Texas.



Population within Texas urban areas represented by an MPO exceeds **25.6 million.** (2020 Census)

Where are the Metropolitan Planning Organizations in Texas?



**North Central Texas
Council of Governments**



**LAREDO & WEBB COUNTY
AREA METROPOLITAN PLANNING ORGANIZATION**

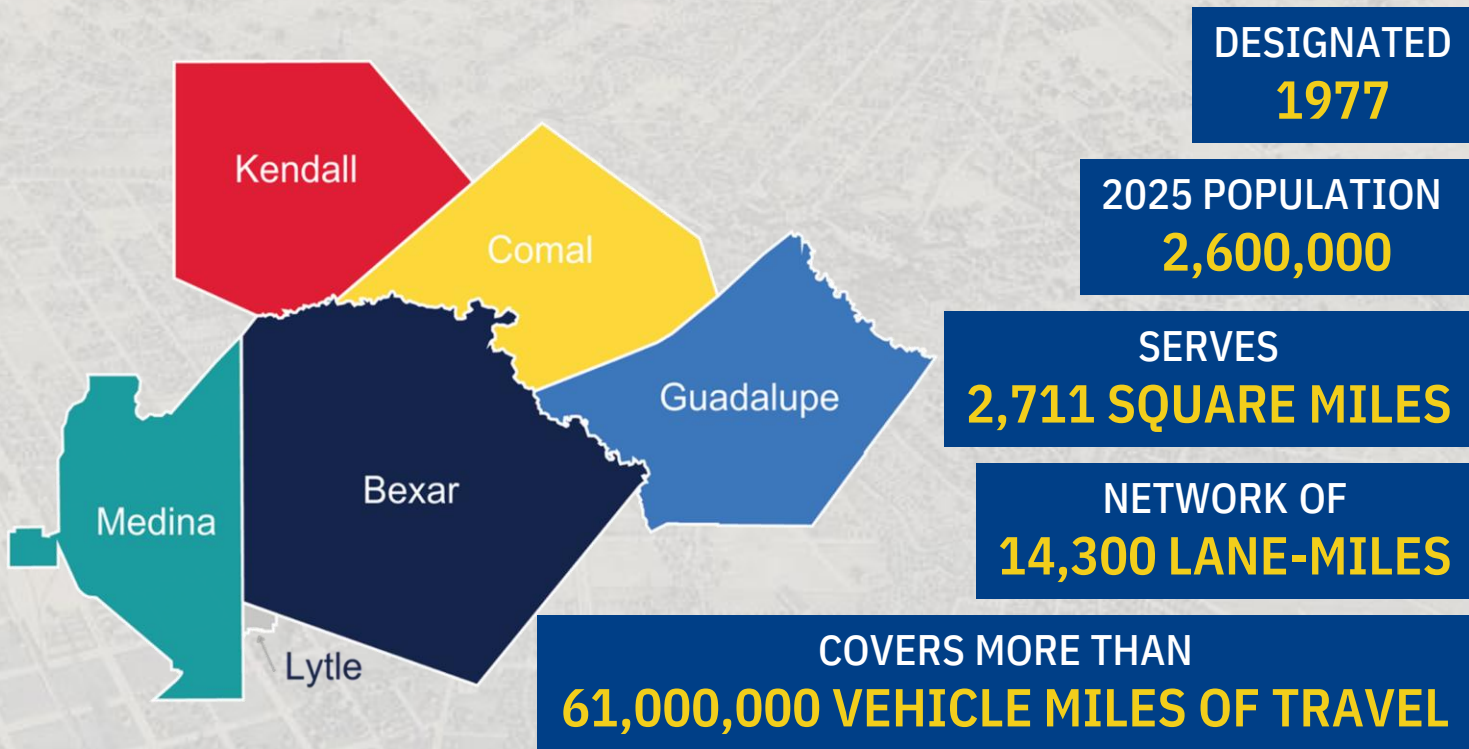


What is a Transportation Management Area (TMA)?

- For large urban areas (over 200,000 in population), Congress provided a greater role by having the Secretary of Transportation certify these areas as Transportation Management Areas (TMAs).
- One or more Metropolitan Planning Organizations (MPOs) represent a TMA.
- These MPOs in turn have greater requirements for congestion management, project selection, and certification.
- The Alamo Area MPO represents the TMA for the San Antonio urban area.



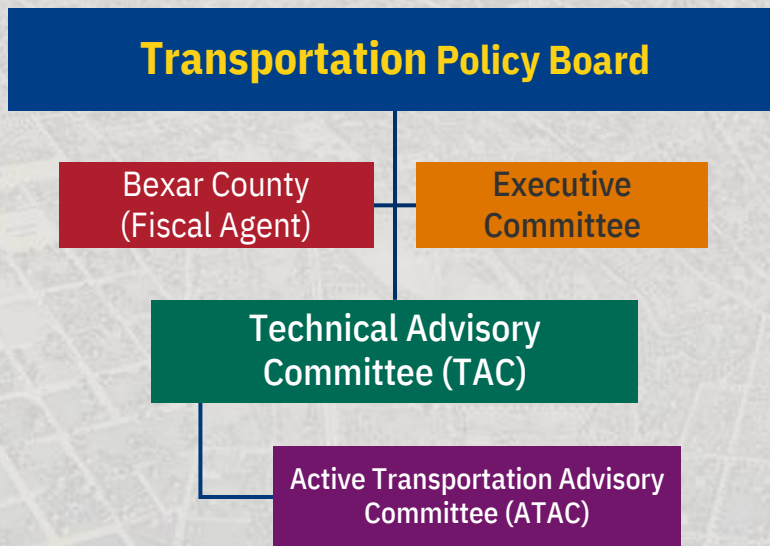
What is the MPO Planning Area for the AAMPO region?



What is a Metropolitan Planning Organization (MPO)?

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Membership also defines an MPO.



Who is a member of the MPO Policy Board?

- Board composition is cooperatively determined by states and their local governments.
- Wide variation across all MPOs nationwide:
 - Size (i.e., number of members).
 - Representation (e.g., entities, elected or appointed officials, etc.).
 - Socioeconomic mix.
- Board must represent 75% of the affected population within the urbanized area (including the largest incorporated city, based on population, as named by the Census Bureau).



What is the MPO Policy Board?

- The decision-making body for the MPO.
- Primary forum for stakeholder input.
- Debates issues, proposals, and projects regarding key actions in the federal transportation planning process.

AAMPO Transportation Policy Board (TPB) Representatives

Commissioner Rebeca Clay-Flores , Bexar County (Chair)	Commissioner Kevin Webb , Comal County (Chair Elect)	Commissioner Tommy Calvert , Bexar County
Commissioner Grant Moody , Bexar County	David Wegmann , Bexar County	Robert Reyna , Bexar County
Mayor Pro Tem Ty Wolosin , City of Boerne	Councilmember D. Lee Edwards , City of New Braunfels	Councilmember Jalen McKee-Rodriguez , City of San Antonio
Councilmember Edward Mungia , City of San Antonio	Councilmember Misty Spears , City of San Antonio	Catherine Hernandez , City of San Antonio
Michael Shannon , City of San Antonio	Bridgett White , City of San Antonio	Mayor Donna Dodgen , City of Seguin
John Asel , Alamo Regional Mobility Authority	Mayor Chris Riley , Greater Bexar County Council of Cities	Judge Kyle Kutscher , Guadalupe County
Judge Shane Stolarczyk , Kendall County	Judge Keith Lutz , Medina County Geographic Area	Councilman Kevin Hadas , Northeast Partnership
Charles Benavidez , Texas Department of Transportation	Leo Gomez , VIA Metropolitan Transit	Clifford Herberg , Alamo Area Council of Governments*
Genevieve Bales , Federal Highway Administration*	Tony Ogboli , Federal Transit Administration*	Vic Boyer , San Antonio Mobility Coalition*
Raymond Sanchez , Texas Department of Transportation*	Rod Sanchez , VIA Metropolitan Transit*	

*Ex-Officio Members.

AAMPO Agreements

MPO Designation

- Agreement with the Governor's Office on the area the urban area that the MPO represents.

TxDOT Planning Agreement

- Between TxDOT, AAMPO, and Bexar County for administration of federal Planning (PL) funds and MPO operations.

