

EXEMPT PROJECT JEFFERSON-ORANGE-HARDIN
REGIONAL TRANSPORTATION STUDY

Metropolitan Transportation Plan

2035



South East Texas Regional Planning Commission Metropolitan Planning Organization (SETRPC-MPO)
for the Jefferson-Orange-Hardin Regional Transportation Study (JOHRTS) Area

30-day Public Comment Period: *March 4, 2013 through April 2, 2013*

ADOPTED by the Transportation Planning Committee: *April 19, 2013*

This document was prepared in cooperation with the U.S. Department of Transportation, Federal Highway Administration, Federal Transit Administration, and the Texas Department of Transportation



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for the Jefferson-Orange-Hardin Regional Transportation Study (JOHRTS) Area

ADOPTED DATE

April 19, 2013

ACKNOWLEDGEMENTS

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CHAPTER 1

Introduction

The purpose of this Metropolitan Transportation Plan (MTP) is to provide systematic, long-range planning for transportation projects and programs in Jefferson, Orange, and Hardin Counties, which comprise the Jefferson-Orange-Hardin Regional Transportation Study area (JOHRTS). The metropolitan transportation planning process requires the development of an MTP that addresses at least a 20-year planning horizon and includes both long- and short-range strategies or actions that lead to the development of an integrated, intermodal transportation system that facilitates the efficient movement of people and goods. This MTP was developed through a continuing, cooperative, and comprehensive planning process and identifies needs, financial resources, and priorities for the JOHRTS area. This chapter provides a general overview of the JOHRTS MTP 2035.

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1.1 South East Texas Regional Planning Commission - Metropolitan Planning Organization



In 1974, the Governor of Texas designated the **South East Texas Regional Planning Commission (SETRPC) as the Metropolitan Planning Organization (MPO) for Jefferson, Orange, and Hardin Counties**. As the MPO, SETRPC is responsible for conducting continuing, cooperative, and comprehensive (3-C) long-range transportation planning in the three-county region. The SETRPC-MPO conducts the transportation planning process and develops a 20-year long-range regional transportation plan that will accommodate the future needs of the three-county region and acknowledge the vital role that transportation plays in the region’s social, environmental, and economic health. **This plan is the Jefferson-Orange-Hardin Regional Transportation Study (JOHRTS) area Metropolitan Transportation Plan (MTP) – JOHRTS MTP**. In addition to the Plan, the MPO is required to develop other documents and programs as part of the 3-C transportation planning process. These include:

TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

1

TIP

The TIP is short-range transportation plan for the JOHRTS area. The TIP presents the various highway and transit projects that are expected to be let for construction or implementation within the next four years. All regional transportation projects and programs are required to be identified and prioritized in the TIP in order to be eligible for Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funds.

UNIFIED PLANNING WORK PROGRAM (UPWP)

The UPWP documents the metropolitan transportation planning activities performed with funds provided under Title 23 United States Code (U.S.C.) and Title 49 U.S.C. Chapter 53. It is prepared annually and is a statement of work identifying the planning priorities and activities to be carried out within a metropolitan planning area for a given fiscal year (October 1 through September 30). This document includes a list of the planning task descriptions and resulting products from each associated task, denotes who will perform the work tasks, provides the time frame for conducting the tasks, and identifies the sources of funds for each task.

UPWP

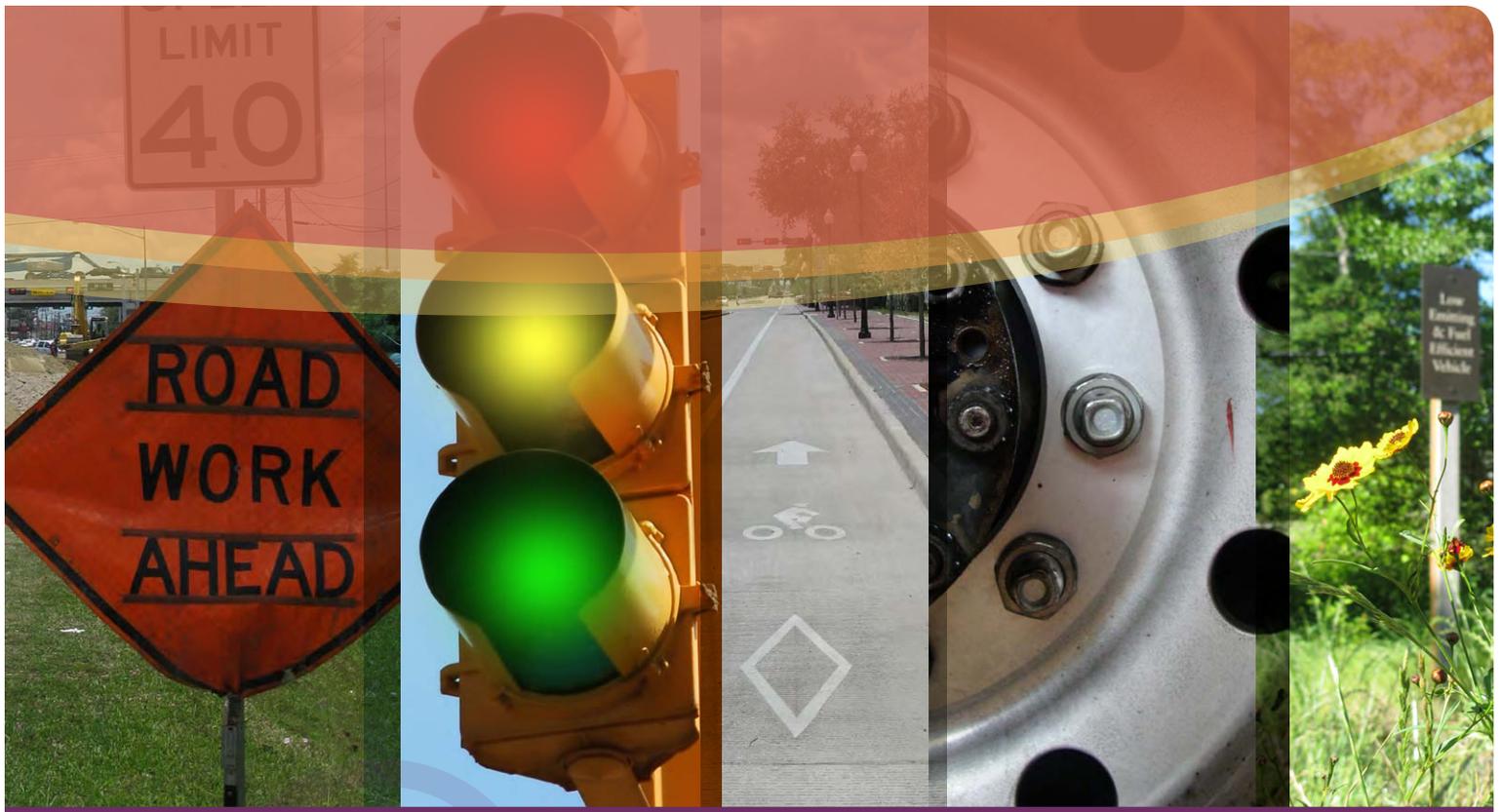
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PUBLIC PARTICIPATION PLAN (PPP)

3

PPP

The PPP outlines the MPO’s procedures to support citizen participation during the transportation planning process. Public involvement fosters an opportunity for better planning decisions and collective acceptance of transportation plans and programs. The MPO utilizes a variety of methods to encourage public participation and promote involvement in the continuing, comprehensive, and cooperative transportation planning process.



1.2 Metropolitan Transportation Plan

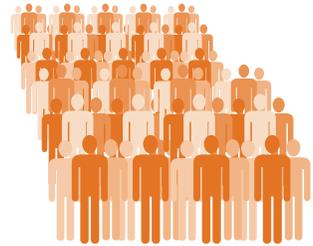
Federal and state legislation requires that each urbanized area with a population of at least 50,000 have a long range transportation plan covering at least a 20-year period to identify regional transportation system improvements. The existing JOHRTS MTP was adopted in 2007 and has a horizon year of 2030.

This MTP update is prepared for the horizon year 2035 and identifies projects and programs that will meet regional goals and accommodate the future needs of the three-county region. This MTP is cooperatively developed by the MPO, TxDOT, and operators of publicly owned transit services and is approved by the MPO policy board.



The primary purpose of the MTP is to guide the development of the transportation system to serve the travel demands of existing developments and probable new growth as envisioned by local comprehensive plans and estimated by demographic projections.

The JOHRTS area is anticipated to accommodate approximately 450,000 people and 175,000 jobs by the year 2035. There are around 390,000 people and 150,000 jobs currently located in the JOHRTS region.



Under the 1990 Clean Air Act Amendment, MPOs in air quality non-attainment and maintenance areas are required to update their long range transportation plans every four years. The MPO must ensure that the MTP is consistent with and conforms to the State Implementation Plan (SIP), which is the statewide document that demonstrates how Texas will attain the health-based National Ambient Air Quality Standards (NAAQS). The JOHRTS area was a non-attainment area for the NAAQS for ozone until November 2010, after which it was an attainment maintenance area. As of July 2012, the area is in attainment of the NAAQS for ozone. Although the area is in attainment of the standard for ozone, it is still currently subject to transportation conformity requirements because these requirements have not yet expired.

The existing JOHRTS MTP 2030 was found to conform to the SIP on September 25, 2007. Although the MPO has been working to develop the JOHRTS MTP 2035 to replace the existing JOHRTS MTP 2030, it has been unable to obtain a conformity determination for the plan. As a result, the area entered a conformity lapse on September 25, 2012.

During a conformity lapse, only projects and programs that are exempt from the requirement to determine transportation conformity can be implemented. Therefore, this JOHRTS MTP 2035, consisting of only exempt projects and programs, has been developed to ensure that projects and programs continue to be implemented in the JOHRTS region in the absence of a conformity determination. The types of projects considered to be exempt can be located in Chapter 12, Recommended Plan Improvements.

The focus of this MTP is the JOHRTS area's transportation system and it provides a project listing identifying those transportation improvements selected to meet the MTP's goals and objectives. The MTP also includes a financial analysis that identifies the source and amount of money reasonably expected to be available to build and operate projects during the MTP planning horizon.



1.3 MAP-21 and 2035 Metropolitan Transportation Plan Development

MAP-21, the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), was signed into law by President Obama on July 6, 2012. **Funding surface transportation programs at over \$105 billion for fiscal years (FY) 2013 and 2014, MAP-21 is the first long-term highway authorization enacted since 2005.** This new transportation bill authorizes and funds federal surface transportation programs for two years, taking effect on October 1, 2012 and expiring on September 30, 2014. The provisions of MAP-21 were being developed and debated by Congress at the same time the 2035 MTP was being developed locally by the MPO.

The information in this section is provided to acknowledge the existence of MAP-21 and to note its implications for transportation planning. It is also important to note that the emergence of MAP-21 does not represent an abandonment of the programs and planning requirements established under SAFETEA-LU, the previous federal transportation bill. In fact, many of the same programs and metropolitan planning requirements are continued under MAP-21. However, MAP-21 does consolidate several highway programs and establishes new requirements for transportation planning. The most significant changes are summarized below:



- Each MPO shall include officials of public agencies that administer or operate public transportation systems within two years of the enactment of MAP-21.
- Establishes new performance measures as part of the planning process to be developed in coordination with state and public transportation providers.
- MPOs will have 180 days to set regional targets once statewide goals are established, which would include performance measures and targets. The MPO will integrate the targets into the planning process directly or by reference to the goals, objectives, performance measures, and targets of state plans.
- Long-range transportation plans (such as this MTP) and transportation improvement programs (TIPs) are to be developed through a performance based approach. Long-range transportation plans will include a description of the performance measures and targets.
- MPOs are to track progress toward attainment of outcomes for the region.



1.3.1 Performance Measures

MAP 21 establishes national goals in seven areas:

Safety; Infrastructure Condition; Congestion Reduction; System Reliability; Freight Movement and Economic Vitality; Environmental Sustainability; and Reduced Project Delivery Delays.

USDOT is responsible for establishing performance measures, in consultation with the states, MPOs, transit agencies, and stakeholders (and through a rulemaking within 18 months) for the following:



- National Highway Performance Program (NHPP) – NHS highway and bridge performance and condition
- Highway safety – Serious injuries and fatalities
- Congestion Mitigation and Air Quality Improvement Program (CMAQ) – Traffic congestion and on-road mobile source emissions
- Freight movement-related measures
- Transit safety and state of good repair





States are required to establish performance targets in coordination with the MPOs and transit operators within one year after the final rule establishing performance measures (including rural transit-related measures) by USDOT. **MPOs** are required to establish performance targets in coordination with the states and transit operators within 180 days after adoption of targets by the state or transit operators. Performance measures and targets must be incorporated into long-range planning and short-term programming processes.



- Long-range plans, TIPs, and STIPs must show the progress that is expected to be achieved by planned decisions and investments.
- USDOT will evaluate the appropriateness of state targets and the progress that the state is making in achieving performance targets.
- State's and MPO's long-range plans will include System Performance Reports that describe the progress made toward achieving performance targets.
- USDOT will establish minimum condition levels for all highways on the interstate system and bridges on the NHS.

From the preceding summary, it is apparent that performance measures and targets are major new items that will need to be addressed in the transportation planning process. The MAP-21 language appears to require a collaborative process to establish the performance targets that involves the state, the MPOs, and transit operators after the final rule to establish the performance measures is put in place by USDOT. The MPO intends to fully participate in this process with TxDOT and public transportation providers to establish appropriate performance targets. If this process results in changes that are required in the 2035 MTP, the appropriate additions and changes will be incorporated as a plan amendment in the future.

1.4 2035 Metropolitan Transportation Plan

The 2035 Metropolitan Transportation Plan was developed through a continuing, cooperative, and comprehensive transportation planning process. This MTP is a culmination of extensive public involvement, active stakeholder input, technical analysis, population and employment projections, and local and regional needs assessment. This process resulted in the recommendations for transportation improvements for the JOHRTS area. The document is organized into the following chapters:



1.4.1 Overview

This section provides the general overview of the region and its transportation system, the federal requirements for the plan, and the goals of the MTP.



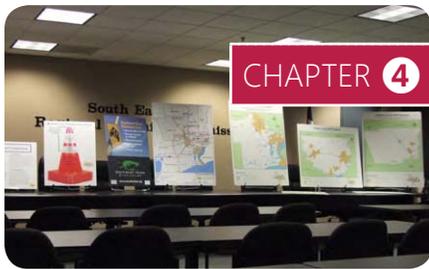
CHAPTER 2 Legislation, Policies, Goals, and Objectives

This chapter serves as a context for transportation planning activities that occur within the southeast Texas region. It includes an overview of transportation issues and federal legislation affecting the United States, along with state and local legislation, policies, and plans that provide important insight and direction for the development of the JOHRTS MTP.



CHAPTER 3 Community Structure

This chapter establishes a context for the community structure in the MPO planning region and presents the case for transportation improvements and infrastructure needs in the region.



CHAPTER 4 Community Participation

This chapter summarizes the efforts taken by the MPO to ensure a continuing, cooperative, and comprehensive transportation planning process for the development of this MTP.

1.4.2 Existing Conditions

This section of the MTP provides the existing conditions of all the transportation modes in the JOHRTS region.



CHAPTER 5 Roadways

This chapter addresses both current and future conditions and needs and focuses on maintaining and enhancing an efficient and safe roadway system that will effectively meet future demands while optimizing existing financial resources.



CHAPTER 6 Transit

This chapter reviews existing transit systems, facilities, and services; analyzes transit service gaps; identifies issues; and suggests strategies and policies to address the overall demand for public transit services within the JOHRTS region.



CHAPTER 7 Bicycle and Pedestrian System

This chapter establishes the existing conditions and the context for bicycle and pedestrian system needs in the MPO planning region.



CHAPTER 8 Airport

This chapter discusses existing conditions of the airports, issues of concern and needs, and strategies to improve these needs, so that the JOHRTS area may fully benefit from demand for airport services.



CHAPTER 9 Goods Movement

The purpose of this chapter is to identify and assess trends in freight transportation and how they may impact the region in the future. Within the context of determining the needs and opportunities for freight transportation in the three-county region, the chapter presents a profile of the regional freight transportation infrastructure, as well as historically observed and projected trends in goods movement.



1.4.3 Impacts and Financial Plan

This section of the MTP provides the final list of projects identified through the MTP process to support the future transportation demand of the JOHRTS region along with their impacts.



CHAPTER 10 Environment

This chapter attempts to quantify some of this plan’s environmental impacts, as well as provide potential mitigation strategies for the MPO and its planning partners to pursue as they implement this plan.



CHAPTER 11 Financial Plan

Federal planning regulations require that the financial plan presented in the MTP be financially constrained, which means that the estimated cost for all transportation improvements presented in the plan cannot exceed the amount of reasonably expected revenues projected from identified funding sources. This chapter focuses on the long-range financial constraints and opportunities in the JOHRTS area over the 23 fiscal years of this Plan.



CHAPTER 12 Recommended Planned Improvements

This chapter lists the final list of projects that will be funded through this MTP. Due to the area’s current air quality conformity lapse, only exempt projects are identified.

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SOUTH EAST TEXAS REGIONAL PLANNING COMMISSION

CHAPTER 2

Legislation, Policies, Goals, and Objectives

Over the last few years transportation planning has progressed beyond planning for transportation systems exclusively and now also encompasses planning for a myriad of issues, **including urban growth, safety and security, air quality, citizen participation, accommodations for disadvantaged groups of people, equitable distribution of infrastructure, and general quality of life.**

Planning for the movement of people and goods includes multiple forms of transportation systems and their intermodal needs for connectivity, which include transport **by foot, bicycle, transit, car, rail, air, and water.** Moreover, transportation planning is more concerned than ever before with ensuring that these transportation systems are maintained and operated in the most effective and efficient manner possible in order to maximize their productivity, longevity, and safety. This is especially important as resources and funding become scarcer and the multiple issues encapsulated in transportation planning continue to expand.

This chapter serves as a context for transportation planning activities that occur within the southeast Texas region. It includes an overview of transportation issues and federal legislation affecting the United States, along with state and local legislation, policies, and plans that provide important insight and direction for the development of the JOHRTS MTP. Further, it describes the federally-mandated development process and content of an MTP and the transportation planning factors that all MPOs must address, along with how the JOHRTS MTP specifically addresses each of these requirements.

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Federal and state legislation, local policies, and other considerations provide valuable knowledge in creating the goals and objectives included in this chapter. These goals and objectives serve to guide the transportation planning process in making informed decisions regarding the most optimal transportation solutions and improvements for the southeast Texas region.

2.1 **Legislation and Policies Affecting Transportation Planning in Southeast Texas**

Metropolitan Planning Organizations (MPOs) were formed as a result of federal legislation enacted during the 1960s that aimed to ensure that federally funded transportation projects and programs are based on a continuing, cooperative, and comprehensive (3-C) planning process. Federal mandates require that an MPO be established for any urbanized area with a population of 50,000 or more and that these entities conduct transportation planning according to the 3-C planning process.



Several historical legislative acts and policies have shaped transportation planning in the United States and, in turn, the southeast Texas planning region. These include, among many others, the National Environmental Policy Act (NEPA), Environmental Justice considerations, the Clean Air Act, and the various surface transportation acts authorizing federal funds for transportation improvements.

NEPA

The **National Environmental Policy Act (NEPA)** signified a change in American thinking about environmental issues and considerations for future generations. NEPA [42 U.S.C. 4321 et seq.], which was signed into law on January 1, 1970, requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions. The Act establishes national environmental policy and goals for the protection, maintenance, and enhancement of the environment, as well as a process for implementing these goals within the federal agencies.

The Act also establishes the Council on Environmental Quality (CEQ). The CEQ produced regulations [40 CFR Parts 1500-1508] addressing the procedural provisions of NEPA and the administration of the NEPA process, including preparation of **Environmental Impact Statements (EISs)**, which are required for all federal actions “significantly affecting the quality of the human environment.” To date, the only change in the NEPA regulations occurred on May 27, 1986 when Section 1502.22 was amended to specify how agencies are to carry out their environmental evaluations in situations where information is incomplete or unavailable. Most federal agencies, including the USDOT, have promulgated their own NEPA regulations and guidance which generally follow the CEQ procedures but are tailored for the specific mission and activities of the agency.

Within the latest surface transportation act, **MAP-21**, several provisions are provided which are intended to enhance the consideration of environmental issues and impacts within the transportation planning process, including:



- Consultations with resource agencies, such as those responsible for land-use management, natural resources, environmental protection, and conservation and historic preservation, which shall involve, as appropriate, comparisons of resource maps and inventories
- Discussion of potential environmental mitigation activities
- Participation plans that identify a process for stakeholder involvement
- Visualization of proposed transportation strategies where practical



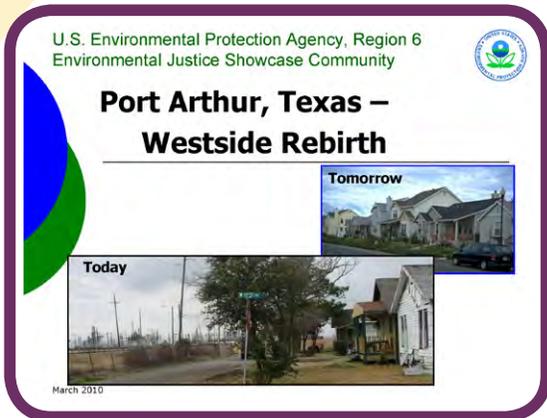
Environmental Justice

In keeping with the spirit of NEPA, various issues are closely linked to evaluating the effects of proposed actions on the quality of the human environment, both physical and natural, including the equitable distribution of both benefits and adverse impacts as a result of public policy decisions. This concern for equitable distribution is referred to as Environmental Justice (EJ). In relation to transportation planning, EJ provisions require that everyone receives their fair share of transportation improvements without a disproportionate burden of negative effects.

EJ considerations began with Title VI of the Civil Rights Act of 1964, which states “No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.” Then, in 1994, Executive Order 12898 mandated that every federal agency was responsible for incorporating EJ concerns into their programs, policies, and activities for traditionally underserved populations, including minority and low-income populations. The USDOT issued its own mandate (DOT Order 5610.2) to ensure that EJ was addressed in transportation decisions, including those of transportation planning agencies. *As defined by USDOT, the three fundamental EJ principles include the following:*



- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.



In order to account for EJ concerns in relation to transportation investments and to fulfill environmental justice provisions, long-range transportation planning must identify the location of low-income and minority populations and improve public involvement processes to eliminate participation barriers for such traditionally underserved populations. Beyond accounting for minority and low-income populations, MPOs often consider other special groups in their EJ analyses and programs, including the elderly and persons with disabilities, because federal transportation planning requirements also stipulate that these special groups must be given due consideration in the planning process in order to guarantee them the most accessible transportation options.

Within the MPO planning area, the EPA’s Office of Environmental Justice has chosen **an area in Port Arthur as an *Environmental Justice Showcase Community* to receive funding to help alleviate environmental and human health challenges facing the community.** By using collaborative and community-based approaches, the project hopes to bring together all organizations and stakeholders to use their collective resources and knowledge in order to achieve the best results for everyone. *One of ten such projects in the nation, this effort will act as a demonstration project to help guide future efforts that target EJ concerns and address local environmental challenges in the most effective ways.*

Clean Air Act and Transportation Conformity

The **Clean Air Act**, which was last substantially amended in 1990, requires EPA to set **National Ambient Air Quality Standards, or NAAQS**, (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of “sensitive” populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. The EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for six principal pollutants, including carbon monoxide, lead, nitrogen oxide, particulate matter, ozone, and sulfur dioxide.

Transportation conformity is a Clean Air Act requirement to conduct air quality analysis on projects, programs, and policies identified in transportation plans, transportation improvement programs, federally funded projects, or projects requiring federal approval. Such requirements aid in protecting

short- and long-term public health through early consideration of the air quality impacts of transportation decisions, ensuring that new projects, policies, and programs do not cause new air quality violations or worsen existing conditions.



These requirements are specifically for nonattainment areas (areas where air quality does not currently meet federal NAAQS or has not met them in the past) and areas which were re-designated as in attainment after 1990 (maintenance areas). In particular, transportation conformity requirements stipulate that nonattainment areas and attainment-maintenance areas must ensure that transportation activities are consistent with State Implementation Plans (SIPs) and will not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS. EPA's transportation conformity rule (40 CFR Parts 51 and 93) establishes the criteria and procedures for determining whether transportation plans, transportation improvement programs (TIPs), and projects conform to the SIP.

For the past several years the SETRPC has worked diligently to meet the federal air quality standards and has developed a variety of programs to improve air quality. In addition, the SETRPC maintains numerous air monitoring stations throughout the area. These stations monitor levels of certain pollutants and ozone levels and provide empirical data that help determine whether the quality of air meets federal standards.

2.2 Metropolitan Transportation Planning in the United States

In its earliest years, surface transportation planning in the United States focused on addressing national mobility needs by connecting the various areas of the nation through an interstate highway system. This was officially known as the the National Interstate and Defense Highways Act, which was enacted in 1956. These issues were at the forefront, affecting transportation planning and projects in the wake of two world wars and cold war threats. An interstate highway system was imperative for national defense purposes in the event of a foreign invasion, which would require the quick mobilization of troops across the country.

In recent times, metropolitan transportation planning has been shaped and defined by four significant federal acts: the Intermodal Surface Transportation Efficiency Act (ISTEA), the Transportation Equity Act for the 21st Century (TEA-21), the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), and the Moving Ahead for Progress in the 21st Century Act (MAP-21). The latest surface transportation act, MAP-21, was signed into law on July 6, 2012 and contains requirements for what is to be included in the development of long-range transportation plans.



● The **Intermodal Surface Transportation Efficiency Act, or ISTEA**, signed into law on December 18, 1991, is heralded as the first piece of federal transportation legislation intended to define the federally aided transportation program in the post-interstate highway system era. This landmark transportation act diverged from traditional transportation planning requirements and advocated, as stated in its declaration of policy, to “develop a National Intermodal Transportation System that is economically efficient, environmentally sound, provides the foundation for the nation to compete in the global economy and will move people and goods in an energy-efficient manner.” As such, ISTEA gave more discretionary power to states and MPOs and emphasized initiatives that increased the performance of the existing transportation network.



● The successor to ISTEA, the **Transportation Equity Act for the 21st Century, or TEA-21**, was enacted on June 9, 1998 and continued many of the planning requirements of ISTEA. Streamlining state and metropolitan transportation planning, TEA-21 condensed the original fifteen planning factors contained in ISTEA into seven and combined continuing and improving current programs with new initiatives to meet increasing challenges of improving safety, protecting and enhancing communities and the natural environment, and advancing the nation’s economic growth and global competitiveness. Additionally, TEA-21 expanded the role and funding for biking, walking, and mass transit as viable modes of transportation and provided more funding and flexibility for state and local planning agencies to ensure the most cost-effective and optimal strategies for spending highway trust fund dollars on transportation needs.



● The successor to TEA-21, the **Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users, or SAFETEA-LU**, was signed into law on August 10, 2005. The \$286 billion legislation represented the largest surface transportation investment in our country’s history and continued the same goals of providing funding flexibility while addressing several transportation related challenges prevalent in recent years. In particular, SAFETEA-LU identified safety and security as separate factors to be considered in the transportation planning process, increased consideration of freight and transportation on trade corridors and at ports-of-entry, promoted projects of national and regional significance, improved the air quality conformity process, and required additional plans to coordinate public participation and human service provision.



● The latest surface transportation program legislative act, the **Moving Ahead for Progress in the 21st Century Act, or MAP-21**, was signed into law on July 6, 2012. Funding surface transportation programs at over \$105 billion for fiscal years (FY) 2013 and 2014, MAP-21 is the first long-term highway authorization enacted since 2005. This new transportation bill authorizes and funds federal surface transportation programs for two years, from October 1, 2012 to September 30, 2014. Overall, this bill sets the course for transportation investment in highways, strengthens America’s highways, establishes a performance based program, creates jobs and supports economic growth, supports the DOT’s aggressive safety agenda, streamlines federal highway transportation programs, accelerates project delivery, and promotes innovation.



Federal Surface Transportation Acts

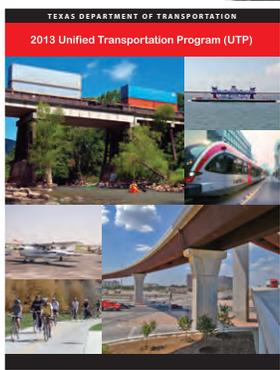
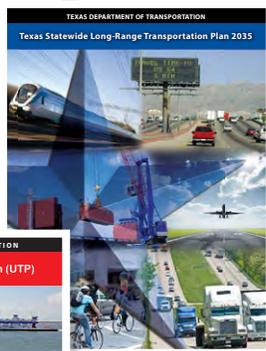
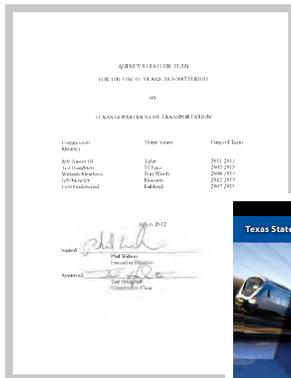
2.3 Considerations of State and Local Plans

While the role of the federal government has been to provide guidance and leadership through establishing policy, providing financial assistance, and providing research and training, most transportation planning efforts occur at the state, regional, and local levels. Among many issues, transportation planning has been concerned with striking a balance between multiple layers of oversight and affording state, regional, and local planning organizations more flexibility and control. The information provided below is intended to give insight into how the State of Texas and local entities contribute to transportation planning in the JOHRTS area, as well as to acknowledge their ideas, issues, and recommendations on past and current planning efforts.



State Agencies and Plans

The **Texas Department of Transportation (TxDOT)** is responsible for planning, designing, building, operating, and maintaining the state's transportation system in cooperation with local and regional entities. Within TxDOT, there are 25 district offices that oversee the agency's responsibilities in each district area, as well as four region offices, and 21 divisions and six offices located in Austin, which serve in an administrative and technical capacity for the district offices. TxDOT is governed by the Texas Transportation Commission, which is a five-member commission appointed by the governor with the advice and consent of the Texas Senate. The TxDOT-Beaumont District oversees the implementation of transportation projects throughout the Texas counties of Chambers, Hardin, Jasper, Jefferson, Liberty, Newton, Orange, and Tyler, and works in cooperation with the MPO to carry out transportation planning tasks and activities in the JOHRTS metropolitan planning area.



