

Futures 2040:

The Metropolitan Transportation Plan for the Albuquerque Metropolitan Planning Area



Who we are

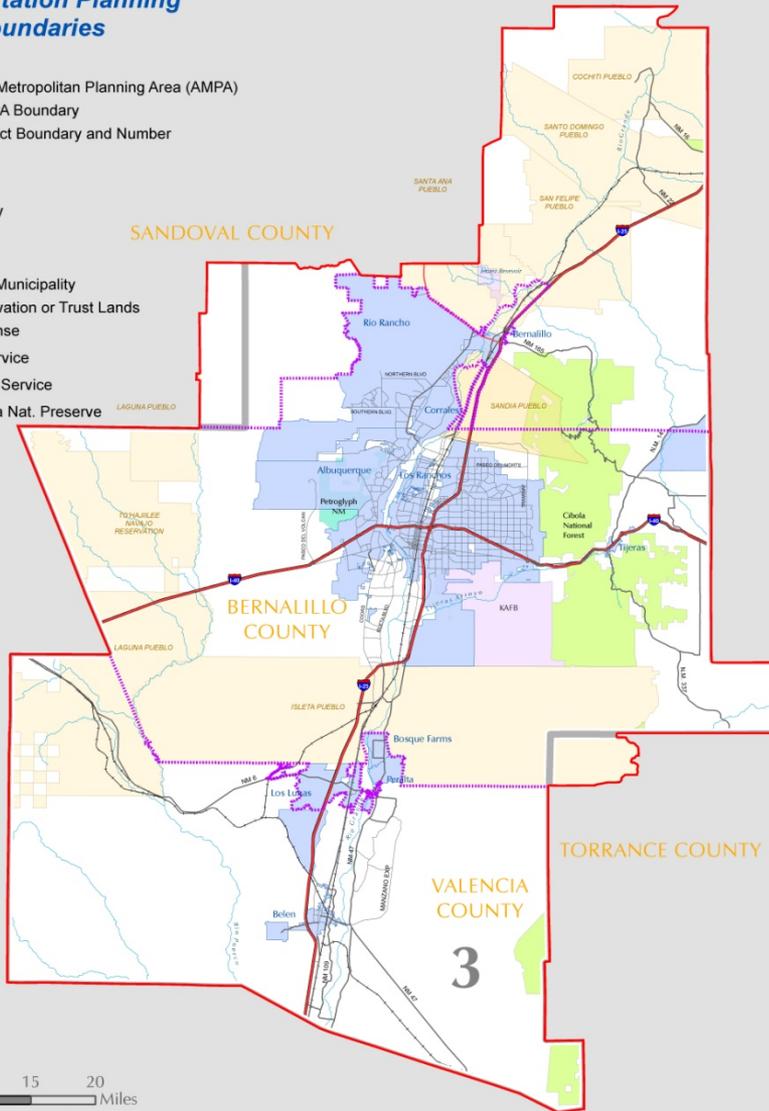


- Mid-Region Metropolitan Planning Organization, or MRMPO
- MPOs are responsible for transportation planning activities for each metropolitan area of more than 50,000 people
- MRMPO is part of the umbrella organization, the Mid-Region Council of Governments (MRCOG)

Mid-Region
Council of Governments
**Transportation Planning
Boundaries**

- Albuquerque Metropolitan Planning Area (AMPA)
- Previous AMPA Boundary
- NMDOT District Boundary and Number
- Interstate
- US Highway
- State Highway
- Other Roads
- Railroads
- Incorporated Municipality
- Indian Reservation or Trust Lands
- Dept. of Defense
- US Forest Service
- National Park Service
- Valles Caldera Nat. Preserve

*Area outside of AMPA Boundary



Albuquerque Metropolitan Planning Area:

Three counties

- Bernalillo County
- Valencia County
- Sandoval County (part)

Two urbanized areas:

- Albuquerque
- Los Lunas

0 5 10 15 20 Miles

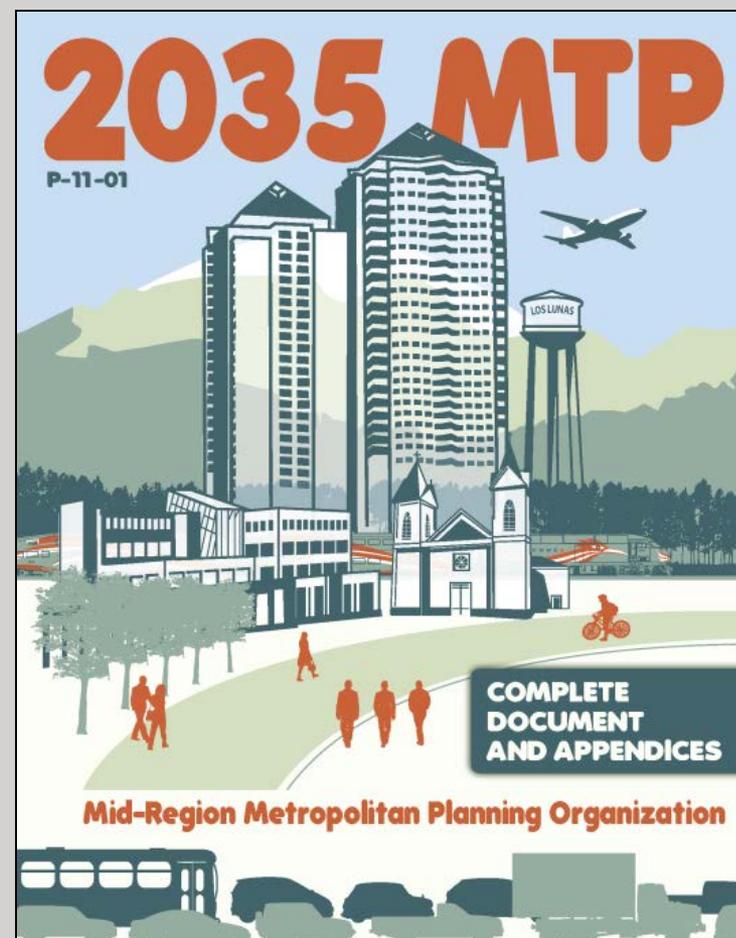


Source: MR COG, NMDOT, BLM NM State Office.

Revised March 4, 2013
Signed by Governor Richard J. Berry

Metropolitan Transportation Plan

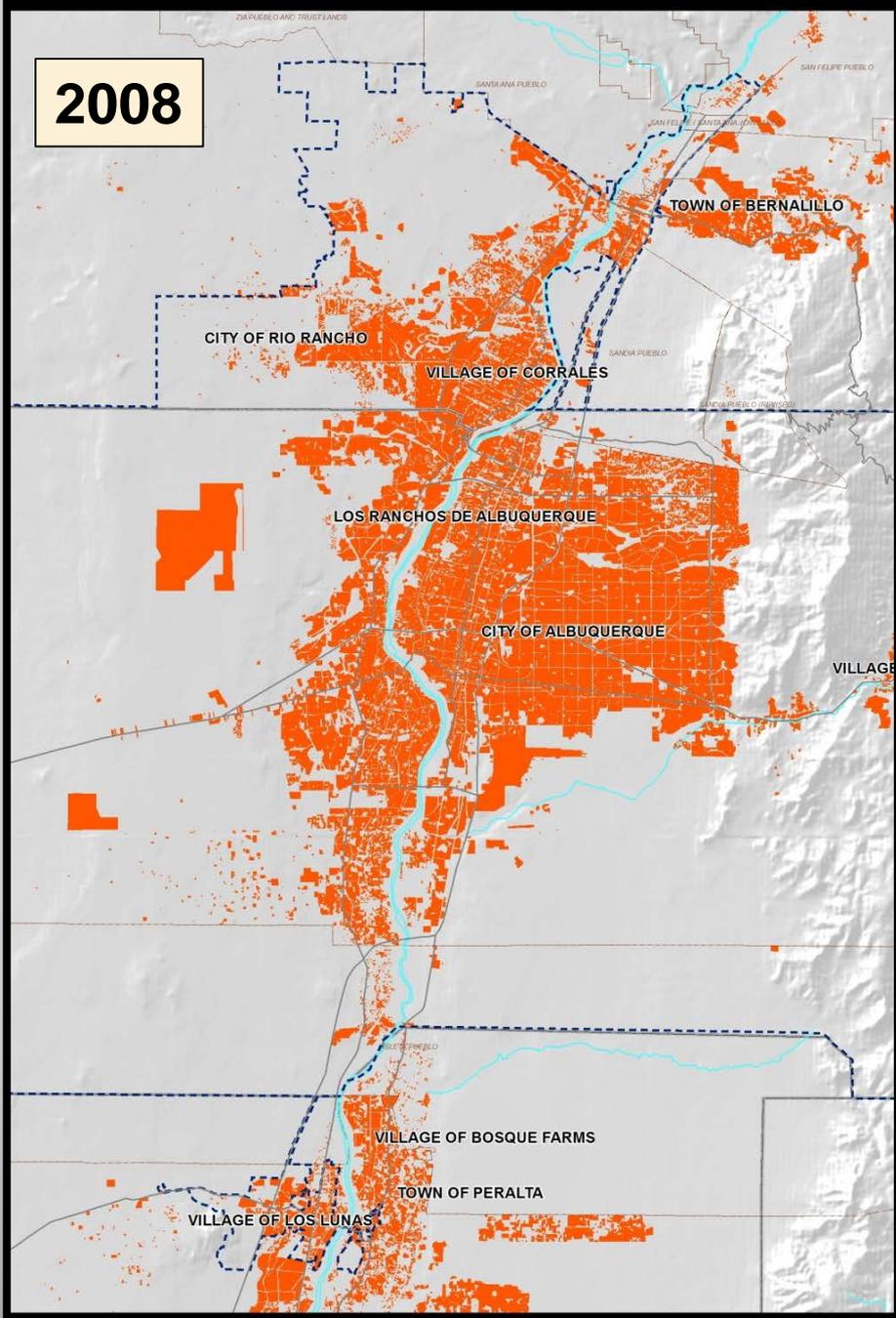
- Long-range (20+ years) multi-modal transportation plan for the Albuquerque metro area
- Updated every 4 years (current update → April 2015)
- Projections of growth/development
- List of all anticipated transportation projects in the region



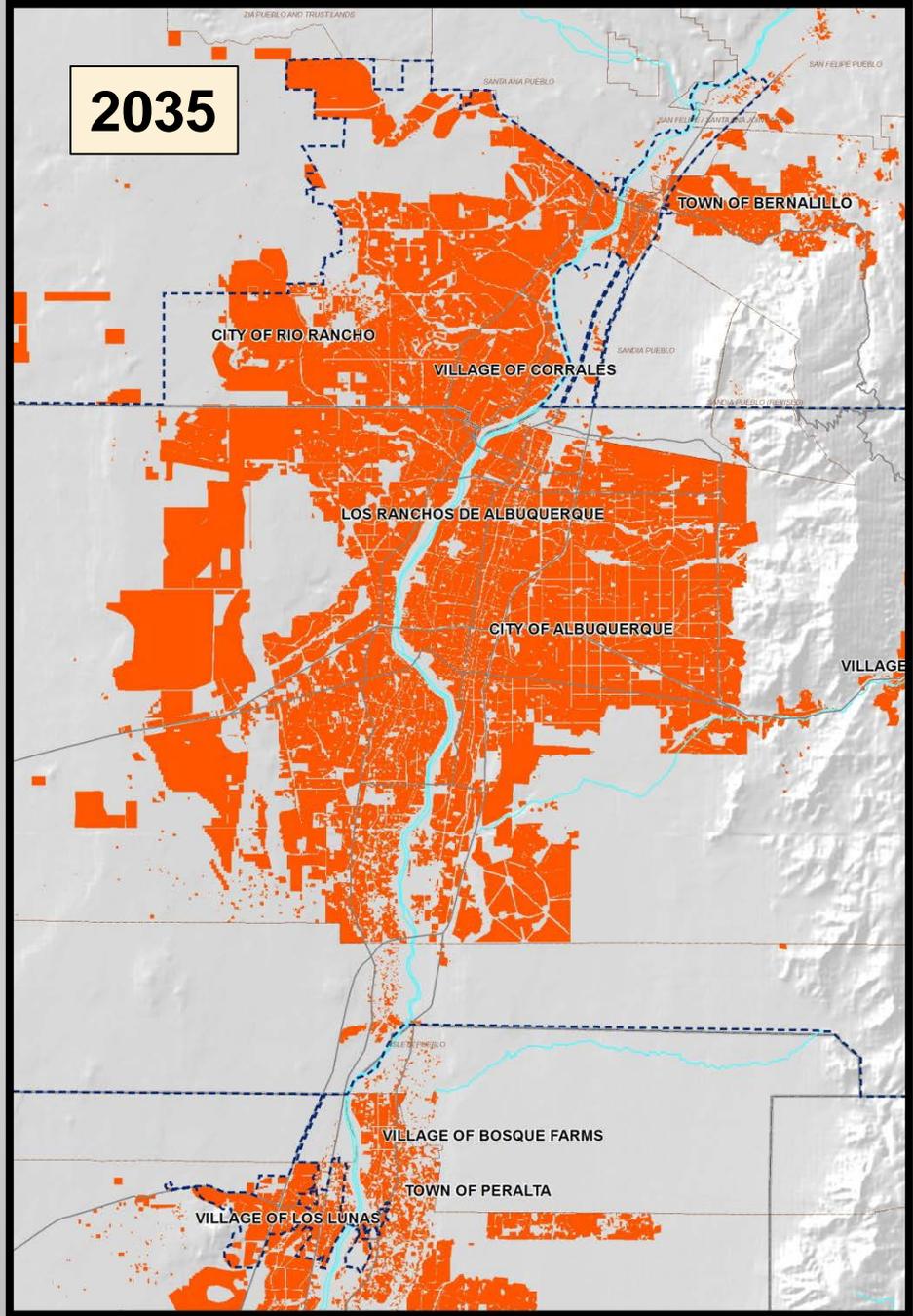
MTP Questions

- Can our transportation infrastructure handle the projected growth?
- What roles should different modes play?
- What type of strategies and investments should we pursue?

