

Executive Summary

The *Futures 2040 Metropolitan Transportation Plan* (MTP) is the result of a planning process that attempts to understand infrastructure needs and distribute federal funds in ways that best address regional transportation challenges. This task is important because the role of the transportation system—as well as transportation needs—is evolving. Transportation is not an end or an objective unto itself that can be considered independently. It is part of a complex and interrelated regional system and a means of supporting and achieving other outcomes, such as livability, environmental sustainability, and economic activity through the movement of people, goods, and services.

Also evolving is an understanding of the connection between land use and travel demand patterns and the role that transportation plays in creating places where people want to be. The previous plan, the *2035 MTP*, forecasted significant outward expansion and high levels of congestion. Against such a backdrop increased roadway capacity – that is, new lanes and new roads – was shown to be largely ineffective in relieving future congestion. But as the plan demonstrated, land use configurations matter, and they matter a great deal.

Over the last several years there have been frank conversations about the most desirable ways for the region to grow and the potential role of alternative modes, in particular mass transit. Careful deliberation on the best ways to meet the needs of travelers in the Albuquerque Metropolitan Planning Area (AMPA) is particularly important given three sets of pressures on the region’s transportation system. These pressures are forcing agencies around the region to think differently about how they invest and what objectives they are trying to meet.

First, at a time of great need in terms of infrastructure improvements, transportation funding is increasingly limited. Due to unpredictable federal policies and declining federal and state gas tax revenues, agencies around the metro area are emphasizing roadway maintenance and preservation. While capacity needs to be expanded in strategic locations, the reality is that every new roadway stretches declining maintenance budgets even further. As a result there are very real long-term transportation challenges that may go unresolved. In particular, the long-running question over the best ways to meet river crossing travel demand remains; other than the Morris Rd alignment in Valencia County, no new bridges have been proposed or are projected to be funded in the lifespan of the *2040 MTP*.

The second set of pressures involves land use patterns and accommodating new growth. While growth has slowed in the last half-decade following the Great Recession and forecasts have been updated accordingly, regional population levels are projected to increase as the economy improves. The AMPA is still expected to increase by more than 435,000 residents, or 50 percent, by 2040 (see Tables EX-1 and EX-2). In some respects, the economic slowdown can be viewed as an opportunity to reconsider the

2040 MTP Themes

1. Limited funding and emphasis on roadway maintenance and preservation
2. Land use policy as a strategy for accommodating growth and addressing transportation needs
3. Changing travel preferences

type of growth that has taken place and whether new policies should be pursued to encourage alternatives to the dramatic pace of outward expansion that marked most of the 2000s. The opportunity lies in strategies to grow as sustainably as possible through development patterns that maximize the utility of the existing transportation infrastructure, minimize future maintenance costs, and ensure meaningful transportation options for residents across the region.

Third, changing demographic and market preferences signal a need for a broader range of housing and transportation choices. New Mexico is experiencing a trend towards growth in urban areas with increased demand for walkable, mixed-use communities and housing options near jobs and amenities. There is also a particularly strong desire for access to transit and alternatives to single-occupancy vehicle travel. On a per capita basis, vehicle miles traveled in the AMPA fell 10 percent from 2004 to 2012, while transit ridership grew by more than 80 percent. Particularly noteworthy are the preferences of the Millennial generation (ages approximately 16-34), who indicate the lowest satisfaction levels of any age group when it comes to the transportation system in the Albuquerque area. These changing preferences do not mean that demand will cease to exist for suburban-style housing and lifestyles; but it is clear that there are opportunities to serve a shifting set of preferences while simultaneously developing in ways that support alternative modes of transportation, reduce the need for new infrastructure, and accommodate additional growth.

