

Northwest Louisiana Council of Governments

Long Range Transportation Plan 2035 Update



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Northwest Louisiana Long Range Transportation Plan (2010-2035)

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1.0 PLAN INTRODUCTION

1.1 PLAN DEVELOPMENT BACKGROUND

In 1999, the Northwest Louisiana Council of Governments, or NLCOG, initiated an effort to rethink its outdated Metropolitan Transportation Plan. The product of that effort was the development of the “Caddo-Bossier Transportation Plan 2001-2025”. This long-range plan effort included the creation of a new regional Travel Demand Model analytical tool, as well as, the utilization of Census 2000 demographic datasets. Further, the region’s principal transportation stakeholders formed a plan steering committee, namely the “Delphi Committee”, to guide the development of the Caddo-Bossier Transportation Plan 2001-2025.

In 2007, NLCOG embarked on the update of the Caddo-Bossier Transportation Plan 2001-2025. This effort has led to the development of the Long-Range Transportation Plan “Mapping the Way - 2030”. The intent of this effort was to thoroughly examine the region’s transportation system to determine deficiencies and bottlenecks, recommend a plan of improvements, facilitate prioritization of the improvement projects with citizens and area decision makers and identify long-range strategies to assure mobility. The intent of this plan is to not only meet the federal requirements of the current transportation regulation, SAFETEA-LU (Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users), but to address the transportation needs, as documented through our extensive public involvement activities, of the citizens of Northwest Louisiana.

In 2014, Northwest Louisiana Council of Governments (NLCOG) reviewed its most recent transportation plan, reassessed growth trends and transportation needs, and affirmed regional transportation planning assumptions. This effort led to the development of “Mapping the Way - 2035.” The updated plan identifies long-range strategies, which ensure Northwest Louisiana's regional mobility through the horizon year 2035. The intent of the updated plan is to not only meet the federal requirements of the current surface transportation law, but to address the transportation needs of the citizens of Northwest Louisiana - as documented through public involvement activities.

1.2 REGIONAL TRANSPORTATION SYSTEM

A review of the Shreveport-Bossier City metropolitan transportation system reveals a history of successful transportation planning and network improvements. Over the years, many regionally significant transportation improvement projects have been developed and funded entirely, or in a large portion, through local jurisdictional efforts. Such projects include:

- ▶ Clyde Fant Parkway (Shreveport riverfront – 7.1 mile, 4-lane facility) and A.R. Teague Parkway (Bossier City riverfront – 5.2 mile, 4-lane facility)
- ▶ Bike/Pedestrian Paths located adjacent to the Clyde Fant and A.R. Teague Parkways provide non-motorized connectivity along each respective riverfront
- ▶ Airline Drive Widening Project (2-lane to 5-lane section – 3.7 mile)
- ▶ Construction of ramp facilities to serve Shreveport-Barksdale Highway and A.R. Teague Parkway
- ▶ Inner Loop Extension (LA 3132 – 2.2 mile, 4-lane freeway facility, between LA 526 and LA 523, 50% funded locally)
- ▶ City of Shreveport’s continued support of the urban area’s primary transit provider - SporTran

These improvements have not only improved the overall performance of the regional transportation system, but have enhanced the quality of life for local residents. Due to the high level of local support regarding the planning and development of transportation infrastructure, the region has laid the groundwork for an efficiently operating transportation network. The region currently enjoys high-performing transportation facilities; however, changes are occurring, such as new land uses, shifts in population growth and economic activities that call for a continuous monitoring of the region’s transportation needs, goals, and investments.

1.3 WHY PREPARE A LONG-RANGE TRANSPORTATION PLAN?

Regional long-range transportation planning, as conducted by the urban area's designated Metropolitan Planning Organization (MPO), is required by the U.S. Department of Transportation (USDOT) as a prerequisite for federal funding. However, the benefits of planning extend far beyond simply complying with federal mandates.

CREATING A REGIONAL VISION

Transportation systems are best planned at a regional level, because people do not confine their travel to a specific local area. Thus, NLCOG develops the Long-Range Transportation Plan to encompass the entire region. The primary outcome of the planning effort is the development of a regional vision for surface transportation, along with a list of planned improvements, commensurate with the funding the region can reasonably expect to receive.

This transportation planning process provides an opportunity for citizens, government officials, planners, and community stakeholders to come together to visualize the region's future, identify trends taking place within the communities, assess current and future system needs, and set goals for what the region hopes to achieve within the next 20 or more years. Furthermore, the metropolitan transportation planning process allows for regular update cycles, to ensure that the vision and goals are consistently revisited and reassessed to address the region's changing needs.

FEDERAL REQUIREMENTS

On July 6, 2012, the Moving Ahead for Progress in the 21st Century (MAP-21) Act was signed into law. It is the successor to the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

MAP-21 authorized funds for highway, transit, bike, and pedestrian, as well as transportation-related safety programs. MAP-21 continued provisions from the previous transportation legislation and established several new requirements that MPOs must adhere to in the long-range planning process.

Statutory Requirements and References

The following long-range transportation plan (Plan) requirements, previously promulgated under SAFETEA-LU, continued under MAP-21:

- ▶ The Plan is to be updated every 4 years (unless the MPO chooses to do so more frequently) in non-attainment and maintenance areas. Attainment areas remain on a 5-year update cycle.
- ▶ Intermodal connectors are added as a transportation facility.
- ▶ A discussion of potential environmental mitigation activities must be included, along with potential sites to carry out the activities. The discussion is to be developed in consultation with Federal, State, and tribal wildlife, land management, and regulatory agencies.
- ▶ Transit operators are to be included in the cooperative development of funding estimates for the financial plan section.
- ▶ MPOs are required to consult with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning development of the Plan.
- ▶ Representatives of users of pedestrian walkways, bicycle transportation facilities, and the disabled are specifically added as parties to be provided with the opportunity to participate in the planning process.
- ▶ The MPO is to develop a participation plan in consultation with interested parties that provides reasonable opportunities for all parties to comment.
- ▶ To carry out the participation plan, public meetings are to be: conducted at convenient and accessible locations at convenient times; employ visualization techniques to describe plans; and make public information available in an electronically accessible format, such as on the Web.
- ▶ The Plan is to be published and made available electronically, such as on the Web.

Transportation Planning Factors

MAP-21 also continued the requirement that the following eight factors be explicitly considered, analyzed as appropriate, and reflected in the long-range transportation plan:

National Performance Goals

- ▶ Safety
- ▶ Infrastructure Condition
- ▶ Congestion Reduction
- ▶ System Reliability
- ▶ Freight Movement & Economic Vitality
- ▶ Environmental Sustainability
- ▶ Accelerated Project Delivery

- ▶ Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;

- ▶ Increase the safety of the transportation system for all motorized and non-motorized users;

- ▶ Increase the security of the transportation system for motorized and non-motorized users;

- ▶ Increase the accessibility and mobility of people and freight;

- ▶ Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;

- ▶ Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;

- ▶ Promote efficient system management and operation;
- ▶ Emphasize the preservation of the existing transportation system.

Although the long-range transportation plan must consider each of these factors, the broad nature of each factor allows for flexibility in determining how these eight factors align with other planning initiatives.

Performance-Based Planning

MAP-21 established seven national performance goals to facilitate transition to a performance-based approach to transportation planning.

- ▶ Safety – To achieve a significant reduction in traffic fatalities and serious injuries on all public roads;
- ▶ Infrastructure Condition – To maintain the highway infrastructure asset system in a state of good repair;
- ▶ Congestion Reduction – To achieve a significant reduction in congestion on the National Highway System;
- ▶ System Reliability – To improve the efficiency of the surface transportation system;
- ▶ Freight Movement and Economic Vitality – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development;
- ▶ Environmental Sustainability – To enhance the performance of the transportation system while protecting and enhancing the natural environment;
- ▶ Reduced Project Delivery Delays – To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

Under the guidance of MAP-21, MPOs are required to develop long-range transportation plans and transportation improvement programs through a performance-driven, outcome-based approach to planning, using data to identify, evaluate, and prioritize strategies to achieve desired outcomes.

General Requirements

NLCOG, the designated MPO for Northwest Louisiana, is required by MAP-21 to develop, adopt, and implement a long-range transportation plan that must be updated every five years. Essentially, the Long-Range Transportation Plan (LRTP) identifies and develops components that comprise an integrated, multimodal and intermodal metropolitan transportation system. Having

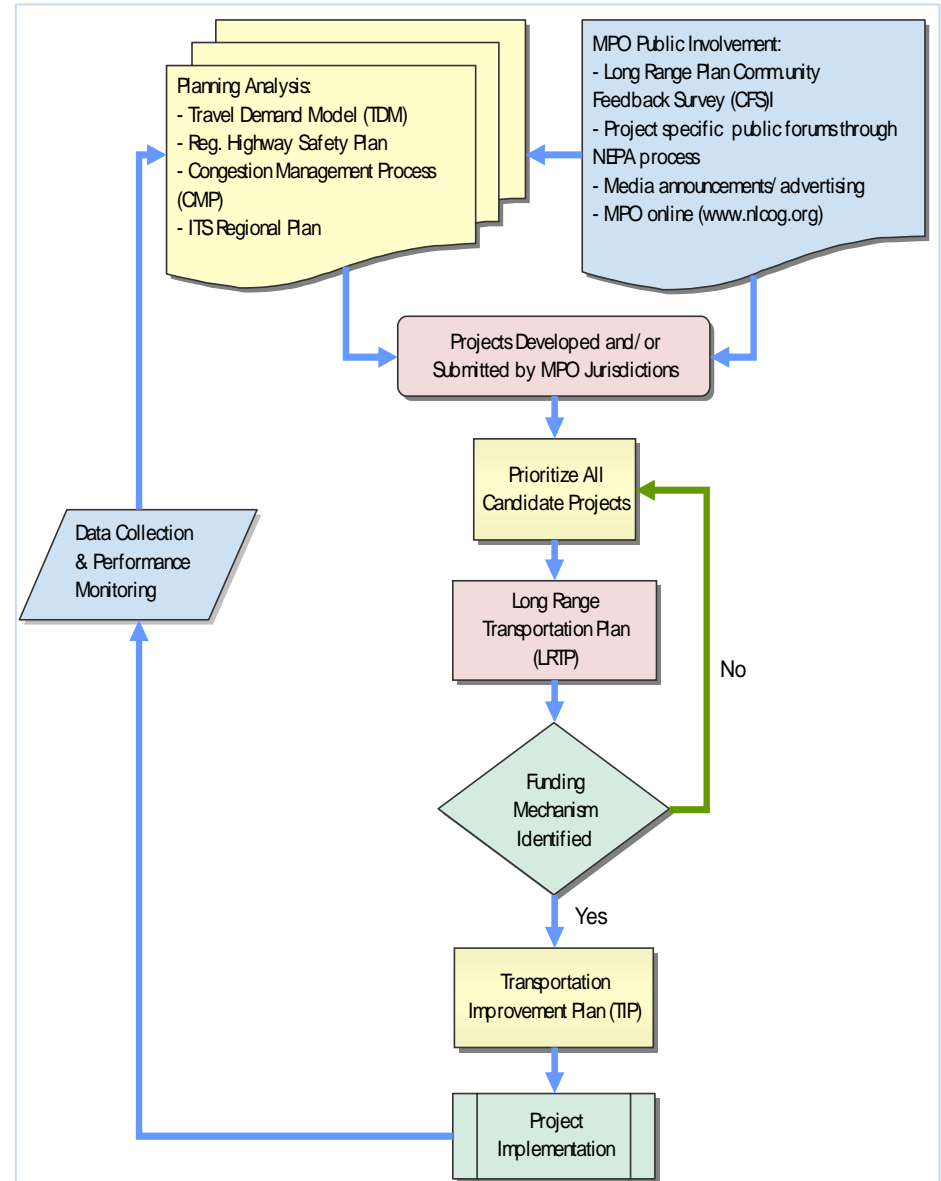
defined the transportation system, NLCOG has proposed measures to ensure the efficient use of the existing system as a means of reducing congestion and improving mobility. The Northwest Louisiana Long-Range Transportation Plan “Mapping the Way - 2035” encompasses a minimum twenty-year time frame and identifies both short-term (year 2020) and long-term (year 2035) needs. The intent of this planning effort was to conduct investigations that identify existing and emerging transportation needs and to recommend improvement strategies to ensure long-term regional mobility. In essence, the LRTP includes the following elements:

- ▶ 20-year planning horizon;
- ▶ Five year update cycle;
- ▶ Inclusion of a transportation system that is integrated, intermodal, and multimodal;
- ▶ Consideration of the eight planning factors required by MAP-21;
- ▶ Definition of short -range and long-range strategies;
- ▶ Maximization of existing transportation facilities efficiencies to relieve congestion and improve safety and mobility of people and goods; and
- ▶ Fiscal constraint that demonstrates planned improvements do not exceed expected revenues.

1.4 INTEGRATION OF THE LRTP INTO NLCOG'S TRANSPORTATION PLANNING PROCESS

The Long-Range Transportation Plan “Mapping the Way - 2035”, is intended to be an integral part of the overall metropolitan transportation planning process, rather than a stand-alone program. This integration provides decision makers with current information pertaining to the assessment of transportation needs, through the MPO’s planning analysis products - such as the Congestion Management Process (CMP), travel demand model (TDM) analysis, Intelligent Transportation Systems (ITS), etc. - and through citizens’ opinions and attitudes towards transportation issues.

Figure 1: Long-Range Transportation Plan Development within the MPO Planning Process



The development of the Long-Range Transportation Plan is presented in Figure 1. The figure illustrates how the LRTP is integrated into the overarching metropolitan transportation planning process undertaken by the MPO.

A critical process element occurs during the identification of all candidate projects for inclusion into the LRTP. It is at this juncture, that improvement projects and strategies are considered by the MPO's member jurisdictions (i.e. MPO Transportation Policy Committee), utilizing the findings of the various MPO planning analyses, as well as, citizen attitudes and opinions gleaned from the MPO's public involvement process.

WHO IS INVOLVED IN THE LRTP DEVELOPMENT?

Federal regulations require that public officials - elected and appointed - and citizens have adequate opportunity to participate in the development of the long-range transportation plan before it is approved and adopted.

Public Officials and Member Entity Technical Staff

MPO Transportation Policy and Technical Advisory committee membership encompasses local elected and appointed officials, as well as technical staff from the cities and parishes within the study area.

Technical Advisory Committee

The Technical Advisory Committee (TAC) is comprised of a panel of individuals with knowledge and expertise in transportation planning and operations. The TAC advises the Policy Committee, offering operational and technical information to assist in the decision-making process. Inclusion of improvement projects into the regional LRTP and discussion of strategic planning issues are brought forth during a typical TAC meeting.

In addition to the staff support provided by the MPO, representatives from the Federal Highway Administration (FHWA), Federal Transit Administration (FTA) and LaDOTD also provide technical assistance and guidance. More information about the TAC can be found on the NLCOG website at:

http://www.nlcog.org/office_info/nlcog/TAC_Comm.htm

Transportation Policy Committee:

The MPO is governed by the Transportation Policy Committee, which is comprised of elected or appointed officials representing the cities and parishes within the study area. The Policy Committee members are familiar with the transportation issues and needs found in Northwest Louisiana.

Other appointed officials include the District 04 Administrator for LaDOTD, and a representative of FHWA, and their counterpart from FTA. The purpose of the Transportation Policy Committee is to serve as the decision-making body, to determine transportation priorities, and to adopt policies, which guide the transportation investments in the region. Additional information about the Policy Committee can be found on the NLCOG website at:

http://www.nlcog.org/office_info/nlcog/TranPolicy_Comm.htm

Public Participation and Stakeholder Consultation

MAP-21 contains specific requirements for public participation in the long-range transportation planning process.

The law builds upon efforts emphasized under previous transportation laws, including: the Intermodal Surface Transportation Efficiency Act (ISTEA, adopted in 1991); the Transportation Equity Act for the 21st Century (TEA-21, adopted in 1998); and SAFETEA-LU (adopted in 2005).

Citizens and Interested Parties

The regulations explicitly identify several parties who should be engaged and involved throughout the plan update and development process. These private interests include:

- ▶ Citizens
- ▶ Bicycle interests
- ▶ Pedestrian interests
- ▶ Representatives of users of public transit
- ▶ Representatives of public transportation employees
- ▶ Private providers of transportation
- ▶ Freight shippers

- ▶ Providers of freight transportation services
- ▶ Tribal organizations
- ▶ Organizations representing the disabled
- ▶ State and local agencies responsible for -
 - Land use management
 - Natural resources
 - Environmental protection
 - Conservation
 - Historic preservation
- ▶ Other interested parties

For a more detailed examination of NLCOG’s public involvement and stakeholder engagement process, please refer to Chapter 3 *Public Involvement* and *Appendix A* of this document.

1.5 LRTP CONSISTENCY WITH OTHER MPO PLANNING PROCESSES

Projects contained in the LRTP have evolved through the region's planning process. The result of the process is a coordinated, comprehensive, intermodal transportation plan for Caddo and Bossier parishes. All projects contained in the LRTP are included within the financially constrained plan for the area. All projects were determined through a cooperative effort with the state, local transportation officials and the public. Project priorities were adjusted as deemed appropriate by the MPO’s Transportation Policy Committee.