2013-2017 STRATEGIC PLAN

This document is an overarching policy statement designed to provide a framework for taking action within TxDOT. It addresses strategies and tactics that are necessary in order for TxDOT to fulfill its mission and goals over five years and establishes performance measures to monitor its progress.

STATEWIDE LONG-RANGE TRANSPORTATION PLAN 2035

In consultation with the public and various stakeholders, TxDOT developed a new long-range plan in 2010 to address long-term transportation needs in Texas. Per federal transportation planning regulations, all MPO plans must be consistent with this statewide plan.

UNIFIED TRANSPORTATION PROGRAM (UTP)

TxDOT uses the UTP as an eleven-year plan to guide transportation project development. The current UTP was approved in April 2012 and addresses 12 different categories of funding that will guide the development of both preservation and expansion projects throughout the state. The UTP represents a medium-range planning document that should be consistent with MTPs across the state.

**TEXAS STRATEGIC
HIGHWAY SAFETY PLAN:
A Report of Progress and Future Objectives**

SEPTEMBER 2012 | TEXAS DEPARTMENT OF TRANSPORTATION
Prepared by the Texas A&M Transportation Institute — Center For Transportation Safety



TEXAS STRATEGIC HIGHWAY SAFETY PLAN (SHSP)

MAP-21 requires that all states develop and implement a SHSP and that the metropolitan transportation planning process be consistent with the plan. This document identifies safety needs and directs investment decisions in order to reduce highway fatalities and serious injuries on public roads and was last updated in September 2012.

TCEQ AND TEXAS STATEWIDE IMPROVEMENT PLAN (SIP)

The Texas Commission on Environmental Quality (TCEQ) maintains the Texas State Implementation Plan (SIP). In summary, this plan is a collection of regulations that explain how a state will clean up polluted areas under the Clean Air Act. Within the SIP, nine areas across the state have developed local air quality plans to clean the air and meet federal air quality standards, including the three-county region (also known as Beaumont-Port Arthur Area). Although the three-county area is currently designated as in attainment of the 2008 NAAQS for ozone, it once did not meet federal air quality standards. As such, the three-county area has been designated as both nonattainment and attainment-maintenance in the past.

All states must have a SIP which establishes enforceable criteria and procedures for making conformity determinations for metropolitan transportation plans, transportation improvement programs, and projects funded by the Federal Highway Administration or the Federal Transit Administration in nonattainment or maintenance areas. Each nonattainment or maintenance area, in turn, must have an MTP that is found to be conforming and consistent with the SIP.

Clearing the Air



On March 27, 2008, the EPA announced a more stringent eight-hour ozone standard of 0.075 parts per million (ppm), down from the long-standing 0.08 ppm standard set back in 1997. While discussion of the new standard ensued, the Texas Commission on Environmental Quality developed an "Eight-Hour Ozone Re-designation Request and Maintenance Plan" SIP Revision for the Beaumont-Port Arthur (BPA) ozone nonattainment area, based upon the original 1997 standard. Approved on December 10, 2008, by the commission, that SIP revision requested that the EPA re-designate the BPA area to attainment for the 1997 eight-hour ozone NAAQS and demonstrated how the area would maintain compliance with the standard through 2021. On October 20, 2010, the EPA published a final rule in the Federal Register, approving the redesignation request and maintenance plan. With this redesignation to attainment for the 1997 eight-hour ozone standard, no new ozone reduction strategies will have to be developed as long as the area continues to monitor ozone levels below the 1997 eight-hour ozone standard; however, current strategies to reduce ozone in the area will remain in place.

In February 2012, the EPA issued a proposed rule to implement the 2008 ozone NAAQS of 0.075 ppm. In May, 2012, the EPA published final designations for the 2008 eight-hour ozone standard, and Hardin, Jefferson, and Orange Counties were designated attainment/unclassifiable under the 2008 eight-hour ozone NAAQS, effective July 20, 2012.

Although the three-county region is currently designated as attainment/unclassifiable under the 2008 ozone NAAQS, the final rulemaking to revoke transportation conformity under the 1997 eight-hour ozone standard established that the revocation of the 1997 ozone NAAQS for transportation conformity purposes will occur one year after the effective date of designations for the 2008 NAAQS, on July 20, 2013. As such, the three-county area is currently subject to transportation conformity.



Port Neches Riverfront Master Vision Plan



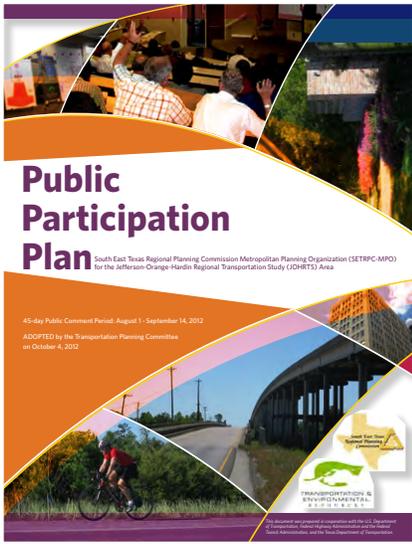
Local Agencies and Plans

The many jurisdictions within the JOHRTS metropolitan planning area develop their own local initiatives and plans to guide future growth and development, including comprehensive plans, zoning plans, capital improvement plans, building codes, subdivision and platting standards, thoroughfare plans, downtown master plans, and park and open space plans. In developing current estimates and future year projections of various socioeconomic data to help plan for transportation projects and programs included in this MTP, local plans and staff were consulted to gain the most accurate and informed insight into future development patterns.



Additional information on this process can be found in **CHAPTER 3 – COMMUNITY STRUCTURE**

In addition to these local plans, the following MPO documents were used to inform the JOHRTS long-range transportation planning process:



PUBLIC PARTICIPATION PLAN

This newly adopted document serves as the plan for involving all citizens and transportation stakeholders in the public involvement process for metropolitan transportation planning.

REGIONAL PUBLIC TRANSPORTATION COORDINATION PLAN

The South East Texas Regional Planning Commission's Regional Public Transportation Coordination Plan establishes a basis for a regionally coordinated and streamlined process to provide public transportation in the southeast Texas region. This plan is particularly important for rural areas of the region and for special needs groups with limited access to transportation.

TEXAS URBAN MOBILITY PLAN (TUMP)

Prepared by the MPO in cooperation with TxDOT, the purpose of this plan was to go beyond the MTP and focus on all transportation needs necessary to reduce congestion and improve mobility, regardless of funding availability.



Moving Ahead for Progress in the 21st Century (MAP-21)

MAP-21, the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), was signed into law by President Obama on July 6, 2012. Funding surface transportation programs at over \$105 billion for fiscal years (FY) 2013 and 2014, MAP-21 is the first long-term highway authorization enacted since 2005. This new transportation bill authorizes and funds federal surface transportation programs for two years, taking effect on October 1, 2012 and expiring on September 30, 2014. This program establishes national performance goals for federal highway programs including improving safety, maintaining infrastructure condition, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery.

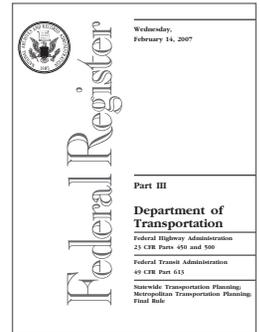
The Highway Trust Fund is the primary source of funding for surface transportation, just as it was in 1956 when it was first created. Fueled by taxes on gasoline, the trust fund has had difficulty keeping up with the increasing demands of a growing nation, which is even more troublesome considering current lower than expected gas tax revenues. The decline in gas taxes is a result of decreased gas consumption as people are driving less during the current recession and are driving more fuel efficient cars. This is further compounded when state and local budgets are also experiencing fiscal pressures. In light of these conditions, future surface transportation legislation is anticipated to address new solutions and funding mechanisms to pay for future transportation needs. This could include a raise in the gas tax, newly identified funding sources, and expanded pricing strategies such as High Occupancy Toll (HOT) lanes.



The fiscal assumptions and anticipated funding for regional transportation projects are presented in **CHAPTER 11 – FINANCIAL PLAN.**

2.4 Transportation Planning Factors

On February 14, 2007, the U.S. Department of Transportation promulgated the Final Rule on Statewide and Metropolitan Transportation Planning. Within 23 CFR § 450.306, a series of eight planning factors are identified and required to be considered in the metropolitan transportation planning process. *The eight planning factors and an explanation of their significance are provided as follows:*



1 Economic Vitality:

Because the surface transportation network provides people with access to jobs, shopping, education, and recreational activities in the region, as well as providing the connections and accessibility for freight movement, the transportation network must be planned for in such a way as to enable global competitiveness, productivity, and efficiency. This issue is especially important in light of the devastation caused by recent hurricanes in the southeast Texas region.



2 Safety:

The public expects its transportation system to be safe for all of its users. As such, programs and projects aimed at providing all transportation users with a safe travelling experience are essential. The MPO continually seeks out strategies to improve the safety of both motorized and non-motorized transportation networks.



3 Security:

In a post 9/11, Katrina and Ike nation, concerns for security have gained more prominence in transportation planning. As a major center for the petrochemical industry and frequently being in the path of severe weather events, the region must give careful consideration to possible threats, both natural and man-made, while planning for future transportation improvements.



4 Accessibility and Mobility:

Mobility is concerned with the quality of movement, while accessibility is concerned with the ease of reaching a destination. The ease and convenience of reaching the end destination, along with the quality of the experience while doing so, are important transportation considerations for many people. All sectors of the regional population, regardless of race, age, income, or disabilities are entitled to quality and accessible transportation options. For instance, well-connected bicycle and pedestrian infrastructure in proximity to transit stops provides increased mobility and convenient access to public transit for those individuals without automobiles.



5 Environment, Energy Conservation, Planned Growth:

In today's society, individuals are increasingly more conscious of their impacts on the environment and want to ensure that our natural resources can sufficiently meet today's needs and those of future generations. New technologies and alternative energy sources are becoming increasingly sought after. As growth and development occurs, the amount of travel increases, which in turn leads to increased congestion, poorer air quality, and wasted fuel. Therefore, it is important to plan for smarter growth patterns, supported by sound transportation investments, in order to improve the livability of all residents in a region.



6 Modal Integration and Connectivity:

Implementing a balanced, multimodal transportation system is important to ensure that the accessibility and mobility needs of people and goods in the region are met. Enhancing modal connections and seamlessly integrating multiple transportation types through programs and infrastructure, such as complete streets, transit centers, and intermodal facilities, helps to ensure efficient and effective regional transportation.



7 System Management and Operation:

Getting the most out of the existing transportation infrastructure is an important concern in light of limited resources. By investing resources in such solutions as advanced technologies, improving access management along existing roadways, and improving existing intersections and interchanges, the existing system can perform more efficiently. Additionally, by promoting non-automobile methods of travel, the burden on the existing roadway system can be reduced.

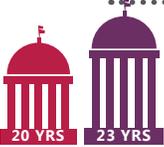


8 System Preservation:

Similar to effective management and operations, ensuring the longevity of transportation systems is important when considering the substantial costs of new transportation infrastructure. Maintaining the existing infrastructure in a state of good repair ensures the maximization of its use.

2.5 Development and Content of the Metropolitan Transportation Plan

Within 23 CFR § 450.322, specific requirements of the metropolitan transportation planning process and content of the MTP are outlined. *The MPO's approach to addressing these requirements is included in the following table:*

CONTENT REQUIREMENT	REQUIRED CONTENT IN JOHRTS MTP
 <p>The transportation planning process shall address <i>at least a 20-year planning horizon</i></p>	<p>This plan has a 23 year planning horizon, covering the years from 2013 to 2035.</p>
<p>The transportation plan shall include both long-range and short-range strategies that lead to an <i>integrated multimodal transportation system</i></p>	<p>This long-range MTP includes specific projects, programs, and strategies for all transportation modes for freight movement and people movement, including roads, transit, bicycle/pedestrian facilities, aviation, rail, shipping, and intermodal facilities.</p>
 <p>The MPO shall <i>review and update</i> the transportation plan at least every four years in nonattainment areas and maintenance areas and at <i>least every five years in attainment areas</i></p>	<p>The JOHRTS metropolitan area is currently an attainment area, but has been both a nonattainment and maintenance area in the past. As such, the MTP is on a four-year update cycle.</p>
<p><i>In metropolitan areas that are in nonattainment or maintenance for ozone or carbon monoxide, the MPO shall coordinate the development of the transportation plan with the Transportation Control Measures (TCMs) in the State Implementation Plan (SIP)</i></p>	<p>The MPO has coordinated the development of this MTP with the Transportation Control Measures (TCMs) in the State Implementation Plan (SIP) and will continue ongoing air quality programs to ensure that the region continues to meet air quality standards.</p>

CONTENT REQUIREMENT

The MPO shall base updates on the latest available estimates for *population, land use, travel, employment, congestion, and economic activity*



The transportation plan shall *include projected transportation demand* of persons and goods in the metropolitan planning area over the period of the transportation plan

The transportation plan shall include existing and proposed transportation facilities that *should function as an integrated system*

The transportation plan shall include *operational and management strategies* to improve the performance of existing transportation facilities

The transportation plan shall consider the results of the *congestion management process in TMAs*

REQUIRED CONTENT IN JOHRTS MTP

The 2035 JOHRTS MTP is based on the most currently available set of socioeconomic and transportation planning data. Specifically, JOHRTS went through a comprehensive process beginning in 2010 to update its demographic and travel demand model with base year data of 2007 and future estimates for year 2035 to account for currently planned developments as well as areas of the region most suitable for growth.

Additional details of the development of these data can be found in **CHAPTER 3 – COMMUNITY STRUCTURE**.

As part of the transportation planning process, the MTP project development team updated the regional travel model, which was used to predict future vehicular travel in 2035.

In addition, **CHAPTER 9 – GOODS MOVEMENT** includes an analysis of projected freight and goods movement through the region.

Chapters 5 through 8 of the MTP include a thorough discussion of the existing transportation system and needed solutions for the effective mobility of people and goods, while Chapter 12 includes a list of planned projects that will shape the future transportation system. To ensure a comprehensive, integrated system, the interconnected movement by foot, bicycle, roadway, transit, rail, air, and water of people and goods are all addressed within the MTP.

In Chapter 5 – Roadway Network, the MTP addresses operational and management strategies to improve the performance of the existing system in order to relieve congestion and enhance the safety and mobility of people and goods in the JOHRTS region.

CHAPTER 5 – ROADWAY NETWORK

The JOHRTS metropolitan planning area is not presently considered a Transportation Management Area (TMA), and as such, a congestion management process (CMP) is not a requirement.



CONTENT REQUIREMENT

REQUIRED CONTENT IN JOHRTS MTP

The transportation plan shall include an *assessment of capital investment and other strategies* to preserve the existing system and provide for multimodal capacity increases

The MTP addresses capital investment strategies to preserve existing transportation infrastructure and provide for multimodal capacity increases based on regional priorities and needs. In particular, the MTP outlines strategies for managing important infrastructure assets to increase their longevity and use maximization, along with capacity-enhancing projects as necessary for various modes of transportation where allowed.

The transportation plan shall include *descriptions of all existing and proposed transportation facilities* in sufficient detail for conformity determinations. In all areas (regardless of air quality designation), all proposed improvements shall be described in sufficient detail to develop cost estimates

The MTP project development team worked closely with project proponents to sufficiently define the scope of all projects in order to ascertain conformity determinations and develop reasonable cost estimates.



The MTP projects listed in **CHAPTER 12 – RECOMMENDED PLAN IMPROVEMENTS** present both project descriptions and cost estimates described in adequate detail.

The transportation plan shall include a discussion of *potential environmental mitigation activities* to restore and maintain environmental functions affected by the transportation plan

In Chapter 10, the MTP includes a discussion of the environmental impacts of the transportation plan and potential mitigation efforts, as well as a focus on air quality and conformity and environmental justice considerations.



CHAPTER 10 – ENVIRONMENT



The transportation plan shall include *pedestrian walkway and bicycle transportation facilities*



The MTP recognizes the importance of providing for sufficient pedestrian and bicycle facilities to ensure that all sectors of the population are given viable transportation options to meet their mobility needs. The MPO supports local projects that expand the non-motorized transportation network.



The transportation plan shall include transportation and *transit enhancement activities*

The MTP includes a list of transportation enhancement projects in Chapter 12 that support transit options and enhance the quality of the transportation environment.

CONTENT REQUIREMENT

The transportation plan shall *include a financial plan* that demonstrates how the adopted transportation plan can be implemented and that meets several requirements as outlined in 23 CFR § 450.322



The metropolitan planning organization shall *consult with state and local agencies* responsible for land use management, natural resources, environmental protection, conservation, and historic preservation regarding development of the transportation plan

The transportation plan shall *include a safety element that incorporates or summarizes the priorities, goals, countermeasures, or projects* as well as emergency relief and disaster preparedness plans, strategies, and policies that support homeland security and safeguard the personal security of all motorized and non-motorized users



The MPO shall provide interested parties with a reasonable *opportunity to comment* on the transportation plan

REQUIRED CONTENT IN JOHRTS MTP

Chapter 11 – Financial Plan presents anticipated revenues, costs, funding sources, and the recommendations for financing transportation improvements, while Chapter 12 – Recommended Plan Improvements includes the recommended, financially constrained list of projects. Together, these chapters were developed cooperatively with the MPO’s planning partners.

CHAPTER 11 – FINANCIAL PLAN

The MPO’s public participation plan calls for involving all stakeholders in the development of the MTP, including the agencies with an interest in the areas of land use management, environmental resources, environmental protection, conservation, and historic preservation. Moreover, as described in Chapter 4, representatives of such entities were invited to comment on the plan. In addition, historic, environmental, and regional conditions were inventoried and are reflected in Chapters 3 and 10.

The MPO recognizes the importance of providing a safe and secure transportation system, and Chapters 5 through 9 contain elements to ensure the safe and secure movement of goods and people. Transportation projects and programs have been identified that enhance transportation safety and security in the JOHRTS region.

The development of the MTP followed a specific participation strategy consistent with the MPO’s Public Participation Plan. The MPO has provided all interested parties (including citizens, public agencies, freight shippers, freight carriers, representatives of users of pedestrian walkways and bicycle facilities, representatives of the disabled, and others) with ample opportunity to comment on all aspects of the MTP.

 The MTP development process is specifically outlined in **CHAPTER 3 – COMMUNITY STRUCTURE.**

CONTENT REQUIREMENT

REQUIRED CONTENT IN JOHRTS MTP

The MTP shall be published or otherwise made readily available for public review



The JOHRTS MTP is made available for public review through both printed copies available at the MPO offices and electronically accessible formats through the SETRPC's website.

The MPO shall not be required to select any project from the illustrative list of additional projects included in the financial plan

The MPO acknowledges that it will not be required to select a project from the illustrative list.

In nonattainment and maintenance areas for transportation-related pollutants, the MPO must make a conformity determination on any updated or amended transportation plan in accordance with transportation conformity regulations

The MPO was not able to make a conformity determination by the applicable deadlines, and thus the transportation conformity determination for the area has lapsed. During a conformity lapse, FHWA and FTA can only approve projects that are exempt from the conformity process, such as safety projects and certain public transportation projects, transportation control measures (TCM) from an approved SIP, and project phases that were authorized by FHWA and FTA prior to the lapse. As a result, the MPO has composed this plan, which consists of exempt projects.



2.6 Vision Statement, Goals, and Objectives

Local plans and initiatives, along with state and federal policies and legislation, were important resources in the development of the MPO's vision, goals, and objectives. In turn, the vision, goals, and objectives provide the underlying foundation for the development of this long-range transportation plan.



Vision Statement

The MPO will **improve mobility** for the **three-county region** by promoting an *efficient, effective, and multi-modal transportation system* that optimizes existing finances, protects the environment, and provides a net social benefit for users.

Goals and Objectives

To support this regional vision, this MTP contains a series of *goals and objectives that reflect regional values and satisfy long-term regional transportation needs.*

The goals are used as a general guide to achieve the result stated in the vision statement, while the objectives are more specific and define results that must be attained or actions that must be followed for reaching respective goals. Together, the vision statement, goals, and objectives form a coherent plan to provide pragmatic solutions to identified transportation needs.

While the vision statement stands alone, goals and objectives may not be mutually exclusive of each other and may even conflict with each other. For example, some projects that may encourage economic development may be excluded from the MTP because they have the potential to endanger wetlands or have an adverse effect on local communities. The cumulative effect that each project has on the MTP's goals and objectives must produce a significant net benefit before it can be incorporated into the MTP. *The transportation goals and objectives established by the SETRPC-MPO fulfill the MTP's vision statement.*

Goal #1

Preserve and Maintain the Existing Transportation System.

This goal focuses on keeping the regional transportation assets in a state of good repair.



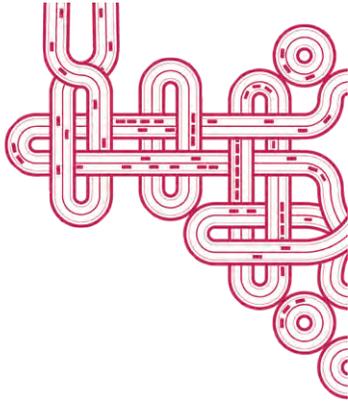
OBJECTIVES

- Give priority to projects that maintain and improve the condition of the existing transportation system.
- Discourage improvements that create unnecessary increases in travel demand.

Goal #2

Improve the Operational Efficiency of the Transportation Network.

This goal centers on optimizing the existing system while accommodating present and future transportation needs without constructing expensive new transportation facilities. This will help improve system reliability, enhance safety, and reduce operating costs.



OBJECTIVES

- Support measures that reduce traffic congestion and peak hour travel demand.
- Identify and improve "bottlenecks" or "points of congestion" with applicable transportation-related projects.
- Promote operational efficiency through the use of technological improvements.
- Encourage initiatives that promote transit and other transportation modes as alternatives to the single occupancy vehicle.
- Improve junctions between transportation modes.

Goal #3

Enhance the Safety of the Transportation Community.

Public safety is a major concern for all residents in the JOHRTS area. Every effort is made to ensure that the safety of the public is improved whenever possible. Projects promoted under this initiative include those that continue to develop and maintain hurricane evacuation routes or prevent rail/vehicle accidents at railway crossings.



OBJECTIVES

- Promote programs and projects that reduce the number and severity of traffic accidents, especially at railway crossings.
- Give priority to the construction of projects that eliminate roadway hazards.
- Support the development and implementation of roadway design standards that improve highway safety.
- Maintain and enhance the existing hurricane evacuation system.

Goal #4

Enhance the Security of the Transportation Community.

Because the JOHRTS area is a hub of intermodal traffic (land and seaborne) in a region that often experiences severe weather, the MPO has many facets to consider in transportation planning as they relate to the security of the system.



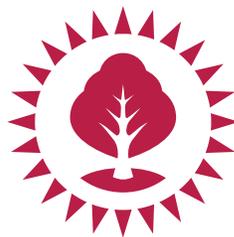
OBJECTIVES

- Ensure that priority access routes for emergency vehicles and other responders are identified and marked.
- Ensure that TxDOT, county, and city agencies work to coordinate the use of reversible lanes in the event of an emergency (either natural or manmade).
- Ensure that transit authorities and stakeholders are included in the planning process.
- Work with state and federal agencies to optimize the use of new and existing electronic message boards.

Goal #5

Protect and Improve the Environment.

The JOHRTS area contains extensive wetlands, parks, and wildlife preserves. The MPO recognizes its responsibility in maintaining and protecting the integrity of these precious ecosystems as a legacy for future generations. Due to the presence of petrochemical industries, the regional dependency on the automobile as the main source of transport, and the proximity to other areas with similar characteristics, air quality is also a major environmental issue in the JOHRTS area. Improving air quality in the region is one of the MPO's top priorities.



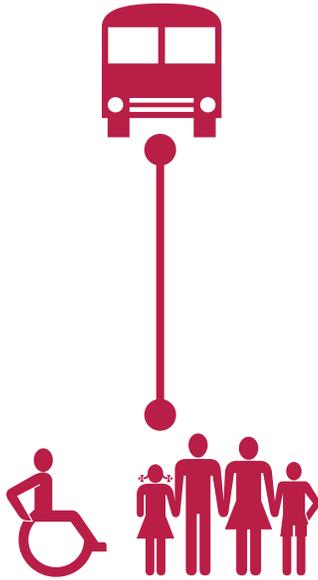
OBJECTIVES

- Continue to develop plans and programs that will help the JOHRTS area achieve the federal clean air standard for ozone in accordance with the 1990 CAAA.
- Promote the development of a transportation system that minimizes the degradation of wetlands, wildlife reserves, recreational areas, and other valuable natural resources in the JOHRTS area.
- Promote consistency of transportation plans and transportation improvement programs with State and local planned growth and economic development patterns.
- Support the design and construction of transportation projects that adhere to high environmental standards. Such projects should reduce soil erosion, control sediment runoff, assist in floodplain management, protect watersheds, and enhance wetlands.

Goal #6

Maximize the Social Benefits of the Transportation System.

Every effort will be made to improve social conditions in the area by promoting transportation projects and programs that provide a net benefit to society. Projects and programs that have a potential to adversely impact society will be modified.



OBJECTIVES

- Promote programs that provide transportation services to the economically disadvantaged, the disabled, and persons lacking automobile access.
- Support initiatives that improve access to natural, historic, cultural, and recreational resources within the region.
- Minimize any detrimental impacts of proposed transportation improvements upon neighborhoods.
- Encourage transportation projects and programs that support community development and revitalization.
- Improve the aesthetics of existing transportation facilities through landscaping, beautification, roadway design, and architecture whenever possible.
- Ensure that all segments of the public have an opportunity to participate in the transportation planning process and all interested public and private organizations are kept up-to-date on all current transportation issues.

Goal #7

Foster Economic Development.

All transportation projects and programs should support efforts to improve the economy in southeast Texas.



OBJECTIVES

- Support regional cooperation and collaboration in the promotion and operation of economic assets in the JOHRTS area.
- Encourage all economic development organizations to continuously promote the economic attributes of the region.
- Continue to promote transportation programs and projects that support economic development initiatives, with particular emphasis on intermodal facilities.
- Subscribe to efforts that encourage the development of tourism in the region.
- Give priority to transportation programs that retain existing businesses and attract new businesses to the area.

Goal #8

Maintain Financial Responsibility in the Development and Preservation of the Transportation System.

All MTPs must adhere to the principles of financial responsibility. The MPO seeks to expand on this initiative by including it as a goal of the MTP for the JOHRTS area.



OBJECTIVES

- Uphold cost-effective operating strategies for all transportation services.
- Ensure that all transportation projects and programs utilize available funds in the most cost-effective and financially responsible manner possible.
- Give priority to those transportation projects and programs that provide the greatest net benefit at the least cost.
- Seek out additional federal and state transportation funds whenever possible.

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CHAPTER 3 Community Structure

The transportation system and the demand for transportation services are intimately linked to a region's geography, demographics, environment, and economy.

An understanding of both current and future growth and development patterns can help inform choices about where, when, for whom, in what form, and why transportation investments should be made. As such, the intent of this chapter is to establish a context for the community structure in the SETRPC-MPO planning region and present a case for transportation improvements and infrastructure needs. Among the important community elements that play crucial roles in determining future transportation decisions are: historic and future population and employment trends, land use development patterns, major traffic generators, and travel characteristics of the three-county planning area.

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3.1 Geographical Context

The Jefferson-Orange-Hardin Regional Transportation Study (JOHRTS) area consists of the three-county region of southeast Texas - Jefferson, Orange, and Hardin Counties. The area covers the corporate limits of the cities of Beaumont, Bevil Oaks, Bridge City, China, Groves, Kountze, Lumberton, Nederland, Nome, Orange, Pine Forest, Pinehurst, Port Arthur, Port Neches, Rose City, Rose Hill Acres, Silsbee, Sour Lake, Taylor Landing, Vidor, and West Orange. Due to the predominance of the petrochemical industry and their significance as major manufacturing and industrial centers, the larger cities of Beaumont, Port Arthur, and Orange are often referred to as the "Golden Triangle."

The geographic locations of the three counties in JOHRTS can be described as follows:



JEFFERSON COUNTY

Jefferson County is bounded on the north by Pine Island Bayou, on the northeast by the Neches River, on the west by Liberty and Chambers Counties, and on the east by Sabine Lake and the mouth of the Sabine River. Both the Sabine and Neches Rivers drain to Sabine Lake, which feeds into the Gulf of Mexico through the Sabine Pass. The county seat, Beaumont, is located 85 miles east of Houston and 25 miles north of the Gulf of Mexico.



ORANGE COUNTY

Orange County is bounded by the Sabine River on the east, which forms a natural border between it and the state of Louisiana, the Neches River to south and west, and the counties of Jasper and Newton to the north. The county seat, Orange, is located approximately 25 miles east of Beaumont and 290 miles southeast of Dallas.

