



Nashville Area MPO
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October 12, 2007

Dear Transportation Stakeholder,

You have previously indicated to us that that you are interested in receiving information about the Nashville Area Metropolitan Planning Organization's (MPO) Long Range Transportation Plan (LRTP).

The MPO is proposing to amend the 2030 Long Range Transportation Plan to reflect changes in federal planning requirements that resulted in the 2005 SAFETEA-LU Federal Transportation Bill (Safe Accountable Flexible Efficient Transportation Equity Act – A Legacy for Users). To review the proposed changes, please visit our website at www.nashvillempo.org. The LRTP is scheduled to be formally amended by the MPO Executive Board on November 14, 2007.

About the Long Range Transportation Plan

The LRTP is a 25-year multi-modal transportation vision for the Nashville Region. It includes a set of goals, objectives, and policies that will help guide the investment of public funds in transportation projects to manage congestion, increase regional mobility options, and conform to national air quality standards. The LRTP is updated every four years and may be amended as a result of changes in projected federal, state, and local funding; major investment studies; congestion management systems plans; interstate interchange justification studies; and environmental impact studies. The MPO's current LRTP, adopted in 2005, extends through the year 2030.

About the MPO

The MPO is the regional transportation planning entity for the counties of Davidson, Rutherford, Sumner, Williamson, Wilson, and portions of Maury and Robertson counties. The agency ensures that federal and state funding is available for and spent on transportation projects that are important to all of us in the Nashville region. For more information, please visit www.nashvillempo.org.

Please contact MPO Staff at 862-7204 if you have questions or comments about the LRTP or the regional transportation planning process.

A handwritten signature in black ink, appearing to read 'm skipper', is written over a light blue horizontal line.

Michael Skipper
Executive Director

2030 LONG-RANGE TRANSPORTATION PLAN
ADDENDUM #1
NOVEMBER 14, 2007

SAFETY PLANNING

Background

Safety must be considered as a key goal in the development of metropolitan and statewide transportation plans and programs. Great efforts have been made in Tennessee to increase safety in the Nashville region and throughout the state. Traffic Safety laws have been passed or reinforced to address traveler behaviors. The Seatbelt Law, Child Restraint Law, DUI Law, and the Graduated License Law all are steps that have been made to improve safety on Tennessee's roadways. Other strategies have involved new roadway designs and the implementation of various Intelligent Transportation System (ITS) technologies. Rumble strips have helped reduced roadway departures, and roadway cameras have helped authorities respond and manage major incidents.

Some National, State, and regional statistics are given below to provide reality of the existing challenges at hand regarding safety problems for varying modes of transportation. Although there have been improvements and the rates of fatalities and injuries have declined on the national level over the years, there are still needed improvements.

2005 National Statistics

*From the National Highway Traffic Safety Administration

- Fatalities- 43,443
- Injuries- 2,699,000
- Property damage- 4,304,000
- Non-motorists:
 - Pedestrians killed, injured – 4,749, 70,000
 - Pedal cyclists killed, injured – 622, 46,000
- Economic cost of traffic crashes (2000)- \$230.6 billion
- Fatalities per 100 million vehicle miles traveled- 1.47
- Fatalities per 100,000 population- 14.66

2005 Tennessee Statistics

- Fatalities- 1,270
- Fatalities per 100,000 population- 21.23
- Economic cost of traffic crashes (2000)- \$4.628 billion

MPO Regional Crash Statistics 2003-2005

The following table presents a summary of crash data for a three-year period from 2003-2005 for the Nashville region, by county and year of crash. The Crash Rate represents the number of crashes per 1,000 licensed drivers for any given area (county, region, state, etc.). The rate is a more meaningful measure of safety than the number of crashes when comparing two or more areas or time periods.

