

The New Mexico 2040 Plan

NMDOT's Long Range, Multi-Modal Transportation Plan





ADOPTION OF THE NEW MEXICO 2040 PLAN

It is with great pleasure that I adopt the attached New Mexico 2040 Plan (2040 Plan) on behalf of the New Mexico Department of Transportation (NMDOT). The 2040 Plan represents the culmination of a robust and transparent public involvement process, developed in full compliance with federal regulations and guidance under MAP-21. In developing the 2040 Plan, the Department has benefited from our partnership with FHWA-NM, other state and federal agencies, tribal entities, the state's Metropolitan Planning Organizations (MPOs), Regional Transportation Planning Organizations (RTPOs), and many other transportation stakeholders.

The Vision, Goals, Strategies of the 2040 Plan will guide the NMDOT as we move into the implementation phase. Work will immediately begin on the Department's highest priority actions, which, in addition to completing and adopting the Transportation Asset Management Plan (TAMP), the Statewide Highway Safety Plan (SHSP) and the Bicycle, Pedestrian and Equestrian Plan, include developing project evaluation criteria and mode-specific investment plans.

The New Mexico Department of Transportation hereby adopts the New Mexico 2040 Plan on this 17 day of September, 2015.

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Cabinet Secretary

Susana Martinez
Governor

Tom Church
Cabinet Secretary

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Commissioner
District 6

Acknowledgments

Federal transportation law (23 USC 135) requires the New Mexico Department of Transportation (NMDOT) to develop a long-range statewide transportation plan with a minimum 20-year forecast period. The plan must cover all areas of the state and be multimodal in scope. It must provide for the development, implementation, and “integrated management and operation of transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities) that will function as an intermodal transportation system for the State and an integral part of an intermodal transportation system for the United States.” Long-range, multimodal transportation planning at NMDOT is the responsibility of the Asset Management and Planning Division (AMPD). The AMPD is responsible for coordinating planning efforts for the other NMDOT Divisions and Districts, as well as the state’s seven Regional Transportation Planning Organizations (RTPOs) and five Metropolitan Planning Organizations (MPOs). The AMPD also consults with Tribal governments on planning issues affecting Tribal lands. We would like to acknowledge the help of the following New Mexico Department of Transportation staff in helping to create this plan, as well as the organizations that supported the development of the plan through participation in coordinating committees, working groups, interviews, or public meetings.

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Acknowledgments

Participating Organizations

Acoma Pueblo	City of Farmington	Elephant Butte Chamber/Sierra	Isleta Community Health	New Mexico AARP
Adventure Cycling Association	City of Gallup	County Tourism Board	Representative	NM Aging and Long-Term Services
Albuquerque International Balloon Fiesta	City of Las Cruces	Evergrow Farms	Jicarilla Apache Nation	New Mexico Bicyclist Educators
Albuquerque Mail Service	City of Las Vegas	Farmington Metropolitan Planning Organization	Las Cruces Green Chamber of Commerce	NM Border Authority
All American Pilot Car Services	City of Portales City of Santa Fe	Farmington Municipal School District	Lincoln National Forest	NM Dept. of Agriculture
American Association of Retired Persons	City of Socorro	Federal Highway Administration	Luna County Economic Development	NM Dept. of Energy
American Society of Landscape Architects	City of Sunland Park	Federal Transit Administration	Luna County Health Council	NM Dept. of Game and Fish
Amtrak	City of Truth or Consequences	Follow the Sun Inc.	Maestas and Ward	NM Dept. of Health
Animas Environmental Services	City of Tucumcari	Four Corners Economic Development, Inc.	Marron and Associates	NM Dept. of Indian Affairs
Apache Homelands Casino	Clovis Area Transit System	Framing & Community Development	McKee Counseling Services	NM Dept. of Information Technology
Arrowhead Center	Cobre Schools	Freeport-McMoRan Copper & Gold, Inc.	Mescalero Tribe	NM Dept. of Public Safety
Bandelier National Monument	Community Builders International Holdings	Gallup Express	Mesilla Valley Economic Development Alliance	NM Dept. of Tourism
Ben Archer Health Center Transportation	Con Alma Health Foundation	Gallup-McKinley County Schools	Mesilla Valley Metropolitan Planning Organization	NM Economic Development Dept.
Bernalillo County	Conoco-Phillips Company	Gila National Forest	Mid-Region Council of Governments	NM Energy Minerals and Natural Resources Dept.
Bernalillo County Department of Health	County of Los Alamos	Gila Resources Information Project	Mid-Region Metropolitan Planning Organization	NM Environmental Dept.
BHP Council	County of Rio Arriba	GMZ Development	Ministerial Alliance	NM Historic Preservation
Billy the Kid Scenic Byway	County of Taos	Governor's Commission on Disability	Molzen Corbin	NM Horse Council
Bio Pappel International	Coyote Canyon Rehabilitation Ctr	Grant County Community Health Council	Moriarty Chamber of Commerce	NM Human Services Dept.
Bohannon Huston Inc.	Creative Santa Fe	Grant County Planning	Morrow Reardon Wilkinson Miller, Ltd.	New Mexico MainStreet Program
Border Industrial Association	Cumbres and Toltec Scenic Railroad	Grant County Trails Group	Mosaic Potash, Carlsbad	NM Mortgage Finance Authority
U.S. Bureau of Indian Affairs	Dairy Farmers of America	Grants-Cibola County Schools	Mustang Health, HIA	NM Public Relation Commission
U.S. Bureau of Land Management	Dairy Producers of New Mexico	Greater Tucumcari Economic Development Commission	MVT Services, LLC	NM State Land Office
Carlsbad Chamber of Commerce	Dawn Trucking Company	Halliburton Company	Nambe Pueblo	NM State Legislature
Carlsbad Transit	De Baca County	Harding County	National Park Service	NM State Parks
CASA	Deming/Luna County Chamber of Commerce	HD-12 Candidate	Navajo Agricultural Products Industry	NM State Police
Catron County Health Council	Deming/Luna County MainStreet Program	Healthy Kids, Curry County	Navajo Department of Transportation	NM State Senate
Central Region Design Manager	Deming Schools	Healthy Kids, McKinley County	Navajo Nation Council	NM State Transportation Commission
Chaves County Commission/Wootton Trucking	Developmental Disabilities Planning Council	Hidalgo Medical Services	Navajo Nation Division of Economic Development	New Mexico State University
Citizen Bank	DFL Associates Inc.	Holly Frontier Refining & Marketing, LLC	Navajo Times	New Mexico Touring Society
City of Albuquerque	Doña Ana County	Instituto Municipal de Investigacion y Planeacion Juarez	Nelson Consulting, Inc.	New Mexico Trucking Association
City of Bloomfield	Eastern Plains Council of Governments	Intrepid Potash		New Mexico Workforce Connection
City of El Paso-Sun Metro	El Paso Metropolitan Planning Organization			North Central New Mexico Economic Development District
City of Espanola				North Central Regional Transit District
				Northeast RTPO
				Northern Pueblos RTPO

Acknowledgments

Participating Organizations (continued)

Northwest New Mexico Council of Governments	Pueblo of Santa Ana	Senator Udall's Office	Taos Pueblo	U.S. Border Patrol
Northwest New Mexico RTPO	Pueblo of Taos	Sierra Health Council	Texas-New Mexico Railroad/Iowa Pacific Holdings	U.S. Department of Energy
Northwest RTPO	Pueblo of Tesuque	Sierra Vista Hospital	The Daily Times	U.S. Fish and Wildlife Service
Ocotillo Institute for Social Justice	Pueblo of Zia	Silver City Mainstreet	Titan Development	U.S. Forest Service
Office of Congressman Steve Pearce	Quay County	Ski New Mexico	Torrance County	U.S. Dept. of Homeland Security
Ohkay Owingeh	Quay County Sun	Socorro County	Tourism Association of NM	U.S. National Park Service
Ojo Encino Navajo Chapter	Ramah Navajo Chapter	South Central Council of Governments	Town of Edgewood	Universidad Nacional Autonoma de Mexico (UNAM)
Pat Hurley Neighborhood Association	Raytheon Company	South Central Regional Transit District	Town of Red River	University of New Mexico
PNM Resources	Rio Metro Regional Transit District	South Central RTPO	Town of Silver City	Village of Angel Fire
Presbyterian, Nacimientto Community	Road Runner Transit	South Central RTPO	Town of Springer	Village of Chama Treasurer
Pueblo de Cochiti	Roosevelt County	Southwest RTPO	Town of Taos	Village of Eagle Nest
Pueblo de San Ildefonso	Roswell Bicycle Club	Southwest Chief Coalition	Trail of the Mountain Spirits Scenic Byway	Village of Milan
Pueblo of Acoma	Route 66 Counseling	Southwest New Mexico Council of Governments	Trapeze Group	Western New Mexico University
Pueblo of Isleta	San Juan County	Southwest Regional Transit District/Corre Caminos	Tri County Connection	WSO-CSS
Pueblo of Jemez	San Miguel County	Southwest Regional Transportation Planning Organization	Triple S Trucking	Yates Petroleum Corp.
Pueblo of Laguna	Sandia Pueblo	Step Into Cuba	Truth or Consequences Housing Authority	Zia Engineering and Environmental Consultants
Pueblo of Ohkay Owingeh	Sandoval County Health Council	Sunland Park Border Crossing	Tucumcari MainStreet	Z-Trans Public Transit
Pueblo of Picuris	Santa Clara Pueblo		U.S. Army Corps of Engineers	Zuni Tribe
Pueblo of San Felipe	Santa Fe Metropolitan Planning Organization			
Pueblo of San Ildefonso	Santo Domingo Pueblo			

2040 Plan Development Team

The development of the 2040 Plan was led by Claude Morelli, NMDOT Asset Management and Planning Division, with support from Hugh Louch and Kelsey Ahern of Cambridge Systematics, Lesley Maurer of Parsons Brinckerhoff, and Tim Karpoff of Tim Karpoff and Associates.

The 2040 Plan was funded in part through grants from the Federal Highway Administration, U.S. Department of Transportation. The views and opinions of the authors or agency expressed herein do not necessarily reflect those of the U.S. Department of Transportation. The New Mexico Department of Transportation complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. For more information or to obtain a Title VI Complaint Form, please contact Damian Segura, Title VI Environmental Justice/LEP Program Office: 505-827-1778 damian.segura@state.nm.us. Additional information is available at <http://dot.state.nm.us/en/OEOP.html>.

Adoption of the 2040 Plan

The NMDOT Cabinet Secretary formally adopts the 2040 Plan on behalf of the Department. The Vision, Goals, Strategies, and Performance Measures described in the plan guide the development of the Transportation Asset Management Plan, Strategic Highway Safety Plan, and Bicycle, Pedestrian and Equestrian Plan. NMDOT AMPD staff will present an annual progress report on 2040 Plan implementation measures, and proposed refinements if needed, to the Cabinet Secretary and executive staff, in conjunction with the development of the required Federal State Planning and Research (SPR) Planning Work Program, according to the schedule established in the Planning Procedures Manual (PPM).

Introduction

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New Mexico’s transportation system is critical to the state’s economy and quality of life. The system is responsible for serving the ever-changing and growing needs of a diverse, geographically dispersed traveling public: connecting residents to jobs and services, businesses to customers and supplies, and visitors to tourist attractions and recreational areas. However, a widening gap between transportation needs and available funding requires the New Mexico Department of Transportation (NMDOT) and its planning partners to prioritize investments strategically and operate the system more efficiently.

The New Mexico 2040 Plan (2040 Plan) provides a strategic framework to guide NMDOT’s transportation decision-making in the years to come. This plan, developed over an 18-month period, involved an unprecedented level of

outreach and engagement with metropolitan and regional transportation planning partners, state and federal agencies, industry stakeholders, tribes, non-profit organizations, the general public, and other interested parties across the state. NMDOT took input from these diverse groups to establish a 2040 vision for transportation in New Mexico and to document the state’s transportation challenges and needs. In response to these challenges, the plan identifies a core set of goals and strategies to move NMDOT in the right direction. It also defines a set of agency-level performance measures to hold NMDOT accountable for tracking progress toward achieving the state’s transportation vision. Recognizing that it is not realistic to solve every problem given funding limitations, the plan sets forth a “Preservation First” strategy to maintain the state’s existing assets and establishes a tiered system to allocate resources to the infrastructure that is most critical for the movement of people and goods. The plan also takes a new risk management approach to programming safety funds with an emphasis on protecting vulnerable system users.




Plan Summary

The following goals, strategies, and performance measures are the core components that will guide all aspects of NMDOT decision-making beginning in Federal Fiscal Year (FFY) 2016, which begins on October 1, 2015. NMDOT carefully selected each of these goals using a collaborative, stakeholder driven process to achieve three fundamental elements of the 2040 Plan vision: support a robust economy, foster healthy communities, and protect New Mexico’s environment and unique cultural heritage. While the 2040 Plan identifies specific strategies, actions, and performance measures related to each goal, the benefits of investment in one goal area are likely to impact other goal areas as well.





Plan Summary

Goals, Strategies, and Performance Measures



Goal	Strategies	How We Will Measure Success
<p>GOAL 1: Operate with Transparency and Accountability. Ensure that all NMDOT decision-making processes are data-driven and transparent and that NMDOT is held accountable for the efficient, timely, and cost-effective delivery of projects and programs.</p> 	<p>1.1 <i>Employee excellence and customer service.</i> Strengthen the ability of NMDOT to deliver on the actions identified in the New Mexico 2040 Plan (2040 Plan) by recruiting, rewarding, and retaining outstanding, customer-focused employees; actively promoting their health and well-being; investing in their professional development; and entrusting them with the tools and responsibility to do their jobs well.</p> <p>1.2 <i>Partnerships and coordination.</i> Build trust and leverage external support for transportation initiatives by coordinating early, often, and successfully with federal, state, regional, Tribal, local, and other agencies to plan, fund, and implement projects and programs.</p> <p>1.3 <i>Financial stewardship.</i> Monitor financial aspects of NMDOT operations from project development, delivery, billing, payment, and closure to ensure that all financial gaps are discovered and addressed for cost effectiveness and cost efficiency.</p> <p>1.4 <i>Access to integrated, high-quality data and information.</i> Enhance internal and external (stakeholder and public) access to integrated spatial and non-spatial data to improve data quality and the ability of NMDOT employees and stakeholders to evaluate the effectiveness of projects and programs.</p>	<ul style="list-style-type: none"> • Percent of 2040 Plan actions completed within timeframe identified in this plan • Public ratings of NMDOT in customer satisfaction survey • Stakeholder ratings of NMDOT in annual stakeholder satisfaction survey • Percent of projects obligated versus programmed in the Statewide Transportation Improvement Program (STIP) • Percent of cost over bid amount • Number of annual external financial audit findings • Percent of prior year financial audit findings resolved • Percent of positions vacant in all programs • Percent of essential data sources updated on schedule [measurement approach TBD]

Plan Summary

Goal	Strategies	How We Will Measure Success
<p>GOAL 2: Improve Safety for All System Users</p> 	<p>2.1 <i>Data driven process.</i> Reduce fatalities and serious injuries through data-driven, innovative, and proactive processes that include examination of safety hot spots and systemic safety concerns.</p>	<ul style="list-style-type: none"> • Total number of fatalities • Total fatalities per 100 million vehicle miles traveled (statewide, rural, and urban) • Pedestrian fatalities and serious injuries per 100,000 population (statewide, rural, and urban) • Bicyclist fatalities and serious injuries per 100,000 population (statewide, rural, and urban) • Total number of serious injuries • Serious injuries per 100 million VMT (statewide, rural, and urban)
<p>GOAL 3: Preserve and Maintain our Transportation Assets for the Long Term</p> 	<p>3.1 <i>Asset management.</i> Develop and implement a “preservation-first” asset management strategy to ensure that NMDOT will maintain all existing and future elements of the state’s transportation system in a state of good repair.</p> <p>3.2 <i>Consider life-cycle cost in all capacity expansion decisions.</i> Apply life-cycle cost analysis techniques (consistent with best national practices) as one of several factors for evaluating and prioritizing capacity expansion activities.</p> <p>3.3 <i>Priority tiers and minimum standards.</i> Prioritize investment of funds by “tier” to achieve minimum standards for design, maintenance, and efficient operations.¹</p> <p>3.4 <i>Address legacy challenges.</i> Ensure that NMDOT can affordably meet the minimum condition standards for each roadway tier by right sizing the state-owned network to provide the needed capacity to support statewide connectivity standards.</p>	<ul style="list-style-type: none"> • Percent of pavement in good/fair/poor condition by tier • Percent of bridges in good/fair/poor condition by tier • Percent of transit assets in state of good repair by mode (bus, rail) • Number of pavement miles preserved by tier • Percent of airport runways rated “good” • Total maintenance expenditures and maintenance cost per capita

¹ See Section 3: Goals and Strategies for definitions of priority tiers.

Plan Summary

Goal	Strategies	How We Will Measure Success
<p>GOAL 4: Provide Multimodal Access and Connectivity for Community Prosperity</p> 	<p>4.1 <i>Operations and Demand Management First.</i> As the default approach to addressing congestion, proactively implement all reasonable operations and demand management strategies before committing scarce capital funds to expand capacity.</p> <p>4.2 <i>Strategic Investment in Key Corridors.</i> Focus NMDOT resources (considering full life-cycle cost) to support movement of people and goods along a limited number of key corridors (i.e., corridors with regional, statewide, interstate, or international significance).</p> <p>4.3 <i>Land Use – Transportation Coordination.</i> Prioritize projects, programs, and activities that help minimize transportation infrastructure and service costs through coordination of transportation and land use planning (including site selection for public facilities).</p> <p>4.4 <i>Changing Demographics.</i> Align transportation system to be responsive to changing demographic trends.</p>	<ul style="list-style-type: none"> • Planning time index (reliability) for personal travel (urban areas) • Total person hours of delay per capita (urban areas) • Planning time index (supply chain reliability) for freight • Rail Runner annual ridership • Park-and-Ride annual ridership • Household transportation costs as a percentage of median household income (statewide, rural, and urban) • Percent of adults over age 60 who report that they have transportation options sufficient to maintain an independent lifestyle.
<p>GOAL 5: Respect New Mexico’s Cultures, Environment, History and Quality of Life</p> 	<p>5.1 <i>Context Sensitive Solutions.</i> When developing projects and programs, find a “best fit” transportation solution for the local and regional context that meets the expectations of both NMDOT and community stakeholders.</p> <p>5.2 <i>Require and Respect Local Plans.</i> Target funds to support communities that develop local transportation plans that are consistent with the 2040 Plan and that demonstrate the financial and administrative capacity to implement them successfully.</p> <p>5.3 <i>Environmentally Friendly Practices.</i> Minimize or avoid negative impacts of facility development and operations on the natural environment, where possible.</p> <p>5.4 <i>Recreation and Tourism.</i> Work proactively with public and private-sector partners to advance multimodal access to state, regional, and Tribal tourism and recreational goals while minimizing adverse impacts to cultural resources.</p>	<ul style="list-style-type: none"> • Stakeholder satisfaction surveys before and after development of projects • Number of vehicle/wildlife collisions • Effectiveness of mitigation measures as defined through NEPA process

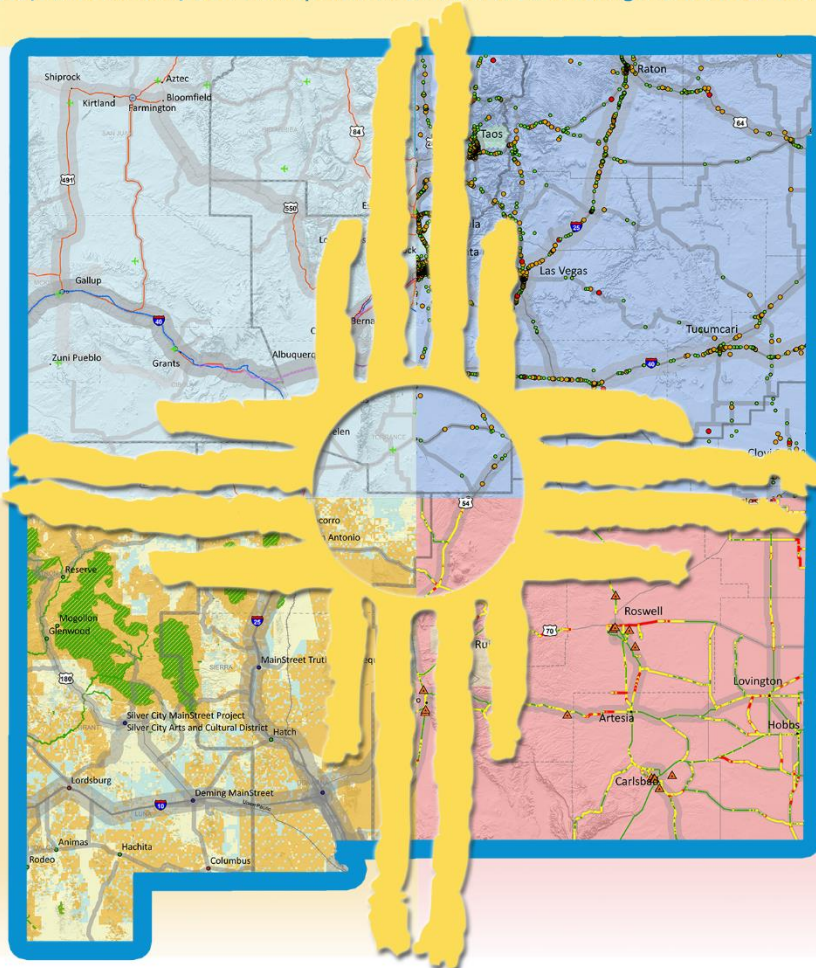
Plan Summary

New Mexico 2040 Plan Goals

Goal 1: Transparency and Accountability. Ensuring that NMDOT's decision-making processes are customer-focused, data-driven, and transparent is critical to achieving success on the other plan goals.

Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity. New Mexico's transportation system is vitally important to the ongoing prosperity of our communities. Supporting multimodal transportation means providing options for residents and visitors of all income levels and abilities.

Goal 5: Respect New Mexico's Cultures, Environment, History, and Quality of Life. New Mexico is a unique, beautiful, and diverse state. Making transportation responsive to its natural, cultural, and historic context improves economic value while minimizing impacts on critical wildlife habitat, historically significant communities, and sites important to New Mexico's cultural heritage.



Goal 2: Improve Safety for All System Users. Implementing proactive and systemic approaches for improving the safety of our transportation system requires tracking and analyzing collisions by severity, with a focus on fatalities and serious injuries.

Goal 3: Preserve and Maintain our Transportation Assets for the Long Term. Preserving our assets requires prioritizing use of our scarce funds, thinking about costs on a life-cycle basis, and having high-quality data to help us make better investment decisions.