Table EX-1: Population Projections by County, 2040 MTP Trend Scenario

Year	Bernalillo	Sandoval*	Valencia	AMPA
2012	675,548	126,490	77,363	879,401
2040	987,080	203,128	127,715	1,317,923
30 Year Growth	311,532	76,638	50,352	438,522

*The small portion of Sandoval County outside of the AMPA has been excluded

Table EX-2: Employment Projections by County, 2040 MTP Trend Scenario

Year	Bernalillo	Sandoval*	Valencia	AMPA
2012	341,452	31,829	15,700	388,981
2040	473,037	72,569	25,563	571,169
30 Year Growth	131,585	40,740	9,863	182,188

*The small portion of Sandoval County outside of the AMPA has been excluded

Purpose of an MTP

- Projections of growth over the planning horizon (Trend Scenario)
- Understand impacts of growth on transportation infrastructure
- List of projects proposed for implementation by member agencies
- Provide strategies and recommendations for meeting anticipated challenges

How this MTP is

Different:

- Establishes a **Preferred Scenario** for the first time
- Analyzes **climate change** impacts and adaptation strategies
- Identifies potential **action items** produced at the request of the Metropolitan Transportation Board and member agency staff

The *Futures 2040 MTP* was developed concurrently with NMDOT's statewide long-range plan. MRMPO and NMDOT utilize the same socio-economic forecasts and revenue projections and identify common issues and strategies in the respective plans.

Scenario Planning

Past MTPs projected future conditions based on anticipated population and employment growth as well as existing plans and policies, and then responded to the challenges identified in the projections. It was a decidedly reactive approach. The *Futures 2040 MTP* introduces a proactive mechanism known as scenario planning to consider the multiple ways in which the region could grow over time and understand the costs and benefits associated with different development patterns.

In particular, scenario planning is a technique that allows stakeholders to understand how policy decisions, land use changes, and alternative investment patterns can impact transportation conditions and other factors in coming decades. It is predicated on the notion that there are many ways the region could grow. In other words, there are a range of potential futures. Over the two years leading up to the adoption of the *2040 MTP*, MRMPO engaged in a scenario planning process with member agencies from across the AMPA that ultimately resulted in two scenarios: a Trend Scenario based on existing plans and policies, and a Preferred Scenario that emphasizes development in regionally-identified activity centers, commercial corridors, and transit nodes.

The *2040 MTP* represents a significant shift in approach by broadening the plan's scope to include not just land use considerations, but means of adapting to climate change. Through a partnership with the U.S. Department of Transportation Volpe Center and a grant from the Federal Highway Administration, MRMPO utilized the scenario planning process to introduce new variables and consider whether different growth patterns make the region more or less resilient to climate change impacts. This effort became the Central New Mexico Climate Change Scenario Planning Project

In the coming decades in central New Mexico, temperatures are expected to gradually rise, while precipitation becomes more variable. The likely result is extended periods of drought followed by intense rainfall events. These changes are expected to have significant impacts on water resource availability and the increased likelihood of wildfires and flooding may place nearby development at greater risk. Climate change may also increase the costs of roadway maintenance. The broader scope has allowed MRMPO to consider new relationships, such as the connection between land use patterns and water consumption, as

Regional Challenges

The following issues were identified through outreach efforts conducted as part of the 2040 MTP. They are ranked based on the importance assigned by the respondents.

- 1. Water resources**
- 2. Economic development**
- 3. Diverse housing and transportation options**
- 4. Balance of housing and jobs across the region**
- 5. Shared and active places**
- 6. Create a collaborative and equitable process**
- 7. Historic and rural preservation**

Importantly, even though the exercises were conducted by a transportation planning agency, water resource availability was identified as the most pressing challenge facing the region, followed by economic development opportunities.

well as opportunities to reduce transportation-related greenhouse gas emissions.

Future Growth Scenarios

The Trend Scenario, the officially adopted set of projections for the AMPA, reflects a continuation of existing land use plans and policy and represents a view of what would happen if future development takes place in a similar manner as in the past. This includes large-scale land consumption for new housing development accompanied by a separation of land uses that reinforce the region's reliance on single-occupancy vehicles for most travel. As such, the Trend Scenario does not fundamentally address the transportation challenges facing the region, in particular the high demand for trips across the Rio Grande. While a large portion of residential growth will occur in areas west of the Rio Grande, the Trend Scenario anticipates that about half of all new jobs will locate in east Albuquerque. This perpetuates an existing jobs-housing imbalance and a disproportionate need for eastbound river crossing trips in the morning and westbound river crossing trips in the evening.