Public Transportation Operators

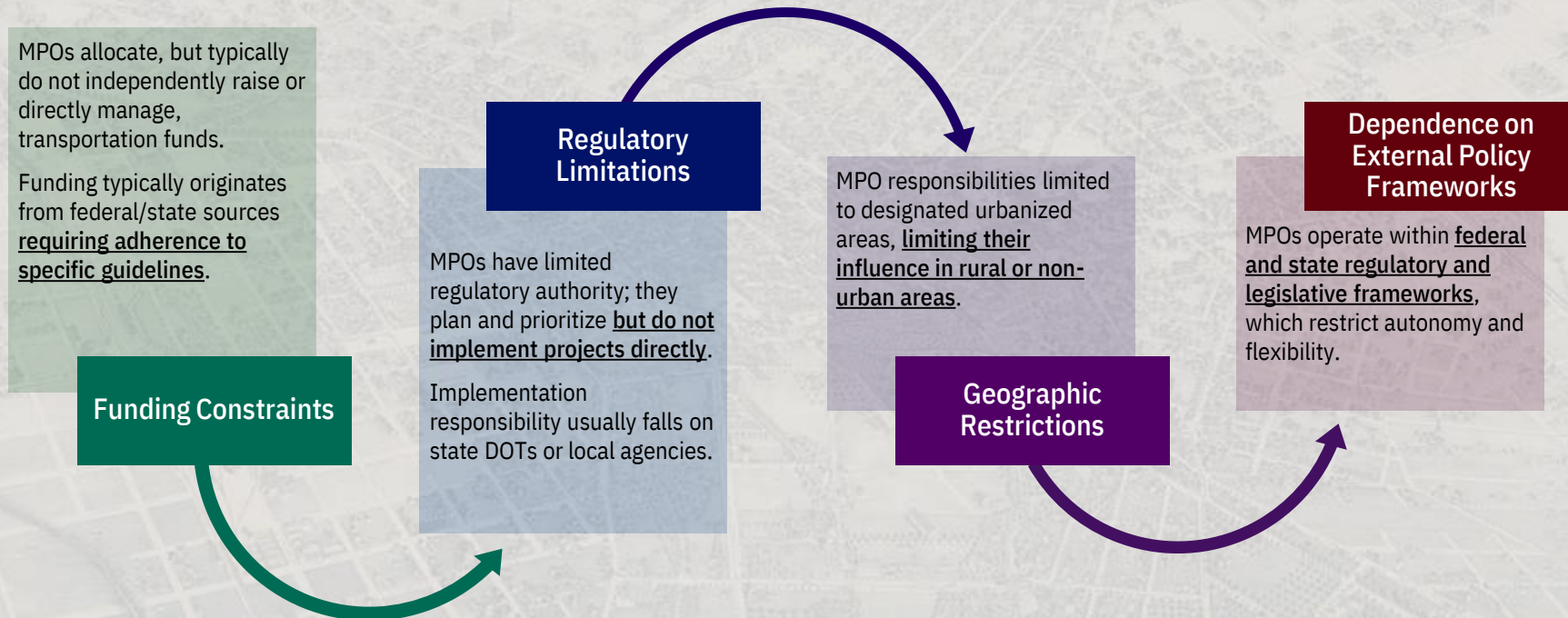
- Specifies how the cooperative transportation planning process between the MPO and transit operators.

Partial Inclusion of Nonattainment or Maintenance Area

- Between TxDOT, TCEQ, and AAMPO for cooperative planning between air quality designated areas.

More information available in [Texas MPO Planning and Programming Handbook, Chapter 2, Section 2.3, beginning on Page 13.](#)

Limits of MPO Roles and Responsibilities



Extent of MPO Roles and Responsibilities – TAC, ATAC and Staff

Coordination Role

Facilitate collaboration among local municipalities, counties, transit agencies, and stakeholders to align regional goals.

Regional Influence

Determine local/regional transportation investment priorities, significantly influencing state and federal funding distribution.

Multimodal Planning

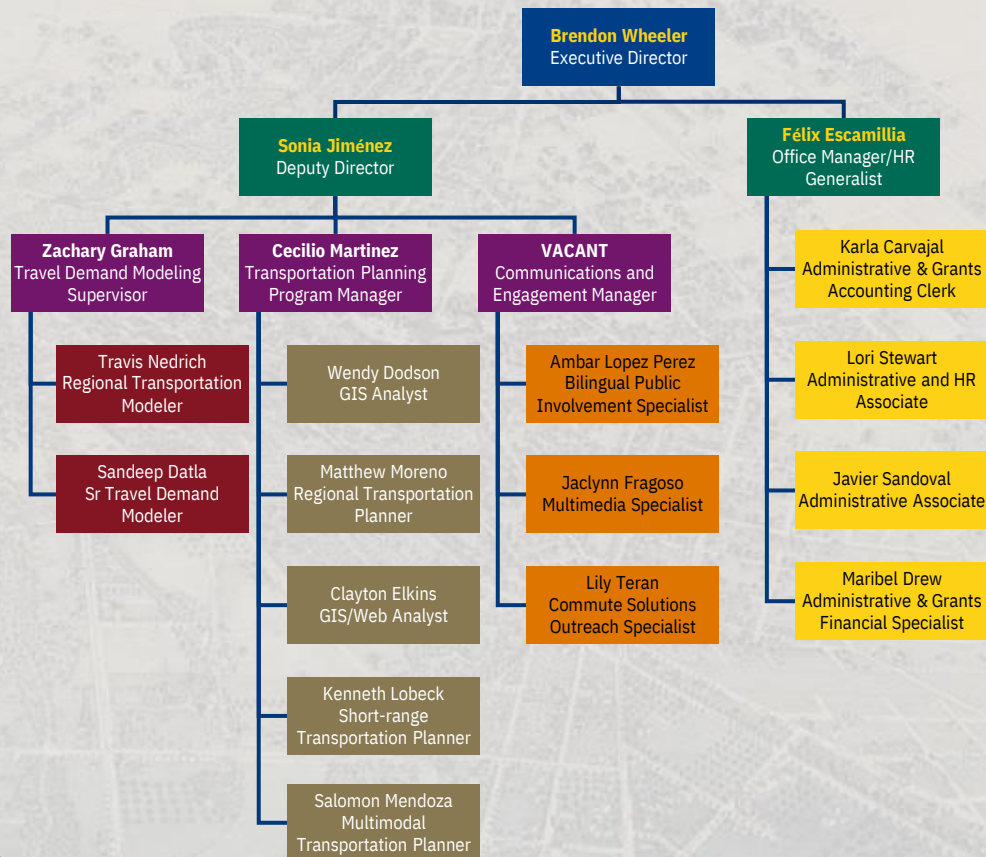
Address broad spectrum transportation needs: transit, roadways, active transportation, freight mobility, air quality, and safety.

Data and Analysis Capacity

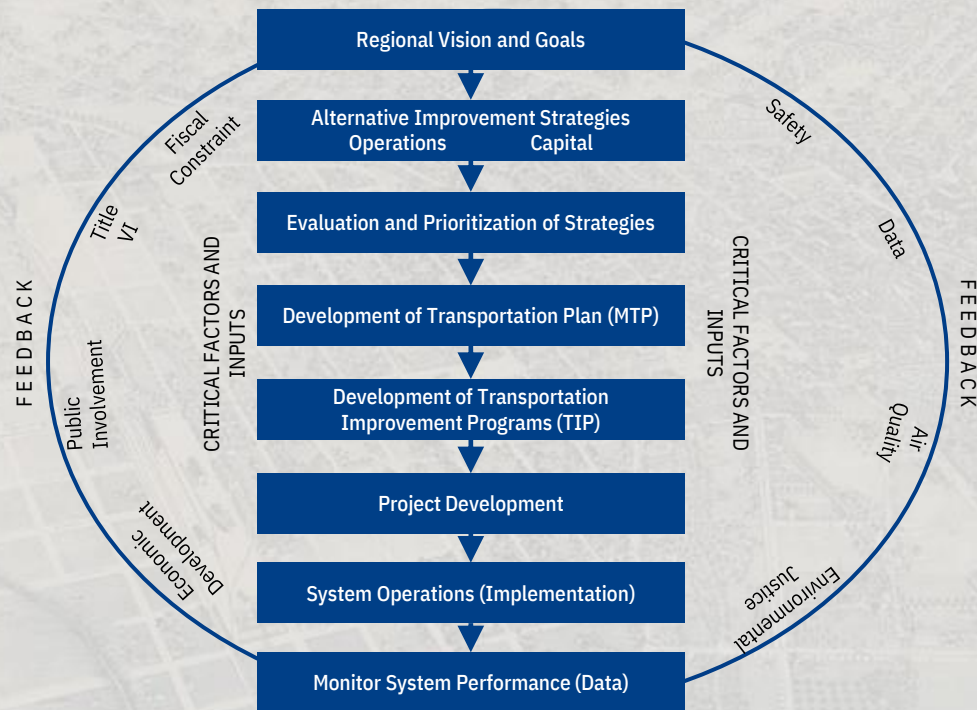
Maintain comprehensive transportation data and forecasting models, providing informed, evidence-based decision-making.