Plan Summary

Estimated Future Revenues by Fund Source

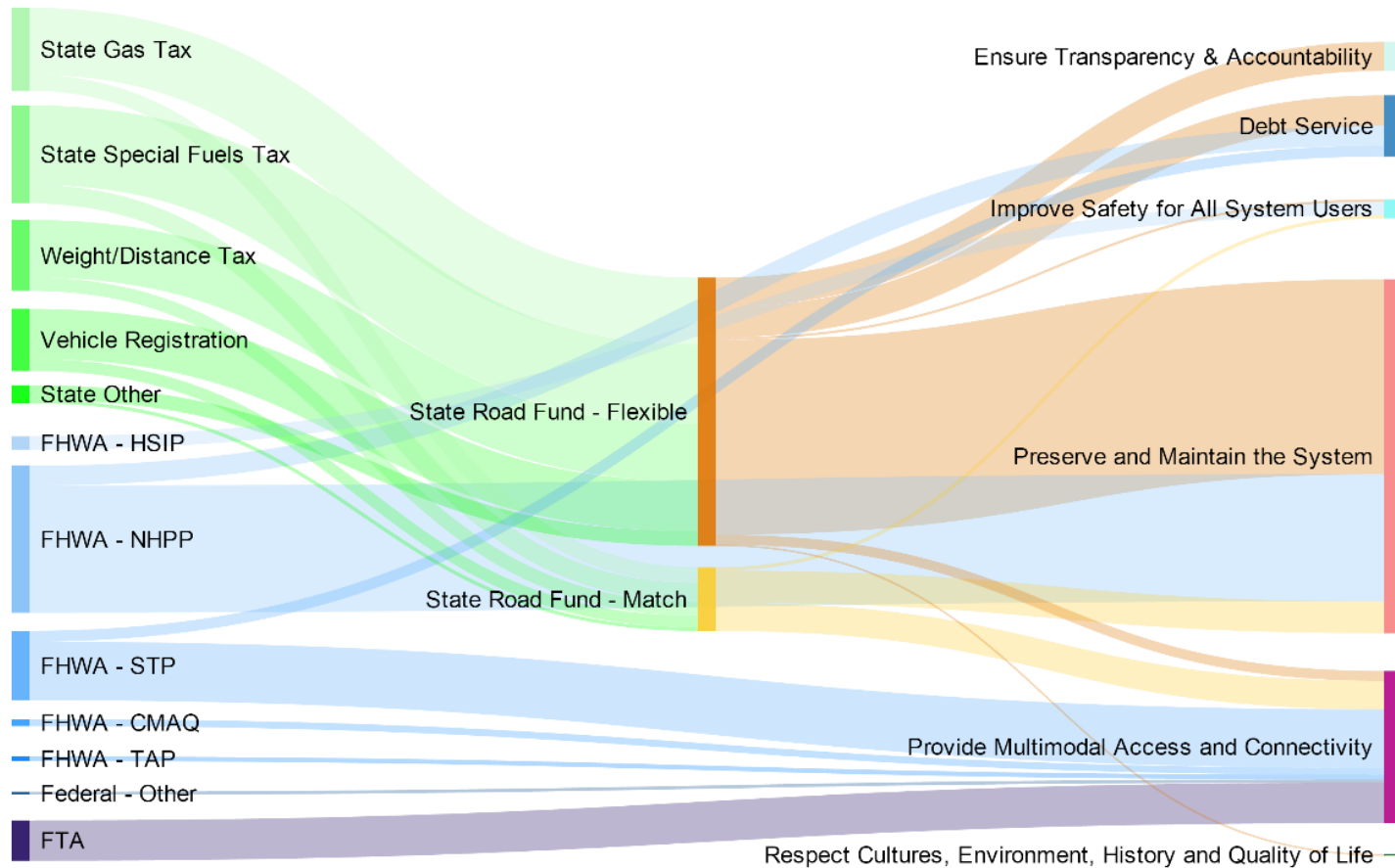
Funding Program	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040
Federal Highway Administration	\$1,538,000	\$1,569,000	\$1,649,000	\$1,733,000	\$1,821,000
<i>National Highway Performance Program (NHPP)</i>	\$925,000	\$943,000	\$991,000	\$1,042,000	\$1,095,000
<i>Surface Transportation Program (STP)</i>	\$425,000	\$434,000	\$456,000	\$479,000	\$504,000
<i>Highway Safety Improvement Program (HSIP)</i>	\$97,000	\$99,000	\$104,000	\$110,000	\$115,000
<i>Railway Highway Crossing</i>	\$7,000	\$7,000	\$8,000	\$8,000	\$9,000
<i>Congestion Mitigation & Air Quality (CMAQ)</i>	\$50,000	\$51,000	\$53,000	\$56,000	\$59,000
<i>Transportation Alternatives (TAP)</i>	\$33,000	\$34,000	\$36,000	\$38,000	\$39,000
Federal Transit Administration	\$248,000	\$270,000	\$294,000	\$320,000	\$349,000
<i>Urbanized Area Formula</i>	\$131,000	\$145,000	\$160,000	\$176,000	\$195,000
<i>Enhanced Mobility for Older Adults and People with Disabilities</i>	\$9,000	\$9,000	\$10,000	\$10,000	\$11,000
<i>Non-urbanized area formula</i>	\$55,000	\$59,000	\$63,000	\$68,000	\$74,000
<i>RTAP</i>	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
<i>Tribal Transit Program</i>	\$3,000	\$4,000	\$4,000	\$5,000	\$5,000
<i>State of Good Repair</i>	\$20,000	\$22,000	\$24,000	\$26,000	\$28,000
<i>Bus and Bus Facilities Formula</i>	\$29,000	\$30,000	\$32,000	\$34,000	\$36,000
State Road Fund	\$1,977,000	\$2,117,000	\$2,256,000	\$2,445,000	\$2,674,000
<i>Gasoline Tax</i>	\$540,000	\$542,000	\$542,000	\$579,000	\$640,000
<i>Special Fuel Tax</i>	\$515,000	\$591,000	\$677,000	\$773,000	\$878,000
<i>Weight/Distance</i>	\$422,000	\$457,000	\$489,000	\$522,000	\$557,000
<i>Vehicle Registration</i>	\$390,000	\$410,000	\$426,000	\$441,000	\$461,000
<i>Other</i>	\$110,000	\$116,000	\$123,000	\$131,000	\$139,000
TOTAL 5-YEAR REVENUES	\$3,762,000	\$3,955,000	\$4,199,000	\$4,498,000	\$4,845,000

Note: Revenue in thousands, Year of Estimate. Totals may not add due to rounding.

Plan Summary

Resource Allocation

NMDOT receives funding for transportation projects and programs from both federal and state sources (acronyms defined on previous page). The figure below illustrates the relative magnitude of each of the key funding sources and how NMDOT allocates those funds to support the five goal areas (plus debt service) described in the 2040 Plan. The flows of federal and state funds reflect the current practice of distributing funds based on program requirements and NMDOT's latest budget. Actual fund distribution will depend on decisions about NMDOT's priorities.



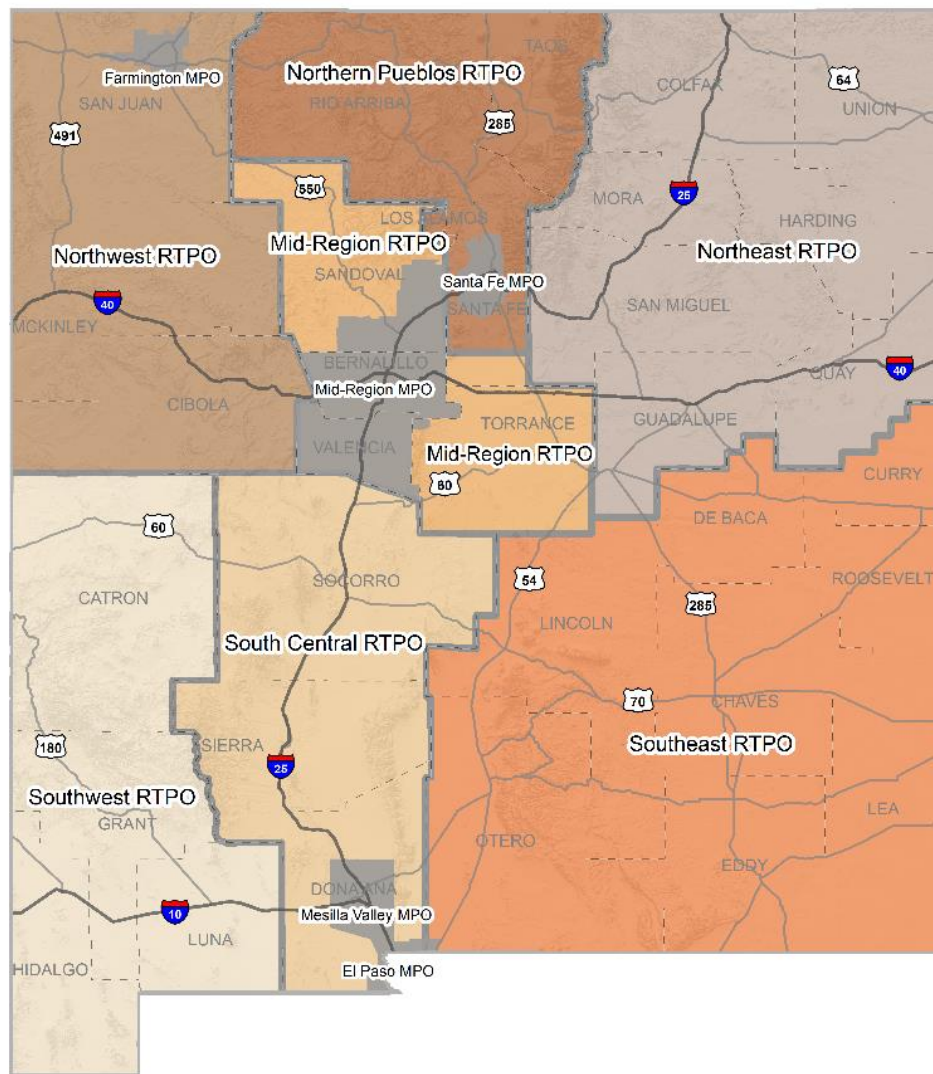
Plan Summary

Coordination with Regional, Metropolitan and Local Plans

The 2040 Plan includes both a statewide plan and seven regional transportation plans (RTP) – one for each Regional Transportation Planning Organization (RTPO) in New Mexico. The RTPOs were established by NMDOT in order to develop an on-going, cooperative process for multimodal transportation planning at the regional level.

The 2040 Plan also incorporates, by reference, the Metropolitan Transportation Plan (MTP) of every Metropolitan Planning Organization (MPO) in the state. The RTPOs and MPOs are responsible for carrying out the transportation planning process in the non-metropolitan and metropolitan areas of the state, respectively. The RTPs and MTPs are coordinated with the 2040 Plan (i.e., they have consistent population and revenue forecasts, and mutually reinforcing performance measures and targets). The RTPs and MTPs provide additional detail about the application of the plan's goals and strategies at regional levels.

Finally, the NMDOT strives to coordinate closely with other agencies developing transportation plans in New Mexico, including local governments, tribal governments, and others. The 2040 Plan has included a robust effort to coordinate with all of these entities, including reviewing plans and studies, and engaging these groups throughout the process. This coordination is ongoing, and discussed further in several of the 2040 Plan goals and in the section on implementation.





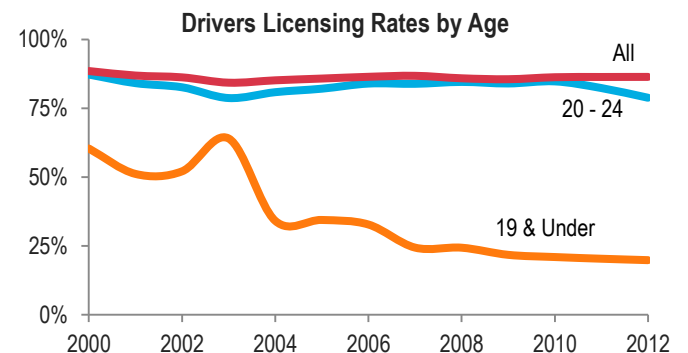
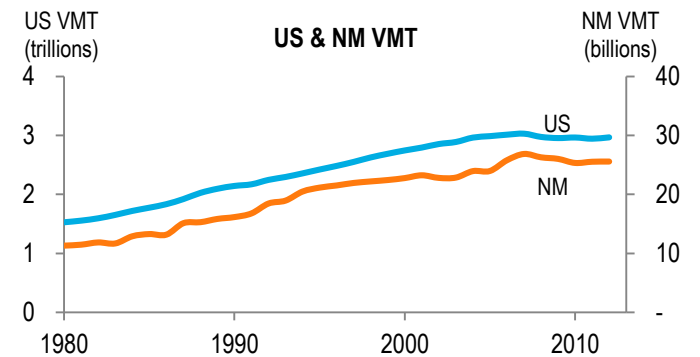
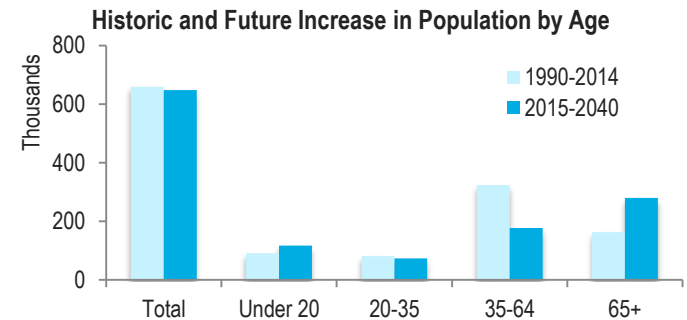
Challenges and Opportunities

Challenges and Opportunities

Changing Demand for Transportation

Changes to New Mexico’s socio-demographic profile, economy, and environment over the next 25 years will influence transportation needs, expectations regarding mobility, attitudes towards transportation alternatives, and travel patterns. NMDOT and its partners must anticipate these changes and adapt transportation plans and services to respond to the changing needs. Key trends impacting transportation include:

- Aging Population** – While the U.S. population has been growing older as the baby boom generation ages, the percent of older adults living in New Mexico will rise even faster than the national average over the next two decades. By 2030, almost one-third of the state’s population will be over the age of 60. NMDOT recognizes the importance of responding to the needs of older travelers and how they will change over time.
- Changing Vehicle Miles Traveled (VMT)** – Throughout the 1980s and 1990s, VMT outpaced population growth both nationally and in New Mexico; however, total VMT growth in New Mexico peaked in 2007 and has since experienced several years of decline, though truck VMT continues to increase and changes in VMT may not be uniform across the State. While it is too early to know if this is a long-term trend, continued urbanization, increased use of public transportation, increased telecommuting, and slow VMT growth despite the national economic rebound all point to continued slow-down in per capita VMT.
- Changing Lifestyle Preferences** - The lifestyles of New Mexico residents and visitors have been changing and their transportation preferences have been changing with them. Continuing a trend observed over the last century, population is shifting from rural areas and small towns to larger cities. Communities are considering the land use and transportation affordability benefits of embracing mixed-use approaches to development. At the same time, for the youngest travelers in New Mexico (i.e., those age 19 and under), driver’s licensure rates have decreased significantly over the past decade, pointing to a possible shift in the travel preferences of the Millennial generation.

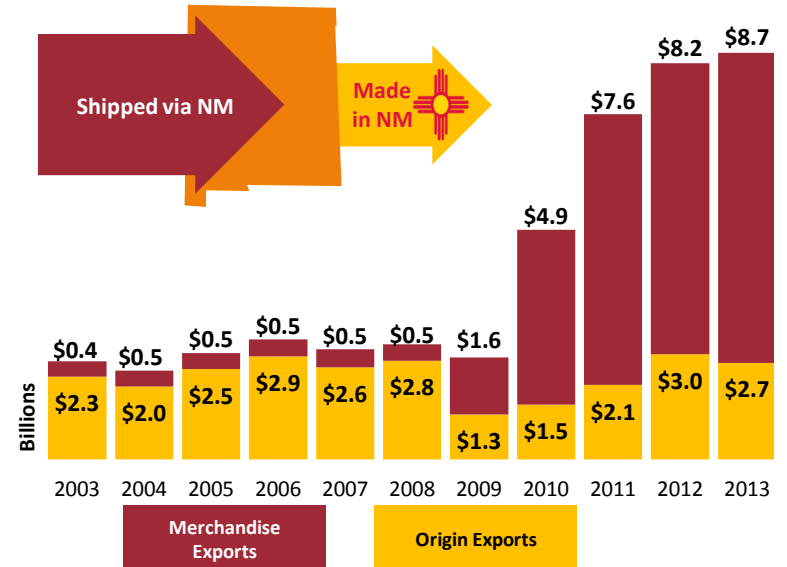


Challenges and Opportunities

Growing Freight Demand and Needs

In 2011, more than 143 million tons of goods moved to, from, or within New Mexico by highway, rail, and air. By 2040, total tonnage is expected to increase by 32 percent to 189 million tons. Freight trends impacting transportation include:

- Growing Congestion on Transcontinental Corridors** – New Mexico is a major corridor for through freight traffic due to its location along two transcontinental rail corridors and significant truck traffic on Interstates 10 and 40. Through traffic comprises 88 percent of all rail traffic by weight (95 percent by value).
- International Trade** – International trade plays a significant and growing role in New Mexico’s economy. The state exported over \$2.7 billion in goods to international markets in 2013. The figure to the right shows the change in the value of international exports that originated in or were shipped via New Mexico (left through a New Mexico port) over time. Goods shipped via New Mexico’s trade gateways grew from \$400 million in 2003 to over \$8.7 billion in 2013, largely driven by computer, electronic, petroleum, and coal products.
- U.S./Mexico Border Area Issues** – New Mexico is experiencing significant development in the border region in response to growth occurring in Mexico, and especially in response to the recent development of Union Pacific Railroad’s Santa Teresa facility. Activity in and near Santa Teresa and the state’s other border crossings will mean increased truck and rail traffic into New Mexico. While this activity will provide opportunities for more development, trade growth and increased border traffic will also negatively impact the condition of the roads, congestion, air quality, and quality of life in the surrounding communities.
- Extractive Industries and Agriculture** – Extraction of natural resources (including agriculture) plays an important role in the state’s economy; however, the transportation needs of extractive industries place heavy demands on the state’s transportation system. In the southeast and northwest parts of the state, for instance, oil and gas production has been placing heavy burdens on the capacity and maintenance of the system (both road and rail). However, the “boom-bust” cycle of extractive industries creates problems for planning transportation infrastructure, underscoring the importance of conducting risk management and life cycle cost analysis of investments to prevent overbuilding.



Ongoing Border Region Planning

- New Mexico-Chihuahua Border Master Plan
- Rail Bypass/Border Crossing Feasibility Study
- Viva Dona Ana Regional Plan
- Design and construction of new Port of Entry at Columbus
- City of Sunland Park – New Border Crossing

Challenges and Opportunities

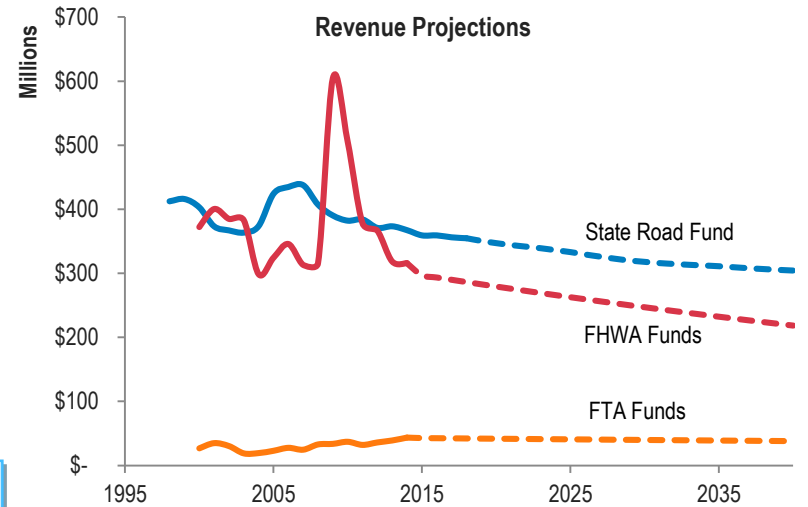
Declining Revenue

Transportation agencies across the country have been facing serious financial pressures over the past decade. NMDOT is no exception. Declining revenues and increasing costs mean that NMDOT must work harder and smarter to meet its goals. The combination of inflation, improving vehicle fuel economy (with corresponding fuel tax revenue reductions), and debt service commitments (remaining from past highway widening and commuter rail projects) make it very challenging for New Mexico to address its future multimodal transportation needs, especially given expected growth in construction costs relative to consumer price inflation.

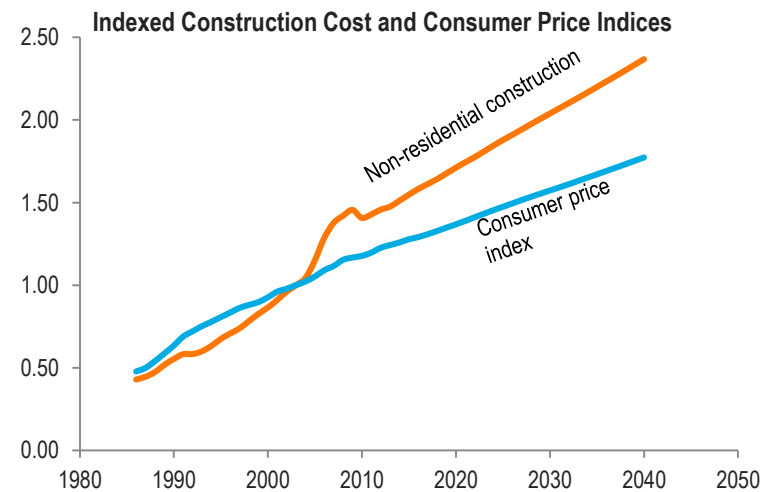
At the same time, NMDOT is responsible for maintaining the system in a state of good repair while much of the state’s infrastructure nears the end of its functional lifespan.

New Mexico’s Existing Transportation System

- 147,600 lane miles of highway (29,300 owned by NMDOT)
- 4,000 bridges and culverts (2,600 owned by NMDOT)
- 26 Scenic Byways
- 32 rest stops/rest areas
- 34 nationally designated Scenic, Historic and Recreational Trails
- 3 international ports of entry
- 2,055 miles of railroad right-of-way
- 1 commuter rail service (Rail Runner) and 2 interstate routes (Amtrak)
- 10 regional “Park and Ride” routes
- 1 interstate bus service providers (Greyhound)
- 17 fixed route transit systems
- 26 demand response transit systems
- 17 para transit providers
- Significant mileage of sidewalk owned by NMDOT and other agencies
- 61 public use airports (9 with scheduled passenger service)



Forecasts developed by 2040 Plan team. Funding spike in 2008 and beyond is from federal economic stimulus funds



Source: Bureau of Labor Statistics, Bureau of Economic Analysis



Challenges and Opportunities

Technology and a Changing World

To prepare for the future, transportation agencies like NMDOT need to anticipate new technologies and how they might impact travel demand, system performance, safety, and user experience and integrate with existing technologies. A number of technology trends are likely to influence system needs and the delivery of transportation services through the 2040 planning horizon:

- **Autonomous vehicle (AV) technologies** include self-driving vehicles (i.e., using sensors and machine-learning to sense and interpret their surroundings) and connected vehicles (which rely on a wireless connection to the roadway or other vehicles). By reducing the likelihood or impact of driver error, autonomous vehicles may greatly improve roadway safety. They could also increase system efficiency through crash reduction and closer vehicle spacing. It remains unknown how AVs will impact driving. Automobiles may become a service, used only when needed. Alternatively, AVs could encourage more vehicular travel as driving costs decrease and vehicle automation allows drivers to engage in other activities while in motion. Commercial production of fully autonomous vehicles is expected between 2020 and 2035.
- **Mobile devices and applications** offer users real-time information about congested routes, modal travel time comparisons, bus or train arrivals, and opportunities for user engagement with transportation agencies and infrastructure. Smart phone ownership is common among all socio-economic groups and real-time information is not only possible, but expected. Agencies are already using data from mobile devices to augment traditional travel surveys. Additionally, mobile devices, if connected to the surrounding infrastructure, could improve transportation operations by providing passive inputs to the system. For instance, signals from mobile devices could replace traffic signal loop detectors or crosswalk push buttons. However, studies suggest that drivers using a mobile device are approximately four times more likely to be involved in a crash; therefore, NMDOT and its planning partners must take special care to mitigate the adverse impacts of mobile technology on public safety.
- **Embedded GPS-tracking and cargo vehicle logging** have the potential to increase freight efficiency, decrease wait times, monitor the temperature of sensitive cargo, and reduce economic losses due to theft. Radio frequency identification (RFID) is still an important technology for tracking, but now real-time information is available in most places through cellular technology and worldwide through satellite networks.
- **Increased fuel efficiency** has a positive impact on air quality and household costs but negative impact on revenue. The Environmental Protection Agency's (EPA) implementation of stricter fuel economy standards would, incrementally over time, raise the corporate average fuel economy to 54.5 miles per gallon in model year 2025. Other emerging technologies, such as electric bicycles or the Copenhagen Wheel (which stores and delivers electric energy to power a bicycle), may shift people away from automobiles in favor of more fuel-efficient modes. The combination of increased fuel economy and declining vehicle miles traveled (VMT) will compound to reduce the gas tax revenues that already fall short of meeting transportation funding needs.