County	2003		2004		2005		2003-2005	
	Crashes	Crash Rate	Crashes	Crash Rate	Crashes	Crash Rate	Average Annual Crashes	Average Annual Crash Rate
Davidson	25,067	61.2	26,074	63.4	26,252	62.9	25,798	62.5
Maury	1,695	31.2	2,402	43.7	2,414	42.6	2,170	39.2
Robertson	1,679	39.3	1,790	40.9	1,859	40.9	1,776	40.4
Rutherford	7,182	50.9	7,954	53.9	8,117	52.1	7,751	52.3
Sumner	3,803	36.7	4,205	39.8	4,103	37.6	4,037	38.1
Williamson	3,095	27.4	3,666	30.9	3,725	30.0	3,495	29.5
Wilson	2,378	33.3	2,586	35.2	2,934	38.5	2,633	35.7
Region	44,899	48.0	48,677	50.9	49,404	50.2	47,660	49.7
Statewide	172,043	46.7	189,820	50.9	186,182	48.9	182,682	48.8

*Crash Rate = # Crashes per 1,000 Licensed Drivers
Source: Tennessee Department of Safety

2007 Statewide Rankings of MPO Counties

The table below shows the relative ranking of each MPO county for overall crash rate, the rate of fatalities, and rate of injuries.

County	Statewide Ranking (out of 95 counties)		
	Overall Crash Rate	Fatal Crash Rate	Injury Crash Rate
Davidson	3	84	1
Maury	42	58	21
Robertson	39	49	40
Rutherford	15	88	4
Sumner	47	86	56
Williamson	75	94	82
Wilson	53	69	41

Source: Tennessee Department of Safety

Existing Conditions

High Crash Locations

The MPO compiled information from a variety of sources to identify high crash locations on major roadways in the Region. Although data were not analyzed by MPO staff in order to determine the specific causes of crashes at particular locations, the following observations were made:

- Most of the high crash locations listed were located at isolated spots or intersections rather than on longer segments of roadways; and
- More high crash locations occurred on uncontrolled access roadways than on controlled access roadways such as interstates.

Since the MPO is involved in a regional-level planning analysis, it is not practical to address all of the individual spot crash locations. That task is left to the State and local jurisdictions. The more appropriate means for the MPO to address high crash locations is to advocate safety conscious design principles into roadway improvement projects that are planned in order to promote safe transportation facilities for all modes of travel. Based on the observations above, perhaps one of the single most important elements that can be addressed to improve safety is access management. Access management consists primarily of limiting the number driveways and conflict points on the roadway system and serves to both reduce the number of crashes as well as reduce congestion.

Public Transit Safety

Local transit agencies have always placed an emphasis on providing a safe, secure, and reliable service for its passengers and employees. These efforts are continuing and are an integral part of providing transit service. While transit must be concerned about safety and security as it relates to the provision of service, transit itself can be a valuable resource to a community in providing rescue or evacuation services. Local transit providers participate as part of the larger community emergency preparedness efforts. Basic goals of transit agencies in regards to safety and security include:

- Being prepared for and well-protected against attacks;
- Being able to respond rapidly and effectively to natural and human-caused threats and disasters;
- Being able to appropriately support the needs of emergency management and public safety agencies; and,
- Being able to quickly and efficiently be restored to full capability.

Strategic Highway Safety Plan

The State of Tennessee has developed a Strategic Highway Safety Plan (SHSF) with the ultimate goal of reducing the fatality rate by 10% by the end of 2008. The plan details eight emphasis areas that will be focused on to obtain this goal:

1. Improve decision making process and information systems;
2. Keep vehicles in the proper lane and minimize the effects of leaving the travel lane;
3. Improve intersection safety;
4. Improve work zone safety;
5. Improve motor carrier safety;
6. Improve driver behavior;
7. Legislation; and

8. Training programs.

The development of this plan is a combined effort of the Tennessee Department of Transportation, Governor's Highway Safety Office, Tennessee Department of Safety, Federal Highway Administration, and Federal Motor Carrier Safety Administration.

Safety Planning Issues

Some of the challenges involved in planning for safety include creating an innovative region-wide and/or state-wide system for collecting, analyzing, and sharing important information like crash data and integrating safety conscious planning into long range planning and short-term programs.

