

# TRANSPORTATION POLICIES AND STRATEGIES

## 10.1) OVERVIEW

The following sections focus on specific areas that relate to or are affected by transportation decisions. By concentrating on these areas, the MPO can make better decisions for achieving its vision, mission, and goals.

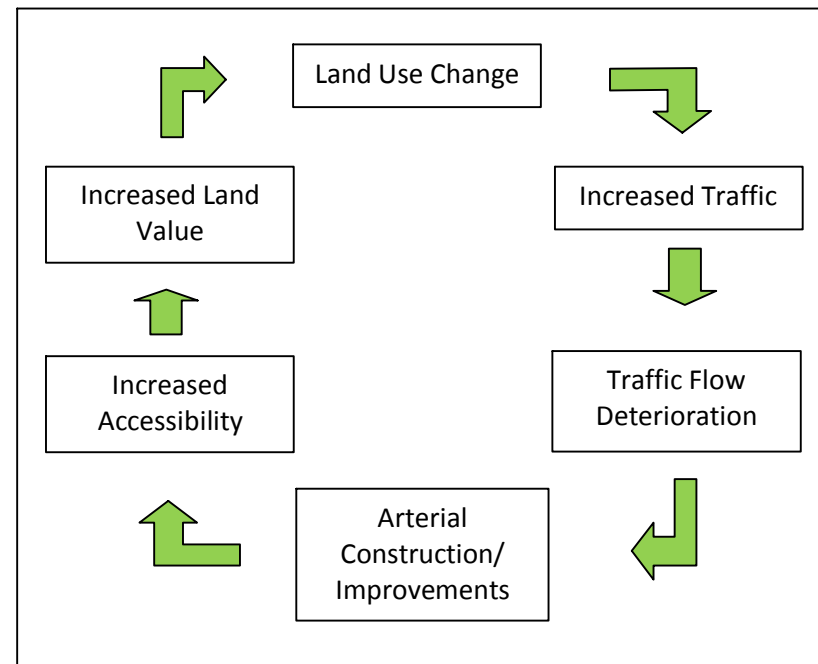
## 10.2) TRANSPORTATION AND LAND USE

Transportation and land use are intrinsically linked – one affects the other and each must be considered as cities continue to grow. The location of various land uses and development patterns will dictate the infrastructure that is needed to serve these uses. Land uses tend to put a strain on transportation infrastructure, especially if developments are spread out across a city. As a result, the vehicle becomes the only practical choice for travel. Transit, walking, and biking become ineffective due to long distances and safety concerns. Likewise, this type of transportation facilities will encourage and attract particular land uses. Principal arterials draw businesses and big box stores while smaller roadways, such as collectors and minor arterials, tend to attract residential and small local shops and professional businesses.



Smart transportation and land use decisions increase the viable options people have for accessing opportunities, goods, services, and other resources to improve the quality of their lives. A balance between transportation and land use must be achieved. The MPO, along with NMDOT, local transit systems, and the entity planning staffs must develop partnerships and incorporate land use considerations into their transportation planning activities. The following policies and strategies should be implemented to achieve the transportation/land use balance:

- Develop a Complete Streets policy that integrates all transportation modes into the design and construction of roadways
- Adopt a major thoroughfare plan for the MPO area that preserves corridors and prevents future developments from interfering with future corridors
- Encourage the development of complimentary land uses
- Identify activity centers that become the focal point for a variety of surrounding land uses
- Promote reuse and in-fill development to strengthen existing parts of the city
- Create transportation and land use master plans for developing areas in San Juan county that are outside the city limits of the three local jurisdictions
- Develop a specific budget to construct more walking and biking facilities



Source: Iowa Access Management Handbook

### 10.3) ENVIRONMENTAL

Transportation decisions have a direct impact on air quality and environmental issues. More vehicles on the road and longer commute increase pollutants emitted into the air. Ozone and particular matter are two of more common pollutants that can be caused by transportation. Standards for these pollutants, which measure how much is allowed to be emitted, is monitored and enforced by the Environmental Protection Agency (EPA).