2008



2035



2035 MTP: Roadway Enhancements

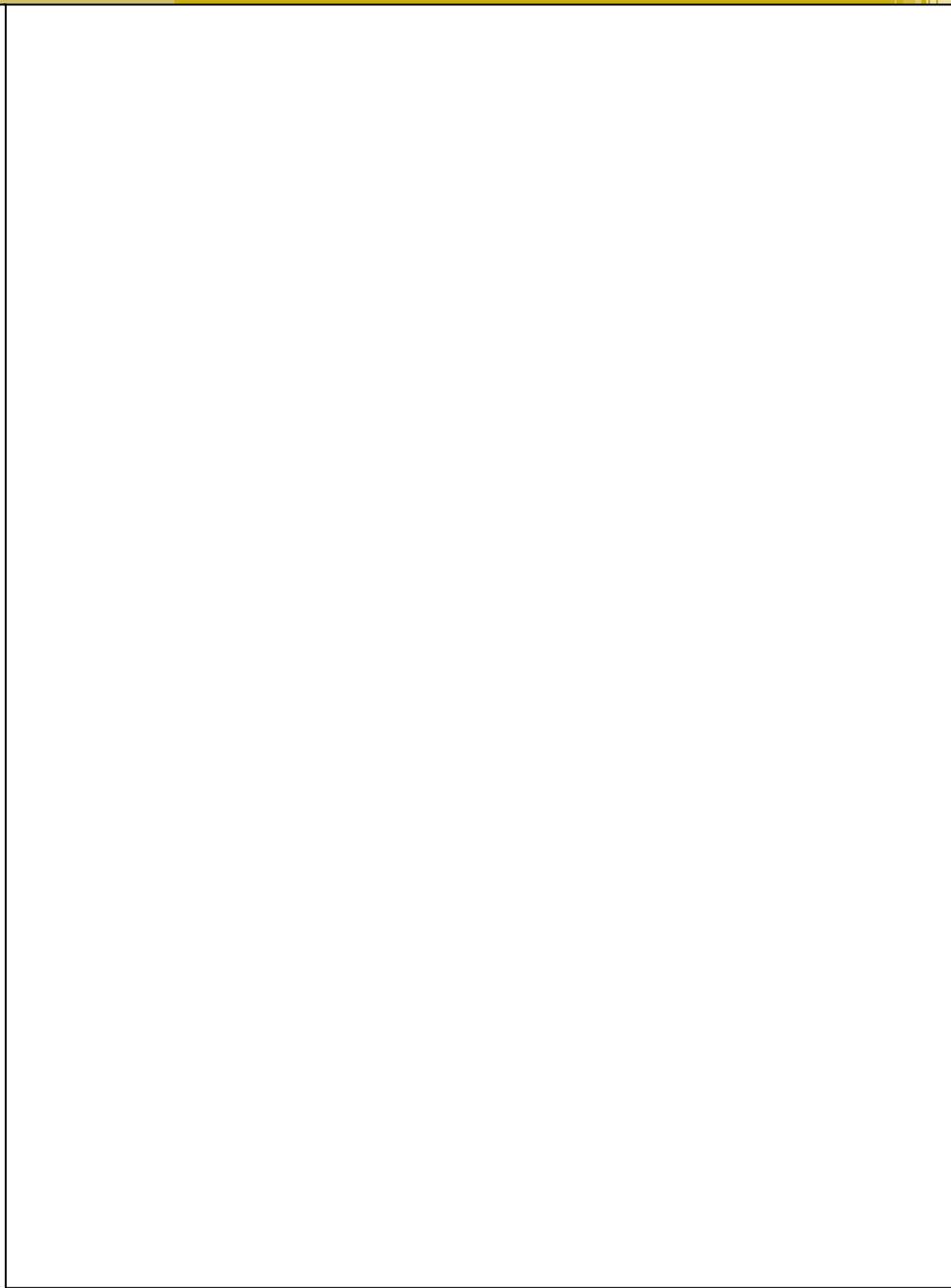
- \$3 billion in increased capacity
- 600 new lane miles
 - North-south capacity
 - New network
- 9 new/reconstructed interchanges

First step:

- Consider impacts of growth on existing infrastructure
- See what happens if we don't build anything!

Second step:

- Consider impacts of growth AND infrastructure investments
- See what happens after \$3 billion in roadway investments



Summary Statistics

- **Miles traveled by car:** *16 million to 24 million (+ 50%)*
- **Hours traveled by car:** *400,000 to 740,000 (+ 80%)*
- **Average speeds:** *40 mph to 33 mph (- 17%)*
- **Trips across the river:** *492,000 to 960,000 (+94%)*

Key Findings from 2035 MTP

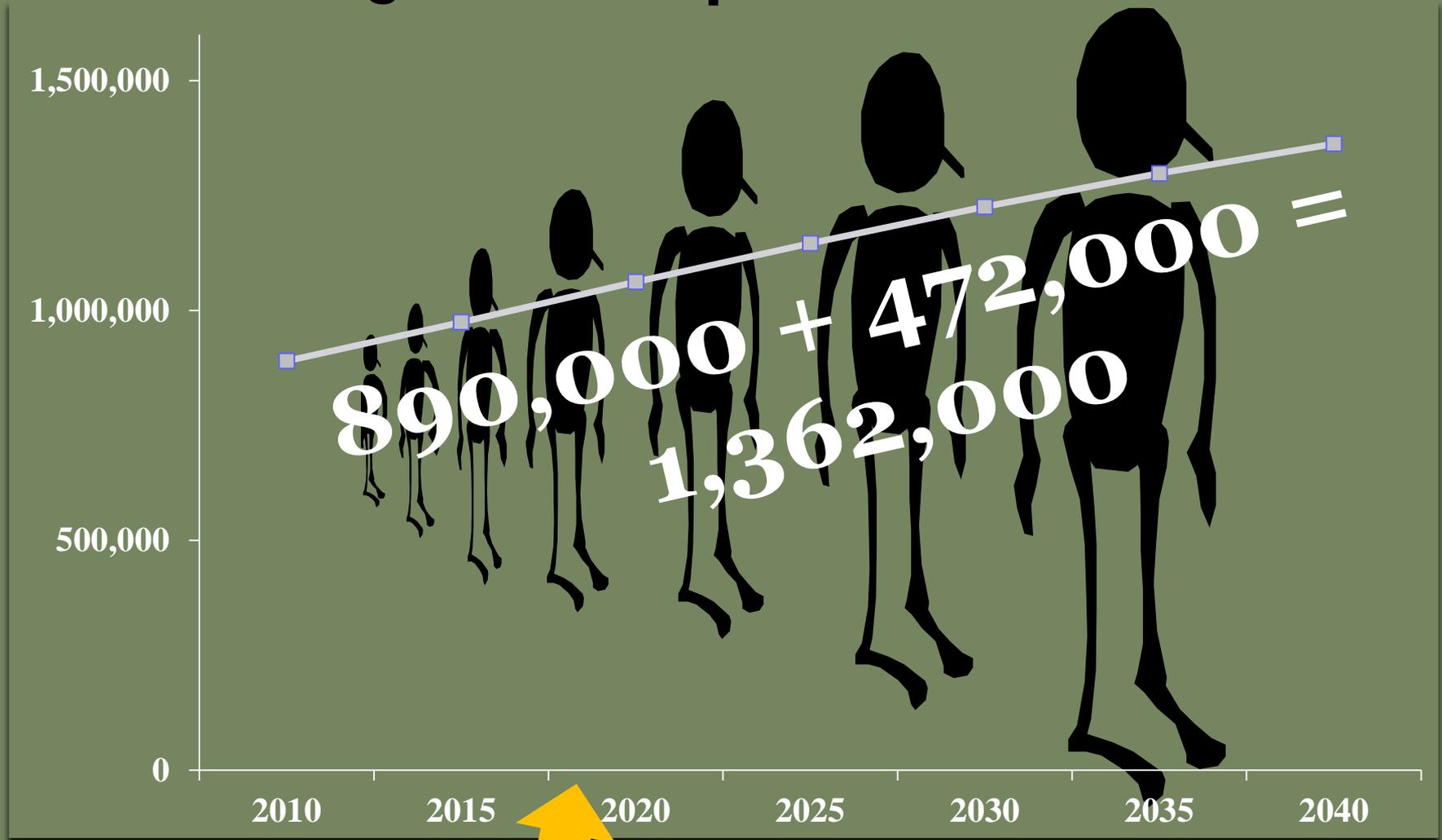
- River crossing congestion is a critical issue
- No new bridges have been proposed
- Building our way out of congestion is not realistic
- There is no silver bullet. A variety of strategies will be necessary to tackle congestion.

Important New Components for 2040 Metropolitan Transportation Plan

- Revised population projections
- Expanded boundaries → all of Valencia County
- Mid-Region Household Travel Survey
- NMDOT Statewide Long-Range Transp. Plan
- Central New Mexico Climate Change Scenario Planning Project



2040 Regional Population Forecast

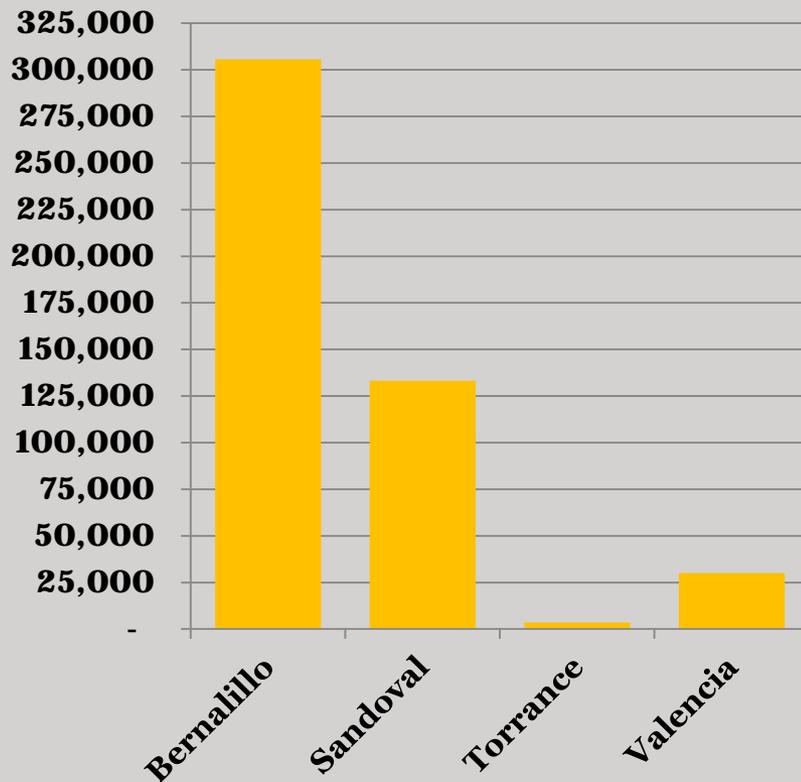


890,000 + 472,000 =
1,362,000

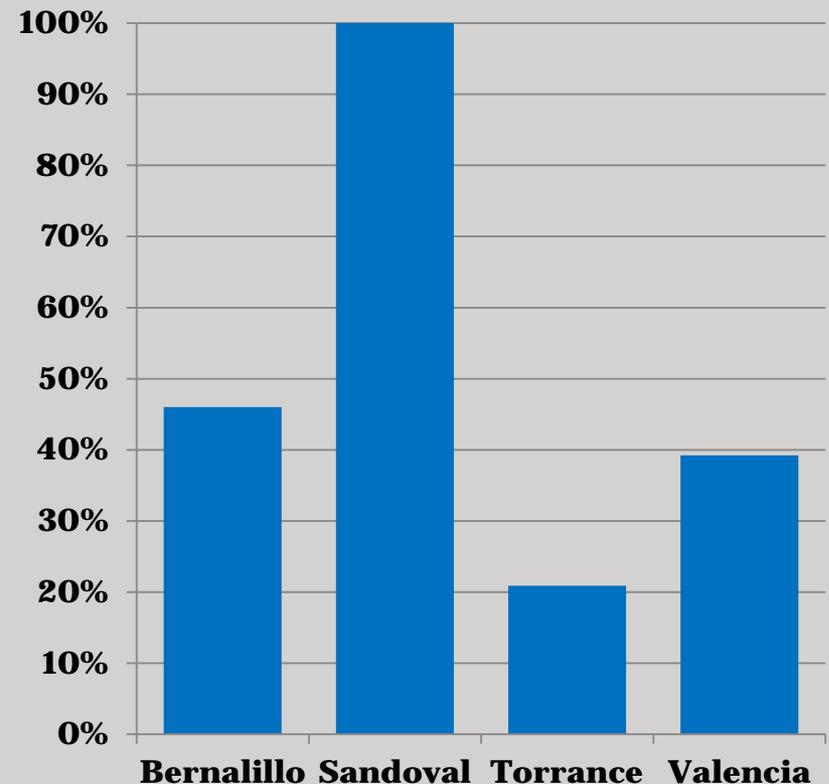
1 Million!