Who is the MPO Staff?

- Generally, manage day-to-day functions.
- Consists of an MPO director and staff.
- Prepare technical assessments and evaluations provided to the board and committees as appropriate.



How is Transportation Planning done?



Process Informs Decision-making!

Graphics source: United States Department of Transportation, Federal Highway Administration and Federal Transit Administration, *The Transportation Planning Process Briefing Book*, 2018 Edition. Accessed November 2022.

What are the key products produced by an MPO?

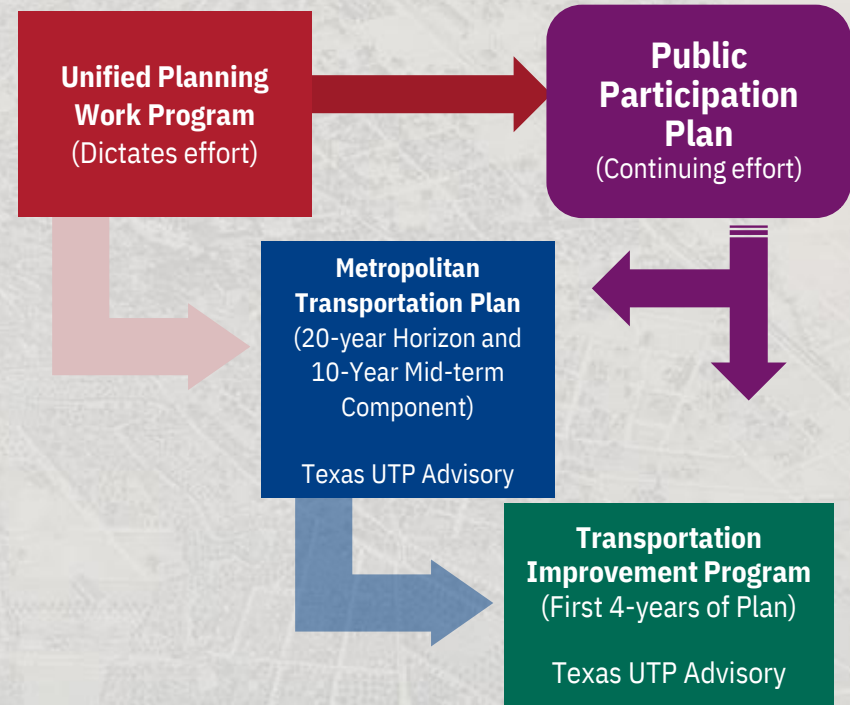
	Work Programs	Long Range Plans	Improvement Programs	Outreach
State	State Planning and Research Work (SPR)	Long Range Statewide Transportation Plan (LRP)	State Transportation Improvement Program (STIP) Unified Transportation Plan (UTP)	Public Involvement Program (PIP)
MPO	Unified Planning Work Program (UPWP)	Metropolitan Transportation Plan (MTP) (includes Ten-Year Planning Horizon)	Transportation Improvement Program (TIP)	Public Participation Plan (PPP)
Local	Annual Budget and Appropriations	Thoroughfare Plan or Service Plan	Capital Improvement Program (CIP)	Municipal Programs and Protocols

Who develops? Who Approves? What's the Content? When are the updates?

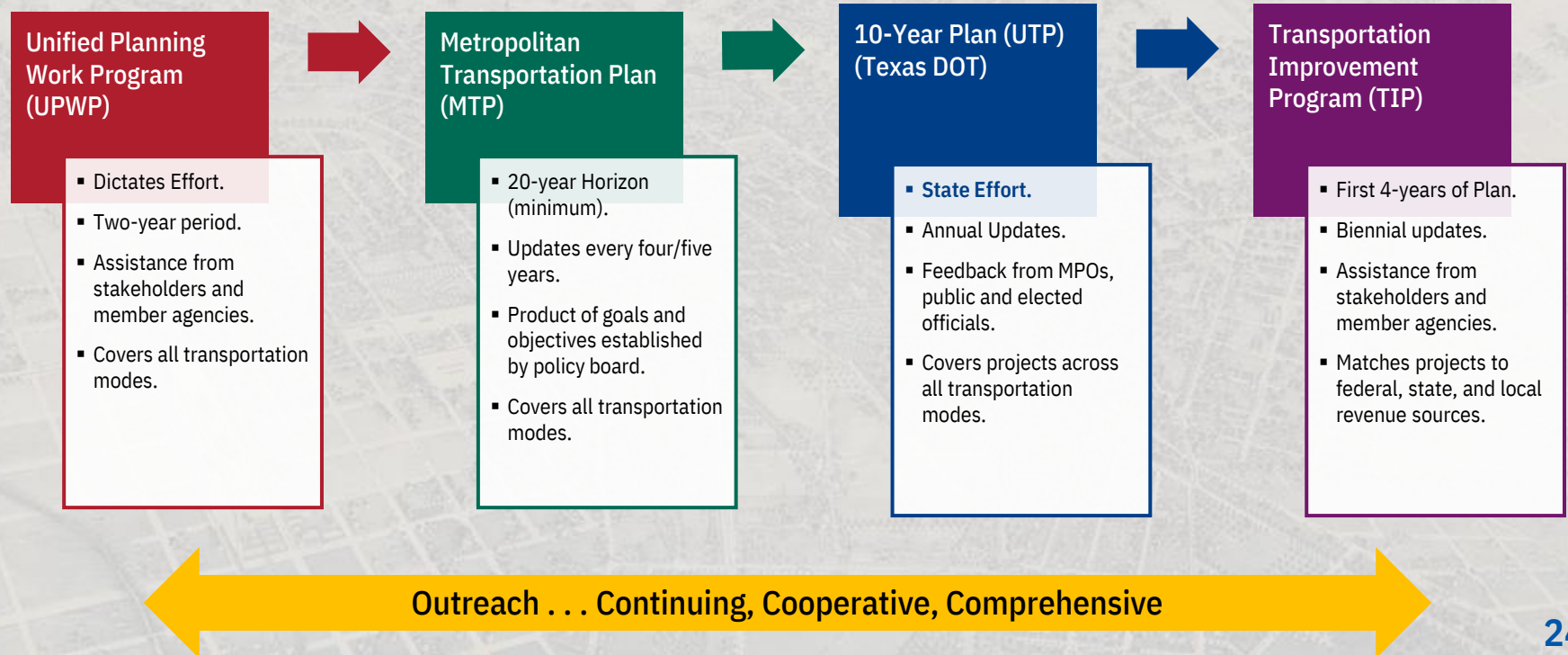
	Who Develops?	Who Approves?	Planning Horizon	Content	Update Requirements
SPR Work Program	State DOT	FHWA	1 or 2 Years	Planning Studies and Tasks	At Least Once Every 2 Years
LRSTP	State DOT	State DOT	20 Years	Future Goals, Strategies, and can include Projects	Periodic review and Update
STIP	State DOT	FHWA/FTA	4 Years	Transportation Investments	Every 4 Years
UTP	Texas DOT	TTC	10 Years	Transportation Investments	Annually
PIP	State DOT	State DOT	Not Specified	Public Engagement Strategies and Goals, Incorporating Input, Responding to Comments	Periodic Review and Update
UPWP	MPO	MPO/FHWA/FTA	1 or 2 Years	Planning Studies and Tasks	At Least Once Every 2 Years
MTP	MPO	MPO	20 Years (interim 10 Year horizon required in Texas)	Future Goals, Strategies, and Projects	Every 5 Years (4 years for nonattainment and maintenance areas)
TIP	MPO	MPO	4 Years	Transportation Investments	Every 4 Years
PPP	MPO	MPO	Not Specified	Public Engagement Strategies and Goals, Incorporating Input, Responding to Comments	Periodic Review and Update

What are the Policy Board's responsibilities with these documents?

- The MPO policy board formulates and evaluates transportation improvement alternatives, sensitive to the context of regional interest and scaled to the size and complexity of the region.
- The policy board develops the core MPO documents.



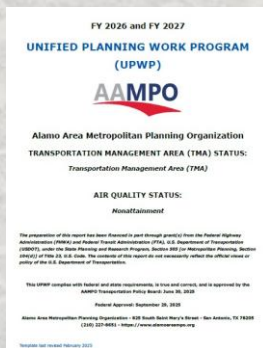
What is the order of precedence for these products?