Levels of Autonomy for Vehicles

- 0: Human driver in complete control
- 1: One function is automated
- 2: Multiple functions automated (e.g., steering and acceleration), requires driver attention
- 3: Driving functions sufficiently automated, driver can safely engage in other activities
- 4: Car can drive itself without a human

Challenges and Opportunities

Land Use Coordination

Cooperative planning by land use and transportation agencies represents one of the most powerful and effective tools that a state can use to address its mobility needs in a mutually beneficial manner. New Mexico is no exception.

Coordinating the development and management of the transportation system with the kinds of land use strategies that help to reduce automobile dependency or improve safety can improve the efficiency and effectiveness of all transportation modes, including cars, resulting in:

- **Better access to public transit:** Local, regional, and intercity transit systems tend to carry more people at lower cost when the critical land uses they serve (e.g., work places, health clinics, senior centers, libraries, recreational facilities, schools, etc.) are located close to bus stops and transit centers.
- **Shorter distances for pedestrians and bicyclists:** Walking and bicycling become much more feasible when different types of complementary land uses are located in close proximity to each other.
- **Less time, money, and stress for auto users:** Automobile users save time, money, and stress when travel destinations are clustered together because they can chain together different trip types (e.g., school drop off/pick up, commuting, shopping, etc.).
- **Benefits for multiple modes:** Some strategies offer multiple benefits to multiple modes simultaneously. For instance, locating schools close to homes allows kids to walk or ride bicycles safely, while also helping to free parents from chauffeuring duties and school area traffic congestion.
- **Reduced conflict between communities and freight:** Separating incompatible land uses, such as truck and rail-intensive industrial developments from residential, recreational, and civic land uses, results in better traveler safety, fewer impacts on truck delivery time, and increased economic gains.
- **Improved community sustainability:** Strategic integration of land use and transportation could provide safety, connectivity, and fiscal sustainability benefits, such as better emergency response times, lower community wide insurance rates, and more efficient transit operations.

Local agencies have responsibility for land use planning within their jurisdictions. Ensuring early integration of planning efforts at the local, regional, and statewide levels is a critical step to achieve these benefits.



Source: Rio Metro RTD.

Challenges and Opportunities

Extreme Weather Events and Water Availability

Over the coming decades, New Mexico's weather system is expected to experience changes that will have impacts on the transportation system. New Mexico is projected to see increased average temperatures of between 3.5 and 9.5 degrees Fahrenheit by the end of the century. Water will become increasingly scarce.

- **Temperature Extremes** – Prolonged heat waves increase the premature deterioration of infrastructure, increase the likelihood of engine and tire failure, increase the cost of transporting perishable goods, and place strains on the electrical grid. Resulting power losses can impact traffic signals and other electrical and mechanical equipment. Transportation of perishable goods may require additional refrigeration, which will increase costs. Prolonged droughts exacerbate the risk of wildfires, increasing the risk of erosion and potential roadway delays or closures.
- **Severe Weather** – Although average annual precipitation is projected to decline across much of the Southwest, the incidence of very heavy rainfall events may rise amid worsening drought conditions. Intense rain events increase the incidence of landslides, culvert and drainage failures, road washouts, and bridge scour. With these events, New Mexico may experience more frequent and/or severe operational disruptions, premature deterioration, and asset failures due to extreme weather.
- **Water Availability** – Increased temperatures and inconsistent weather patterns influence the availability of water for agriculture, industry, and human consumption. Growing populations as well as interstate and international water compact obligations will result in the need to prepare for water shortages, particularly in the Rio Grande Basin.

Although risks associated with extreme weather cannot be avoided entirely, they can be managed through informed planning, asset management, capital investment, and emergency response preparation.

September 2013 Flooding

The first six months of 2013 were some of the driest on record, with over 99% of the state in severe drought or worse; however, an extreme week-long rain event in mid-September brought widespread flooding and associated damage to much of New Mexico. Average rainfall across the state totaled 3-6 inches for the period, with some areas receiving 10 inches of rain. While the damage to private property is unknown, initial estimates of damage to roads and bridges exceeded \$16 million.



Flood damage in La Union, NM
(Shari Vialpando-Hill/AP)



Goals and Strategies

Goals and Strategies

Our Vision for the Future

The New Mexico 2040 Plan puts forward five goals that lead to a vision for the future of transportation in the state. This section explains the specific strategies developed for each goal and how they will be applied. NMDOT developed the goals and strategies collaboratively, based on input from a broad range of public and private stakeholders from across New Mexico. Over 165 partner agencies, 1,150 public and stakeholder participants, and 660 survey respondents supported the development of the plan and strategies.

Implementing the strategies and actions developed for each goal will help NMDOT manage a transportation system that supports a robust economy, fosters healthy communities, and protects New Mexico's environment and unique cultural heritage. The cross-cutting nature of the strategies and actions defined in the 2040 Plan means that investment in one goal area is likely to benefit other goal areas as well.

Staff of NMDOT's Asset Management and Planning Division worked with NMDOT managers to prioritize the actions identified in the 2040 Plan, both by overall importance (i.e., what is critical to move forward) and by timeframe (i.e., what can be addressed in the short, medium, and long term). Appendix E includes a complete list of all 2040 Plan actions along with responsibility for implementation and expected timeframe. This appendix, which Asset Management and Planning staff maintain as a spreadsheet, is used for ongoing tracking of 2040 Plan implementation.





Goal 1 – Operate with Transparency and Accountability



Goal 1: Operate with Transparency and Accountability

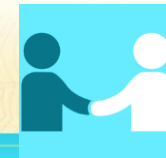
Goal 1: Operate with Transparency and Accountability. *Ensure that all NMDOT decision-making processes are data-driven and transparent and that NMDOT is held accountable for the efficient, timely, and cost-effective delivery of projects and programs.*

NMDOT shall be held accountable for its decisions based on two essential criteria:

1. **Consistency with the 2040 Plan:** The extent to which its decisions support the goals for the transportation system that are described in this plan and reflected in the plan's performance measures.
2. **Data-Driven:** The extent to which its decisions rest on a strong foundation of accurate, timely, consistent, uniform, and complete data.

NMDOT recognizes the importance of maintaining the public's trust by efficiently and effectively managing the transportation and financial resources for which we are responsible. Achieving the state's 2040 transportation vision requires employee dedication, proactive collaboration with our planning partners, and a strong foundation of data to support decision-making. This section describes the NMDOT strategies and actions to achieve these objectives.

Goal 1: Operate with Transparency and Accountability



Objective	Strategy	Performance Measures
Cultivate employee excellence and deliver outstanding customer service	1.1 Employee Excellence and Customer Service. Strengthen the ability of NMDOT to deliver on the actions identified in the New Mexico 2040 Plan (2040 Plan) by recruiting, rewarding, and retaining outstanding, customer-focused employees; actively promoting their health and well-being; investing in their professional development; and entrusting them with the tools and responsibility to do their jobs well.	<ul style="list-style-type: none"> • Percent of 2040 Plan actions completed within timeframe identified in this plan • Public ratings of NMDOT in customer satisfaction survey • Percent of positions vacant in all programs
Coordinate trusting and working partnerships between federal, state, regional, Tribal, local and other entities to implement projects and programs	1.2 Partnerships and Coordination. Build trust and leverage external support for transportation initiatives by coordinating early, often, and successfully with federal, state, regional, Tribal, local, and other agencies to plan, fund, and implement projects and programs.	<ul style="list-style-type: none"> • Stakeholder ratings of NMDOT in customer satisfaction survey
Improve financial accountability, minimize financial and other risks, and operate NMDOT in a cost effective and cost efficient manner	1.3 Financial Stewardship. Monitor financial aspects of NMDOT operations from project development, delivery, billing, payment, and closure to ensure that all financial gaps are discovered and addressed for cost effectiveness and cost efficiency.	<ul style="list-style-type: none"> • Percent of projects obligated versus programmed in the STIP • Percent of cost over bid amount • Number of annual external financial audit findings • Percent of prior year financial audit findings resolved
Provide access to integrated, high-quality data and information.	1.4 Access to Data and Information. Enhance internal and external (stakeholder and public) access to integrated spatial and non-spatial data to improve data quality and the ability of NMDOT employees and stakeholders to evaluate the effectiveness of projects and programs.	<ul style="list-style-type: none"> • Percent of essential data sources updated on schedule [measurement approach TBD]



Goal 1: Operate with Transparency and Accountability

1.1 Employee Excellence and Customer Service

We value the contributions that each and every one of our 2,400 employees makes toward achieving the success of the 2040 Plan. Implementing the plan will require that everyone within NMDOT work as a team, together with our partners. Achieving the goals of the 2040 Plan will require changes – changes to NMDOT as an organization as well as changes to how NMDOT makes its investment choices. Changes start with the people who make up the NMDOT, and the primary focus of those people must be excellence and customer service.

Ensuring employee excellence and customer service requires:

- Investing in professional development and providing opportunities for professional growth, including cross-disciplinary skills needed to balance planning, engineering, environmental, economic, and community needs;
- Institutionalizing a culture of innovation by empowering employees to identify problems and propose solutions that improve job efficiency and shape the agency's direction;
- Encouraging employees to lead healthy lives to ensure their own well-being and their sustained productivity on the job;
- Developing the tools and techniques to communicate effectively with the public, stakeholders, and one another across a variety of media and platforms; and
- Providing the training needed for employees not just to make the correct technical decisions, but to think of customers in their decision-making and to strive for a culture of continuous improvement.

Enabling employees will help NMDOT ensure the integrity of its programs and responsible stewardship of its resources. Providing routine, effective communication with the public, stakeholders, and partners is part of doing business. The rise of social media makes it easier to reach some of NMDOT's customers, while also enabling those customers to more readily react and interact with NMDOT staff, projects, and programs. Overall, NMDOT must strive to convey a clear message about what we are doing and why are we doing it, using all tools at our disposal to help the public understand and contribute to our efforts.

NMDOT Actions

- Produce an enhanced annual report for the Cabinet Secretary and executive staff that highlights: (1) how the 2040 Plan is being implemented (including performance measures), (2) linkages to other planning processes including RTPs, MTPs, Tribal, and local plans; and (3) projects completed during the year and how they support the 2040 Plan goals.
- Improve the NMDOT website for ease of use by customers, including their ability to locate and download NMDOT plans, documents, and data.
- Expand use of technology to communicate important messages about service delivery, transportation information, and performance.
- Provide advance notification and timely updates to local agencies and the public regarding scheduled roadway maintenance activities.
- Conduct customer satisfaction surveys prior to initiating the next update of the long range plan.



Goal 1: Operate with Transparency and Accountability

1.2 Partnerships and Coordination

NMDOT understands that its actions are more effective when combined with the actions of others. At the federal, state, regional, Tribal, and local levels, other agencies, organizations, businesses, residents, and visitors can help NMDOT achieve grander ends through effective cooperation. Collaborating closely on projects that span agency missions (such as transportation, economic development, and healthy communities) can help the state address its long-term needs more efficiently and comprehensively than if agencies work independently. NMDOT has established several collaborative efforts to build on:

- **Tribal coordination** – NMDOT’s Tribal liaison helps give tribes a voice at the table and serves as a conduit for communication between tribes and NMDOT staff about ongoing activities of mutual concern.
- **MPO/RTPO coordination** – NMDOT’s planning liaisons link regional partners to the planning process.
- **Coordinating Committees** – The 2040 Plan has established a robust set of opportunities for ongoing coordination that will remain in place to help implement the plan.
- **Regional Working Groups** – For each RTPO, the 2040 Plan established a working group. The RTPOs are encouraged to continue their working groups through annual or more frequent meetings to review progress on their Regional Transportation Plans (RTPs).

In the realm of specific projects and programs, NMDOT will establish the level of engagement required – from collaboration to information exchange – and follow the relevant principles.



NMDOT Actions

- Convene Plan Coordinating Committees, as needed, including:
 1. Project Identification, Evaluation and Prioritization Committee (PPC) to advise on 2040 Plan implementation.
 2. MPO/RTPO Coordinating Committee (MRCC) to provide a venue for addressing coordination needs during plan implementation and preparing for future coordination of plan updates.
 3. Interagency Coordinating Committee (ICC) to continue to meet as needed to identify opportunities for further coordination and collaboration of NMDOT with other state and federal agencies.
 4. Freight Advisory Committee (FAC) to meet as needed to review freight strategies, continue to gather information about freight users needs and challenges, and review products of ongoing studies (e.g., border plans, corridor studies, etc.).
 5. Interested Parties Coordinating Committee (IPCC) to provide a structured communication channel and source of input from interested, non-governmental parties.
- Work cooperatively with MPOs, RTPOs, FHWA, BBER, and other agencies (as needed) to reach agreement on demographic forecasting methods and assumptions for use in distributing federal transportation funds and for other planning purposes.
- Assist the Central Federal Lands Highway Division of the FHWA to develop a Coordinated Transportation Plan for federal agencies in New Mexico.
- Build long range planning process guidance into NMDOT’s Planning Procedures Manual and STIP/TIP Procedures.
- Continue and enhance liaison roles to ensure effective communication with partners, including RTPOs, MPOs, and Tribes.
- Work with tribes to develop a Tribal Transportation Procedures Manual to define how NMDOT conducts business with Tribes.
- Conduct stakeholder satisfaction surveys prior to initiating the next long range plan update.

Source: Policy Consensus Initiative & National Policy Consensus Center

Goal 1: Operate with Transparency and Accountability



1.3 Financial Stewardship

Financial stewardship is a cornerstone of all public agencies. NMDOT is no exception. Good financial stewardship ensures that the department spends tax-payer dollars in a transparent, accountable, and responsible fashion. It also helps New Mexico to be better prepared for future uncertainties in several areas, including variations in federal and state revenues and changes to the state's economy, demographics, and climate.

Good stewardship involves planning and continual monitoring of expenditures by project managers, program managers, operational managers, and supervisors to ensure that funds are spent appropriately and efficiently. It helps control risks in budgeting, scope, and schedule.

Some of the ways that NMDOT can enhance its financial stewardship include:

- **Financial Reporting.** NMDOT's annual reports are a key mechanism for enabling NMDOT to enhance transparency in financial reporting, including reporting on the levels of debt that NMDOT has incurred to finance projects. Annual reports can also help to educate the public about complex federal and state transportation funding programs and the challenges we face to fund our transportation system.
- **Performance-Based Operations and Management.** NMDOT is committed to performance-based operations and management. This includes monitoring the financial aspects of operations from project development to project delivery, including billing, payment, and closure. With better data, NMDOT could utilize an activity-based costing methodology to improve the accounting of indirect costs and enhance the efficiency of the agency.
- **Employee Training and Effectiveness.** Agency personnel are a valuable asset to NMDOT. Continuing to develop the potential and effectiveness of employees is vital to ensuring fiscal accountability.
- **Asset Management.** Building asset management strategies into project programming, design, and delivery will allow for cost savings over the life of projects. Additionally, where appropriate, employing a "fix-it-first" approach to transportation investment will allow New Mexico to keep its existing system in a state of good repair before expanding capacity.

NMDOT Actions

- Continue to improve program and project delivery (i.e., the number of projects on-plan and completed on-time and within budget).
- Assess the impacts of Tribal transportation funds on state transportation infrastructure.
- Develop and implement evaluation criteria and statewide project prioritization process based on the 2040 Plan Goals and Strategies for selecting projects in the Statewide Transportation Improvement Program.



Goal 1: Operate with Transparency and Accountability

1.4 Access to Integrated, High-Quality Data, and Information

Data is the lifeblood of a performance-based planning process, providing the information that the NMDOT needs to support investment and policy decisions. As NMDOT moves towards a performance-based approach, it is critical to investment in data acquisition, management, and sharing (both internally and externally) to ensure its accuracy, timeliness, consistency, uniformity, and completeness. It is also important that the call for more and better data not interfere with plan implementation.

Some of the key elements of this strategy include:

- **Treating data as an asset.** Just like the road network, data requires regular maintenance and preservation to ensure they can provide the “level of service” required. A data business plan can help establish which data sources are critical for which agency purposes and what actions are needed to better invest in data.
- **Leveraging data from private providers and partners.** Increasingly, private sector organizations provide data more quickly and efficiently than a state agency can. NMDOT can seek opportunities to partner with the private sector to provide real time information that can also support transportation planning.
- **Sharing data to achieve mutual aims.** NMDOT has excellent partners in its sister state agencies, regional and metropolitan planning organizations, universities, non-profits, and private firms. All of these entities have an interest in improving available information and creating the best transportation solutions. NMDOT will share its data with other parties and ask other parties to contribute robust, useful data of their own. Web-based applications and open source data will allow for remote data collection, downloading, and dissemination. NMDOT will also commit to ensuring that its own employees share data with each other to avoid duplication of effort, eliminate database redundancies, and ensure effective data integration.

Elements of a Data Business Plan

- Establish procedures for data integration and quality control.
- Identify opportunities in traffic information, asset management, cultural resources, safety, and other areas to share data and partner with other agencies and organizations to achieve mutual aims.
- Identify needs for capacity building for RTPs and MPOs on data collection, analysis, and communicating of crash, mobility, and other data.
- Identify needs and opportunities to count pedestrians and bicycles as part of a bicycle, pedestrian, equestrian strategic plan.
- Improve NMDOT's travel demand modeling capacity through software and technology upgrades and by collecting travel survey data at the statewide level and through partnerships with regional and metropolitan transportation organizations.

NMDOT Actions

- Develop a data business plan for NMDOT that establishes key data items and standards, roles for NMDOT and partners (including the Department of Information Technology), and governing principles for collection, management, and sharing that can be used by all agencies.
- Develop a self-service data portal for NMDOT employees and the public to ease access to and management of NMDOT data.



Goal 2 – Improve Safety for All System Users



Goal2: Improve Safety for All System Users

Goal 2: Improve Safety for All System Users. NMDOT is committed to making travel as safe as possible for all users of the state's transportation system. One death is too many on New Mexico's roadways. Safety remains a serious concern.

Objective	Strategy	Performance Measures
Reduce collision-related fatalities and serious injuries for all modes through data-driven, innovative, and proactive processes	2.1. Data-Driven Process. Reduce fatalities and serious injuries through data-driven, innovative, and proactive processes that include examination of safety hot spots and systemic safety concerns.	<ul style="list-style-type: none">• Total number of fatalities• Total fatalities per 100 million vehicle miles traveled (statewide, rural, and urban)• Total number of serious injuries• Serious injuries per 100 million VMT (statewide, rural, and urban)• Pedestrian fatalities and serious injuries (statewide, rural, and urban)*• Bicyclist fatalities and serious injuries (statewide, rural, and urban)*

*Note: Pedestrian and bicyclist fatalities include those typically considered in the FARS reporting process (i.e., those involving motor vehicles on public roadways). NMDOT will also strive to reduce and measure fatalities (and injuries) that either do not involve motor vehicles (e.g., collisions on public roadways involving one or more bicycle/pedestrian but no motor vehicle) and/or do not occur in the motorized space of roadways (e.g., pedestrian injuries or fatalities on sidewalks, multi-use trails, or other non-road right-of-ways).



Goal2: Improve Safety for All System Users

2.1 Data-Driven Process

Approaching transportation safety through a data-driven process allows NMDOT to identify spot locations for safety improvements and identify risk factors associated with crashes across all modes, prioritize safety projects, and protect the most vulnerable users. This strategy benefits from the data collection approach outlined in Goal 1 and seeks to routinely incorporate safety data into the agency’s day-to-day system management activities in three ways:

- **Respond:** Identify sites with potential for safety improvement and address problems using proven, effective countermeasures. Projects are justified solely on the basis of improved safety, whether or not other benefits are achieved.
- **Integrate:** When implementing a capacity or maintenance project, integrate safety improvements into the scope by considering safety tradeoffs of different roadway characteristics, addressing known risk factors and/or integrating the latest safety standards. This allows safety to be a consideration in all projects and leaves Highway Safety Improvement Program (HSIP) funds for safety specific projects.
- **Plan:** Proactively understand crash risk factors, considering all modes of transportation. Consider safety as a prioritization factor when ranking all types of projects, including new roadway infrastructure, operational upgrades, transit facilities, multiuse trails, bicycle lanes, and other modes. Use the Highway Safety Manual to identify evidence-based improvements.

NMDOT’s Strategic Highway Safety Plan (SHSP) comprehensively examines all surface transportation modes in the state to identify key safety issues (across the 4 Es – engineering, enforcement, education, and emergency responses) and prioritize short-term (five-year) solutions to address them. These projects are typically funded through the HSIP and the Highway Safety Plan (for behavioral programs).

How the 2040 Plan Relates to the SHSP

2040 Plan	SHSP
20-year planning horizon, long-term solutions	5-year planning horizon, near-term solutions
Long-range planning/policy document	Strategic planning document
Addresses current and future needs for all modes (i.e., cars, trucks, buses, bicycles, pedestrians, etc.)	Targets key safety issues and prioritizes projects, considering all modes

NMDOT Actions

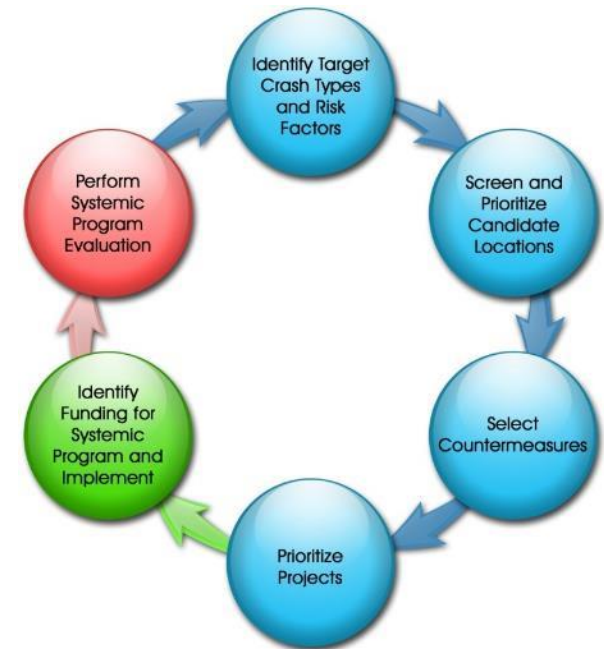
- Implement the New Mexico Strategic Highway Safety Plan, Tribal safety plans, and regional safety plans by including countermeasures that reduce fatalities and serious injuries when maintaining, upgrading, or reconstructing infrastructure and evaluating the effectiveness of safety investments.
- Emphasize safety for the most vulnerable system users (e.g., older citizens, children, pedestrians, and bicyclists).
- Conduct Road Safety Assessments (RSA) at state and regional levels where needed to identify road safety deficiencies and risk characteristics.
- Include safety of all modes as a prioritization factor to rank all types of projects prior to incorporation into the STIP.
- Adopt transportation safety policies related to Complete Streets, pedestrian design, and access management.
- Improve safety data quality (e.g., work with law enforcement to collect accurate location information) and timeliness.
- Identify the top safety risks in the state and conduct detailed, quantitative-based, and systemic evaluation of strategies to address them.
- Work with Tribal partners to ensure that accurate data are available to support safety planning on Tribal lands.