Currently, the Farmington MPO is in attainment for all air quality standards. However, recent data collected at regional monitoring stations and a reduction in the ozone standard to 0.075 parts per million (ppm) have indicated that San Juan County is on the threshold of being in non-compliance for ozone standards (Table 10-1). In January 2010, EPA once again proposed new ozone standards which would reduce the standard to a range of 0.060ppm to 0.070ppm. If this standard goes into effect in August 2010, there is a strong possibility that San Juan County could be designated non-attainment for ozone. As a result, more stringent requirements for the MPO and its transportation planning efforts would go into effect. Violations of air quality standards can lead to federal funds being withheld from the MPO.

As of early 2010, the New Mexico Environmental Department (NMED) has focused its efforts on point sources of pollution; that is, what impacts are coal power plants and oil wells having on ozone levels. No research has been conducted as to how vehicles and trucks affect ozone. To avoid falling into non-attainment and the subsequent additional requirements, the MPO should pro-actively implement policies that reduce the sources that contribute to ozone from a transportation standpoint:



- Implement ITS elements that reduce congestion
- Synchronize signals on major corridors to improve arterial travel flow movements
- New housing, business, and retail developments should be built around transit stops
- Encourage the use of walking and biking by creating higher density and mixed-use developments
- Research and invest in cleaner fuels that have a smaller impact on air quality

Table 10-1 – Four Highest 8-Hour Average Ozone Readings 2007-2009

	Substation (Farmington)	Bloomfield	Navajo Lake
2007	0.074	0.071	0.08
	0.074	0.071	0.08
	0.074	0.071	0.079
	0.073	0.069	0.079
2008	0.071	0.065	0.077
	0.070	0.064	0.075
	0.070	0.064	0.069
	0.069	0.063	0.069
2009	0.062	0.056	0.070
	0.061	0.054	0.064
	0.061	0.053	0.062
	0.059	0.052	0.061
<b>3 Year Average</b>	<b>0.067 ppm</b>	<b>0.061 ppm</b>	<b>0.069 ppm</b>
Data Readings are shown in Parts per Million (ppm)			

Source: New Mexico Environmental Department (February 2010)

Nationwide, innovative strategies are being discussed or implemented as the newest ways to reduce transportation-related emissions. While typically seen in non-attainment, large metropolitan areas, the MPO may consider investigating the costs and benefits of the following strategies:

- Tax drivers based on distance traveled
- Charge vehicles to park at public facilities
- Implement road pricing, where motorists pay directly for using a particular road or for traveling in certain areas during peak time periods
- Create car-sharing programs to minimize personal automobile use
- Build rail systems that reduce vehicle trips and promote denser developments
- Telecommuting
- Incentives from businesses to employees to use other alternatives modes of travel

#### 10.4) SYSTEM PRESERVATION

Every effort should be made to preserve the existing transportation system. System preservation can reduce costs over the life of infrastructure. While it is understood that new facilities will need to be built in the future to meet demand, maintaining the existing system reduces costly future improvements, reduces the tendency for urban sprawl to occur, and maintains access to neighborhoods, jobs, and employment centers.

The following policies and strategies should be implemented:

- Preserve right-of-way (ROW) that allows future expansion of existing roadways without impacting or disrupting adjacent land uses
- Select and enact pavement preservation strategies before roadways and bridges require serious repair.
- Implement access management strategies to maintain the functionality of road classifications
- Implement signal coordination plans for major corridors to reduce congestion and the need for adding more capacity to roadways
- Research and implement the use of road diets, which typically replace two travel lanes with bike lanes and/or parking lanes to improve safety. Road diets can reduce the need to construct new facilities.

#### 10.5) INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent Transportation Systems (ITS) are integrated technologies that improve safety and mobility on roadways, coordinate emergency management procedures, and distribute regional traveler information. ITS Program Areas include Traffic Management, Traveler Information, Public Transportation Management, and Emergency Management.

The MPO adopted an ITS architecture for the area in November 2006 and renewed it in November 2008. An ITS architecture is a computer software program that an MPO uses to inventory the various ITS elements and stakeholders involved. The Farmington MPO architecture describes the stakeholders who are involved with ITS, the types of ITS technologies to implement, and the roles and responsibilities of the stakeholders. Initial ITS projects that could be implemented include:

- Dynamic Message Signs (DMS) along critical regional corridors such as US 64, NM 516, and US 550 that would provide traveler alerts, travel times, and roadway conditions
- Arterial Management through a Traffic Management Center that monitors traffic flows and adjusts traffic control devices to reduce congestion
- Signal Synchronization that improves traffic flow on principal arterials
- Information kiosks for communicating regional traveler information