What is the Unified Planning Work Program?

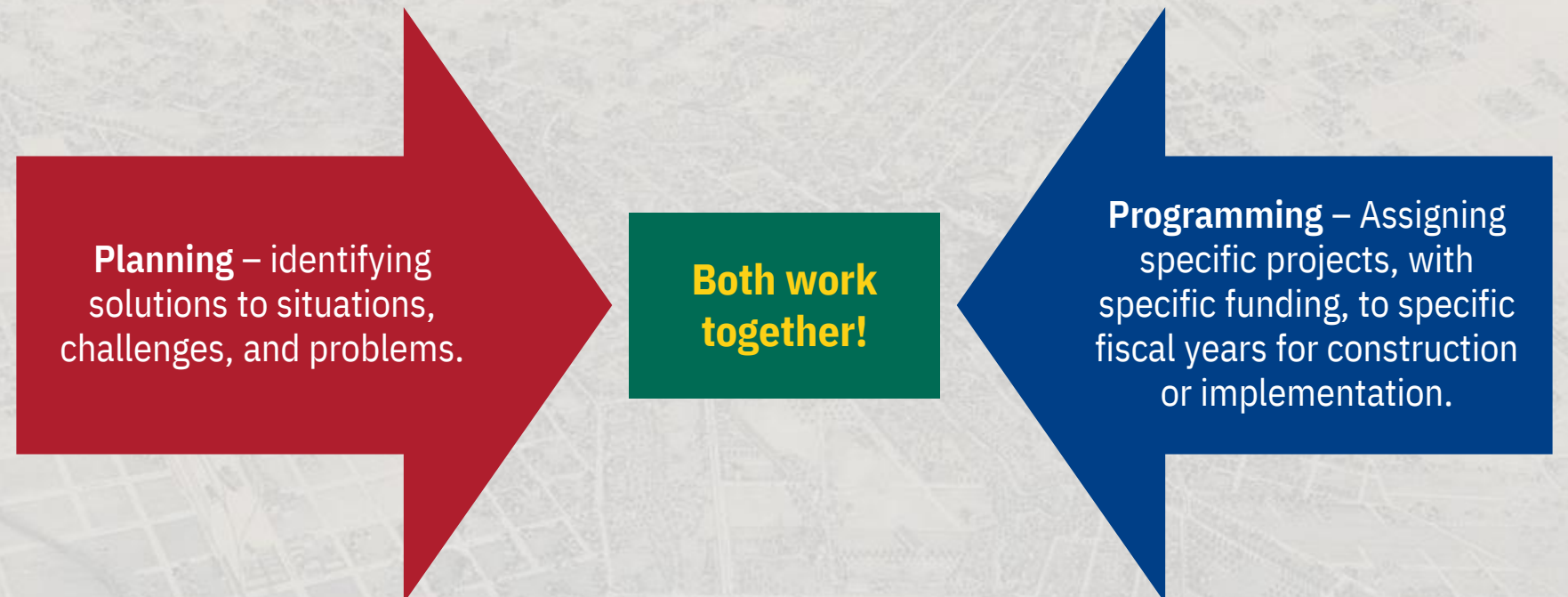
A Unified Planning Work Program (UPWP) is an annual or biennial statement of work identifying the planning priorities and activities to be carried out within a metropolitan planning area. The document includes:

- Planning data and analysis tasks.
- Public outreach activities.
- MTP and TIP preparation, including supporting new federal emphasis areas, regional studies and products.
- Federally-funded studies.



Code	Description
23 C.F.R. § 420	Planning and Research Program Administration
23 C.F.R. § 450.308	Unified Planning Work Programs
23 U.S.C. § 134	Metropolitan Transportation Planning
23 U.S.C. § 135	Statewide Planning
23 U.S.C. § 139	Efficient Environmental Reviews for Policy Decision Making
31 U.S.C. § 3101-3907	Financial Management
2 C.F.R. 200	Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards
49 C.F.R. Part 18	Uniform Administrative Requirements for Grants and Cooperative Agreements to States and Local Governments
49 C.F.R. Part 29	Government-wide Debarment and Suspension (Non-procurement) and Requirements for Drug-free Workplace (Grants)
FTA Circular 8100.1C	Program Guidance for Metropolitan Planning and State Planning and Research Program Grants
43 T.A.C. §16.52	State requirements for UPWPs in the State of Texas

What's the difference between planning and programming?

A diagram illustrating the relationship between planning and programming. It features three main components: a large red arrow pointing right, a central green box, and a large blue arrow pointing left. The red arrow contains the text "Planning – identifying solutions to situations, challenges, and problems." The green box contains the text "Both work together!" in yellow. The blue arrow contains the text "Programming – Assigning specific projects, with specific funding, to specific fiscal years for construction or implementation." The background of the slide is a light gray aerial map of a city grid.

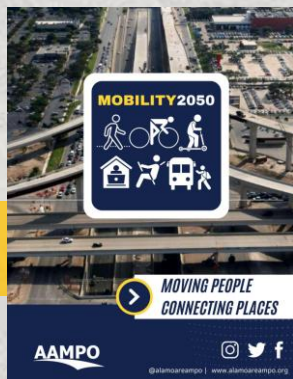
Planning – identifying solutions to situations, challenges, and problems.

Both work together!

Programming – Assigning specific projects, with specific funding, to specific fiscal years for construction or implementation.

What is the Metropolitan Transportation Plan?

- Describes vision for the region, and policies, operational strategies, and projects for achieving the goals.
- Includes **all** projects that are regionally significant **and/or** federally funded.
- Covers at least the next 20 years.
- Leads to an intermodal system.
- Reflects public involvement.
- Contains a financial plan and is fiscally constrained.
- Is updated at least every four-years.

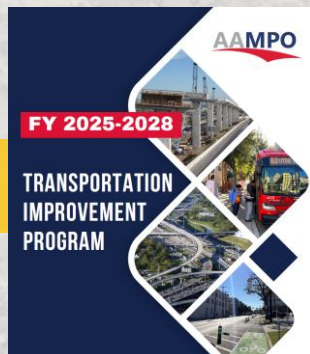


Federal Code	Description
23 U.S.C. § 134(h)(i)	These laws describe the structure and requirements of MPOs as well as the scope of the metropolitan planning process.
49 U.S.C. § 5303	
23 C.F.R. § 450.316	These laws discuss planning assistance standards for metropolitan planning agreements, congestion management, and the development and content of the metropolitan transportation plan.
23 C.F.R. § 450.320	
23 C.F.R. § 450.322	
23 C.F.R. § 450.324	
23 C.F.R. § 500.109	Defines the requirements, strategies, and performance measures that must be integrated into a Congestion Management System (CMS), Public Transportation Management System (PTMS), and Intermodal Management System (IMS.)
23 C.F.R. § 500.110	
23 C.F.R. § 500.111	
43 T.A.C. §16.51-53, 57	Defines the Texas state expectations for the Metropolitan Transportation Plan, including (a) Requirements, (b) Development, (c) Approval, (d) Submission of new and revised plans, and (e) MTP Public participation.

More information available in [Texas MPO Planning and Programming Handbook, Chapter 5.](#)

What is the Transportation Improvement Program?

- A **staged**, multi-year, intermodal program of prioritized transportation initiatives consistent with MTP.
- Initial four-years of the MTP.
- Contains a financial plan and is fiscally constrained.
- **An initiative not listed in the TIP cannot receive FHWA or FTA funds.**
- Reflects public involvement.
- **Must be updated at least every two-years.**



Code	Description
23 U.S.C. § 134 (h) (i) and (k) (3) and (4)	Metropolitan Transportation Planning
23 U.S.C. § 135 and 49 U.S.C. § 5304	Statewide Transportation Planning
23 C.F.R. Part 450 §§ 320, 324, 326, 328, 330, and 332	Congestion Management Process in Transportation Management Areas, Development and Content of the TIP, TIP Revisions and Relationship to the STIP, TIP Action by the FHWA and the FTA, Project Selection and Scheduling from the TIP, and Annual Listing of Obligated Projects (APL).
23 C.F.R. Part 500 §§ 109, 110, and 111	Congestion Management System, Public Transportation Management System, and Intermodal Management System, respectively.
43 T.A.C. §16.101, §16.102, and §16.103	Defines the Texas state expectations for the MPO TIP (§16.101), Rural TIP (§16.102), and STIP (§16.103).
43 T.A.C. §16.105	Provides the rule for the Unified Transportation Program and its relationship with the metropolitan planning programs in Texas.