CONGESTION MANAGEMENT PROCESS

SAFETEA-LU mandated that Transportation Management Areas (TMAs) have a Congestion Management Process (CMP) that provides for effective management and operation to reduce congestion. MAP-21 no longer requires a stand-alone product, but calls for an integrated, performance-driven approach, which greatly benefits from the data collected and work already accomplished as part of the CMP planning effort:

- ▶ The CMP identifies congestion based upon field collected travel flow data;
- ▶ The location and level of facility congestion is determined through a calculated performance measure termed a “Speed Deficit”, providing an acceptable measure of congestion; and
- ▶ Average Daily Traffic (ADT) and transit measures are also considered.

NORTHWEST LOUISIANA INTELLIGENT TRANSPORTATION SYSTEMS

The Intelligent Transportation System (ITS) Strategic Deployment Plan for the Shreveport-Bossier City region was developed through a series of meetings, work sessions, interviews, and close coordination with the region’s stakeholders, including:

- ▶ DOTD District 04 and headquarters;
- ▶ City of Bossier City;
- ▶ City of Shreveport;
- ▶ Northwest Louisiana Council of Governments (NLCOG);
- ▶ Louisiana State Police;
- ▶ SporTran; and
- ▶ Transportation Incident Management (TIM) Committee.

The deployment plan identified the region’s primary ITS stakeholders, as well as a phased program of ITS based infrastructure improvements that adhere, and are consistent with accepted ITS architecture guidelines. Further, the strategic deployment plan is consistent with the MPO’s LRTP, current TIP and CMP, through Technical Advisory Committee consultation, and is intended to address transportation system deficiencies within the region.

ENVIRONMENTAL JUSTICE

The MPO serves as the primary forum where state and local agencies, transit providers, and the public develop local transportation plans and programs that address the metropolitan area's needs. MPOs can help local public officials understand how Title VI and Environmental Justice (EJ) requirements

improve planning and decision making. To certify compliance with Title VI and address environmental justice, MPOs need to:

- ▶ Enhance their analytical capabilities to ensure that the Long-Range Transportation Plan and the Transportation Improvement Program comply with Title VI.
- ▶ Identify residential, employment, and transportation patterns of low-income and minority populations, so that their needs can be identified and addressed, and the benefits and burdens of transportation investments can be fairly distributed.
- ▶ Evaluate and - where necessary - improve public involvement processes to eliminate participation barriers and engage minority and low-income populations in transportation decision-making.

NLCOG's Environmental Justice Report considers the relationship between the existing transportation and public transit systems in combination with low-income groups and five minority groups: Black or African American; Hispanic or Latino; Asian; Native Hawaiian and Pacific Islander; and American Indian and Alaskan Native. The purpose of completing the Environmental Justice Report is to better understand the potential effects of transportation system changes; especially those changes that might adversely and disproportionately affect low-income and/or minority populations.

Through the LRTP and TIP development process, projects proposed for inclusion are evaluated, initially by the MPO staff and subsequently by the Technical Advisory Committee, to determine the project's potential impact upon low-income and traditionally minority populations. Further, the Environmental Justice Report documents the level of transportation investment across the MPO and gauges the level of transportation infrastructure improvement expenditures within disadvantaged areas.

What to Expect in the Remainder of the Document

As a long-range planning document, the purpose of the plan is to assess the existing issues and future transportation needs of the community, establish priorities for funding needed improvements, and chart a course for meeting the community's vision. The plan is designed to allow Northwest Louisiana to also enhance the economic viability of its communities, while preserving the region's quality of life. The planning process, related activities, and transportation system analysis that led to the development of "Mapping the Way - 2035" are detailed in the following chapters:

- ▶ Regional Demographic Profile, Transportation Conditions, and Needs Assessment
- ▶ Public Involvement
- ▶ Needs Assessment Outcomes – Goals and Objectives
- ▶ Financial Plan
- ▶ Project Prioritization
- ▶ Plan Outcomes

2.0 GROWTH AND CHANGE

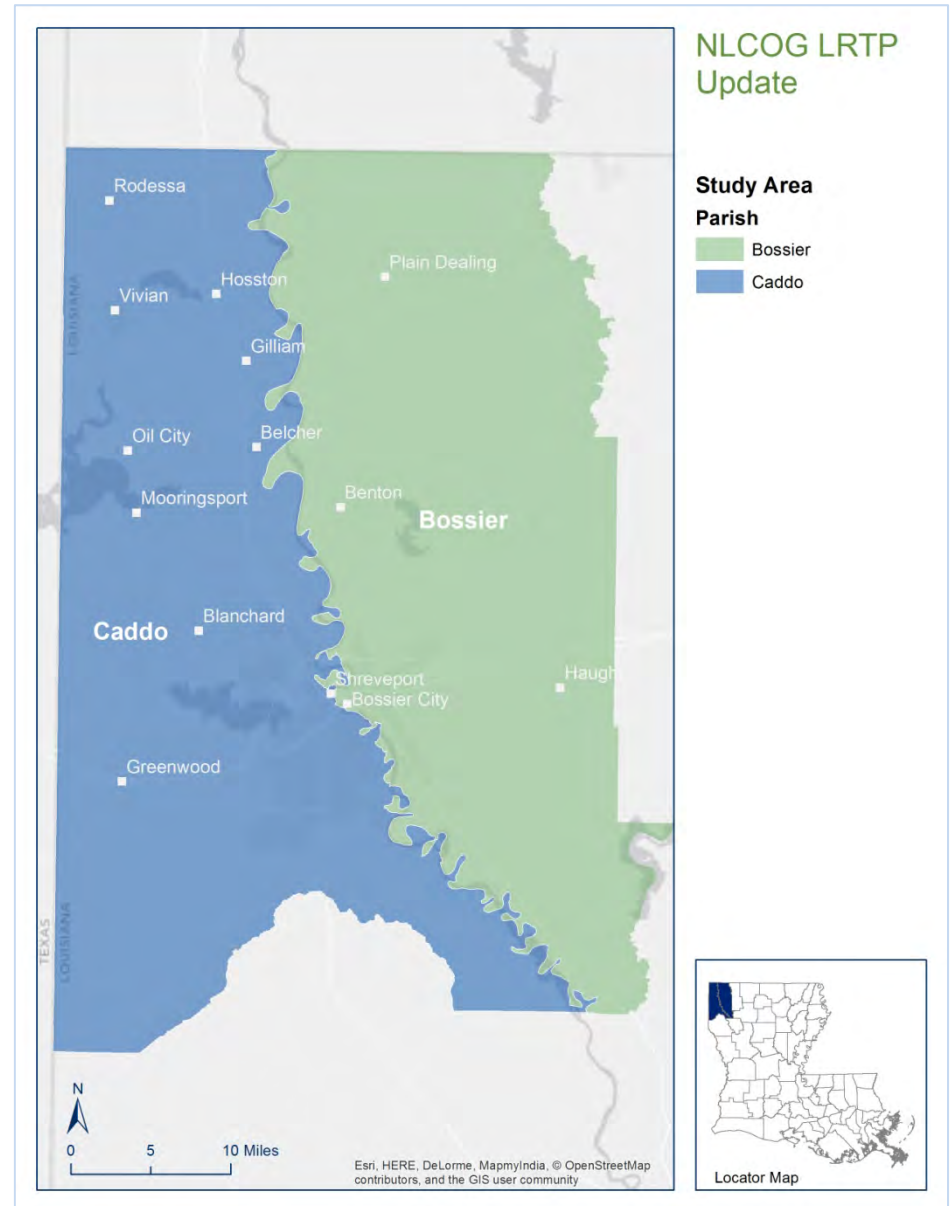
Northwest Louisiana is growing steadily along a moderately positive trend. Healthcare and education remain two of the strongest industries for employment. Continued growth varies widely with economic fortunes and misfortunes, as history shows with the area’s boom in the 1970s and the bust of the 1980s. Recently the area experienced positive growth and change due to the incoming industries of movie production and natural gas exploration in the field of the Haynesville Shale. In order for the region to remain competitive, Caddo and Bossier parishes must continue to attract new industries; good infrastructure and smart planning are key to the attraction.

2.1 LONG-RANGE PLAN STUDY AREA OVERVIEW

A study area is defined in order to determine the extent of the planning effort, as well as its data requirements. Under federal requirements, the study area must encompass both the existing urbanized area and contiguous area expected to become urbanized during the time period covered by the Long Range Transportation Plan. For this planning effort, both Caddo and Bossier Parishes are identified as the Study Area. This area encompasses 17 municipalities, including the two parish seats and the cities of Shreveport and Bossier City as shown in Figure 1:

- ▶ Belcher
- ▶ Benton
- ▶ Blanchard
- ▶ Bossier City
- ▶ Bossier Parish
- ▶ Caddo Parish
- ▶ Eastwood
- ▶ Gilliam
- ▶ Greenwood
- ▶ Haughton
- ▶ Hosston
- ▶ Ida
- ▶ Plain Dealing
- ▶ Mooringsport
- ▶ Oil City
- ▶ Red Chute
- ▶ Rodessa
- ▶ Shreveport
- ▶ Vivian

Figure 1: Long-Range Transportation Plan Study Area



2.2 STUDY AREA DEMOGRAPHIC DATA

The two parishes of Caddo and Bossier contain 1,719 square miles and have a 2010 census population of 371,948. Table 1 summarizes the 2000 and 2010 Census demographic statistics for the two-parish MPO study area. Further, the table compares significant socio-economic MPO characteristics with U.S. population demographics. The outcome of this analysis illustrates the differences between the MPO's population and U.S. totals regarding some key demographic characteristics. Most notably, the MPO has a much higher minority population (+18%) as compared to U.S. totals.

When prioritizing improvement projects, as identified through other planning efforts (e.g. Long Range Transportation Plan, Congestion Management Plan, etc.), determining the MPO's demographic composition is critical to the equitable programming of transportation improvement projects throughout the MPO. The primary intent of NLCOG's Environmental Justice effort is to insure that federal and local match support funding is programmed, through a transparent TIP process, in an equitable manner across all underserved/ disadvantaged/ traditional minority populations.

Table 1: MPO Demographic Comparison US Population

Vital Demographics	2000 Study Area Totals	2010 Study Area Totals	2000-2010 Study Area Change	2000 U.S. Totals	2010 U.S. Totals	2000-2010 US Change
Total Population	350,471	371,948	21,477 - 6%	281,421,906	309,138,711	27,716,805 - 10%
Total Minority Population	143,644 - 41.0%	162,116 - 43.6%	18,472 - 13%	69,961,280 - 24.9%	79,839,805 - 25.8%	9,878,525 - 14%
High School Graduate or Higher (25 or Older)	175,915	209,174	19%	146,496,014	175,156,198	19%
Speak a Language Other than English at Home (5 Years and Over)	14,107 - 4.0%	16,345 - 4.4%	2,238 - 16%	46,951,595 - 16.7%	59,384,763 - 19.2%	12,433,168 - 26%
In Labor Force (16 Years and Over)	165,708	290,152	75%	138,820,935	243,810,053	75%
Population 65 Years and Over	44,703	48,817	9%	34,991,753	40,671,441	16%
Median Household Income (1999 and 2010 dollars)	\$35,335	\$46,784	\$11,449	\$41,994	\$53,046	\$11,052
Percentage Below Poverty Level	14%	12%	-2%	9%	11%	+2%
Mean travel Time to Work in Minutes (Workers 16 Years and Over)	21.7	20.7	-1 min	25.50	25.4	-0.1 min

SOCIOECONOMIC FORECASTS

During the development of the Caddo-Bossier Transportation Plan Update 2001-2025, the NLCOG established a Delphi Committee, charged with, among other things, developing a new set of socioeconomic and land use forecasting. Committee members represent a wide spectrum of transportation and planning interests, including elected officials, technical and planning representatives from city and parish governments, DOTD officials, private developers, transit operators and parish-wide educational leaders. The committee members participated in an iterative process and developed socio-economic forecasts for twelve sub-regions of the modeling domain, consisting of Caddo and Bossier Parishes. These forecasts were based on panel members’ work experience and in-depth knowledge of local trends and represented the most probable future growth scenario. The planning horizon year was 2025. The sub-regional forecasts were allocated to the TAZ level. The NLCOG approved the socioeconomic and land use forecasts for use in the travel demand forecasting model. This forecast was incorporated in this expanded model, with some minor changes to account for changes in the socioeconomic data.

A top-down approach was used to develop the TAZ level socioeconomic forecasts. At the parish level, population and employment growth rates were taken from the Louisiana Statewide Transportation Plan Update, which used the Woods & Poole database. The parish level population and employment growth were then allocated to the TAZ level, based on the historical trends (between 1990 and 2000), proximity to the City of Shreveport, and existing distribution of employment by sector. Table 2 shows the 2025 socioeconomic forecasts by localities in the modeling domain, and Table 3 shows socioeconomic change between 2000 and 2025 by locality.

The base year total population includes approximately 350,500 people living in roughly 134,600 households in the modeling domain. Of the base year regional population, 72 percent is located in Caddo Parish and 28 percent in Bossier Parish. Households had similar distributions among the two parishes. The forecast year 2025 total population includes approximately 400,000 people living in roughly 152,500 households in the modeling domain. Of the forecast year regional population, 67 percent is located in Caddo Parish and 33 percent in Bossier Parish.

Table 2: Summary of 2025 Socioeconomics

Locality	Total Population	Households	Basic Jobs	Retail Jobs	Service Jobs	Total Jobs
Bossier Parish	130,403	47,949	27,816	11,561	42,360	81,737
Caddo Parish	268,930	104,562	67,198	31,873	126,559	225,630
Study Area Total	399,333	152,511	95,014	43,434	168,919	307,367

Source: Michael Baker Jr., Inc., 2006 and NLCOG travel demand forecasting model data, 2004

Table 3: Summary of Socioeconomic Changes (2000-2025)

Locality	Total Population	Households	Basic Jobs	Retail Jobs	Service Jobs	Total Jobs
Bossier Parish	32,093	11,321	21,075	2,121	19,991	43,187
Caddo Parish	16,769	6,588	46,042	4,917	59,784	110,743
Study Area Total	48,862	17,909	67,117	7,038	79,775	153,930

Households had similar distributions among the two parishes. Between 2000 and 2025, the modeling domain area is projected to grow by 49,000 people and 18,000 households, or 13%. The 2000 total employment includes approximately 153,000 jobs, with 18 percent basic employment, 24 percent retail employment and 58 percent service employment. Of the 2000 regional employment, 75 percent is located in Caddo Parish and 25 percent in Bossier Parish. The forecast year 2025 total employment includes approximately 307,000 jobs, with 31 percent basic employment, 14 percent

retail employment and 55 percent service employment. Of the forecast year 2025 regional employment, 73 percent is located in Caddo Parish and 27 percent in Bossier Parish. Between 2000 and 2025, the region was projected to grow by 154,000 jobs, or 100%. Similar trends continued in 2030. Table 4 shows the 2030 socioeconomic forecasts by localities in the modeling domain, and Table 5 shows socioeconomic changes between 2000 and 2030 by locality.

Table 4: Summary of 2030 Socioeconomics

Locality	Total Population	Households	Basic Jobs	Retail Jobs	Service Jobs	Total Jobs
Bossier Parish	138,680	50,922	27,816	12,044	45,417	85,277
Caddo Parish	275,023	106,941	67,198	32,967	135,507	235,672
Study Area Total	413,703	157,933	95,014	45,011	180,924	320,949

Source: Michael Baker Jr., Inc., 2006

Table 5: Summary of Socioeconomic Changes (2000-2030)

Locality	Total Population	Households	Basic Jobs	Retail Jobs	Service Jobs	Total Jobs
Bossier Parish	40,370	14,294	21,075	2,604	23,048	46,727
Caddo Parish	22,862	8,967	46,042	6,011	68,732	120,785
Study Area Total	63,232	23,261	67,117	8,615	91,780	164,512

For the updated Long-Range Transportation Plan "Mapping the Way - 2035", the 2030 socioeconomic data projections were revisited. Based on the confirmation of the previous growth trends, population and employment estimates were prepared for the 2035 horizon year. Population is projected to include approximately 452,000 people living in roughly 175,000 households. It is expected that 61 percent will be located in Caddo Parish and 39 percent

will reside in Bossier Parish. Households have a similar distribution among the two parishes. Employment is anticipated to increase slightly to 327,000. The complete chart of horizon year socioeconomic characteristics is shown in Table 6, and Table 7 shows socioeconomic changes between 2000 and 2035 by locality.

Table 6: Summary of 2035 Socioeconomics

Locality	Total Population	Households	Basic Jobs	Retail Jobs	Service Jobs	Total Jobs
Bossier Parish	174,279	65,029	30,342	14,159	56,638	101,139
Caddo Parish	277,527	109,694	66,803	30,902	128,021	225,725
Study Area Total	451,806	174,724	97,145	45,061	184,658	326,864

Source: U.S. Census Bureau; 2008-2012 American Community Survey; Woods and Poole 2014 CEDDS; Alliance Transportation Group, Inc.