Some other issues surrounding incorporating safety and security in the Long Range Transportation Plan are as follows:

- Recognizing regional safety needs and local isolated problems;
- Building stakeholder partnerships;
- Continuing multi-agency coordination and communication;
- Developing or obtaining modeling software tools for predicting potential hazards;
- Disseminating important real-time incident information to motorists;
- Implementing design factors in new infrastructure that enhances the safety and extends the life of structures, minimizing construction zone periods;
- Improving interconnectivity of the transportation system, across and between modes, for people and goods such as at modal transfer points, bikeways that share and cross the roadways, intersections with crosswalks, and railroad crossings;
- Improving the accessibility and safety of transit stops and transfer points;
- Continuing efforts to promote truck safety such as restricted lanes, speed limits, and proper loading to prevent turnovers;
- Implementing ITS technologies on transit and emergency vehicles; and
- Finding financial resources to fund safety and security improvements.

Interagency Consultation

The primary objective of the safety goal is to work with state and local agencies and transportation providers to identify needs and facilitate improvements. Building partnerships with stakeholders is important in the following areas:

- Developing and implementing short term strategies that enhance the safety for all users of the transportation system;
- Creating policies and design practices that are consistent with an efficient and safe Intermodal Transportation Network;
- Developing an information system for compiling, accessing, and analyzing crash data; and
- Establishing a long term vision that enhances the safety and security of all citizens.

Highway Incident Management

Highway Incident Management is gaining national attention as a means to improve highway congestion problems as well as safety. An incident such as a traffic accident, an overturned truck, an abandoned vehicle on the shoulder, or debris on the highway can cause major problems, such as congestion, on the highway system and eventually to the nearby transportation network. Often these events lead to secondary crashes. Reportedly, approximately 20% of all freeway crashes are secondary.

The Nashville Regional Incident Management Taskforce was established in late 2006. The taskforce is comprised of the TDOT, Metro Police Department, EMS-911, Tennessee Highway Patrol, the Nashville Area MPO, and other incident management related agencies. This taskforce is intended to bring the stakeholders together to explore new initiatives and increase the efficiency in Incident Management. Incident Management encompasses all of the activities undertaken to assist involved motorists, protect public health and safety, conduct necessary investigations, minimize travel disruptions and delays, remove the damaged vehicles or cargo, and restore the roadway to normal conditions.

Safety Conscious Planning

Safety conscious planning is proactive planning for preventing crashes and unsafe conditions. Often safety improvements are reactive, spearheading strategies such as “hot spot” improvements and educational and behavioral programs. In essence, safety conscious planning involves a shift of focus from driver behavior initiatives to strategies that make it more difficult for the driver to have a crash. One way to look at integrating safety conscious planning into long range planning is considering that crashes are a function of exposure. In long range transportation planning, the MPO has the capability of minimizing exposure (via an efficient intermodal network), minimizing risk (via functional network), and minimizing consequences (via efficient emergency management system).

To be most effective, safety conscious planning must extend across all planning activities. The Institute of Transportation Engineers (ITE) identified several levels of planning processes and decisions which safety conscious planning must effectively address, namely:

- Regional- growth strategies, major network strategies, etc.;
- City/County- community plans, zoning and subdivision regulations, transportation plans, etc.;
- Small area plans- sector/neighborhood plans, area transportation strategies, corridor and access management strategies, pedestrian and bicycle facilities development, etc.; and
- Site- site plan review, site impact studies, etc.

Safety conscious planning is needed in land use planning decisions and processes to influence policies that shape the direction of land uses to the specifics of urban form,

mix, and density of use. Safety conscious planning is also an integral part of transportation planning for all modes of travel in order to shape the amount of travel as well as the mix of transportation modes.

L RTP and TIP Project Selection

The project selection criteria for the Long Range Transportation Plan include safety as a scoring and prioritization factor. The MPO requires that all parties pursuing projects funded with federal funds show how the project meets the goals and objectives of this plan, including Safety.

The following is a set of projects that have been included in the 2030 LRTP to address safety concerns.