More information available in [Texas MPO Planning and Programming Handbook, Chapter 6.](#)

Funding Realities

- Nothing is guaranteed!
- Federal funds seem consistent as these are based on multi-year federal transportation bills (legislation). Key is consistent appropriations.
- State funding is more variable:
 - Proposition 1 – Severance (oil and gas production) taxes (dependent on prices and production levels).
 - Proposition 7 – State motor fuel tax, vehicle registration fees, and sales taxes (dependent on the overall economy).
- Wherever possible, leverage funds from all possible sources.



What is the Public Participation Plan (PPP)?

The PPP is an integral part of the transportation process which helps ensure that decisions are made in consideration of and to benefit public needs and preferences. The federal authority behind the PPP is noted in the table.



Code	Description
<u>23 U.S.C. § 134(i)(5)(B)</u>	These laws state that MPOs are required to develop a public participation plan, in consultation with interested parties, that provides reasonable opportunities for all parties to participate in and comment on transportation plans.
<u>23 C.F.R. § 450.316 (a)</u>	
<u>Title VI of the 1964 Civil Rights Act</u>	This act prohibits discrimination based on race, color, or national origin in programs and activities receiving federal financial assistance.
<u>Title VI and implementing regulations</u>	This ensures meaningful access to the benefits, services, and information of their program and activities for LEP individuals.

More information available in [Texas MPO Planning and Programming Handbook, Chapter 8, Section 8.2, beginning on Page 4.](#)

Thoughts about engaging the public . . .

- Go beyond simply “checking the box” . . . address the spirit of the requirements.
- Best practices include:
 - Give the public purpose in planning by taking the participation to them.
 - Find locations with good bicycle, pedestrian, and transit connections.
 - Set milestones and celebrate accomplishments.
 - Develop and explain benefits with participation from policy board.
 - Find methods to acknowledge entities and individuals for participating.

Being fully informed about transportation issues throughout the process.

Meaningful opportunities to express opinions and concerns about transportation issues in an orderly manner and appropriate forum.

Transportation plans, policies, and decisions have public support.

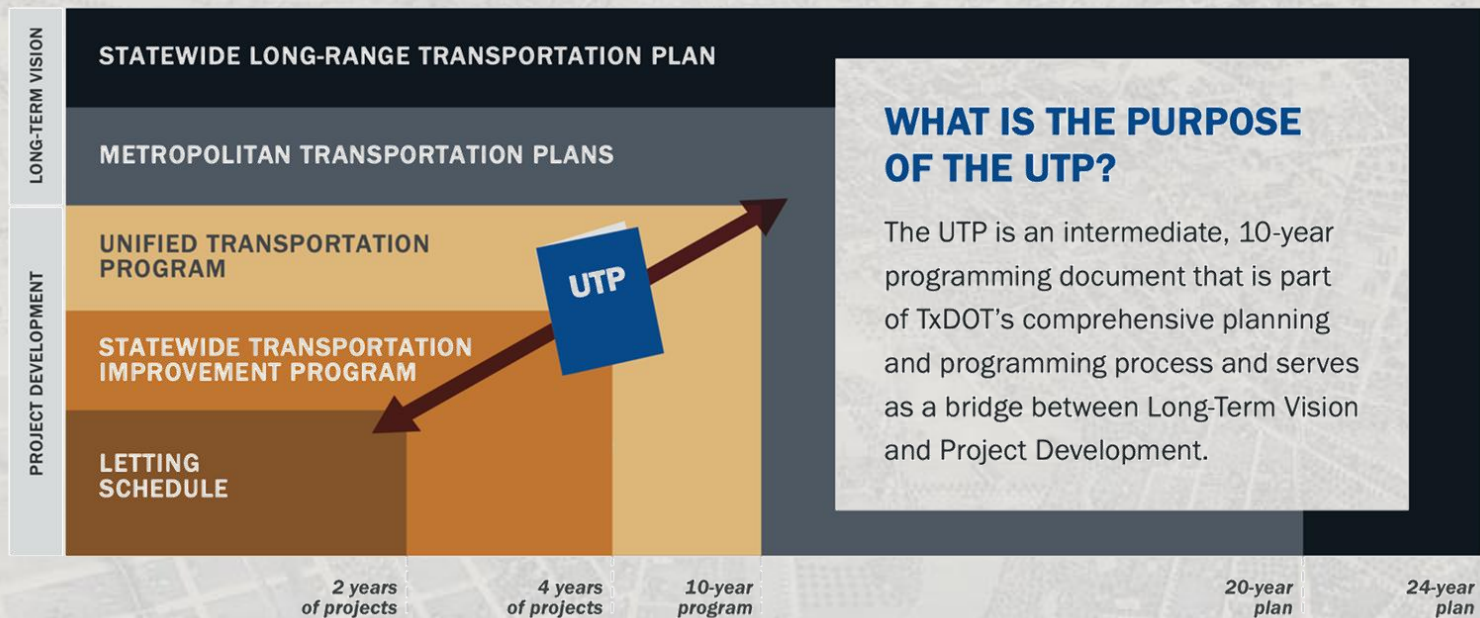
Each MPO must have a Public Participation Plan updated periodically.

More information available from [Public Involvement Best Practices– Susan Howard \(TxDOT TPP\)](#), December 8, 2022 TEMPO meeting presentation.

Source: FHWA, Texas Division.

Unified Transportation Program

Within the UTP framework, TxDOT works with elected officials, local planning organizations, and the public to select and fund the state's highest priority transportation projects.



What is the Congestion Management Process?

- Reduce congestion by implementing best practices that have been shown to improve the performance of a transportation system.
- An eight-part process that weaves congestion management into transportation planning ... a roadmap that guides the region towards reducing congestion as it plans and implements transportation projects.
- Supports project selection for the RTP and the TIP.

More information available in [Texas MPO Planning and Programming Handbook, Chapter 10](#).



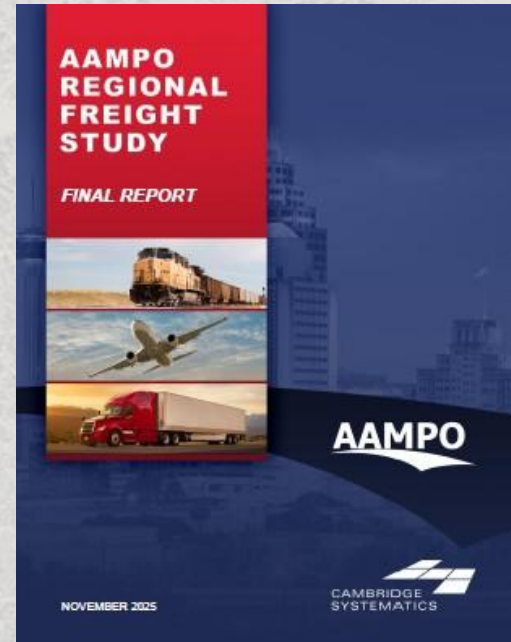
Freight and Intermodal Planning

■ Rail

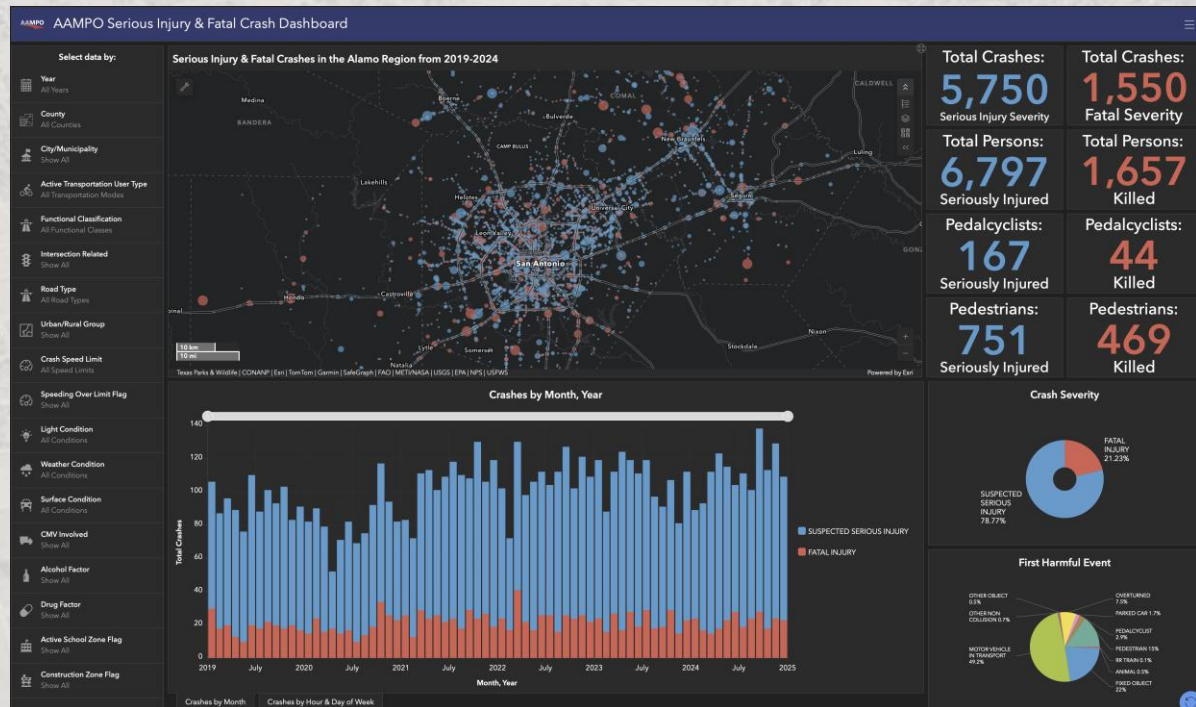
- Planning for Local origin/destination and pass-through Rail traffic.
- Studying and recommending improvements for at-grade crossings.
- Accommodating access to and from Intermodal transfer facilities.