Table 7: Summary of Socioeconomic Changes (2000-2035)

Locality	Total Population	Households	Basic Jobs	Retail Jobs	Service Jobs	Total Jobs
Bossier Parish	75,969	28,401	23,601	4,719	34,269	62,589
Caddo Parish	25,366	11,720	45,647	3,946	61,246	110,838
Study Area Total	101,335	40,052	69,248	8,665	95,514	168,427

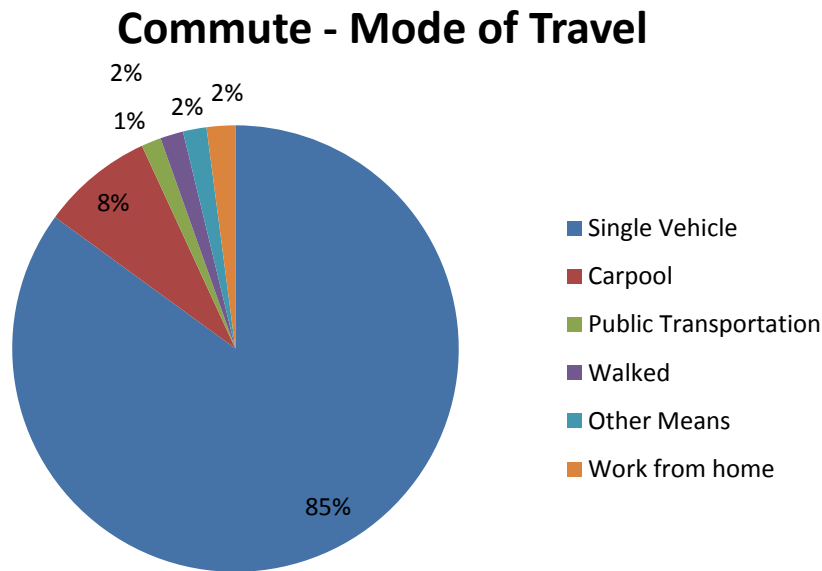
2.3 TRANSPORTATION MODES

A complete transportation system encompasses roadways, public transportation, bicycle and pedestrian facilities, and intermodal freight facilities.

ROADS AND HIGHWAYS

The predominant mode of transportation for study area residents is the single-occupancy vehicle (SOV). The primary mode of transportation for all commuters in the study area is shown in Figure 2. The large majority of commuters travel alone in their automobile, while 8 percent carpool to work. The remaining 7 percent of workers walk, bike, ride transit, use other means of transportation, or work from home.

Figure 2: Caddo and Bossier Parish - Commute Mode of Travel



Source: 2008-2012 American Community Survey - At Place of Work

In addition to serving automobiles, regional roadways accommodate bus, bicycle, and pedestrian travel, making the roadway network an integral part of the community. Despite a multi-modal transportation system, roadways are the primary consideration for addressing regional transportation needs.

BICYCLE AND PEDESTRIAN

Increasingly, individuals seek to complete more trips without a motor vehicle. Increased transportation costs and generational shifts in personal vehicle ownership have contributed to the need for well-planned and convenient bicycle and pedestrian facilities for the region.

PUBLIC TRANSPORTATION

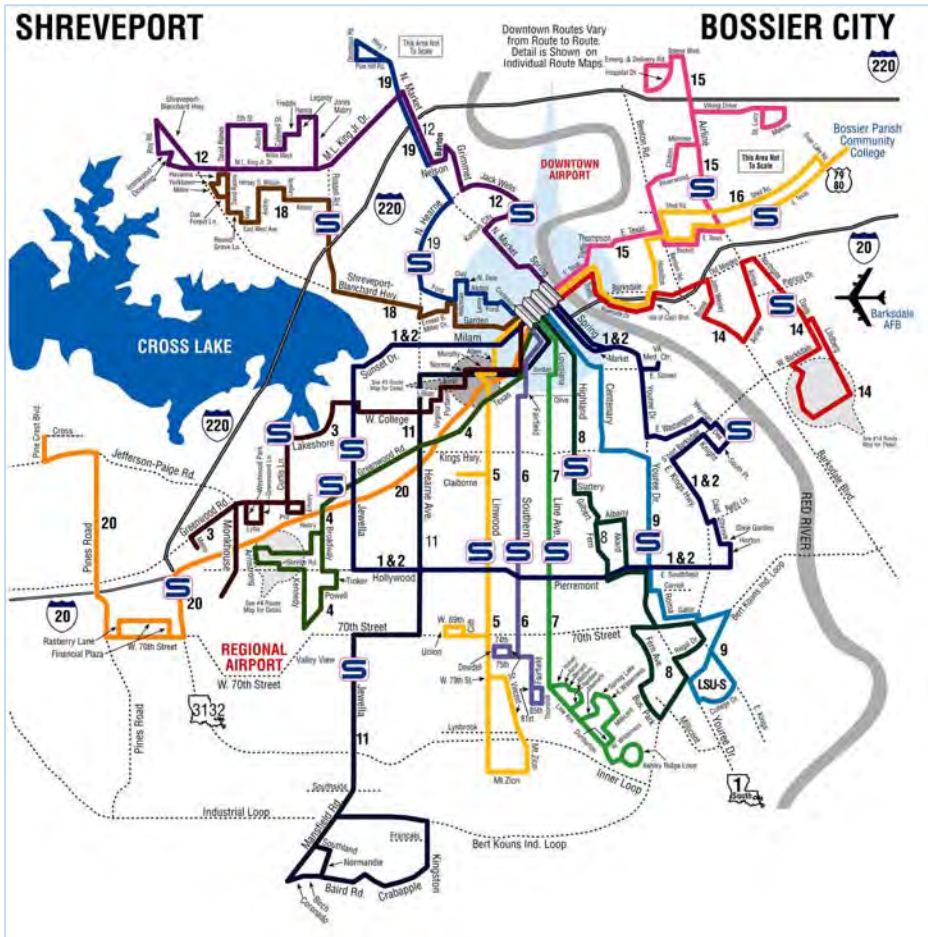
Public transportation is an important component of the overall transportation system. Public transportation increases mobility, expands accessibility, and provides additional transportation choices for many people who cannot or choose not to operate a personal vehicle. To assess the current level of public transportation services and evaluate the need for improvements, the following section includes an inventory of the existing transit system and programmed improvements, as well as a discussion of identified issues and needs, and recommendations for expanding and improving transit services in Northwest Louisiana.

SporTran

Public transportation is provided in the cities of Shreveport and Bossier City by SporTran. The SporTran service currently consists of 18 fixed routes operating weekdays, evenings and weekends shown in Figure 3. In addition to the fixed routes, paratransit service is also available. In 2012 SporTran provided service to approximately 3.5 million passengers¹.

¹ <http://www.shreveportla.gov/Archive/ViewFile/Item/1160>

Figure 3: SporTran Fixed Routes



Source: <http://www.sportran.org/DocumentCenter/View/25>

OTHER MODES

Beyond roads and highways, other intermodal transportation options play a significant role in the economic success and quality of life in Northwest Louisiana. Intermodal transportation options increase competition in today’s global economy and facilitate the movement of people and goods across the community. Beyond the basic travel needs of Caddo and Bossier parish residents, there are additional travel considerations for moving freight by rail and truck, as well as for personal interregional travel via rail and plane. The following sections discuss intermodal and interregional transportation available within the study area.

Freight

The majority of freight movement in and around the region uses trucks on roads and highways. Rail, air, and intermodal freight movements also exist to varying extents.

Rail

Northwest Louisiana and Caddo and Bossier parishes are home to significant intersecting freight rail facilities.

Air

The cities of Shreveport and Bossier City are served by the public use Shreveport Regional Airport (SHV). The airport has two runways and is classified as a small hub airport by the Federal Aviation Administration (FAA). According to FAA, SHV had more than 279,000 enplanements in 2013².

Interregional Passenger Transport

A globalized economy and interconnected world raises demand for business and personal interaction, often characterized by the need, or desire for outside travel. Interregional travel can be accomplished by different transportation modes, like intercity rail or airplane.

² http://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/media/cy13-commercial-service-enplanements.pdf

2.4 TRAFFIC FLOW AND TRAVEL DEMAND MODELING

Traffic data is determined by traffic counts. Traffic counts were obtained by the LADOTD, City of Shreveport, and Bossier City. Supplemental counts were also conducted to supply additional information as needed to update the plan. Travel surveys were performed to determine travel patterns. The traffic flow is crucial in calculating the number of trips made in and determining travel patterns.

In this planning process, travel demand modeling was used as a tool to forecast transportation congestion and future potential problems. Modeling uses demographics, behavioral travel patterns, and certain assumptions regarding the future. Modeling requires two data sets: the transportation network and the Traffic Analysis Zones (TAZ). The network comes from input of traffic flow and geometric data. The TAZ input is based on social-economic data. A TAZ is a sub area of the region that is used to geographically summarize land use, demographic and travel data. More information about the travel demand modeling process can be found in *Appendix B*.

3.0 PUBLIC INVOLVEMENT

The Northwest Louisiana Long Range Transportation Plan (LRTP) seeks to examine the region’s socioeconomic conditions, evaluate community needs and current transportation priorities, and develop future transportation projections. The utilization of key communication tools enhanced the public outreach process. It ensured proper documentation of public responses, educated the public at every phase of the process, and contributed to the development of the final transportation planning strategies.

The LRTP public participation objectives were as follows:

- ▶ Establish a sense of ownership for the stakeholders in the process;
- ▶ Provide timely responses to all written and oral comments;
- ▶ Document all comments for inclusion in the final LRTP;
- ▶ Engage technical committees in the planning process;
- ▶ Incorporate visualization techniques;
- ▶ Develop easy-to-understand collateral materials and website information;
- ▶ Provide adequate notice of all public meetings;
- ▶ Extend public comment period if significant revisions are offered;
- ▶ Ensure access to persons with disabilities;
- ▶ Provide an update of the regional planning process.

3.1 MAP-21 PUBLIC INVOLVEMENT REQUIREMENTS

With its passage in 2012, the Moving Ahead for Progress in the 21st Century (MAP-21) Act retained the public involvement provisions of previous Federal law, while aiming to enhance the public involvement experience.

The intent of the public participation process is to outline a course of action, or tasks, which facilitates public awareness and the solicitation of public input into the development of the LRTP. Further, the public participation process follows the guidelines and requirements of MAP-21.

As described in MAP-21:

Metropolitan planning organizations (MPO) must develop and utilize a documented “Participation Plan” that provides reasonable opportunities for interested parties to comment on the content of the long-range transportation plan and metropolitan TIP. Further, this “Participation Plan” must be developed “in consultation with all interested parties”. This consultation requirement is intended to afford parties who participate in the metropolitan planning process a specific opportunity to comment on the plan prior to its approval.

Notable MAP-21 Requirements:

- ▶ Representatives of bicycle and pedestrian facility users and disabled persons must be consulted, and shall be provided with the opportunity to comment on the plan.
- ▶ A public participation plan must be developed in consultation with interested parties.

MPOs must also do the following:

- ▶ Hold convenient and accessible public meetings;
- ▶ Use visualization techniques; and
- ▶ Make information and plans readily available in electronic form.

3.2 NLCOG PUBLIC INVOLVEMENT PLAN

MPO’S PUBLIC INVOLVEMENT PLAN - STATEMENT OF PURPOSE

The purpose of NLCOG’s Public Involvement Plan (PIP) is to foster two-way communication and trust between NLCOG and the residents of Northwest Louisiana. Although a federal requirement, NLCOG feels that local contribution to the decision-making process is vital for the growth of Northwest Louisiana. The residents of this area deserve the advantages of coordinated decision-making that cannot be accomplished without involving the public at an early stage and continually throughout the decision-making process.

This plan ensures public participation is an integral and effective part of the activities, and decisions are made with the benefit and consideration of public perspectives. Early public involvement enabled NLCOG to make more informed recommendations, improved quality through collaborative efforts, and built mutual understanding and trust. NLCOG is committed to a comprehensive and inclusive approach by involving the public in developing plans and programs that fit harmoniously within the community without sacrificing quality of life.

NLCOG's Public Involvement Plan is intended to provide direction for public participation activities to be conducted by NLCOG, and contains the policies, goals, objectives, and techniques used by NLCOG for public involvement.

NLCOG's Public Involvement Strategies

Below is an inclusive, though not exhaustive, list of activities that NLCOG may consider implementing in the future in order to help increase public participation:

- ▶ Provide timely information about transportation issues and processes to interested parties;
- ▶ Provide reasonable public access to technical and policy information used in the development of various plans, programs, and projects;
- ▶ Give adequate public notice of public involvement activities and allow time for public review and comment at key decision points;
- ▶ Respond in writing to all applicable public input;
- ▶ Solicit the needs of those traditionally underserved by existing transportation systems, including but not limited to minorities, elderly, persons with disabilities, and low-income households;
- ▶ Provide adequate public comment periods as outlined in federal law (30 days for the LRTP) with notice of the comment periods advertised in two newspapers of general circulation, minority community newspapers, and various other publications prior to the commencement of the comment period.
- ▶ Coordinate its public involvement with the Statewide Public Participation Plan (PPP) wherever possible to enhance public

consideration of the issues, plans and programs, and reduce redundancies and costs.

Incorporating innovative approaches to communication with the community in order to foster a two-way, open line of trust, will not only allow NLCOG to gain input from the residents, it will also give knowledge to the residents to become more active in the decision-making process.

Below is an inclusive, but not exhaustive, list of activities that NLCOG strove to implement in order to help increase the level of public involvement in the planning and decision-making process for the Long Range Transportation Plan:

- ▶ Town Hall Meetings/Dialogue Sessions
- ▶ Presentations
- ▶ Neighborhood/Community Liaisons
- ▶ Surveys
- ▶ Community meetings
- ▶ Transportation Planning Forums
- ▶ Charrettes
- ▶ Public Review and Comment Periods
- ▶ Email and Feedback forms

3.3 LRTP PUBLIC PARTICIPATION PROCESS

LRTP PUBLIC PARTICIPATION PROCESS - STATEMENT OF PURPOSE

The intent of the LRTP public participation process is to ensure compliance with NLCOG's PIP, and to outline a course of action, or tasks, which facilitates public awareness and the solicitation of public input into the development of the LRTP update. Further, the LRTP public participation process follows the guidelines and requirements of MAP-21, focusing on reaching the traditionally underserved communities, disabled persons, low-income communities, and bicycle or pedestrian advocates within the region, through

the provision of complete information, timely public notice, full public access to key decisions, and early and continuing involvement.

L RTP Public Participation Strategies

Based upon past experiences with local public participation efforts, NLCOG utilized strategies that were best suited for eliciting response from local residents. Multiple participation strategies were employed to reach out to as many population segments as possible. Provided below is a list of public participation efforts NLCOG employed throughout the L RTP update:

- ▶ Community feedback survey – hardcopy and web based distribution;
- ▶ L RTP information displays – various high traffic locations;
- ▶ L RTP public awareness campaign – interface with local media outlets;
- ▶ Reformation and reconfiguration of the 2001 L RTP Delphi Committee for increased citizen involvement;
- ▶ Public Visioning Workshop; and
- ▶ Stakeholder Consultations.

Community Feedback Survey

NLCOG developed a survey that collected feedback, and allowed for comment/input, from all socio-economic population segments within Northwest Louisiana. The survey was configured in a manner to solicit public input on issues ranging from the condition of existing transportation infrastructure, to the quality of transportation services. The survey provided ample opportunity for respondents to rate and/or comment on crucial local issues, such as transportation funding, environmental concerns, and areas/locations that required transportation improvement(s). From each respondent, the community feedback survey collected data in the following areas (i.e. survey objectives):

- ▶ Public awareness of NLCOG and the long range transportation planning effort;
- ▶ Demographic profile of the respondent (e.g. race, age, etc.);
- ▶ Work trip travel behavior;
- ▶ Other trip travel behavior;

- ▶ How much travel delay do they incur;
- ▶ Perception of safety/security using transportation;
- ▶ Transportation and environmental awareness;
- ▶ Opinion of the quality of our region's existing transportation infrastructure and service providers;
- ▶ Opinion of travel and mobility within our area related to our current L RTP stated goals and MAP-21's eight planning factors; and
- ▶ Other significant regional transportation issues (e.g. how to fund major projects).

Surveys were accessible through NLCOG's web presence, online at: www.nwlainfo.com/Transport/LRTP2030/LRPUUpdate_SurveyForm.asp, and traditional hardcopy surveys were available at the scheduled L RTP information display sites and through mail outs. Survey responses were entered, either automatically while online or manually into an MS Access (.mdb) structure database if a hardcopy response was received. This database structure allowed NLCOG to efficiently compile response data and provide survey results.

Community Feedback Survey Distribution at SPORTRAN Central Terminal

On February 28, 2007, NLCOG visited the SPORTRAN Central Terminal on Crockett Street in Shreveport to distribute hardcopy surveys in a high foot-traffic location. At approximately 10:00 a.m., NLCOG staff set up a survey display table inside the terminal building near the pedestrian friendly ticket/information window. The information table was stocked with loose surveys and survey "packets". These packets included the survey along with breath mints, a Louisiana Highway map, and a self-addressed stamped envelope.