YEAR	LRTP#	PROJECT	TERMINI	IMPROVEMENT
2006	47	Wilson Pk	McEwen Dr Ext. to Moores Ln	Improve roadway to 2-ln standards incl. 12' lanes and 6' shoulders
2016	44	Horton Ln	Willow Springs Subdivision to Downs Blvd	Reconstruct to standards and add bike lanes/sidewalk
2016	53	Pitts Ln/ Wenlon Dr	Chariot Dr to Dejarnette Ln	Reconstruct to 12' lanes/6' shoulder
2016	58	SR-6	N. Water Ave	Realign intersection (safety)
2016	1019	Dickerson Pike (US-41/31W)	CSX to County line	Unskew intersection by realignment (safety related)
2016	4007	Murfreesboro Pike (US-41/US-70/SR-1)	Enon Springs Road (Grade Sep w/ CSX)	Poor alignment; Requesting grade separation with CSX
2016	4015	Fergus Road	Murfreesboro Rd (US-41-70) to Hollandale Rd	Add shoulders and widen lanes to 12' in certain locations
2016	4051	SR-99	SR-16 in Eagleville to Swamp Road (w. of Concord Rd)	Construct on a new alignment from SR-16 to Swamp Rd as a 2-lane w/continuous turn lane; from Swamp Rd improve existing alignment to upgraded 2 lane
2016	5026	Forest Retreat Road	SR-386 to Boone Holman Road	Reconstruct vertical/horizontal curves, lane width and structural strength.
2016	6003	Murray Lane	Holly Tree Gap to Brentwood City Limits	Widen to provide 2 12' travel lanes with 6' shoulders
2016	6013	Moores Lane (SR-441)	I-65	Reconstruct southbound I-65 exit ramp to eastbound Moores Ln to eliminate dual lane conflict between merging traffic and existing traffic
2016	6019	I-65	SR-248 (Goose Creek)	Reconstruct Interchange to alleviate safety issues
2016	6040	I-40	SR-96	Reconstruct Interchange to alleviate safety issues
2016	7013	SR-24/US-70	Castle Heights Ave	Intersection realignment and signal improvement
2016	9009	Edmondson Pk	North of Smithson Ln to north of city limits	Widen to provide 2 12' travel lanes with 6' shoulders
2016	9010	Split Log Rd	SR 252 Wilson Pk to	Widen to provide 2 12' travel lanes with

YEAR	LRTP#	PROJECT	TERMINI	IMPROVEMENT
			City Limits	3' shoulders
2016	9011	Waller Rd	SR 253 Concord Rd to City Limits	Widen to provide 11' travel lanes with 1' shoulders where possible
2016	9012	Pleasant Hill Rd	Split Log Rd to Brentwood's Urban Growth Boundary	Widen to provide 2 10' travel lanes with 2' shoulders and elimination of sight distance issues
2025	1022	Edmondson Pike	Old Hickory Boulevard to Nolensville Pike	Add center turn-lane/Safety Related
2025	1082	Franklin Pike (US-31)	Old Hickory Boulevard to Harding Place	Add center turn lane/safety-related - Includes Cost for adding Bike Lanes
2025	1088	I-24 E	Bell Road (SR-254)	Reconstruct interstate and RR bridges to eliminate piers in roadway; and upgrade to urban diamond
2025	1102	McCrary Creek Road	Elm Hill Pike to Stewarts Ferry Pike	Reconstruct to provide new horizontal and vertical alignment\Safety Related
2025	1120	I-65; I-40	2nd/4th Avenue South	Realign and segregate traffic for safety purposes @I-40/I-65 and 2nd/4th interchange
2025	2001	Port Royal Road	SR 396 Saturn Pkwy to SR 247 Duplex Rd	Widen lanes to 13' with shoulders and correct horizontal curve issues
2025	2003	Beechcroft Road (SR 247)	Rail crossing	Construct bridge over CSX railway
2025	5035	Goshen Town Road	Center Point Road to New Shackle Island Road (SR-258)	Realign, widen to 3 lanes/Safety Related
2025	5039	North and South Palmers Chapel	Tyree Springs to Tyree Springs	Improve horizontal and vertical alignment and add shoulders
2025	7038	Nonaville Rd	Mt. Juliet City limits to Saundersville Rd	Improve existing 2 lane roadway, geometric deficiencies
2025	7039	SR-26/US-70	I-40 to DeKalb Co Line	SR-26/US-70 Rebuild to 12'lanes, provide center turn lane through Watertown
2030	1122	McCrary Lane	SR-100 to I-40	Improve vertical and horizontal alignment for safety purposes

SECURITY PLANNING (New Section)

Background

In TEA-21, safety and security were included as a single planning factor. With SAFETEA-LU, safety and security are explicitly addressed as separate planning factors. With increased emphasis placed on transportation system security, the LRTP has been improved to provide a more in-depth discussion of security. All projects listed in this plan have been reviewed to determine their potential to improve the security of the transportation system.