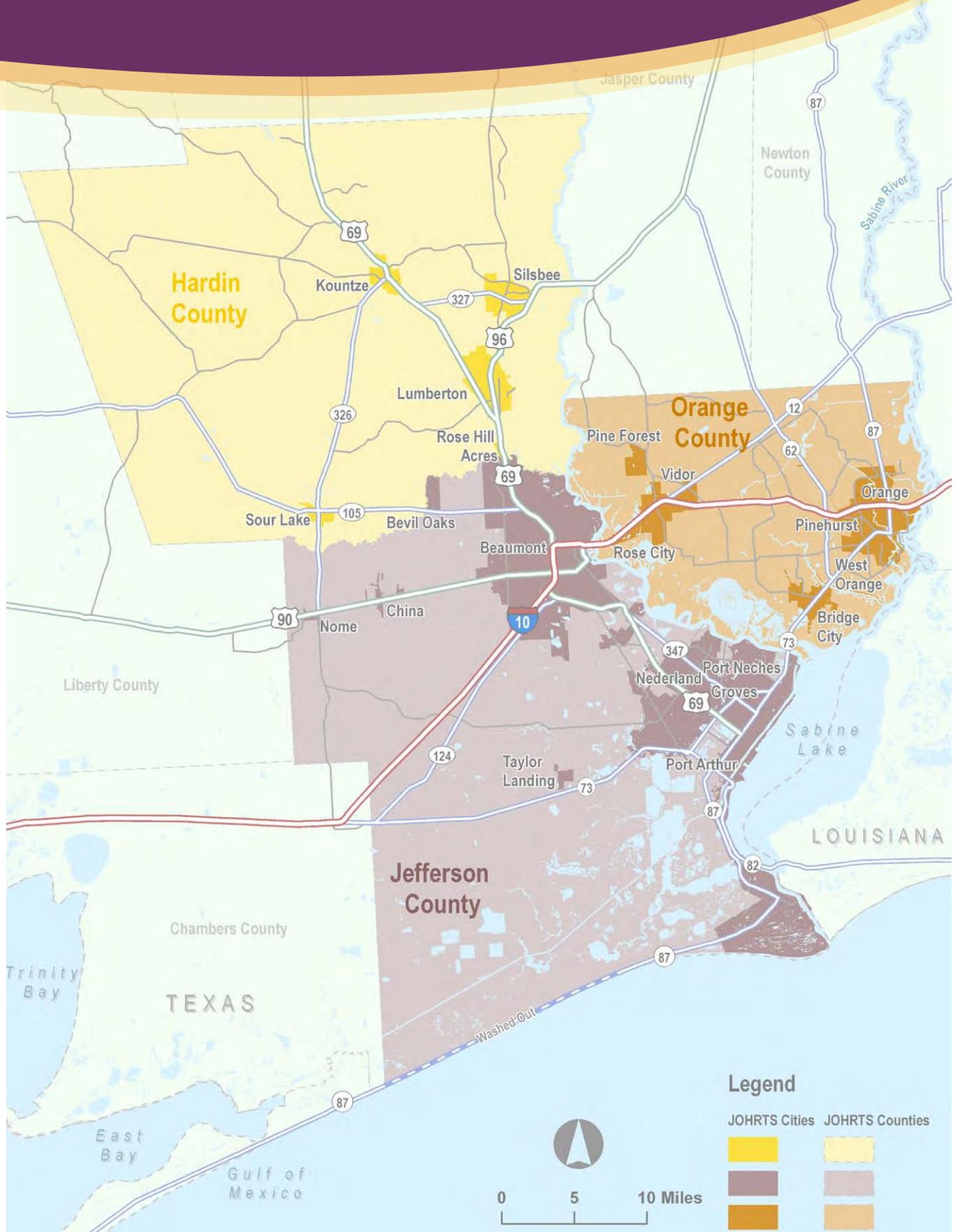


HARDIN COUNTY

Hardin County is bordered by the Neches River to the east, Pine Island Bayou to the south, Liberty County to the west and south, and Polk and Tyler Counties to the north. Kountze, the county seat, is located about 25 miles northwest of Beaumont.



Figure 3.1: SETRPC-MPO Planning Area



Legend

JOHRTS Cities	JOHRTS Counties

0 5 10 Miles

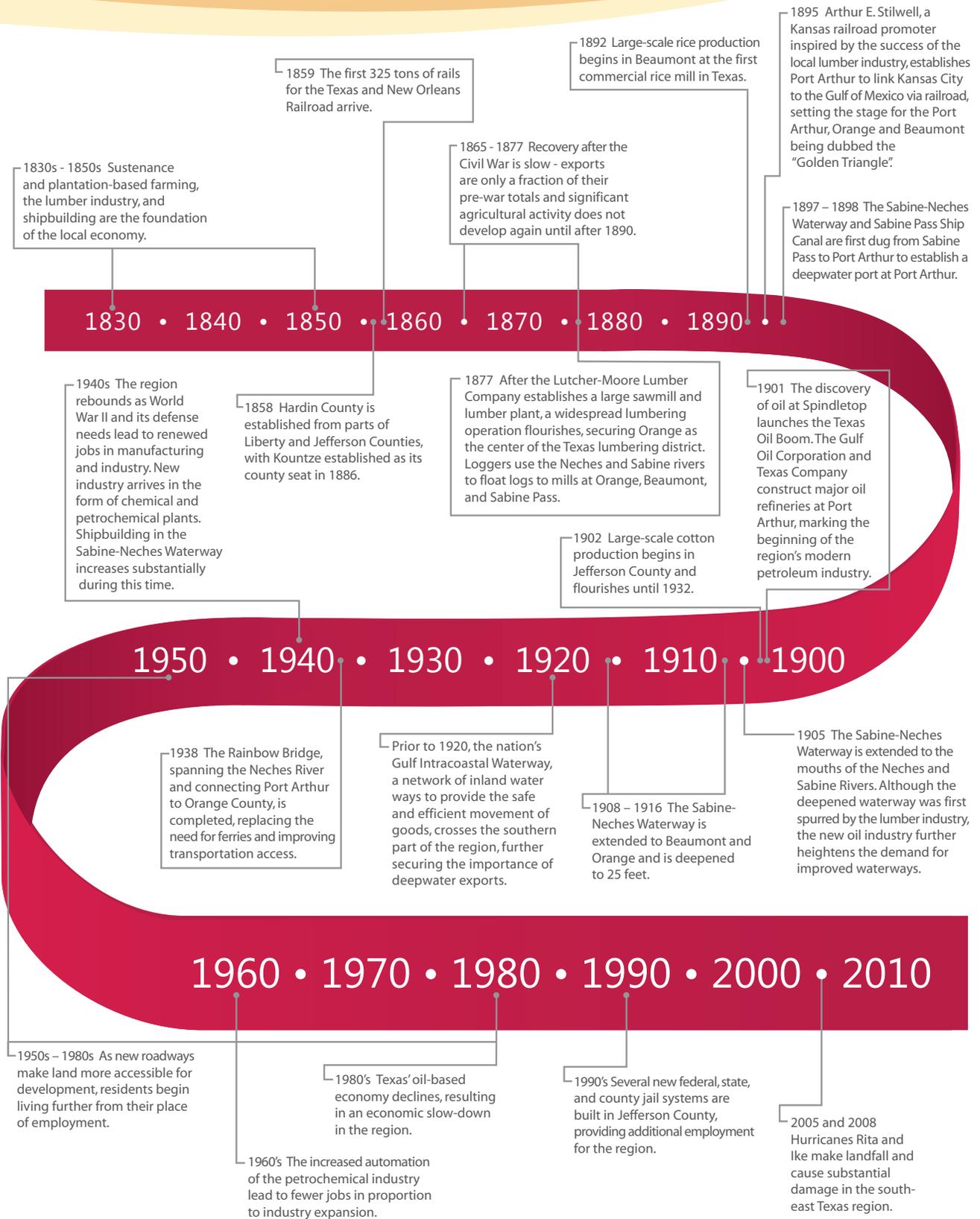
3.2 History of the Region

The southeast Texas region of Jefferson, Orange, and Hardin Counties boasts a rich history. Before the advent of railroads and roadways, the JOHRTS region's substantial waterways ensured that water transportation was the most frequently used mode of movement when trade and communication were slower over land. Beginning in the 1870s and into the early twentieth century, the lumber industry prospered and provided the region with population and economic growth. As the lumber industry grew, rail transportation was introduced in the 1880s and provided a more efficient and secure form of transporting the vast amounts of logs coming from the East Texas Piney Woods. The Sabine-Neches Waterway was first deepened to Port Arthur between 1897 and 1898 which further improved goods movement.

One of the most important events in the region's history was the discovery of oil on January 10, 1901 at Spindletop, a salt dome formation located in modern day southern Beaumont. This discovery provided the impetus for regional growth in the early twentieth century and marked the beginning of the modern petroleum industry. As the petroleum-based economy grew, storage facilities, pipelines, and major refining units were built in the Beaumont, Port Arthur, Sabine Pass, and Orange areas. In addition, the Sabine and Neches rivers were improved to provide deepwater ports at Beaumont and Port Arthur.



Three major oil companies—the Texas Company (later Texaco and then part of Chevron), Gulf Oil Corporation (later part of Chevron), and Humble (later part of ExxonMobil)—were formed in Beaumont during the first year of the Spindletop boom.



3.3 Land Development Patterns

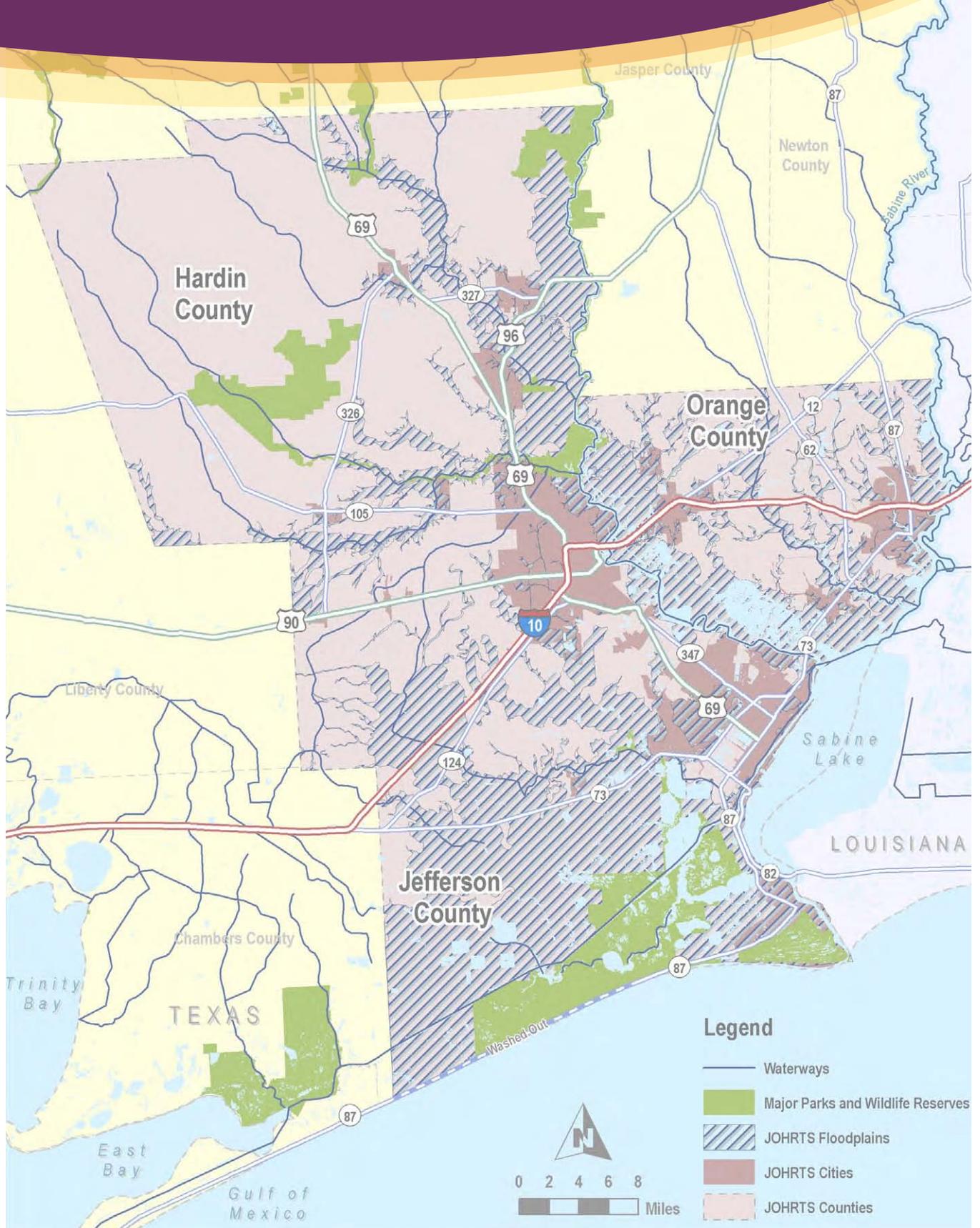
Land use is a major factor that influences demand for transportation services and affects the capacity of transportation systems. The types of land uses and development in a region generally fall into the categories of where a person lives, works, or plays. The links connecting the nodes of activity are the highways, roads, and other such pathways in a transportation system. Where these land uses are located, as well as their density and design, impacts the amount of travel and mode choice in a region. For example, a school located within a neighborhood would more likely have children walking to it than would a school located on a major highway.

In general, how a region is planned in terms of the types of land uses has a direct effect on how the transportation system is developed. This is also true for how the transportation system is planned and how it can affect future land use. Therefore, linking land use planning and transportation planning is important for the overall health of a region. Land use developments often create opportunities for expansion of the transportation network, but could also hinder roadway improvements. Major constraints on the development and expansion of the transportation network include: waterways, rivers and bayous, lakes, canals, floodplains, wildlife preserves, parks, railroads, and reservoirs.

Environmental characteristics of the JOHRTS region, shown in **Figure 3.2**, are important concerns when considering natural barriers or opportunities for developing transportation networks and infrastructure. Land use development and expansion/improvement of the transportation system can contribute to environmental degradation of these environmental features. Many of the region's natural resources are significant, not only in terms of the ecosystem, but also in terms of the attractiveness of the region. As a result, developing in harmony with the natural and geographical features, instead of against them, is a smart investment strategy for a sustainable future. Flooding along roadways and other transportation infrastructure is always a major concern, especially in light of the recent hurricanes that have impacted the region. Therefore, it is imperative that transportation projects and roadway improvements avoid floodplains.



Figure 3.2: Environmental Features





JEFFERSON COUNTY

The southern part of the county is largely marshland and lakes, much of which is contained within wildlife reserves and parks, reaching to the beaches overlooking the Gulf of Mexico. Waterways are also prevalent throughout Jefferson County. The Gulf Intracoastal Waterway, the Neches River, and Sabine Lake in lower Jefferson County provide shipping routes for industrial maritime operations and pleasure craft. The numerous bayous, rivers, and lakes in the region also support recreational boating and water sport activities. Extensive tracts of land adjacent to the Gulf of Mexico and the Neches River have also been set aside for use as parks and wildlife refuges.

Beaumont, Port Arthur, Port Neches, Nederland, and Groves are the major cities in Jefferson County. These larger cities generate most of the economic activity within the county and house the majority of residents. Land uses in the central areas of these cities are predominantly commercial, with some industrial uses. Other industrial uses are located on the periphery of the cities. Industrial activities include oil refining, oil and gas drilling, and other types of petrochemical operations; port facilities and maritime shipping operations; marine construction and repair; and sulfur, salt, sand, and gravel mining. Commercial land uses in the city center are mostly service oriented businesses and small retail shops.



Areas on the periphery of these cities consist of residential and commercial districts as well as some agricultural areas. Residential areas are primarily low-density single-family residential units, while agricultural areas consist of pastures, ranches, and rice farms. Commercial districts consist of large shopping or strip malls with an assortment of “big box” stores and restaurants.

Institutional land uses are also prevalent in Jefferson County. Federal and state prisons are located in the central portion of the county, while hospital facilities are located in the areas of Beaumont and Port Arthur. Jefferson County includes the small communities of Bevil Oaks, Nome, Taylor Landing, and China, which are primarily residential in nature, with a few small shops (e.g., gas stations and convenience stores). Land use in rural areas of Jefferson County is mostly agricultural and consists of rice farms, ranches, and crawfish farms. Large tracts of land in these areas are also set aside for use as drainage or irrigation canals.



ORANGE COUNTY

The southeastern half of the county is comprised of gulf prairies and marshes, while the northwestern half consists of piney woods. Orange County contains many waterways and canals that are used to support local irrigation and drainage needs. Natural habitats and important environmental resources have also been reserved along natural wetlands and waterways, such as the TxDOT wetlands mitigation bank at Blue Elbow Swamp along the Sabine River and Interstate 10 and the Shangri La Botanical Gardens Center along Adams Bayou.



The larger cities in Orange County include the cities of Bridge City, Orange, Pinehurst, Vidor, and West Orange. The predominant land uses in these cities are a mix of industrial and commercial uses in the central areas. Industrial activities in these cities include: petrochemical facilities, oil wells, and gas drilling; port facilities and other associated industrial maritime operations; clay, sand, and gravel mining; sawmills, and other forestry production operations. Commercial districts in Orange County consist of a few “big box” stores and various retail and service businesses in small strip malls. All cities in Orange County have large residential districts concentrated on their outer edges. Rural areas in Orange County include the communities of Mauriceville, Orangefield, Pine Forest, and Rose City. Like Jefferson County, these small communities act as suburbs to the larger cities in the JOHRTS area. Land use within these cities is almost exclusively residential, with a few small businesses concentrated in their centers or next to major roadways. Areas outside these areas are dedicated to rice farming, forestry, or petrochemical operations.



Orange County contains many waterways and canals that are used to support local irrigation and drainage needs.



Hardin County, in the Big Thicket of southeast Texas, is part of the larger East Texas timberlands region. The dense pine and hardwood forests of the Big Thicket dominate the county's land area, which provides the residents and tourists with recreational activities. Pine Island and Little Pine Island Bayous join Village and Cypress Creeks to drain the area into the Neches River, which forms the eastern county line.

In terms of development, Hardin County is mostly rural, and includes the incorporated communities of Kountze, Lumberton, Silsbee, and Sour Lake. Land uses within these cities are predominantly residential, with a few small businesses. While these cities serve as suburbs to the larger cities in Jefferson County, each city continues to have a strong local economy supported by several large local industries; both Silsbee and Kountze have rail yards, while Lumberton has a retail district along US 96 and a large forest products manufacturing facility. Lumberton and Silsbee are experiencing a growing number of commercial businesses located along US 69, US 96, and SH 327. In the rural areas of Hardin County, lands are dedicated for agricultural and forestry uses, as well as ranches. Industrial land uses are also located in rural areas and include paper manufacturing and sawmills.



Figure 3.3 illustrates the existing land use patterns in the JOHRTS area. Overall, commercial and retail development tends to be situated along major road thoroughfares such as Interstate 10 and US 90, while industrial uses are predominately located in close proximity to the area's waterways.

Figure 3.4 illustrates the distribution of the total land, in square miles, in the JOHRTS area in different land use categories. In particular, forest and agricultural land uses consume the majority of land, indicating that the region has the potential to attract a significant amount of future development.

Figure 3.3: Existing Land Use

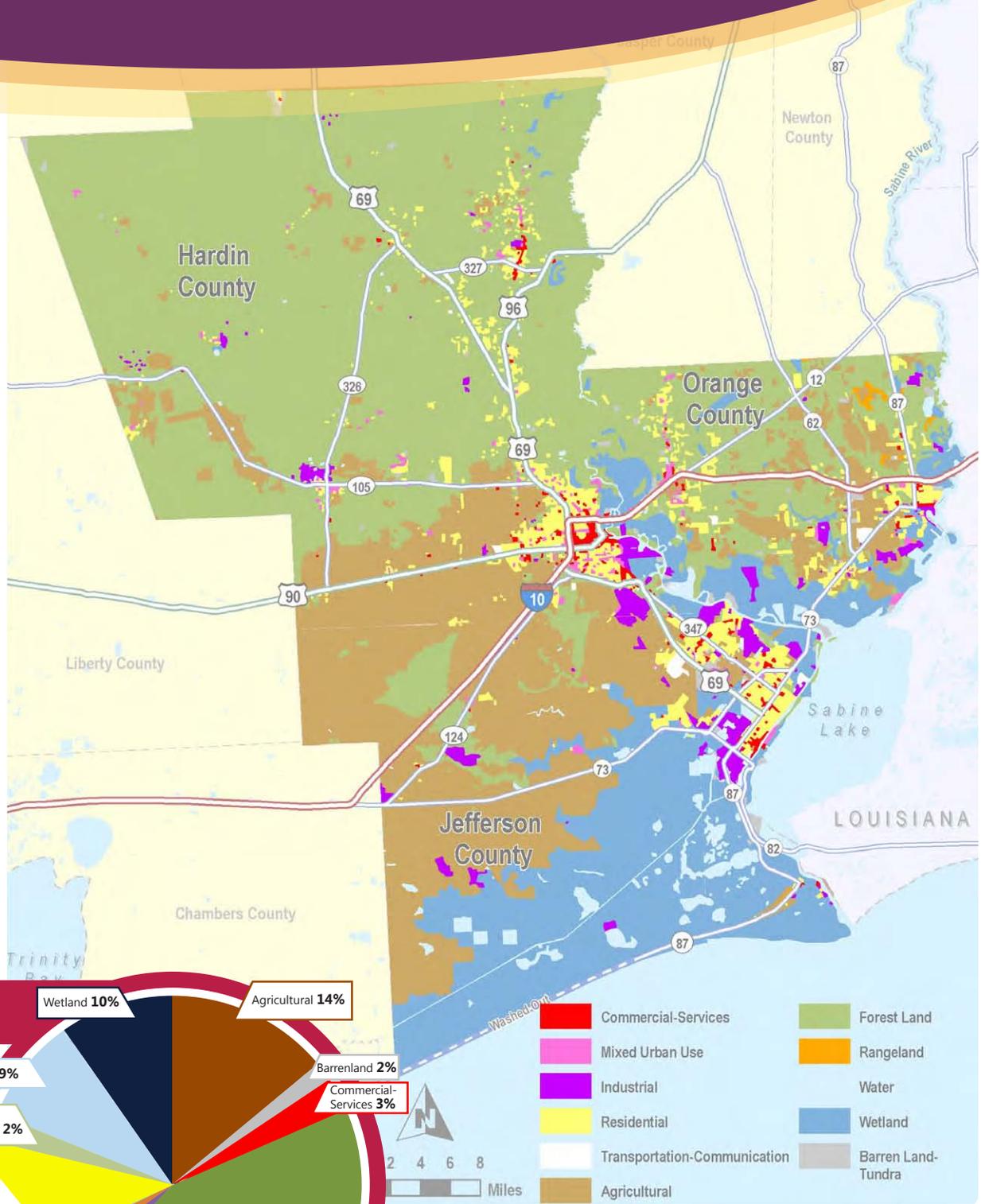
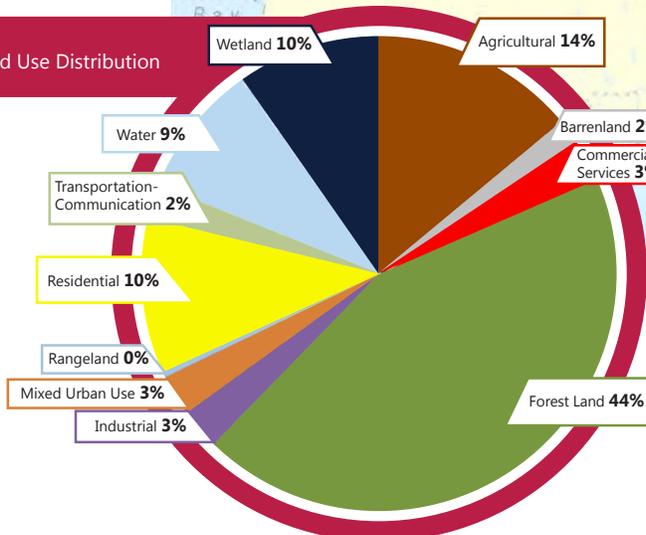


Figure 3.4: Existing Land Use Distribution



3.3.1 Major Traffic Generators

Special traffic generators, such as industrial facilities, hospitals, universities, and shopping centers, place special demands upon the transportation system. These points of major activity attract many people, and thus contribute to regional traffic volumes and flow patterns. It is important to identify the location of these regional traffic generators to plan effectively for transportation infrastructure and improvements.



INDUSTRIAL FACILITIES

Industrial facilities place special demands on the transportation system because of the high volume of commercial vehicles they generate. Manufacturing facilities, distribution centers, and oil refineries also employ a large number of people in the region, further contributing to vehicular traffic. Concentrations of industrial facilities exist in Beaumont and Port Arthur and the surrounding communities along the Neches River and Sabine Lake. Several petrochemical facilities are concentrated along FM 1006, often referred to as “Chemical Row,” in Orange County. Hardin County also has a few facilities located in and around the cities of Lumberton and Silsbee. Because these facilities demand the use of non-roadway based modes of transportation, many of them are located along railroads and waterways.

It is important to consider the growth of communities in relation to the location of industrial facilities to ensure that people and the natural environment are not negatively impacted. This is a particular concern for certain areas in the region where large industrial complexes exist alongside residential neighborhoods. Careful planning and communication should continue between the industries and the communities to best address future expansion and growth and to mitigate adverse impacts. Further, planning for future transportation projects and improvements will need to safely accommodate both commercial and non-commercial traffic within individual communities.

📍 A full discussion of the ports can be found in **CHAPTER 9, GOODS MOVEMENT**



PORTS

The JOHRTS region has a comprehensive system of ports and waterways. Port facilities include the Port of Beaumont, Port of Port Arthur, Port of Orange, and the Sabine Pass Port Authority. The Sabine River, Neches River, Sabine Lake, and Gulf Intracoastal Waterway provide efficient vessel access to these port facilities. According to the American Association of Port Authorities, the deep-water port of Port of Beaumont is the nation’s fourth busiest port and the thirty-fourth largest in the world, in terms of tonnage.



EDUCATIONAL INSTITUTIONS

The JOHRTS region has 17 school districts and many private schools that provide education to the area's youth. Schools place a special demand on the transportation system with an influx of vehicular trips, pedestrians, and bicyclists at peak times during the day. Further, communities must carefully consider the safety of the transportation system near and around schools to ensure that pedestrians, bicyclists, buses, and automobiles can safely navigate the streets and sidewalks unhindered. As such, the locations of all schools are considered when planning for future transportation projects and improvements.

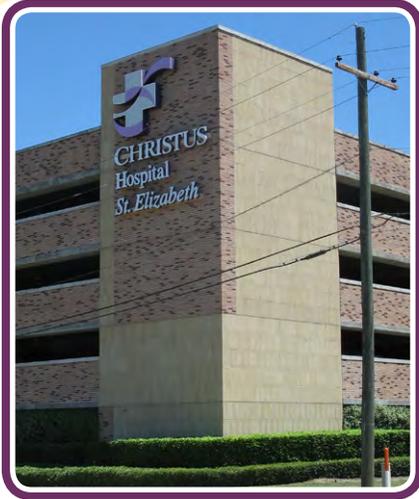


The JOHRTS region also includes one major university and several institutions offering two-year associate degrees and technical degrees. These types of institutions attract vehicular traffic throughout the day from students and employees. The region is the home of the public institutions of Lamar University, Lamar State College-Orange, Lamar State College-Port Arthur, and Lamar Institute of Technology, all of which are a part of the Texas State University System. Lamar State College-Orange is located in downtown Orange and has a student body of approximately 2,000, while Lamar State College-Port Arthur in Port Arthur has about 3,000 students. Lamar Institute of Technology is located in Beaumont and has approximately 2,700 students.



Lamar University, a four-year state-supported institution, offers more than 100 programs of study.

More than 14,000 students attend courses on the 270-acre campus. With about **1,143 full-time faculty and staff and some 205 part-time employees, the university is one of the largest employers in the area.** The university also offers student housing and has plans to continue expansion of its housing facilities in the future.

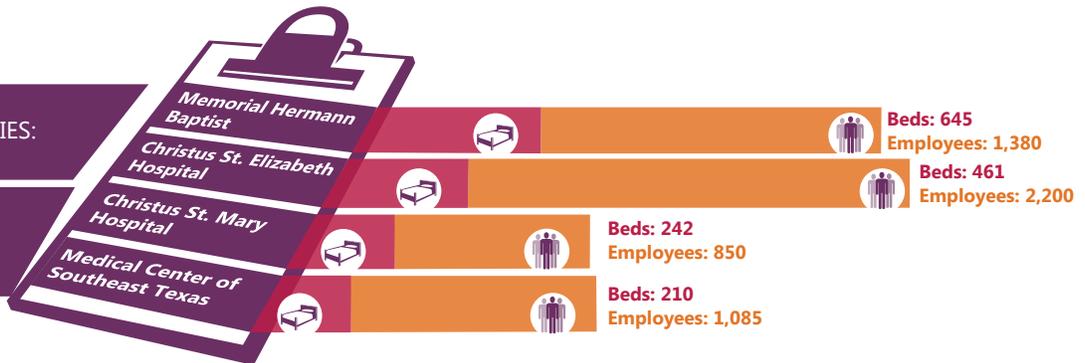


HEALTHCARE FACILITIES

With an aging population in the region, healthcare services are increasingly rising in importance, and facilities and employees dedicated to serving such demands are growing in number. The JOHRTS region has several major medical facilities; however, a concentration of medical facilities exists in Jefferson County. The two largest facilities, Christus St. Elizabeth and Baptist Hospital, are located in Beaumont and rank among the top 10 employers in the region.

BEAUMONT FACILITIES:

PORT ARTHUR FACILITIES:



SHOPPING CENTERS

Shopping centers are also considered major traffic generators as they contribute to increased traffic during certain peak times including on the weekends and in the evenings. Parkdale Mall is the largest mall in the area with over 150 stores and is located in the City of Beaumont. Central Mall is located in Port Arthur and has over 50 stores. Other retail centers are located along major transportation corridors throughout the region, close to the highest population densities.

3.4 Current Socioeconomic Characteristics

Examining current and projected socioeconomic data of the region is an important step in determining present and future transportation demand. Socioeconomic characteristics, such as population and employment, are key variables that aid in understanding the travel patterns of the region.

3.4.1 Population

Population data is considered the most important element of a region's socioeconomic characteristics. Based on magnitude and location of population, decisions can be made to satisfy regional transportation needs. Population growth in the region has paralleled the growth and decline of the petrochemical industry. Until the early 1980s, the region's population grew rapidly along with the petrochemical industry. In the 1980s, Jefferson, Orange, and Hardin Counties experienced a decline in population and employment growth due to a downturn in the petrochemical industry.

Figure 3.5 exhibits the population of each of the JOHRTS counties from 1900 to today.