NLCOG staff approached prospective respondents who were seated within the terminal and asked them if they would be interested in providing feedback to SPORTRAN and NLCOG regarding their attitudes / opinions of SPORTRAN's service, as well as their overall travel experiences utilizing Northwest Louisiana's transportation system. A majority of the prospective respondents politely accepted the survey "packets" and either completed them on-site or took them to mail back later. The mail-back option was

popular with the public transit patrons who were making quick transfers to other routes.

Results of Effort

- ▶ Survey Packets Distributed: 49
- ▶ On-site Survey Responses: 8
- ▶ On-site Did Not Wish To Respond: 2
- ▶ Total Survey Responses: 16
- ▶ Overall Site Survey Response Rate: 27.1%

Community Feedback Survey Distribution at SPORTRAN Central Terminal

On March 8, 2007, NLCOG visited the SPORTRAN Central Terminal on Crockett Street in Shreveport a second time to distribute hardcopy surveys. Approaching this public involvement effort at a later time in the day to reach different residents, NLCOG staff arrived at approximately 1:00 p.m. to set up a survey display table inside the terminal building near the pedestrian friendly ticket/information window. The information table was again stocked with loose surveys and survey “packets”.

NLCOG staff approached prospective respondents who were seated within the terminal and asked them if they would be interested in providing feedback to SPORTRAN and NLCOG regarding their attitudes / opinions of SPORTRAN’s service, as well as their overall travel experiences utilizing Northwest Louisiana’s transportation system. A majority of the prospective respondents politely accepted the survey “packets” and either completed them on-site or took them to mail back later. The mail-back option was popular with the public transit patrons who were making quick transfers to other routes.

Results of Effort

- ▶ Survey Packets Distributed: 50
- ▶ On-site Survey Responses: 19
- ▶ On-site Did Not Wish To Respond: 3
- ▶ Total Survey Responses: 25
- ▶ Overall Site Survey Response Rate: 34.7%

Community Feedback Survey Distribution at Haughton Town Hall

NLCOG distributed community feedback surveys to the Haughton council members. Every council member returned the survey with their attitudes / opinions of the overall travel experiences utilizing Northwest Louisiana’s transportation system, as well as SPORTRAN’s service.

Community Feedback Survey Distribution with students from LSU-S

On numerous occasions, Prof. Doug Bible’s students visited NLCOG’s office as part of their studies. During these visits, community feedback surveys were made available for the students to complete at their convenience.

L RTP Information Displays

The intent of the information displays was to increase public awareness of the L RTP process, as well as provide background information pertaining to NLCOG’s service to the residents of Northwest Louisiana. NLCOG created L RTP information displays consisting of small map graphics, literature describing NLCOG functions, and the L RTP Update effort, and hardcopies of the community feedback survey. These displays were deployed in public, high-pedestrian traffic locations such as university student centers, shopping malls, and public transit terminals so as to maximize exposure. Further, most of the displays were staffed by NLCOG in order to personally answer any questions and to encourage the public to respond to the feedback survey.

L RTP Public Awareness Campaign

History has shown that Northwest Louisiana’s residents are not familiar with NLCOG, let alone, the L RTP process. In order to increase the public’s awareness of the L RTP, NLCOG initiated contact with the region’s primary print media outlets the Shreveport Times (Caddo Parish) and the Bossier Press – Tribune (Bossier Parish). NLCOG’s intent was to develop a news article focusing on the L RTP process and how the public can become involved in this process. A secondary benefit of this effort was an increased awareness of the public service provisions of NLCOG in our capacity as being the designated Metropolitan Planning Organization (MPO) for Northwest Louisiana, as well as an intergovernmental Council of Governments organization.

Reconfigured/Updated Delphi Committee

During the 2001 Long Range Transportation Plan development, a committee consisting of members from local government, academia, education, non-profit organizations, and private sector representatives were brought together in an effort to obtain their collective perspectives concerning future population and employment growth/decline by defined sub- areas (i.e. Delphi zones) of both Caddo and Bossier parishes. The information obtained through this iterative, discussion process was crucial to formulating population and employment projections for the travel demand model.

In 2007, bicycle and pedestrian advocates and disabled citizens were also invited to participate, in order to meet SAFETEA-LU participation requirements. Additionally, the community feedback survey, hardcopy and electronic versions, provided respondents with an opportunity to participate in a new advisory committee through the survey's "I'm interested" checkbox and space for contact information.

L RTP Update Public Visioning Workshop

The public was invited to attend five identical public visioning workshops, which were held by the Northwest Louisiana Council of Governments in an effort to engage the public in the update the Long-Range Transportation Plan. The Public Visioning Workshops took place at the following locations:

- ▶ Tuesday, September 23, 2014 – Bossier City from 5:30pm to 7:00pm
 - Bossier Civic Center (Bodcau Room) – 620 Benton Road, Bossier City, LA
- ▶ Wednesday, September 24, 2014 – Shreveport from 11:30am to 1:00pm
 - Shreve Memorial Library (Eaves Room) – 424 Texas Street, Shreveport, LA
- ▶ Thursday, September 25, 2014 – Shreveport from 5:30pm to 7:00pm
 - Broadmoor Baptist Church (Room 1300A) – 4110 Youree Drive, Shreveport, LA
- ▶ Tuesday, September 30, 2014 – Benton from 5:30pm to 7:00pm
 - Bossier Parish Library, Benton Branch (Meeting Room) – 115 Courthouse Drive, Benton, LA

- ▶ Thursday, October 2, 2014 – Vivian from 5:30pm to 7:00pm
 - Vivian Events Center (Armory) – 625 Park Drive, Vivian, LA

Through interactive participation, workshop attendees were asked to provide the following input:

- ▶ Help NLCOG understand the critical transportation issues that need to be addressed now;
- ▶ Identify which transportation challenges are expected to be faced in the future;
- ▶ Assist with the identification of growth trends and associated transportation needs; and
- ▶ Share with NLCOG their personal vision of what the future transportation system in Northwest Louisiana should look like in order to adequately serve the needs of the people.

Facilitators led the group discussion on the various topics and recorded the feedback received. Furthermore, workshop participants had the opportunity to mark areas of regional growth or transportation concerns on table-sized maps. Participants were also able to provide any additional comments they deemed important to the planning of the regional transportation system.

Stakeholder Consultation

In addition to the public visioning workshops, stakeholder consultations were conducted by NLCOG to provide additional guidance on regional transportation needs.

Airport, port, transit, and private transportation providers were invited, as well as businesses involved in freight logistics and goods movement. In addition, chambers of commerce, real estate, as well as community and housing development representatives were also contacted. The stakeholder consultation interviews were conducted September through October 2014. The following list provides an overview of the variety of stakeholders that were engaged during that time:

- ▶ Bicycle Advocates
- ▶ Environmental Groups
- ▶ Municipal Planning Commissions
- ▶ Historic Preservation Agencies
- ▶ Chambers of Commerce

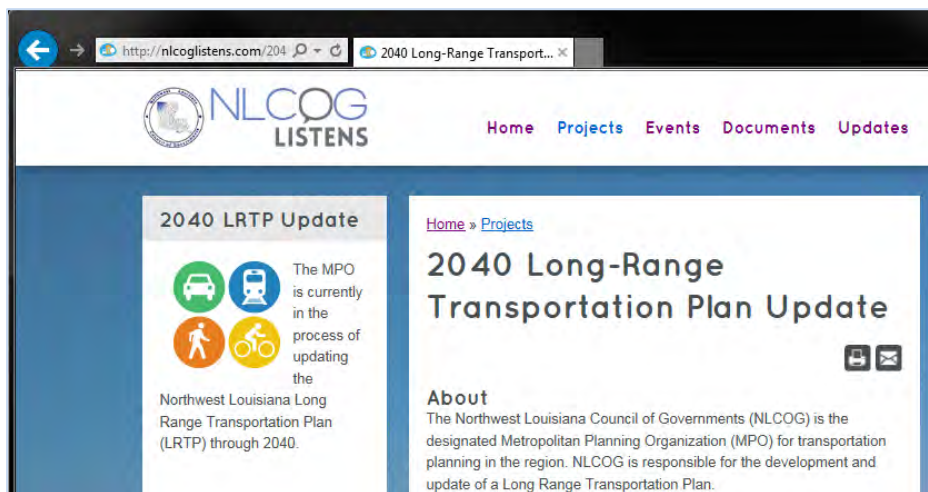
- ▶ Community Development Departments
- ▶ Downtown Development Corporation and Economic Foundation
- ▶ Social Service and Community Action Agencies
- ▶ Traffic Management Departments
- ▶ Municipal and Parish Law Enforcement
- ▶ Public Transportation and None-emergency Medical Transport Agencies

By engaging the entire spectrum of regional stakeholders, from the general public to transit operators, advocacy groups, and the business community, the LRTP was developed in accordance with the NLCOG's Public Involvement Plan.

Interactive Website - NLCOG Listens

The NLCOG Listens! website provides an ongoing, interactive forum for citizens and stakeholders, who are interested in staying up to date on the Long-Range Transportation Plan development effort, as well as other metropolitan area transportation studies currently underway.

The site offers information on LRTP events, related documents, outreach materials, and the opportunity to submit individual comments.



3.4 FINDINGS AND IDENTIFIED NEEDS

Since much of the public engagement (e.g. hardcopy survey distribution) took place at SPORTRAN's Central Bus Terminal (downtown Shreveport), NLCOG received many comments pertaining to SPORTRAN's service provision. The successful implementation of SPORTRAN's extended hours, fixed route bus service (7pm – 2am) addressed many of the concerns expressed through the survey. One of the primary concerns voiced by transit patrons was the lack of bus service during the evening hours. Since then, SPORTRAN has gone operational with their Extended Hours Service ("Night Owl Service") and from their fare-box data have found that that evening service patronage is equal to, or greater than in some months, SPORTRAN's Sunday bus service. It is anticipated this ridership trend will continue into the foreseeable future.

Comments regarding the road network ranged from location specific maintenance requests to regionally significant, new bridge and interstate improvement projects (e.g. I-20, I-49 Inner City Connector, and I-69). Typically, the location specific improvement comments pertain to quality of life (e.g. neighborhood streets/sidewalks/bike paths) issues as opposed to the comments regarding the need for large, regionally significant, infrastructure improvements that focus more on congestion mitigation, safety, or economic growth concerns.

The public's input and feedback was critical in the development of Long-Range Transportation Plan goals and objectives that represent the far reaching needs of Northwest Louisiana's residents. From the findings of the Community Feedback Survey (CFS), as well as the feedback received during the Visioning Workshops and the Consultation Interviews, regional transportation issues and needs were identified.

IDENTIFIED TRANSPORTATION SYSTEM NEEDS

- ▶ Congestion is localized along certain corridor segments, signalized intersections and Red River bridge crossings;
- ▶ Improvements are needed for infrastructure that supports alternative modes of travel (bicycle and pedestrian);
- ▶ There are populations that are not served by public transit;

- ▶ Higher priority needs to be given to transportation improvement projects that encourage economic growth and development; and
- ▶ Improve the safety features and reduce the delay at poorly performing intersections/at-grade rail crossings.

From the identified system needs, long-range plan goals were formulated so as to address the primary cause of these transportation system deficiencies. Further, for each goal, quantifiable objectives, which are specific, measurable, realistic and time-bound, were developed in order to successfully implement the recommended transportation improvements as per goal.

The following *LRTP Goals and Objectives Chapter* establishes the plan's goals and objectives from the public's perceived transportation needs identified through the Visioning, Consultation, and Community Feedback Survey effort, as well as, the system deficiencies found through contributing transportation planning analyses (e.g. Regional Travel Demand Model (RTDM), Congestion Management Process (CMP), etc.).

Detailed responses from the community surveys, as well as specific comments received, may be found in *Appendix A*.

4.0 PLAN GOALS AND OBJECTIVES

Goals and objectives for the plan were originally developed by the Delphi Committee during a special meeting, and have since been reviewed and re-affirmed. The process began with a discussion of community values and the transportation decisions that would preserve and enhance the values that were deemed to be important for the community.

In general, the goal-setting process focused on two main themes. First, the members felt that the area’s residents valued Shreveport-Bossier City’s lack of congestion, ease of mobility, safety considerations, and abundant interstate and modal connections. Additionally, an appreciation of the region’s lifestyle was expressed and focused on both old and new neighborhoods. A number of the goals and objectives were identified to preserve these values.

Second, a need for transportation improvements that would contribute to economic enhancement for the area was considered important. It was mentioned that essential economic generators, such as manufacturing, the Port and gaming should be considered in establishing objectives.

The following is a list of the goals and objectives that were established for the plan, along with a discussion of how they are addressed in the planning process, as well as recommendations to be implemented to accomplish the goals.

4.1 GOAL 1 – MINIMIZE CONGESTION

OBJECTIVES

- ▶ Identify and prioritize improvements to address current and forecasted areas of congestion;
- ▶ Identify needed transit routes and services;
- ▶ Identify and prioritize projects to address needs for signal optimization and intersection improvements; and
- ▶ Develop a policy to coordinate maintenance work that requires lane closures to minimize compound congestion.

DISCUSSION

Two main aspects of the plan focused on minimizing congestion for the study area. The first is an on-going congestion management process that is conducted by NLCOG. The congestion management process uses a technique that allows a comparison of peak hour and free flow traffic speeds along major routes in the study area. The information from this analysis pinpoints locations of significant congestion and also furnishes data as to the extent of the congestion so that the problem locations can be prioritized. The congested locations are then examined by traffic engineers to determine corrective measures to address the congestion. The results of this analysis are translated into proposed projects, which were considered in the development of this transportation plan. It should be noted that some of the proposed corrective measures might include traffic signal optimization and intersection improvements.

The second focus centered on current and future congestion as examined through the use of the Regional Travel Demand Model. The model was used to study the entire Shreveport-Bossier City roadway network and determined areas for which there were inadequate lanes and/or capacity to accommodate present and forecast traffic. Such areas were analyzed by planning staff to determine projects to alleviate the congestion. Projects range from spot improvements to the addition of lanes to new facilities. The resulting projects, along with their estimated costs, were considered in the plan’s recommendations.

More than 59% of respondents to the Community Feedback Survey (CFS) agreed or strongly agreed that Northwest Louisiana experiences relatively little or no traffic delay or congestion. Most residents identified causes of traffic congestion as motor vehicle wrecks or train crossings. An anonymous survey respondent noted areas such as the Jimmy Davis Bridge and Interstate 20 east and westbound at Traffic Street cause “heavy congestion problems” for commuters and residents.

SPORTAN bus routes serve a large portion of both Shreveport and Bossier City and 71.9% of respondents rated transit service as acceptable or above. Residents noted that expanded service coverage was needed. The “night owl service” that runs from 7:00 p.m. until 2:00 a.m. successfully meets additional needs of residents, though the region would benefit from expanded service options as 38.7% of respondents noted. Most of the comments received from the public about transit included a request for more transit options.

RECOMMENDATIONS

- ▶ Address present congested locations that have been identified by the congestion management process;
- ▶ Update the area’s congestion management process every three years;
- ▶ Deploy the Regional Travel Demand Model to identify present and future capacity deficiencies in the study area; and
- ▶ Develop conceptual projects and cost estimates to address the identified deficiencies and consider implementing the projects as part of the financially constrained long-range plan.

4.2 GOAL 2 – OPTIMIZE USE OF EXISTING TRANSPORTATION INFRASTRUCTURE

OBJECTIVES

- ▶ Dedicate adequate resources for maintenance and rehabilitation of existing roads and bridges;
- ▶ Identify the need for land-use policies that steer new development to areas that presently have adequate or underutilized infrastructure;
- ▶ Support and facilitate ITS technology deployment as detailed in the Shreveport/Bossier City Regional ITS Strategic Deployment Plan;
- ▶ Continue implementation and maintenance of Northwest Louisiana’s incident management system through the facilitation of the Traffic Incident Management System Committee;
- ▶ Continue implementation and maintenance of the Congestion Management Process for the Shreveport/Bossier City urban area; and
- ▶ Develop a model access control policy, for new commercial development, that minimizes points of conflict and promotes efficient traffic flow.

DISCUSSION

During the study process, the Delphi Committee recommended that the transportation plan address the need to maintain the existing transportation infrastructure before proposing expansions to the system. The *Recommendations Chapter* of the plan identifies federal, state and local funds that are expected to be available for maintenance and rehabilitation of roads and bridges within the two-parish area. These account for funds in the development of financially constrained, transportation plan recommendations.

While growth in the study area has remained relatively constant, there have been significant population shifts to fringe areas that require transportation facility improvements. At the same time, there are areas within the two-parish region that presently have under-utilized infrastructure. Members of the Delphi committee expressed a need to consider better use of the region’s existing infrastructure. Area-wide growth strategies are beyond the scope of the present transportation plan. However, the need for an examination of this issue is apparent. Such an effort would require the support of local elected officials and would involve in-depth involvement of both the public and development interests. A recommendation, by the Delphi Committee, for a comprehensive study of this issue has been outlined in the prioritization phase of the plan.