Goal2: Improve Safety for All System Users

In combination with transportation safety policies and safety programs, NMDOT will develop a risk-based, systemic approach to identify and prioritize multimodal safety improvements in the state. This could focus on 'safety corridors' where there are known safety issues or on a particular safety challenge that may be pervasive across the transportation system. The systemic safety approach includes the following steps:

- Select a known safety challenge that is "system wide" in scope (e.g., rural lane departure crashes). These crashes are typically spread across the network with few "clusters."
- Look for roadway characteristics (e.g., geometry, volume, location) frequently present. Use these risk factors to identify and prioritize locations for treatments. The risk factors serve as an indicator of the potential for a future crash.
- Identify one or more low-cost countermeasures to address the underlying contributing circumstances on most roads. Because these crashes have low densities (crashes per intersection or mile) but high total numbers, low-cost solutions deployed across the system are most likely to have the greatest impact.
- Identify and prioritize locations for implementation (e.g., implement low-cost countermeasures as part of resurfacing, restoration, and rehabilitation (3R) projects) using a context-sensitive approach.



Steps of a Systemic Safety Process

Example Risk Management Applications

Analysis	Policies	Programs
<ul style="list-style-type: none">• Road Safety Assessments• Hot spot analysis• Quantitative assessments	<ul style="list-style-type: none">• Complete streets• Bicycle/pedestrian design• Access management	<ul style="list-style-type: none">• Safe Routes to Schools• Behavioral campaign



Goal 3 – Preserve and Maintain our Transportation Assets for the Long Term

Goal 3: Preserve and Maintain Our Transportation Assets for the Long Term



Goal 3: Preserve and Maintain our Transportation Assets for the Long Term. One of the NMDOT’s core responsibilities is the ongoing maintenance and preservation of its assets. The 2040 Plan has identified four strategies to implement this goal:

Objective	Strategy	Performance Measures
<p>Develop and implement a “preservation-first” asset management strategy to ensure that NMDOT can maintain all existing and future elements of the state’s multimodal transportation system in a state of good repair.</p>	<p>3.1. Asset Management. Develop and implement a “preservation-first” asset management strategy to ensure that NMDOT will maintain all existing and future elements of the state’s multimodal transportation system in a state of good repair.</p> <p>3.2. Consider Life-Cycle Cost in all Capacity Expansion Decisions. Apply life-cycle cost analysis techniques (consistent with best national practices) as one of several factors for evaluating and prioritizing capacity expansion activities.</p> <p>3.3. Priority Tiers and Minimum Standards. Prioritize investment of funds by “tier” to achieve minimum standards for design, maintenance, and efficient operations.</p>	<ul style="list-style-type: none"> • Percent of pavement in good/fair/poor condition by tier • Percent of bridges in good/fair/poor condition by tier • Percent of transit assets in state of good repair by mode (bus, rail) • Number of pavement miles preserved by tier • Percent of airport runways rated “good”
<p>Ensure that NMDOT can affordably meet the minimum condition standards for each roadway tier by right sizing the state-owned network to provide the needed capacity to support statewide connectivity standards.</p>	<p>3.4. Address Legacy Challenges. Ensure that NMDOT can affordably meet the condition standards set for each roadway tier by right sizing the state-owned network to provide the needed capacity to support statewide connectivity standards.</p>	<ul style="list-style-type: none"> • Total maintenance expenditures and maintenance cost per capita

Goal 3: Preserve and Maintain Our Transportation Assets for the Long Term



3.1 Asset Management

Develop and implement a “preservation-first” asset management strategy to ensure that NMDOT can maintain all existing and future elements of the state’s transportation system in a state of good repair.

Over the years, New Mexico has invested billions of dollars to build the transportation system that exists today. However, sustained investment to preserve and maintain the system is necessary to keep these assets operating efficiently, extend their useful lives, and delay the significant cost of reconstructing or replacing them.

Asset management is a strategic and systematic process of operating, maintaining, upgrading, and expanding physical assets effectively throughout their life cycle. It focuses on business and engineering practices for resource allocation and utilization, with the objective of better decision making based upon quality information and well-defined objectives.

The NMDOT Transportation Asset Management Plan (TAMP) for pavement and bridges is being developed in 2015 to comply with a new federal requirement to plan for ongoing highway asset renewal and replacement based on:

- Accurate assessments of current asset condition;
- Accurate assessments of life-cycle costs for existing assets (construction, maintenance, operating and disposal costs);
- Risk analysis framework outlining the impact of uncertainty on objectives;
- Realistic performance measures and assessments of performance gaps; and
- Accurate assessments of revenues (local, regional, state, national) to maintain assets.

In addition to the highway TAMP, NMDOT will develop a transit asset management plan after the Federal Transit Administration (FTA) publishes the guiding rules and regulations. Both the highway and transit TAMPs will complement the 2040 Plan by developing risk-based, performance-driven frameworks to identify preservation priorities for state transportation assets. While federal transportation law currently requires TAMPs for pavement, bridges, and transit assets, similar guidelines may be required for all transportation assets in the future.

NMDOT Actions

- Create and maintain a comprehensive inventory and Geographic Information System (GIS) database of all assets, starting with pavement and bridge, including historic condition information, assets needing replacement, and current and projected future use.
- Finalize and implement a Transportation Asset Management Plan (TAMP) that identifies appropriate treatments (maintenance, preservation, rehabilitation, reconstruction) to ensure that all NMDOT assets are brought to and remain in a state of good repair.
- Incorporate life-cycle cost considerations when modeling future asset condition and selecting maintenance activities and construction projects (preservation, rehabilitation, reconstruction).
- Define key work activities (e.g., maintenance, rehabilitation, reconstruction), document their typical unit costs, and detail their ideal timing and sequencing.
- Identify and evaluate risks to the functioning of the transportation system, including risks from extreme weather.

Goal 3: Preserve and Maintain Our Transportation Assets for the Long Term



3.2 Consider Life-Cycle Cost in All Capacity Expansion Decisions

Life-cycle cost analysis (LCCA) allows transportation officials to quantify and compare the differential costs of alternative investment options for a given project. This process not only helps agencies select the most cost-effective project, it also helps to communicate the value of those choices to the public. LCCA involves five key steps:

- Establish alternative design strategies, coordinating with partners early in the process;
- Determine activity timing;
- Estimate agency costs;
- Estimate user costs; and
- Determine life cycle cost.

Life-cycle cost analysis (LCCA) allows transportation officials to quantify and compare the differential agency and users costs of alternative investment options for a given project. This process not only helps agencies select the most cost-effective project, it also helps to communicate the value of those choices to the public.



While LCCA is commonly used to support pavement design decisions, the same process can be applied for all types of investments, including major capacity investments. The purpose of LCCA is to understand how the total cost to NMDOT is impacted by potential capital investment decisions. New lanes or upgraded facilities cost NMDOT and the public over their entire life-cycle, from initial construction through maintenance, rehabilitation, renewal, and replacement.

Addressing the full cost of all investments helps ensure that NMDOT's investment decisions yield the best performance outcomes for the transportation system now and in the future.

- ### NMDOT Actions
- Identify data needs and evaluation tools (from federal and other sources) to accurately estimate the life-cycle cost of all project types (preservation, rehabilitation, reconstruction, capacity expansion)
 - Implement existing training (or develop new training) for NMDOT and partner agency staff (MPOs, RTPOs, local agencies) on life-cycle cost analysis.

Goal 3: Preserve and Maintain Our Transportation Assets for the Long Term



3.3 Priority Tiers and Minimum Standards

Working in coordination with our partners, NMDOT will use a tiered, multimodal prioritization system to establish performance targets and make resource allocation decisions. The table below defines three to four tiers for each mode that reflect the different levels of importance of different types of transportation facilities and services for moving people and goods. Standards for maintenance and operations reflect the tier structure, with higher tiers having higher condition standards than lower tiers. Tiers shaded in 'gold' will have the highest condition targets. Tiers in 'silver' will have lower performance targets, but still require substantial levels of investment. Tiers in 'bronze' will have the lowest performance targets. Tiers in white are for facilities that are not appropriate for investment. Given the higher performance targets, NMDOT will also make the higher tier facilities and services the primary focus of its capital investment. In the case of transit, NMDOT will prioritize investments on the basis of the *New Mexico State Management Plan for the Administration of Federal Transit Grants*.

NMDOT Actions

- Integrate tiered performance evaluation criteria for all modes into the STIP project prioritization process.
- Develop asset condition performance targets for the tiers of all modes (e.g., maintain some tiers of roads as good, some as fair).

Tier	Roads	Freight	Bus/Rail	Pedestrian	Bicycle	Aviation
1	Interstates	Interstates Transcontinental Railroads	Demand for >35 scheduled trips per week in each direction	Urban highway routes ... with population concentrations	High demand on-system routes	Primary commercial airports (e.g., Sunport)
2	Cities 20k+ Demand > 10k High tourist demand destinations	Remainder of priority truck network High demand shortline railroads	Demand for 20-34 scheduled trips per week in each direction	... with pedestrian generating land use	Medium demand on-system routes	Non primary commercial airports
3	Cities 10k+ Demand > 5k Rest of NHS Tourist destinations	Remainder of active short line railroads, regionally significant freight network	Demand for 5-19 scheduled trips per week in each direction	... all other segments	Low demand on-system routes	Reliever airports
4	All others	Abandoned railroads	Demand for 1-4 trips per week in each direction	Non-urban highways, no ped accommodation	Routes that appropriately prohibit bicycles	General aviation airports

 "Gold Standard" Highest performance targets	 "Silver Standard" Mid-level performance targets	 "Bronze Standard" Lowest performance targets	 Not appropriate for investment
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*Note: Bus/Rail, Pedestrian, and Bicycle tiers are preliminary and will be updated.

Goal 3: Preserve and Maintain Our Transportation Assets for the Long Term



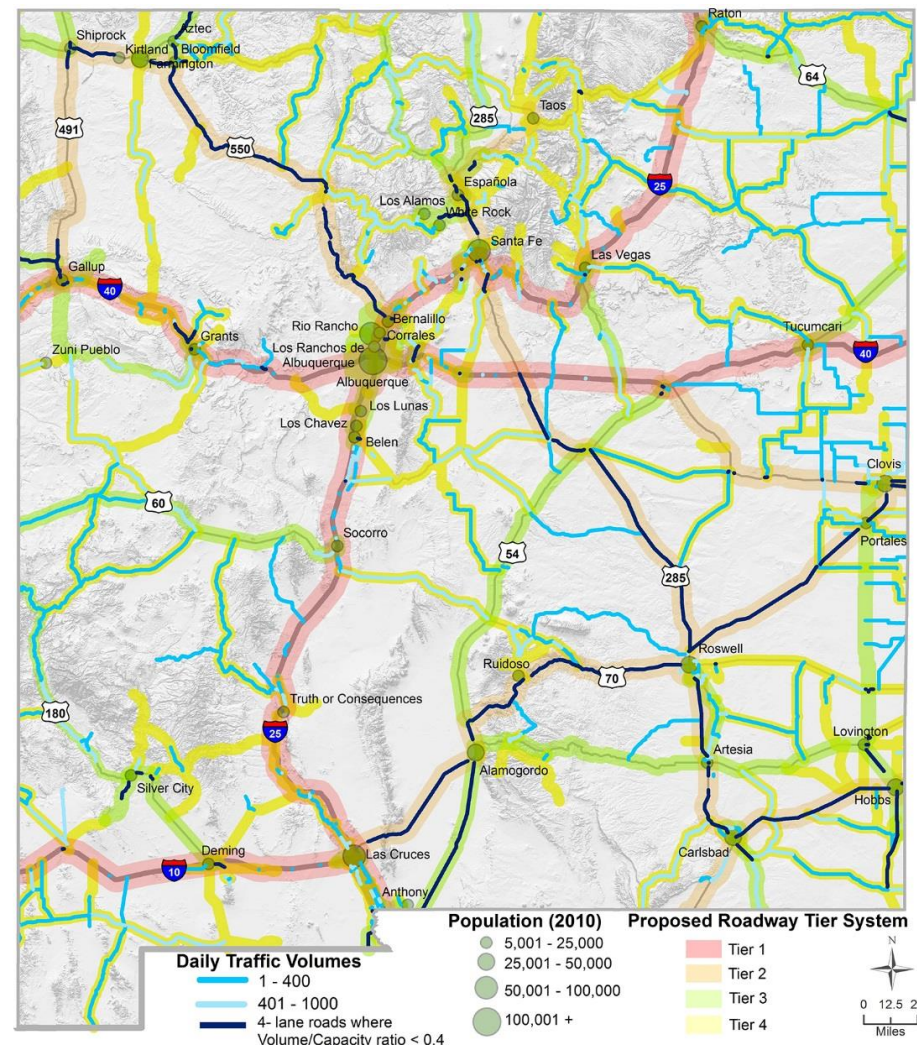
3.4 Address Legacy Challenges

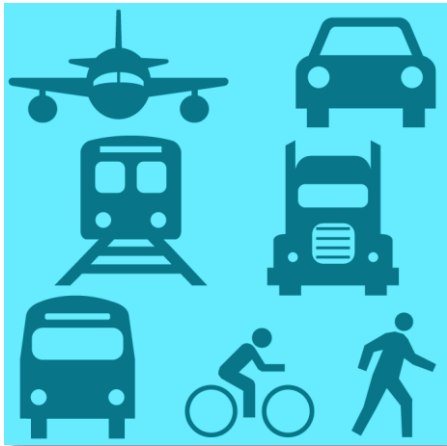
When faced with insufficient funding to maintain the existing system in a state of good repair, NMDOT must make tough decisions about where to prioritize investment. Varying the minimum condition standards for each roadway tier leads to a performance-based approach to allocate resources within a fiscally-constrained environment. In addition, a data-driven process can help to identify segments of the highway system that are overbuilt (i.e., low volume demand does not support available capacity). In such cases, to maximize local community benefits and limit any adverse impacts, NMDOT may seek to transfer ownership of the road to the local community or re-program it for other purposes. Any efforts to adjust ownership or extent of the state transportation system, however, will be pursued collaboratively with regional, state, federal, Tribal, economic development, and other partners.

In some instances, communities have proposed to convert a portion of a road to some other use (e.g., conversion of an un-needed travel lane to a bicycle lane or conversion of an old road to a trail, especially where the road improves trail connectivity or links to existing national, state, or regional trail efforts). NMDOT will evaluate such proposals on a case-by-case basis using “Adaptive Re-Use Criteria for NMDOT Assets” to be developed by the Asset Management and Planning Division.

NMDOT Actions

- Identify opportunities to better support local community needs by capacity building and shifting responsibility for roadway maintenance and management to local agencies.
- Use corridor tiers and relevant data to prioritize future investment.
- Evaluate integrity and connectivity of the state highway system to ensure support for primary NMDOT objectives.
- Develop criteria to evaluate adaptive re-use proposals for NMDOT assets.





Goal 4 – Provide Multimodal Access and Connectivity for Community Prosperity



Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity

Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity. Transportation is critical to New Mexico’s prosperity. It allows people to get to work, students to travel to school, goods to reach businesses, and visitors and residents to access recreational opportunities and attractions. Helping to ensure the future prosperity of New Mexico requires implementing programs and projects that make efficient use of resources, target new capacity where it can provide the greatest benefit, and complement and support efforts by regional, local, and Tribal partners throughout the state to improve economic and social opportunities in their communities. Four strategies define how NMDOT will support this goal:

Objective	Strategy	Performance Measures
Invest efficiently and strategically in state transportation systems to achieve statewide and community economic and quality of life goals.	<p>4.1 Operations and Demand Management First. As the default approach to addressing congestion, proactively implement all reasonable operations and demand management strategies before committing scarce capital funds to expand capacity.</p> <p>4.2 Strategic Investment in Key Corridors. Focus NMDOT resources (considering full life-cycle cost) to support movement of people and goods along a limited number of key corridors (i.e., corridors with regional, statewide, interstate, or international significance).</p>	<ul style="list-style-type: none"> • Planning time index (reliability) for personal travel (urban areas) • Total person hours of delay per capita (urban areas) • Planning time index (supply chain reliability) for freight • Rail Runner annual ridership • Park-and-Ride annual ridership
Make efficient use of both transportation and non-transportation resources to reduce costs and improve mobility of residents and visitors.	<p>4.3 Land use – Transportation Coordination. Prioritize projects, programs, and activities that help minimize transportation infrastructure and service costs through coordination of transportation and land use planning (including site selection for public facilities).</p>	<ul style="list-style-type: none"> • Household transportation costs as a percentage of median household income (statewide, rural, and urban)
Maintain a transportation system that allows mobility and access for all New Mexicans, regardless of age or ability.	<p>4.4 Changing Demographics. Align transportation system to be responsive to changing demographic trends.</p>	<ul style="list-style-type: none"> • Percent of adults over age 60 who report that they have transportation options sufficient to maintain an independent lifestyle



Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity

4.1 Operations and Demand Management First

Implementing an efficient strategy for multimodal access and connectivity requires a set of strategies that focus on providing the capacity needed to support the efficient movement of people and goods within, to, and through the state. Two concepts – **Travel Demand Management (TDM)** and **Transportation System Management and Operations (TSM&O)** are well understood efforts to improve system efficiency and operations, while generating economic and environmental benefits. Regional partners have implemented TSM&O approaches to improve system efficiency and integration through regional Intelligent Transportation Systems (ITS) architectures, Congestion Mitigation Plans (CMPs), and other programs.

Travel Demand Management (TDM)

TDM is a set of strategies to reduce or reallocate automobile travel to mitigate roadway congestion, improve air quality, lower energy use and greenhouse gas emissions, improve public health, and reduce household transportation costs. Key strategies include:

- **Physical** – e.g., HOV lanes, bicycle infrastructure
- **Operational** – e.g., signal priority, ride matching software, real time traveler information
- **Financial** – e.g., pretax transit passes, parking ‘cash out’, congestion pricing
- **Organizational** – e.g., education, information, employer coordination

One of the key actions for NMDOT is to develop a **TDM Strategic Plan** for New Mexico that identifies the strategies that are relevant to New Mexico and can be applied. Example strategies to consider include:

Park-and-ride lots	Acquire (through lease or other arrangement) park-and-ride lots to support transit and rideshare. <i>NMDOT has actively supported Park-and-Ride.</i>
Construction TDM program	NMDOT-led TDM program for projects with major traffic disruptions – outreach to local businesses, public information, supplemental transit service, carpool/vanpool incentives, etc.
Lead by example	TDM at NMDOT work sites – flextime & telework policies, bike facilities, rideshare/ vanpool programs, Emergency Ride Home.
Public information website	Create website as centralized source of information on travel alternatives in New Mexico, building on existing NMRoads website.
Rideshare, vanpool, emergency ride home	State-sponsored programs to support ridesharing and vanpooling (ride matching, vanpool operations, subsidies/incentives).
Outreach to businesses	Outreach to communicate TDM measures and their benefits; provide implementation tools and incentives for businesses; assist with TMA/TMO formation.



Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity

There are many causes of highway congestion, not all of which are because there are more vehicles using a road than the road can accommodate. Management and operations strategies are designed to help address the various sources of congestion while carefully using NMDOT's resources.

Transportation System Management and Operations (TSM&O)

TSM&O is an integrated program to optimize the performance of existing roadway infrastructure through operations and management strategies. Potential delay reductions from TSM&O strategies include:

Example TSM&O Strategies	Potential Delay Reduction
Flow control/ramp metering	7-8%
Traffic responsive signals	10-25%
Incident management with incentive*	20-30%
Work zone traffic management	5-10%
Weather information	2-3%
Traveler information	1-2%
Active traffic management	15%
Congestion pricing	20%

Source: FHWA Primer on TSM&O.

* Incentives typically involve paying more to incident clearance companies for rapid clearance of incidents.

NMDOT Actions

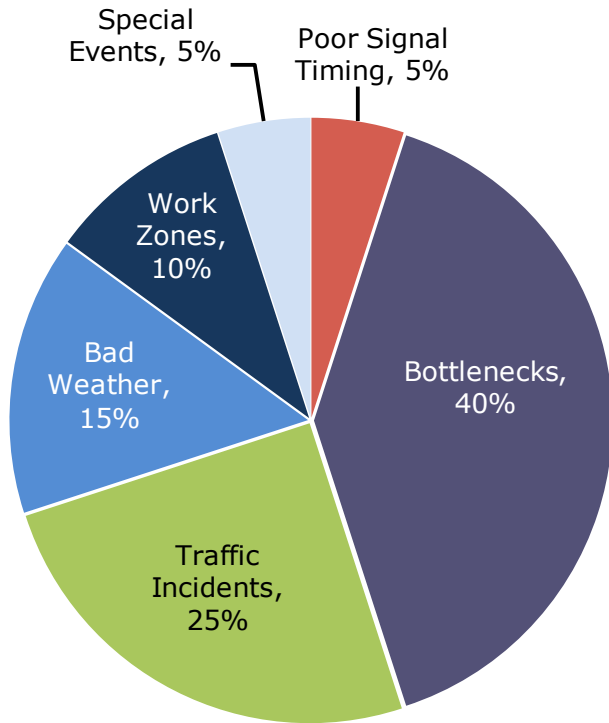
- Develop a strategic plan with stakeholder input to identify and coordinate Travel Demand Management (TDM) activities in New Mexico, including real-time traveler information and Intelligent Transportation Systems (ITS).
- Work cooperatively with planning partners (particularly MPOs and RTPOs) to identify, coordinate, and implement Transportation Systems Management and Operations (TSM&O) strategies where appropriate.
- Provide training to NMDOT, MPO, and RTPO staff on TDM and TSM&O to help ensure successful implementation.
- Align the information provided via the "NMRoads" website with the TDM Strategic Plan and TSM&O strategies to ensure that transportation system users have access to appropriate, timely, high quality, and user-friendly information on road conditions, public transit schedules, rest area parking information, etc.
- Work collaboratively with partners (e.g., US Forest Service, New Mexico Tourism Department, RTPOs, Tribes, transit agencies, trucking companies, etc.) to identify information needs and provide on-going feedback on the types and quality of information provided on NMRoads and other NMDOT information sources.
- Develop a check list that links the database of TDM strategies to corridor planning and project development. Strategies would be categorized as required, advisory, or not relevant for a given corridor type.

Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity

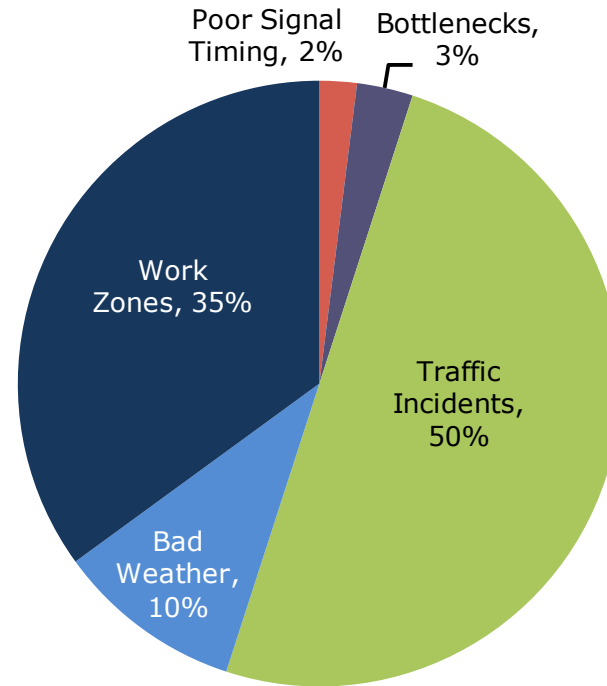


Typical Sources of Congestion (National)

Recurring Delay



Non-Recurring Delay



Source: FHWA Primer on TSM&O.



Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity

4.2 Strategic Investment in Key Corridors

Moving people, goods, and services is essential to the economic vitality of New Mexico. NMDOT will focus NMDOT resources (considering full life-cycle cost) to support movement of people and goods along a limited number of key corridors (i.e., corridors with regional, statewide, interstate, or international significance). The table on page 34 (Goal 3: Preserve and Maintain our Transportation Assets) lays out the process for tiering system elements within each mode. The tiering framework is intended to help ensure that performance standards for existing facilities are consistent with connectivity needs and available funding. The following pages describe how these tiers will be developed and used for each mode.

NMDOT Actions – All Modes

- Establish criteria and thresholds for establishing tiers for modes not already established in the 2040 Plan (e.g., public transportation, bicycle, pedestrian, etc.).
- Collect data, analyze data, and develop a comprehensive report on current travel patterns and travel mode choices of New Mexico residents and visitors.
- Assess the strengths and limitations of the New Mexico Statewide Travel Demand Model and develop recommendations for improving the ability of NMDOT to forecast future personal and freight flows at varying scales throughout the state.



Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity

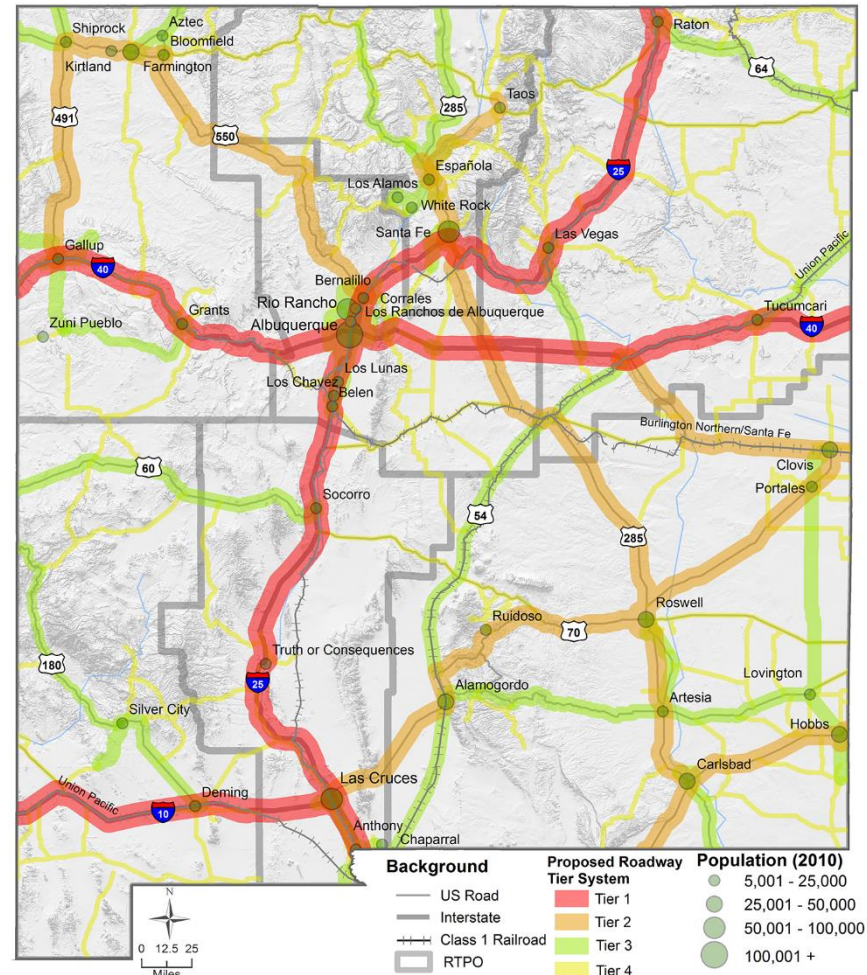


4.2.1 Strategic Investment in Key Corridors: Highway Capacity

Prior to programming funds for any new highway capacity, NMDOT will first pursue all feasible operational and travel demand management strategies to ensure that it makes the most effective and efficient use of its limited financial resources. NMDOT will determine the need for capacity investment on a case-by-case basis using “Capacity Expansion Evaluation Criteria” to be developed by the Asset Management and Planning Division. The evaluation will reflect the tiers established in the 2040 Plan, as well as any technological changes that may impact the need for future capacity.

Needs that may prompt potential investment in highway capacity include:

- **Freight:** Targeted capacity investments and road upgrades that help support freight-dependent industries are key mechanisms NMDOT can use to support business in the State.
- **Mainline Capacity:** Mainline capacity may be needed in some areas to address congestion; however, in such cases, NMDOT will give priority to addressing needs for improved safety and through movement over needs for local movement.
- **Community Bypasses:** In some cases, community bypasses may be considered to support the growth and prosperity of individual communities, while ensuring the movement of people and goods between communities. Bypasses can have significant negative impacts, however, by drawing traffic away from local businesses and enabling costly and inefficient land use patterns. NMDOT will determine the need for bypasses on a case-by-case basis using the “Capacity Expansion Evaluation Criteria”.



NMDOT Actions – Highway Capacity

- Establish “Capacity Expansion Evaluation Criteria” for determining when all feasible operational and system demand management strategies have been exhausted and, if so, for prioritizing expenditure of funds for capacity expansion in the STIP based on life-cycle cost.

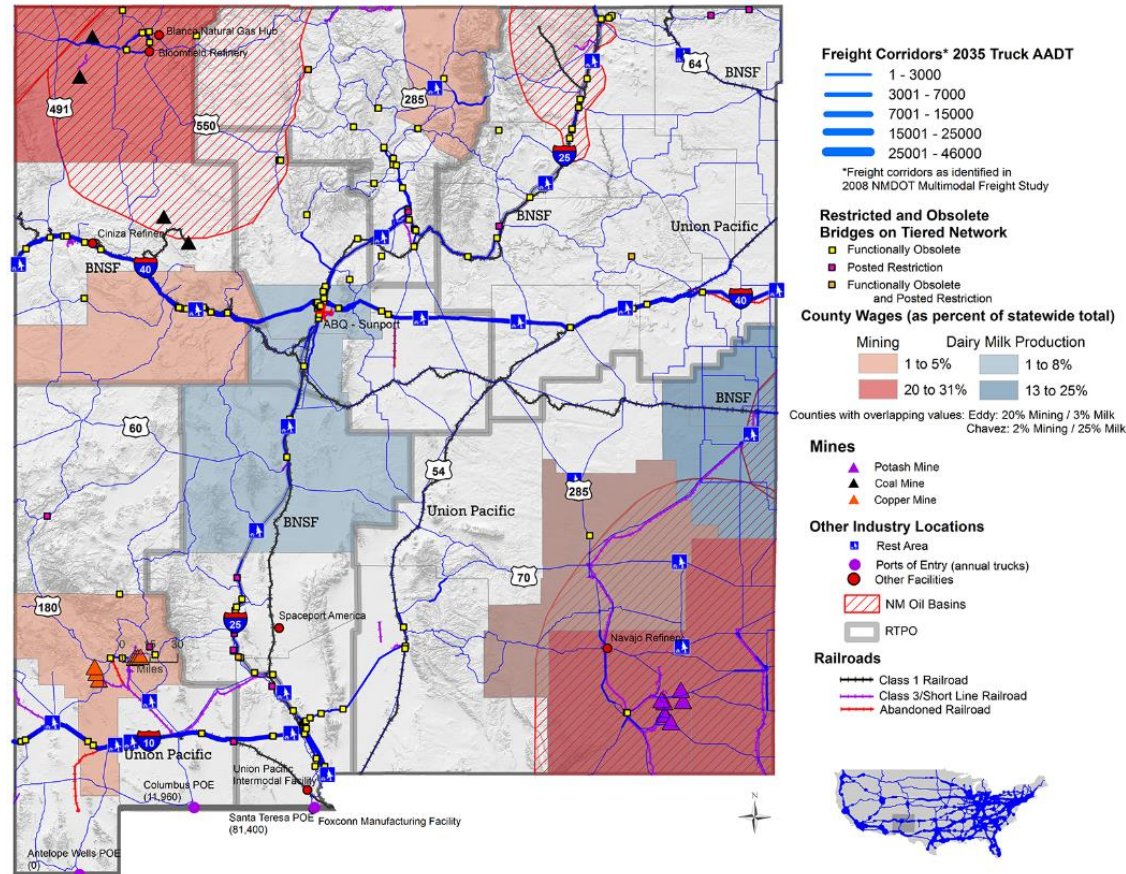
Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity



4.2.2 Strategic Investment in Key Corridors: Freight

When considering investment in key corridors, NMDOT will examine not only the need for passenger travel, but also for freight movement as well. Throughout the process of developing the 2040 Plan, several significant issues and concerns related to freight emerged, including:

- U.S.-Mexico Border Crossings:** Improving and facilitating movement of freight across the US-Mexico border by both truck and rail is an important issue, especially in the Santa Theresa area.
- Extractive Industry Needs:** New Mexico faces significant local demand driven by extraction industries such as oil and gas, mining, and agriculture. These have a significant impact on roads.
- Intermodal Connectivity:** For some industries, connections to intermodal facilities are especially challenging and important. Intermodal facilities include truck-to-rail and truck-to-air.
- Weight/Size Restrictions on Bridges:** New Mexico has a number of bridges on its road network that cannot handle regular loads either due to weight restrictions or bridges that do not function as originally intended. Addressing these issues will help ensure the efficient movement of goods on the system.
- Through Movements by Truck:** Much of the freight traffic on New Mexico highways originates in other places (e.g., West Coast and Texas ports) and is not destined for New Mexico. These trucks pay weight-distance and fuel taxes, but ensuring that their impacts are addressed is an important concern.



NMDOT Actions - Freight

- Refine the officially designated priority truck corridors (Figure 14 in the New Mexico Freight Plan, Appendix) and identify specific bottlenecks and capacity issues based on further analysis of goods movement, intermodal connections, and US-Mexico border crossing volumes.
- Participate in the Western Connected Freight Corridor Coalition to address permitting and connected vehicle applications.

Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity



4.2.3 Strategic Investment in Key Corridors: Public Transportation

New Mexico's public, private, and non-profit transit providers play a critical role in moving people from home to work, school, medical appointments, grocery stores, and other destinations. Transit services include local, intra-regional, inter-regional, intercity, and interstate bus routes; the New Mexico Rail Runner Express; Amtrak; and on-demand shuttle services in urban and rural areas. Currently, inter-regional connections are provided by NMDOT and a variety of other operators.

NMDOT's role in supporting public transportation in New Mexico will focus primarily on:

- **Intercity transit service:** NMDOT will support the operation of intercity public transportation services, but only where they are feasible, cost effective, and "demand ready." Support may include funding for vehicles, funding for operations, and/or technical assistance to local or regional transit service providers. Current and future intercity service may be best supported by leveraging local funding through Regional Transit Districts (RTD) and making the most of available federal 5311 funds for operating and capital assistance. Amtrak services are expected to remain a federal responsibility in New Mexico.
- **Interagency coordination, cooperation, and connectivity:** NMDOT will work with transit service providers to proactively coordinate system planning, operations, and investments to ensure cost efficiency, cost effectiveness, seamless connectivity, and overall ease of use by New Mexico's citizens and visitors.
- **Land use-transit coordination:** NMDOT will proactively pursue opportunities to exchange information and cooperate with land management agencies to coordinate land use and transit planning whenever possible.

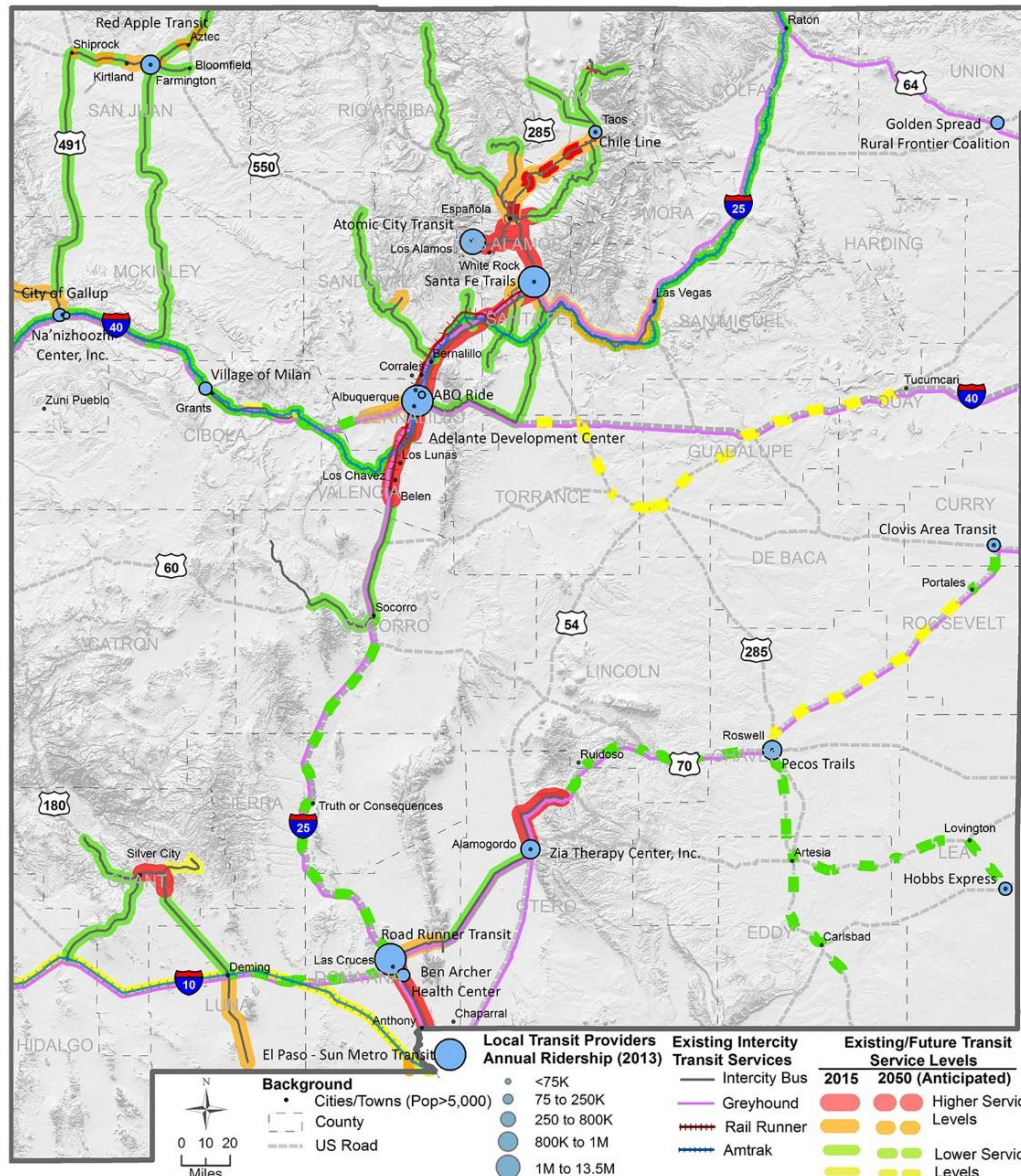
NMDOT Public Transit Plans and Processes

- **New Mexico State Management Plan (SMP) for the Administration of Federal Transit Grants** – Provides guidance on all FTA funds that the NMDOT administers. As part of the annual application process to receive funds through NMDOT, public transit agencies and senior or disabled individual transportation programs update an Operations Plan/Profile that contains detailed information about the agency's transit operations and policies.
- **New Mexico Statewide Public Transportation Plan** – Focuses primarily on rural and intercity public transportation service, identifying usage, demand, and needs as well as performance measures to identify and prioritize projects across the state.
- **MPO/RTPO Coordinated Public Transit -Human Services Transportation Plans** – Provides the framework for projects selected through the Section 5310 program (Enhanced Mobility for Seniors and Individuals with Disabilities).
- **NMDOT State Rail Plan** – Describes the current status and strategic vision of the New Mexico rail system, demonstrates demand for and the benefits of the rail system, identifies capital infrastructure and operating needs, establishes rail project priorities, and provides implementation steps to help guide investments.



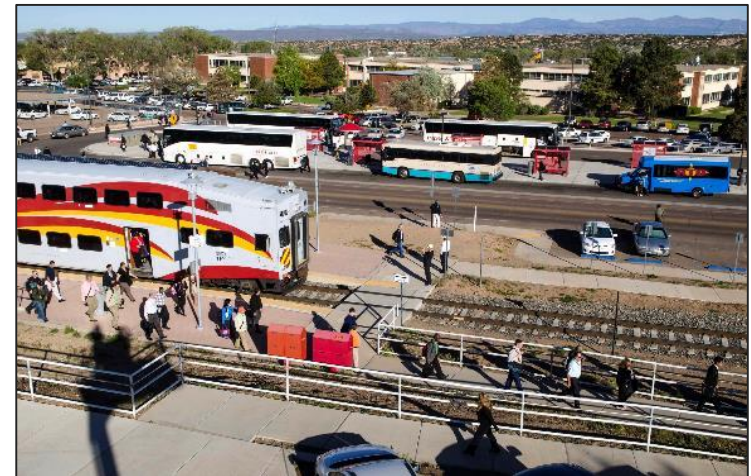
Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity

Existing Transit Service Levels and Future Demand



NMDOT Actions – Public Transportation

- Provide support to RTPOs as they identify opportunities to establish RTDs for intercity and regional transit services.
- Make web-based transit information more accessible, including through the NMRoads website.



Source: NMDOT Transit and Rail.

Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity



4.2.4 Strategic Investment in Key Corridors: Bicycle

Bicycles are an efficient form of transportation for short-distance utilitarian trips, including trips to work, school, bus stops, and train stations. Also, New Mexico's temperate climate, natural beauty, and topography make it an ideal place for recreational cycling and long distance bicycle touring.

To accommodate bicycles and keep bicyclists safe on public roadways, NMDOT will:

1. Develop New Mexico-specific criteria for prioritizing bicycle investments, including the identification of key bicyclist destinations, "first/last mile" connections to transit, scenic byways and national historic trails, employment centers, and others.
2. Over time, move towards implementing a Bicycle Level of Service (BLOS) or similar metric to identify corridors where particular attention is needed. BLOS and similar measures score roadways based upon such criteria as: facility type, lane/shoulder width, traffic volumes (including heavy truck), speed limits, and more.

NMDOT Actions – Bicycles

- Develop a state bicycle, pedestrian, equestrian (BPE) plan to refine the strategies set forth in the 2040 Plan and establish priorities for facility development.
- Use routine resurfacing projects as an opportunity to improve or maintain bicycle facilities and connectivity along identified corridors.





Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity



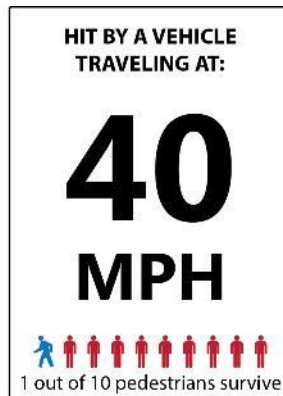
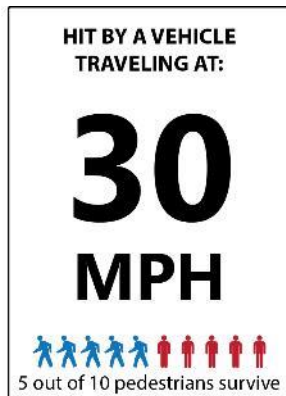
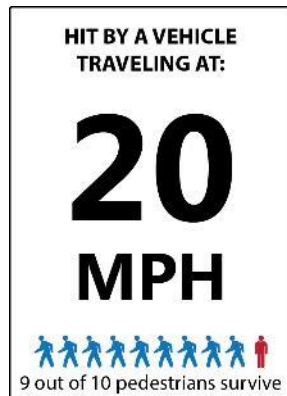
4.2.5 Strategic Investment in Key Corridors: Pedestrian

Walking is an essential mode of transportation and a component of nearly every kind of trip. People walk to all types of destinations and for a variety of reasons. They walk to bus stops, train stations, and parking spaces. They walk to offices, schools, stores, restaurants, and parks. They walk for fun, relaxation, and enjoyment. They walk alone and in groups, and at all hours of day and night. They walk with assistive devices, carrying groceries, pushing strollers, and with pets on leashes.

Walking costs little beyond the price of a pair of shoes and, besides being the most affordable means of transportation, provides several other tangible benefits to both individuals and the larger community. To help realize these benefits, NMDOT will seek to make pedestrian mobility safe, enjoyable, and convenient wherever possible.

NMDOT Actions – Pedestrian

- Develop a state bicycle, pedestrian, equestrian (BPE) plan to refine the strategies set forth in the 2040 Plan and establish priorities for facility development.
- Train staff and planning partners on ADA-compliant design standards for sidewalks, curb ramps, crosswalks, pedestrian facilities in rural areas, and other pedestrian elements that meet all of the requirements of the Americans with Disabilities Act (ADA).
- Develop design guidance (including model plan and profile views for streets) to address pedestrian needs along NMDOT facilities in local communities.



Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity

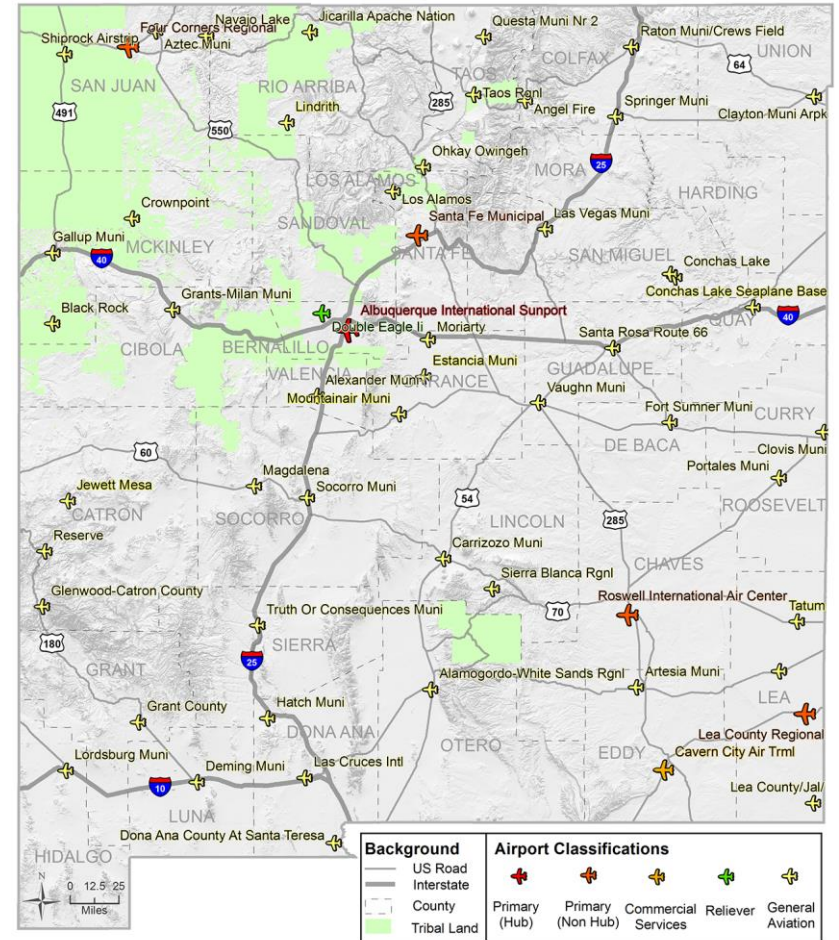


4.2.6 Strategic Investment in Key Corridors: Aviation

The aviation and aerospace industries are vital to New Mexico's economy. Air travel facilitates tourism, business travel, and goods movement, and the aircraft and aerospace manufacturing industries provide employment, tax revenues for local governments, and indirect benefits to related industries. A total of 60 public-use, public-owned airports are located throughout New Mexico, including five primary commercial service airports.