30 Year Growth by County

Absolute Growth

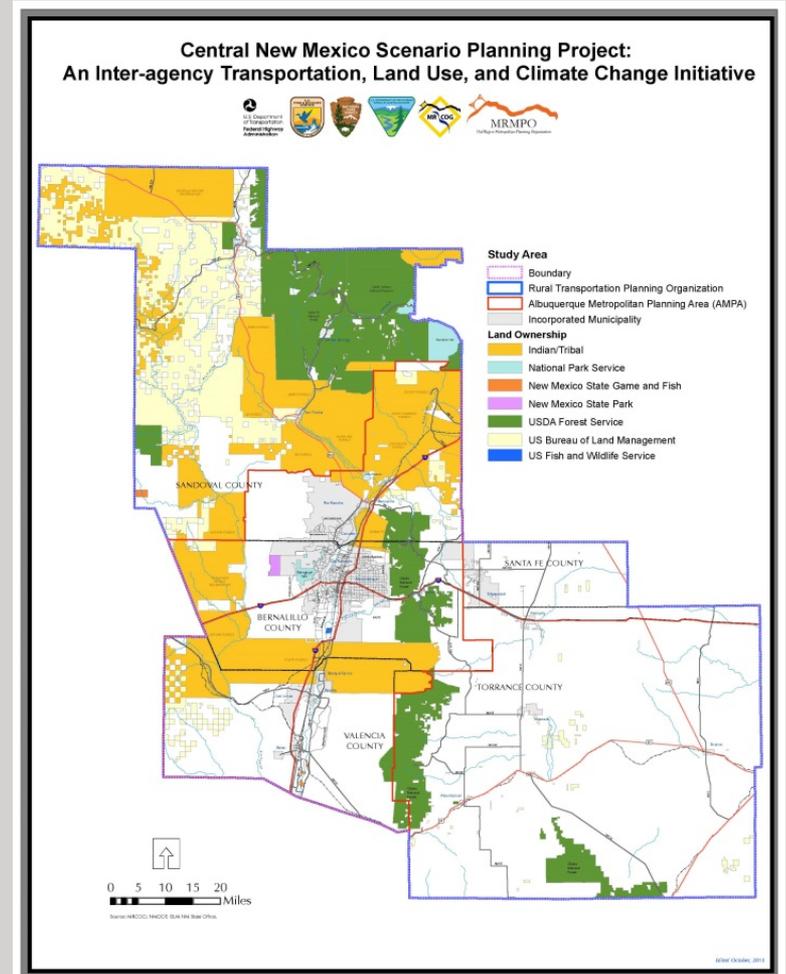


Percentage Growth

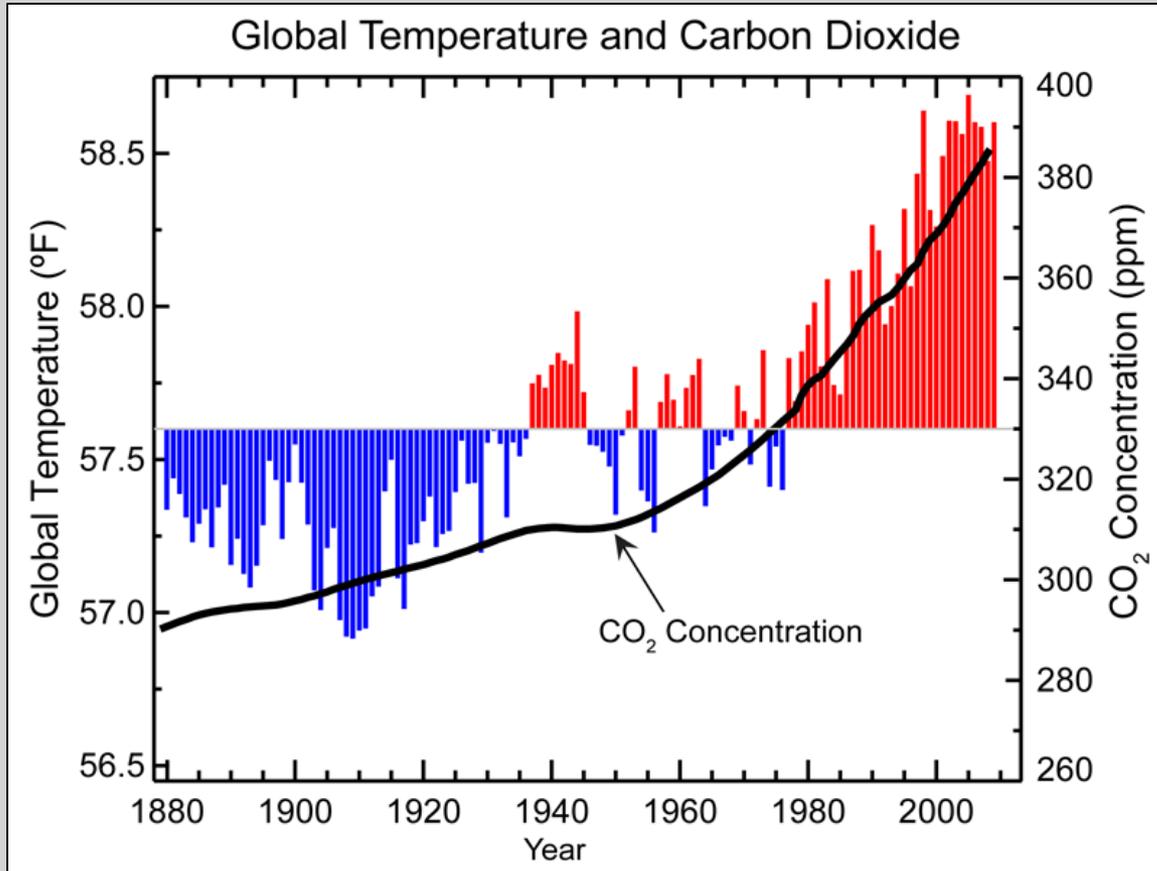


Central New Mexico Climate Change Scenario Planning Project

- Climate futures
 - Temperature
 - Precipitation levels
- Climate change impacts on central New Mexico
 - Will we get hotter and drier?
 - Droughts? Wildfires? Flooding?
- Consider whether development patterns make us more or less resilient to climate impacts



Changing Climate Conditions

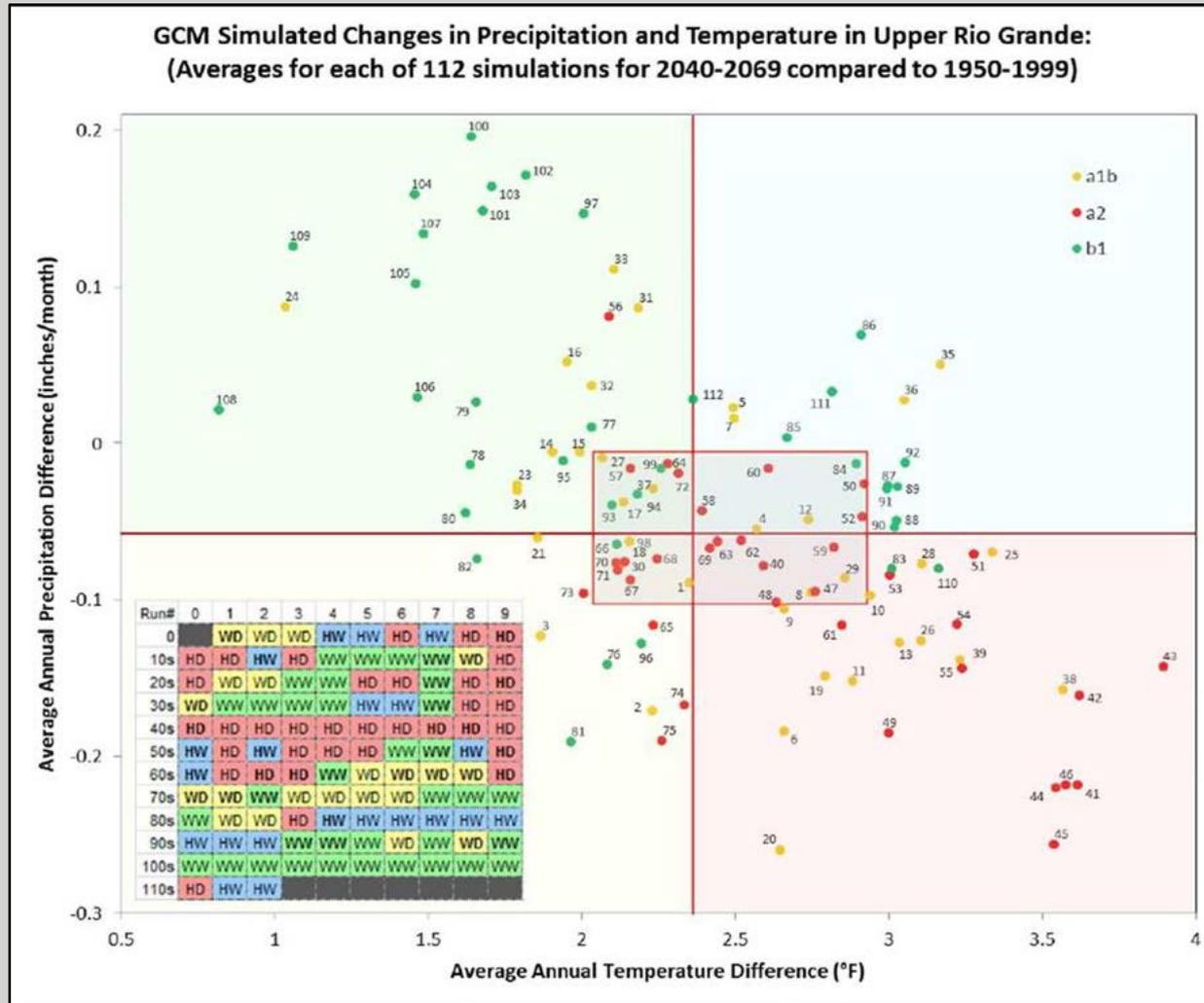


Source: NOAA

Rio Grande Basin (1971-2011)