An Intelligent Transportation Systems (ITS) Plan for Caddo and Bossier Parishes has been adopted (Shreveport/Bossier City Regional ITS Strategic Deployment Plan). The ITS Strategic Plan gives strong consideration to issues pertaining to signal optimization, incident management and a regional traffic control center. The projects, detailed in the ITS Deployment Plan, were developed to improve the performance of the region’s transportation network in an integrated and coordinated manner. Currently, ITS communication and instrumentation projects are being deployed across multiple jurisdictions.

Effective incident management procedures reduce the risk of secondary traffic accidents, alleviate much of the “upstream” vehicle delay attributed to the incident, and return the facility back to its normal operating conditions in a timely manner. In order to achieve these objectives, an Incident Management System Program has been established through the efforts of the Traffic Incident Management System (TIMS) Committee. The TIMS Committee consists of representatives from local law enforcement and emergency service agencies.

In 2009, the MPO’s Transportation Policy Committee adopted the CMP for the Shreveport-Bossier City urban area. The CMP identifies congested facilities, prioritizes their need for improvement, and recommends mitigation strategies. To date, six out of the ten most congested facilities identified, have received improvements. Recommendations from the CMP serve as critical input for the development of long-range improvement strategies.

Finally, the rapid growth in fringe areas of the region has demonstrated the importance of planned curb-cuts, access points, as well as street and drive alignment for new residential and commercial developments. Careful planning can coordinate these elements in order to minimize impacts to traffic flow, minimize congestion and greatly reduce the need for future widening and expanded transportation facilities to accommodate growth and development.

Numerous comments received from the public addressed the issue of maintenance and rehabilitation of existing roads and bridges. Responses ranged from fixing potholes to demolition and construction of new major thoroughfares. Typical street widenings, turning bays and other intersection improvements also topped the comments. A few respondents requested the installment and use of ITS for signal optimization throughout the region, but especially on major roadways in Caddo and Bossier parishes. Interestingly, 49.3% of respondents would support a local gas tax option to increase funding for major transportation projects.

RECOMMENDATIONS

- ▶ Identify adequate funding to maintain and rehabilitate existing roads and bridges as part of the long-range plan;
- ▶ Consider initiation of a study to examine future development of under-utilized areas within the central region of the study area;
- ▶ Continue supporting and facilitating ITS, Incident Management, and Congestion Management efforts; and
- ▶ Develop a “model” access control policy.

4.3 GOAL 3 – RELATE TRANSPORTATION TO ECONOMIC GROWTH

OBJECTIVES

- ▶ Identify and prioritize projects to address intermodal access needs (Port, rail intermodal ramps, key industrial truck routes);
- ▶ Identify and prioritize projects to implement needed access improvements to casinos;
- ▶ Establish high priority for I-49 and I-69 funding; and
- ▶ Coordinate local government’s requests for LaDOTD and FHWA transportation funds.

DISCUSSION

A review of needs for intermodal connections in the Shreveport-Bossier City area indicates a desire to furnish improved connections between the Port of Shreveport-Bossier and the Inner Loop.

Presently, there are two rail-truck intermodal service points within the study area. Kansas City Southern (KCS) maintains their facilities in the central part of the study area. A two-lane route that is currently in need of pavement rehabilitation limits access to this facility. Union Pacific (UP) maintains their facilities at the Reisor Yard near the former General Motors plant.

Longer-range objectives involve improved connections between the Port and I-20, as well as improved rail connection with the KCS.

Planning is currently underway for the construction of I-69 through the study area. As presently envisioned, this route would greatly enhance access for the Port, industrial activities, Barksdale Air Force Base, residents in the south Shreveport and Bossier City regions, and furnish improved connection for the area with I-20 and I-49.

The completion of both I-49 and I-69 should greatly enhance the region’s ability to attract industrial development and economic enhancement. I-49 will link the area with the Kansas City and Minneapolis regions, thus benefiting manufacturing and distribution processes. Additionally, I-69 will funnel rapidly increasing NAFTA related trade through the region, thus expanding access to materials and

markets, as well as furnishing opportunities for value-added processes for the region. I-49 and I-69 both provide improvements in local access, as well as interstate shipping and tourism opportunities, and were important considerations in the area's long-range transportation planning.

The complete northern section of I-49, which connects Shreveport with Texarkana, Arkansas was recently opened. Construction continues on the 5-mile segment that connects I-49 North and I-220. Residents want the I-49 Inner City Connector and I-69 completed. In the CFS, 56% of respondents support or strongly support the completion of the Inner City portion of I-49. Respondents stated "complete I-49" on 12 of 65 comments.

Gaming is also a major contributor to the region's economy. The casinos are located in the immediate vicinity of I-20 and the Red River. Access is generally adequate. However, significant improvements in convention and tourism facilities are presently being constructed and will ultimately generate additional traffic. Representatives of both the gaming and tourism interests are encouraged to participate in the area's ongoing transportation planning efforts in order to ensure accurate assessment of future traffic impacts and coordination of access improvements. As additional new facilities are completed, both vehicular and pedestrian circulation may become problematic and require further study of possible specialized transportation systems to link casinos, hotels, tourist attractions and convention facilities.

Of the areas singled out in the CFS responses, the area of I-20 that gives direct access to the gaming industry was one of the top complaints. Issues cited by respondents include safety concerns as cars enter I-20 westbound. The influx of traffic is compounded due to traffic associated with the Louisiana Boardwalk, a major shopping and entertainment area along the Red River in Bossier City. Traffic congestion occurs, especially on the weekends and holidays, on I-20 at the Traffic Street exits (both east and westbound), causing traffic to back up onto the interstate.

RECOMMENDATIONS

- ▶ Improve the connection between the Inner Loop and the Port of Shreveport-Bossier;
- ▶ Improve access to the KCS rail/truck intermodal facility; and
- ▶ Completion of I-49 and I-69.

4.4 GOAL 4 – TRANSPORTATION SAFETY

OBJECTIVES

- ▶ Identify and prioritize projects to address rail crossing needs; and
- ▶ Identify and prioritize improvements to address roadway intersections and spot locations that experience abnormal numbers of safety incidents.

DISCUSSION

While travel in the study area is relatively safe, the Delphi Committee indicated that problem areas should continue to be identified and addressed in a systematic manner. The extensive system of rail tracks and crossings in the region presents opportunities for safety considerations. A rail crossing study was completed for Bossier Parish and the recommendations were included in this study. Additionally, LaDOTD reviewed rail crossings in the Caddo Parish area and preliminarily identified crossing improvement projects that were also included in the transportation plan development. The responses in the CFS echo the identified railroad safety needs; 70.2% of respondents agree or strongly agree that more resources need to be allocated for safety improvements at railroad crossings in the area.

Another important safety issue was identified in re-occurring crashes. Law enforcement officers who respond to traffic accidents document locations and other details about the occurrence that permit future scrutiny and ultimately, in some cases, the development of safety improvements. Such data is available for the study area and was examined as a part of the plan development. The results identify safety hot spots that can be addressed as part of the planning effort. The process of using accident data to identify problem areas and to craft appropriate solutions to frequent problems is referred to as "safety management."

Safety management is an excellent practice for improving regional transportation safety and for prioritizing limited improvement funds. It is recommended that NLCOG in cooperation with LaDOTD district traffic engineering personnel update safety management information on a three-year cycle, and include the resulting

safety improvement projects in updates of the regional transportation improvement program.

Respondents (81.8%) agree or strongly agree that more resources need to be allocated to improving the region's high accident intersections. Among the areas identified in the survey results, are Youree Drive, Jimmy Davis Bridge and highway, intersection of Linwood and Bert Kouns Industrial Loop, East Texas Street, Airline Drive, I-20 at Traffic Street and Spring Street, and Swan Lake Road. Many of these areas / intersections see repeat crashes and are excellent candidates for safety management practices.

RECOMMENDATIONS

- ▶ Consider projects to address previously identified safety hot spots; and
- ▶ NLCOG, in cooperation with LaDOTD, should update safety management information for the two-parish area on a three year cycle and include resulting safety projects in subsequent transportation improvement programs for the region.

4.5 GOAL 5 – QUALITY OF LIFE

OBJECTIVES

- ▶ Recommend policies to require in-depth public involvement to assure acceptable integration of transportation within existing development;
- ▶ Recommend funding for a study to determine the need for and acceptability of smart-growth and in-fill land use policies (study should focus on the relationships between transportation improvements and the redevelopment of older / blighted areas, and measures to retain and enhance neighborhood integrity);
- ▶ Identify, prioritize, and request funding for projects that qualify for Transportation Enhancement Funds;
- ▶ Develop corridor preservation plan for major Shreveport-Bossier City area projects; and
- ▶ Utilize transportation modeling ability to evaluate air quality impacts and plan conformity.

DISCUSSION

During the goals and objectives setting process, the Delphi Committee emphasized a desirable quality of life in the region and noted the need to preserve present neighborhood conditions. It was suggested that efforts should be made to ensure the public's involvement in any transportation decisions that could infringe on neighborhood integrity as well as use enhancement funds to improve neighborhood quality. There was also a perception that there are under-developed areas with adequate infrastructure closer to the central portion of the study area and that efforts should be considered to use these areas for new growth as opposed to investing in new infrastructure to accommodate development in the fringe areas of the region.

It was mentioned that population shifts have caused traffic increases along some present arterials and such trends may continue. Utilizing the travel demand modeling ability to forecast where such expansion may take place, it was suggested that corridor preservation in these areas could reduce future infrastructure costs and minimize environmental impacts. Additionally, new air quality standards being promulgated by the Environmental Protection Agency (EPA) may affect Shreveport-Bossier City's conformity with nationwide air quality requirements. It was noted that NLCOG would need strong travel demand modeling ability to address future air quality issues.

Residents of the area identified numerous concerns in the transportation system that can positively affect quality of life if implemented. When asked about their perception of safety using the streets, 65.3% respondents agreed or strongly agreed that they felt safe driving. When walking along public streets and sidewalks, 51.2% of respondents agreed or strongly agreed that they felt safe. Bicyclists didn't feel as safe as pedestrians and drivers; 36.4% of respondents agreed or strongly agreed that they felt safe when biking along public streets and bike paths. Implementing bike trails, paths, and lanes throughout the city, would also require education to the public about the proper use. Numerous respondents identified the need for improved or new sidewalks in neighborhoods, especially around schools. The development of walking and biking connections from neighborhoods to existing or planned public spaces would also help increase the quality of life experienced in the region.

RECOMMENDATIONS

- ▶ Review and strengthen public involvement policies for all transportation decisions that may affect neighborhood integrity;
- ▶ Conduct a land use study that will address the desirability and feasibility of in-fill development policies and/or incentives for the region;
- ▶ Use the Regional Travel Demand Model to forecast the need for new transportation facilities from the present to 2035, and develop a corridor preservation plan to assure clear rights of way for anticipated facilities; and
- ▶ Provide the technical tools and staff ability to address the need to demonstrate conformity with new air quality standards.

5.0 PLAN FINANCING

According to federal regulations, transportation improvement projects included in the Long-Range Transportation Plan (LRTP) must fall within the financial capabilities of the community. The final project list included in the LRTP must therefore be fiscally constrained, i.e. the amount of revenues available for projects must be greater than or equal to the anticipated cost of the projects.

This chapter includes a list of the funding sources and dollar amounts anticipated to be available to fund the Northwest Louisiana projects. Historical trends in funding were assessed and reasonably expected funding levels were forecast to determine the funds available.

5.1 FUNDING RESOURCES

On July 6, 2012, the Moving Ahead for Progress in the 21st Century (MAP-21) Act was signed into law. MAP-21 requires that each metropolitan planning organization prepare and update a transportation plan for its metropolitan planning area. MAP-21 also prescribes that the LRTP include a financial plan that demonstrates how the adopted plan can be implemented. Required financial plan components of the LRTP include the following:

- ▶ Analysis of historical funding levels and sources;
- ▶ List of revenue sources that are reasonably expected to be available to adequately operate and maintain the transportation system;
- ▶ Revenue estimates reflective of existing revenues and historical trends that were cooperatively developed by the State, the MPO, and public transportation operators;
- ▶ System-level estimates of project costs; and
- ▶ Consistency of existing and proposed revenue sources with all forecasted operations and maintenance (O&M) costs and project costs.

MAP-21 authorizes the federal surface transportation programs for roadways, highway safety, and transit for the 2-year period 2012-2014. As mandated through MAP-21, the roadway funding components are under the purview of the Federal Highway Administration (FHWA), whereas the public transportation funding falls under the purview of the Federal Transit Administration (FTA).

Therefore, this review of funding sources and funding projections is divided into two sections: Roadway Funding and Transit Funding.

The revenues and costs contained in this chapter were calculated in year-of-receipt and year-of-expenditure dollars, respectively. Year-of-receipt or -expenditure means that the revenues and costs calculations correlate with the year the funds will be received or spent.

REVENUE ESTIMATION METHODOLOGY

Transportation facilities that are public responsibilities in Caddo and Bossier parishes include a variety of road types such as the state highway system, parish roads, and city streets. The system also includes a major public transit service in SporTran, which provides fixed-route and paratransit operation services in Shreveport and Bossier City, Louisiana. In addition, the transportation system includes bicycle and pedestrian infrastructure as well as intermodal transfer facilities.

Funding for construction, capital equipment, operations and maintenance of the facilities, and equipment that comprise these facilities comes from a variety of federal, state, and local sources. The basic method for assessing financial resources likely to be available involved review of historic data on program funding from each source and the amounts authorized under current legislation. The trends suggested by this review have been extended to 2035.

For federal and state programs related to highway funding, the analysis of fiscal resources expected to be available was performed by the Northwest Louisiana Council of Governments (NLCOG). In coordination with the Louisiana Department of Transportation and Development (LaDOTD), NLCOG considered allocations of funds under federal and state programs expected to be available to Louisiana, the availability of funds to match specific federal program allocations, and the proportion of total state and federal funding historically expended on projects within Caddo and Bossier parishes. The result of this analysis is expressed as an average annual funding under specific programs and as a total of all programs. To estimate funding from local government sources (i.e. cities, parishes, etc.) likely to be available for transportation purposes, an analysis of recent revenues was conducted. In coordination with local transit service providers, revenues and expenditures for public transportation were based on historical data.

ROADWAY TRANSPORTATION FUNDING SOURCES

Funding for the broad range of transportation services and facilities provided in a metropolitan area comes from an equally broad and diverse set of sources. The transportation services and facilities commonly found in a metropolitan area include: the road network (freeways, arterials, collector roads, and local streets); public transportation services; human service transportation providers; bicycle facilities, pedestrian facilities, and intermodal transfer facilities.

Funding for the construction, acquisition, maintenance, and operation of transportation facilities is derived from a variety of federal, state, local, and private sources.

Federal Transportation Funding

MAP-21 has restructured the core transportation funding programs. Activities that were previously funded under some of the SAFETEA-LU (previous funding legislation) programs (i.e. the National Highway System Program, the Interstate Maintenance Program, the Highway Bridge Program, and the Appalachian Development Highway System Program) are now funded under the following programs:

- ▶ National Highway Performance Program (NHPP)
- ▶ Surface Transportation Program (STP)
- ▶ Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- ▶ Highway Safety Improvement Program (HSIP)
- ▶ Railway-Highway Crossings (set-aside from HSIP)
- ▶ Metropolitan Planning

In addition, MAP-21 created two new formula programs:

- ▶ Construction of Ferry Boats and Ferry Terminal Facilities – replaces a similarly purposed discretionary program.
- ▶ Transportation Alternatives (TA) – a new program, with funding derived from the NHPP, STP, HSIP, CMAQ, and Metropolitan Planning programs, encompassing most activities funded under the Transportation Enhancements, Recreational Trails, and Safe Routes to School programs under SAFETEA-LU.

MAP-21 also funds the following discretionary programs:

- ▶ Tribal High Priority Projects (THPP) – a new program
- ▶ Projects of National and Regional Significance (PNRS)
- ▶ On-the-Job Training Supportive Services
- ▶ Disadvantaged Business Enterprise (DBE) Supportive Services
- ▶ Highway Use Tax Evasion (Intergovernmental enforcement projects)
- ▶ Work Zone Safety Grants

MAP-21 eliminated the following discretionary programs:

- ▶ Delta Region Transportation Development
- ▶ Ferry Boats Discretionary
- ▶ Highways for LIFE Demonstration Program
- ▶ Innovative Bridge Research and Deployment
- ▶ Interstate Maintenance Discretionary
- ▶ National Historic Covered Bridge Preservation
- ▶ National Scenic Byways
- ▶ Public Lands Highway Discretionary
- ▶ Railway-Highway Crossing Hazard Elimination in High Speed Rail Corridors
- ▶ Transportation, Community, and System Preservation
- ▶ Truck Parking Pilot Program
- ▶ Value Pricing Pilot Program (no additional funding, but authority remains)

It is assumed that federal funding levels for Bossier and Caddo parishes will, at a minimum, remain at the level of the previous five-year average, although the funding will be through different revenue streams in some cases. Exceptions to this continuation of funding sources will be noted in the revenue projection section of this chapter.