NMDOT's Aviation Division is committed to supporting general aviation by improving the status and usefulness of all components of the state's integrated aviation transportation system including recreational activities. The Aviation Division updates the New Mexico Airport System Plan (NMAASP) to identify areas of needed improvement based on the following goals:

- **Increase/Enhance Safety and Security:** including supporting runway safety, security, and wind coverage, approach path clearance and visual cues, and emergency response plans.
- **Preserve/Protect Investment in Airports:** including maintaining airport layout and master plans, inventories of existing conditions, and maintaining compatible land uses.
- **Accommodate Existing and Projected Aviation Demand:** including providing adequate runway facilities, upgraded instruments, appropriate emergency response services, and compliance with aviation regulations.
- **Support Economic Growth of the Community:** including supporting commercial airport services and neighboring airport business and industrial parks.



NMDOT Actions

- Promote all facets of aviation including educational and career opportunities, historic aviation corridors and aviation tourism, and local recreation and other connections at smaller airports.
- Support investment in NextGen* aviation technologies to increase system efficiency and safety.
- Evaluate zoning standards and opportunities to incentivize compatible development opportunities near and around airports.

*NextGen refers to the Next Generation Air Transportation System, an ongoing transformation of the U.S. National Airspace System from a ground-based system of air traffic management to a satellite-based system.



Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity

4.3 Land Use – Transportation Coordination

While land use is the purview of local governments, NMDOT can fund and support projects, plans, and activities that: facilitate access to jobs; reduce the need for travel; reduce travel distances; provide for greater travel mode choice; and reduce the burden on taxpayers associated with building and maintaining public infrastructure. Ensuring the coordination of transportation and land use can reduce the cost of transportation investments for NMDOT and its partners and support the use of more economical transportation modes. Potential strategies are listed in the table below.

NMDOT Actions

- Work with the Interagency Coordinating Committee, State of New Mexico General Services Administration, health councils, and other agencies to coordinate the planning and siting of public facilities (e.g., senior centers, libraries, hospitals, schools, etc.) and other key travel destinations to reduce transportation costs, improve safety, and enhance user experience.
- Develop guidance to help local communities adopt location-efficient and transit-supportive development and site planning ordinances.
- In collaboration with tribes and other agencies, refine NMDOT access control guidance for existing and new facilities to ensure that state roads can serve appropriate functions.
- For each roadway tier, establish standards that must be achieved for adding capacity and/or other enhancements to NMDOT facilities (new lanes, interchanges, intersections, signalization, turn lanes, etc.) in response to new development, regardless of developer contributions.

Strategy	Description	Examples from Existing New Mexico Programs and Other States
Context Sensitive Solutions	Ensure NMDOT project type and design support desired land use context consistent with local plans	NMDOT has policies that can be expanded. Training needed for all staff.
Planning grants	Funding – grants to local governments to support transportation/land use planning for sustainable development	The Caltrans Sustainable Transportation Planning Grant Program provides an implementation example.
Implementation grants	Funding to support infrastructure consistent with sustainable development principles (e.g., ped-bike or complete streets in infill areas; access to transit stations)	The North Central Texas Council of Governments has a Sustainable Development Funding Program that provides a useful example for Implementation grants.
Transportation-land use toolkit	Toolkit of examples of best practice in linking transportation and land use	The Montana DOT has developed a Smart Growth Toolkit, focused on smaller communities that may provide a starting point for NMDOT.
Access management	Via driveway permitting requirements, require site design to preserve highway functionality and improve ped/bike access	NMDOT has an existing State Access Management Manual. Review to ensure consistency with the 2040 Plan and overall effectiveness is needed.
Traffic Impact Analysis (TIAs)	Provide credits for and/or require vehicle trip reduction measures in TIAs	Access Management Manual defines current requirements, but review is needed to address multimodal accommodation.
Project prioritization criteria	Criteria include whether the project supports smart growth/sustainable development principles, or whether municipality has growth plan in place	These criteria are discussed further in the Implementation Section.

Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity



4.4 Changing Demographics

From 2000 to 2030, New Mexicans who are age 60 or older will more than double, equaling nearly one-third of the state's population. An aging population will impact the way people use and view the state's transportation system. Nationwide, an estimated 56 percent of Americans aged 65 and older live in suburban communities while 23 percent in rural communities. Transit accessibility is crucial for senior mobility, and even in Albuquerque with the state's most extensive transit network, it is estimated that 42 percent of the population over 65 has poor access to transit.²

To address the growing need to provide mobility options for the growing elderly population (including how those needs vary in urban and rural settings), it is important for New Mexico to expand transportation options and create safe driving conditions and walkable neighborhoods. Where expanding fixed route transit services and paratransit is not cost feasible, there are other ways to increase transportation options, promote usage of available services, and improve safety:

- Develop **community-based transportation programs**, which include flexible and deviated fixed-routes services that can be tailored to local community needs. These services may also accommodate riders with wheelchairs or shopping carts more easily than conventional transit services.
- Promote **mobility management**, working with local agencies to coordinate transit schedules and provide web-based schedule information on a single user-friendly platform.
- **Coordinate federal, state, tribal, and local programs** that offer transit and human services to elderly populations.
- Create **communities designed for all users**, which may include affordable and appropriate housing and supportive community services that are accessible by walking or transit accessible.
- **Improve safety** through enhanced roadway features designed for drivers and pedestrians, the two most common modes of transportation for seniors. Safety improvements include larger and brighter stoplights, adequate lighting and larger signs, traffic calming, and protected left turn lanes for drivers, and high visibility crosswalks, median islands, and smart signals that detect pedestrians.

While the over 60 population is the fastest growing in New Mexico, there are also common interests between travelers over 60 and those in the 'Millennial' generation (those roughly 15 to 35 years of age), including significant interest in urban living and transit use.

² Transportation for America. 2011. *Aging in Place, Stuck without Options: Fixing the Mobility Crisis Threatening the Baby Boom Generation*.

NMDOT Actions

- Assist the RTPOs with initiatives as needed regarding:
 - 1) Identifying travel needs for older adult residents and visitors.
 - 2) Identifying gaps in transit service, especially focused on access to healthcare and services.
- Work with the New Mexico Department of Aging and Long-Term Services and other partners to identify transportation safety features needed to better support an older traveling population.



Goal 5 – Respect New Mexico's Cultures, Environment, History, and Quality of Life

Goal 5: Respect New Mexico's Cultures, Environment, History, and Quality of Life



Goal 5: Respect New Mexico's Cultures, Environment, History, and Quality of Life. New Mexico is a diverse and beautiful state with a wide variety of cultures, languages, terrains, and beliefs. As an agency representing this state, the NMDOT remains committed to treating all New Mexicans with respect. The 2040 Plan includes four strategies to help achieve this goal:

Objective	Strategy	Performance Measures
Transportation projects and programs respect the context within which they are built and implemented.	<p>5.1 Context Sensitive Solutions. When developing projects and programs, find a “best fit” transportation solution for the local and regional context that meets the expectations of both NMDOT and community stakeholders.</p> <p>5.2 Require and Respect Local Plans. Target funds to support communities that develop local transportation plans that are consistent with the 2040 Plan and that demonstrate the financial and administrative capacity to implement them successfully.</p>	<ul style="list-style-type: none"> Stakeholder satisfaction surveys before and after development of major projects
NMDOT seeks to improve environmental outcomes with both its transportation investments and business operations.	<p>5.3 Environmentally Friendly Practices. Minimize or avoid negative impacts of facility development and operations on the natural environment, where possible.</p>	<ul style="list-style-type: none"> Number of vehicle/wildlife collisions Effectiveness of mitigation measures as defined through NEPA process
NMDOT celebrates and advances New Mexico economic goals in the areas of recreation and tourism.	<p>5.4 Recreation and Tourism. Work proactively with public and private-sector partners to advance state, regional, and Tribal tourism and recreational goals while minimizing adverse impacts to cultural resources.</p>	<ul style="list-style-type: none"> Measure TBD

Goal 5: Respect New Mexico's Cultures, Environment, History, and Quality of Life

5.1 Context Sensitive Solutions

Respecting New Mexico's diversity requires the NMDOT and its partners to consider the local and regional context when making investments in transportation. It also requires recognizing tribal agencies as sovereign governments. For NMDOT, finding the "best fit" transportation solutions for the context means:

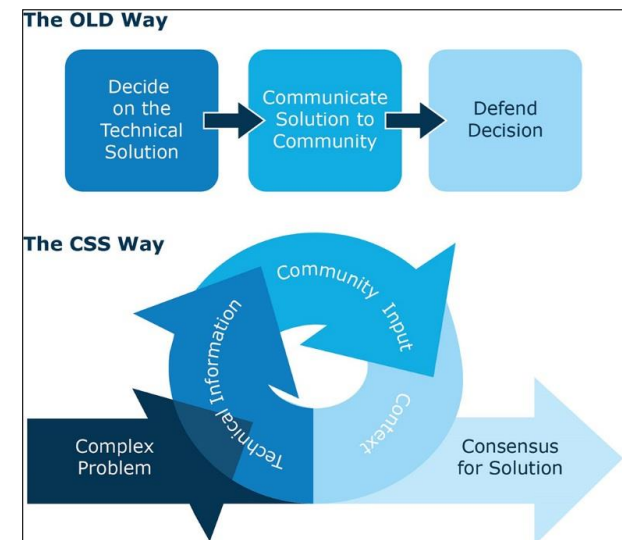
- Identifying the range of stakeholders impacted by a project or program and engaging them early and throughout the process.
- Not pre-defining the outcome of projects, but letting affected communities help define project goals.
- Considering all natural, environmental, and cultural concerns that might arise during the project.

As a planning best practice, context sensitive solutions (CSS) considers local context and interests, leading to tailored, more effective solutions. CSS can improve coordination and mitigate impacts of heavy truck traffic in small communities. It not only helps to establish good faith and foster good relations with stakeholders throughout the process, CSS also offers NMDOT potential cost savings by streamlining project delivery. NMDOT has been implementing CSS for nearly a decade. NMDOT first developed *A Guide to Context Sensitive Solutions* in 2006 for training and uniformity in implementing CSS processes in the planning, design, construction, and maintenance of transportation projects. Similarly, NMDOT's *Context Sensitive Public Involvement Plan* requires a context-sensitive approach to public involvement throughout the project development process.

"Context Sensitive Solutions (CSS) involves all stakeholders in providing a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility." – Federal Highway Administration

NMDOT Actions

- In collaboration with tribes, local communities, and other agencies, develop criteria and checklists for NMDOT project types to ensure successful implementation of CSS principles.
- Develop and adopt NMDOT design standards for local communities that respond to context; provide high-quality, but cost-efficient options; and comply with all relevant design guidelines.
- Evaluate the success of past projects in meeting NMDOT's CSS goals.
- Provide training for NMDOT, regional, and local staff on CSS.
- Refine the NMDOT public engagement process as expressed in the NMDOT Location Studies Procedures.
- Identify opportunities to implement road diets where appropriate and desired by local communities, and where local plans exist to support their function.
- Identify process improvements to ensure that Tribal entities participate from the beginning of any project that takes place on Tribal lands.



Source: Adapted from FHWA Context Sensitive Solutions Primer.

Goal 5: Respect New Mexico's Cultures, Environment, History, and Quality of Life



5.2 Require and Respect Local Plans

NMDOT is committed to working with local communities to support transportation-related projects when funding is available. To receive consideration for NMDOT support, a project must be:

1. Technically feasible to implement.
2. Consistent with the 2040 Plan goals, strategies, and performance objectives.
3. Consistent with a local, regional, or Tribal plan that was developed using a robust public and stakeholder engagement process.
4. Consistent with the State Implementation Plan for Air Quality (if the project is located in a non-attainment area under the Clean Air Act).

Additionally, through the context sensitive solutions process, NMDOT will respect local planning processes, including Tribal transportation plans, in NMDOT's project development process. NMDOT will target funds to support planning and project development in communities with administrative capacity to implement them successfully.

Many communities in New Mexico have adopted "complete streets" ordinances. The *Complete Streets* approach considers the needs of all roadway users including drivers, bicyclists, and pedestrians for the improved safety of all people, regardless of age and ability. The approach may be implemented in many ways including comprehensive plans, master plans, design guidance, or local policies, each with varying degrees of commitment. Local Complete Streets efforts are often associated with a community vision for improved public and economic health.

Criteria for Implementing Complete Streets

NMDOT will consider a Complete Streets approach appropriate DOT-owned corridors, using the following criteria to help prioritize corridors with the greatest needs:

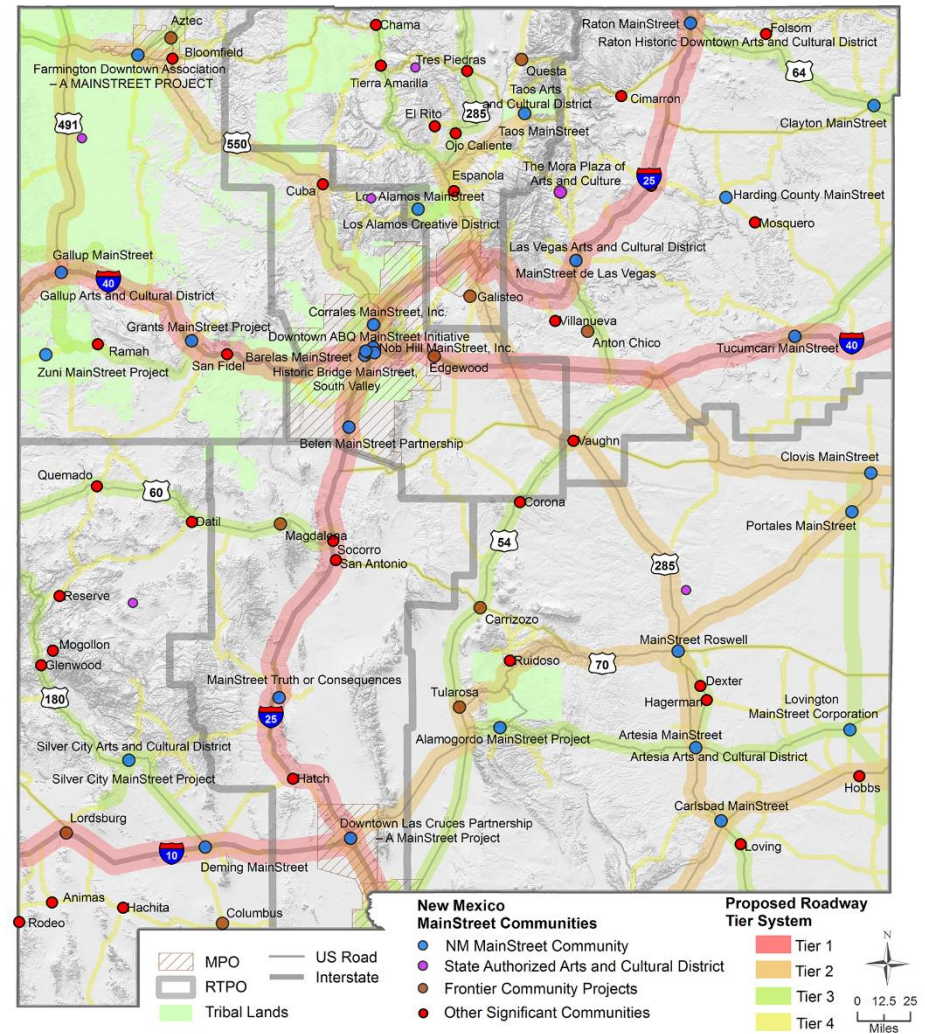
- Tier 1 and 2 pedestrian corridors;
- Presence of a fine-grained mix of land uses (existing or planned);
- Number of households without cars;
- Bicycle and pedestrian counts;
- Bicycle and pedestrian crash history or risk;
- Access to key destinations, the density of potential destinations, and links to other transportation facilities;
- Concentration of 65 and older populations; and
- Supportive plans or initiatives (bike/pedestrian plan, regional transportation plan, sector plan, Safe Routes to School plans, etc.).

NMDOT Actions

- Assist the RTPOs in developing performance-based, context-sensitive Regional Transportation Plans and to successfully fund and implement projects through their RTIPRs and the STIP.
- Develop and adopt NMDOT design standards for local communities that respond to context; provide high-quality, but cost-efficient options; and comply with AASHTO design and procedural guidelines.

Goal 5: Respect New Mexico's Cultures, Environment, History, and Quality of Life

Many communities are participants in the New Mexico MainStreet Program, which include Certified MainStreet Communities, Arts & Cultural Districts, and Frontier Communities. This program was formed to “provide for the revitalization of central business districts in New Mexico communities based on the preservation and rehabilitation of existing structures of unique historical and architectural character and the development of progressive marketing and management techniques as an economic development strategy for local governments.”³ Many of New Mexico’s MainStreet communities are located along NMDOT facilities and may benefit from a flexible Streets approach for user safety and revitalization of local downtowns and adjacent neighborhoods. Highway design in these districts should consider placemaking principles and enhanced pedestrian amenities such as landscaping, wider sidewalks, curb extensions, mid-block crossings, and street lighting.



³ New Mexico MainStreet program (<http://nmmainstreet.org/aboutHistory.php>) citing New Mexico State Legislature: 3-60 B-1 to 3-60 B-4 NMSA 1978.

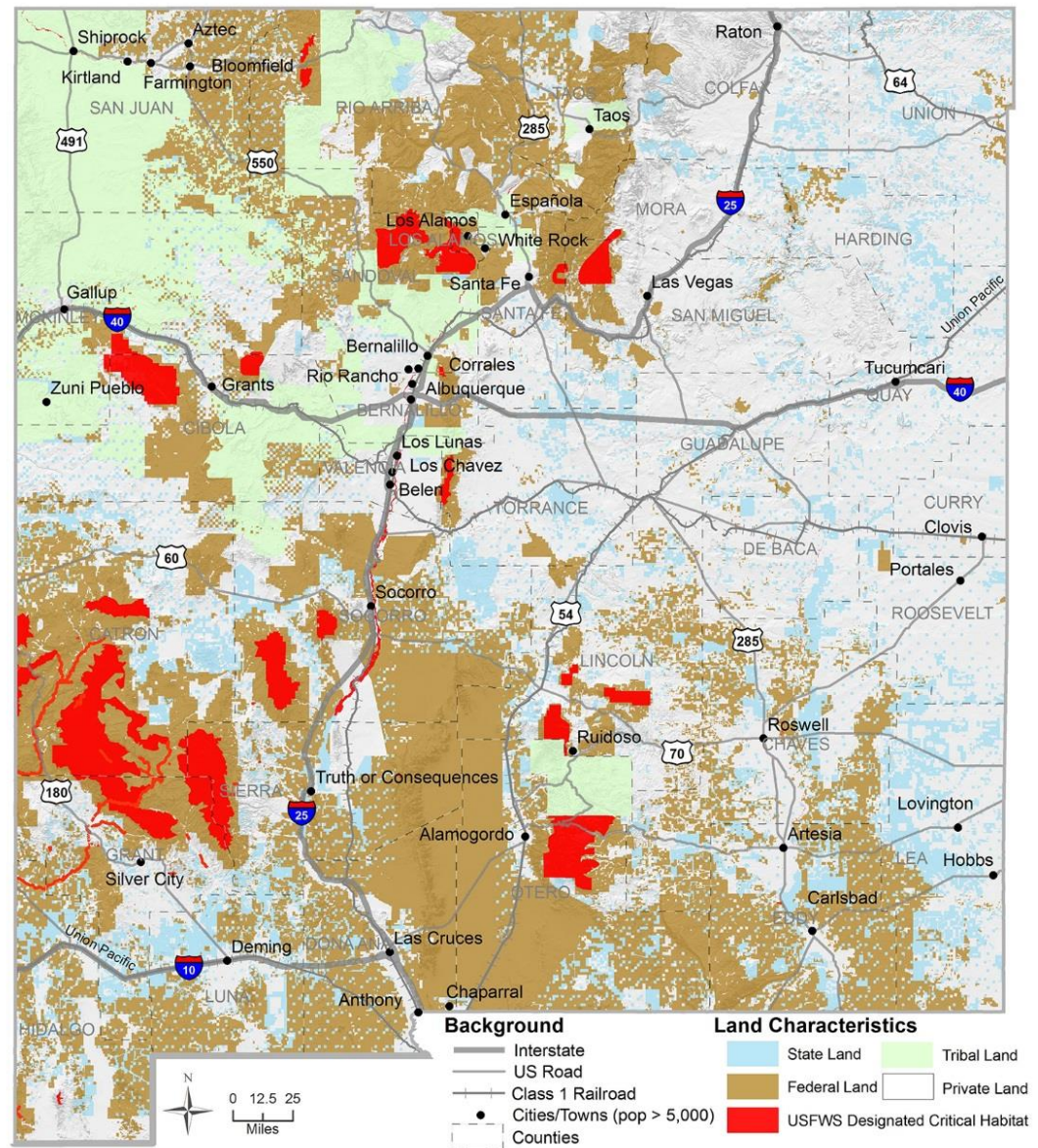
Goal 5: Respect New Mexico's Cultures, Environment, History, and Quality of Life

5.3 Environmentally Friendly Practices

Protecting New Mexico's natural environment, one of the state's most valuable resources, has a direct impact on the economy and quality of life for residents and visitors. There are several ways that NMDOT, the Environmental Protection Agency, and other partners can share resources and make better decisions to support the environment. From a project development standpoint, Planning Environmental Linkages (PEL) is a key concept that has emerged over the last several years. The basic concept for PEL is to identify environmental issues and concerns in the planning phase of a project. This ensures that these issues are addressed early in the process, while also reducing the need to rework alternatives or develop costly mitigating actions to address potential impacts.

From an operations perspective, NMDOT can also seek to minimize the impacts of operations and construction activities on the natural environment by using environmentally friendly materials and implementing environmentally friendly business practices. Tools, such as the FHWA INVEST rating system, provide a means to evaluate the sustainability of projects. Similar tools are available to evaluate maintenance and operations activities to reduce unnecessary and potentially costly impacts.

Land Ownership and Potentially Sensitive Lands



Goal 5: Respect New Mexico's Cultures, Environment, History, and Quality of Life



Building a Sustainable New Mexico and NMDOT

- Audit energy use of existing buildings and explore LEED certification for new and existing facilities.
- Invest in renewable energy, such as negotiating Solar Power Purchase Price Agreements for facilities where it is cost effective or using median space for renewable energy or tree planting.
- Upgrade NMDOT fleet and transition to alternative fuel vehicles.
- FHWA INVEST rating systems for highway projects.
- Encourage sustainable practices into project design, including the use of energy-efficient products, corrosion reducing strategies, stormwater management strategies, and similar efforts.
- Work with private sector to support alternative fuel, alternative energy development (e.g. solar) and electric charging infrastructure development.
- Identify risks from extreme weather and opportunities to improve the resiliency of the transportation system.

NMDOT Actions

- Conduct early evaluations of sensitive lands for major projects.
- Cooperate with New Mexico Game and Fish to reduce vehicle/wildlife collisions.