Though the MPO is not involved in specific security or emergency planning activities, the Organization does communicate with the Tennessee Department of Transportation, Tennessee Department of Safety, Tennessee Emergency Management Agency, Tennessee Highway Patrol, local emergency management and law enforcement agencies, local engineering officials, and emergency personnel on major transportation plans and projects with the intention of developing a transportation system that is as secure as possible.

Existing Conditions

Intelligent Transportation Systems

Intelligent Transportation System (ITS) cameras allow officials at the Transportation Management Center (TMC) to monitor activity along Interstates within the region. Law enforcement and/or emergency personnel can be dispatched by the TMC if an emergency is spotted.

Dynamic Message Boards located along interstates and major highways throughout Davidson County and at some rural locations are capable of displaying emergency information such as weather or other natural incidents or warnings, hazardous spill information, Amber alerts, or evacuation orders.

The TDOT HELP trucks provide incident response services along area interstates and routine surveillance of bridges and overpasses, keeping a look out for suspicious activity or disabled vehicles. HELP truck operators are able to contact law enforcement or emergency personnel if needed.

Public Transportation

Since the terrorist attacks of September 11th, 2001, the efforts with regards to safety and security have reached a new level of importance. The Federal Transit Administration has undertaken a series of major steps to help local transit providers prepare against a variety of threats. It is critical to integrate security throughout every aspect of transit programs. This commitment must be demonstrated by the continual emphasis on security from the procurement of new systems and equipment, through the hiring and training of employees, to the management of the agency, and through the provision of service. The security function must be supported by an effective capability for emergency response, both to support resolution of those incidents that occur on transit property and those

events that affect the surrounding community serviced by the agency.

Although local transit providers have made great strides to strengthen security and emergency preparedness, there remains much more to do. Local transit providers are a critical, high risk, and high consequence asset. Everyday, transit provides mobility to thousands of our Region's citizens. An appealing aspect of transit is its open and easy access. This aspect also makes it vulnerable.

At the basic level, local transit agencies are assessing their vulnerability, developing security and emergency response plans, training drivers and supervisors, coordinating with local emergency management services, and, if possible, accelerating technology development. Security is being considered proactively in all plans or projects being developed rather than added as an afterthought.

Basic goals of transit agencies in regards to safety and security include:

- Being prepared for and well-protected against attacks;
- Being able to respond rapidly and effectively to natural and human-caused threats and disasters;
- Being able to appropriately support the needs of emergency management and public safety agencies; and
- Being able to quickly and efficiently be restored to full capability.

While local transit agencies have embraced the need to update safety and security throughout their systems, there are relatively few funds to help pay for these programs. Capital expenses can slowly be absorbed through the regular improvement plans. As older vehicles are replaced, the fleet can be upgraded to include new security features, however, it would take years to turn over the entire fleet with some additional financial assistance.

Trucking

The Transportation Security Administration (TSA) administers the Hazmat Threat Assessment Program which obtains background and security checks on drivers of commercial vehicles transporting hazardous materials. In addition, the Federal Motor Carrier Safety Administration (FMCSA) has initiated several programs aimed at protecting against terrorists using commercial trucks as weapons or targets. Their top priority is dealing with trucks that carry hazardous materials.

Rail

The TSA has developed a series of voluntary freight rail security action items that should be considered when security plans are developed. The action items address system security, access control, and en-route security.

CSX routinely monitors railroads for both safety and security purposes. CSX spends \$1 billion annually on track maintenance and upgrades.

Air

The TSA has new air cargo regulations in place that includes canine teams, site and on-board inspections, and physical screening of cargo as well as security and background checks of pilots, employees, and air cargo carriers. The TSA is also responsible for air passenger security.

Barge

The U.S. Army Corps of Engineers is responsible for monitoring all the locks along the Cumberland River and ensuring that they are operating safely and efficiently.