Figure 3.5: Historical Population by County 1900-2010

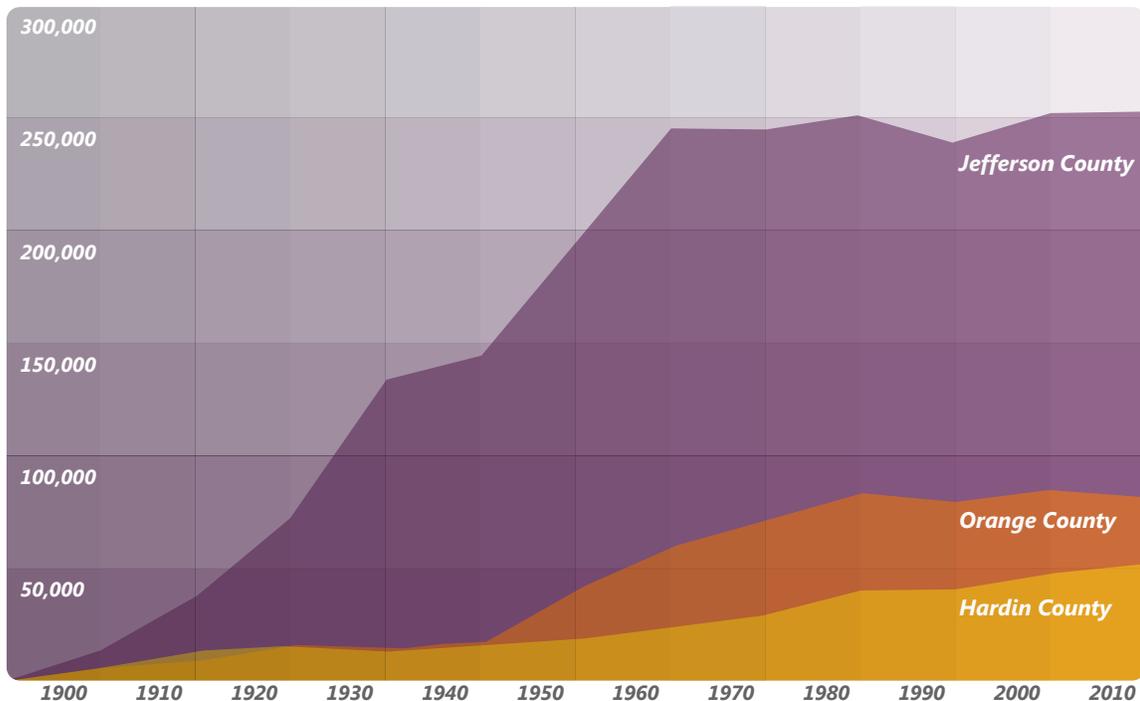


Figure 3.6: 2007 Population Density

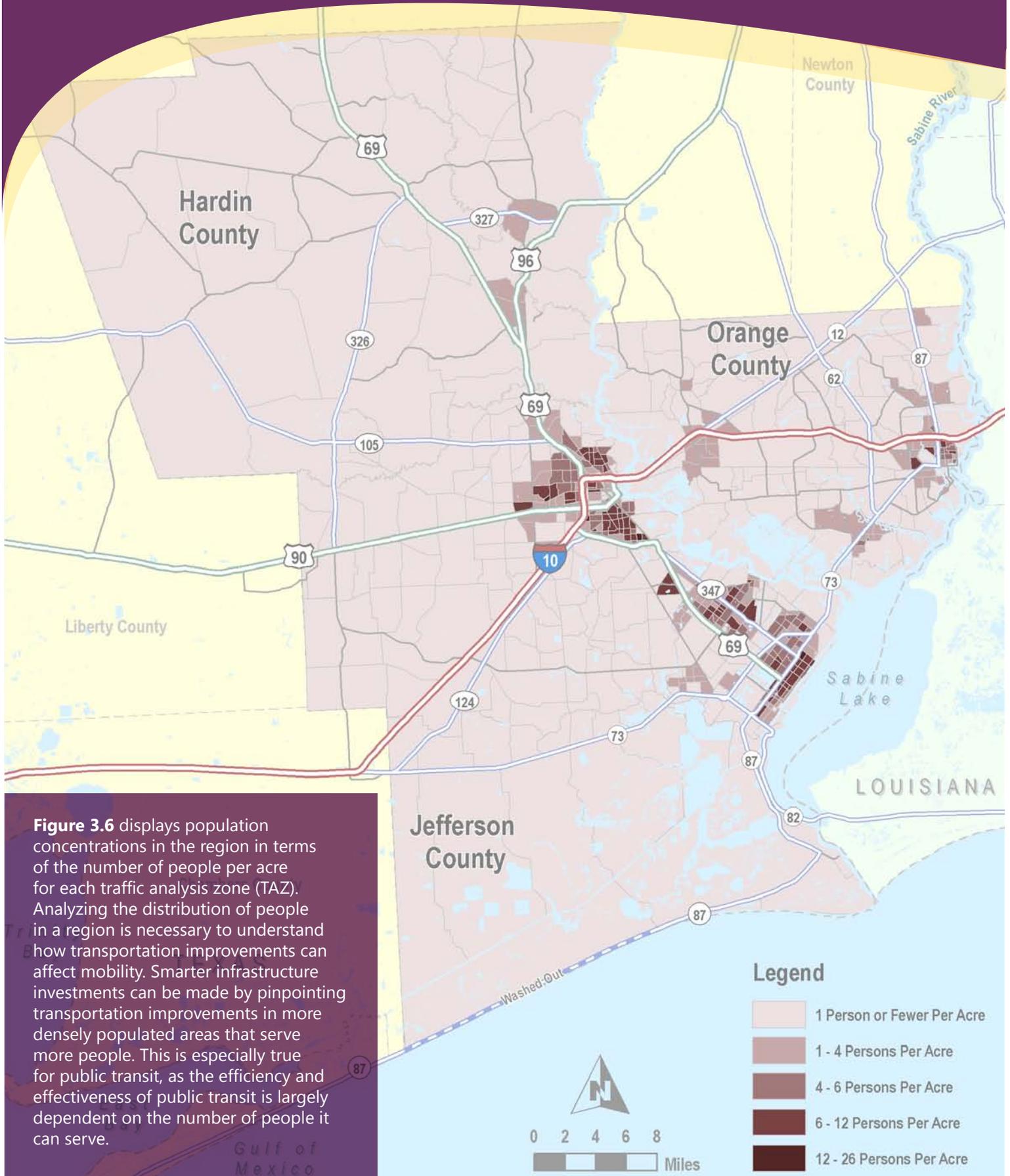


Figure 3.6 displays population concentrations in the region in terms of the number of people per acre for each traffic analysis zone (TAZ). Analyzing the distribution of people in a region is necessary to understand how transportation improvements can affect mobility. Smarter infrastructure investments can be made by pinpointing transportation improvements in more densely populated areas that serve more people. This is especially true for public transit, as the efficiency and effectiveness of public transit is largely dependent on the number of people it can serve.



ENVIRONMENTAL JUSTICE (EJ)

In order to account for Environmental Justice concerns in relation to transportation investments, the regional long-range transportation planning process must identify the location of low-income and minority populations and improve public involvement processes to eliminate participation barriers of such traditionally underserved populations. Beyond accounting for minority and low-income populations, the SETRPC-MPO also gives due consideration to the special accessibility needs of the elderly and people with disabilities.

The 2010 U.S. Census is the most recent official source of this information at a small enough geographical area to be useful, and the MPO has used this information to identify population characteristics and geographic distributions of minority, elderly and disabled populations in the region.

MINORITIES

USDOT has defined five minimum race categories for Environmental Justice considerations, including African-American, Hispanic, Asian, Native American or Alaskan Native, and Native Hawaiian or Other Pacific Islander.

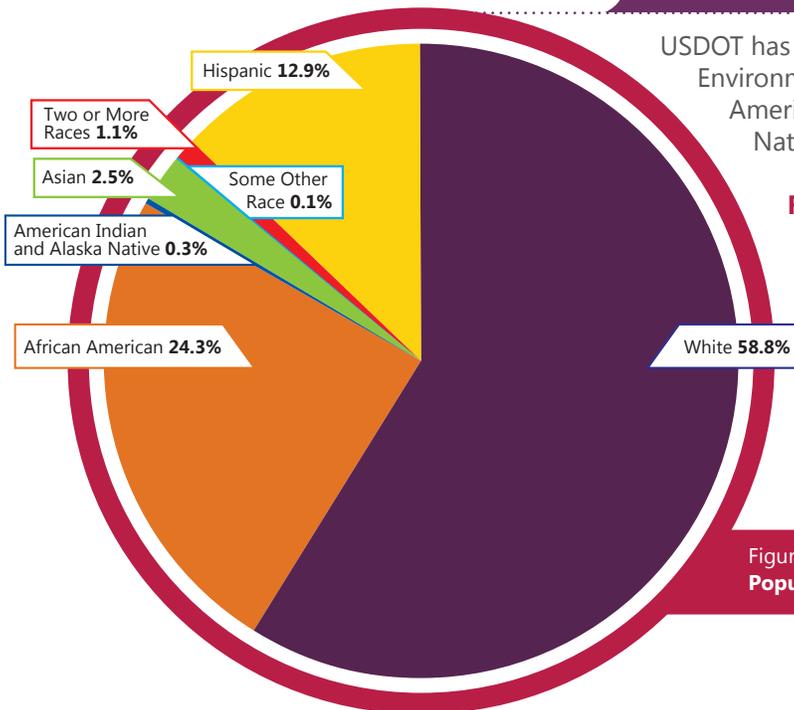
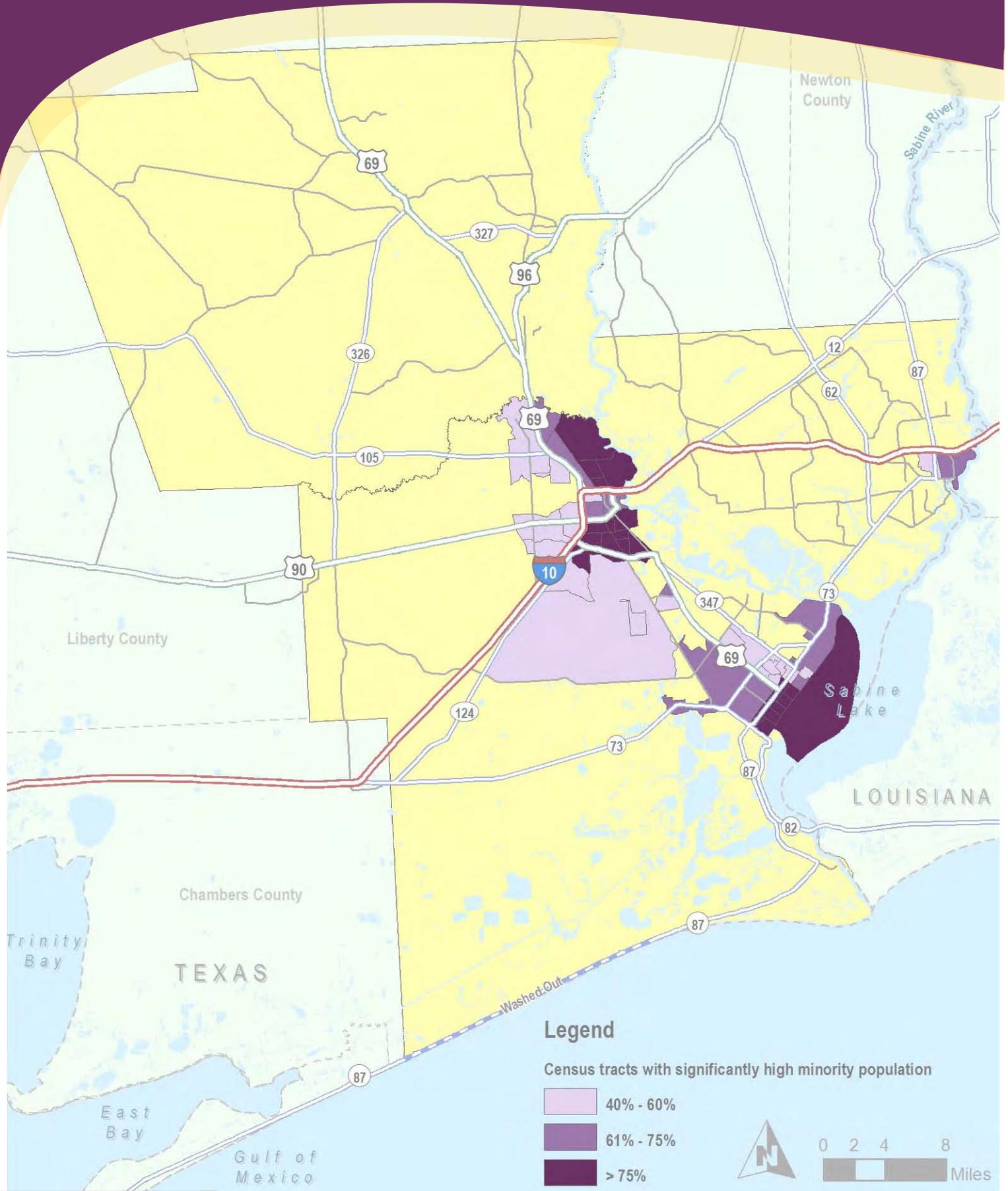


Figure 3.7 illustrates the 2010 racial distribution of the JOHRTS area. **Figure 3.8** shows concentrations of minority populations in the JOHRTS area. These concentrations are determined by identifying those Census tracts that have a higher percentage of minorities than the regional average.

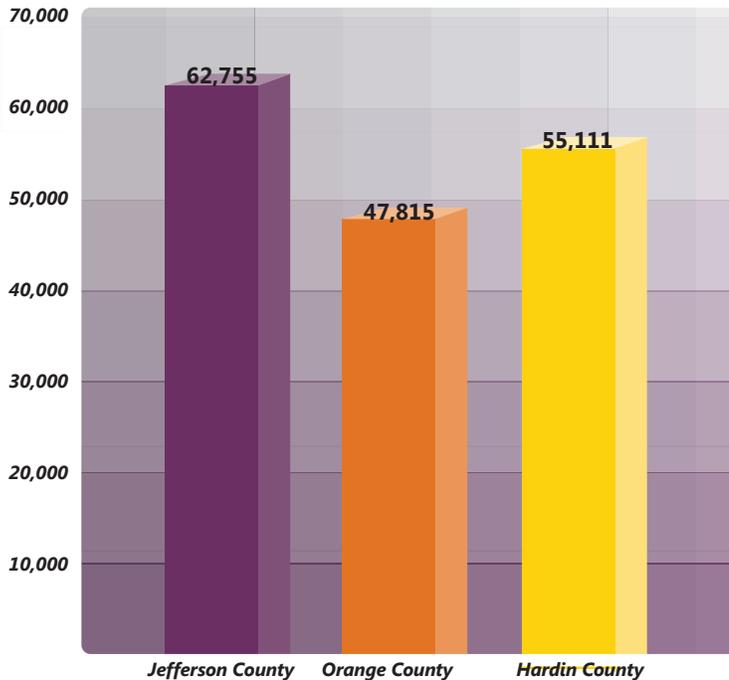
Figure 3.7:
Population by Race

Source: 2010 U.S. Census

Figure 3.8: Year 2010 Concentration of Minority Population



LOW INCOME



Based on 2010 U.S. Census Bureau estimates, the median household income for the JOHRTS area by County is shown in **Figure 3.9**.

A low income household is defined by the USDOT as a household whose income is at or below the U.S. Department of Health and Human Services poverty guidelines. The U.S. Census Bureau collects the income data at census tract level and identifies the number of persons below poverty in each census tract. **Figure 3.10** displays the density of persons considered below the national poverty level in 2010 by census tracts. These concentrations are determined by identifying those census tracts that have a higher percentage of low-income households than the regional average.

Figure 3.9: Median Household Income, 2010

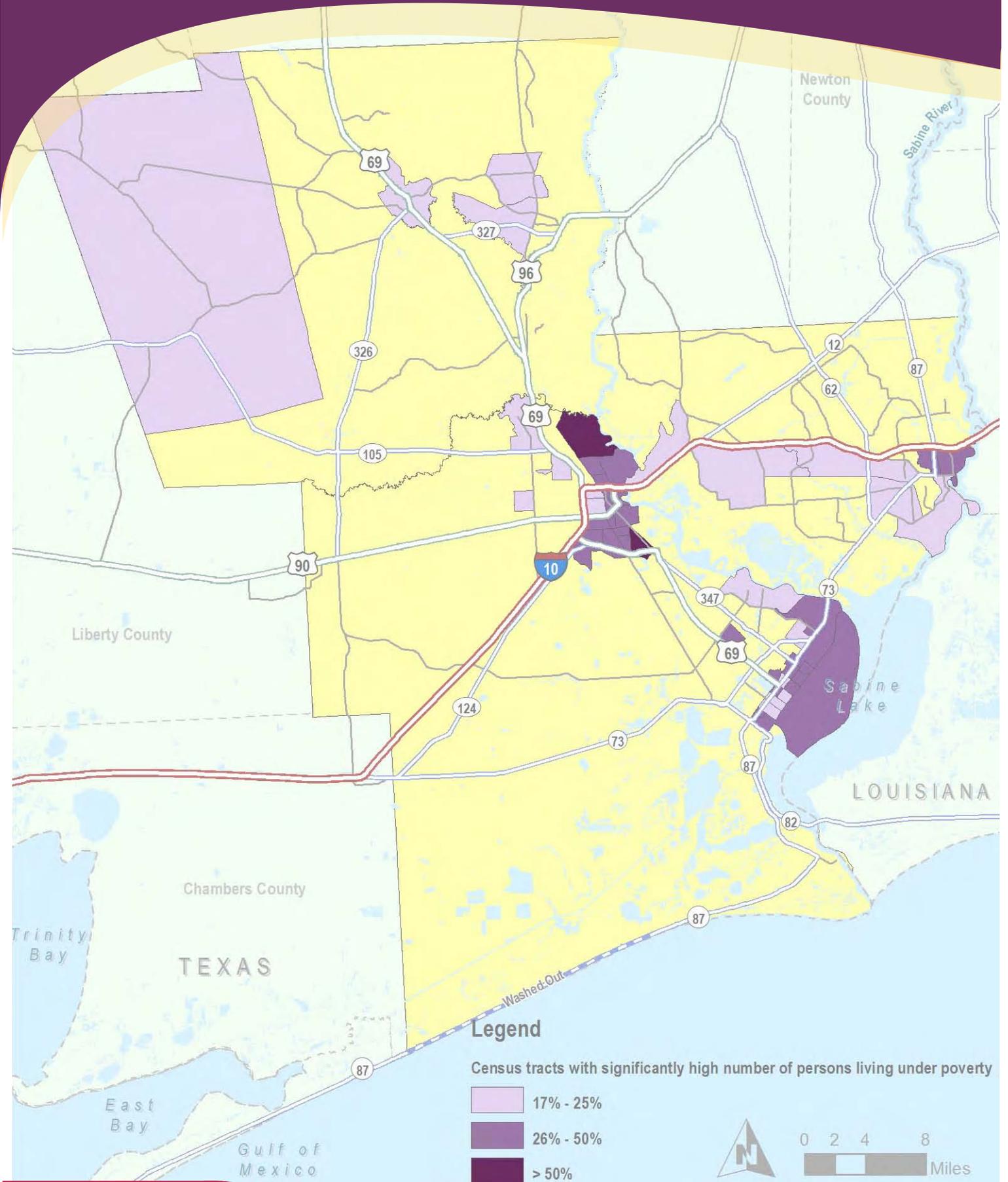
Source: 2006-2010 American Community Survey, US Census

3.4.2 Employment and Economy

A region's economy is largely dependent on the availability of jobs and ability of workers to reach their destinations. In turn, a region's transportation system must meet the needs of the users by providing adequate mobility and accessibility. In transportation planning, employment is a major factor to consider because it generates a significant amount of trips and is a key component that drives the peak period travel patterns. Therefore, it is essential to review important economic indicators to adequately plan for future transportation investments. The JOHRTS area has a competitive economy, largely supported by the petro-chemical industry.

Measuring employment in the JOHRTS area is accomplished by estimating the number of full time equivalent positions for persons employed at businesses located within the study area. Basic sector employment includes mining, construction, manufacturing, transportation communications and public utilities, and wholesale trade. Retail sector employment includes retail businesses of any kind. Service sector employment includes finance, insurance, real estate services, educational services, and governmental organizations.

Figure 3.10: Year 2010 Concentration of Households below Poverty



Figures 3.11 and 3.12 illustrate the distribution of employment in the JOHRTS area by economic sectors. In 2010, the service sector accounted for 55% of the total employment followed by basic (31%), and retail (14%).

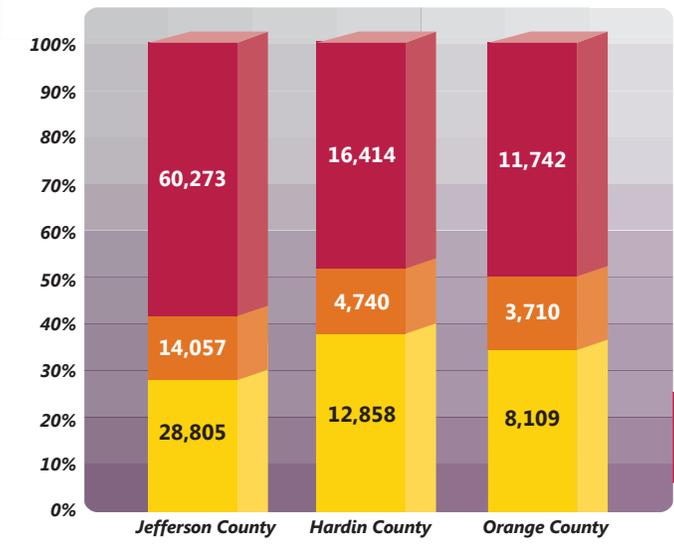
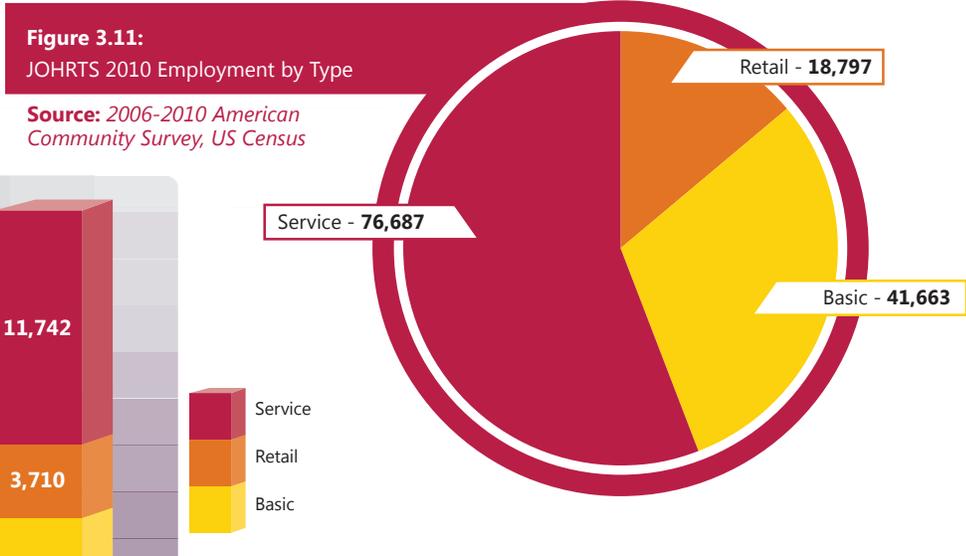


Figure 3.12:
JOHRTS 2010 Existing Employment by Sector

Source: 2006-2010 American Community Survey, US Census

NUMBER OF EMPLOYEES	NAME	INDUSTRY
2,000 or more	Beaumont Independent School District	Education
	Christus Health	Medical Service
	Exxon Mobil	Petroleum Refining
	Wal-Mart Associates	Retailer
1,500-1,999	Baptist Hospital of Southeast Texas	Medical Service
	LAMAR University	Education
1,000-1,499	Conex International	Petroleum Refining
	DuPont	Chemical
	Signal International	Marine and Fabrication
	Turner Industries Group LLC	Industrial Construction
	Motiva Petroleum	Refining
500-999	Brock Services Ltd	Industrial Construction
	City of Beaumont	Government
	Dept of Justice (Federal Prison System)	Government
	Jefferson County	Government
	The Modern Group	Industrial Construction
	The Premcor Refining Group, Inc	Petroleum Refining
	R & R Marine Maintenance Inc	Marine and Fabrication
	Texaco Chemical	Petroleum Refining
	Texas Home Health	Medical Service

Table 3.1:
Major Employers

3.4.3 Travel Trends

Just as land use and socioeconomic characteristics provide a foundation for understanding urban travel patterns, traveler behavior characteristics offer insight into regional trip making decisions. Analyzing regional transportation data such as vehicle miles traveled and the number of registered vehicles aids in understanding transportation needs and trends.



Vehicle miles traveled (VMT) is the total amount of all miles traveled by all vehicles on all public roads and provides insight into vehicle usage within a region. The VMT data from TxDOT for the years 1998 to 2008 (as shown in **Figure 3.13**) indicates that average daily VMT has been relatively stable in the JOHRTS region.

Figure 3.13:
Average Daily Vehicle Miles of Travel,
1998 to 2008

Source: TxDOT, Transportation
Planning and Program Division

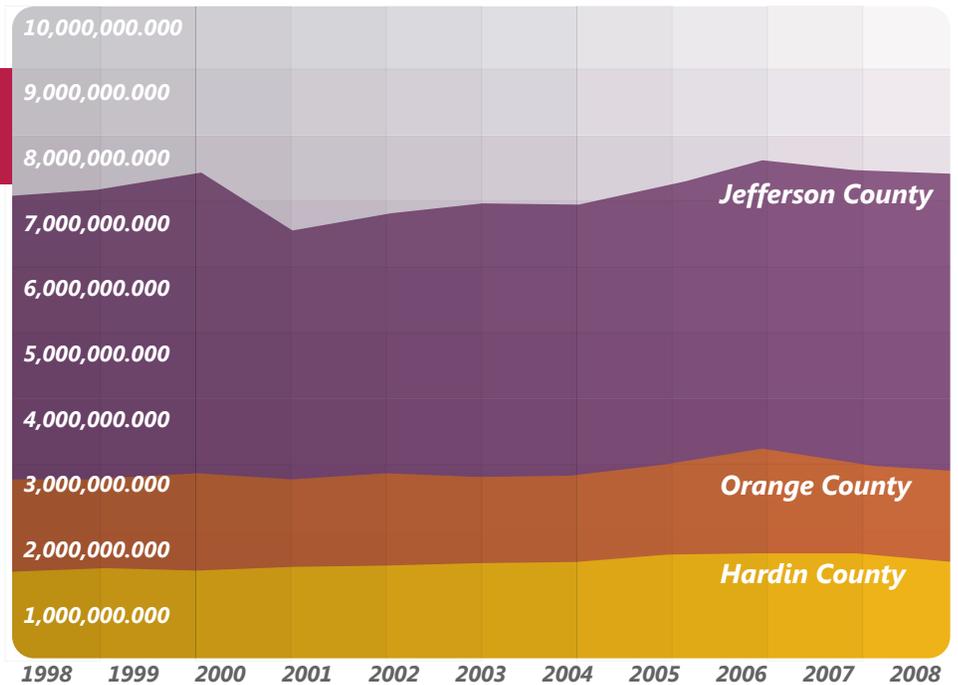


Figure 3.14 displays the number of registered vehicles for 1996 to 2010 in the JOHRTS area by county. Similar to VMT, registered vehicles also remained stable over the past decade and a half. The slight increase in registered vehicles over the years relates to the increase in vehicle availability, use of personal transportation, and general population growth.

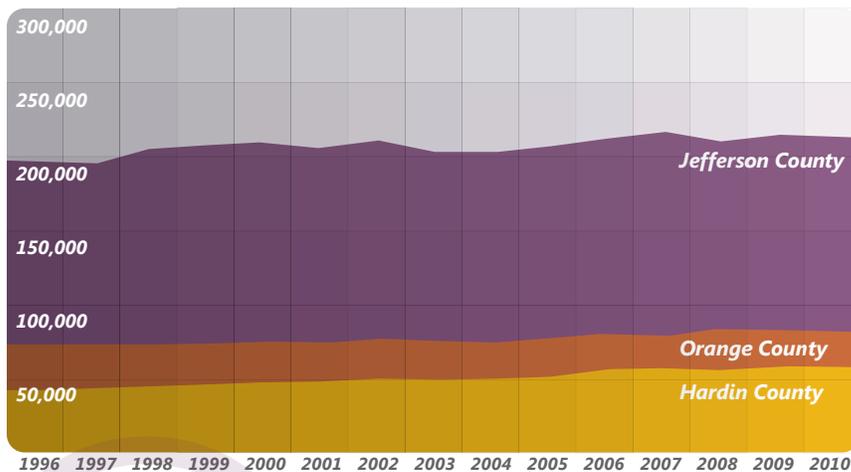


Figure 3.14:
Registered Vehicles, 1996 to 2010

Source: Texas Department of Motor Vehicles

3.5 Future Growth

How a region grows or intends to grow has a direct impact on the type and level of investments that must be made in its transportation system. In the recent years, hurricanes Rita (2005) and Ike (2008) have affected developments in the JOHRTS area to a great extent. Total damage resulting from Hurricane Rita was estimated at \$10 billion, making it the seventh costliest storm in U.S. history. Insured losses to homes and businesses totaled more than \$4.9 billion. An estimated 75,000 dwelling units were destroyed or damaged. Hurricane Ike is considered the third costliest storm in U.S. history with total damages estimated at \$29.6 billion. Ike inundated the southeastern portion of Orange County with substantial flood waters, affecting nearly all homes in Bridge City.



The hurricanes caused population and employment decline in the JOHRTS area. Larger cities within the region that experienced population displacement included Port Arthur, Bridge City, Orange and West Orange, and older areas of Beaumont along the Neches River. Currently the region is recovering from the hurricanes and has since experienced growth in residential and commercial development in the larger cities.