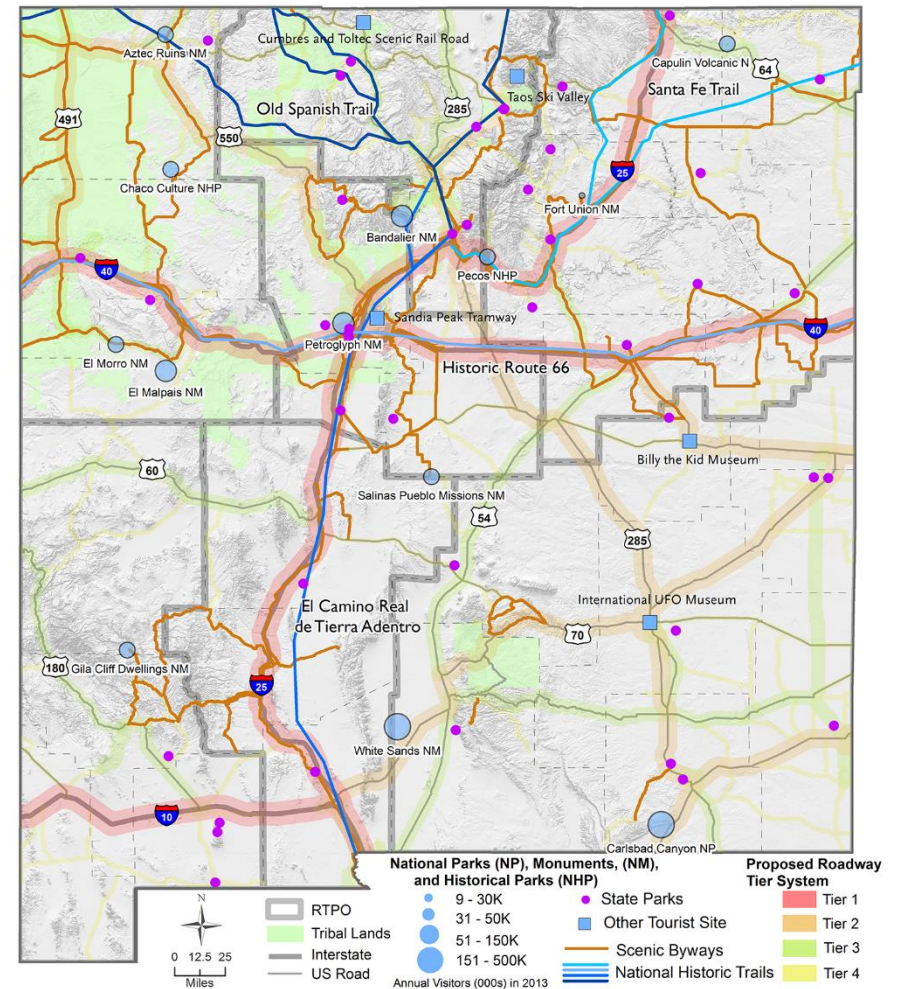
Goal 5: Respect New Mexico's Cultures, Environment, History, and Quality of Life

5.4 Recreation and Tourism

New Mexico's landscapes and places are a significant asset to the state's economy. The state's 13 National Parks, National Historic Parks, and National Monuments; US Forest Service and other federal lands, 45 state parks; 25 scenic byways; three national historic/scenic trails; and 23 federally-recognized Pueblos or Indian Nations draw thousands of visitors each year and contribute to the state's cultural identity, economic prosperity, and quality of life.

NMDOT can support recreation and tourism through various means:

- Drawing attention to bus and rail services that serve key tourist destinations, trailheads, and other visitor-oriented locations and identifying gaps in service and coverage.
- Developing maps and criteria to define scenic destinations of economic value and funding select improvements that enhance their value, such as wayfinding signage on scenic byways and national historic trails.
- Implementing CSS within scenic and cultural corridors, especially on lower tier roads and routes designated as state or national scenic byways or the national historic trails administered by the National Park Service (acceptable design standards may vary by type of road, type of community, and roadway tier).
- Working to provide multimodal access and accommodation of all users on scenic corridors, designated scenic byways, and national historic trails, where appropriate and in coordination with the Bicycle, Pedestrian, Equestrian Technical Committee, Scenic Byways Program, and Recreational Trails Program.



As an example, NMDOT could work with local communities and New Mexico Tourism Department to designate a new astronomical scenic byway/tourism route that links astronomically significant tourism opportunities in New Mexico, such as Sunspot, the Very Large Array, Chaco Culture National Historic Park (a designated International Dark Sky Park), and other key destinations.

Goal 5: Respect New Mexico's Cultures, Environment, History, and Quality of Life

NMDOT Actions

- Work with New Mexico Department of Economic Development, Tribal governments and economic development organizations, Councils of Government, and other partners to define 'cultural corridors,' collect more data on tourist visitation patterns, improve travel routes to public lands destinations, and promote other transportation-oriented tourism opportunities to improve the quality of the visitor travel experience in New Mexico.
- Support other state agencies (Tourism, Economic Development, Historic Preservation, etc.) to achieve the goals of New Mexico MainStreet, the state-authorized Arts and Cultural Districts, and other programs through context-sensitive design and management of NMDOT's multimodal transportation assets.
- Help state, Tribal, and federal land management agencies preserve and protect their land and resources through context-sensitive design and management of NMDOT's multimodal transportation assets.
- Partner with state and federal agencies to identify transportation projects that align with the preservation and development of New Mexico's national historic trails - important assets of the state's heritage, economic development, tourism, quality of life, and future transportation network.





Measuring Our Performance



Measuring Our Performance

The 2040 Plan is a performance-based plan. This means that it considers the implications of investment choices on the performance of the transportation system. The passage of Moving Ahead for Progress in the 21st Century (MAP-21) created new federal requirements for performance management that are currently being fleshed out, but require a set of measures to be collected and targets to be set in several national goal areas. They also require state long range plans to be linked to those measures and targets. Naturally, in addition to required national goals, New Mexico has statewide and regional goals to pursue. Integrating these various considerations into a single process includes the following elements for NMDOT:

- Develop ongoing reporting on 2040 Plan goals and strategies.
- Define key performance measures, including those needed for federal reporting and additional measures for internal reporting that help ensure implementation of the 2040 Plan.
- Track the status of the actions defined in the 2040 Plan.
- Develop data collection and related efforts to support performance monitoring and analysis.
- Coordinate with other planning efforts – TAMP, SHSP, MPO CMPs, etc. – to ensure common use of data, methods, and assumptions.

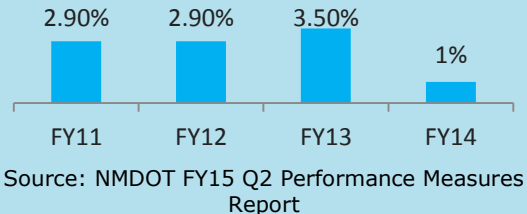
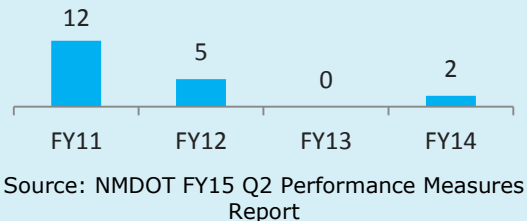
As NMDOT and its partners work together to improve the measurement of these goals, the specific measures will naturally change and evolve to take into account improved data sources, the experience of past investments and policy decisions, and the impact of external factors. Some of the measures described in this section are potential future measures, while others can be collected and addressed now.

Measuring Our Performance

Goal 1: Operate with Transparency and Accountability

Goal 1 Performance Measures	Description	Trend Analysis/Approach for Analyzing New Measures
Percent of 2040 Plan actions completed within timeframe identified in the plan	This measure tracks the performance of those within the Department who are responsible for carrying out each 2040 Plan action. The purpose is to ensure successful implementation of the plan in a timely manner.	To be monitored as part of plan implementation.
Public ratings of NMDOT in customer satisfaction survey	This measure tracks public satisfaction with NMDOT quality of customer service. Performance target #1: 95% or more of survey respondents will be neutral, agree, or strongly agree with each evaluative statement. Performance target #2: 67% or more of survey respondents will agree or strongly agree with each evaluative statement.	Survey design and questionnaire will be developed as a first step. Future measures may also be identified over time to better capture the value of effective partnerships.
Stakeholder ratings of NMDOT in stakeholder satisfaction survey	This measure tracks stakeholder satisfaction with NMDOT decision-making process. "Stakeholders" are defined as the designated members of the following decision-making bodies: RTPO policy committees; MPO policy committees; MPO technical committees; Interagency Coordinating Committee; Interested Parties Coordinating Committee; and Freight Advisory Committee. Performance target #1: 95% or more of survey respondents will be neutral, agree, or strongly agree with each evaluative statement. Performance target #2: 67% or more of survey respondents will agree or strongly agree with each evaluative statement.	Survey design and questionnaire will be developed as a first step. Future measures may also be identified over time to better capture the value of effective partnerships.

Measuring Our Performance

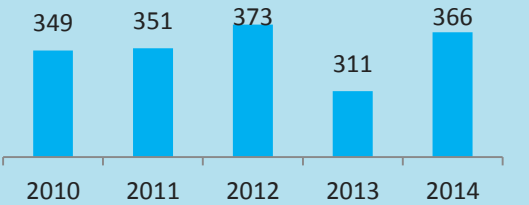


Goal 1 Performance Measures	Description	Trend Analysis/Approach for Analyzing New Measures										
Percent of projects obligated versus programmed in the Statewide Transportation Improvement Program (STIP)	<p>NMDOT prepares an Annual Performance and Expenditure Report that includes: (i) a comparison of actual performance with established goals; (ii) progress in meeting schedules;(iii) status of expenditures in a format compatible with the work program, including a comparison of budgeted (approved) amounts and actual costs incurred; (iv) cost overruns or underruns; (v) approved work program revisions; and (vi) other pertinent supporting data.</p> <p>Performance target: ≥ TBD</p>	To be added based on Annual Performance and Expenditure reports to FHWA.										
Percent of cost over bid amount	<p>This measure is required under both federal law (23 CFR 420.117) and state law (Accountability in Government Act). It provides information to NMDOT and contractors on how well projects are being managed and kept within budget.</p> <p>SFY15 Performance Target: <3%</p>	 <table border="1"> <caption>Percent of cost over bid amount</caption> <thead> <tr> <th>Fiscal Year</th> <th>Percent</th> </tr> </thead> <tbody> <tr> <td>FY11</td> <td>2.90%</td> </tr> <tr> <td>FY12</td> <td>2.90%</td> </tr> <tr> <td>FY13</td> <td>3.50%</td> </tr> <tr> <td>FY14</td> <td>1%</td> </tr> </tbody> </table> <p>Source: NMDOT FY15 Q2 Performance Measures Report</p>	Fiscal Year	Percent	FY11	2.90%	FY12	2.90%	FY13	3.50%	FY14	1%
Fiscal Year	Percent											
FY11	2.90%											
FY12	2.90%											
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Number of external financial audit findings	<p>This measure tracks NMDOT’s accounting practices, internal control, financial information, and federal program compliance. NMDOT reports this measure in January of each year.</p> <p>There were no audit findings in FY 2013.</p> <p>SFY15 Performance Target: <6</p>	 <table border="1"> <caption>Number of external financial audit findings</caption> <thead> <tr> <th>Fiscal Year</th> <th>Number of Findings</th> </tr> </thead> <tbody> <tr> <td>FY11</td> <td>12</td> </tr> <tr> <td>FY12</td> <td>5</td> </tr> <tr> <td>FY13</td> <td>0</td> </tr> <tr> <td>FY14</td> <td>2</td> </tr> </tbody> </table> <p>Source: NMDOT FY15 Q2 Performance Measures Report</p>	Fiscal Year	Number of Findings	FY11	12	FY12	5	FY13	0	FY14	2
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Measuring Our Performance


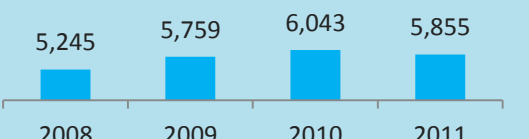
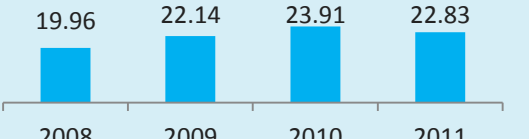
Goal 1 Performance Measures	Description	Trend Analysis/Approach for Analyzing New Measures										
Percent of prior year financial audit findings resolved	<p>This measure tracks NMDOT’s accounting practices, internal control, financial information and federal program compliance. NMDOT reports this measure in January of each year. There were no prior year audit findings to be resolved in FY 2014.</p> <p>SFY15 Performance Target: >80%</p>	<table border="1"> <caption>Trend Analysis for Audit Findings Resolved</caption> <thead> <tr> <th>Fiscal Year</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>FY11</td> <td>66%</td> </tr> <tr> <td>FY12</td> <td>75%</td> </tr> <tr> <td>FY13</td> <td>100%</td> </tr> <tr> <td>FY14</td> <td>0</td> </tr> </tbody> </table> <p>Source: NMDOT FY15 Q2 Performance Measures Report</p>	Fiscal Year	Percentage	FY11	66%	FY12	75%	FY13	100%	FY14	0
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FY13	100%											
FY14	0											
Percent of positions vacant in all programs	<p>This measure tracks the number of vacant positions versus the number of budgeted positions. The measure, the quarter ending average vacancy rate, is calculated weekly based on data in the Human Capital Management SHARE System.</p> <p>The vacancy rate was the lowest in FY 2014.</p> <p>SFY15 Performance Target: <11%</p>	<table border="1"> <caption>Trend Analysis for Vacancy Rate</caption> <thead> <tr> <th>Fiscal Year</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>FY11</td> <td>16.5%</td> </tr> <tr> <td>FY12</td> <td>19.4%</td> </tr> <tr> <td>FY13</td> <td>15.8%</td> </tr> <tr> <td>FY14</td> <td>13.6%</td> </tr> </tbody> </table> <p>Source: NMDOT FY15 Q2 Performance Measures Report</p>	Fiscal Year	Percentage	FY11	16.5%	FY12	19.4%	FY13	15.8%	FY14	13.6%
Fiscal Year	Percentage											
FY11	16.5%											
FY12	19.4%											
FY13	15.8%											
FY14	13.6%											
Percent of essential data sources updated on schedule	Measurement approach TBD	Measurement approach TBD										

Measuring Our Performance

Goal 2: Improve Safety for All System Users

Goal 2 Performance Measures	Description	Trend Analysis/Approach for Analyzing New Measures
<p>Total number of fatalities</p>	<p>This measure is based on crash data reported by all law enforcement agencies through an early notification system. SFY15 Performance Target: <345</p>	 <p>Source: NMDOT Annual Crash Reports and NMDOT Monthly Crash Reports</p>
<p>Total fatalities per 100 million VMT (statewide, rural, and urban)</p>	<p>This measure is the ratio between "Total number of fatalities" and "Vehicle Miles of Travel" for a given year.</p>	 <p>Source: NMDOT Annual Crash Reports, NMDOT Monthly Crash Reports, and FHWA Highway Statistics Note: VMT data for 2014 are not yet available.</p>
<p>Pedestrian fatalities and serious injuries (statewide, rural, and urban)</p>	<p>This measure is based on crash data reported by all law enforcement agencies through an early notification system. [Note, current chart is fatalities only per 100,000 population]</p>	 <p>Source: NMDOT Annual Crash Reports, NMDOT Monthly Crash Reports, and US Census Bureau</p>

Measuring Our Performance

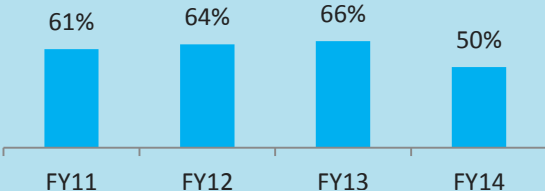
Goal 2 Performance Measures	Description	Trend Analysis/Approach for Analyzing New Measures
<p>Bicyclist fatalities and serious injuries (statewide, rural, and urban)</p>	<p>This measure is based on crash data reported by all law enforcement agencies through an early notification system. [Note, current chart is fatalities only per 100,000 population]</p>	 <p>Source: NMDOT Annual Crash Reports, NMDOT Monthly Crash Reports, and US Census Bureau</p>
<p>Total number of serious injuries</p>	<p>This measure is based on crash data reported by all law enforcement agencies through an early notification system. Serious injuries refer to any incapacitating injury (Class A) or visible, but non-incapacitating injury (Class B).</p>	 <p>Source: NMDOT Annual Crash Reports</p>
<p>Serious injuries per 100 million VMT (statewide, rural, and urban)</p>	<p>Serious injuries refer to 1) incapacitating injury (Class A) and 2) visible, but non-incapacitating injury (Class B). They are monitored as part of the crash data, which are reported by all law enforcement agencies through an early notification system.</p>	 <p>Source: NMDOT Annual Crash Reports and FHWA Highway Statistics</p>

Measuring Our Performance

Goal 3: Preserve and Maintain our Transportation Assets for the Long Term

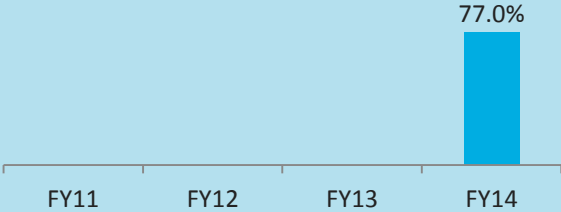
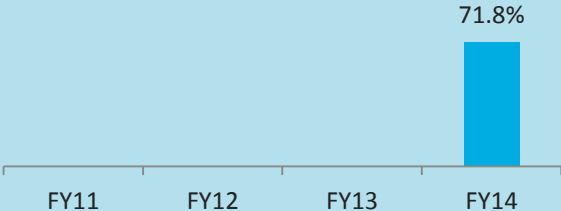
Goal 3 Performance Measures	Description	Trend Analysis/Approach for Analyzing New Measures
Percent of pavement in good/fair/poor condition by tier	NMDOT collects data on road condition and performance in part to meet federal requirements. The chart shows the percent in good direction.	<p>Source: NMDOT Pavement Data</p>
Percent of bridges in good/fair/poor condition by tier	NMDOT reports bridge condition in terms of deck area. Deck area gives an indication of the magnitude of the system in good/fair/poor condition. The chart shows the percent in good condition. SFY15 Performance Target: > 75%	<p>Source: NMDOT FY15 Q2 Performance Measures Report</p>
Percent of transit assets in state of good repair by mode (bus, rail)	FTA is in the process of developing a rulemaking on state of good repair for transit agencies that is expected to include required performance measures.	Measure to be added when rules are finalized
Number of pavement miles preserved by tier	Pavement surfacing improvements may be achieved through internal NMDOT maintenance operations or through contract maintenance projects. NMDOT uses the Highway Maintenance Management System for the collection of pavement preservation data. SFY15 Performance Target: > 2,750 lane miles	<p>Source: NMDOT FY15 Q2 Performance Measures Report</p>

Measuring Our Performance

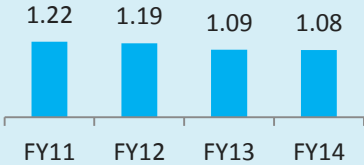
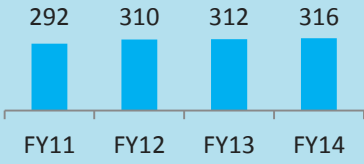
Goal 3 Performance Measures	Description	Trend Analysis/Approach for Analyzing New Measures										
Percent of airport runways rated "good"	<p>This measure tracks the condition of paved runways at airports eligible to receive federal/state aviation funds. Pavement Condition Indexing System (PCI) has been used to determine the condition levels of runways.</p> <p>SFY15 Performance Target: >60%</p>	 <table border="1"> <caption>Trend Analysis Data</caption> <thead> <tr> <th>Fiscal Year</th> <th>Percent of Airport Runways Rated "Good"</th> </tr> </thead> <tbody> <tr> <td>FY11</td> <td>61%</td> </tr> <tr> <td>FY12</td> <td>64%</td> </tr> <tr> <td>FY13</td> <td>66%</td> </tr> <tr> <td>FY14</td> <td>50%</td> </tr> </tbody> </table> <p>Source: NMDOT FY15 Q2 Performance Measures Report</p>	Fiscal Year	Percent of Airport Runways Rated "Good"	FY11	61%	FY12	64%	FY13	66%	FY14	50%
Fiscal Year	Percent of Airport Runways Rated "Good"											
FY11	61%											
FY12	64%											
FY13	66%											
FY14	50%											
Total maintenance expenditures and maintenance cost per capita	Measurement approach TBD	Measurement approach TBD										

Measuring Our Performance

Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity

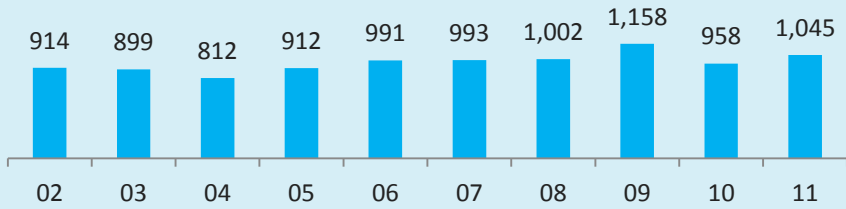
Goal 4 Performance Measures	Description	Trend Analysis/Approach for Analyzing New Measures
<p>Planning time index (reliability) for personal travel (urban areas)</p>	<p>The planning time index captures the ratio of the 95th percentile of travel time to free flow. This measure helps describe travel time reliability. This measure is expected to be required for some facilities under future federal rulemaking. The graph shows the percent of state lane miles with a PTI less than 2.5 (i.e., 5 percent of the time it takes and more than 2.5 times longer than during free flow).</p>	 <p>Source: FHWA NPMRDS 2014</p>
<p>Total person hours of delay per capita (urban areas)</p>	<p>Per capita delay is the amount of extra time that an average traveler will experience. It is based on travel times and volumes on the road network. This measure is also expected to be required for some facilities under future federal rulemaking.</p>	<p>This is a potential future measure.</p>
<p>Planning time index (supply chain reliability) for freight</p>	<p>This is the same measure as the overall planning time index, but focused only on freight movements. The graph shows the percent of state lane miles with a PTI for freight less than 2.5 (i.e., 5 percent of the time it takes and more than 2.5 times longer than during free flow).</p>	 <p>Source: FHWA NPMRDS 2014</p>

Measuring Our Performance

Goal 4 Performance Measures	Description	Trend Analysis/Approach for Analyzing New Measures
Rail Runner annual ridership (millions)	<p>This is the most basic measure of service effectiveness for a commuter rail system. Ridership can be expected to rise or fall with a number of variables, including: speed of the train service (especially relative to driving), service frequency, fare level, the relative cost of driving, ride comfort, demand for travel between city pairs, availability of parking at stations, and other factors.</p>	 <p>Source: NMDOT FY15 Q2 Performance Measures Report</p>
	<p>SFY15 Performance Target: >1.2 million riders</p>	
Park-and-Ride annual ridership (thousands)	<p>This is the most basic measure of service effectiveness for a commuter bus system. Ridership can be expected to rise or fall with a number of variables, including: speed of the bus service (especially relative to driving), service frequency, fare level, the relative cost of driving, ride comfort, demand for travel between city pairs, availability of parking at stations, and other factors.</p>	 <p>Source: NMDOT FY15 Q2 Performance Measures Report</p>
	<p>SFY15 Performance Target: > 300,000 riders</p>	
Household transportation costs as a percentage of median household income (statewide, rural, and urban)		<p>This is a potential future measure.</p>
Percent of adults over age 60 who report that they have transportation options sufficient to maintain an independent lifestyle		<p>This is a potential future measure. Collect information via random sample survey</p>