Security Planning Progress

The Strategic Plan for Highway Incident Management in Tennessee was adopted in August 2003 and “establishes the framework for a systematic, statewide, multi-agency effort to improve the management of highway incidents- crashes, disabled and abandoned vehicles, debris in the roadway, work zones, adverse weather, and other events and emergencies that impact the transportation system.”

The Department of Homeland Security administers the Targeted Infrastructure Protection Program which in 2005 allocated \$365 million to rail, port, and inter-city bus security, and highway watch and buffer zone protection programs.

In April 2003, the State of Tennessee formally formed the Tennessee Department of Homeland Security with the intention of coordinating emergency services and investigative agencies.

The DHS has also provided \$250 million to state and local governments and owners of transit security systems and \$141 million to owners and operators of rail systems.

Interagency Consultation

The MPO will coordinate the Nashville Regional Incident Management Committee which includes members of TDOT, TEMA, THP, local governmental officials, law enforcement, emergency personnel, and wrecker services. The MPO will continue to engage emergency and law enforcement personnel in transportation planning activities.

LRTP and TIP Project Selection

Projects benefiting the Security goals of the Long Range Transportation Plan will be given heightened consideration for inclusion in the Plan. The MPO requires that all parties pursuing projects funded with federal funds show how the project meets the goals and objectives of this plan, including Security.

The following is a set of projects that have been included in the 2030 LRTP to address security concerns.

YEAR	LRTP#	PROJECT	TERMINI	IMPROVEMENT
2030	8019	Nashville Area ITS Plan (Phase 3)	n/a	ITS Communications Program, software upgrade, CCTV, wayfinding
2030	1133	ITS Communications Program	County-wide	Update ITS, improve/integrate various signal communications; provide wayfinding capabilities
2006	79	Franklin Traffic Operations Center	Cool Springs, Hillsboro Road, Mack Hatcher, Murfreesboro Road	Traffic Operations Center, Phase 3 (Field Hardware) - install 5 CCTV cameras; install 7 dynamic message signs
2006	11	Nashville Area ITS Plan	Various interstates and controlled access facilities	Variable message signs, software, hardware
2016	1069	ITS Communications Program	County-wide	Replace ITS, signal communications, integration, wayfinding signage/message boards
2030	8019	Nashville Area ITS Plan (Phase 3)	n/a	ITS Communications Program, software upgrade, CCTV, wayfinding

ENVIRONMENTAL MITIGATION (New Section)

Background

SAFETEA-LU requires that the Nashville Area MPO consult with Federal, State, and Tribal land management, wildlife, and regulatory agencies to develop a general discussion on possible environmental mitigation activities that should be incorporated into transportation projects identified in this plan. As part of this requirement, TDOT established a consultation process with state and federal agencies responsible for environmental protection, land use management, and natural resource and historic preservation. Through this process, the MPO was able to seek comment and compare available plans and maps with planned transportation improvements.

Since the transportation planning activities of the MPO are regional in scope, this environmental mitigation discussion does not focus on each individual project within the Long Range Transportation Plan but rather offers a summary of environmentally sensitive areas to be aware of, the analyses conducted by the MPO to identify potential conflicts of planned projects, and mitigation strategies that could be considered in an effort to minimize any negative affect that a project may have on an environmentally sensitive area.

Identifying Sensitive Areas

There are numerous environmentally sensitive areas found throughout the Nashville region. Many areas are too small or too numerous to map at a regional level and can only be clearly identified through a project level analysis. Some areas are yet to be identified and will only become known once a project level analysis is completed, such as caves, sinkholes, and wetlands. When a project is ready to move from the Long Range Transportation Plan into the design / engineering phases, the project sponsor should conduct any necessary analysis as required by state and federal regulations to determine the type and location of environmentally sensitive areas within the project study area.

In developing project lists for the LRTP, the MPO conducts top level analysis to determine the potential need for future environmental mitigation. Specifically, the MPO looks at proposed project locations throughout the region to determine their proximity to the following natural or socio-cultural resources datasets. That analysis provides early guidance to project sponsors to develop mitigation strategies.