The following is a list of the federal funding categories from which the MPO has obtained funds in previous years and programs from which future funds are anticipated.

American Recovery and Reinvestment Act

In 2009, as a response to the economic crisis, Congress passed the American Recovery and Reinvestment Act to provide stimulus to the economy. Included in the bill were funds to construct and repair roads and bridges throughout the nation.

At this time, it is not anticipated that there will be any additional funding available from the American Recovery and Reinvestment Act.

High Priority Projects (DEMO)

High Priority Projects were projects specifically designated by congressional action with specific funding assignments.

MAP-21 did not include additional funding for projects under this program.

Interstate Maintenance (IM)

The Interstate Maintenance program provided funding for resurfacing, restoring rehabilitating, and reconstruction most routes on the Interstate System.

MAP-21 did not extend this program. Eligibilities exist within other MAP-21 programs, but there is no distinct program or funding for this purpose. Carryover IM funds continue to be available for the original purpose under the rules that applied to the pre-MAP-21 IM program.

National Highway Performance Program (NHPP)

Most activities that were previously funded under some of the SAFETEA-LU National Highway System (NHS) program are now eligible under the National Highway Performance Program (NHPP), whose purpose is to:

- ▶ Provide support for the condition and performance of the National Highway System;
- ▶ Provide support for the construction of new facilities on the NHS; and
- ▶ Ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS.

The new NHPP program provides funding for construction and maintenance projects located on the newly expanded National Highway System (NHS), which includes the entire Interstate system and all other highways classified as principal arterials. MAP-21 eliminates the programs with dedicated funding for repair by

consolidating the Interstate Maintenance and Highway Bridge Repair programs and shifting these funds to the new NHPP. The NHPP program provides funding for improvements to rural and urban roads that are part of the NHS, including the Interstate System and designated connections to major intermodal terminals. Under certain circumstances, NHS funds may also be used to fund transit improvements in NHS corridors.

Under MAP-21, the enhanced National Highway System includes the Interstate System, all principal arterials (including some not previously designated as part of the NHS), and border crossings on those routes, highways that provide motor vehicle access between the NHS and major intermodal transportation facilities, and the network of highways important to U.S. strategic defense (STRAHNET) and its connectors to major military installations.

Federal Bridge (FBR)

MAP-21 did not extend the Federal Bridge program. Highway bridges and tunnels continue to be eligible under the Surface Transportation Program and the new National Highway Performance Program.

Surface Transportation Program (STP)

The surface Transportation Program provides eligible funding that may be used by STP funding may be used for projects to preserve or improve conditions and performance on any Federal-aid highway, bridge projects on any public road, facilities for non-motorized transportation, transit capital projects and public bus terminals and facilities. Most current STP eligibilities are continued under MAP 21, with some additions and clarifications.

The STP program is broken down into three subcategories for purpose of analysis and expenditures. These three programs are:

- ▶ STP-FLEX: STP funds can be used for the project types mentioned above in any area
- ▶ STP>200K: STP funds which are sub-allocated to areas of over 200,000 in population and can be used towards any projects eligible for Federal-aid highway funding
- ▶ STP-FLEX: STP funds can be used for projects in any area

Highway Safety Improvement Program (HSIP)

The purpose of the Highway Safety Improvement Program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. MAP-21 focuses on the use of quantitative data and performance measures.

HSIP requires that the State develop, implement and update a SHSP, produce a program of projects or strategies to reduce identified safety problems, and evaluate the SHSP on a regular basis. The SHSP is a statewide coordinated plan developed in cooperation with a broad range of multidisciplinary stakeholders.

States are required to have a safety data system to perform problem identification and countermeasure analysis on all public roads, adopt strategic and performance-based goals, advance data collection, analysis, and integration capabilities, determine priorities for the correction of identified safety problems, and establish evaluation procedures.

MAP-21 authorizes a lump sum for this program, and it is the responsibility of the State to divide up the funds from the program according to the State's priorities. However, there are a few set-asides from the State's HSIP apportionment. These set-asides are for:

- ▶ Railway-highway crossings
- ▶ State's Transportation Alternatives (TA) program
- ▶ State Planning and Research

For a project to be eligible under the HSIP program, the project must be consistent with State Strategic Highway Safety Plan (SHSP) and corrects or improves a hazardous road location or feature or addresses a highway safety problem. Workforce development, training, and education activities are also an eligible uses of HSIP funds.

Transportation Alternatives (TA)

MAP-21 establishes a new program to provide for a variety of alternative transportation projects that were previously eligible activities under separately funded programs. Unless a State opts out, it must use a specified portion of its TA funds for recreational trails projects. Eligible activities include:

- ▶ Transportation Alternatives
- ▶ Recreational Trails Program (RTP) remains unchanged

- ▶ Safe Routes to Schools (SRTS) program
- ▶ Planning, designing, or constructing roadways within the right-of way of former Interstate routes or other divided highways

States and MPOs for urbanized areas with more than 200,000 people will conduct a competitive application process for use of the suballocated funds. Options are included to allow States flexibility in use of these funds.

Projects of National and Regional Significance

MAP-21 authorizes \$500 million from the General Fund, to support critical, high-cost surface transportation capital projects that will accomplish national goals, such as generating national/regional economic benefits and improving safety, and that are difficult to complete with existing Federal, State, local, and private funds. States, tribes, transit agencies, and multi-State or multi-jurisdictional groups of these entities are eligible to apply for competitive grant funding.

Bridge and Tunnel Inspection

MAP-21 requires inspection and inventory of highway bridges and tunnels on public roads. No dedicated funds are provided for inspections, but it is an eligible use of NHPP, STP, HSIP, FHWA administrative, Tribal Transportation, and Research funds.

Additional Sources of Federal Funding

Construction of Ferry Boats and Ferry Terminal Facilities

MAP-21 provides funds to construct ferry boats and ferry terminal facilities, to be distributed by formula. Unlike the former ferry boat discretionary program, there are no set-asides for specific States.

Workforce Development and DBE

MAP-21 continues current goals for use of small businesses owned and controlled by socially and economically disadvantaged individuals. On-the-Job Training and DBE Supportive Services programs are continued without change. States may continue to use apportioned funds (except Metropolitan Planning or Ferry Program) for surface transportation workforce development, training, education, and small business capacity building.

State Transportation Funding

State transportation funding comes from several sources of revenue. Traditionally this revenue is used to match federal sources and to fund the operations of the Department of Transportation and Development. The basic funding source for the state program comes from the State Transportation Trust Fund (TFF), which includes 20-cent gasoline tax, license fees, interest, weight permits and fines, and aviation fuel tax. Additional funding comes from the State Highway Improvement Fund (HIF).

State Bond Monies (ST-BONDS)

State Secured Bonds are acquired through the Capital Outlay Program. The capital outlay program is a complex program for funding the state's annual construction budget and the multi-year nature of most projects.

State Cash (ST-CASH)

State Cash is funded primarily through the general fund. Traditionally this source of revenue has been for maintenance projects.

State General Fund Revenues (ST-GEN)

The State General Fund is funded primarily through previous year's revenue surplus funds. Revenue surplus funds can be recognized by the states Revenue Estimating Committee only at the end of a fiscal year. According to the Louisiana Constitution, any surplus can only be used for capital construction, retirement or payment of debt, providing payments against the unfunded accrued liability of the retirement systems, or placed in the Budget Stabilization or "Rainy Day" fund.

Miscellaneous Revenue Sources

Miscellaneous Revenue Sources constitutes the remainder of state funding. These sources include the I-49 Unclaimed Property fund, maintenance funds, funding from the state overlay program, reimbursable expenses incurred by other agencies, and public works funding from the Department's non-transportation section.

TRANSIT FUNDING SOURCES

Funding for transit programs comes from several sources, including federal transit programs, state transportation funds, local transportation funds, ridership revenues, advertising revenues, and other miscellaneous revenue sources.

Federal Transit Programs

There are several transit funds administered by the Federal Transit Administration. These FTA transit programs are described below

Urbanized Area Formula Funding (Section 5307)

The Urbanized Area Formula Funding (5307) program provides funding to the state (direct recipient) and transit providers (subrecipients) for capital projects and operating expenses related to providing public transportation.

Under the 5307 program, the following are eligible for funding:

- ▶ Capital projects
- ▶ Planning
- ▶ Job Access and Reverse Commute (JARC) projects that provide transportation to jobs and employment opportunities for welfare recipients and low-income worker;
- ▶ Operating costs in areas with fewer than 200,000 in population
- ▶ Operating costs, up to certain limits, for grantees in areas with populations greater than 200,000, and which operate a maximum of 100 buses in fixed-route service during peak hours (rail fixed guideway excluded)

As the NLCOG region is larger than 200,000 in population, operating costs are not covered under this program. For areas with populations of 200,000 or more, the formula is based on a combination of bus revenue vehicle miles, bus passenger miles, fixed guideway revenue vehicle miles, and fixed guideway route miles, as well as population and population density and number of low-income individuals.

Enhanced Mobility of Seniors and Individuals With Disabilities (Section 5310)

The Enhanced Mobility program provides formula funding to the state (direct recipient) to assist private, nonprofit groups (subrecipient) in meeting the transportation needs of the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs.

The purpose of this program is to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-dependent populations beyond traditional public transportation services and paratransit services.

Under MAP-21, funds from the 5310 program can be used for both capital improvements and operating expenses. However, at least 55% of program funds must be used on capital projects that are public transportation projects planned, designed, and carried out to meet the special needs of seniors and individuals with disabilities when public transportation is insufficient, inappropriate, or unavailable. The remaining 45% of program funds may be used for:

- ▶ Public transportation projects that exceed the requirements of the Americans with Disabilities Act (ADA)
- ▶ Public transportation projects that improve access to fixed-route service and decrease reliance by individuals with disabilities on complementary paratransit
- ▶ Alternatives to public transportation that assist seniors and individuals with disabilities

Under MAP-21, the New Freedom Program and Elderly and Disabled Program is abolished and consolidated with the 5310 program.

Funds are apportioned for urbanized and rural areas based on the number of seniors and individuals with disabilities. The federal share for capital projects (including acquisition of public transportation services) is 80%; and the federal share for operating assistance is 50%.

State and Local Government Transit Funding Sources

The State provides funding for transit operating assistance through DOTD grants. In addition, the cities of Bossier and Shreveport provide grants for operating assistance which are primarily used to as for the match requirement for federal grant programs.

Transit Agency Funds

SporTran, the fixed route transit provider for the metro area, generates revenues from multiple sources including:

- ▶ Ridership fees
- ▶ Advertising
- ▶ Other miscellaneous revenue sources

5.2 HISTORICAL FUNDING STREAM

Historical Funding for Roadway Projects

Funding for transportation facilities is derived from a variety of federal, state, and local sources as outlined above. Table 1 below shows the breakout of all funding received between Fiscal Year (FY) 2005 and 2014 by category.

Table 1: Roadway Revenue by Federal Category (FY 2005-2014)

Funding Category	Ten-Year Total	Average per Year	Average Project Cost	No. of Projects
ARRA	\$50,154,583	\$10,030,917	\$9,431,837	6
DEMO	\$223,183,323	\$22,318,332	\$6,237,615	45
IM	\$16,492,513	\$2,061,564	\$1,836,558	10
NHS/NHPP	\$77,700,078	\$7,770,008	\$12,337,118	35
FBR	\$77,090,131	\$7,709,013	\$1,872,138	52
HSIP	\$22,469,946	\$2,808,743	\$766,951	37
STP>200K	\$19,801,215	\$1,980,121	\$2,134,732	13
STP-FLEX	\$90,569,850	\$9,056,985	\$2,267,651	53
STP-<5K	\$1,247,063	\$415,688	\$1,558,890	1
STP-ENH	\$1,075,353	\$179,225	\$251,549	5
Other Federal Programs	\$35,408,206	\$3,540,821	\$720,643	62
State	\$195,852,858	\$19,852,858	*	
Local	\$1,403,281	\$140,328	*	
Other	\$154,543,551	\$115,831	*	
Total	\$966,991,950	\$96,699,195	\$2,295,494	268

*The "Average Project Cost" columns includes state and local funds; also note that certain projects were funded through more than one federal category.

A review of the 268 projects let over the past ten years reveals that almost \$967 million was spent within Caddo and Bossier parishes, accounting for an average annual expenditure of \$96.7 million over the ten-year period.

Many of these funding sources have some limitations on their use. Even those sources that are "flexible" have traditionally been committed to certain uses and will likely continue as such through this plan period.

Discontinued revenue streams, such as ARRA funds and DEMO earmarks, were removed from consideration of annual average funding.¹ Taking this limitation into account, the distribution of historic roadway funding across all sources was evaluated as depicted in Table 2 below.

Table 2: Annual Average across All Roadway Funding Sources

	Federal Funds	State Funds	Local Funds	Other Funds	Total Funds
2005-2014 Annual Average	\$38,632,785	\$14,225,330	\$115,831	\$29,078,392	\$76,826,333
2010-2014 Annual Average	\$48,505,719	\$24,287,148	\$46,081	\$53,478,927	\$119,893,023

Looking at the most recent five years, approximately \$599.47 million in projects have been let in the two parish region, accounting for an annual average of \$119.89 million.

As a result of the change in funding methodologies prior to 2009, it was determined that the 2010-2014 (five-year) average would be the appropriate number to use in future revenue projections. Furthermore, the availability of annual STP>200K funds was discussed with LaDOTD; it has been determined that an average of \$6.14 million per year is available to Caddo and Bossier parishes.

¹ Please note that already obligated ARRA and DEMO funding can still be used for associated projects.

Historic Funding for Transit Projects

SporTran’s annual reports were used to develop transit funding. Table 3 depicts both operating and capital improvement revenues for the recent five-year period.

Table 3: Sportran 5-year Operating and Capital Improvement Revenue

Operating Revenue	2010	2011	2012	2013	2014
Passenger	\$2,478,000	\$2,514,000	\$2,525,000	\$2,657,000	\$2,657,000
Handicapped Transit Service Contract	\$99,000	\$93,000	\$96,000	\$106,000	\$255,000
Advertising	\$12,000	\$91,000	\$92,000	\$100,000	\$150,000
Non-Transit Revenue	\$60,000	\$10,000	\$15,000	\$15,000	\$25,000
Subtotal	\$2,649,000	\$2,708,000	\$2,728,000	\$2,878,000	\$3,087,000
Bossier	\$768,000	\$730,000	\$842,000	\$975,000	\$975,000
Shreveport - Operations	\$3,540,500	\$4,703,000	\$5,226,000	\$5,454,008	\$5,270,847
State DOTD	\$693,000	\$593,000	\$571,000	\$520,000	\$520,000
Shreveport (Local match for Preventive Maintenance)	\$745,000	\$583,000	\$608,000	\$652,730	\$688,266
FTA (Preventive Maintenance)	\$2,979,000	\$2,333,000	\$698,000	\$2,610,918	\$2,753,063
Preventive Maintenance - ARRA 100% FTA	\$160,000	\$0.00	\$0.00	\$0.00	\$0.00
Preventive Maintenance - FTA Rollover	\$369,400	\$283,000	\$0.00	\$0.00	\$0.00
Preventive Maintenance - City Rollover	\$92,100	\$71,000	\$0.00	\$0.00	\$0.00
Paratransit Service - FTA	\$288,000	\$287,000	\$263,000	\$261,073	\$261,073
Paratransit Service - Shreveport	\$72,000	\$72,000	\$66,000	\$65,271	\$65,268
JARC/New Freedom Grants - FTA	\$344,000	\$375,000	\$376,000	\$100,000	\$100,000
Shreveport- Match for JARC/New Freedom Grants	\$344,000	\$375,000	\$376,000	\$100,000	\$100,000
Subtotal	\$10,395,000	\$10,405,000	\$9,026,000	\$10,739,000	\$10,733,517
Total Revenue and Operating Subsidy	\$13,044,000	\$13,113,000	\$11,754,000	\$13,617,000	\$13,820,517
Capital Project Matching Funds	\$764,500	\$45,000	\$57,000	\$262,117	\$17,919
Total Operating Revenue	\$13,808,500	\$13,158,000	\$11,811,000	\$13,879,117	\$13,838,436

Capital Improvement Revenue	2010	2011	2012	2013	2014
PROGRAM L - TRANSIT IMPROVEMENTS					
State and Federal Grants					
Federal Transit Administration	\$44,735,700	\$43,020,306	\$45,873,533	\$27,942,047	\$21,164,428
Subtotal - State and Federal Grants	\$44,735,700	\$43,020,306	\$45,873,533	\$27,942,047	\$21,164,428
TRANSFERS					
General Fund	\$7,886,300	\$8,413,922	\$9,112,723	\$5,260,853	\$4,868,631
Subtotal - Transfer	\$7,886,300	\$8,413,922	\$9,112,723	\$5,260,853	\$4,868,631
OTHER FUNDS					
Insurance Proceeds	\$23,100	\$23,100	\$23,100	\$0.00	\$9,845
NL-COG	\$133,100	\$140,600	\$148,100	\$37,500	\$37,500
Private Donations	\$373,000	\$114,180	\$114,180	\$50,180	\$0.00
2001 GOB	\$99,200	\$50,910	\$50,910	\$50,910	\$106,000
1999 GOB, Prop. 4	\$100,000	\$100,000	\$100,000	\$0.00	\$0.00
1998 GOB, Prop. 6	\$723,200	\$55,090	\$55,090	\$55,090	\$0.00
Subtotal - Other Funds	\$1,451,600	\$483,880	\$491,380	\$193,680	\$153,345
Total- Program L	\$54,073,600	\$51,918,108	\$55,477,636	\$33,396,580	\$26,186,404
Total Revenue	\$67,882,100	\$65,076,108	\$67,288,636	\$47,275,697	\$40,024,840

5.3 FINANCIAL CONSTRAINT

Because the LRTP is intended to guide transportation decision makers for such a long period of time, LaDOTD and NLCOG are required to develop a financial plan that is based on reasonable estimates of projected historical funding levels. By only including projects that have a reasonable expectation of funding in the plan, individuals in the region can have a realistic idea of what facilities and services can be supported.