3.5.1 Future Socioeconomic Characteristics



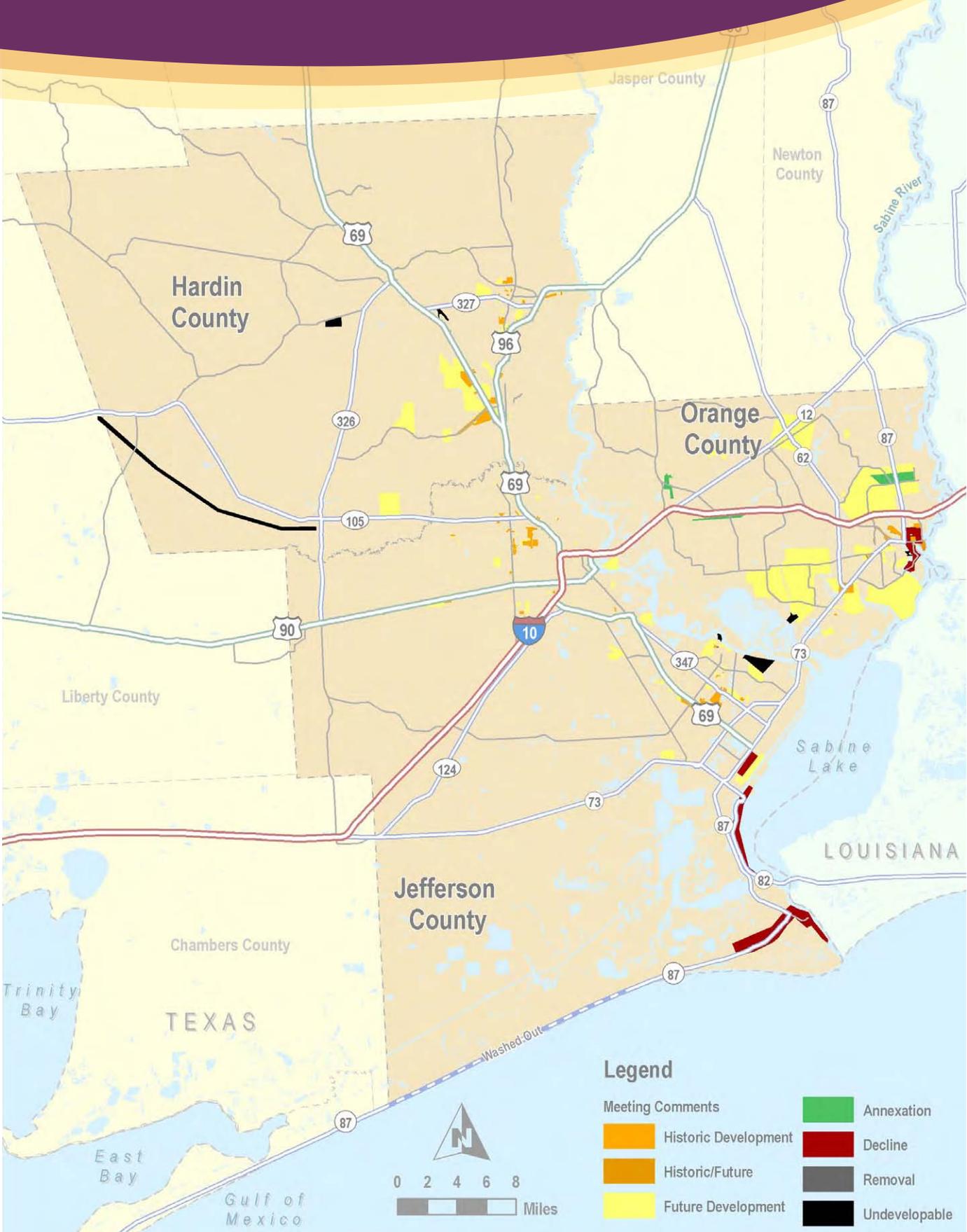
Figure 3.15 presents various areas across the region that are expected to see significant new development or redevelopment in the future. These areas were based upon input from local (city and county) jurisdictions and were used to predict where and how much future population and employment growth will occur.

Based upon this information and other sources of future socioeconomic data, the JOHRTS area is anticipated to accommodate approximately 450,000 people and 175,000 jobs by the year 2035. These future estimates translate into a 0.5% annual growth rate for Jefferson and Hardin Counties, and a 1.0% annual growth rate for Hardin County. **Table 3.2** presents the future regional control totals for the future horizon year 2035.

	2007	2035
JEFFERSON COUNTY		
Population	246,103	281,864
Employment	113,749	130,794
ORANGE COUNTY		
Population	84,190	97,057
Employment	23,800	27,649
HARDIN COUNTY		
Population	51,159	68,251
Employment	11,203	14,753
MPO TOTAL		
Population	381,452	447,172
Employment	148,752	173,196

Table 3.2: JOHRTS Population and Employment Forecasts

Figure 3.15: Regional Growth Areas





FUTURE GROWTH PATTERNS

Because the existing travel demand model for the JOHRTS region has a base year of 2007, this year was the “foundation” for developing future population and employment growth throughout the region. The location and distribution of this growth will clearly impact future regional transportation demands. In an effort to predict this impact, both the future population and employment levels were distributed to the 724 internal Traffic Analysis Zones (TAZs) within the regional travel demand model. This model is used to measure the transportation impacts of the projected growth and to test various transportation system improvements to address these impacts.

The allocation of future growth to the TAZs in regional travel demand model was performed in a **three step process**;

- 1 Quantify the developments that occurred between 2007 and 2010.
- 2 Identify the planned and anticipated developments in the region according to city and county planning staff.
- 3 Predict areas that are likely to experience growth.



In order to identify future long-term growth areas, the following factors that influence growth and expansion were considered:

- Availability of Developable Land
- Existing Development
- Recent Developments
- Anticipated Growth Areas
- Accessibility
- Infrastructure
- Future Development Plans

Using a sophisticated process that incorporates these factors, the MPO developed future year population, household, and employment forecasts for each of the 724 internal TAZs. The results of these forecasts are presented in **Figures 3.16** and **3.17**. These figures depict the cumulative growth of population and employment from 2007 to 2035.

The resultant socioeconomic data was then input into the regional travel demand model in order to analyze future travel patterns. The results of these modeling efforts will be discussed in **Chapter 5: Roadway Network**.

Figure 3.16: Population Growth from 2007 to 2035

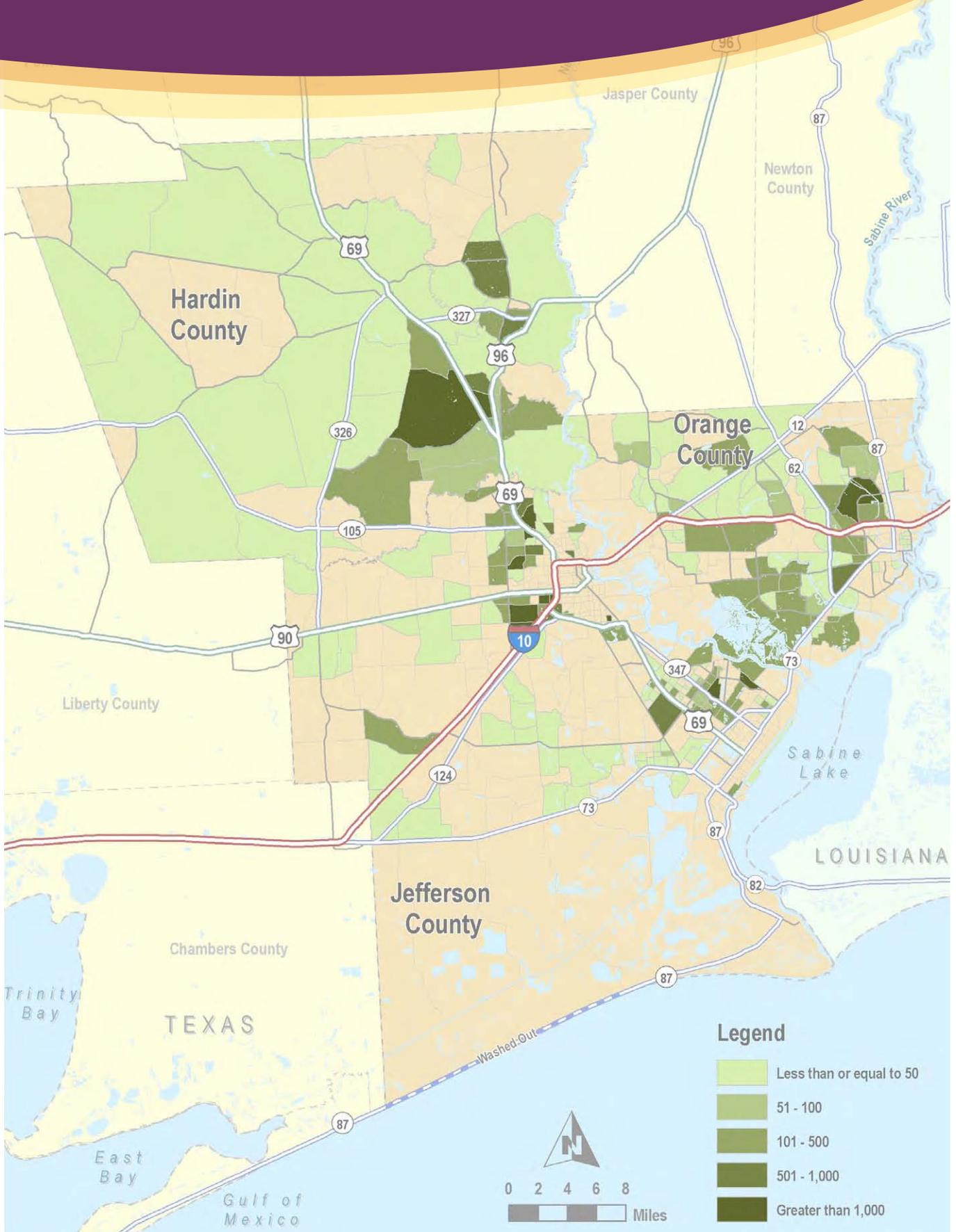
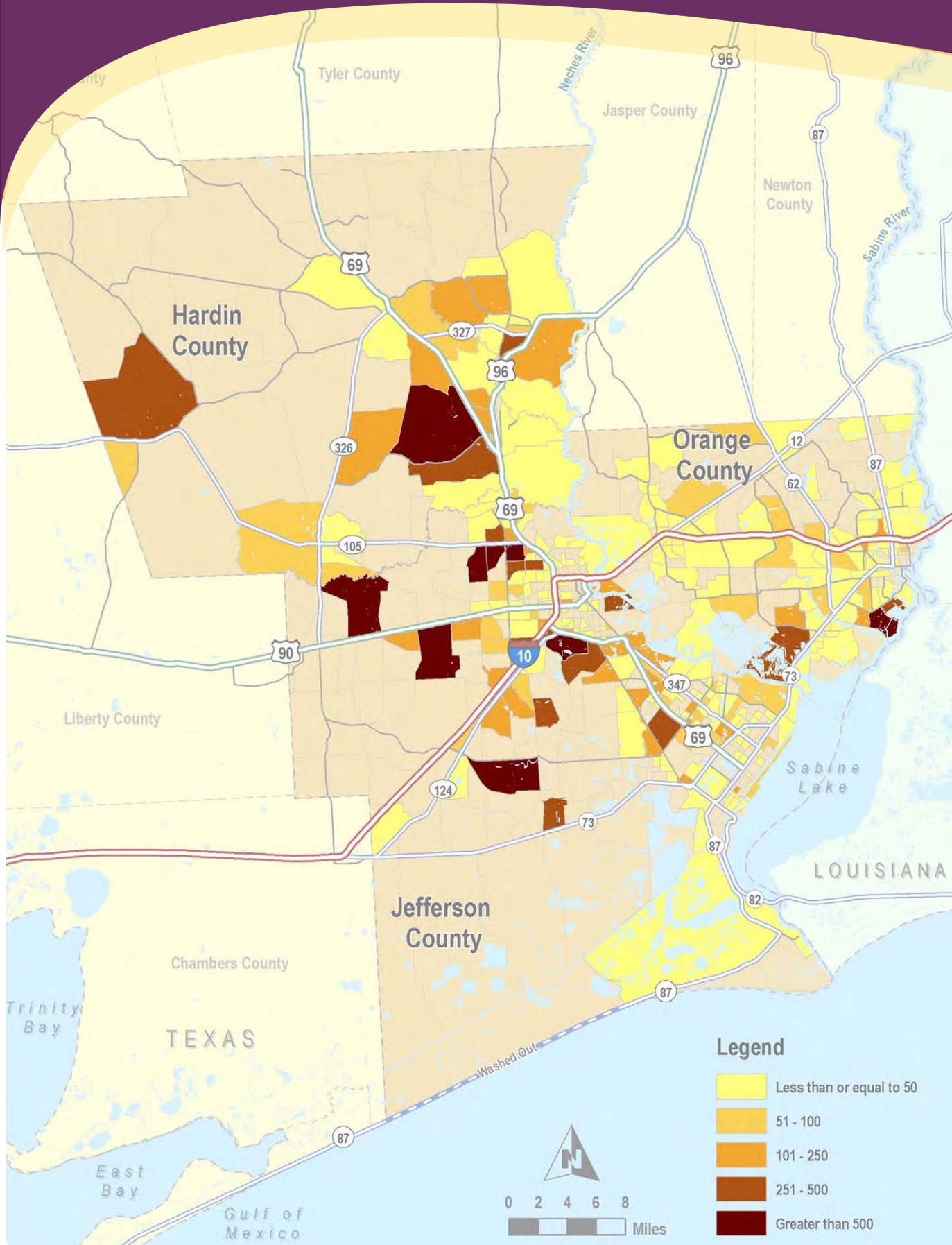


Figure 3.17: Employment Growth from 2007 to 2035



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CHAPTER 4

Community Participation

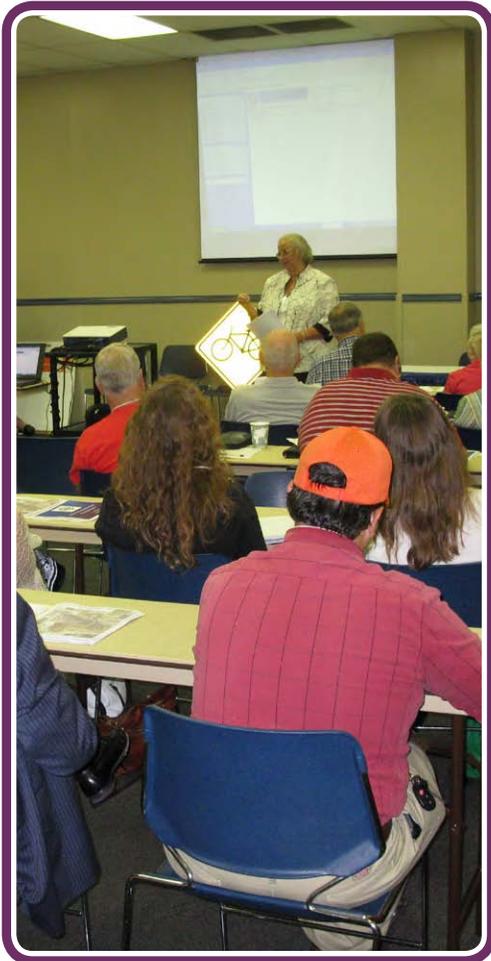
The 2035 Metropolitan Transportation Plan was developed as a by-product of a continuous, comprehensive, and cooperative transportation planning process. **SAFETEA-LU and the subsequent regulation MAP-21** requires MPOs to engage the general public, public agencies, and other various interest groups in the regional transportation planning process. This MTP involved gathering input from city, county, state, and federal agencies, the business community, community advocates, other interested stakeholders, and the general public at-large. This chapter identifies the efforts the **SETRPC-MPO** undertook to solicit input into the development of this Metropolitan Transportation Plan.

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4.1 Public Outreach and Stakeholder Involvement

For the development of this MTP, the MPO broadened its stakeholder involvement efforts. Input was sought and received from elected officials, government agencies, the business community, community advocates, and the public at large.

The 2035 MTP was developed through the consensus of both the general community as well as the public and private entities included within the MPO's Policy Board and Technical Committee. Throughout its transportation planning process, the MPO has provided a wide range of opportunities to involve the public in the development of this MTP.



PROJECT KICKOFF MEETING

A project kickoff meeting was held in the spring of 2010 with the Technical Advisory Committee. At this meeting, the project scope and schedule were reviewed, and members of the MPO Technical Committee were provided an opportunity to discuss their main concerns about the development and content of the new MTP.

COMMUNITY OUTREACH

The MPO began the development of the MTP through a study to analyze future land use trends and their projected impact on the transportation network. Multiple one-on-one interviews were conducted to solicit input on alternative land use patterns and to identify future transportation priorities for the region from all MPO-member jurisdictions.

HIKE AND BIKE WORKSHOP

On Thursday, September 9, 2010 the MPO conducted a regional workshop to gain participants' perspectives on possible future hiking and bicycle initiatives, including the opportunities and challenges that each of those initiatives may present. In addition, ideas for future potential hike and bike projects for the region were generated during the workshop.

The participants identified the importance of encouraging and investing in bicycle and pedestrian facilities throughout the region. Additional details about this workshop can be found in Chapter 7.



MULTI MODAL WORKSHOP

On Thursday, October 7, 2010 the MPO conducted a second workshop to which invitations were extended to all cities within the three county area, each of the three counties, the regional airports, the Ports of Beaumont, Orange, and Port Arthur, the South East Texas Hike and Bike Coalition, area transit systems, the Texas Department of Transportation, as well as a variety of private rail, trucking, and taxi companies. During the workshop, participants explored “what it will take” to satisfy the mobility needs of the JOHRTS region, from public sector transportation investments and land use policies to private sector economic and community development initiatives.

A wide variety of topics were discussed at the workshop including the need for intercity transit service between Beaumont and Port Arthur, the desire to increase carpooling in the region, and trucking industry concerns regarding truck routes to and from the ports. The input gathered at this workshop was instrumental in the development of this regional plan.

Table 4.1: Community Outreach Meeting Schedule

Date	Agency	Name	Title
Monday, April 05, 2010	City of Port Arthur	<i>Colleen Russell</i>	Planning Director
	City of Port Neches	<i>Taylor Shelton</i>	Public Works Director
	City of Nederland	<i>Steve Hamilton</i>	Public Works Director
	City of Groves	<i>D.E. Sosa</i>	City Manager
Tuesday, April 06, 2010	City of Beaumont	<i>Tom Warner</i>	Public Works Director
		<i>Chris Boone</i>	Community Development Director
	City of Vidor	<i>Ricky Jorgensen</i>	City Manager
	Jefferson County	<i>Eddie Arnold</i>	Commissioner Precinct #1
	City of Orange	<i>Jimmie Lewis</i>	Director of Planning and Community Development
Wednesday, April 07, 2010	City of Bridge City	<i>Jerry Jones</i>	City Manager
	Orange County	<i>L.L.“Les” Anderson</i>	County Road Engineer
	City of West Orange	<i>Lee Houghton</i>	Public Works Supervisor
		<i>Gene Roberts</i>	Judge
Thursday, April 08, 2010	City of Silsbee	<i>Karen Garrett</i>	EDC Director
		<i>Tommy Bartosh</i>	City Manager
		<i>Joe Moreno</i>	Director of Public Works
	City of Lumberton	<i>Steve Clark</i>	City Manager
	Hardin County	<i>Billy Caraway</i>	County Judge
		<i>Theresa Wigley</i>	Emergency Management Coordinator

◎ **Transportation Planning Committee (TPC) Meetings**

The TPC serves as the Policy Board for the MPO and makes all decisions regarding transportation policies and adopts all plans and programs developed by the MPO. The TPC provided regular and continuing general policy guidance during the development of this plan. The TPC meets quarterly and its meetings are open to the public. All MPO TPC meetings were advertised and announced in accordance with the MPO's Public Participation Plan.

◎ **Technical Committee Meetings**

The Technical Committee is an advisory committee to the TPC. The MPO staff presented all analyses contained within the MTP to the Technical Committee for their review and recommendations. The Technical Committee also participated in evaluating and recommending candidate projects for inclusion in this MTP. Furthermore, the Technical Committee helped to formulate the MTP's financial plan. The Technical Committee meets quarterly or on an as-needed basis and all of its meetings were advertised and announced in accordance with the MPO's Public Participation Plan

◎ **MTP Adoption Process**

The process of formally adopting the MTP began with the completion of the draft MTP and the commencement of the public comment period. This comment period was initiated with the posting of the availability of the document on the SETRPC website and simultaneous email notification to the TPC about the opening of the comment period.

The MPO also conducted public meetings during the comment period to provide interested citizens an opportunity to review the draft MTP, ask questions of staff, and to submit comments or concerns regarding project recommendations. All meetings were advertised and announced in accordance with the MPO's Public Participation Plan. Documentation of this process can be found in Appendix A.

◎ **Plan Amendment Process**

As the MPO carries out their continuing, cooperative, and comprehensive planning process, amendments to this MTP are expected. These may occur due to changes in project priorities, funding availability, or state and/or federal guidance. Depending upon the nature of the revision, per federal guidelines, revisions are categorized as either "Amendments" or "Administrative Modifications."



AMENDMENTS

The MTP can be amended at any time between formal update time periods and the following are the examples of significant changes in the MTP requiring an amendment.

- Adding or deleting a non-exempt project, i.e. one which requires an air quality/transportation conformity determination.
- Re-determining air quality/transportation conformity due to change in the State Implementation Plan requiring redetermination of conformity.
- Changing the estimated cost of a project that results in a 50% increase in cost and a cost that exceeds \$1.5 million.
- Changing the design concept or scope of a project.
- Changing the funding sources for a project from non-federal to federal funds.



STEPS IN THE FORMAL AMENDMENT PROCESS

- SETRPC-MPO will notify the TPC during their regular meetings of a necessary amendment.
- TPC will initiate the formal amendment as required by MAP-21. Elements of the amendment will meet current FHWA, FTA, EPA, and TxDOT requirements.
- The MPO will post a legal notice in various local newspapers and also issue a press release to other local media outlets indicating that a draft amendment is available for public review on the agency's website (www.setrpc.org) and at the SETRPC office.
- Other community involvement techniques may be used, as outlined in the Community Dialogue section of the Public Participation Plan (PPP).
- The public review and comment period is 30 days for the MTP, and begins on the day the availability notification of the draft document is posted on the website. Email notifications of the commencement of the public comment period will be sent to the TPC, as well as to interested persons in the MPO database.
- MPO staff will have seven days to summarize and address any public input received during the comment period.

- The TPC will consider the public input prior to their final approval of the amendment.
- All public input and comments received will be documented with responses by the MPO in the adopted document of the amendment.
- The MPO will submit the adopted amendment to the required parties (TxDOT, FHWA, FTA, etc.) for approval.



ADMINISTRATIVE MODIFICATION

Administrative modifications to the MTP are documented by the MPO staff, discussed at regular TPC meetings, and formalized in subsequent formal updates to the necessary documents. A formal public review and comment period is not required for administrative modifications to the MTP. Examples of changes requiring administrative modifications are:

- Adding or deleting an exempt project, i.e. one which does not require an air quality/transportation conformity determination.
- Change in the estimated cost of a project that does one, but not both, of the following: **a)** exceeds 50% and **b)** results in a cost exceeding \$1.5 million.
- Moving a project from one fiscal year to another fiscal year, without affecting fiscal constraint.
- Moving a project from one federal funding category to another.
- Changing a project's funding source from federal to state funding.
- Splitting or combining projects without modification to original project design concept and scope.
- Changes to projects within the "grouped" category.
- Changes to project identification numbers (such as Control-Section-Job (CSJ) numbers).

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CHAPTER 5

Roadway Network

The roadway network is the most important aspect of the MPO planning area's transportation system as it bears the burden of transporting the majority of goods and people throughout the region. The region's economic vitality is dependent on this roadway network, which makes the region accessible for commuter, industrial, commercial, and other day-to-day uses. This system should be viewed as an indispensable regional economic asset that requires constant reinvestment to protect the economic stability of the region. Maintenance of the roadway network is a critical factor in ensuring the safe and efficient travel of both residents and visitors alike.

This chapter addresses both current and future conditions and needs and focuses on maintaining and enhancing an efficient and safe roadway system that will effectively meet future demands while optimizing existing financial resources.

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5.1 Existing System

The existing roadway network system provides area residents with the ability to travel for work, shopping, and other important purposes. However, the efficiency with which these trips can be made determines the effectiveness of the current roadway network. A few major roadways that act as links between the various communities dominate southeast Texas' network. Route choice is limited due to the lack of additional facilities and makes most travelers dependent on a single route for intercity regional travel. This creates challenges for cities, counties, and the state, each of which must continue to manage their existing facilities while accommodating increased travel demand. Wetlands and other environmentally sensitive areas in the region necessitate extensive environmental studies and interagency consultation for new projects, often making it difficult to build new linkages that would increase route choice and system flexibility.

5.1.1 Regional Connections

The regional roadway network consists of interstate, freeway, arterial, collector, and local roadways. The Texas Department of Transportation (TxDOT) maintains just over 700 centerline miles of state roadways which mainly provide regional mobility, while the local entities (cities and counties) collectively maintain the balance of roadways which primarily provide access within the region.



INTERSTATE



I-10 • Traversing the region in an east-west direction, I-10 is a limited access facility with between four and eight travel lanes. The FHWA and the States of Texas and Louisiana have identified the I-10 corridor from San Antonio to New Orleans as a strategic intermodal corridor for freight movement.



US HIGHWAYS



US 69/287 • This facility travels in a north-south direction through Hardin and Jefferson counties. It is primarily a four-lane divided, access-controlled facility, except for some portions in Hardin County which have only two lanes with a center turn lane. It connects the ports and intermodal facilities in the area with the proposed I-69/NAFTA Corridor running through Lufkin and Angelina counties.



US 90 • Traveling in an east-west direction as a four-lane divided facility with partial access control on the west side of Beaumont, US 90 passes through Beaumont as College Street and a pair of one-way couplets before it connects to I-10 near the Jefferson/Orange county line.



US 96 • This four-lane, north-south divided facility with partial access control acts as a vital transportation link connecting Hardin County to Beaumont and Port Arthur.



STATE HIGHWAYS

While not an exhaustive list of all state highways, the following state-owned roadways play an important role in regional traffic movement.



SH 12 • This roadway is a two-lane facility with a center turn lane and traverses in an east-west direction from Vidor to Louisiana.



SH 62 • This two-lane, north-south roadway connects Orange County and Jasper County.



SH 73 • Traversing east-west as a four-lane divided facility with partial access control, SH 73 acts as a vital transportation link between Port Arthur, Bridge City, and the City of Orange. SH 73 is one of only three roadways in the region that crosses the Neches River, with the other two being I-10 and US 96.



SH 347 • This four-lane divided roadway connects SH 87 in Port Arthur to US 69 in Beaumont.



SH 87 • This two-lane, east-west roadway connects Sabine Pass to the rest of the region. It is coaligned with SH 73 between Port Arthur and the City of Orange.

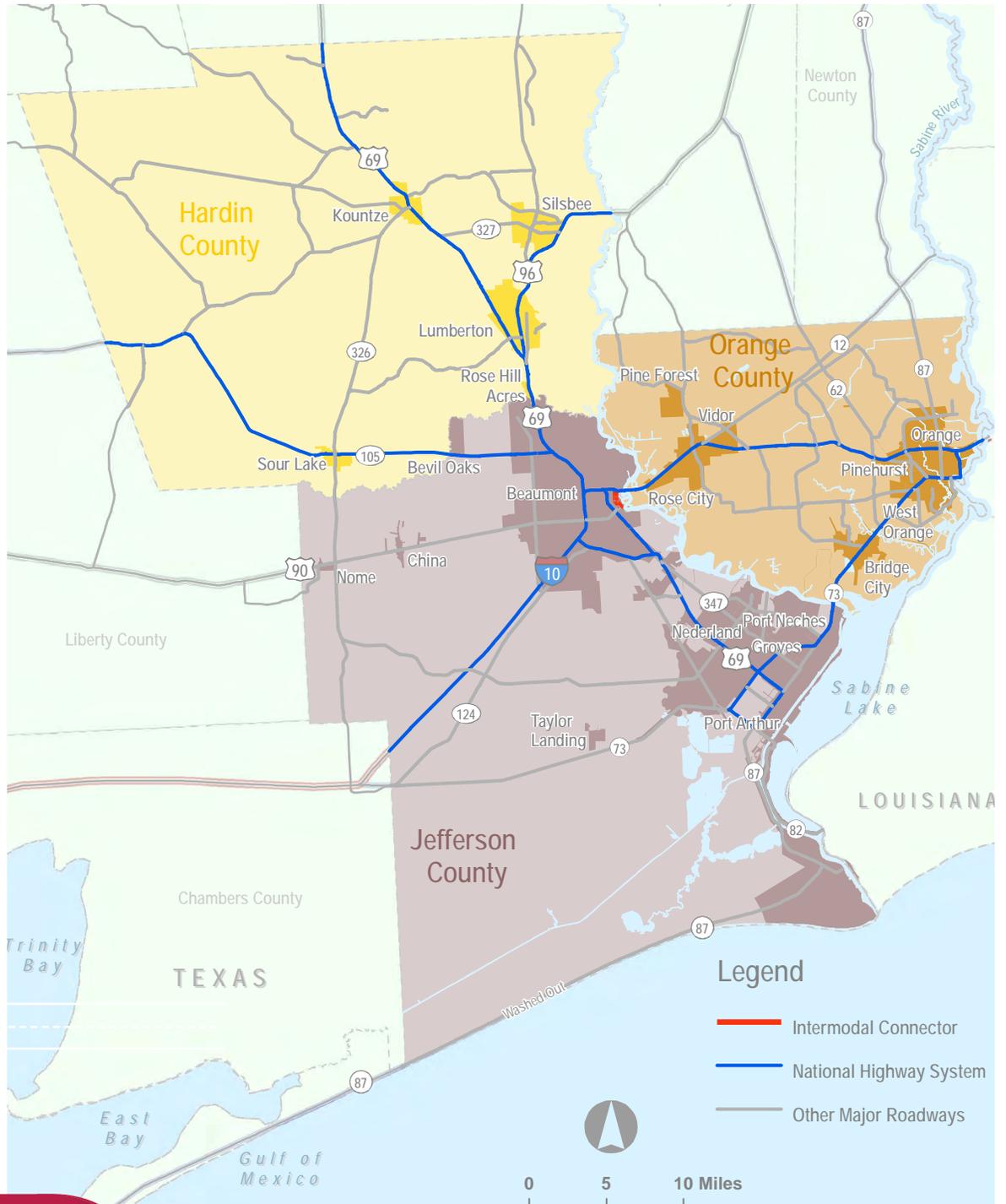


Spur 380 • Known locally as Martin Luther King Jr. Parkway, this four-lane, divided and partially access-controlled roadway provides north-south mobility in southeastern Beaumont.

Figure 5.1: National Highway System

5.1.2 National Highway System

The National Highway System (NHS) is comprised of the Interstate Highway System and other roads that are important to the nation's economy, defense, and mobility. The NHS was developed by the U.S. Department of Transportation in cooperation with the states, Metropolitan Planning Organizations, and other local officials. Roadways on the NHS in the region are eligible to receive NHS funding.