By contrast, the Preferred Scenario emphasizes additional development in activity centers, along key commercial corridors, and near premium transit nodes (see Map EX-1). The approach of supporting higher density and a mix of land uses in targeted locations specifically addresses a number of challenges identified as part of the MTP development process. These include a broader range of housing and transportation options and balancing the distribution of jobs and housing to bring employment west of the river and additional housing east of the river. Reducing transportation costs and creating places where people want to be are also crucial in making the region more economically competitive.

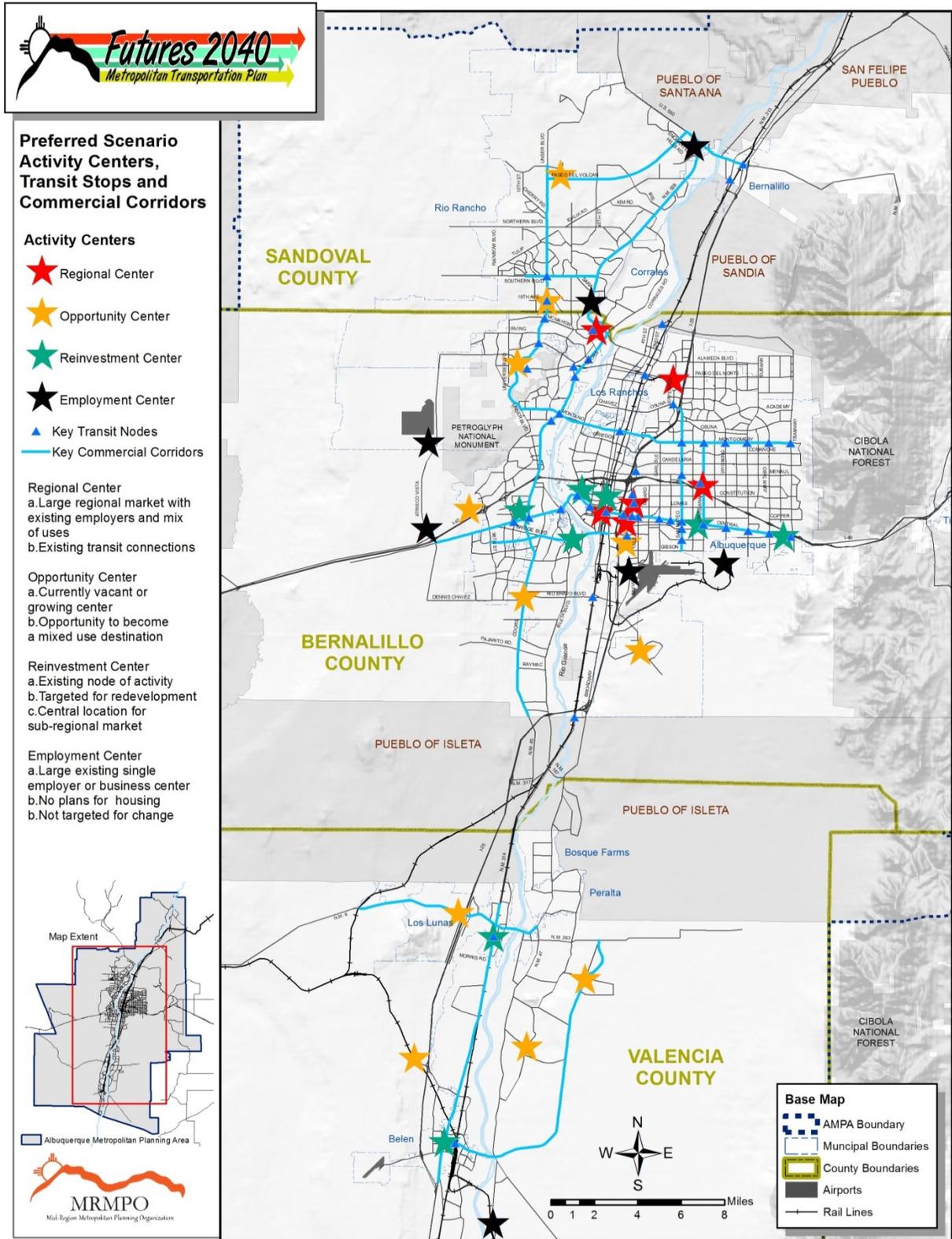
While the Trend and the Preferred Scenarios are based on the same infrastructure network, the Preferred Scenario assumes a greatly expanded transit network. In many respects, transit is an organizing principle for the Preferred Scenario: not only are transit nodes emphasized for additional development, but services are enhanced to provide meaningful connections across the metropolitan area and improve travelers' ability to reach their destinations without relying exclusively on private vehicles.