- Cemetery Surveys,
- Regional Water Resources,
- Endangered Species Habitat Areas,
- TDEC Terrestrial Habitat Areas,
- TDEC Aquatic Habitat Areas,
- State Division of Archaeology Properties,
- TDEC designated state natural areas,

- TDEC Endangered and Rare Species,
- Historic Properties, and
- Historic National Register Districts.

For the 2030 LRTP, the MPO has identified several projects that may need some type of mitigation to offset or prevent negative effects on natural or socio-cultural resources. A summary of the results of that analysis is presented below. The MPO will work with each affected local government to ensure that they have advanced notice of projects that may need mitigation.

Potential Environmental Concern	# Projects
Terrestrial Habitats	5
Archeology	75
Endangered Species Habitats	61
Water	71
Historic Properties	13
State Natural Areas	1
Cemeteries	53

Environmental Mitigation Activities

The Nashville area is committed to minimizing and mitigating the negative affects of transportation projects on the natural and built environments in order to preserve our quality of life. In doing so, the MPO recognizes that not every project will require the same type and/ or level of mitigation. Some projects such as new roadways and roadway widenings involve major construction with considerable earth disturbance. Others like intersection improvements, street lighting, and resurfacing projects involve minor construction and minimal, if any earth disturbance. The mitigation efforts used for a project should be dependant upon how severe the impact on environmentally sensitive areas is expected to be. The following three step process should be used to determine the type of mitigation strategy to apply for any given project:

1. Identify environmentally sensitive areas throughout the project study area;
2. Determine how and to what extent the project will impact these environmentally sensitive areas; and
3. Develop appropriate mitigation strategies to lessen the impact these projects have on the environmentally sensitive areas.

To the extent possible, transportation projects should minimize off-site disturbance in sensitive areas and develop strategies to preserve air and water quality, limit tree removal, minimize grading and other earth disturbance, provide erosion and sediment control, and limit noise and vibration. Where feasible, alternative designs or alignments should be developed that would lessen the project’s impact on environmentally sensitive areas.

For major construction projects, such as new roadways, or for projects that may have a region-wide environmental impact, a context sensitive solutions process should be considered in which considerable public participation and alternative design solutions are used to lessen the impact of the project.

The table below details mitigation activities that could be considered to deal with the primary areas of concern.

Environmental Concern	Potential Mitigation Activities
Wetlands or Water Resources	Mitigation sequencing requirements involving avoidance, minimization, compensation (could include preservation, creation, restoration, in lieu fees, riparian buffers); design exceptions and variances; environmental compliance monitoring
Forested and other Natural Areas	Avoidance, minimization; Replacement property for open space easements to be of equal fair market value and of equivalent usefulness; design exceptions and variances; environmental compliance monitoring
Agricultural Areas	Avoidance, minimization; design exceptions and variances; environmental compliance monitoring
Endangered and Threatened Species	Avoidance, minimization; time of year restrictions; construction sequencing; design exceptions and variances; species research; species fact sheets; Memoranda of Agreements for species management; environmental compliance monitoring
Ambient Air Quality	Transportation control measures, transportation emission reduction measures
Neighborhoods, Communities, Homes and Businesses	Impact avoidance or minimization; context sensitive solutions for communities (appropriate functional and/or esthetic design features)
Cultural Resources	Avoidance, minimization; landscaping for historic properties; preservation in place or excavation for archeological sites; Memoranda of Agreement with the Department of Historic Resources; design exceptions and variances; environmental compliance monitoring
Parks and Recreation Areas	Avoidance, minimization, mitigation; design exceptions and variances; environmental compliance monitoring

PUBLIC PARTICIPATION (New Section)

Public involvement is a critical part of all planning that is done through the Nashville Area MPO. Such involvement ensures that the planning process conforms to the vision, goals, and objectives of the region. The MPO's SAFETEA-LU compliant Public Participation Plan (PPP) provides guidelines for how the public and interested stakeholders will be involved in the development of or amendment to the LRTP.

Prior to adoption in October 2005, the 2030 LRTP went through a lengthy public involvement process. That process included several workshops and meetings held around the region to provide an opportunity for members of the public and stakeholder groups to help identify transportation problem areas, make suggestions for system improvements, and evaluate proposed projects.