- Average temperature increased by 0.7°F per decade
- Twice the global average

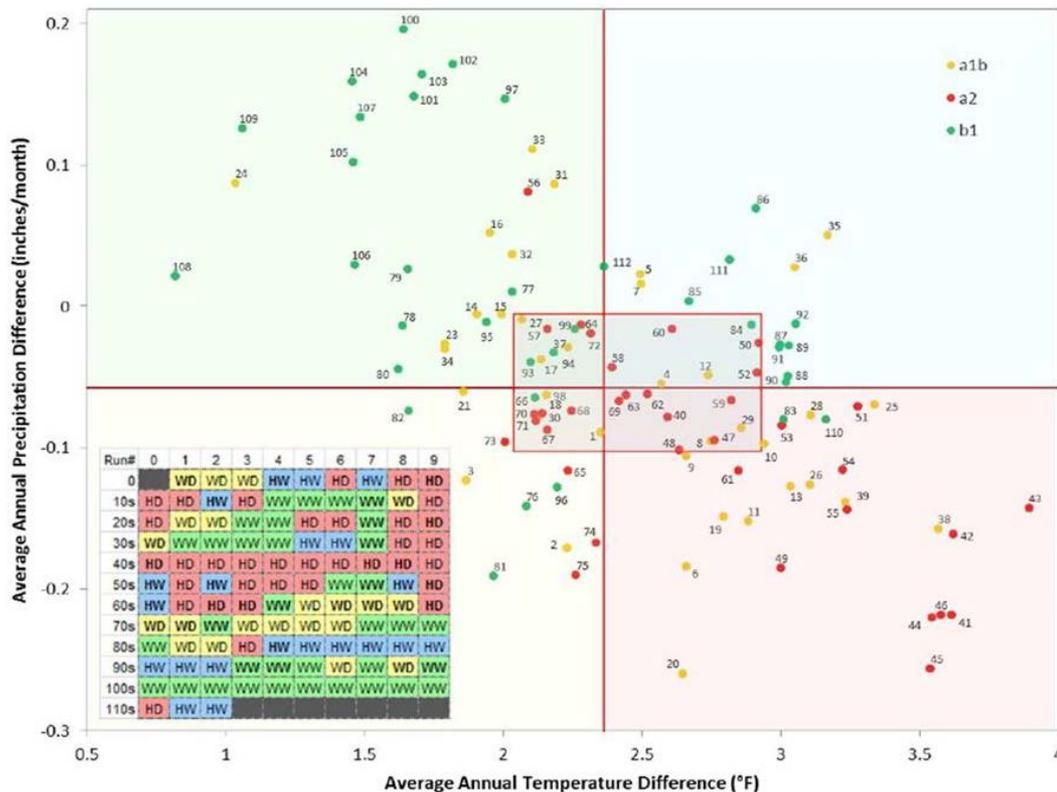
Upper Rio Grande Impact Assessment



Source: Bureau of Reclamation / Sandia Labs

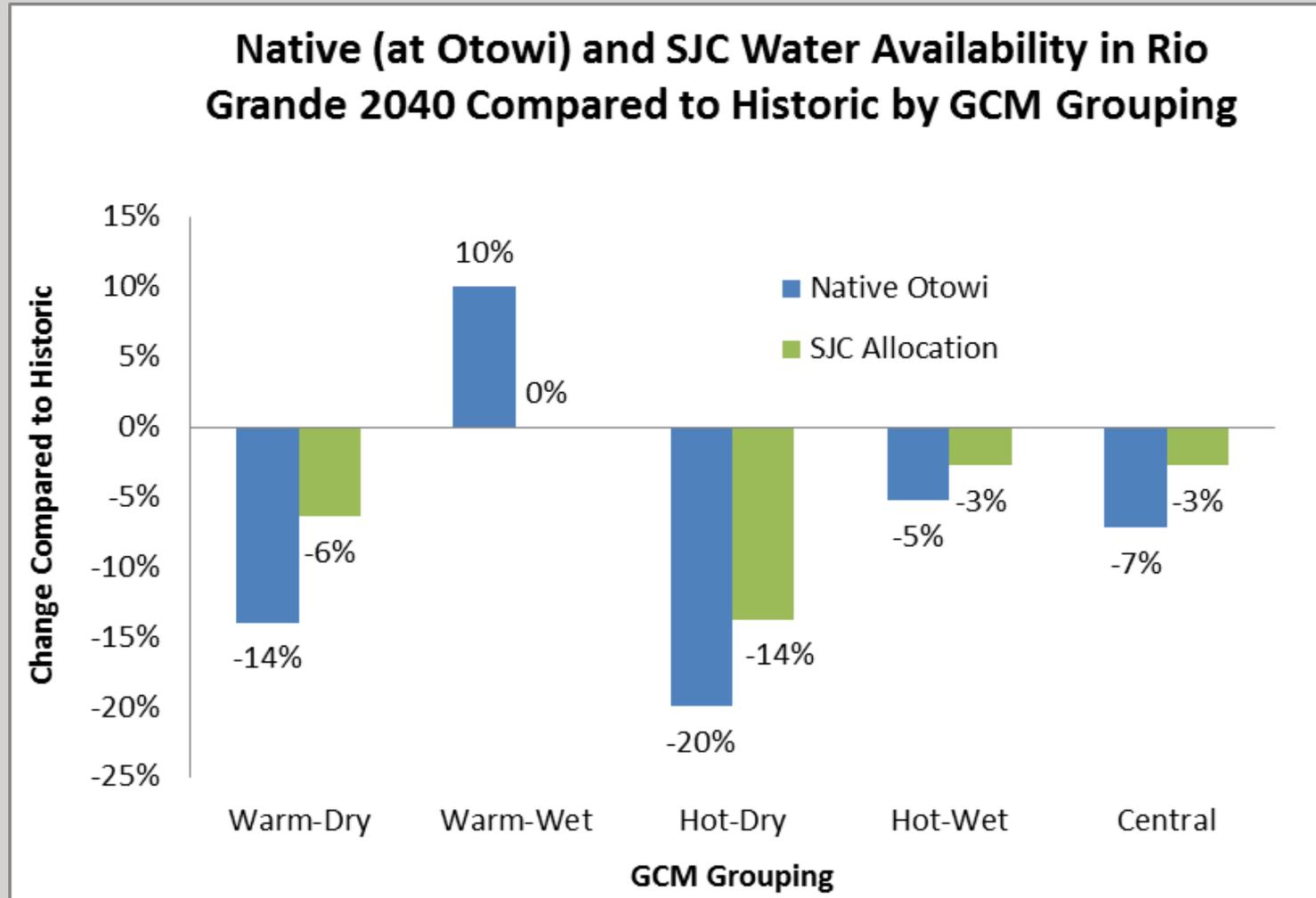
Upper Rio Grande Impact Assessment

GCM Simulated Changes in Precipitation and Temperature in Upper Rio Grande:
(Averages for each of 112 simulations for 2040-2069 compared to 1950-1999)



- All 112 scenarios result in higher temperatures
- Earlier snowmelt runoff → Changes in timing of river flows
- Higher temperatures increase water demands for irrigated agriculture
- Precipitation is highly variable
- More intense droughts and more extreme events

Water Availability in ABQ Area: 2040



Water Availability in 2100

According to the Upper Rio Grande Impact Assessment:

- Rio Grande flows decrease by $\frac{1}{3}$
- San Juan-Chama flows decrease by $\frac{1}{4}$

Applications for Land Use and Transportation Planning

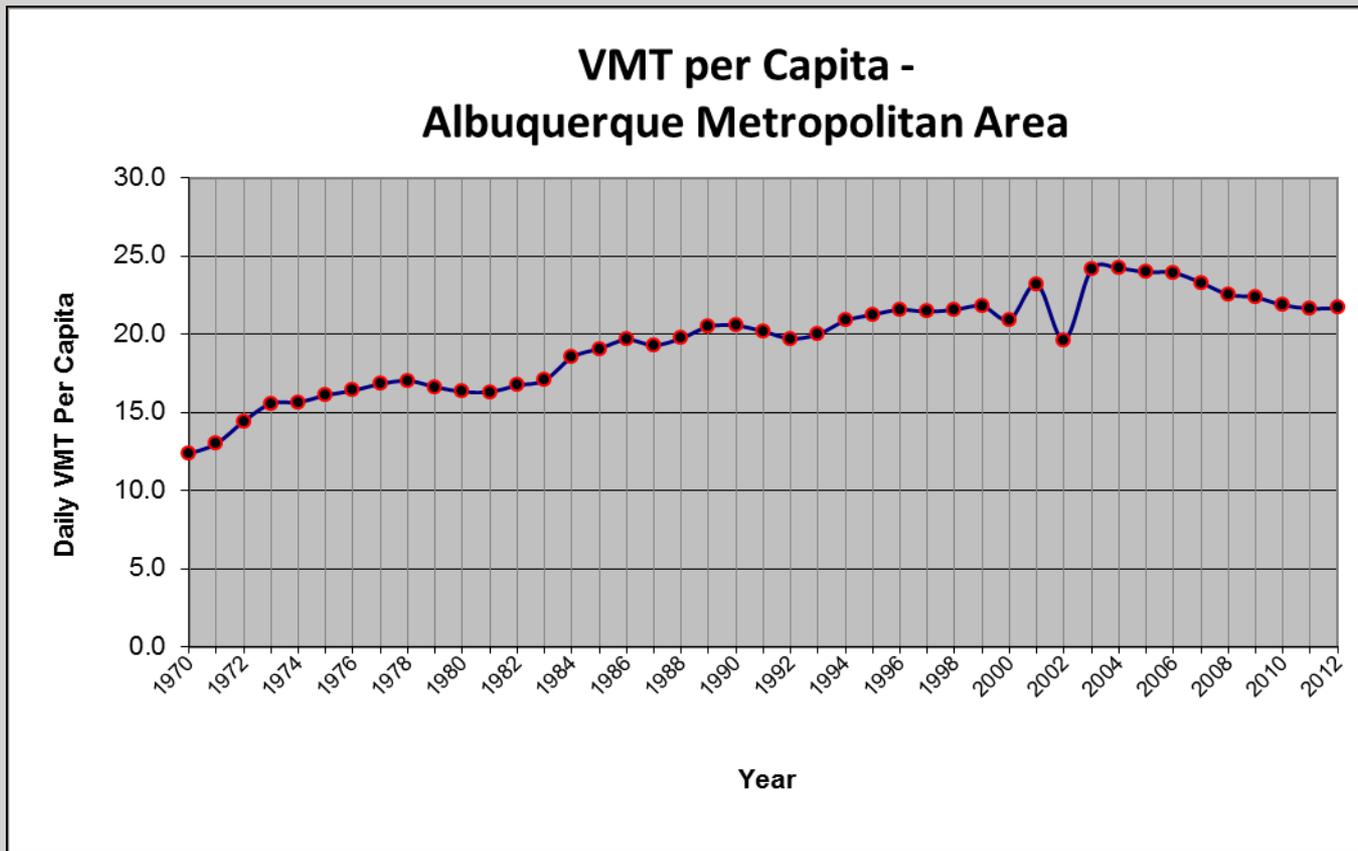
- Consider impacts of changing temperature and precipitation on:
 - Energy demands
 - Transportation infrastructure
 - Flood risk analysis
- Strategies to reduce GHG emissions
 - Targeted and mixed-use development
 - Alternative modes and public transit

Water Consumption

- How we grow impacts how much water we consume
- Analyze consumption patterns by land use and housing mix
- Daily residential consumption dropping locally and nationally
 - 1994: 250 gallons per capita
 - Today: ~135 gallons per capita

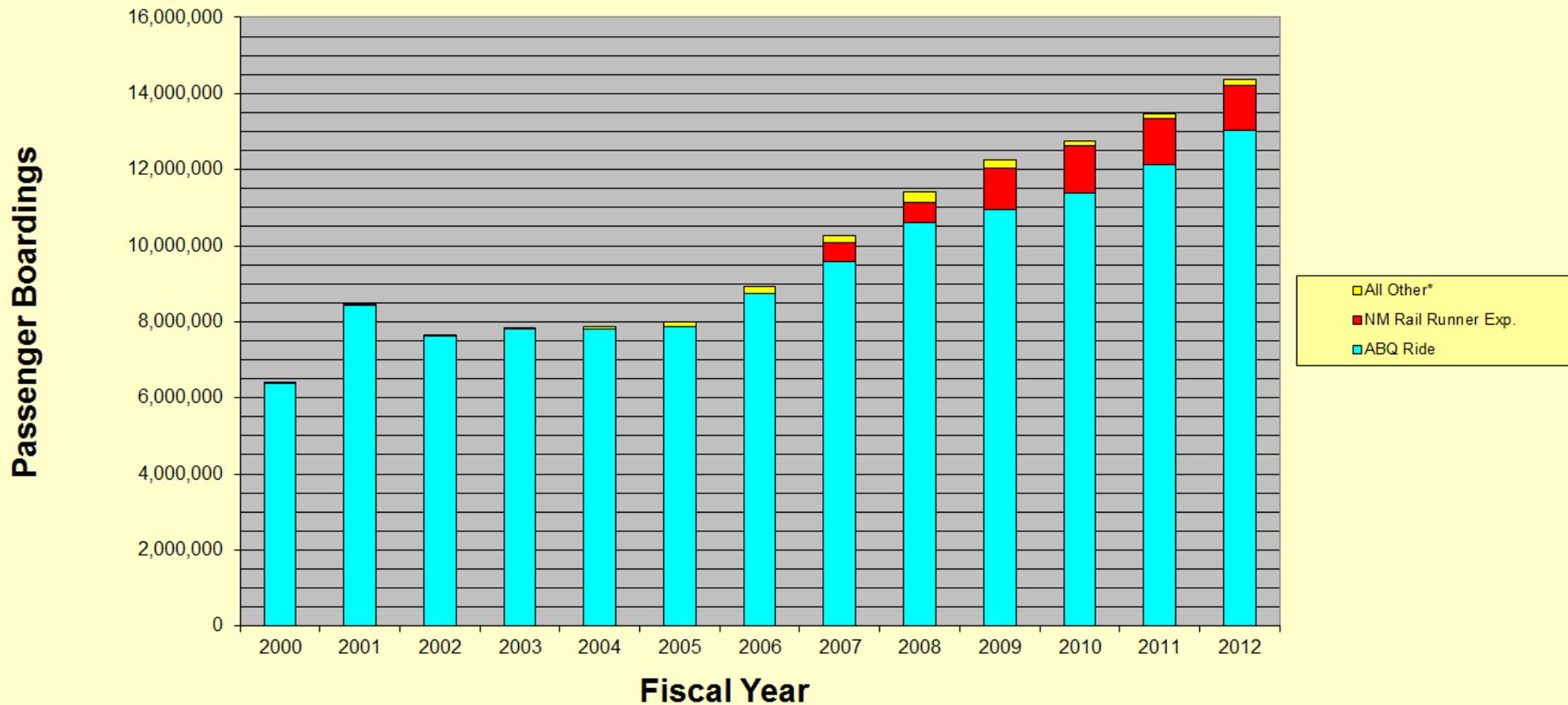
Source: Albuquerque Bernalillo County Water Utility Authority