5.1.3 Functional Classification

Functional classification is the process by which roadways are grouped into categories according to the character of service they are intended to provide. Individual roads do not serve travel independently; most travel involves movement through a network of roads. Functional classification examines the channelization of traffic throughout a roadway network and defines the role that each roadway plays in serving traffic flow. Two important variables define roadway function: mobility and access. At one end of the spectrum, freeways provide the highest level of mobility and the lowest level of access, serving long distance trips with minimal access to abutting land uses. Local streets, on the other hand, have numerous driveways and connections to provide local access to businesses and residences and are not intended for use over long distances.

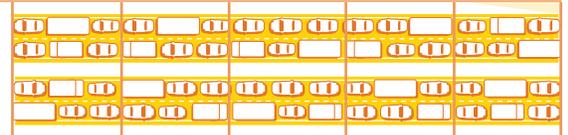


The functional classification system **should be periodically reviewed to ensure that road use and function is consistent with the classification system.** *The table on the following page provides additional details regarding the functional classification categories and examples.*

Functional Classification

Interstate Highway

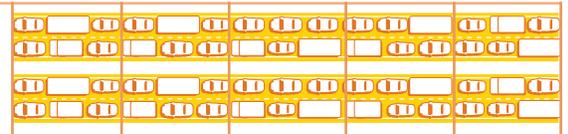
FACILITY TYPE: High speed, divided highway with full control of access and grade-separated interchanges.



FUNCTION: Move inter- and intra-regional traffic, particularly on long trips in the high traffic volume corridors. Provide access between cities and across metropolitan areas.

Other Freeway

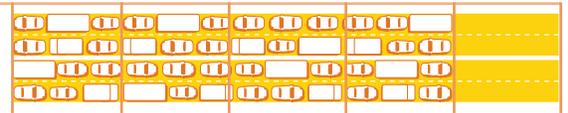
FACILITY TYPE: High speed, divided highway with full control of access and grade-separated interchanges.



FUNCTION: Traverse metropolitan areas and provide mobility between major activity centers (two or more miles).

Principal Arterial

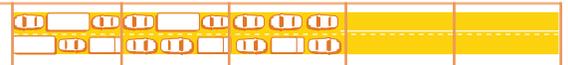
FACILITY TYPE: Typically, divided street with major access points at intersections with the surface street system. Some limited direct access permitted to abutting land uses.



FUNCTION: Serve major centers of activity, with service to abutting land uses secondary to the provision of travel service.

Minor Arterial

FACILITY TYPE: Number of lanes and type of median directly related to traffic volumes and abutting land use.



FUNCTION: Augment and feed the primary arterial system and distribute traffic to geographic areas smaller than those served by the higher system, with more emphasis on service to abutting land uses.

Collector

FACILITY TYPE: High access to local streets and driveways.



FUNCTION: Connect local streets to the arterial system. Typically trips that are near their origin or destination point, primarily connecting neighborhoods within and among sub-regions.

Local

FACILITY TYPE: High access to driveways.



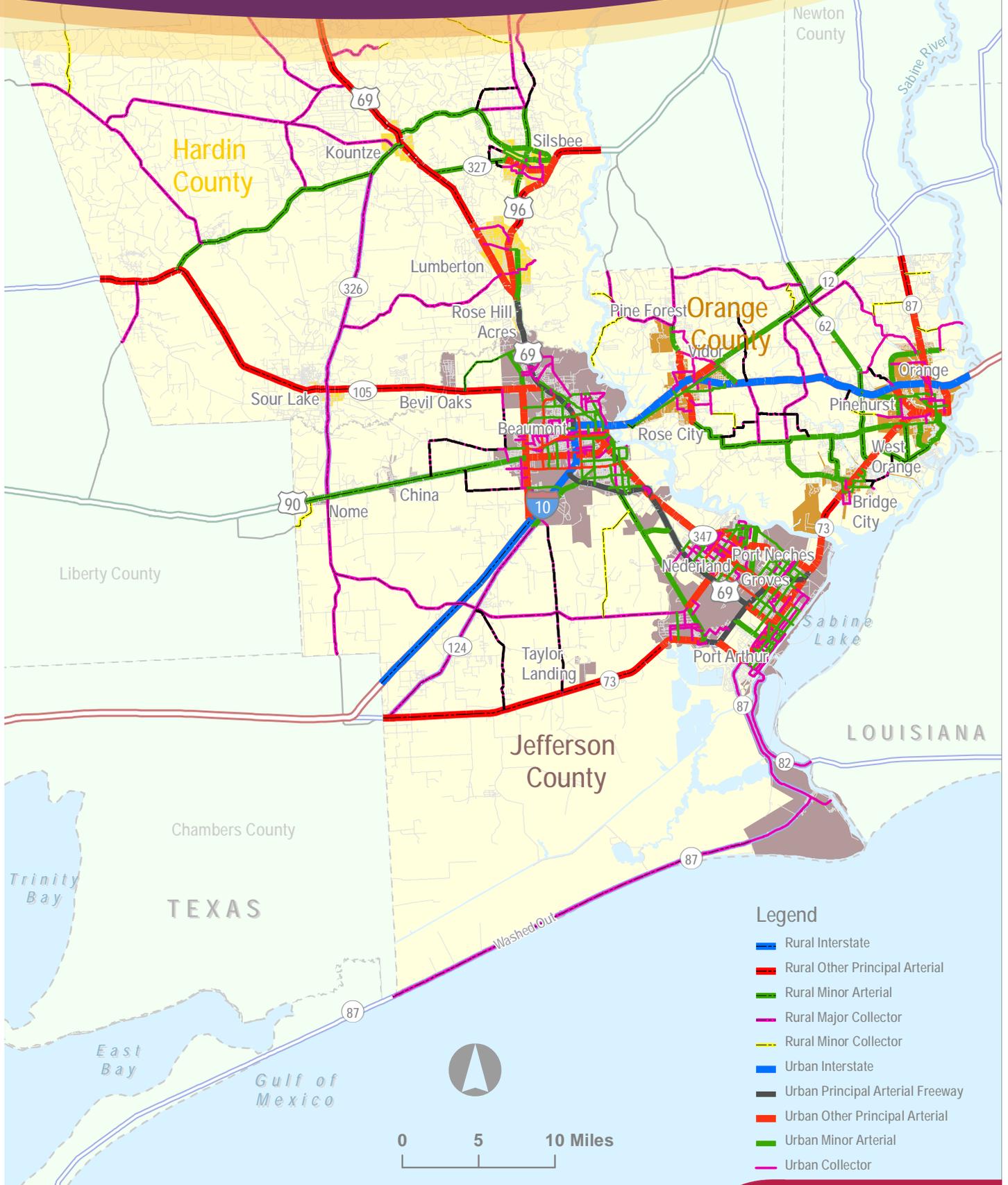
FUNCTION: Provides direct access to abutting property.

Traffic Demand by Functional Classification (in vehicles per day)

Less than 1,500	1,500 to 10,000	5,000 to 15,000	10,000 to 30,000	20,000 to 50,000*
Diagram: 1 lane in each direction	Diagram: 2 lanes in each direction	Diagram: 3 lanes in each direction	Diagram: 4 lanes in each direction	Diagram: 5 lanes in each direction

*Normally in excess of 20,000 and often over 50,000

Figure: 5.2 Functional Classification Map

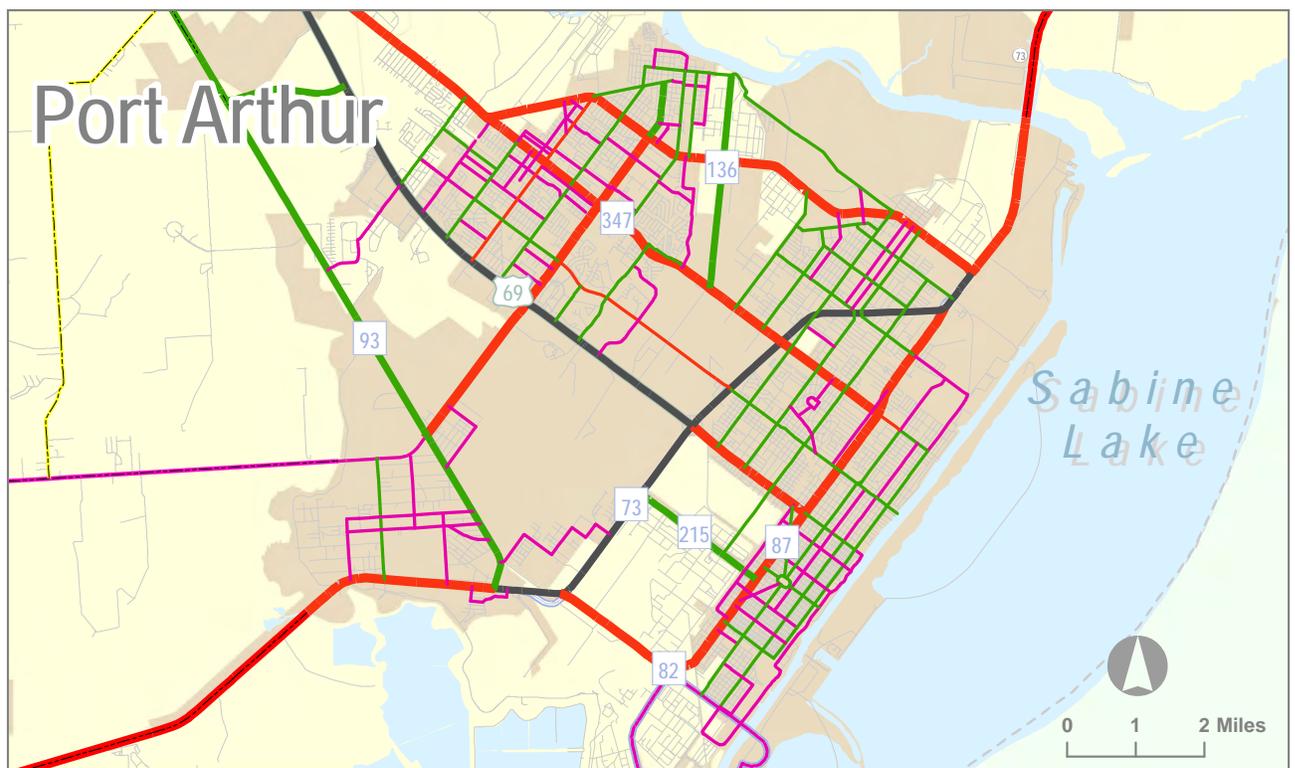
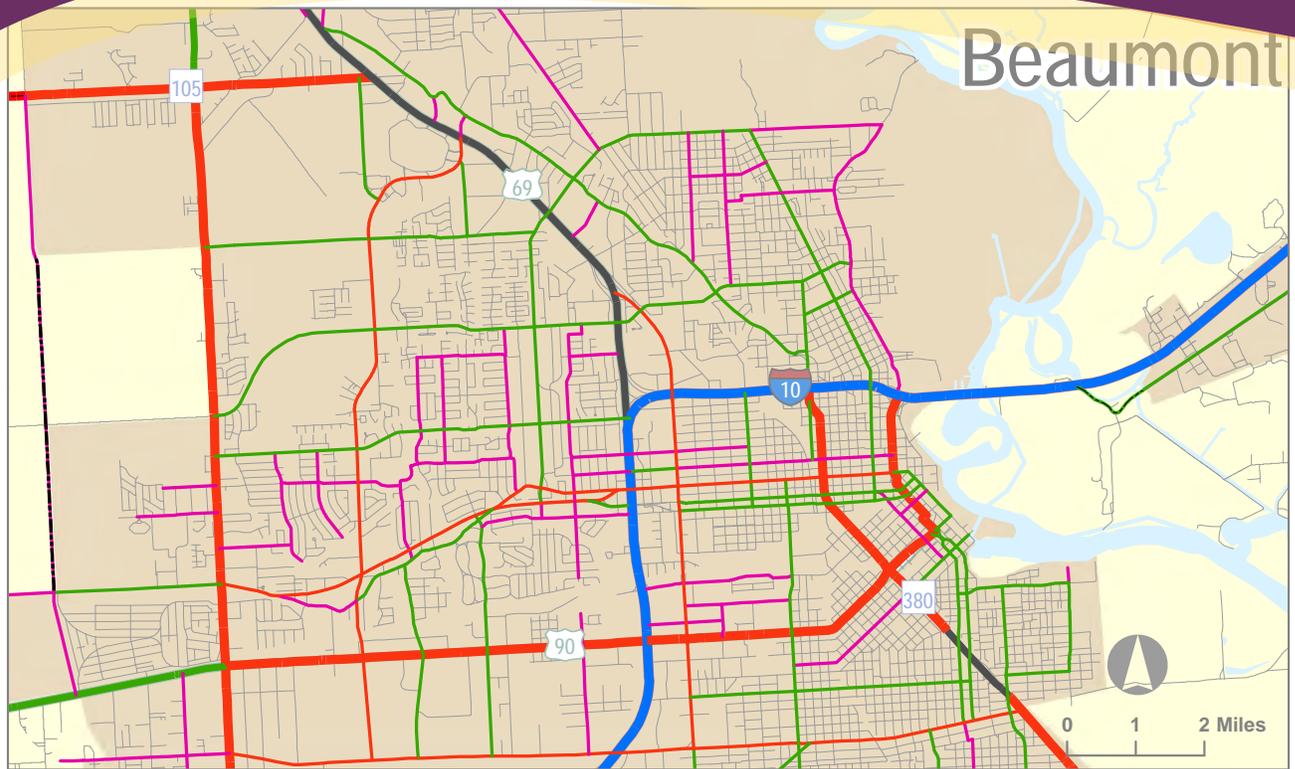


Legend

- Rural Interstate
- Rural Other Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Urban Interstate
- Urban Principal Arterial Freeway
- Urban Other Principal Arterial
- Urban Minor Arterial
- Urban Collector

0 5 10 Miles

Figure 5.3: Functional Classification Map



Legend

- | | | | | | |
|--|--------------------------------|--|----------------------------------|--|----------------------|
| | Rural Interstate | | Rural Minor Collector | | Urban Minor Arterial |
| | Rural Other Principal Arterial | | Urban Interstate | | Urban Collector |
| | Rural Minor Arterial | | Urban Principal Arterial Freeway | | |
| | Rural Major Collector | | Urban Other Principal Arterial | | |

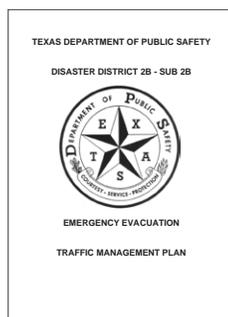


5.1.4 Hurricane Evacuation Network

In addition to serving daily travel demand, the regional roadway network is also the primary means of departure during emergency evacuations. Consequently, development and maintenance of evacuation routes are an important element of this Metropolitan Transportation Plan.

Hurricanes and tropical storms often make landfall and cause damage to the United States' Gulf Coast, including the Texas coast. Hurricanes range in size and intensity, and the accompanying high winds, storm surge, rainfall, and tornadoes have caused significant loss of life and property damage. Each year on average, ten tropical storms (of which six become hurricanes) develop over the Atlantic Ocean, Caribbean Sea, or Gulf of Mexico. Many of these remain over the ocean. However, about five hurricanes strike the United States coastline every three years. Of these five, two will be major hurricanes (Category 3 or greater on the Saffir-Simpson Hurricane Scale.) The coastal counties of Jefferson, Orange, and lower portions of Hardin County are vulnerable to extensive flooding during hurricanes. During such potential disasters, the safe and timely evacuation of coastal and floodplain areas is crucial to ensure public safety.

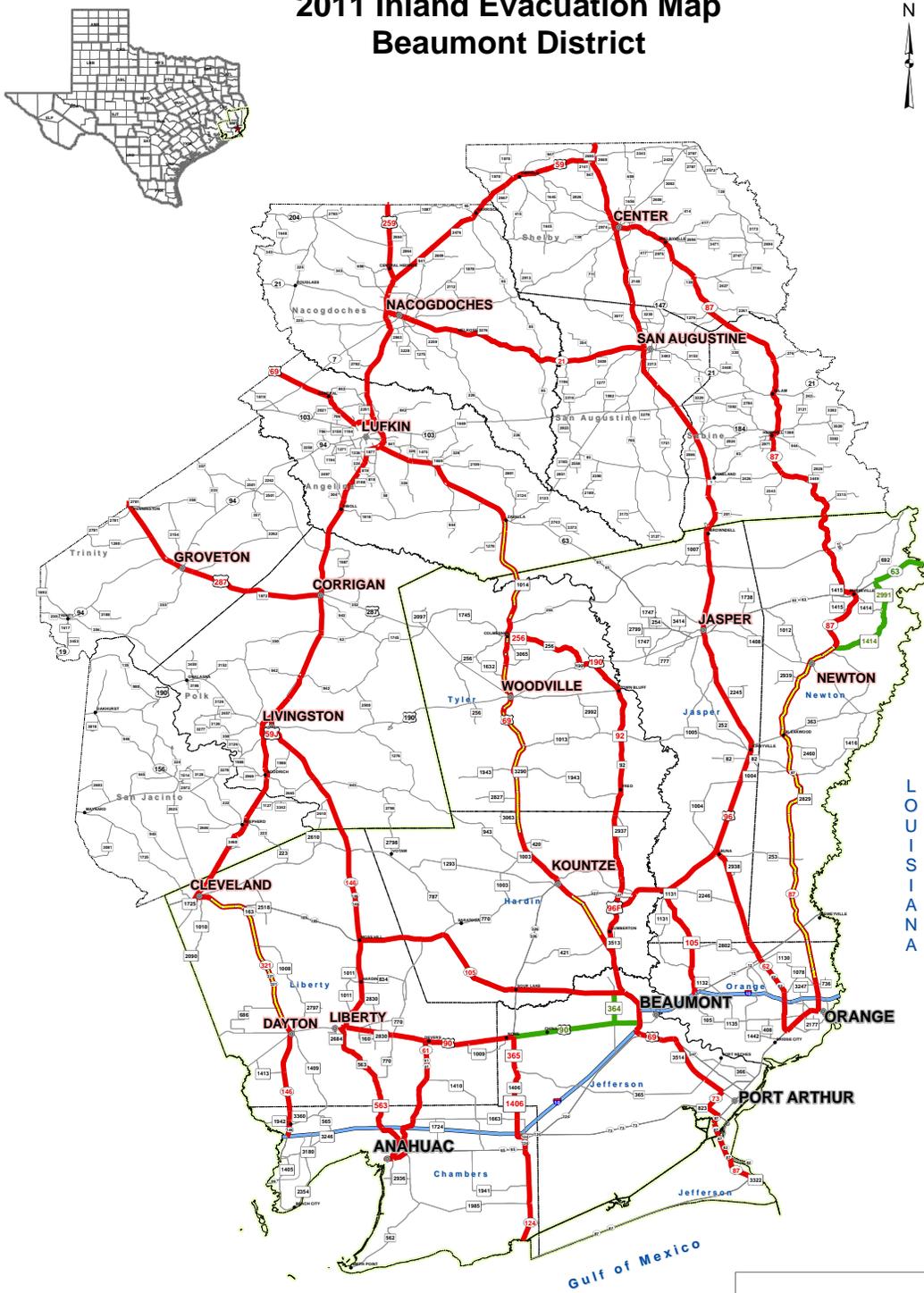
In 1994, the Texas Transportation Commission established the Hurricane Evacuation Task Force to increase safety, access, and mobility for the transportation of people and goods during emergency situations. With the assistance of state and local agencies, and after holding public meetings, the Task Force established a regional network of roadways comprising the hurricane evacuation route system as an element of the Gulf Coast Regional Evacuation Plan. Additionally, the Task Force created a separate funding category for evacuation route improvements located in the Gulf Coast Districts.



Region 2B Traffic Management Plan, which is under the jurisdiction of the **Texas Department of Public Safety**, outlines *specific plans in case of a man-made or natural disaster*. US 69/96/287, US 87, US 90, SH 62, SH 87, FM 92, FM 105, FM 365, and FM 1406 serve as the primary evacuation routes for the region.

Figure 5.4: Evacuation Map

2011 Inland Evacuation Map Beaumont District



EVACULANES: The use of shoulders and/or center turn lanes in addition to the normal mainlane(s) to create additional outbound evacuation lanes to be used during emergencies.



— IH 10 - non-evacuation Route

— Evaculanes

Emergency Evacuation Routes

Alternate Evacuation Routes

Plot Date - April, 2011
Map Projection and Datum:
Texas State Mapping System (TSM5), NAD 83
Created by Sue Tidwell

5.2 Roadway Network Usage

5.2.1 Daily Traffic Volumes

Annual average daily traffic (AADT) volumes for the region were obtained from TxDOT. The location with the highest daily traffic volume in 2011 was I-10 between College Street and Calder Avenue, with a volume of 123,000. The following table presents daily traffic volumes at the locations that experienced an increase of 10,000 or more vehicles per day between 2001 and 2011. The most significant growth occurred along US 69, I-10 and SH 73, which highlights the importance of these roadways.

Table 5.1: High Traffic Volume Growth Locations

ROADWAY	LOCATION	2001	2011	ABSOLUTE GROWTH	PERCENT GROWTH
US 69	 South of FM 365	48,000	69,000	21,000	44%
US 69	 North of SH 73 (Parkway St)	45,000	66,000	21,000	47%
US 69	 Between I-10 and Delaware St	90,000	104,000	14,000	16%
US 69	 Between Fannett Rd and Fourth St	63,000	75,000	12,000	19%
SH 73	 Between Savannah Ave and Memorial Blvd	25,000	36,000	11,000	44%
SH 73	 Between 9th Ave and Jefferson Dr	43,000	54,000	11,000	26%
SH 73	 Between SH 347 and 39th St	35,000	45,000	10,000	29%
US 69	 North of Nederland Ave	51,000	61,000	10,000	20%



5.2.2 Truck Volumes

The trucking industry plays a vital role in the movement of freight through the region. Vehicle classification counts from TxDOT for the years 1998 to 2008 show that volumes have been relatively stable in the region. The location with the highest observed truck volumes in 2008 was along I-10 east of its northern junction with US 69 in Beaumont. Truck volumes at this location have historically comprised between 15 percent and 20 percent of the total traffic volume.

Figure 5.5: Truck Volumes-Interstate 10

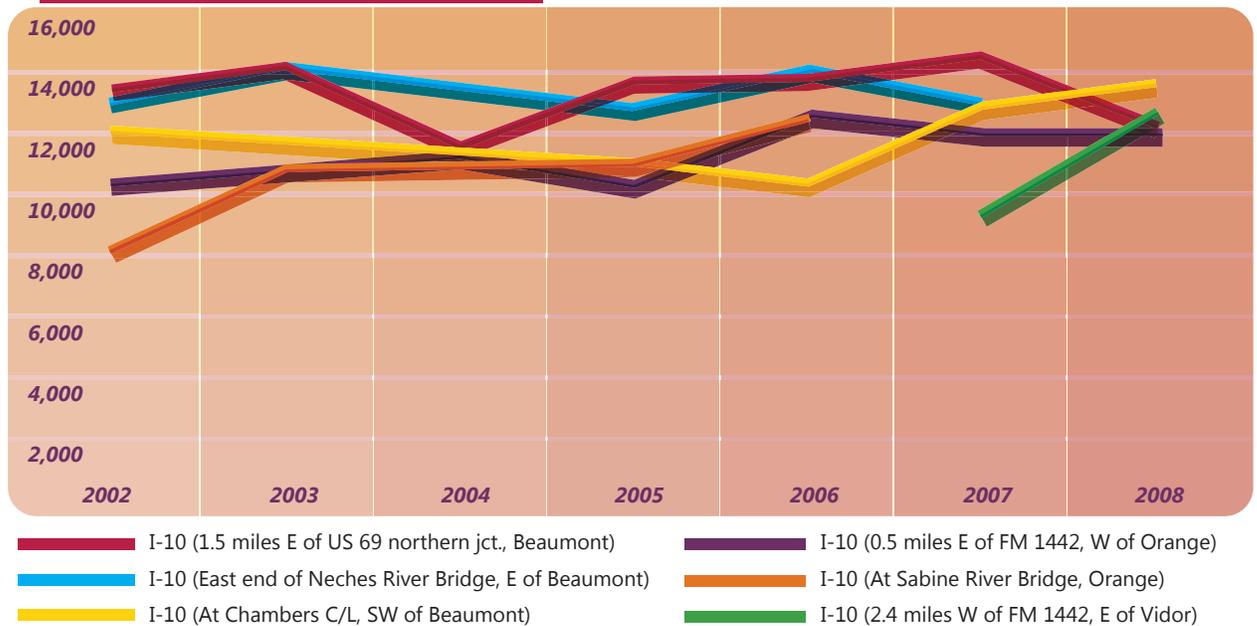


Figure 5.6: Truck Volumes-Other Area Roadways

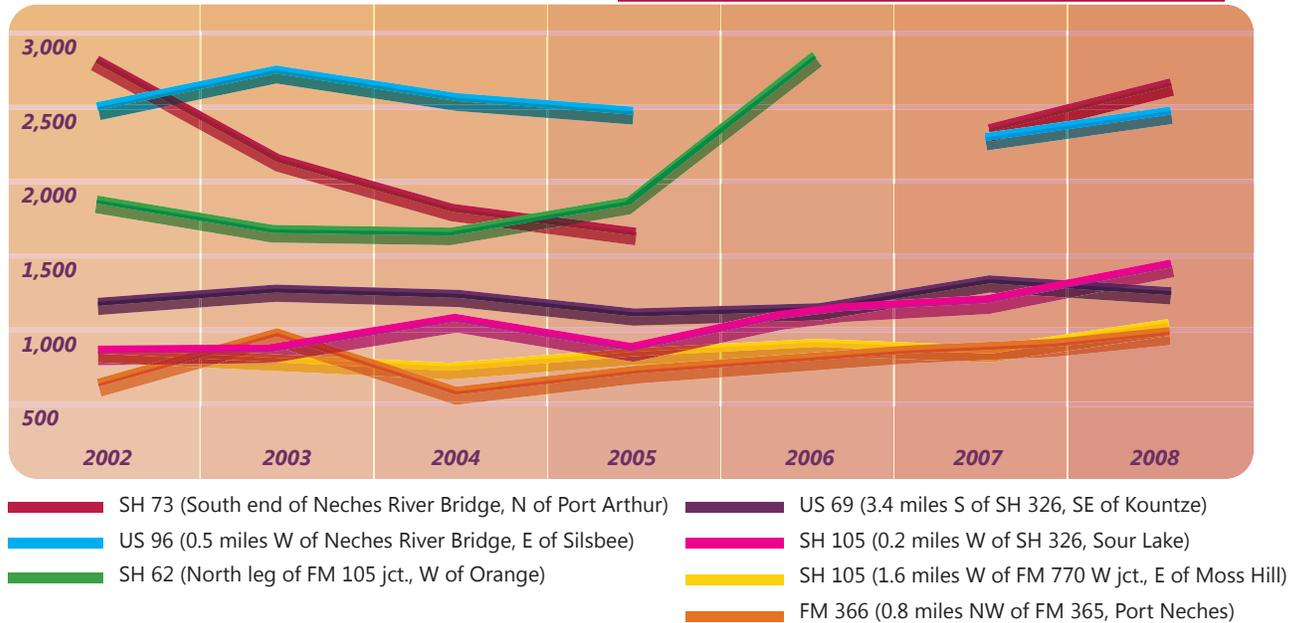


Figure 5.7: Level of Service Definition

Level-of-Service			
A	Excellent Very low vehicle delays, free traffic flow, signal progression extremely favorable, most vehicles arrive during given signal phase.		Free Flow
B	Good Good traffic flow, good signal progression, more vehicles stop and experience higher delays than for LOS A.		
C	Average Stable traffic flow, fair signal progression, significant number of vehicles stop at signals.		
D	Acceptable Noticeable traffic congestion, longer delays and unfavorable signal progression, many vehicles stop at signals.		
E	Congested Unstable traffic flow, poor signal progression, significant congestion, traffic near roadway capacity, frequent traffic signal cycle failures.		
F	Severely Congested Unacceptable delay, extremely unstable flow, heavy congestion, traffic exceeds roadway capacity, stop-and-go conditions.	Severe Congestion	

Source: Wilbur Smith Associates, 2007

5.2.3 Capacity Analysis

Level of Service (LOS) is a scale used to evaluate how the use of a roadway compares to the number of vehicles that it was designed to accommodate. Transportation planners derive LOS for a roadway by examining its traffic volumes, operating capacity (the number of vehicles per hour the roadway can handle without creating congestion), and vehicle speeds. When the roadway traffic volume exceeds the capacity of the roadway, the facility loses its ability to efficiently move traffic and becomes congested. **Figure 5.7** describes the conditions a driver would experience on a roadway given a particular level of service rating. These levels of congestion range from uncongested traffic traveling at high speeds (LOS A) to severely congested traffic traveling at low speeds (LOS F).

A planning level capacity assessment of existing roadway system traffic conditions was developed using the regional travel demand model. This model was updated to a base year of 2007 and attempts to predict travel conditions in the region by looking at both the supply of and demand for transportation. The supply dimension of the model is reflected in the roadway network, while population and employment data drive the demand side of the equation.