The differences between the scenarios are noteworthy. While congestion levels are projected to increase under any scenario—a function of growth rates, land use patterns, reliance on single-occupancy vehicles, and limited transportation funding—there are clear benefits associated with Preferred Scenario. The Preferred Scenario results in more households closer to employment sites, amenities, and public transit services and leads to a smaller development footprint than the Trend by reducing the amount of new land consumed, as well as a smaller increase in CO₂ emissions. While roadway conditions generally deteriorate in both scenarios, the Preferred leads to improvements in vehicle speeds and commuting times, and reduction in miles traveled and hours traveled over the Trend Scenario.

Table EX-3: 2012-2040 Growth Rates for Select Performance Measures: Trend and Preferred Scenarios

Performance Measure	Trend Scenario	Preferred Scenario	Total Difference: Preferred vs. Trend
<i>Access</i>			
Housing near Activity Centers	77%	125%	27%
Housing near Transit	66%	120%	32%
Housing near Employment Sites	28%	47%	15%
<i>Transportation</i>			
Systemwide Speed (PM Peak MPH)	-40%	-31%	15%
Vehicle Hours Traveled (PM Peak)	162%	117%	-28%
Vehicle Miles Traveled (Daily)	48%	42%	-4%
Transit Ridership	34%	138%	78%
River Crossing Trips (Daily)	42%	38%	-3%
Average Commute Time	50%	24%	-18%
<i>Sustainability</i>			
New Land Developed (acres)	27%	19%	-5%
Emissions (CO ₂)	31%	22%	-8%
Growth in Forest-Fire Risk Areas	84%	63%	-10%

Map EX-1: Key Locations in the Preferred Scenario



Transportation Challenges in the AMPA

- Crossing the Rio Grande
- Dependency on single-occupancy vehicles
- Freight movement
- Emission levels and ozone non-attainment
- Safety
- Access and connectivity

MTP Action Items

- Establish transit mode share goals and target funds for premium transit through the Transportation Improvement Program set-aside
- Project Prioritization Process for evaluating regional benefits of projects for federal transportation funding
- Long-Range Transportation Systems Guide to link roadway design to the surrounding context
- Integrate the MTP with local land use plans
- Consider the consistency of plans and projects with the Preferred Scenario through the MRMPO development review process

Transportation Investments

A look at the capital expenditures for the 2035 and 2040 MTPs reflects the evolving priorities in the region. The 2040 MTP identifies about \$2.2 billion to be utilized to expand road capacity (of which more than half is privately funded); that number comprises about 35 percent of available capital funds, compared to about \$3 billion or 50 percent of available funds targeted for new lanes and new roads in the 2035 MTP. At the same time, significantly more money has been identified for maintenance and preservation needs. There are also large increases in spending on public transit projects, where approximately 29 percent of all funding will be spent on transit, compared to 18 percent in the 2035 MTP. This increase can be attributed to additional federal funds allocated to the region for transit operations, as well as a modest increase in local spending.