Prior to adopting the November 2007 text amendments to the 2030 LRTP, the public was given a minimum of 30 days to review and comment on the proposed changes (the official review period was held from October 1 through October 31). During that period, copies of the plan amendments were made available on the homepage of the MPO's website (www.nashvillempo.org) and at local branch libraries throughout the MPO region. During that time, MPO staff consulted with interested parties and stakeholders affected by transportation plans and programs. This included local, state, and federal agencies involved in natural resources, land use management, environmental protection, conservation, and historic preservation.

Many of the interested parties had indicated an interest in the LRTP through a survey conducted during the development of the MPO's Public Participation Plan. The MPO also consulted with the various agencies through the Nashville Area Interagency Consultation Committee in its work towards air quality conformity determination. All those parties were provided an opportunity to review and comment on the draft plan amendments prior to adoption.

Comments received through the public participation process were provided to the MPO's Technical Coordinating Committee and the MPO Executive Board prior to each of two public hearings. The first hearing was held on November 7, the second and final hearing was held on November 14. A copy of the MPO's Public Notice and comments received during the review period are located in Appendix (TBD).

AIR QUALITY CONFORMITY (New Section)

Transportation conformity is a mechanism to ensure that federal funding is given to transportation activities that are consistent with the air quality goals of the State Implementation Plans (SIP) for Tennessee. According to the Clean Air Act Amendments of 1977 and 1990, transportation plans and programs must be coordinated with, and conform to, local air quality budgets in the local SIP in geographic areas designated by the EPA as non-attainment or maintenance for any of the criteria pollutants.

The MPO counties of Davidson, Rutherford, Sumner, Williamson and Wilson were designated non-attainment in 1978 and declared maintenance areas in 1996 for the ozone precursor pollutants of NO_x and VOC. In April, 2004, EPA developed new regulations

for air quality conformity and established an 8-hour standard overwriting the existing 1-hour standard in most areas including Nashville. This 8-hour standard established a longer period of sustained clean air than the previous standard.

On December 29, 2004, the region entered into an Early Action Compact (EAC), and is currently on a “fast-track” towards air quality attainment. During the EAC period, the effective date of the 8-hour non-attainment status is deferred until 2007 when, according to the EAC timeline, the region will be designated attainment. The areas progress towards the 8-hour standard will continue to be monitored through a maintenance plan through 2017. Prior to 2007, and while the Nashville Area is under non-attainment-deferred designation, the region is still required to abide by the 1-hour emissions budget in the current State’s current SIP. Of important note for Middle Tennessee, is that the 1-hour ozone standard was revoked for most 1-hour ozone maintenance areas on June 15, 2005, but was not revoked for this area because of its participation in the 8-hour ozone Early Action Compact process. As such, Middle Tennessee is still subject to 1-hour ozone transportation conformity requirements until the area successfully completes the EAC process and is declared attainment for the 8-hour ozone standard.

Conformity Determination

Under the Code of Federal Regulations, (40 CFR 93.105), the development of the Long Range Transportation Plan must include other federal, state and local agencies directly or indirectly impacted by the Plan’s implementation. The Nashville Area’s Interagency Consultation committee includes a variety of professionals involved in either air quality or transportation issues of the Nashville region. Members include the Tennessee Department of Transportation (TDOT), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Environmental Protection Agency (EPA), Tennessee Department of Environment and Conservation (TDEC), Metropolitan Nashville/Davidson County Health Department, the Metropolitan Nashville Transit Authority (MTA), the Regional Transit Authority (RTA), and the Nashville Area MPO staff. This committee meets periodically during Plan development to discuss the assumptions, modeling methods, and preliminary results of the LRTP and TIP development process.

On October 19, 2005, The U.S. Department of Transportation, in consultation with the U.S. Environmental Protection Agency, determined that the 2030 LRTP conforms to federal air quality standards (40 CFR 93.122). The Nashville Area Interagency Consultation (IAC) Committee agreed in October 2007 that the November 2007 plan amendments do not affect the Plan’s conformity, thus no additional air quality analysis is needed at this time. Appendix (TBD) contains the IAC October 2007 meeting minutes and the 2030 Conformity Letter.