Figure 5.8: 2007 Model-Derived LOS

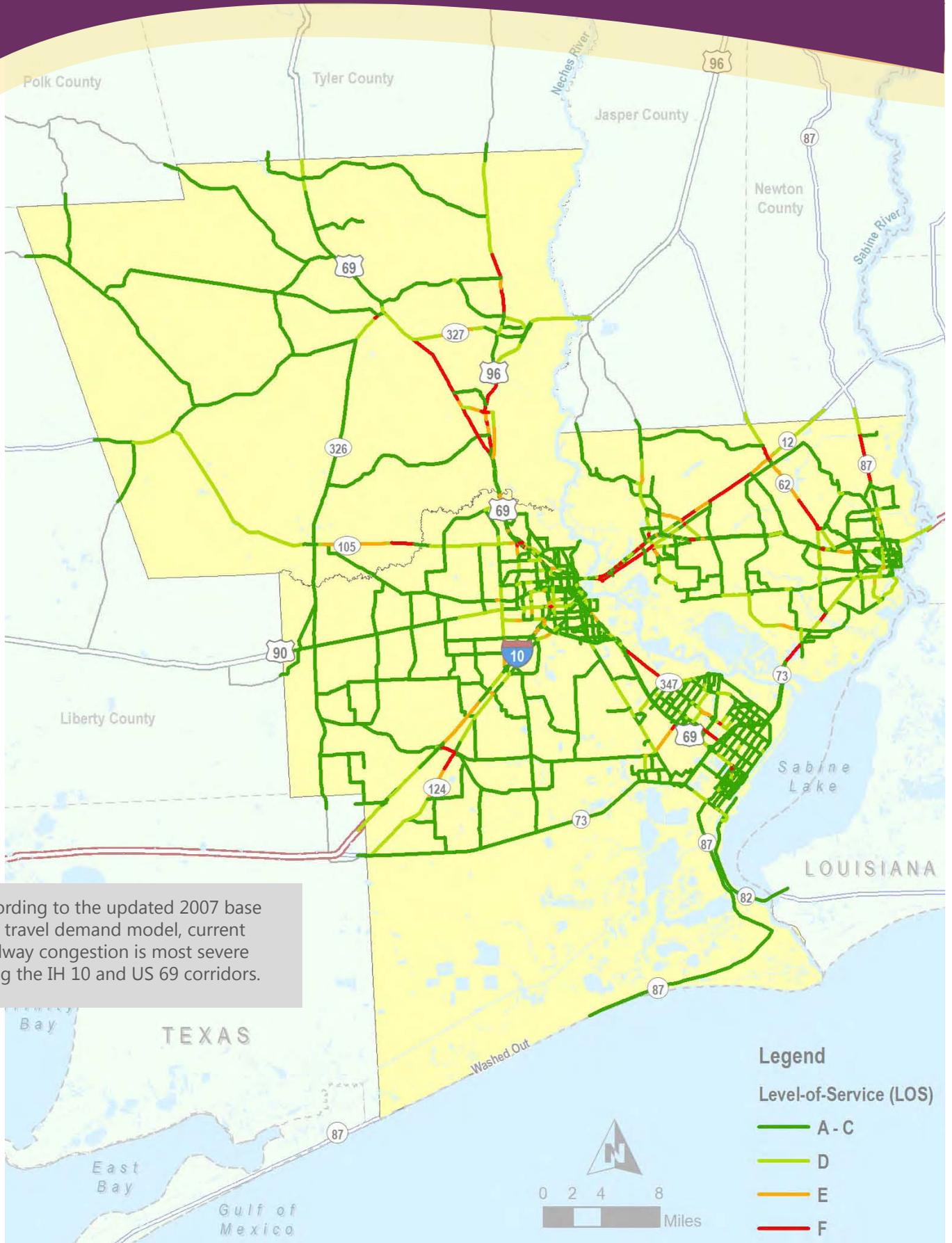
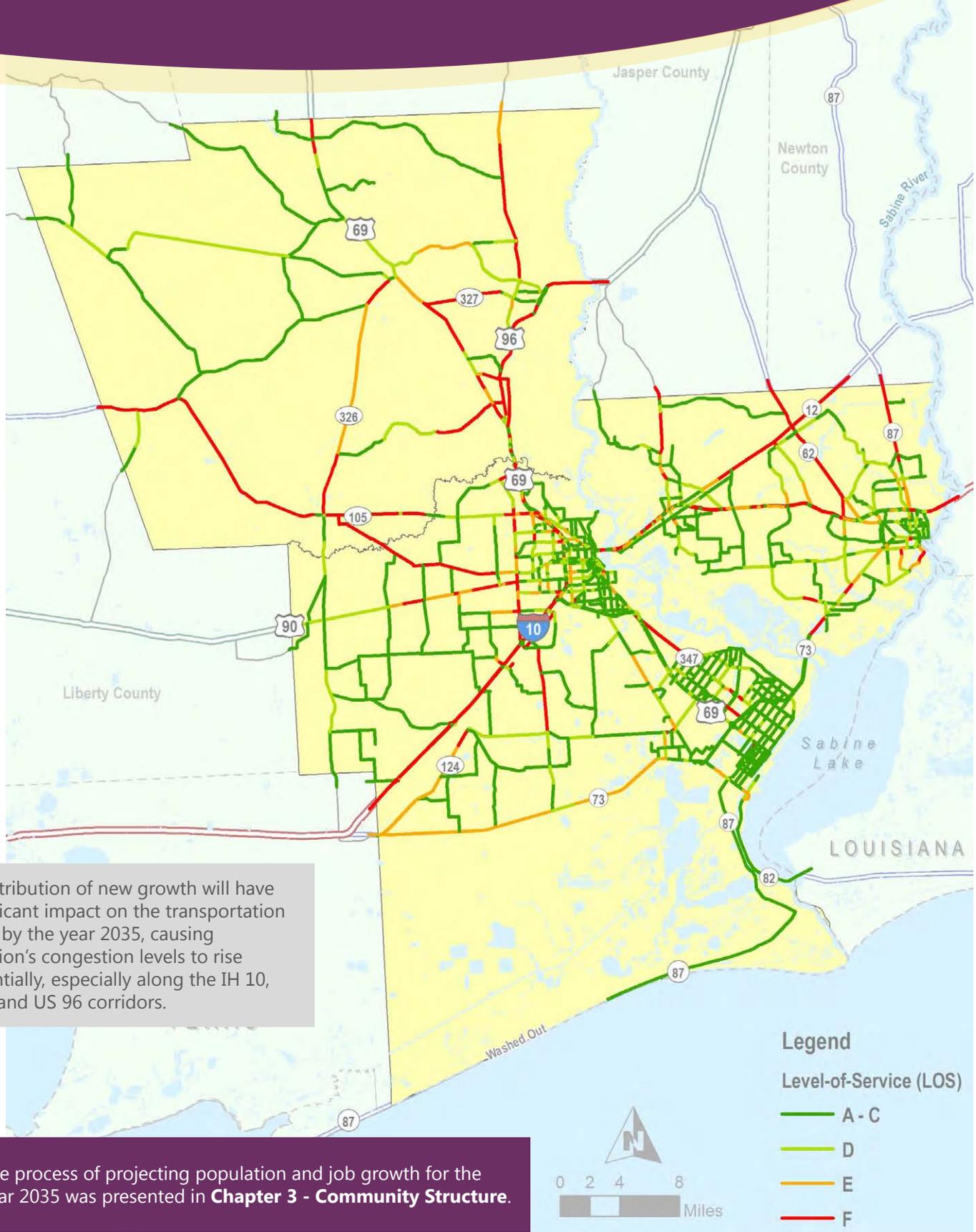
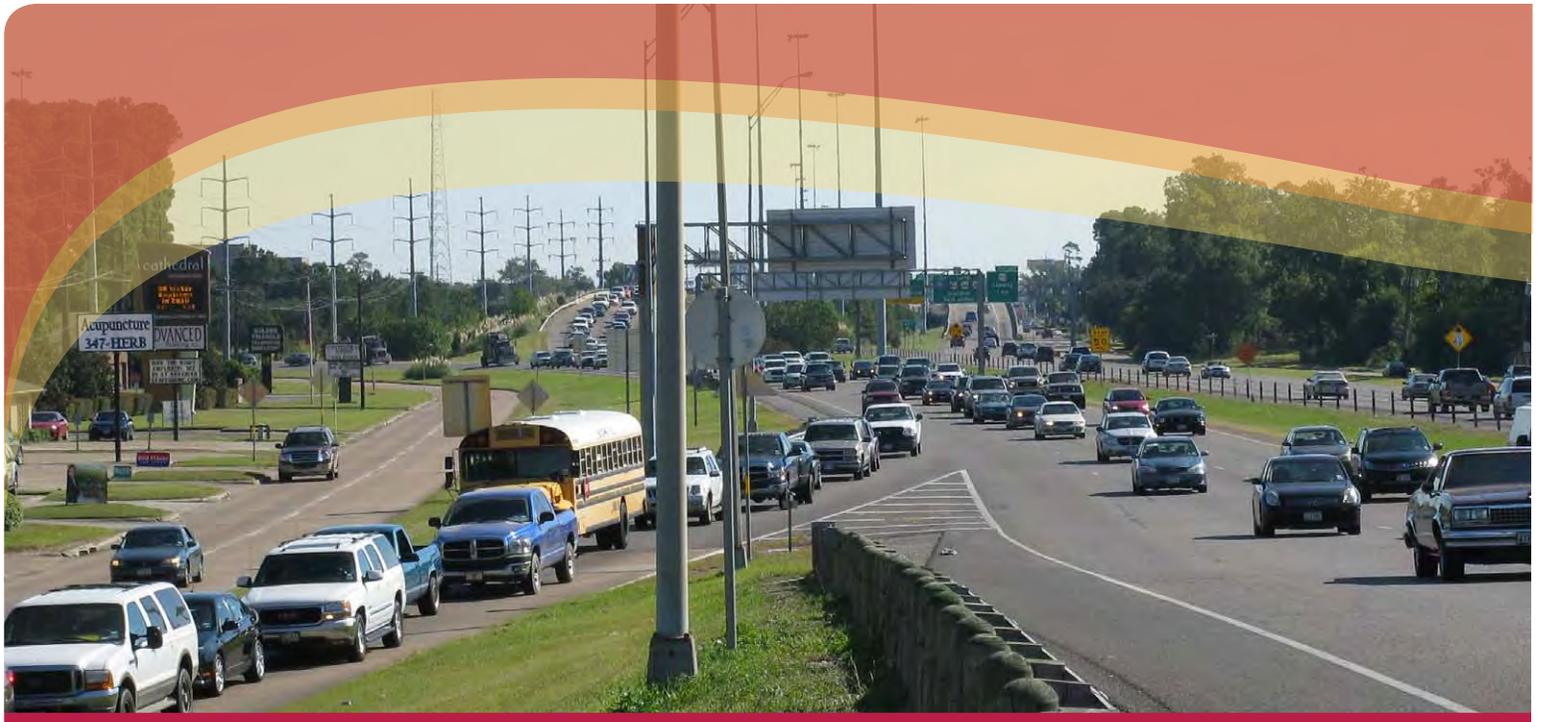


Figure 5.9: 2035 Model-derived LOS



The distribution of new growth will have a significant impact on the transportation system by the year 2035, causing the region's congestion levels to rise substantially, especially along the IH 10, US 69, and US 96 corridors.

The process of projecting population and job growth for the year 2035 was presented in **Chapter 3 - Community Structure**.



5.2.4 Congestion

Congestion is a severe problem in many of America's urban areas, and it has gotten worse in regions of all sizes. In partnership with the Texas Transportation Institute (TTI), TxDOT collects and uses real-time measures of traffic speeds to compile congestion data for Texas roadways. *The following segments of roadways in the JOHRTS region have been identified to be among the Top 500 congested roadway segments in Texas:*

- 
 US 69 from SH 105 to I-10 in Beaumont
- 
 US 69 from FM 365 to SH 73 in Port Arthur
- 
 I-10 between Magnolia Street and Old US 90, east of Beaumont
- 
 FM 365 from Spur 93 (W. Port Arthur Rd) to SH 347 (S. Twin City Hwy) in Port Arthur

Based on information from TTI's 2011 Urban Mobility Study, the annual delay for peak period drivers in the Beaumont area has increased by about one-third over the last decade. The report also estimates that the annual cost of congestion in the Beaumont area was \$42 million in 1999 and \$77 million in 2011. Traffic forecasts indicate that this trend will continue, although future roadway enhancements may prevent dramatic increases.



The annual delay for peak period drivers in the Beaumont area has increased from about 16 hours of delay in 1999 to 22 hours of delay in 2011.

Source: TTI's 2011 Urban Mobility Study

5.2.5 Crashes

According to TxDOT's Crash Records Inventory System (CRIS), nearly 33,000 crashes occurred within the JOHRTS region between 2007 and 2009. The following table identifies the 21 intersections at which more than 100 crashes occurred. The most accidents occurred at the junction of I-10 and US 90 (College St). In addition, most of the high-crash locations are along I-10 and US 69. These high-crash locations will continue to pose significant problems in the future as traffic volume and congestion increases along these corridors.

Table 5.2: Locations w/ 100 or more Crashes between 2007 and 2009

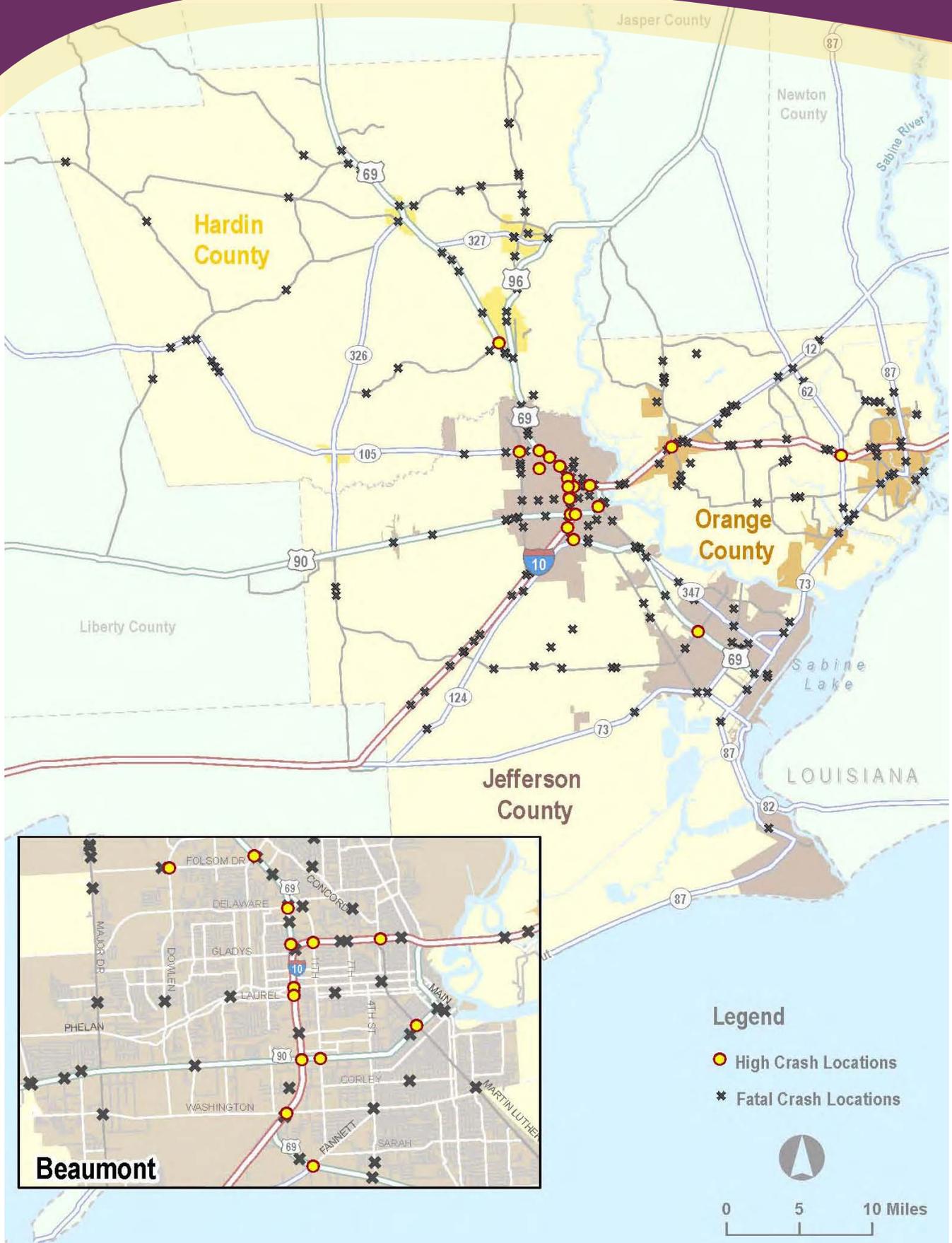
RANK	# OF CRASHES	LOCATION	CITY
01	372	I-10 and US 90 (College St)	Beaumont
02	252	US 69 and Dowlen Rd	Beaumont
03	246	US 69 and FM 365	Port Arthur
04	231	US 69 and Delaware St	Beaumont
05	213	US 69 and Lucas Dr	Beaumont
06	204	I-10 and US 69 northern jct.	Beaumont
07	189	US 69 and SH 73	Port Arthur
08	156	I-10 and SS 380 (MLK Pkwy)	Beaumont
09	132	US 69 and SH 105	Beaumont
10	129	I-10 and FM 105	Vidor
11	126	US 90 (College St) and SS 380 (MLK Pkwy)	Beaumont
12	123	US 69 (Cardinal Dr) and SH 124 (Fannett Rd)	Beaumont
13	119	I-10 and 11th St	Beaumont
14	114	I-10 and Washington Blvd	Beaumont
15	107	US 90 (College St) and 11th St	Beaumont
16	106	I-10 and Calder Ave	Beaumont
17	104	I-10 and SH 62	Orange
18	104	Dowlen Rd and Folsom Dr	Beaumont
19	103	I-10 and Laurel Ave	Beaumont
20	101	US 69 and FM 421 (Country Lane Dr)	Lumberton
21	101	SH 105 and FM 364 (Major Dr)	Beaumont

Over this same three-year period, 93,273 people were involved in crashes resulting in 265 fatalities and 15,860 injuries. The MPO takes safety very seriously and will continue to work with its planning partners to reduce the number of crashes and improve the safety of the region's roadway system.

Table 5.3: Severity of Crash

Crash Severity	2007			2008			2009		
	Jefferson	Orange	Hardin	Jefferson	Orange	Hardin	Jefferson	Orange	Hardin
<i>Fatal</i>	48	30	16	51	24	24	40	24	8
<i>Incapacitating Injury</i>	225	153	48	191	151	52	200	136	27
<i>Non-Incapacitating Injury</i>	1,109	419	178	916	426	189	1,004	431	210
<i>Possible Injury</i>	2,324	852	310	2,158	708	348	2,175	589	331
<i>No Injury</i>	15,654	5,708	2,134	14,340	5,551	2,140	15,393	5,165	1,939
<i>Unknown</i>	2,282	953	212	1,789	811	211	2,043	686	137
Total	21,642	8,115	2,898	19,445	7,671	2,964	20,855	7,031	2,652

Figure 5.10: Fatal Crashes and Locations with more than 100 Crashes



5.3 Condition of Roadway Infrastructure

5.3.1 Pavement Condition

The deterioration of a roadway surface is primarily a function of the number and weight of the vehicles using a roadway. Generally speaking, the more vehicles on roadways and the heavier they are, the faster roadway pavement quality will decline. In the MPO planning area, major emphasis is placed on roadway maintenance.



TxDOT regularly evaluates pavement conditions of all major roadways within the region and evaluates them in terms of their stress, ride, and condition scores.

These scores are also used to analyze roadway condition trends, evaluate future needs, and prioritize roadway improvement projects. The table below quantifies the rehabilitation needs for the state highways in the region based upon TxDOT's Pavement Management and Information System (PMIS) data from FY 2010. About 250 lane miles of on-system roadway needs to be rehabilitated in the JOHRTS region and is illustrated in the following maps.

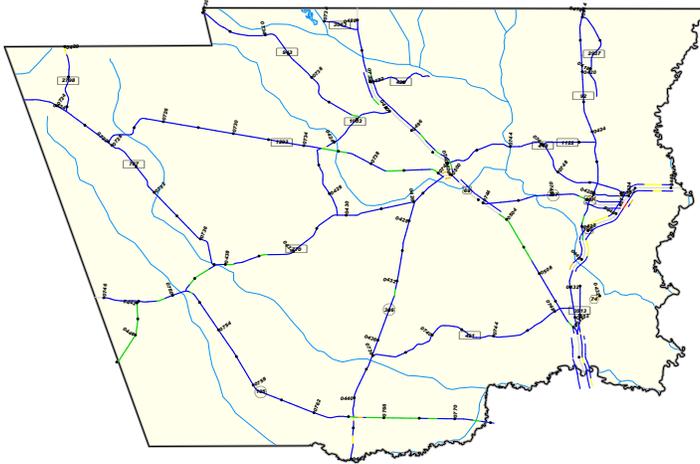


Pavement Type	Lane Miles		Percent Substandard
	Rated	Substandard	
HARDIN COUNTY			
Asphalt Concrete	516.6	18.6	3.6%
Continuously Reinforced Concrete	11.8	0.0	0.0%
Jointed Concrete	36.0	4.6	12.8%
Subtotal:	516.6	23.2	4.1%
ORANGE COUNTY			
Asphalt Concrete	478.4	51.1	10.7%
Continuously Reinforced Concrete	74.4	0.5	0.7%
Jointed Concrete	40.6	33.2	81.8%
Subtotal:	593.4	84.8	14.3%
JEFFERSON COUNTY			
Asphalt Concrete	718.4	19.8	2.8%
Continuously Reinforced Concrete	44.6	6.4	14.4%
Jointed Concrete	312.4	111.0	35.5%
Subtotal:	1075.4	137.2	12.8%
REGIONAL TOTAL			
Asphalt Concrete	1713.4	89.5	5.2%
Continuously Reinforced Concrete	130.8	6.9	5.3%
Jointed Concrete	389.0	148.8	38.3%
Subtotal:	2233.2	245.2	11.0%

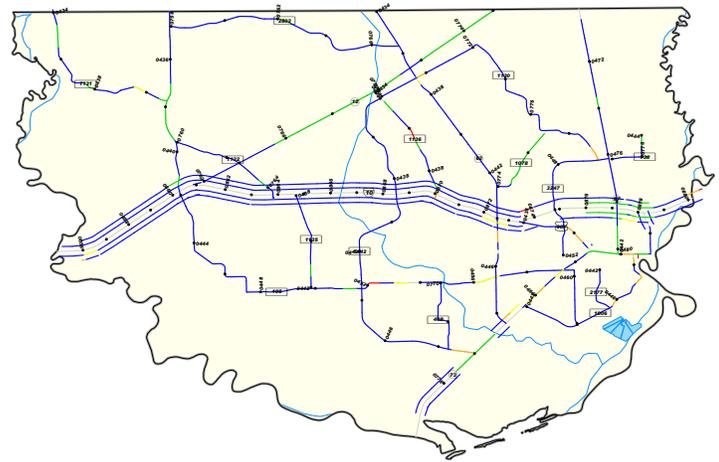
Table 5.4: On-system Roadway Pavement Condition, 2010

Figure 5.11: State Highway Pavement Condition by County

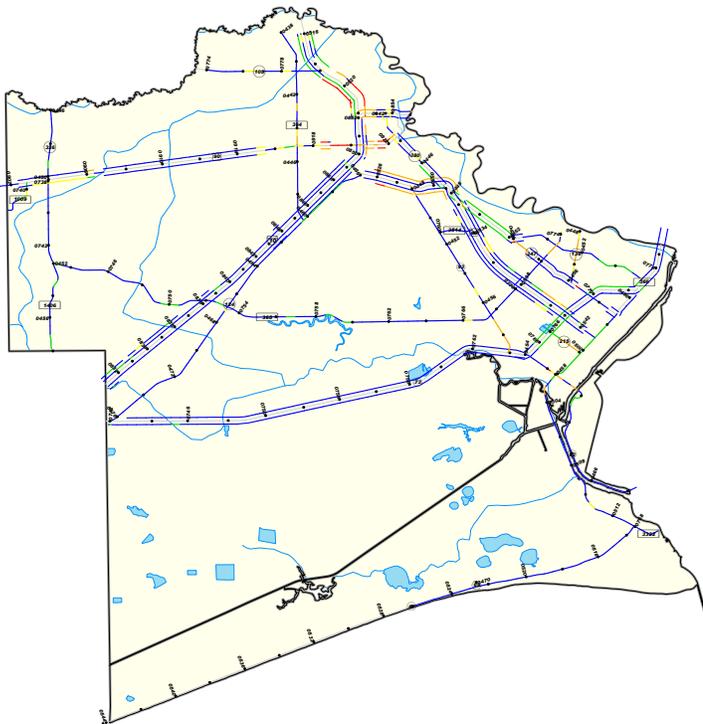
HARDIN County



ORANGE County

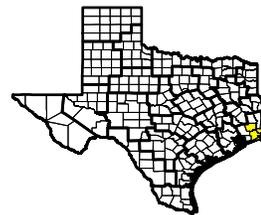


JEFFERSON County



Needs Estimate FY 2013

- Needs Nothing
- Preventive Maintenance
- Light Rehabilitation
- Medium Rehabilitation
- Heavy Rehabilitation or Reconstruction



LEGEND

- Interstate Highway
- US Highway
- State Highway
- Farm or Ranch to Market Road
- Park or Recreational Road

Sources:
Base Maps Compiled, Developed and Maintained by the Information Systems Division using data provided by the Transportation Planning and Programming Division.

PMIS data is maintained by the Construction Division, Materials & Pavements Section.

The soil information used for this map was Natural Resources Conservation Service 1994 State Soil Geographic (STATSGO) data. STATSGO was compiled at 1:250,000 and designed to be used primarily for regional, multistate, state, and river basin resource planning, management and monitoring.

Map Projection and Datum:
Texas State Mapping System (TSMS), NAD27.

DISCLAIMER

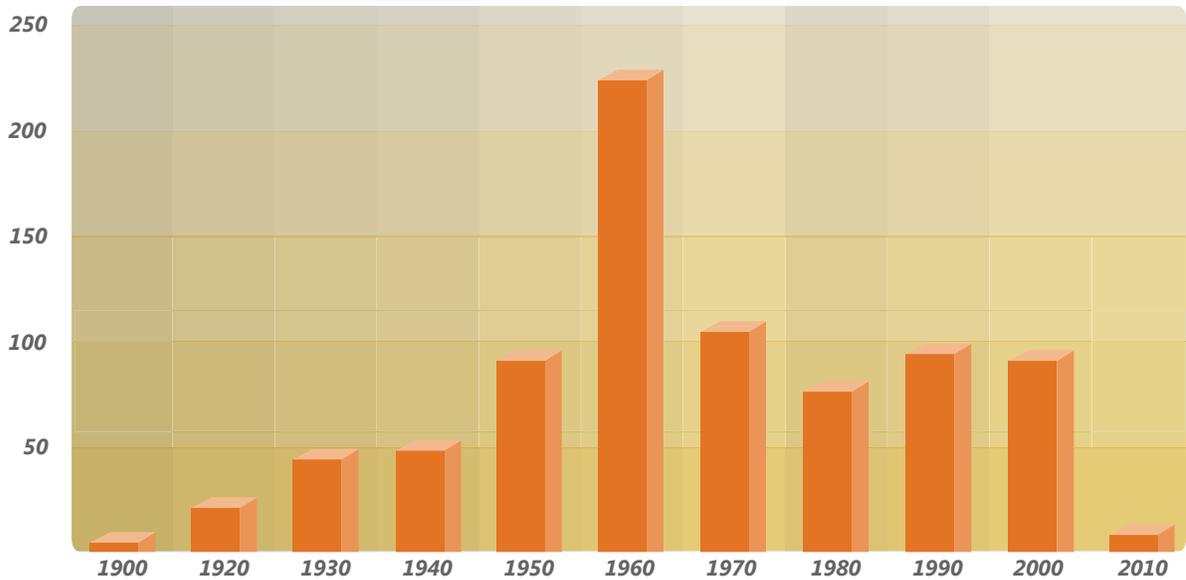
This map is the product of the Texas Department of Transportation. It was produced with the intent that it be used for the review of the referenced data at the original plotted scale. There are no warranties made as to the fitness of this map for any unlisted purpose or reproduction at any other scale.



5.3.2 Bridges

According to TxDOT’s bridge inventory system, there are a total of 780 bridges within the three-county region. More than half of the region’s bridges were built before 1970, and many of these will be approaching the end of their useful life in the coming years and will require reconstruction.

Figure 5.12: Bridges by Decade Built



Bridges that are deemed in need of improvement fall into two categories: “structurally deficient,” which means a bridge’s load capacity is significantly decreased due to deterioration, and “functionally obsolete,” which means a bridge, while not physically deficient, no longer meets current design standards. For example, a bridge with no sidewalks on a section of highway with sidewalks is categorized as functionally obsolete.