Table EX-4: Transportation Investments by Project Type, 2040 MTP versus 2035 MTP

Project Type	Amount – 2035 MTP	Amount – 2040 MTP
Bicycle/Pedestrian Projects (Public)	\$241,302,104	\$263,944,607
Bicycle/Pedestrian Projects (Private)	\$15,859,250	\$21,193,000
Roadway Capacity Projects (Public)	\$2,248,608,711	\$1,036,980,106
Roadway Capacity Projects (Private)	\$770,129,498	\$1,155,881,922
Highway & Bridge Preservation	\$987,183,864	\$1,633,985,094
ITS/TSM Projects	\$194,534,713	\$154,255,556
Misc. (studies, enhancements, etc.)	\$271,608,555	\$75,131,684
Safety Projects	\$64,389,139	\$80,858,290
Travel Demand Management	\$35,340,413	\$37,164,786
Transit Projects	\$1,077,503,135	\$1,834,671,248
Total	\$5,906,459,382	\$6,294,066,293

Achieving the Preferred Scenario

The Trend Scenario is the official growth projection for the AMPA; however, this MTP does not consider the Trend Scenario to be a forgone conclusion or a set of conditions the region should aspire to create. Rather, the Preferred Scenario, which was developed collaboratively among the member agencies of central New Mexico, presents a target for the region through a set of shared principles and recommended action steps.

While demographic shifts make the assumptions in the Preferred Scenario well-founded and reasonable, collective efforts and forward-thinking policies are required for implementation. Agencies with land use authority, the development community, transportation departments that identify and fund infrastructure improvements, and the general public all share this responsibility.

This plan discusses a number of strategies to address regional challenges and can help achieve the Preferred Scenario. These strategies differ by mode and reflect the range of steps that must be taken to ensure more desirable transportation outcomes. From a roadway perspective this means a strong emphasis on efficiency improvements and maintenance. Limited federal funding means the region needs to get as much as possible out of existing infrastructure. Capacity expansion is at times necessary, but should be strategic and undertaken as an option after efforts to maximize the functionality of the existing transportation system.

Transit investments are crucial to support the Preferred Scenario. Multiple Bus Rapid Transit studies have taken place in the last three years, and the Albuquerque Rapid Transit (ART) service proposed for Central Avenue has entered the project development phase and could be operating as early as 2017. Implementing these services should be a high priority for the region. To encourage transit's growing role in the region, the Metropolitan Transportation Board established mode share goals that an aggregate of 20 percent of trips on priority corridors will be taken by transit by 2040. The Board also voted to set-aside 25 percent of sub-allocated federal funds distributed through the Transportation Improvement Program to premium transit projects that support the realization of the mode share goals.

Bicycle and pedestrian improvements will also play a critical role in achieving the Preferred Scenario. Providing new connections, filling in gaps, and expanding the network help create new transportation options, promote healthy lifestyles, and support land use decisions. One important recent policy change is the approval by the City of Albuquerque of a Complete Streets Ordinance to accommodate a broader set of users as a part of roadway construction and reconstruction. The fact that many roadways are under capacity gives the region the flexibility to either introduce additional development or accommodate a greater range of users.

The Long-Range Transportation Systems (LRTS) Guide brings these strategies together through roadway design guidelines that are tailored to the land use context and the role the facility plays in the regional transportation system. The LRTS Guide builds upon past right-of-way guidance and incorporates national best practices for multimodal accommodations. The intent for future roadways is to find the minimum right-of-way needed for quality multi-modal accommodation. For current roadways, the LRTS Guide

provides methods to evaluate existing roadways for ways to improve conditions for all users and to better integrate them with surrounding land uses.

Ultimately, regional planning should focus on integrating transportation and land use policies to achieve the best outcomes. The recent slowdown in economic activity provides an opportunity to rethink development patterns and investment priorities. While many residents will continue to prefer rural and suburban lifestyles, the region can create greater options for people who desire a more urban environment by targeting specific locations for mixed-use development and for increased housing options. The Preferred Scenario demonstrates that a long-range vision for growth can have a variety of benefits, including better transportation conditions, fewer investments in new infrastructure, and improved air quality and reduced emissions. Moreover, such development can actually reduce impacts on rural communities and ease water demands and threats to agricultural land by minimizing new land consumed.

The larger scope of the *2040 MTP* and the additional perspectives gained through the climate change project reinforce the need for truly comprehensive long-term decision making and the need to evaluate policy choices through scenario planning. There are crucial challenges facing the region, but there are also many important and exciting opportunities to create an even higher quality of life in central New Mexico.