Transportation Trends, Part 1

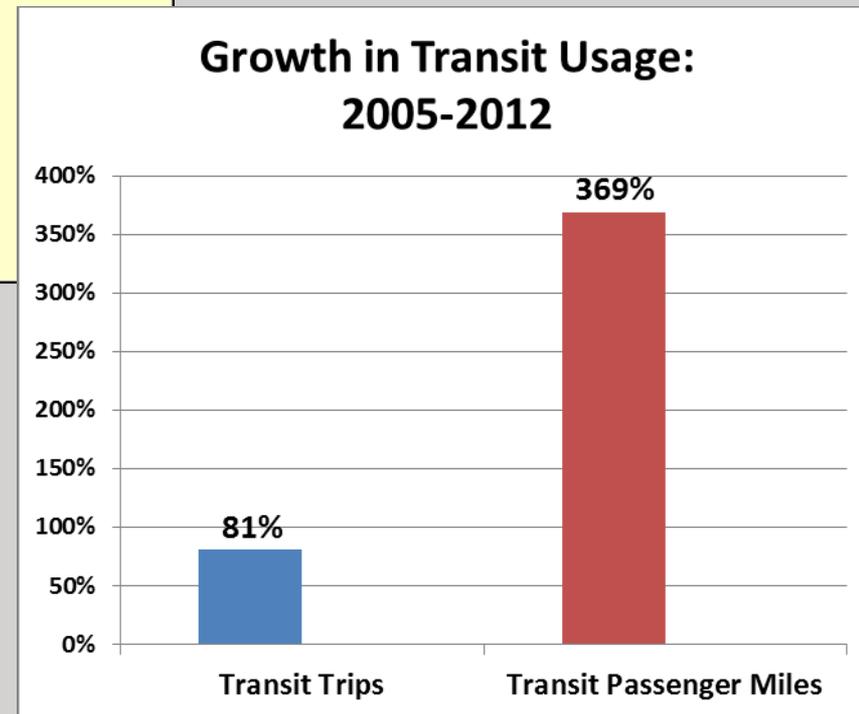
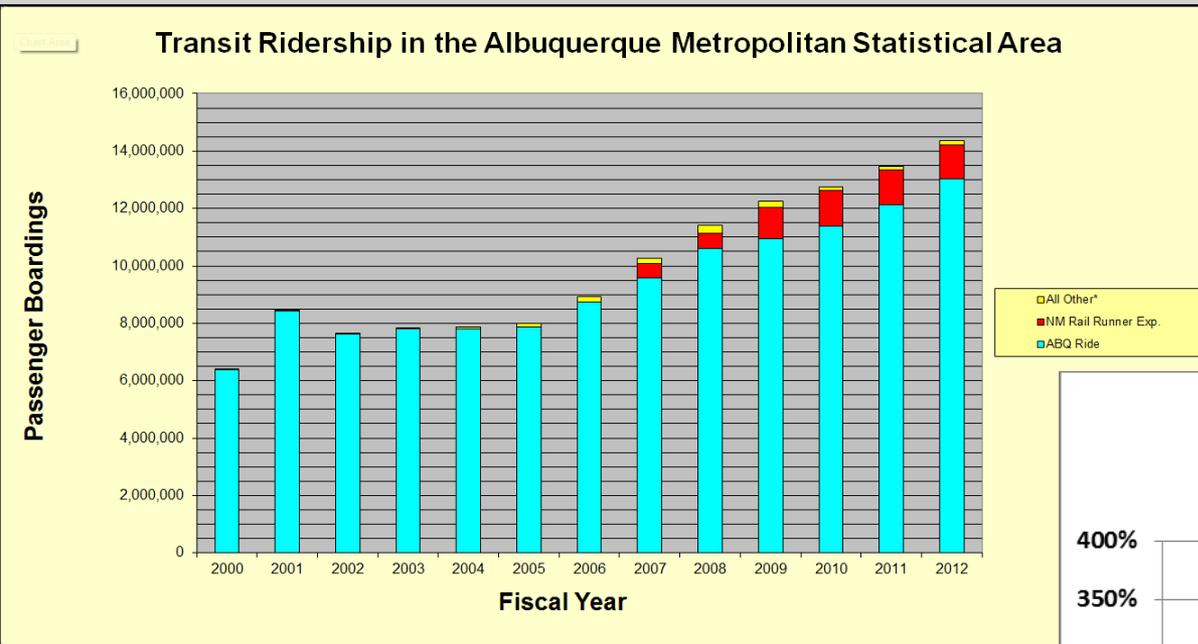


Transportation Trends, Part 2

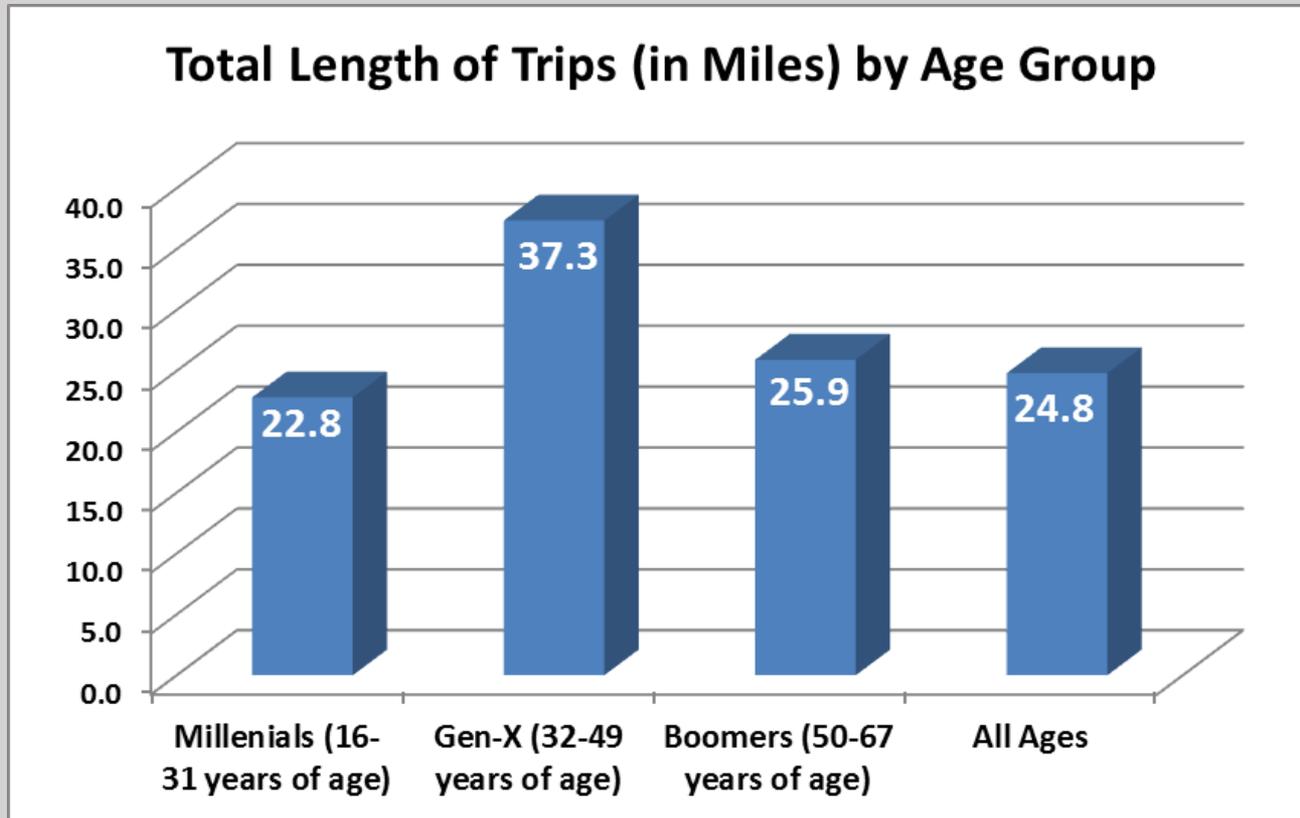
Transit Ridership in the Albuquerque Metropolitan Statistical Area



Transportation Trends, Part 2.1



Transportation Trends, Part 3

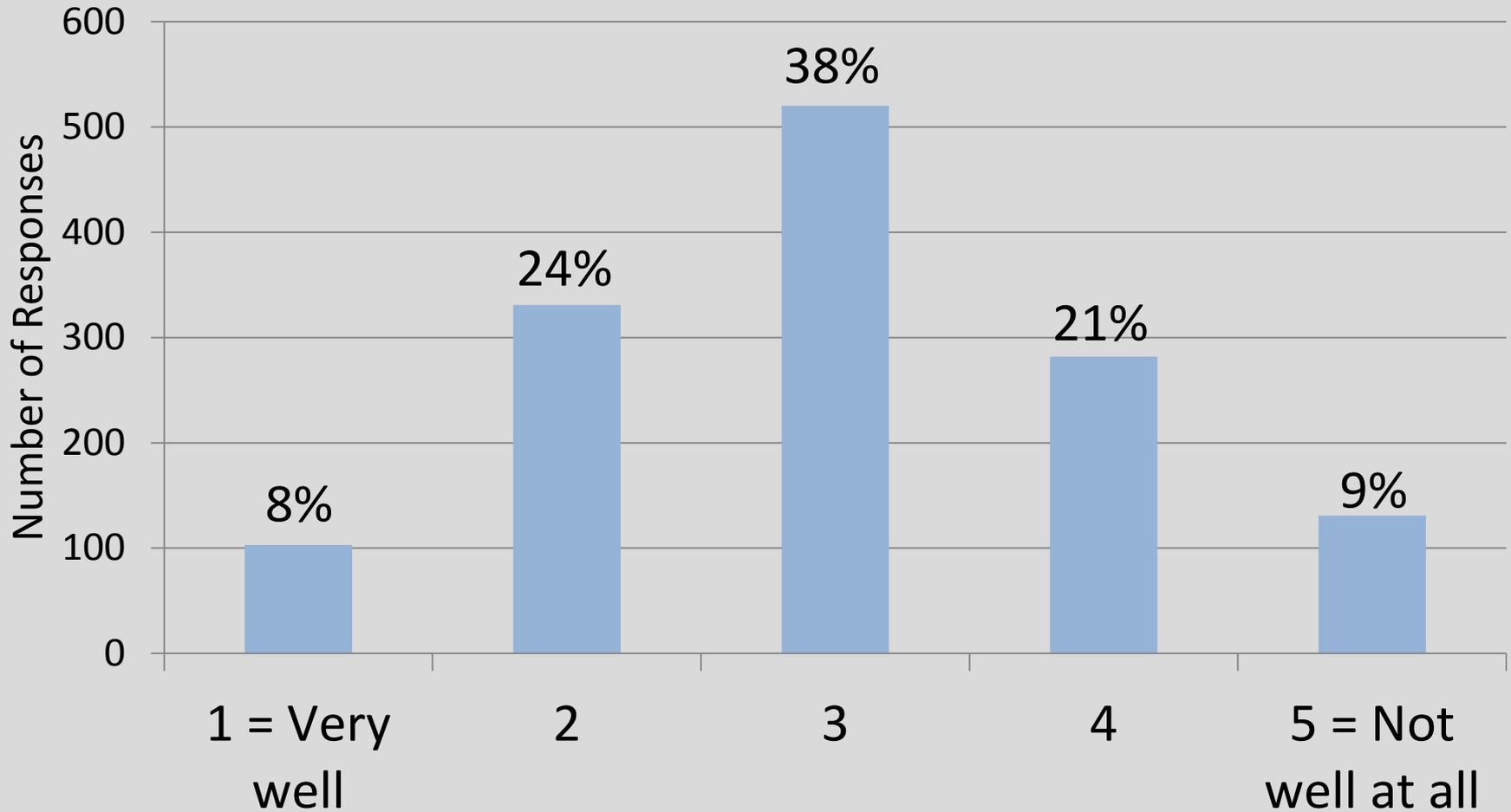


Source: Mid-Region Travel Survey, 2014

**How did the 1,400 people
responding to the
questionnaire rate our
transportation system?**

Public Questionnaire Results:

Satisfaction with Current Transportation System



Public Questionnaire Results / Major Issues:

Driving: Poor driver behavior **70%**



Bicycling: Doesn't feel safe from traffic **62%**



Driving: Traffic congestion **60%**



Walking: Distance is too far **60%**



Train: Schedule does not meet my needs **49%**



Bus: Takes too much time **46%**



Highly Satisfied People:



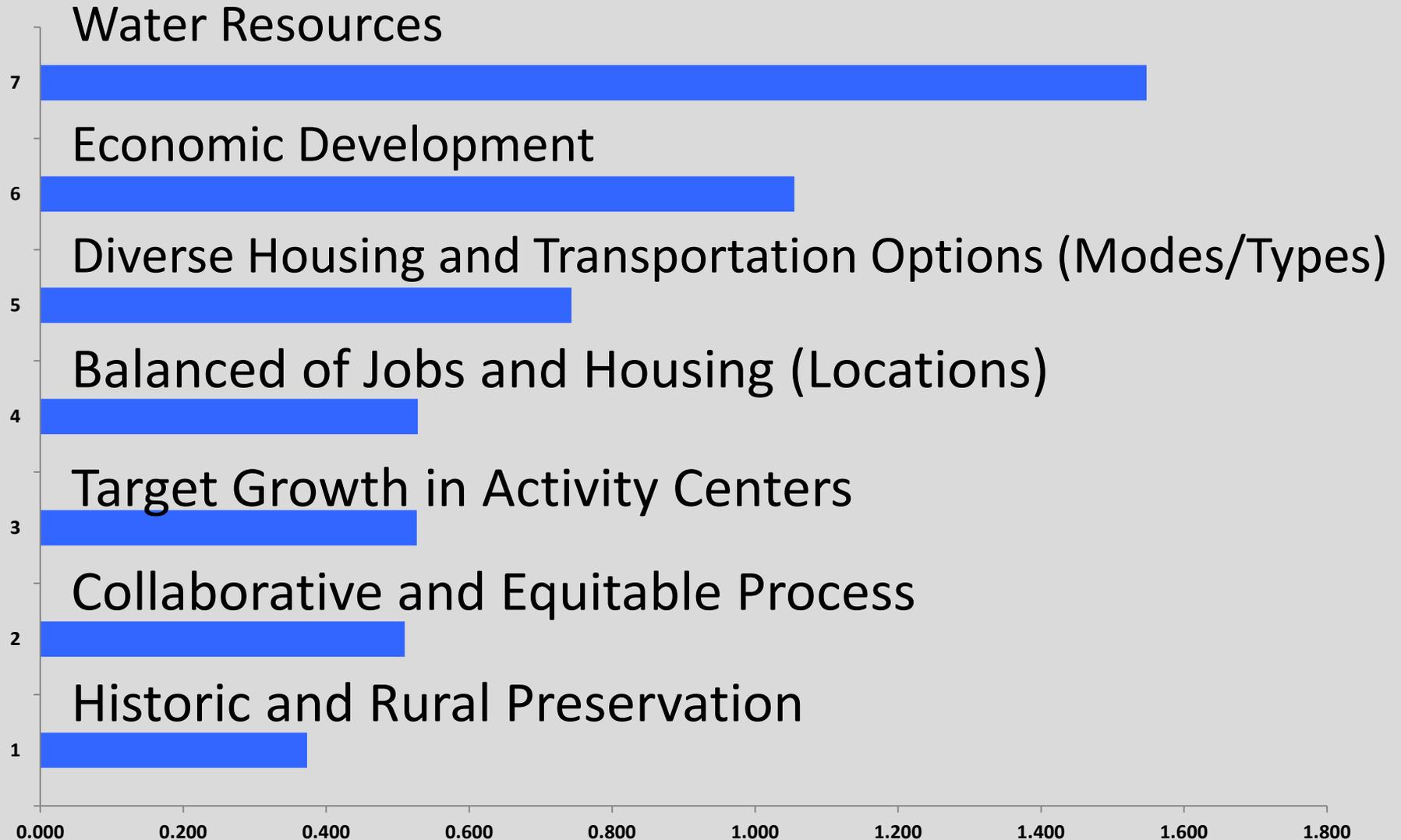
- People who feel like they have many transportation options
- People who did not view congestion as very serious

Highly Unsatisfied People:



- Younger people
- Women

Prioritize Challenges for Future Growth



Composite Score

Scenario Planning

- Approach that uses growth scenarios to understand costs and benefits of development patterns
 - Land consumption
 - Transportation conditions
 - Environment
 - Economy
- How we grow is not a forgone conclusion
- Integrate land use and transportation planning to ensure effective long-term policy decisions

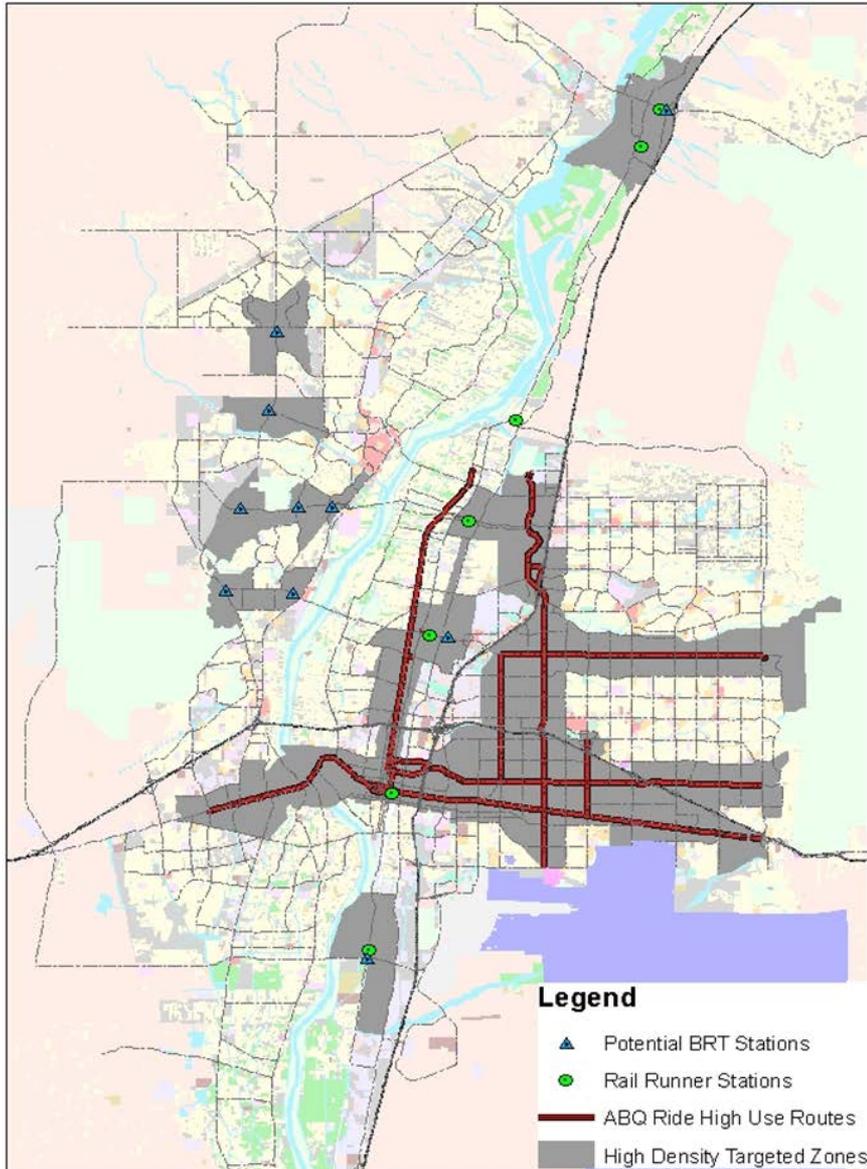


Indicator	Base Case	Alternate Case
Land We Will Consume:	365,000 acres	91,000 acres
Infrastructure Costs:	\$6,957,085,995	\$3,406,798,045
Intersections per acre:	.034	.11
New Road Miles:	4,544 miles	2,225 miles
Acres of New Impervious Surfaces:	62,444 acres	35,033 acres
Vehicle Miles of Travel Increase:	39 miles	35.9 miles
Density Patterns- Region Wide:	1.13 persons/acre	5.8 persons/acre

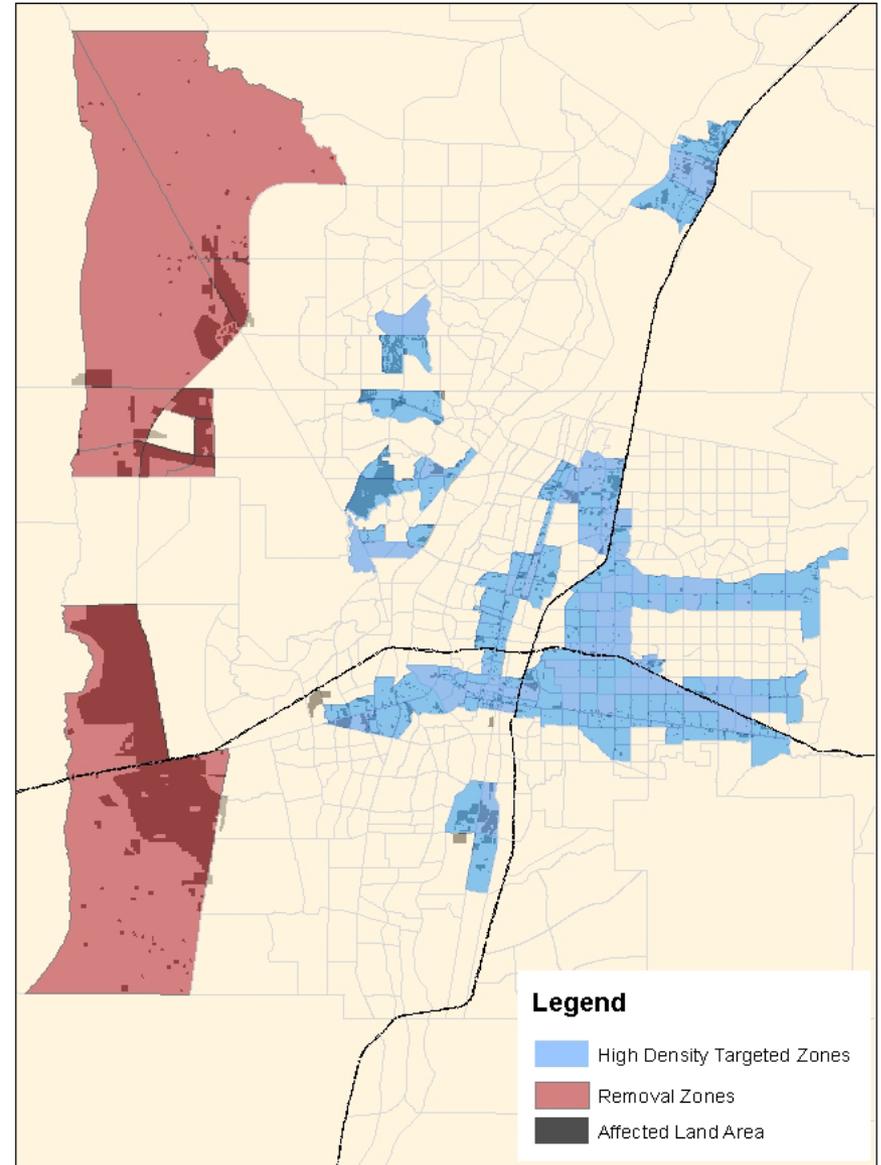
Example from Nashville MPO

2035 MTP Alternative Scenario

Targeted Zones for the High Density Scenario and relationship with Transit Centers and Corridors