■ Trucks

- Planning for local origin/destination deliveries.
- Facilitating pass-through truck travel and accommodating safety rest stops.
- Accommodating truck stop access.



Safety Planning



AAMPO Applications:

- Safety used in Project Selection
- Active Transportation Program
- Street Skills
- Wrong Way Driver Program
- Traffic Jam
- Safe Kids Coalition
- Highway Emergency Response Operator (HERO)

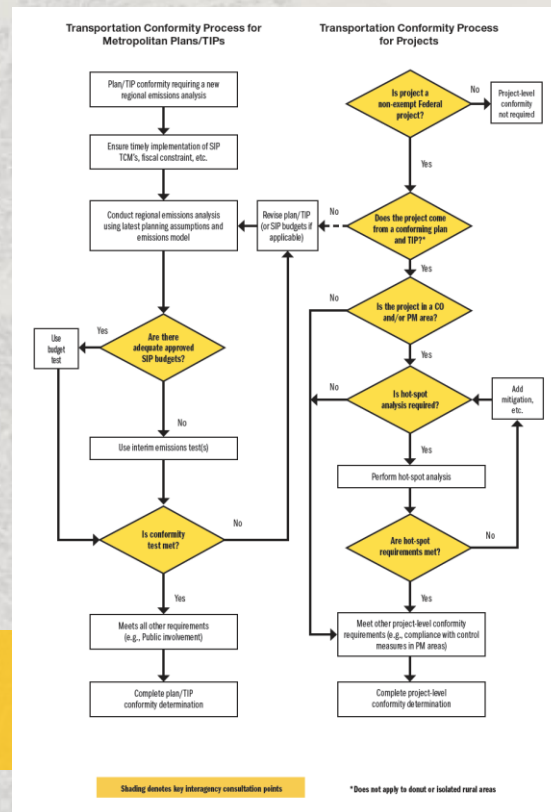
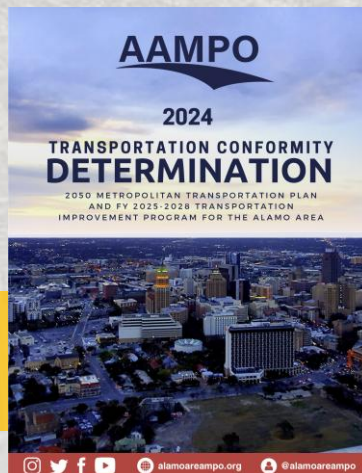
What is Transportation Air Quality Conformity?

The transportation conformity process evaluates strategies to minimize emissions while preserving regional air quality.

Key approaches include:

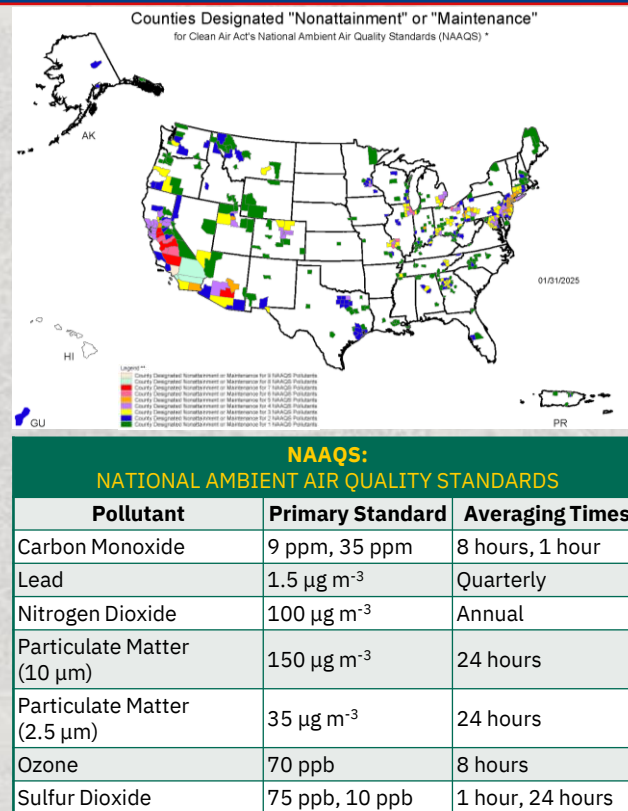
- Vehicle emissions reduction initiatives.
- Behavioral modifications to travel patterns.
- Congestion reduction projects.
- AAMPO is subject to conformity studies because of current emissions in Bexar County.

This process ensures that metropolitan transportation plans and projects address pollution sources effectively.



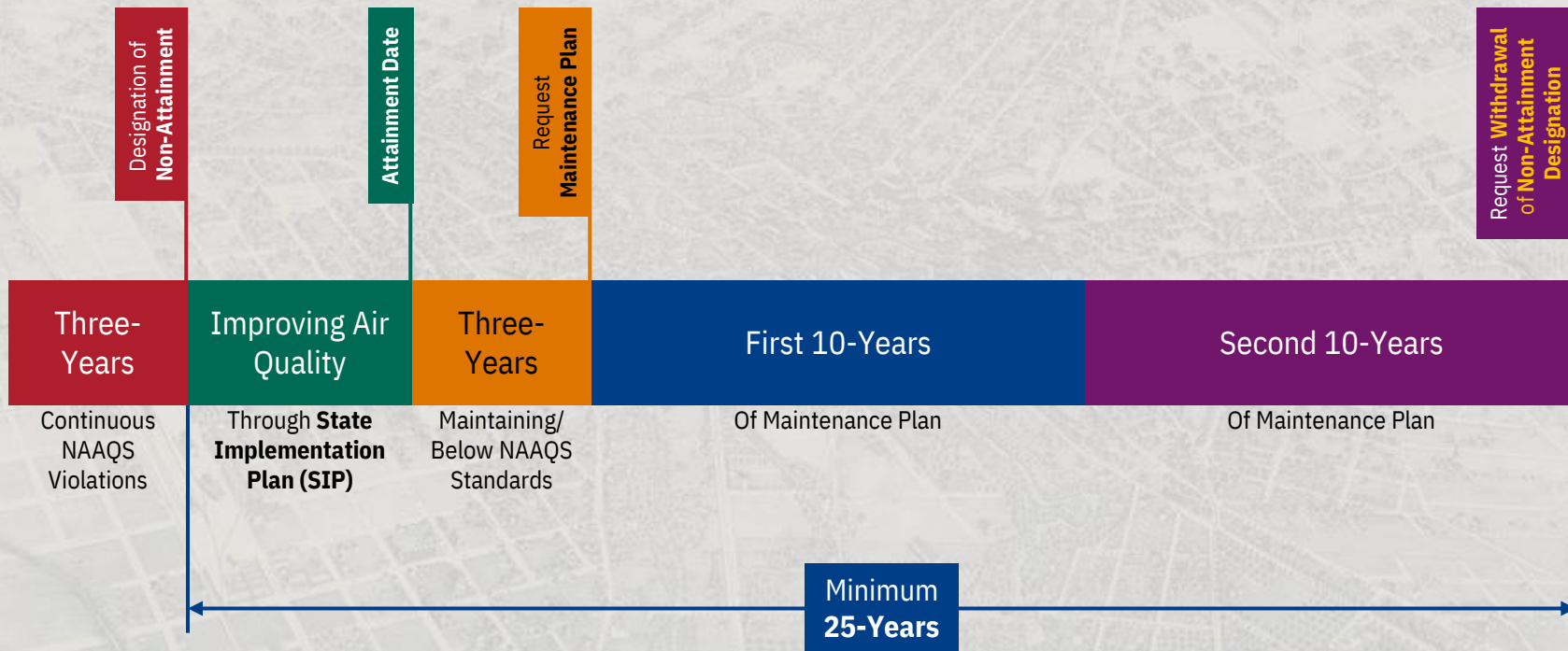
When is Transportation Conformity demonstrated?