Measuring Our Performance

Goal 5: Respect New Mexico’s Cultures, Environment, History, and Quality of Life

Goal 5 Performance Measures	Description	Trend Analysis/ Approach for Analyzing New Measures																						
Stakeholder satisfaction surveys before and after development of major projects		This is a potential future measure.																						
Number of vehicle/wildlife collisions	Tracks the number of collisions between cars and large animals.	 <table border="1"> <caption>Vehicle/Wildlife Collisions (2002-2011)</caption> <thead> <tr> <th>Year</th> <th>Collisions</th> </tr> </thead> <tbody> <tr><td>02</td><td>914</td></tr> <tr><td>03</td><td>899</td></tr> <tr><td>04</td><td>812</td></tr> <tr><td>05</td><td>912</td></tr> <tr><td>06</td><td>991</td></tr> <tr><td>07</td><td>993</td></tr> <tr><td>08</td><td>1,002</td></tr> <tr><td>09</td><td>1,158</td></tr> <tr><td>10</td><td>958</td></tr> <tr><td>11</td><td>1,045</td></tr> </tbody> </table> <p>Source: New Mexico DOT</p>	Year	Collisions	02	914	03	899	04	812	05	912	06	991	07	993	08	1,002	09	1,158	10	958	11	1,045
Year	Collisions																							
02	914																							
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06	991																							
07	993																							
08	1,002																							
09	1,158																							
10	958																							
11	1,045																							
Effectiveness of mitigation measures as defined through NEPA process	Measurement approach TBD	Measurement approach TBD																						

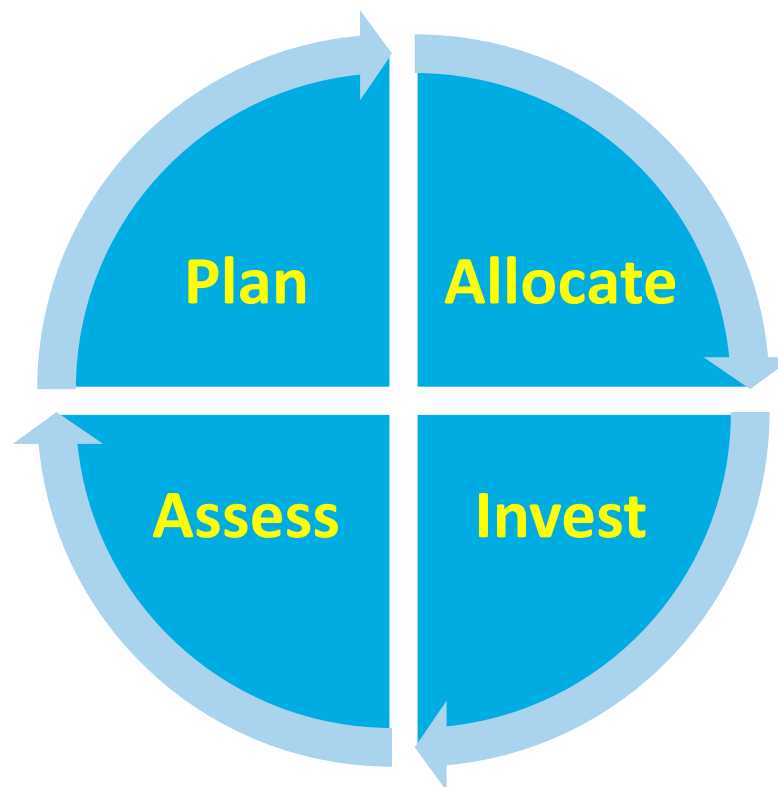


Implementing the 2040 Plan

Implementing the 2040 Plan

The New Mexico 2040 Plan (2040 Plan) sets NMDOT's long-term strategic direction, defines coordination and partnership policies, and establishes a new framework for prioritizing investments that align with the state's long-range transportation goals. Implementing the 2040 Plan requires a clear resource allocation and project prioritization process that links the plan to the TAMP and Statewide Transportation Improvement Program (STIP), NMDOT's four-year financial program that describes the schedule for obligating federal funds to state and local projects. Key steps to prioritizing projects and implementing the strategies described in the 2040 Plan include:

- **Plan:** The 2040 Plan establishes goals, strategies, and performance measures to guide statewide and regional transportation planning, project selection, and project development processes. Other adopted plans, including modal plans, MTPs, RTPs, Tribal plans, local plans, among others, identify candidate projects and must align with the 2040 Plan's overarching framework and emphasis areas.
- **Allocate:** This step involves determining available funding and establishing program-level tradeoffs to determine how much investment to allocate to each major program area associated with the 2040 Plan goals.
- **Invest:** Prioritizing investments within each goal/program area using complementary planning processes. While some programs have existing prioritization processes in place to guide investment (e.g., SHSP, TAMP, Transit SMP and AMP, State Rail Plan, and TAP), other programs will require new processes, such as developing a tiered system for prioritizing accessibility and connectivity improvements. The 2040 Plan also establishes a policy filter with which to evaluate the consistency of projects with strategies in the plan.
- **Assess:** A true performance-based planning process requires a feedback loop for continuous improvement. Ongoing performance measurement helps to monitor whether project outcomes are consistent with 2040 Plan performance goals and targets. In subsequent STIP cycles, NMDOT may choose to adjust targets and resource allocation across goals based on the measured outcomes of NMDOT's recent investments.



Implementing the 2040 Plan

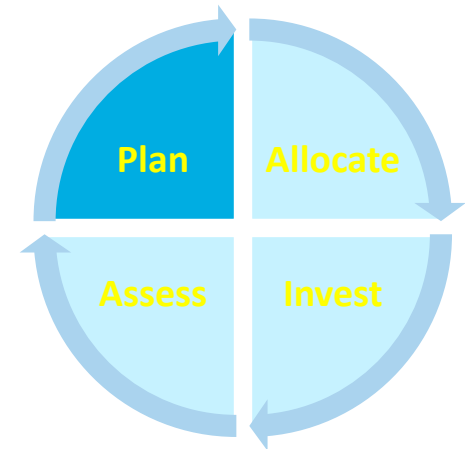
Plan

The 2040 Plan provides the foundation for the plan implementation process by defining:

- Overarching goals, strategies, and performance measures to guide the statewide and regional transportation planning process;
- NMDOT standard operating procedures to be applied on all projects and programs; and
- “Policy filters” based on the 2040 Plan strategies (many map-based) that will be applied during planning, project programming, and project development.

In addition to the 2040 Plan, NMDOT develops mode-specific investment plans (many of which are a prerequisite to receiving federal funds) to evaluate statewide needs and identify candidate projects. Each of these plans must align with the 2040 Plan’s strategic framework. All are developed in collaboration with state and regional planning partners and vetted with the public. Likewise, the MPOs and RTPOs develop regional plans in coordination with the 2040 Plan. Their MTPs and RTPs identify regional projects that are mutually consistent with statewide and regional transportation priorities.

The outcome of this implementation phase is the identification of candidate projects and the strategic framework with which to prioritize them and measure progress.



NMDOT’s Family of Plans

New Mexico Transportation Plan		
NMDOT Strategic Plan	Freight Plan	Transit Plans and Processes
Rail Plan	Transportation Asset Management Plan	Aviation System Plan
Strategic Highway Safety Plan	Nonmotorized Plan (NEW!)	Other

Roles and Responsibilities

- **NMDOT Executive Leadership** – Institutionalize the accountability and transparency strategies that impact the organization and day-to-day operations of the department.
- **NMDOT Asset Management and Planning Division** – Ensure robust coordination and partnership throughout NMDOT and across the state’s planning partners when developing modal, regional, or local transportation plans.
- **NMDOT Transit & Rail and Aviation Divisions** – Develop modal plans and ensure compliance with federal laws and regulations.
- **Metropolitan Planning Organizations/Regional Transportation Planning Organizations** –Lead the development of metropolitan and regional plans that are consistent with the 2040 Plan’s strategic direction framework.

Implementing the 2040 Plan

Allocate

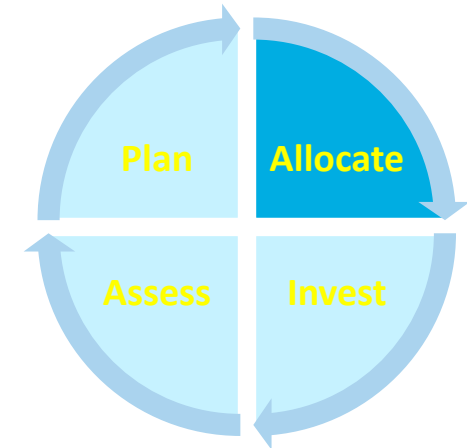
The 2040 Plan creates a performance-based resource allocation process that funds programs according to their impact on the performance measures established in this plan. The budget allocation process involves the following steps (performed in a collaborative workshop setting):

1. Determine available funding;
2. Allocate funding across the five 2040 Plan goal areas in accordance with 2040 Plan policies;
3. Assess resulting performance impacts using high-level system measures; and
4. Evaluate tradeoffs and refine allocation.

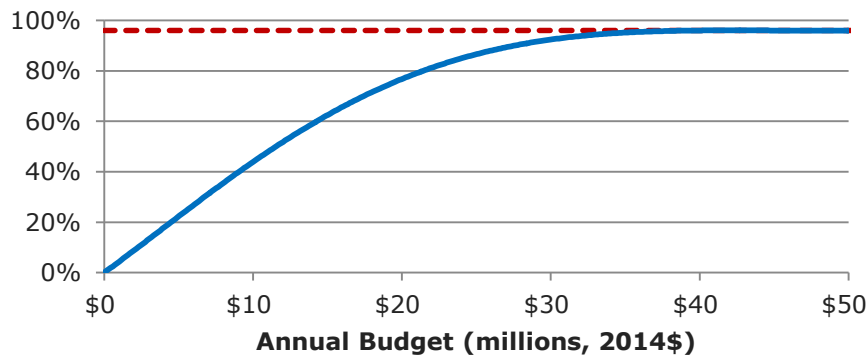
The outcome of this implementation phase is the allocation of NMDOT resources to each of the 2040 Plan's five goal areas (See page 8).

The NMDOT will establish a Project Identification, Evaluation and Prioritization Committee (PPC), similar in representation to the Department Coordinating Committee (DCC), to establish the budget for each goal area. This process requires an estimate of expected future performance at varying levels of funding. An example of this type of analysis is provided at right for bridges on the National Highway System (NHS) in New Mexico, showing the percent of bridges in good condition. Similar analysis is needed for each major performance area; it will take time to develop these in some areas, and in some cases the analysis may be qualitative.

The PIEPC will follow a structured process that involves comparing changes in investment levels across each measure. This analysis relies on a subset of the performance measures that can be forecast.



Expected Future Bridge Performance by Funding Level



Roles and Responsibilities

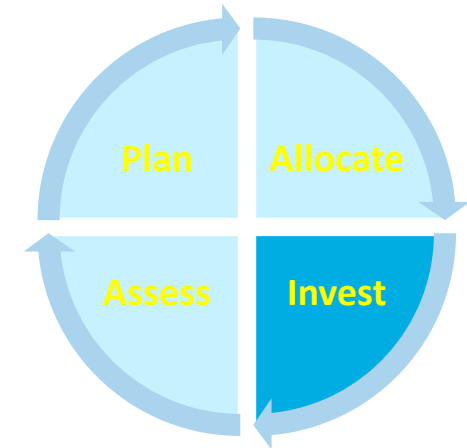
- **NMDOT Project Identification, Evaluation and Prioritization Committee (PPC)** –Establish program-level tradeoffs and performance goals/targets using information about expected performance.

Implementing the 2040 Plan

Invest

In this step, the PPC prioritizes projects in accordance with 2040 Plan policies. Projects in the STIP will come through one of several priority programming processes aligned with the 2040 Plan goals (summarized in the table below). Projects and programs will be evaluated against the strategies and policy filters defined within the 2040 Plan. In individual regions, the emphases of the RTPs will also be used to evaluate projects within each region. Ultimately, recommended projects are confirmed for inclusion in the STIP through collaboration with agency partners and the public involvement process.

Goal 1: Operate with Transparency and Accountability	N/A
Goal 2: Improve Safety for All System Users	Highway Safety Improvement Program (HSIP)
Goal 3: Preserve and Maintain Our Transportation Assets for the Long Term	Transportation Asset Management Plan (TAMP) Transit Asset Management Plan
Goal 4: Provide Multimodal Access and Connectivity for Community Prosperity and Health	State Management Plan for Public Transportation State Rail Plan State Aviation Plan Transportation Alternatives Program (TAP) Congestion Mitigation and Air Quality (CMAQ) Performance Plans New project prioritization process to allocate Goal 4 funding across the modes and projects above (preliminary outline on the following page)
Goal 5: Respect New Mexico’s Cultures, Environment, History, and Quality of Life	To be determined



Roles and Responsibilities

- **NMDOT Asset Management and Planning Division** – Oversee the prioritization processes within each program area, such as the TAMP, SHSP, TAP, etc.
- **NMDOT Transit & Rail and Aviation Divisions** – Prioritize and distribute funds consistent with the State Management Plan for Public Transportation, State Rail Plan, and New Mexico Airport System Plan.
- **Metropolitan Planning Organizations** – Develop CMAQ Performance Plans.
- **FHWA and FTA** – Approve STIP projects.

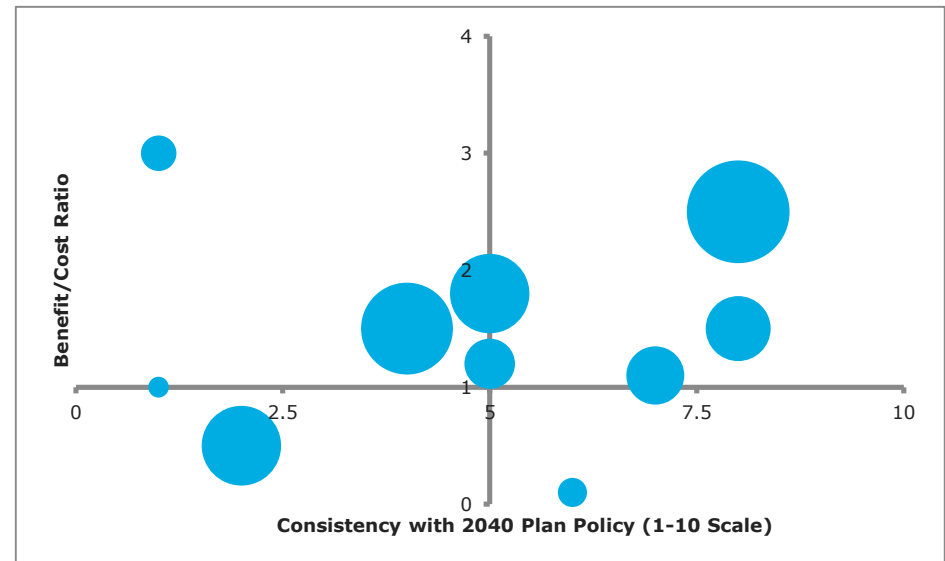
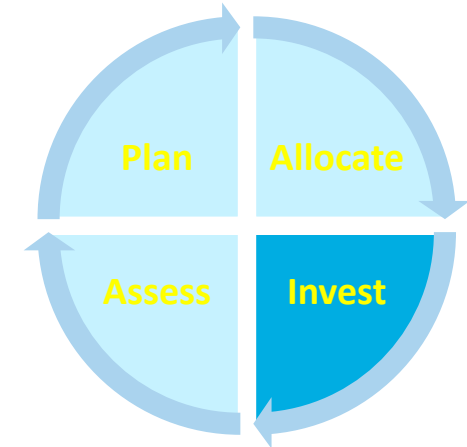
Implementing the 2040 Plan

New Project Prioritization Process for Strategic Investment in Key Corridors

Like the other goal areas, Goal 4 needs a clear, standardized process to define needs and prioritize investments. The 2040 Plan begins this process by establishing a framework for strategically investing in key corridors. Implementing this framework requires additional process and criteria to help address potential investments across modes and projects. The PPC will further refine the steps of this process, as outlined here:

1. Use the policy filters established in Goal 4 by mode to eliminate projects that are not consistent with the 2040 Plan. Some of the policy filters are well established in the 2040 Plan, but others will be fleshed out and refined through complementary plans.
2. Calculate the total benefits of proposed projects. These may be monetized or may be calculated using a weighted algorithm that combines multiple factors.
3. Estimate the benefit/cost or cost effectiveness of proposed investments. Cost effectiveness is usually calculated as a weighted performance score divided by cost. Benefit/cost is useful, as it has a natural break point (i.e., if the benefit cost is over 1.0, the projects benefits exceed its costs), but it can be hard for many types of projects to monetize all benefits.
4. Calculate a 'policy consistency' score that relates the proposed investment to all of the policy filters established in the 2040 Plan.
5. Combine the three scores into a single decision making framework, following the example at left. The grid shows the relationship between benefit cost and policy consistency. The bubbles are sized by 'total benefit.'

This provides the guidelines for establishing a process, but fleshing out the mechanics of this performance-based project prioritization process is a fundamental action item for NMDOT's roll out of the plan. One of the critical steps will be to define the prioritization factors to be used in scoring and cost effectiveness. These should reflect the measures of the 2040 Plan. Similarly, a process will need to be developed to link the policies described in the 2040 Plan into a ranking system for evaluating projects



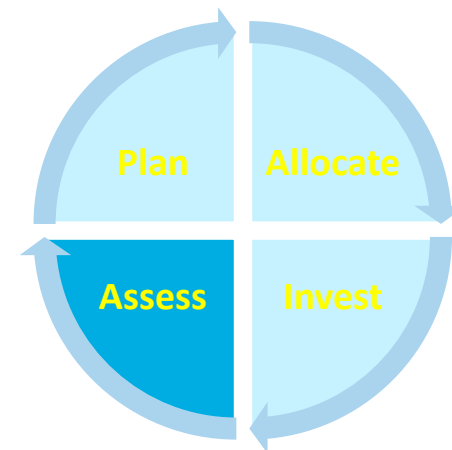
Implementing the 2040 Plan

Assess

As is suggested throughout this plan, a core element of the 2040 Plan and its implementation is the measurement of progress towards the NMDOT goals. The 2040 Plan defines high level performance measures with which to measure progress, and performance monitoring is most successful if it is linked with regular reporting activities to ensure that the measures are used. Measuring the success of the 2040 Plan will depend on how well NMDOT can track performance measure indicators. NMDOT will provide several status updates on the 2040 Plan throughout the year, including:

- Annual Performance and Expenditure Report to FHWA;
- Updates to MPOs and RTPOs at their quarterly meetings; and
- Annual progress report to NMDOT executive leadership.

This phase of plan implementation provides a feedback loop to inform project identification, resource allocation, and project prioritization in subsequent iterations or refinements of the planning process. Based on the measured outcomes of implemented projects, the 2040 Plan's performance-based framework provides the mechanism to readjust resource allocation across goal areas, reassess performance tradeoffs, and refine project selection criteria to realign NMDOT's activities and investments with the 2040 Plan's long-range goals.



Roles and Responsibilities

- **NMDOT Asset Management and Planning Division** – Ongoing performance reporting to monitor progress towards the plan's goals, maintaining the list of actions in the 2040 Plan and providing a quarterly status report to NMDOT executive leadership, and FHWA
- **NMDOT Coordinating Committee (DCC)** – Refine program-level tradeoffs and performance goals/targets based on performance assessments of implemented projects.
- **Freight Advisory Committee (FAC)** – Meet on a regular (semi-annual) basis to review freight strategies, continue to gather information about freight users needs and challenges, and review products of ongoing studies (e.g., border plans, corridor studies, etc.).
- **Interagency Coordinating Committee (ICC)** – Provide advice on implementation of 2040 Plan actions and strategies through regular (annual) meetings. Identify opportunities for NMDOT to support related initiatives.
- **Interested Parties Coordinating Committee (IPCC)** – Provide feedback on the impact of 2040 Plan implementation on transportation stakeholders.
- **Regional Transportation Planning Organizations** – Within the context of the 2040 Plan strategic direction framework, the RTPOs coordinate with NMDOT on plan implementation and monitoring performance at the regional level.
- **Metropolitan Planning Organizations** – Within the context of the 2040 Plan strategic direction framework, the MPOs coordinate with NMDOT on plan implementation and monitoring performance at the metropolitan level.



Implementing the 2040 Plan

Re-Tooling NMDOT

The 2040 Plan sets a new course of direction for NMDOT, based on a robust partnership with public and private organizations to advance the performance of the transportation system in the state. NMDOT will need new skills, approaches, and organizational structures to advance the goals of the 2040 Plan. Chief among these is the ability to be nimble, to be able to respond flexibly to a changing and often challenging environment. Some of the skills and organizational changes that NMDOT will need to explore to implement the plan include:

- **Ensuring that future project and program development efforts conform to the long range plan.** NMDOT is the process of developing a planning certification to be incorporated into NMDOT's project development process. This certification will ensure that the appropriate planning processes and tools have been applied.
- **Identifying and filling any gaps in NMDOT skill sets necessary to implement the 2040 Plan.** The 2040 Plan places strong emphasis on performance-based planning, integrated/high-quality data, collaboration and teamwork, and context sensitive solutions requiring corresponding analytical/technical, people/ leadership, and interdisciplinary skills. It is important for NMDOT to identify the desired core competencies of its workforce and understand where skill gaps exist in order to tailor training programs and recruitment strategies appropriately to develop and master these needed skills.
- **Aligning all NMDOT activities within the 2040 Plan framework.** Successful plan implementation requires top-down leadership from the Cabinet Secretary to convey the plan's importance, promulgate clear and simple NMDOT departmental policies, and consistently reinforce the message. At the same time, bottom-up participation in the implementation process is equally important. All NMDOT employees, regardless of role or discipline, should be able to find how they fit into the plan and understand their role in implementing the 2040 Plan strategies and actions and/or influencing system performance.
- **Embracing a fully multimodal department.** Just as the New Mexico transportation system has evolved into more than just a system of highways, NMDOT is no longer simply a highway department. It is important that NMDOT's organizational structure, job descriptions, training, and development programs appropriately reflect the department's modal diversity.

A Good Plan is Used

The greatest critique of any plan is that it sits on the shelf. Ensuring the plan gets used in decision making requires all of the following:

- All of NMDOT has to take planning seriously. If decision makers in the organization know what is in the plan and refer to it when making their decisions, it will be real for NMDOT's partners and customers.
- NMDOT will communicate plan progress to its partners and customers. Regular reporting on the strategies, actions, and measures will help ensure that the plan is effective.
- The 2040 Plan provides tools that NMDOT and its partners can use to support decision-making, The 2040 Plan includes:
 - Map-based frameworks for identifying the planning factors to be considered in project and program development and to help prioritize investment.
 - Checklists of issues to be addressed in specific planning and project development efforts.
 - A prioritized list of actions.



Appendices



Appendices

The following appendices are available under separate cover.

Freight Plan

Detailed compilation of freight related items are provided in a complementary document. The freight plan draws from the material identified within the 2040 Plan (this document), as well as material from the technical appendices identified below.

Appendix A – Existing and Future Conditions

Phase I Memorandum

Appendix B – 2040 Plan Technical Analysis Report

Summary of Phase III and IV work completed in support of the plan, including:

- Technical analysis to support each of the goals.
- Health impact analysis.
- Summary of alternatives development and analysis.

Appendix C – Scenario Analysis and Revenue

Summary of Phase II work

Appendix D – Stakeholder and Public Engagement

Summary of all stakeholder and public meetings with detailed notes included as attachments.

Appendix E – 2040 Plan Action Tracking

List of all 2040 Plan actions, including responsibilities and expected timeframe for implementation.