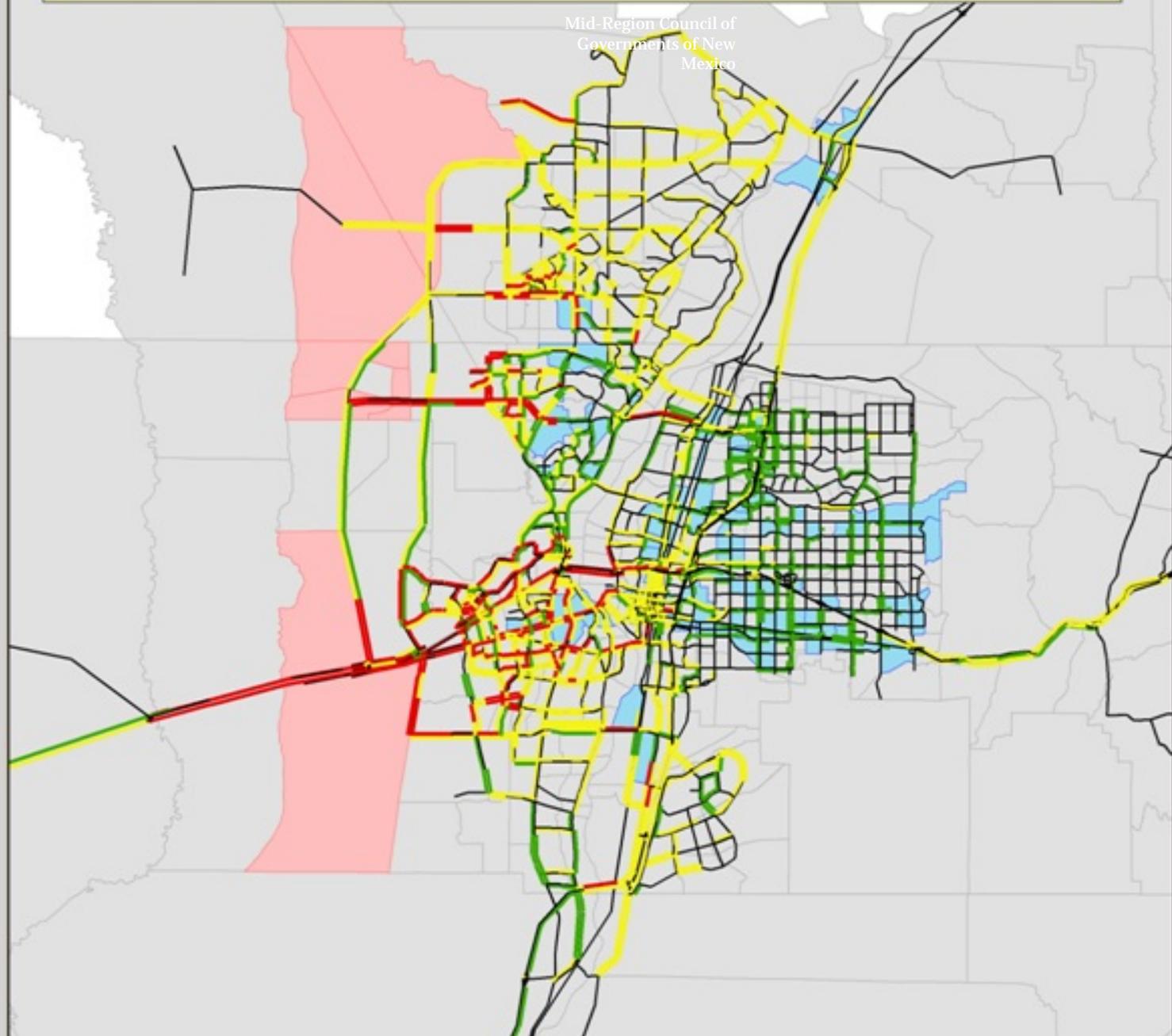


Targeted Zones, Removal Zones and Land Area Affected in the High Density Scenario



2035 Alternative Scenario: Affects on the Roadway Transportation System
PM Peak Hour of Travel

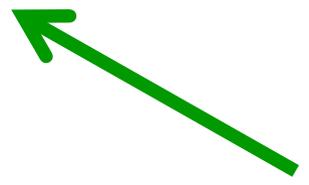
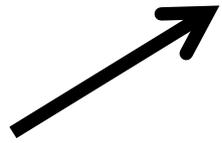
Mid-Region Council of
Governments of New
Mexico



**Resulted
in a
reduction
of trips in
critically
congested
areas**

2035 MTP

ALTERNATIVE



Impact on our Roads

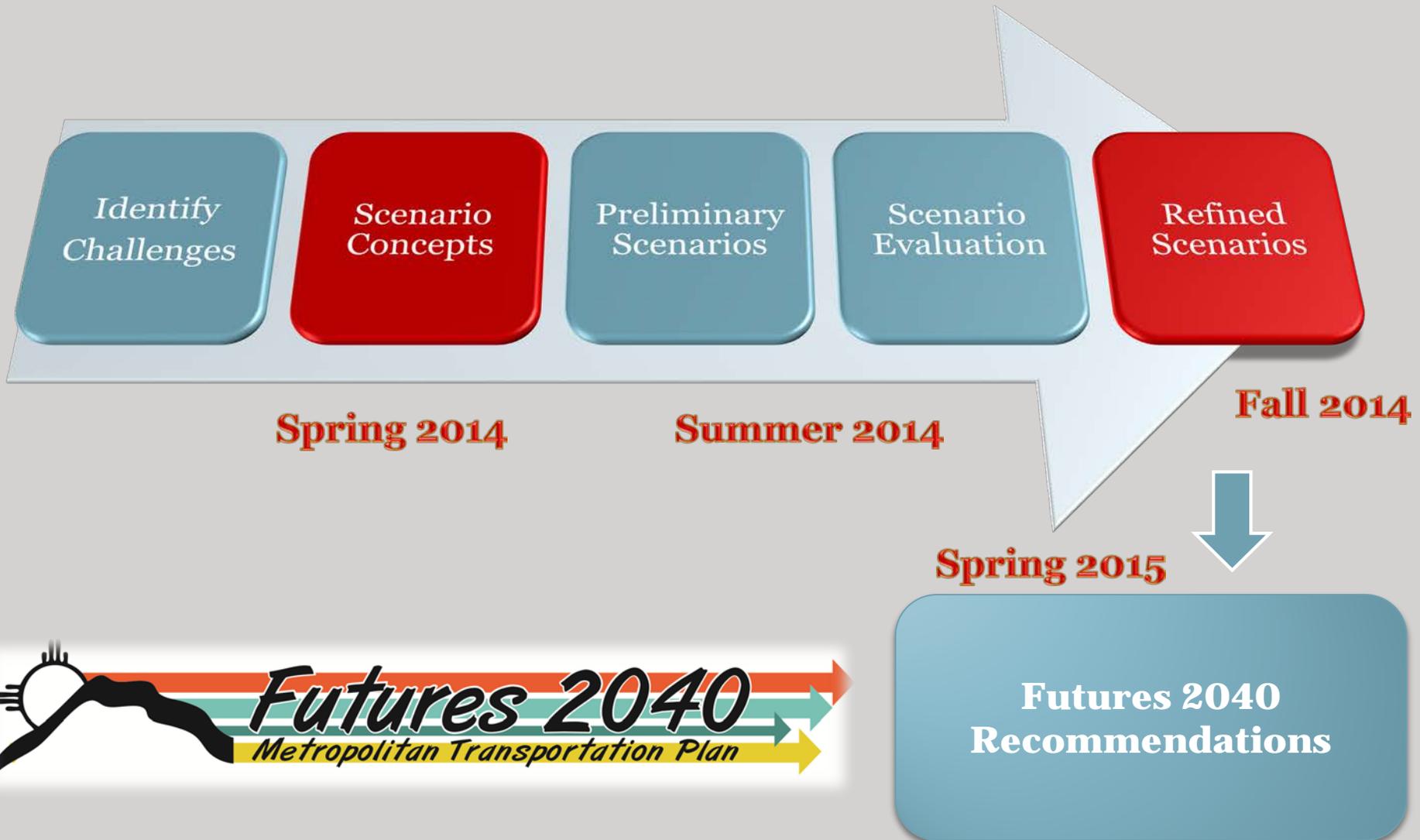
Daily Impact

-  Vehicle Miles Traveled -4%
-  River Crossings Trips -5%

Peak Period Commuting Times

-  Delay -25%
-  Speeds +17%

2040 MTP: Scenario Planning



Summary of Regional Challenges / Needs

Water Sustainability / Environment

Look at ways to improve **water conservation through reuse, delivery and development patterns**. Better understand the current water resources and future availability and **how transportation decisions affect our environment**.

Economic Development

Identify the best ways to achieve economic vitality that take **health and quality of life into consideration**. Develop a sustainable, **diversified, attractive, and resilient local economy**. Work to retain families and the younger generation.

Diverse Housing / Transportation Options

Improve **roadway and trail connectivity** and design. Create a transportation network that allows **safe and convenient** options to walk, bicycle, take transit and drive.

Support a variety of **housing options for people of all ages and incomes**.

Balance of Jobs and Housing

Effectively use compact development and infill to **balance housing and jobs and decrease travel distances to services** and transit stations. Reduce pressure on the transportation system by limiting sprawl development.

Focus on Activity Centers

Support public spaces that foster social life with a **mix of housing, retail, and workspace**. Improve existing centers and **strategically locate new activity centers**. Provide a unique variety of great places accessible by transit for entertainment and arts, to gather, or to run errands.

Historic and Rural Preservation

Preserve cultural heritage, **balance rural character with urban growth**, and respect and acknowledge the difference between our local neighborhood and regional identities. Ensure **historic preservation in main streets and original town sites**.



Challenges



Scenarios

1. Water Sustainability and Reduced Emissions

2. Economic Competitiveness

3. Balance of Jobs and Housing

4. Diverse Housing and Transportation Options

5. Focus on Unique Activity Centers

6. Historic and Rural Preservation

Balanced Scenario

- Target additional jobs on Westside

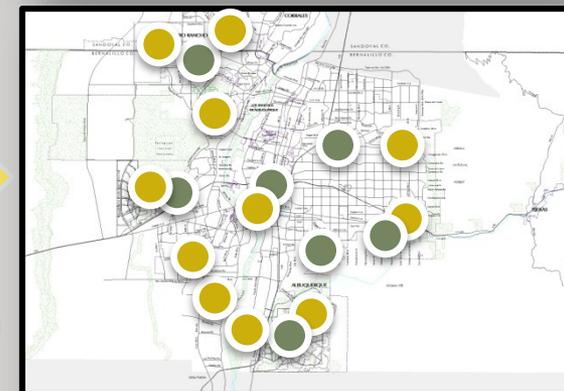
Emerging Lifestyles / Transit Rich

- Increased density along transit corridors

Historical Trend

- Based on previous development patterns

Housing
Jobs



Conceptual Scenarios

1. Allowable Uses / Intensity
2. Continuing Historical Trends
3. Emerging Lifestyles
4. Balancing Housing and Jobs

Allowable Uses/Intensity

Summary

This “baseline” is derived from existing zoning and comprehensive plans across the region. Designations are based on dwelling units per acre, floor-to-area ratio, allowable uses, and policy information from the City of Albuquerque/Bernalillo County Comprehensive Plan and the centers established by the Rio Rancho Development Vision. Future maps will include the urbanized area in Valencia County and the Edgewood area.

Classifications

- Low density residential 1 to 5.5 dwelling units per acre
- Medium density residential from 5.8 to 20 dwelling units per acre
- High density residential is between 20 and 40 units per acre
- Medium density mixed contains medium density residential and allowable non-residential uses
- High density mixed contains high density residential an allowable non-residential
- Commercial-only allowable uses were given an intensity based on number of employees - areas where commercial sites have over 250 employees were designated as high intensity commercial

Continuing Historical Trends

Scenario Summary

This scenario continues the patterns from the early 2000s in which residential development was focused on single family housing in more peripheral parts of the region. This scenario assumes that commercial development is scattered across the region rather than in targeted centers. About half of new jobs, but about three-quarters of new housing are located west of the river. Private vehicle travel remains the dominant mode for the vast majority of residents in the region.

Scenario Components

- Low and medium-density residential housing in previously undeveloped areas
- No particular emphasis on mixed-use development or along transit corridors
- Commercial development is scattered around region rather than concentrated in particular areas
- Assumes continued reliance on private vehicles for most trips

Emerging Lifestyles

Scenario Summary

This scenario reflects a range of trends in housing preferences and travel behavior across the region. Parcels within a ½-mile major of existing and future transit stops were designated for medium-density mixed-use development and multi-family, and those within a ¼-mile were designated for high-density mixed-use. Emphasis is placed on compact development in targeted locations near transit to meet the demands of a range of age demographics, and from a transportation perspective, an increased preference for alternative modes and increased spending on public transportation.

Scenario Components

- Focuses development on activity centers and corridors near premium transit
- Accessory dwelling units to meet senior and multi-generational housing needs
- Multi-family housing near transit
- Greater emphasis on mixed-use development
- More transportation options and increased preference for proximity to services and entertainment

Balancing Housing/Jobs

Scenario Summary

Stakeholders across the region have expressed a desire to see a balanced approach to development. In this scenario new job growth and commercial development is the focus in Rio Rancho, west Albuquerque, village and town centers, and unincorporated Bernalillo County. In addition to bringing job sites to predominantly residential areas, housing is targeted around existing employment sites.