- At least every four-years for **non-attainment** and **maintenance** areas.
- **Prior to MPO approval** of the MTP, TIP, and amendments.
- **Prior to MPO approval** of federal projects:
 - Those using federal funds or approvals.
 - Those within the RTP and TIP.
- 24-months after certain State Implementation Plan (SIP) actions.
- 12-months after new nonattainment designation.



Map and Standards source: United States Environmental Protection Agency, EPA Green Book: Counties designated nonattainment or maintenance, January 2025. Available at <https://www.epa.gov/green-book>, accessed 2/7/2025.

What is the life-cycle for Transportation Conformity?



Peer Exchanges and Resources

TPCB

Parting Thoughts . . .

Funding

Planning → Operations and Studies.

Projects → Rising labor and material costs.

Staff

Turnover → All positions!

Recruiting → Location, location, location.

Pay → Compete with member agencies and private sector.

Increasing Workloads

More requirements → Less time to complete needed studies.

Federal “strings” → Matches and mitigation.

Policy board requests → Compete with other external priorities.

Why are there MPOs?

Provide a forum for discussion and study of regional transportation issues.

Comprehensively plan for the solution of regional transportation problems.

Facilitate agreements among governments for specific projects.

Attain the greatest degree of intergovernmental cooperation to prepare for future growth.

Meet Federal and State requirements.



AAMPO

Fundamentals of MPO Planning and Programming

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Bob Hazlett, Texas A&M Transportation Institute, r-hazlett@tti.tamu.edu

May 18, 2026



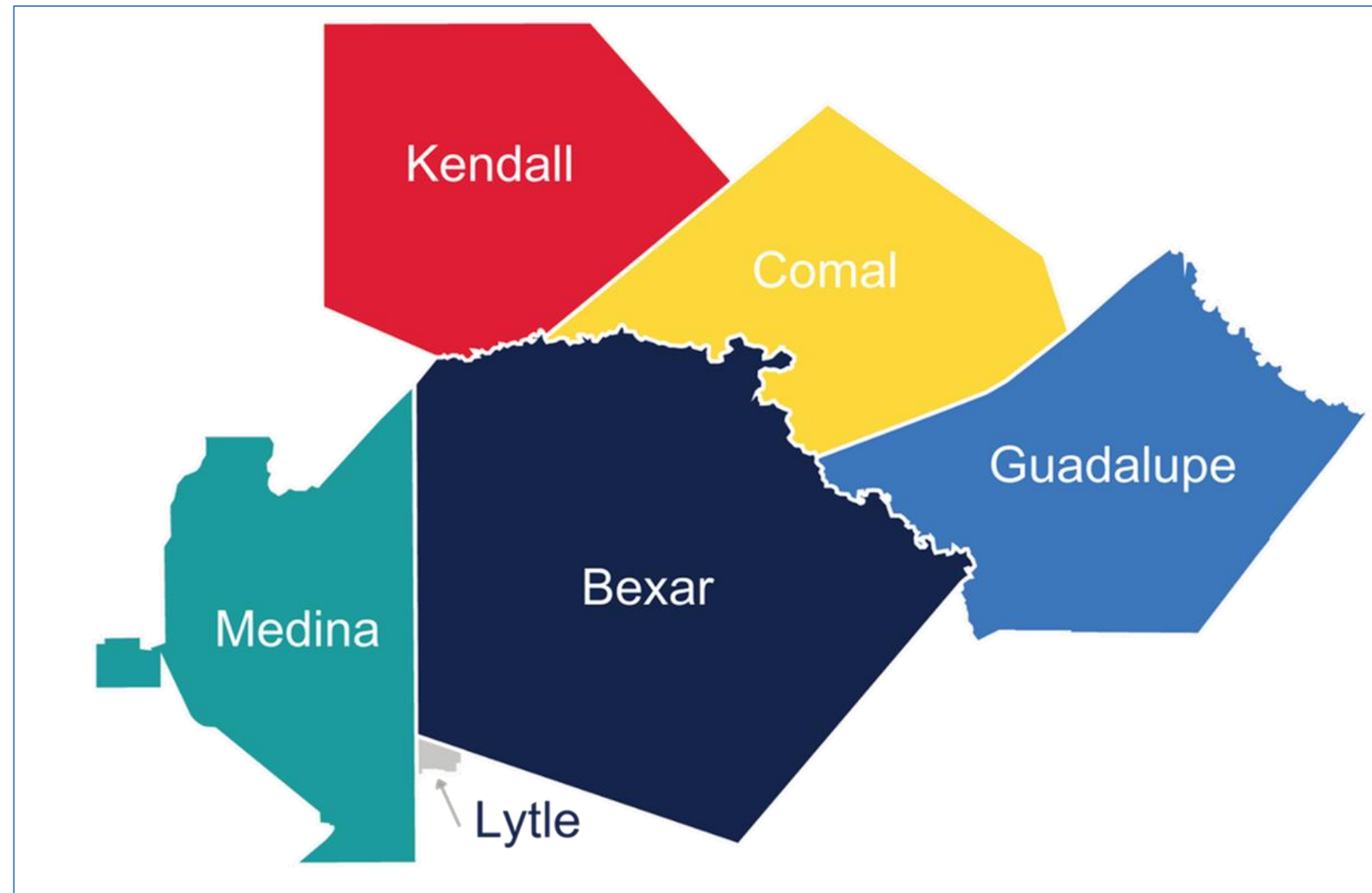
Alamo Area Metropolitan Planning Organization

May 2026

Presented by Brendon Wheeler, P.E.



Regional Transportation Governance



MPO = Transportation Policy Board

Local Elected and Appointed Officials

Defining Principles by Design:

Partnership

Comprehensive Planning

Programming Authority

Compliance with Federal Law

Foundational Agreements:

Designation Agreement by Governor

Planning Agreement (tri-party agreement)

TxDOT, MPO, and Fiscal Agent

Public Transportation Operator Agreement

AAMPO Planning Framework

Key Planning Documents



Metropolitan Transportation Plan (MTP)

Fiscally constrained long-range plan that identifies transportation needs and sets the vision for the region. *Mobility 2050 Update* coming this fall. *Major updates every 4 years, minor updates every 2 years.*



Transportation Improvement Program (TIP)

Programs funds for transportation projects over next **4 years**. *Major updates every 2 years, minor modifications once a quarter.*



Transportation Conformity Determination

Ensures federal investments in transportation projects meet air quality standards. Paired with MTP Updates.