FINANCIAL CONSTRAINT

Under the analysis above, NLCOG has identified an average of \$119.9 million per year in federal, state, and local funding based on the most recent five-year annual average. For purposes of implementation, NLCOG has divided the long-range plan into three sections: Current, Short-Range, and Long-Range. For purposes of financial constraint each section will be analyzed separately.

*The LRTP is divided into three sections:
 Current 2014-2018 (Includes 2015-2018 TIP)
 Short-Range 2019-2020
 Long-Range 2021-2035*

For this reason, revenue projections have been conducted for the 3 time frames listed above.

Revenue Projections for Roadway Projects

The following formula was used for the calculation of compound growth. The compound growth rate is set to 4%. Current Year of Expenditure (YOE) factors for years 2014 through 2018 reflect a 4% increase per year. The following formulas were used to calculate the YOE Factor.

- ▶ For 2014 =1*(POWER((1+0.04),(2014-2009)))
- ▶ For 2015 =1*(POWER((1+0.04),(2015-2009)))
- ▶ For 2016 =1*(POWER((1+0.04),(2016-2009)))
- ▶ For 2017 =1*(POWER((1+0.04),(2017-2009)))
- ▶ For 2018 =1*(POWER((1+0.04),(2018-2009)))

- ▶ Short-Range =1*(POWER((1+0.04),(2019.5-2009)))
- ▶ Long-Range =1*(POWER((1+0.04),(2028.5-2009)))

The results of this calculation are depicted in the table below.

Table 4: Funding Projections for Roadway Projects

	Average Annual Revenue	YOE Factor	Total YOE Revenues
2014	\$119,893,023	1.217	\$145,868,194
2015	\$119,893,023	1.265	\$151,702,922
2016	\$119,893,023	1.316	\$157,771,040
2017	\$119,893,023	1.369	\$164,081,881
2018	\$119,893,023	1.423	\$170,645,156
Current 2014-2018			\$790,069,192
Short-Range 2019-2020	\$119,893,023	1.510	\$361,971,160
Long-Range 2021-2035	\$119,893,023	2.149	\$3,863,983,703
TOTAL			\$5,016,024,055

Revenue Projections for Transit Projects

For Federal and State programs related to transit funding, the analysis of fiscal resources expected to be available was performed by the Northwest Louisiana Council of Governments in cooperation with Sportran, the transit provider for the region. NLCOG considered allocations of funds under federal programs expected to be available to Louisiana, the availability of funds to match specific federal program allocations, and the proportion of total state and federal funding historically expended on projects within Caddo and Bossier parishes. The result of this analysis is expressed as an average annual funding under specific programs and as a total of all programs. To estimate funding from local government sources (i.e. cities, parishes, etc.) likely to be available for transportation purposes, an analysis of recent revenues was conducted. Revenues for public transportation were based on historical data. Because operating and capital improvement funding sources are often separate, projections were made for these two revenue categories separately.

The following formula was used for the calculation of compound growth. The compound growth rate is set to 4% per year. Current Year of Expenditure (YOE) factors for years 2014 through 2018 reflect a 4% increase per year. The following formulas were used to calculate the YOE Factor.

- ▶ For 2014 =1*(POWER((1+0.04),(2014-2009)))
- ▶ For 2015 =1*(POWER((1+0.04),(2015-2009)))
- ▶ For 2016 =1*(POWER((1+0.04),(2016-2009)))
- ▶ For 2017 =1*(POWER((1+0.04),(2017-2009)))
- ▶ For 2018 =1*(POWER((1+0.04),(2018-2009)))

- ▶ Short-Range =1*(POWER((1+0.04),(2019.5-2009)))
- ▶ Long-Range =1*(POWER((1+0.04),(2028.5-2009)))

The results of this calculation are depicted in the table below.

Table 5: Transit Operating Revenue Projections

	Average Annual Revenue	YOE Factor	YOE Revenues per Year	Total Revenue
2014	\$13,299,011	1.217	\$16,180,280	
2015	\$13,299,011	1.265	\$16,827,491	
2016	\$13,299,011	1.316	\$17,500,591	
2017	\$13,299,011	1.369	\$18,200,615	
2018	\$13,299,011	1.423	\$18,928,639	
Current 2014-2018			\$17,527,523	\$87,637,617
Short-Range 2019-2020	\$13,299,011	1.510	\$20,075,640	\$40,151,281
Long-Range 2021-2035	\$13,299,011	2.149	\$28,573,895	\$428,608,442
TOTAL				\$556,397,340

Table 6: Transit Capital Improvement Funding Projections

	Average Annual Revenue	YOE Factor	YOE Revenues per Year	Total Revenue
2014	\$44,210,466	1.217	\$53,788,791	
2015	\$44,210,466	1.265	\$55,940,343	
2016	\$44,210,466	1.316	\$58,177,957	
2017	\$44,210,466	1.369	\$60,505,075	
2018	\$44,210,466	1.423	\$62,925,278	
Current 2014-2018			\$58,267,489	\$291,337,446
Short-Range 2019-2020	\$44,210,466	1.510	\$66,738,302	\$133,476,605
Long-Range 2021-2035	\$44,210,466	2.149	\$94,989,414	\$1,424,841,212
TOTAL				\$1,849,655,263

6.0 PLAN PRIORITIZATION AND RECOMMENDATIONS

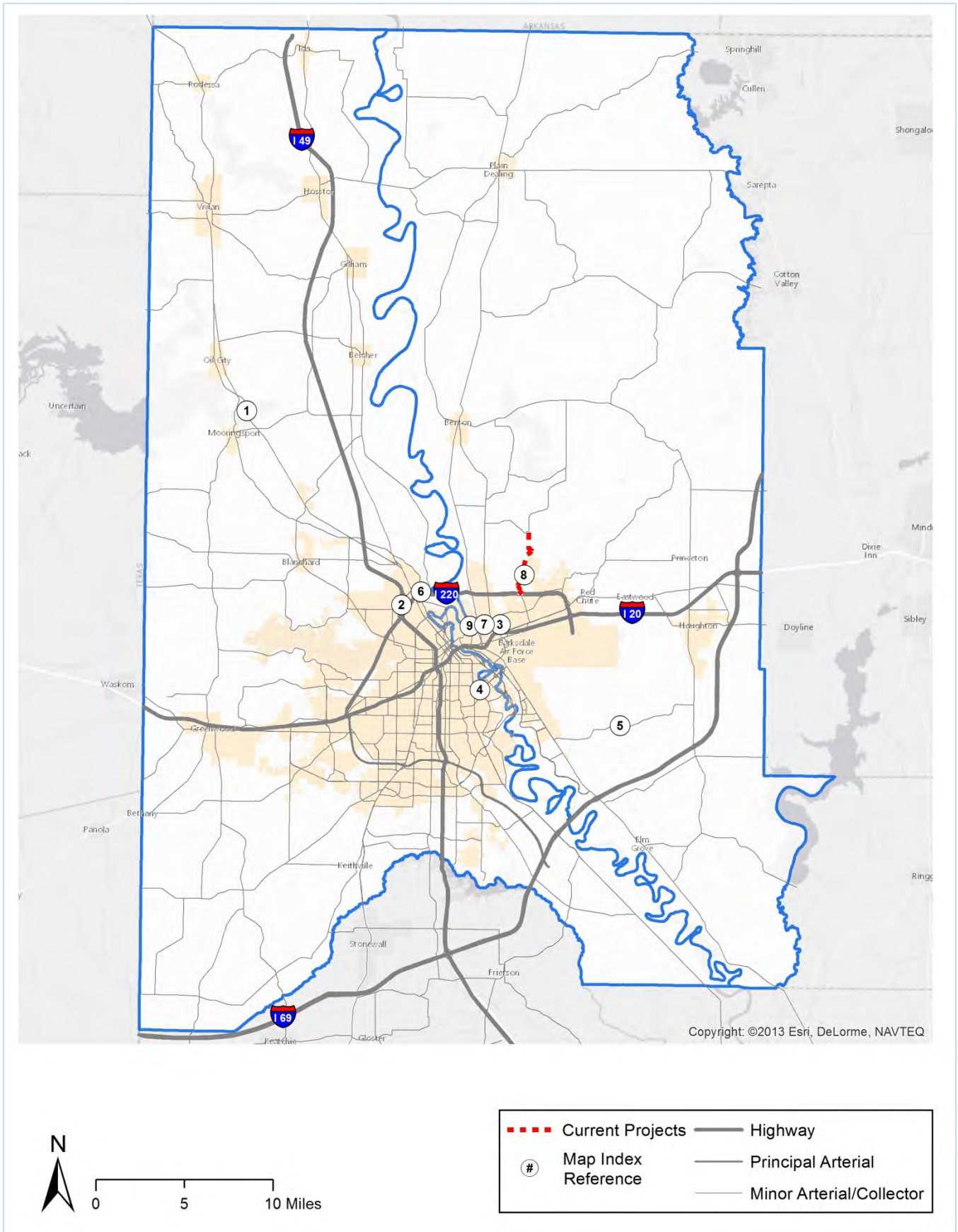
6.1 CURRENT PROJECTS

The Current Program identifies projects in the approved Fiscal Year 2015-2018 Transportation Improvement Program (TIP) for Caddo and Bossier Parishes.

Map Index	Name (State Project #)	Route	Limits	Improvements	Plan Phase (Year)	Cost Estimate (000's)	Primary Funding Source
Metropolitan Area Capacity Projects							
1	Caddo Lake Bridge (H.001166 / 045-01-0029)	LA 1	LA 1 at Caddo Lake	Bridge Replacement	TIP (2014)	\$1,550	STP Flex
2	I-49 North - Segment K (H.003495 and H.011111 / 455-09-0001)	I-49	I-220 to Dr. M.L.K. Jr Dr.	Paving and Bridges (New 4-ln interstate construction)	TIP (2014)	\$176,000	HPP
	Cul-de-Sac @ I-49 N C of A Line (H.011105)	I-49 Segm. K		Road Closure with Cul-de-Sac	TIP (2014 and 2015)	\$1,546	STGEN, LADOTD
3	LA 3105 at Shed Rd (H.007896 / 808-007-0054)	LA 3105	LA 3105 at Shed Rd	Add 14' NB and SB Right Turn Lane	TIP (2014)	\$649	HSIP
4	Kings Hwy at LA 1 (H.001278 / 053-09-0053)	LA 1 at LA 3032	LA 1/LA 3032 intersection and LA 3032 section east to E. Kings Hwy intersection	Intersection Realign. and Widen to 5-ln. section	TIP (2014)	\$7,052	STP>200K
5	Red Chute Bayou Bridge (H.001795 / 108-01-0019)	LA 612	LA 612 at Red Chute Bayou	Bridge Replacement	TIP (2015)	\$4,730	STP Flex
6	LA 538 Roundabout at Ravendale (H.009475)	LA 538	LA 538 at Ravendale	Roundabout	TIP (2015)	\$1,193	HSIP
7	Shed Road Phase VII (H.007085 / 742-08-0001)	Local	LA 3 (Benton Rd) to LA 3105 (Airline Dr)	Widen to 5-ln section	TIP (2015)	\$8,808	STP>200K, STP Flex
8	North-South Corridor (Swan-Lake Rd Widen and Extension) (H.003854)	Local	Phase I: I-220 north to to E-W Corridor Phase II: E-W Corridor to Flat River	Phase I: Widen to 3-ln urban collector section; Phase II: New 2-ln rural collector section	TIP (2015 and 2017)	\$17,095	STP>200K
9	Hamilton Rd Improvements (H.007087 / 742-08-0003)	Local	US 79/80 (E Texas St) to LA 3	New construction and widen existing to 4-ln sect.	TIP (2017 and 2018)	\$11,458	STP>200K
STIP Line Items:							
	Dogwood Trail Bridge over Red Chute Bayou (H.006043)	Dogwood Trail	Dogwood Trail at Red Chute Bayou	Bridge Replacement	TIP (2014)	\$1,369	HBP
	US 71 J-Turn Intersection (H.009693)	US 71	US 71 at Robert E. Lee	Install J-Turn Lane Intersection	TIP (2014)	\$660	NHS
	Koran-Doyline Rd Bridge Over Clarke Bayou (H.009945)	Koran-Doyline Rd	Clarke Bayou Crossing	Bridge Replacement	TIP (2014)	\$2,296	HBP

	LA 157 SB Keft Turn Lane	LA 157	LA 157 at LA 154	Add SB Left Turn Lane	TIP (2015)	\$385	STP Flex
	Creek Bridge and Irish Bayou (H.001623)		Creek Bridge and Irish Bayou	Bridge Replacement	TIP (2016)	\$990	HBP
	Blanchard Furrh Road / Chotaw Bayou (H.010060)		Chotaw Bayou	Bridge Replacement	TIP (2016)	\$1,152	HBP
	LA 3 Left Turn Lane (H.010743)	LA 3	LA 3 at Cnt. Sec. 044-02	Install Left Turn Lane	TIP (2016)	\$435	HSIP
	Bayou Fifi Bridge (H.000118)		Bayou Fifi Crossing	New Bridge	TIP (2018)	\$1,121	STP Flex
Non-Capacity Projects							
	Bridge Repair, Drainage, Signage, Signalization, ITS, Striping, Overlay, Pavement Rehab				TIP (2014-2018)	\$174,721	HSIP, HBP, RAIL PD, IM, STP Flex, NHPP
	Motorist Assistance Patrol				TIP (2014-2018)	\$2,056	
	Caddo-Bossier Parish Aerial Photography				TIP (2016 and 2018)	\$1,000	
Metropolitan Area Capacity Project						\$230,081	
STIP Line Items						\$8,408	
Non-Capacity Projects (Maintenance and Safety)						\$177,777	
GRAND TOTAL CURRENT PROGRAM						\$416,266	

Figure 1: Current Transportation Improvement Program Projects

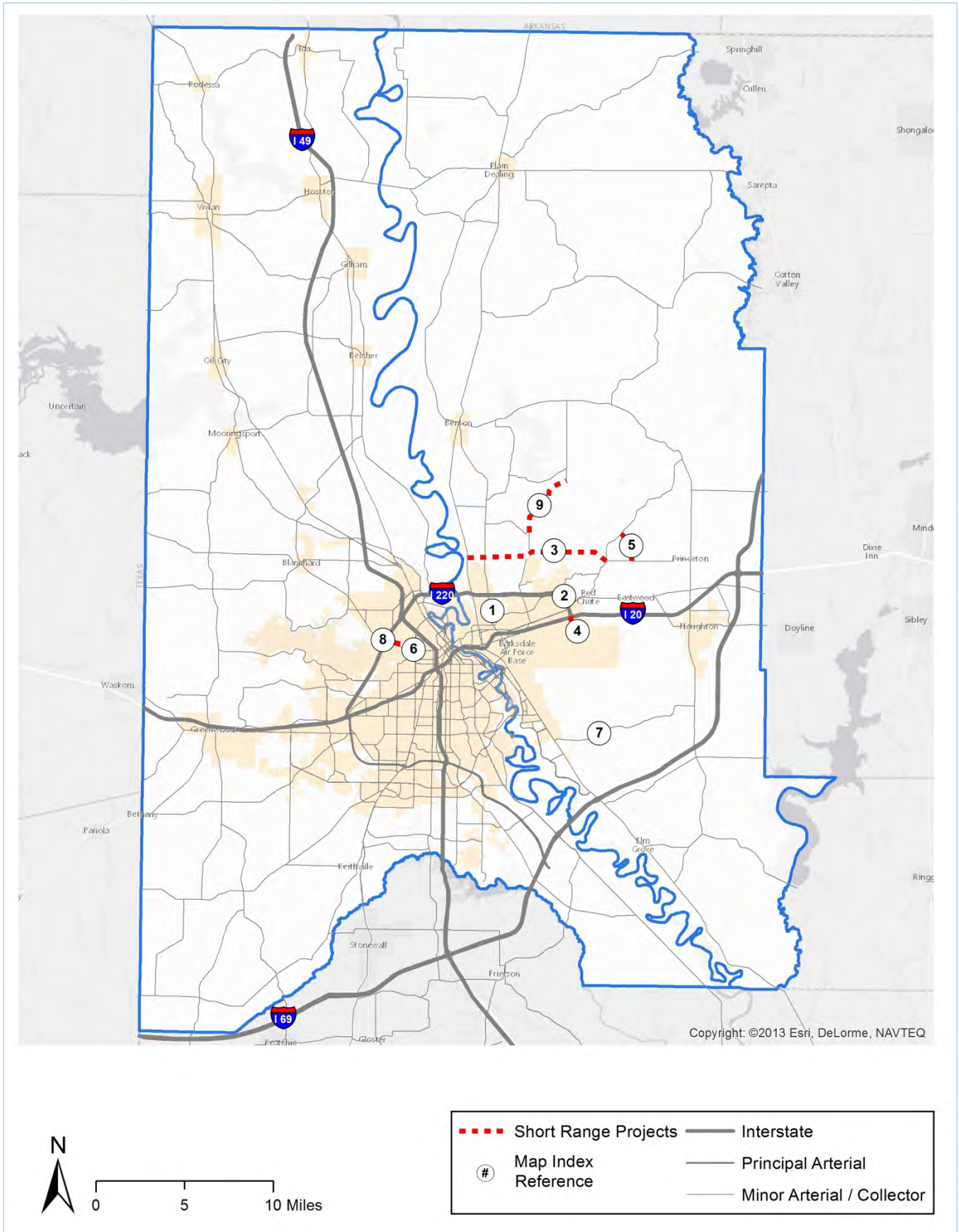


6.2 SHORT-RANGE PROGRAM

The Short Range Program identifies those projects in Fiscal Years 2019 and 2020.