Scenario Components

- Additional jobs created in predominantly residential areas, in particular Rio Rancho and along the Westside
- More high-density housing options near existing employment centers
- Development is not focused around transit areas
- Funding shares for transportation modes stays the same over time, allowing for a greater level of investment in new roadways than the Emerging Lifestyles scenario
- New centers emerge in Valencia County around Belen intermodal facility and UNM campus

Mixed Use Commercial



Legend

- High Intensity Commercial
- Medium Intensity Commercial
- High Density Mixed Use
- Medium Density Mixed Use
- High Density Residential
- Low and Medium Density Residential
- Very Low Density Residential
- Rangeland
- Irrigated Ag Land
- Undevelopable in White



Commercial Only Use

LOW Density Residential



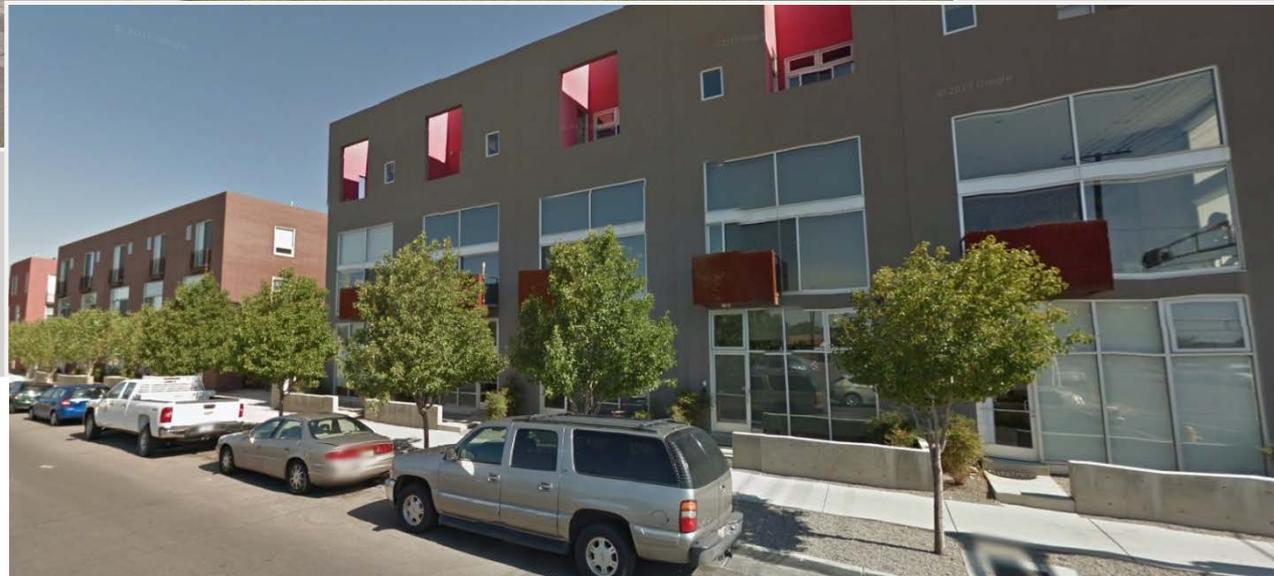
Legend

- High Intensity Commercial
- Medium Intensity Commercial
- High Density Mixed Use
- Medium Density Mixed Use
- High Density Residential
- Low and Medium Density Residential
- Very Low Density Residential
- Rangeland
- Irrigated Ag Land
- Undevelopable in White

Medium Density Residential

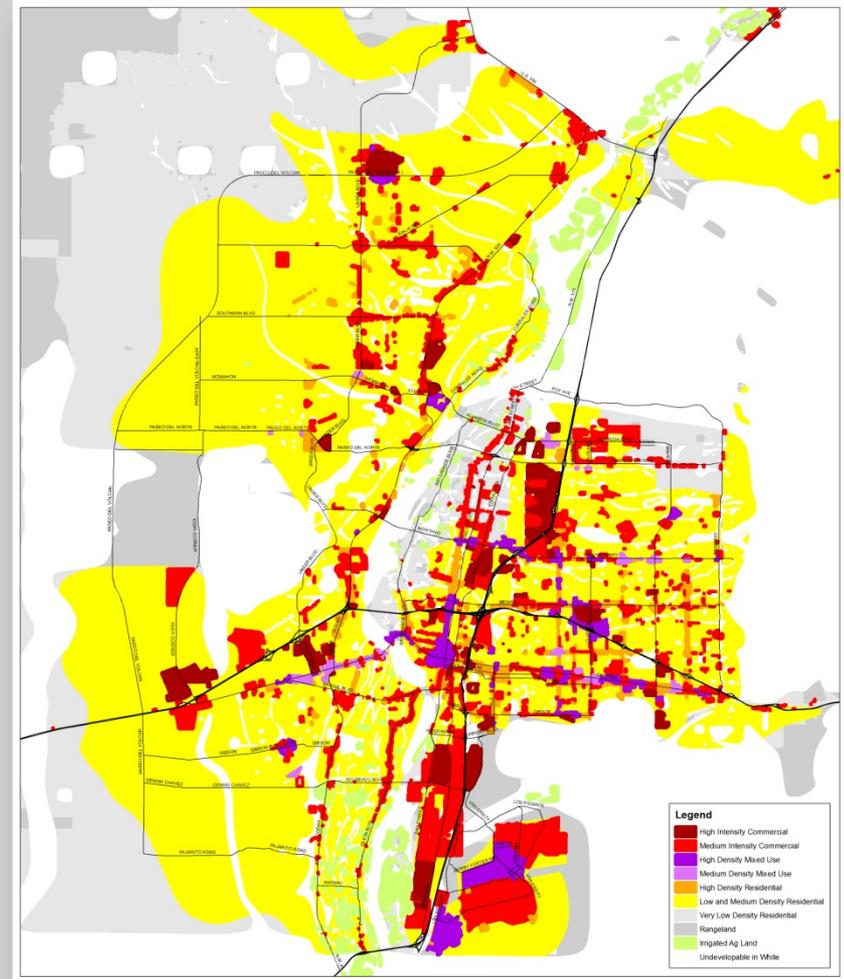


HIGH Density Residential



Your Thoughts

- Stay with us and participate in the mapping workshop!
- Fill out the Comment Form
- Scenarios are an illustration based on the regional needs and challenges identified
- Next step will be to refine and test scenarios against each other using a series of performance measures

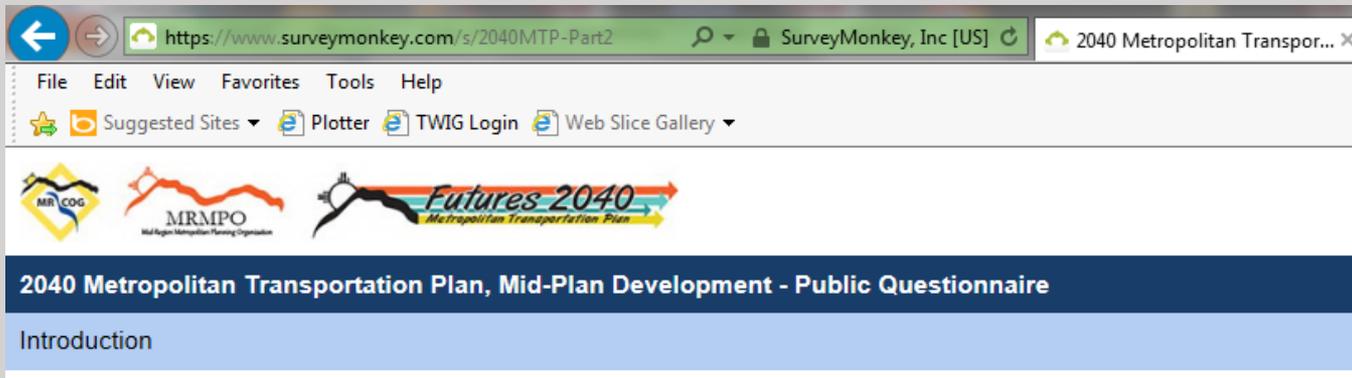


How to Stay Involved

- Sign up to receive our **newsletters**: mrcog-nm.gov
- Follow us on **Facebook** (search: 2040 Metropolitan Transportation Plan)
- Information will be kept up-to-date on our **website**
- Request a **presentation** for your neighborhood or community group
- Send us your comments and thoughts
- Take our Futures 2040 **questionnaire** (info at table)

http://tinyurl.com/2040MTP-Part2

We need to hear from you!



Help plan your transportation future!

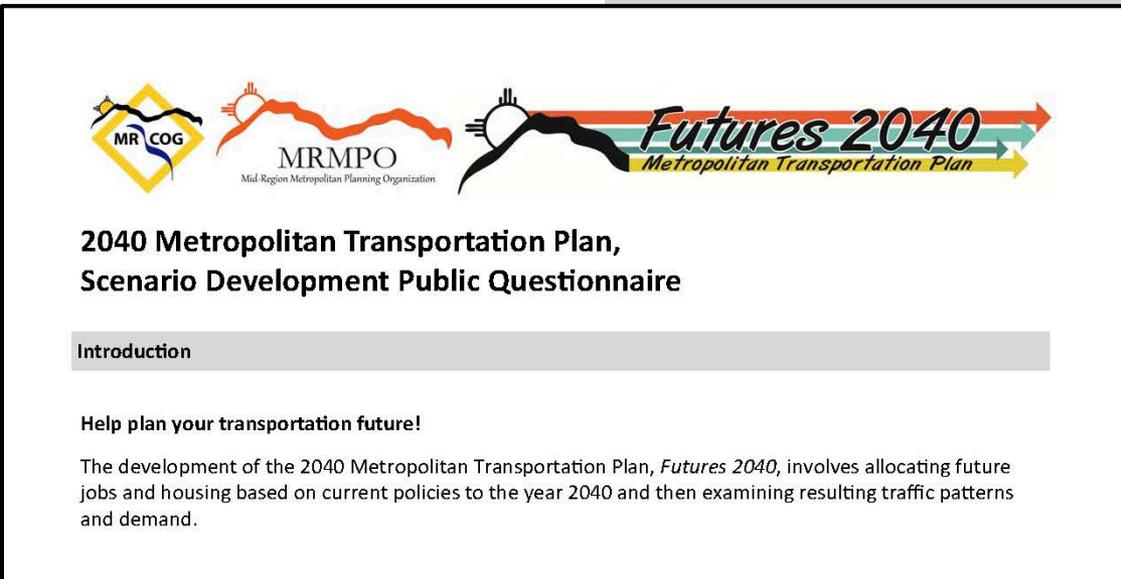
The development of the 2040 Metropolitan Transportation Plan, *Futures* resulting traffic patterns and demand.

We want to gather your views on scenarios for the future in terms of how transportation in general in New Mexico.

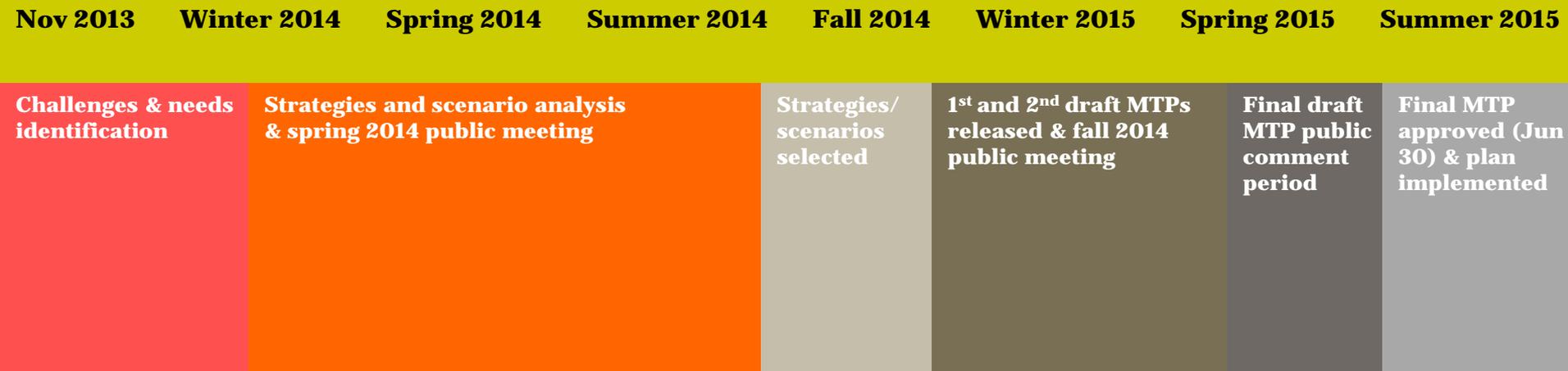
Your responses are anonymous and will only be used to develop the Metropolitan Transportation Plan. For more information, call 505-724-3639 or jluna@mrcoq-nm.gov

This questionnaire has 24 questions and should take about 12 minutes to complete.

Thank you for your participation!



Futures 2040 Schedule



- Public Meetings
 - April 2014
 - Fall 2014

- Public Review Draft
 - Fall 2015
- Scheduled for adoption
 - April 2015