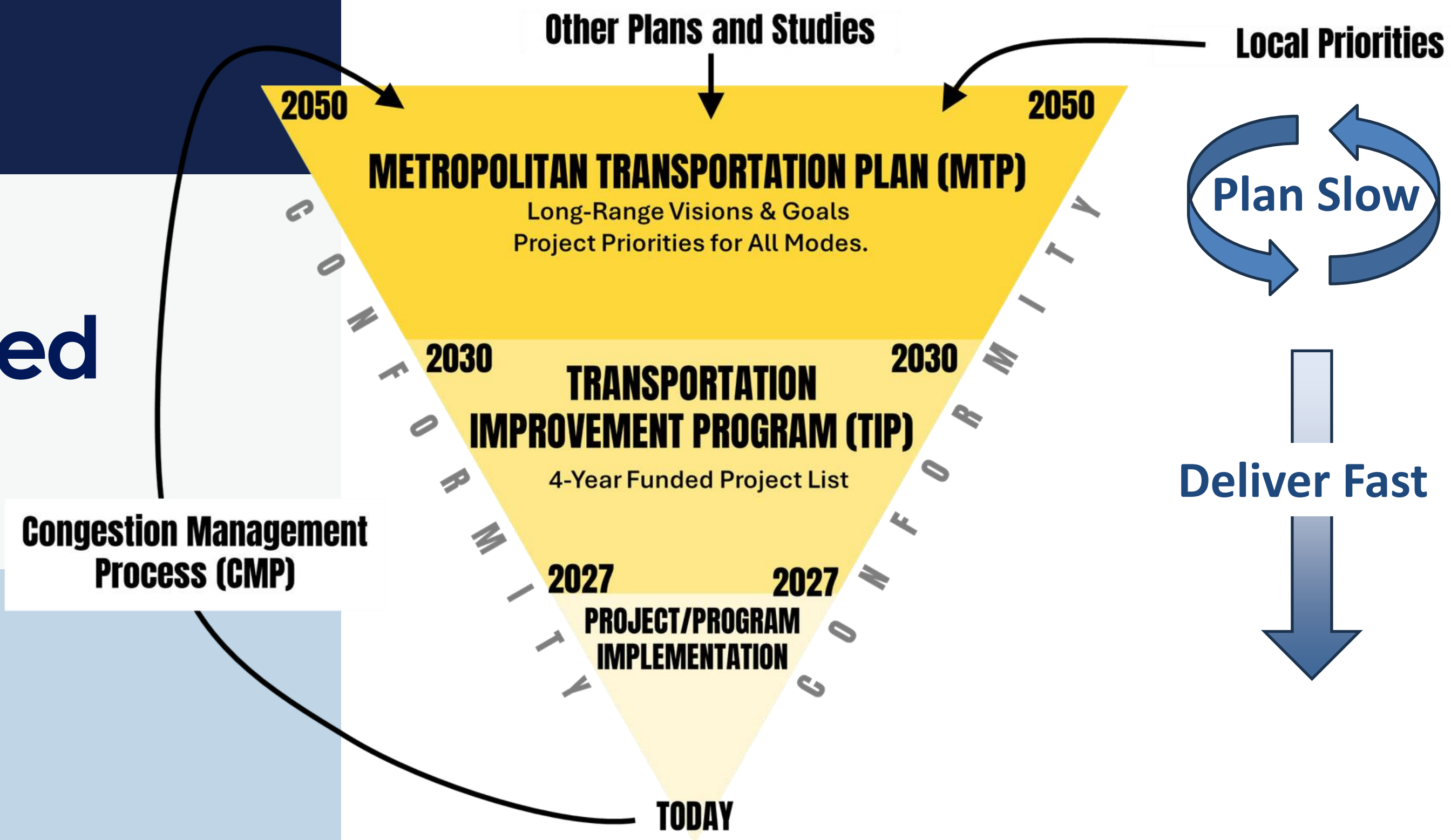
The Unified Planning Work Program

Outlines and Budgets activities and studies AAMPO will conduct over a **2-year** period.



Each of these documents plays a role in **planning**, **funding**, and **delivering** transportation projects.

Needs-Based Process



Data-informed Decision Making, By Design



Continual

Updating inputs, analyses, recommendations

Comprehensive

Source of regional transportation needs

Cooperative

Arbiter of regional transportation needs



AAMPO's Travel Demand Model

INPUTS



Socioeconomic & Demographic Data

- Population
- Households
- Income
- Employment
- Travel Behavior



Transportation Network

- Road Network
- Transit Network
- Zone Structure
- Network Attributes

TRAVEL DEMAND MODEL



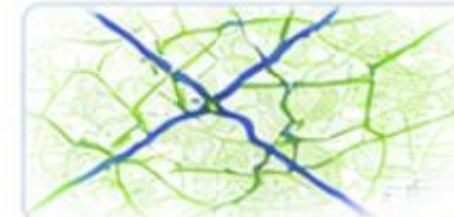
Travel Demand Model

*Integrates land use and network data
to forecast travel demand*

OUTPUTS



Travel Patterns



Traffic Volumes



Travel Summaries



Traffic Congestion



Congested Speeds

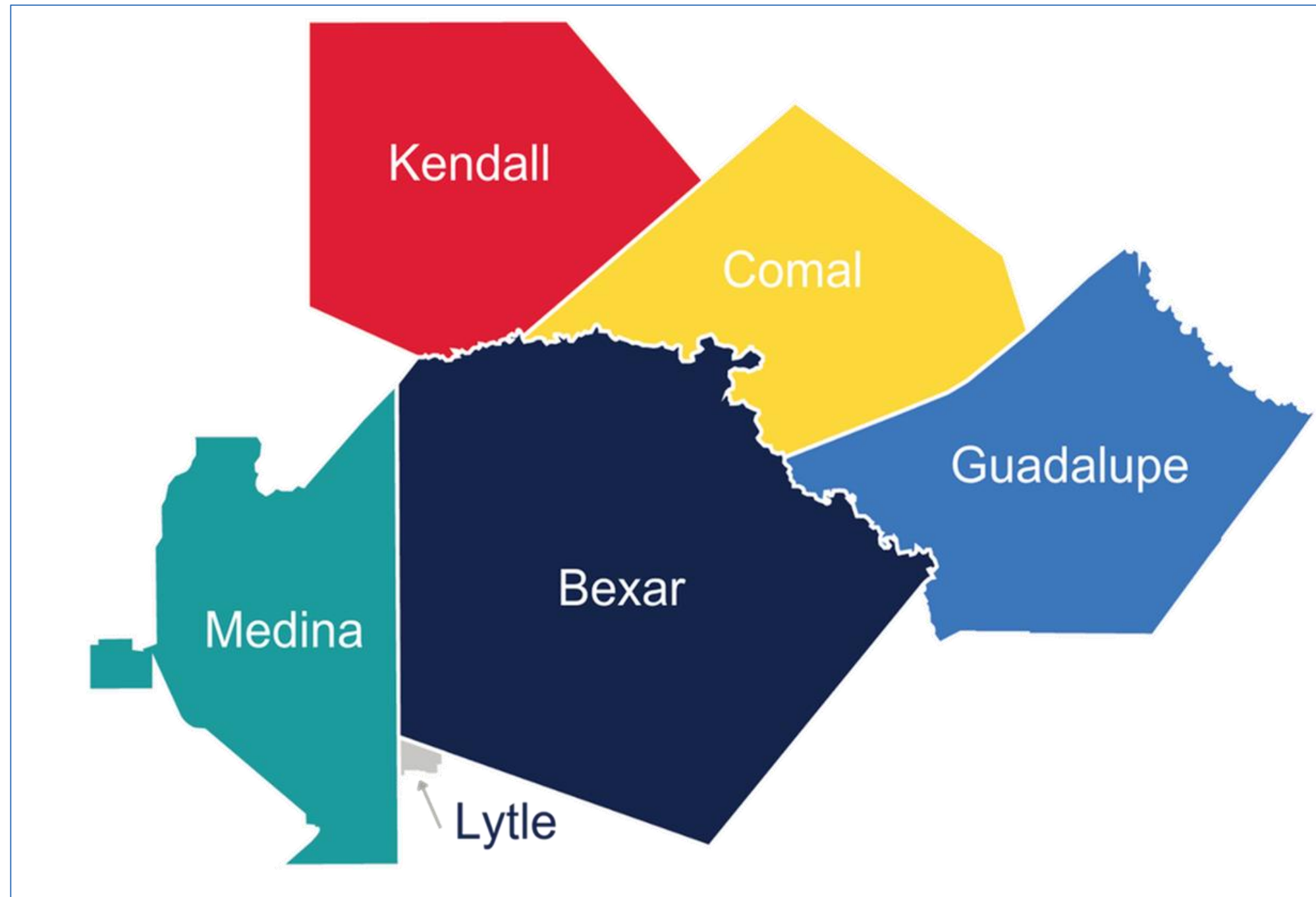


Transit Volumes



Supports forecasting, project evaluation, and conformity analysis to guide transportation investments

Regional Growth and Travel Demand



2025
2.6 million
population
14,300
lane miles
61 million
miles traveled daily

2020
3.7 million +42%
population
15,300 +7%
lane miles
113 million +85%
miles traveled daily

Transportation Conformity

Bexar County in Nonattainment of 2015 Ozone Standard

- Environmental Protection Agency (EPA) sets the standard
- Texas Commission on Environmental Quality (TCEQ), through the State Implementation Plan (SIP), sets emissions budgets

Conformity Tied to the Metropolitan Transportation Plan

- Affects all “Regionally Significant” projects (regardless of funding source)
- Extensive travel demand and air quality modeling, analysis, and review
- High Stakes – must prove project doesn’t negatively impact air quality

High Level of Effort

- To prove – conducting analysis and assembling documentation
- For partner reviews and coordination (6+ months)
- To confirm project details are consistent across planning efforts

When asked if a project can be added / changed / removed from the Plan or TIP, often the answer is: ***“It depends...”***

Plan Slow, Deliver Fast

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