Map Index	Name (State Project #)	Route	Limits	Improvements	Plan Phase (Year)	Cost Estimate (000's) - YOY	Primary Funding Source
1	Airline at Douglas add LT Lane	LA 3105	Airline Dr at Douglas Dr Intersection	Add left-turn lanes to Douglas Dr intersection approaches	SRP	\$140	Local Funding Bossier City
2	Stockwell Rd at US 80 add LT Lane	US 80	Stockwell Rd at US 80 intersection	Add left-turn to Stockwell Rd intersection approach	SRP	\$140	STP >200K
3	East-West Corridor (Winfield Rd Extension)	Local	East terminus at Winfield Rd/Bellevue Rd intersection west to LA 3	New 2-In urban collector section	SRP	\$20,935	Federal, DEMO / BPPJ
4	I-220 South Extension	I-220	I-220 at I-20 interchange (Bossier City) and south to Barksdale A.F.B. property	New 4-In interstate construction; 4 ramps and new C-D road	SRP	\$52,338	LADOTD Econ. Dev. / Bossier City BPPJ
5	Wafer Rd Extension	Local	Current Wafer Rd/Winfield Rd intersection north to Bellevue Rd	New 2-In urban collector section	SRP	\$2,791	Federal, DEMO / BPPJ
6	LA 173 Improvements (094-01-0032)	LA 173	Jct. LA 3094 to Jct. I-220	Widening and Rehabilitation	SRP	\$13,957	STPFLEX
7	Old Channel Red Chute Bridge (108-01-0017)	LA 612	LA 612 at Old Channel Red Chute Bayou	Bridge Replacement	SRP	\$8,670	FBR
8	LA 173 Improvements (094-01-0045)	LA 173	LA 173	Add Southbound Acceleration Lane	SRP	\$528	FBR
9	North-South Corridor (Swan-Lake Rd Extension) (H.003854)	Local	Phase 3: Flat River to Crouch Rd	New Construction 2-In collector	SRP	\$14,158	STP>200K
	I-220 Bridge Joint Replacement (451-31-0034)	I-220	I-220 in Bossier Parish	Joint Replacement for 6 Bridges	SRP	\$158	FBR
	I-20 Bridge Rehab (451-01-0128)	I-20		Bridge veering and joint rehab	SRP	\$1,411	FBR
	US 71 Widening and Rehab	US 71	Sligo Rd to LA 527 (I-69 connection)	Stage 0 and Stage 1 Environmental		\$2,094	STP>200K
	Miscellaneous Congestion Management Projects		Caddo and Bossier Parishes	Congestion Management Projects		\$5,583	STP>200k
	Comprehensive Transportation Plan		Northwest Louisiana Metropolitan Area	New Transportation plan based on 2010 Census and SAFETEA-LU Reauthorization		\$2,094	STP>200K
	Regional ITS Implementation		Shreveport & Bossier Urban Area	Implementation of Regional ITS Plan		\$2,791	STP>200K
Total Financially Constrained Program						\$75,120	
Total Federal DEMO						\$23,726	
Total Special State Program						\$52,338	
Total Major Local Program						\$140	
GRAND TOTAL SHORT-RANGE PROGRAM						\$151,323	

Figure 2: Short-Range Transportation Improvement Projects



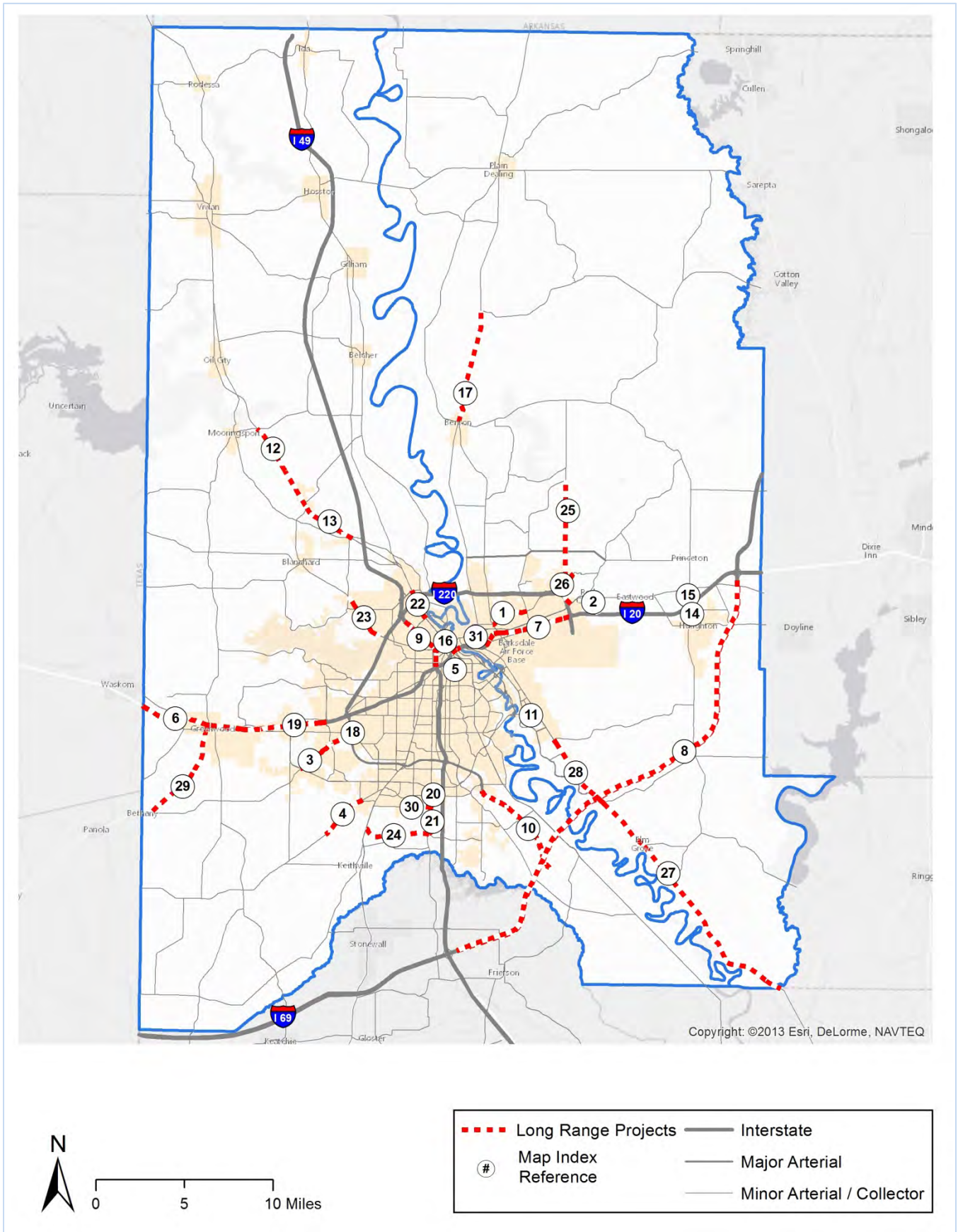
6.3 LONG-RANGE PROGRAM

The Long Range Program identifies those projects in Fiscal Years 2021 thru 2035.

Map Index	Name (State Project #)	Route	Limits	Improvements	Plan Phase (Year)	Cost Estimate (000's)	Primary Funding Source
1	Alpine Blvd Connector	Local	Current north terminus Alpine Blvd (Bossier City) north to St Lucy St	New 2-In local road connector; improvements to at-grade RR-crossing	LRP	\$1,074	Fed/St/Loc
2	Bodcau Station Rd Widening	Local	I-20 to US 80 (E Texas St)	Widen to 4-In local road section	LRP	\$1,611	Fed/St/Loc
3	Buncomb Rd Widening	Local	LA 511 (W 70th St) to LA 526	Widen to 3-In urban minor arterial section	LRP	\$2,686	Fed/St/Loc
4	Colquitt Rd Widening	LA 525	Dean Rd to Woolworth Rd	Widen to 4-In urban minor arterial section	LRP	\$4,297	Fed/St/Loc
5	I-20 Red River Bridge / Approaches	I-20	I-20 Red River crossing between I-49 and Traffic St (Bossier) interchanges	New Red River Bridge structure/improve approaches/reconfigure ent./ exit ramps	LRP	\$537,143	High Priority
6	I-20 Widening	I-20	Texas State Line to Pines Rd	Widen to 6-In interstate section	LRP	\$53,714	Fed/St/Loc
7	I-20 Widening (Bossier City Urban Section)	I-20	US 71-LA 3 interchange to I- 220 (east)	Widen and realign to 6-In interstate section	LRP	\$225,600	High Priority
8	I-69 (SIU-15)	I-69	I-20 to US 71 (SIU-15: Shreveport Urban Section)	New 4-In interstate construction w/Red River Bridge structure	LRP	\$1,074,287	High Priority
9	I-49 Inner City Connector	I-49	I-49/I-20 interchange (south) to I-220/ new I-49 North interchange (north)	New interstate section	LRP	\$250,000	High Priority
10	Inner Loop Ext.	LA 3132	LA 523 to I-69 (Port)	New 4-In Freeway Expressway	LRP	\$120,000	High Priority
11	Jimmie Davis Bridge	LA 511	LA 511 (J Davis Hwy) Red River crossing	New 2-In bridge structure w/Bike-Ped. facilities	LRP	\$80,000	Fed/St/Loc
12	LA 1 Widening	LA 1	LA 173 to LA 169	Widen to 4-In rural arterial section	LRP	\$50,491	Fed/St/Loc
13	LA 1 Widening	LA 1	LA 538 to LA 173	Widen to 4-In urban arterial section	LRP	\$44,046	Fed/St/Loc
14	LA 157 at LA 3227 Intersection Improvements	LA 157 / LA 3227	LA 157 at LA 3227 Intersection (Haughton)	Add left-turn lane from eastbound LA 3227 to LA 157 ; Add right-turn lane from westbound LA 3227 to LA 157 ; Widen LA 157 to 6-In between LA 3227 and I-20 entrance ramps	LRP	\$11,817	Fed/St/Loc
15	LA 157 Bridge Widening overpass at I-20	LA 157	LA 157 overpass at I-20 (Haughton)	Widen existing bridge structure and approaches to accommodate 4-travel lanes	LRP	\$37,600	Fed/St/Loc
16	LA 173 (Ford/Caddo St) Widening	LA 173	Marshall St west to Pierre Av	Widen to 4-In urban minor arterial section	LRP	\$9,669	Fed/St/Loc
17	LA 3 Widening	LA 3	LA 160 to LA 162	Widen to 4-In rural arterial section	LRP	\$39,749	Fed/St/Loc

Map Index	Name (State Project #)	Route	Limits	Improvements	Plan Phase (Year)	Cost Estimate (000's)	Primary Funding Source
18	LA 511(W 70th St) intersection improvements	LA 511	LA 511 at Buncomb Rd	Intersection realignment and improvements	LRP	\$1,074	Fed/St/Loc
19	LA 526 Bridge Widening overpass at I-20	LA 526	LA 526 (Bert Kouns Ind. Loop) overpass at I-20 (Shreveport)	Widen existing bridge structure and approaches to accommodate 4-travel lanes	LRP	\$37,600	Fed/St/Loc
20	Linwood Av Widening	Local	LA 526 to Flournoy-Lucas Rd	Widen to 4-ln urban minor arterial section	LRP	\$5,371	Fed/St/Loc
21	Linwood Av Widening	Local	Flournoy-Lucas Rd to Southern Loop Rd	Widen to 4-ln urban minor arterial section	LRP	\$8,594	Fed/St/Loc
22	N. Market St. Widening	US 71	N. Hearne to bridge at 12 mile bayou	Widen to 6-ln principal arterial section	LRP	\$18,263	Fed/St/Loc
23	Shreveport-Blanchard Hwy Widening	LA 173	Roy Rd. to I-220	Widen to 4-ln urban minor arterial section	LRP	\$32,229	Fed/St/Loc
24	Southern Loop Rd Extension	Local	Linwood west to US 171 (Mansfield Rd)	New 4-ln collector extension	LRP	\$21,486	Local Funding Caddo
25	Stockwell Rd Extension	Local	Current north terminus to new E-W Corridor Rd (Winfield Rd Extension)	New extension 2-ln urban minor arterial section	LRP	\$4,297	Fed/St/Loc
26	Stockwell Rd Widening	Local	US 80 to Dogwood Trail	Widen to 4-ln urban minor arterial section	LRP	\$4,297	Fed/St/Loc
27	US 71 (Barksdale Blvd) Widening	US 71	LA 527 to Red River Parish Line	Widen to 4-ln rural arterial section	LRP	\$13,966	Fed/St/Loc
28	US 71 Widening	US 71	LA 612 (Sligo Rd) to LA 527	Widen to 4-ln rural arterial section	LRP	\$5,371	Fed/St/Loc
29	US 79 Widening	US 79	I-20 to Texas State Line	Widen to 4-ln rural arterial section	LRP	\$75,200	Fed/St/Loc
30	Williamson Way Extension	Local	Kingston Rd to Linwood Rd	New extension 2-ln urban minor arterial section	LRP	\$5,371	Fed/St/Loc
31	Hamilton Rd Improvements (742-08-0003)	Local	I-20 to US 79/80 (E Texas St)	Reconstruction and widen existing to 4-ln sect.	LRP	\$107,429	Local Funding Bossier City
	Clyde Fant Parkway Extension	Local	Current south terminus LA 511 (E 70th St) to LA 1	New 4-ln parkway extension	LRP	\$26,857	Local Funding Shreveport
	Bike/Pedestrian Shared Use Trails	Other	As identified through Statewide and Locally derived Bike/Ped Plans	Systematic development of new neighborhood Bike/Ped facilities that provide linkage to existing park/trail infrastructure	LRP	\$5,371	Fed/St/Loc
Total Financially Constrained Program						\$553,760	
Total High Priority Program						\$2,207,030	
Total Major Local Program						\$155,772	
GRAND TOTAL LONG RANGE PROGRAM						\$2,916,562	

Figure 3: Long-Range Transportation Improvement Projects



7.0 PLAN OUTCOME AND CONCLUSION

Freedom from traffic congestion is a major contributor to quality of life in the Caddo/Bossier Parish region. An important objective of this plan was to identify emerging congestion and develop cost effective measures to address it. However, the study sought more than a onetime snapshot of traffic problems and a prioritized list of remedial projects. Clearly the plan provides such a list but good urban transportation planning is a dynamic process. The “Mapping The Way – 2035” Long-Range Transportation Plan provides the means for continued updates that can be accomplished by NLCOG’s staff.

The analytical tools, such as the Regional Travel Demand Model (RTDM), provides reliable analysis for future transportation decisions for the region. More importantly, it is an effective planning tool that allows the technical staff to communicate transportation needs and evaluate proposed solutions in ways that can be understood by local elected officials and agency decision makers.

The plan also emphasizes the importance of continued deployment of congestion and safety management systems that offer a structured approach to identification and remediation of many of the region’s more serious transportation problems. Elements of the plan contain recommendations for railroad and ITS solutions that will greatly improve the safety and efficiency of the area’s existing transportation infrastructure.

While the work has been primarily focused on local needs, it also addressed the eight factors required by the U.S. Dept. of Transportation. Furthermore, the plan reflects and responds to local goals and objectives through the MPO’s public involvement and engagement mechanisms.

Finally, the plan furnishes a “roadmap” for longer-range implementation of higher cost freeway and other infrastructure improvements, such as I-49 and I-69, which can enable the region to compete more effectively for economic development and expansion.