Figure 5.13: Bridges, by Decade Built, also showing Functionally Obsolete and Structurally Deficient Bridges

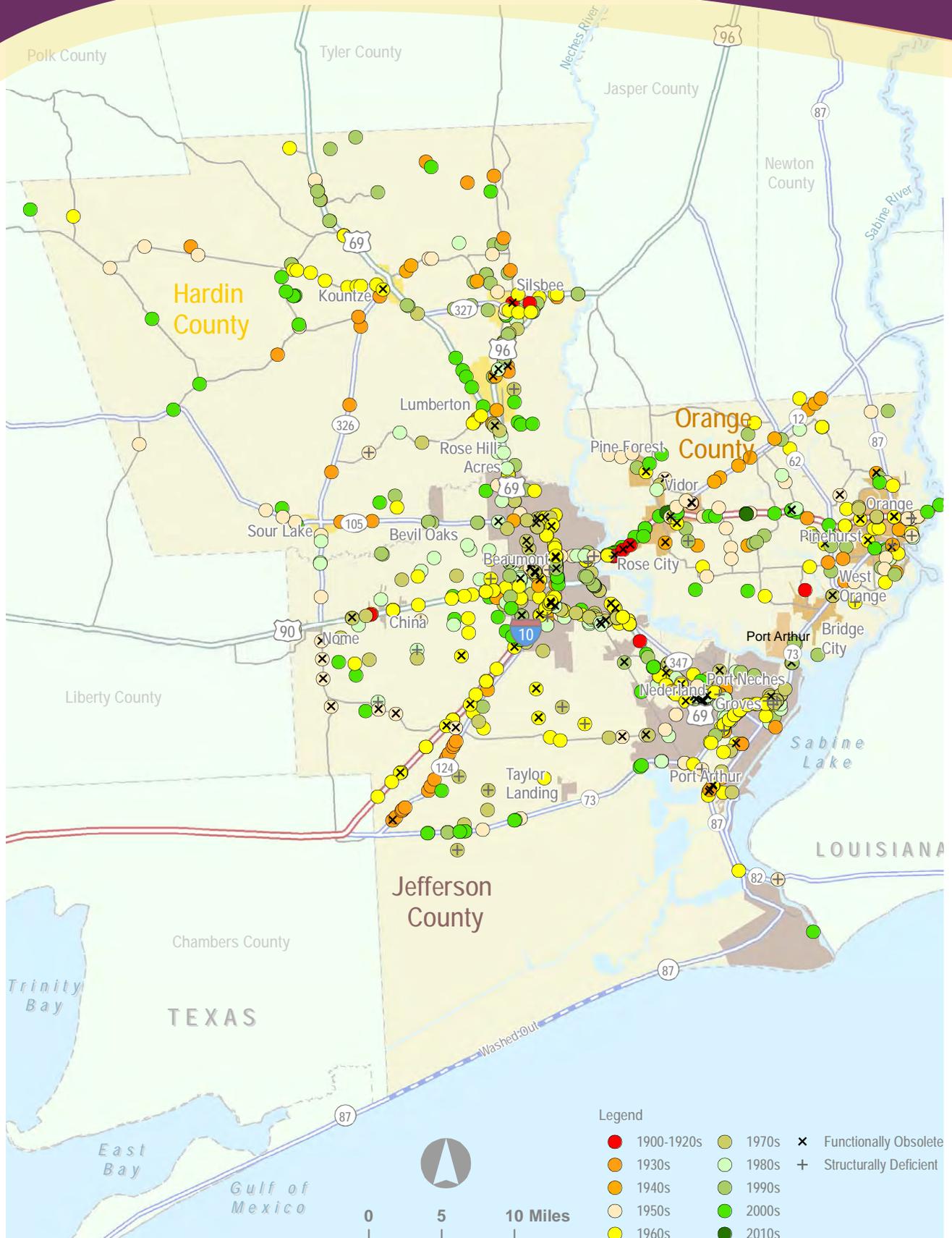
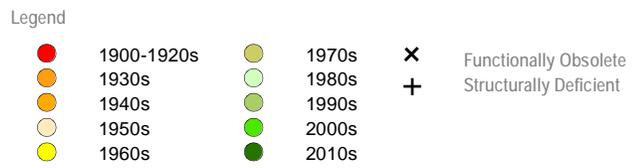
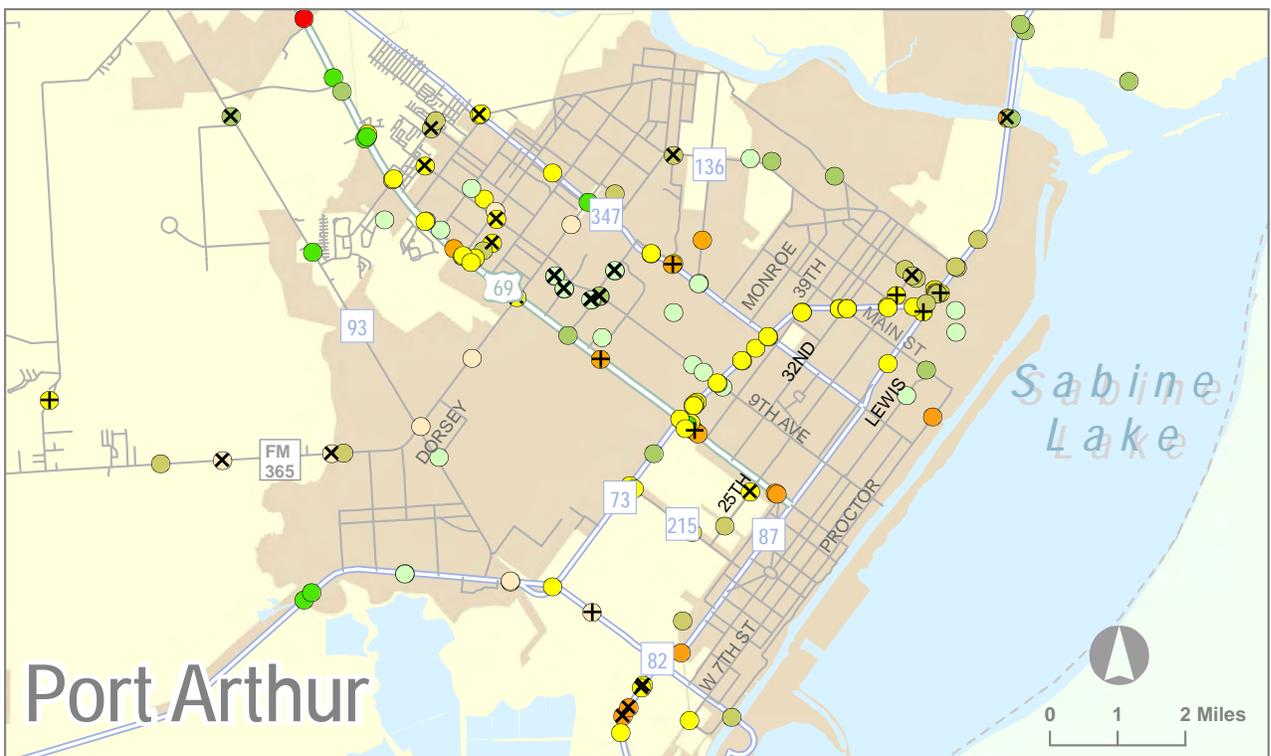
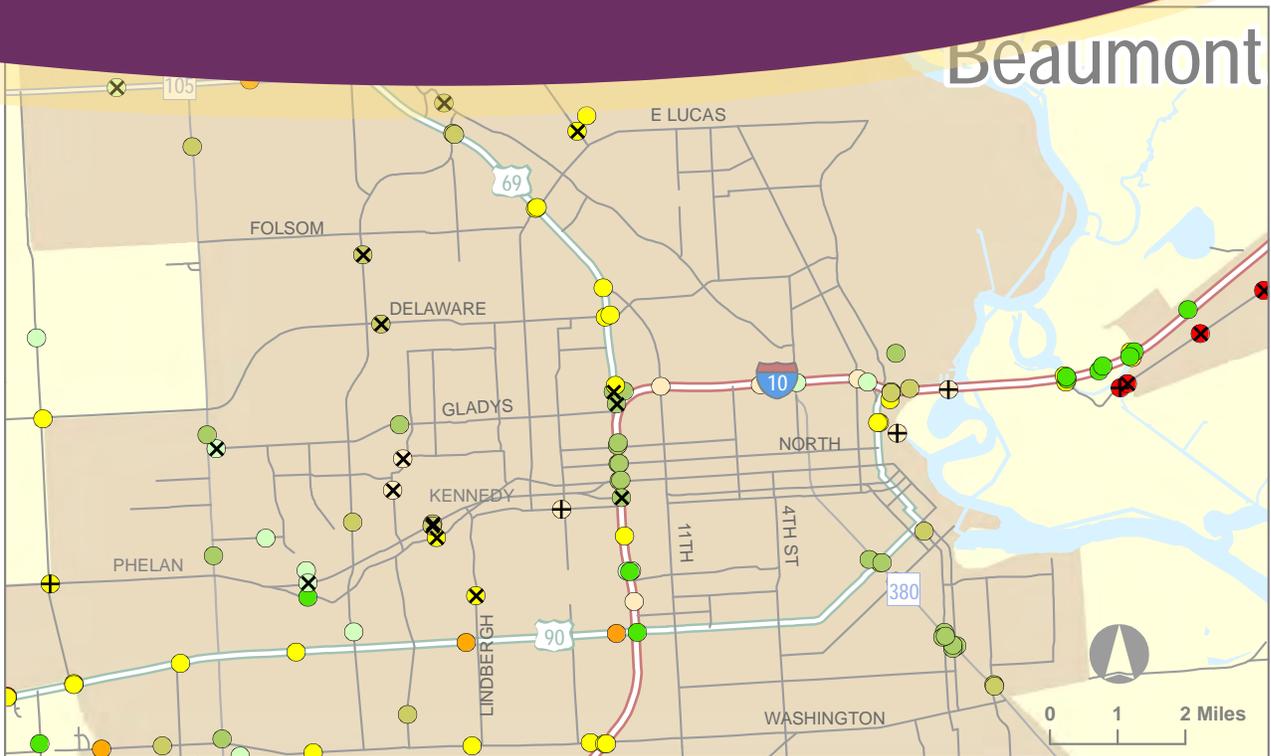


Figure 5.14: Bridges, by Decade Built, also showing Functionally Obsolete and Structurally Deficient Bridges





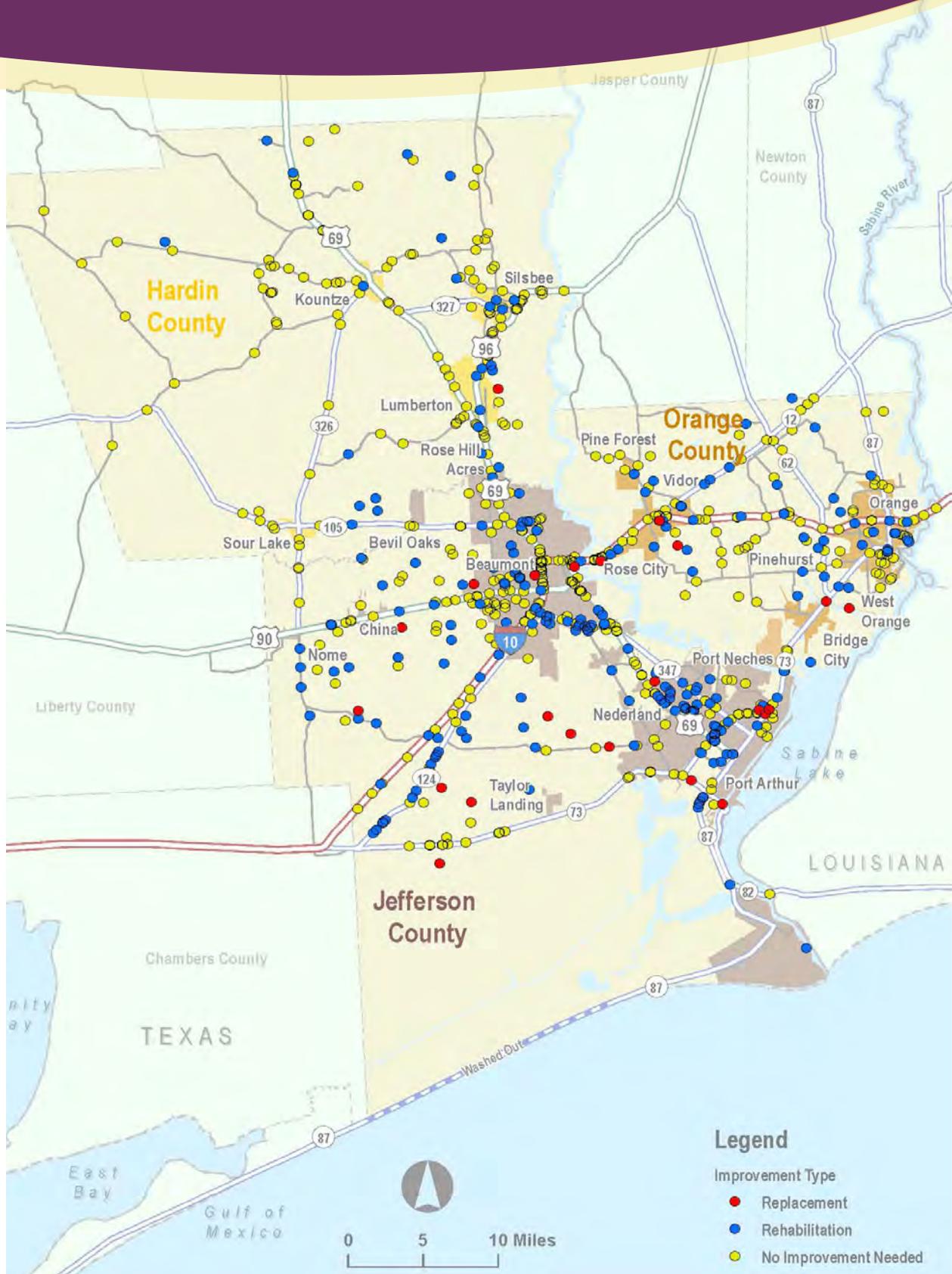
TxDOT conducts structural assessments and determines condition ratings for all bridges within the region. Bridge conditions are scored on a scale of 1 to 100. Bridges that score above 80 are considered to not be in need of improvement. Bridges with scores between 50 and 80 fall into the category of needing rehabilitation. A score of less than 50 means that a bridge needs to be replaced.

Table 5.5: Bridge Condition by County and System

	Jefferson	Orange	Hardin	Total
On-System	290	110	120	520
<i>Good</i>	207	84	107	398
<i>Rehabilitation</i>	77	25	13	115
<i>Replacement</i>	6	1	0	7
Off-System	160	59	41	260
<i>Good</i>	77	29	27	133
<i>Rehabilitation</i>	72	26	13	111
<i>Replacement</i>	11	4	1	16

Source: TXDOT, 2011

Figure 5.15: Bridge Improvements by Location



5.4 Recommended Strategies

Population growth, high automobile availability and usage, and auto-oriented land use development indicate that southeast Texans are heavily dependent upon the automobile as their primary mode of transportation.

Based upon an evaluation of the regional roadway system over the next 20 years, it is evident that increasing demands will be placed on the existing roadway network. The regional roadway system cannot sustain this growth in demand indefinitely without substantial investment. Declining pavement conditions indicate that many roadways in the region are in need of rehabilitation. Poor level of service and low travel speeds along major thoroughfares in the region indicate many roadways are accommodating traffic volumes that exceed their designed operating capacity, and are in need of major improvements.

However, funding levels are still not keeping pace with investment needs. Preserving the existing system in a state of good repair, increasing its operational efficiency, enhancing its safety, managing future travel demand, and promoting the use of alternative modes of transportation are all strategies that will need to be employed in order to relieve the pressure on the regional roadway system and advance the goals of this plan.

As such, the most effective use of limited transportation resources is to direct them towards the following:

- 1 Roadway Construction – – – – –
- 2 System Preservation – – – – –
- 3 System Efficiency – – – – –
- 4 Safety and Security – – – – –
- 5 Travel Demand Management – – – – –
- 6 Land Use and Urban Design – – – – –



5.4.1 Roadway Construction

Major investment in the regional roadway network is still essential if current and future demand for automobile use in the region is to be satisfied. The MPO is committed to investing in a variety of projects that preserve the existing system, enhance its efficiency and safety, and improve its overall quality. Roadway improvements in this MTP focus on improving traffic flow and system efficiency, increasing safety, and spurring economic development and focus on key regional corridors such as I-10 and US 69.



A complete listing of all planned improvements is presented in the MTP project listing within **CHAPTER 12 – RECOMMENDED PLANNED IMPROVEMENTS**.

To be sure, there are limitations on roadway construction, such as natural and man-made barriers that hinder the construction of roadway improvements. These barriers often include factors that determine when and how fast improvements can be made to roadways, such as the processes used to obtain funding for transportation projects, environmental requirements, and other government regulations.

The main barriers to accommodating the transportation needs in the area include:

AIR QUALITY MANDATE

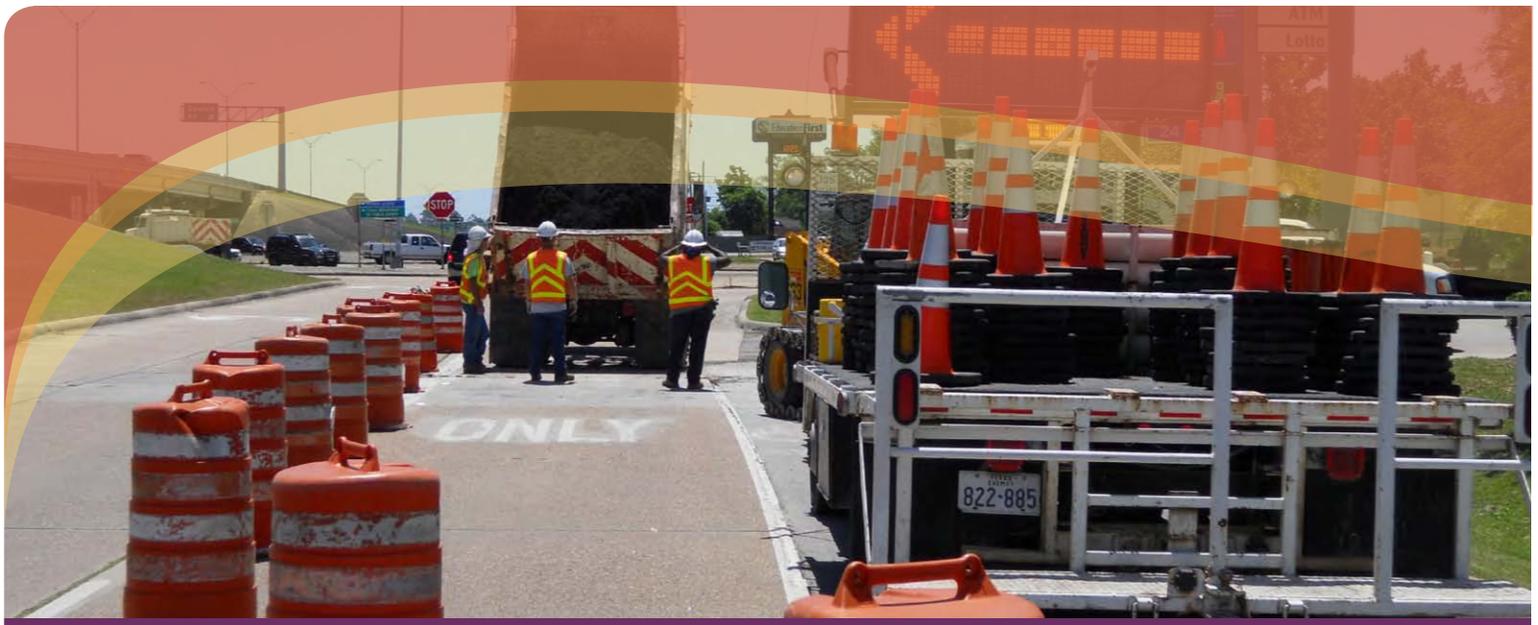
The region's previous designation as a non-attainment area has prevented transportation planners from solving congestion problems strictly through added capacity improvements, since building new roads induces automobile traffic which adds to mobile source emissions.

ENVIRONMENT

Environmentally sensitive areas such as wildlife preserves and wetlands make it difficult to improve existing roadways without compromising environmental assets or conducting comprehensive and costly environmental studies. The cost of construction projects in these areas is often much higher than other improvements due to the extra precautions or mitigations that must be taken in order to protect these environmentally sensitive areas.

LIMITED FINANCIAL RESOURCES

Cities, counties, and the state are finding it difficult to find the necessary financial resources to keep pace with transportation investment needs and develop proactive approaches for satisfying the mobility needs of both today and the future.



5.4.2 System Preservation

Preserving the existing system and maintaining it in good condition will continue to be a high priority for the MPO. Adequate resources must be directed toward system preservation to keep the transportation network in good condition. These resources will be used to maintain high quality, smooth roadway surfaces, to quickly repair unexpected damages, and to reduce the number of structurally deficient bridges.



ROADWAY MAINTENANCE

The maintenance of the existing transportation system is important for satisfying future transportation needs in the JOHRTS area. The implementation of an effective roadway maintenance program requires expertise in management, engineering, and economics, and encompasses routine/corrective maintenance, preventive maintenance, and rehabilitation activities. Roadway pavements require continual reinvestment to sustain their structural viability and to maximize the original financial investment made to build them. Roadways that lack proper maintenance experience increased failure rates, increases in overall costs, and contribute to safety hazards.

The Maintenance Division of TxDOT oversees the preservation, upkeep, and restoration of all state-owned roads in the JOHRTS area. Much of TxDOT's budget is allocated towards activities that focus on preventive maintenance and rehabilitation. Preserving and maintaining the structural integrity of transportation facilities is less expensive than replacing them and therefore overall costs are minimized. Roadway work that falls under TxDOT's maintenance budget includes reconstruction, resurfacing, signing, striping, and other routine or periodic maintenance.

Roadway maintenance activities can be generally categorized into three areas:

1 Routine:

These activities are undertaken on a regular, ongoing basis and can be grouped into cyclic and reactive work efforts. Cyclic works are those undertaken on a regular predefined schedule, such as mowing, while reactive works are those undertaken in response to any deficiencies that may arise, such as pothole repairs.

2 Preventive:

These are projects undertaken at regular, somewhat longer intervals to preserve the structural integrity of a road, such as crack sealing.

3 Special:

The activities include emergency work to repair unexpectedly damaged roads.

Cities and counties in the JOHRTS area undertake street maintenance and rehabilitation service of non-state owned roadways within their jurisdictional boundaries. Through scheduled routine maintenance, staff and contractors fill potholes, mow the grass, clean out ditches, and perform other work. Area cities and counties maintain Capital Improvement Programs, which include roadway paving, resurfacing, and reconstruction projects.



PAVEMENT MANAGEMENT

TxDOT monitors the surface condition of all of its roadways within its Pavement Management and Information System (PMIS). Road conditions are rated on a scale from “poor” to “better” that takes into account factors that include the smoothness of the ride and the structural integrity of the roadway. The PMIS data for the JOHRTS region is completely updated every two years and helps TxDOT in prioritizing its roadway maintenance projects.



BRIDGES

Like roadways, bridges require scheduled maintenance and inspection to ensure they can continue to safely carry increasing traffic volumes and higher numbers of loaded trucks. As previously mentioned, TxDOT has a robust bridge inspection program that allows the state to make informed decisions about where and how to spend funds for bridge replacement and rehabilitation. TxDOT provides all off-system bridge data to local engineering departments and assists them with maintenance and rehabilitation and provides low-rate loans through the State Infrastructure Bank, paying half the share for bridge rehabilitation and replacement through the Highway Bridge Program.

The SETRPC-MPO will continue to promote adequate roadway and bridge maintenance in the region and collaborate with TxDOT and local area agencies to support and fund roadway and bridge preservation and maintenance projects.



5.4.3 System Efficiency

Transportation System Management (TSM) strategies help to improve the safe and efficient movement of people and vehicles within the existing transportation system. They typically involve roadway improvements that increase capacity, optimize traffic operation, or apply traffic calming in residential areas. Generally, implementation of these strategies can be done at relatively low cost, requiring minimal right-of-way, and often can be accomplished quickly.

ITS STRATEGIES

An example of a broad TSM program is the implementation of intelligent transportation systems (ITS) technologies. In particular, ITS can improve transportation safety and mobility and enhance efficiency through the integration of advanced communications technologies. Intelligent transportation systems (ITS) include a broad range of wireless and wire line communications-based information and electronics technologies.

ITS technology is employed by various agencies in the three-county region. In 2003, TxDOT's Beaumont District developed the Beaumont Regional ITS Architectures and Deployment Plan. Stakeholders from throughout and adjacent to the district participated in the development of the plan, including representatives from TxDOT, the Texas Department of Public Safety (DPS), SETRPC, cities, counties, transit agencies, and rail operators. This Regional ITS Architecture represents a shared vision of how each agency's systems will work together in the future by sharing information and resources to provide a safer, more efficient, and more effective transportation system. The plan recommended a variety of ITS projects to be implemented, which are categorized into short, medium, and long-term timeframes.

TxDOT oversees the operations of its major highways through its Transportation Management Center (TMC). At the TMC, TxDOT monitors and distributes information from various ITS





technologies deployed through the region, including dynamic message signs, traffic cameras, traffic signals, and a video image vehicle detection system. Dynamic message signs along the I-10 and US 69/96/287 corridors provide up-to-date information about traffic flow conditions and incidents so that motorists can make more informed decisions during their trip.

Moving forward, the MPO will continue to pursue new ITS projects and programs and invest in their deployment.

TRAFFIC CALMING

Traffic calming efforts include an array of programs, such as traffic law enforcement, public awareness, and educational programs, as well as physical measures, which calm traffic flows and encourage safer roadways. In terms of transportation management, this usually includes a variety of infrastructure improvements that reduce the negative effect of vehicle use and improve conditions for non-motorized transportation. Further, these strategies can be effective in eliminating cut-through traffic on local or neighborhood streets. Some examples of traffic calming techniques utilized in transportation management include speed humps, roundabouts, traffic circles, and raised medians or islands that limit vehicular access and turning capabilities. The MPO will continue to work with local entities to promote these techniques.



ACCESS MANAGEMENT

Another method to improve mobility and alleviate congestion is access management, which includes a broad set of techniques designed to improve roadway capacity, mobility, and safety by limiting the accessibility of vehicular traffic. The techniques usually control and regulate the location, spacing, and design of driveways, medians, median openings, traffic signals, and freeway interchanges. Furthermore, when combined with streetscape improvements, access management techniques can also contribute to attractive multimodal environments.





Some of the corridors in the JOHRTS region where access management techniques can be implemented are:



11th Street in Beaumont



Memorial Blvd in Port Arthur



16th Street in the City of Orange



INTERMODAL CONNECTIVITY

With the presence of international and domestic ports, petroleum refineries, and industrial parks, goods movement is one of the major backbones of the regional economy. Recent and future planned expansions of port facilities and the associated growth in trade will increase traffic to and from all the ports in the region.

The Port of Beaumont recently expanded its operations to the eastern side of the Neches River on a 455-acre parcel in Orange County. Currently this area is only accessible by a narrow road from I-10's Old U.S. 90 exit. Both short-term and long-term improvement strategies are needed to enhance landside access to the new wharf.



Both the ports and the local trucking industry have expressed an interest in developing a comprehensive region-wide truck route system. **While some jurisdictions in the region have already identified signed truck routes, the current routes are discontinuous, travel through both school zones and highly residential areas (such as Park Avenue in the City of Orange-pictured here), and do not adequately serve current truck traffic needs.**

The MPO will work with its planning partners to explore the development of a regional truck route network with associated policies and guidelines.



5.4.4 Safety and Security

Safety may be defined as the freedom from unintended harm. Transportation safety planning considers ways that all elements of the system can operate efficiently while still being safe for users. This could include any number of projects or programs such as police surveillance, intelligent transportation systems (ITS), and improvements at high-crash locations. Security, on the other hand, may be defined as the freedom from intentional harm, including those inflicted by people and natural phenomena. In particular, security goes beyond safety and includes planning to prevent, manage, and respond to threats to the regional transportation system. These threats could include a variety of events, such as natural disasters, terrorist threats, and hazardous spills, all of which endanger the lives of people and important transportation infrastructure. In the JOHRTS region, safety and security of the transportation system is coordinated within various agencies at the federal, state, and local levels.

SETRPC's Homeland Security and Emergency Management Planning Division (HSEMPD) facilitates the development of plans that enable the region to prevent, prepare, respond, and recover more effectively from man-made and natural disasters. HSEMPD also provides technical assistance and grant administration for the Department of Homeland Security funds that come to the region via the State Administrative Agency, a division of the Texas Department of Public Safety.



HOMELAND SECURITY
&
EMERGENCY MANAGEMENT
PLANNING DIVISION

The following plans have been recently completed to enhance safety and security in the three-county region:



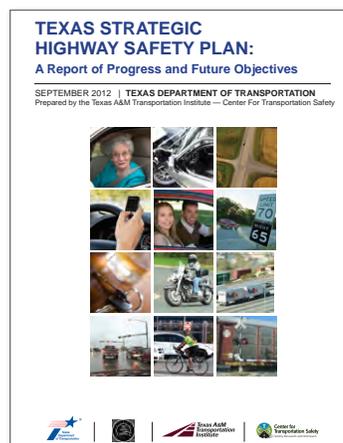
- Regional and County Mitigation Action Plans
- Regional Response Plans
- Implementation Plan (correlates with Governor's Strategic Homeland Security Plan)
- Regional Interoperable Communications Plan
- The Portwide Risk Mitigation and Continuity Plan



9-1-1 is a three-digit telephone number that has been set aside as the telephone number to be used in the event of an emergency and as a means of calling for police, fire, or emergency medical assistance. **SETRPC was the first regional 9-1-1 system to fully implement Enhanced 9-1-1 in all of its three-county service area.** SETRPC continues today to serve as the primary agency for the administration, maintenance, and oversight of the 9-1-1 system. Currently, preparations are being made to integrate video reporting of incidents through cell phone cameras, which will help response teams render assistance. The SETRPC 9-1-1 Network is also responsible for address maintenance in the unincorporated areas of the three-county region.



TxDOT's Beaumont District works on behalf of the State and in coordination with the MPO to carry out transportation safety and security planning tasks and activities. It partners with other state, federal, and local entities to enhance safety on the regional roadway system through a variety of focused traffic safety programs. TxDOT also collects crash data from law enforcement agencies and evaluates the cause of crashes and fatalities in order to develop projects to make the roadways safer. If crashes are infrastructure-related, TxDOT plays a vital role in improving road design and configurations through roadway improvement projects.



TxDOT's Strategic Highway Safety Plan (SHSP) and its related Highway Safety Improvement Program (HSIP) provide a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. The SHSP strategically establishes statewide goals, objectives, and key emphasis areas developed in consultation with federal, state, local, and private sector safety stakeholders.

The MPO will continue to work with federal, state, and local agencies to evaluate the safety of the regional roadway system and identify, develop, fund, and construct projects to improve roadway safety. The MPO will also work to maintain awareness of various security initiatives in the region.



5.4.5 Travel Demand Management

Travel Demand Management (TDM) is the application of strategies and policies to reduce travel demand (specifically that of single-occupancy private vehicles), to redistribute this demand in time or space, and to offer a set of strategies aimed at maximizing traveler choices. Managing demand can be a cost-effective alternative to increasing capacity and also has the potential to deliver better environmental outcomes, improved public health, stronger communities, and more prosperous and livable cities.

TDM strategies are effective in influencing travel patterns and behavior, increasing vehicle occupancy, promoting and encouraging alternative transportation modes, and redistributing the timing of trips to reduce traveling peaks, thereby reducing the overall demand on the transportation system. Strategies promoted by the SETRPC's Ozone Action Day program such as "Limit driving," "Pick one day a week to leave your car at home," and "Combine trips whenever possible" while intended to improve air quality, also promote travel demand management in the region.

Other TDM strategies that would benefit the JOHRTS region include:

Telecommuting

It is quite feasible and practical to work closer to home with today's communication technologies. This is an excellent tactic for reducing the number of vehicles on the road. Additionally, other flexible work options which enable employees to shift their work schedules to earlier or later parts of the day spread out demand for travel, thereby reducing congestion.

Support for Transit

Providing necessary support for transit ridership can be instrumental in encouraging people to use alternative modes of transportation. People value their time and the convenience of a vehicle; therefore, transit should provide frequent service and be accessible to multiple origins and destinations. Specific programs to encourage transit use include employer-provided, tax-free transit passes and guaranteed-ride-home programs.

Support for Walking and Bicycling

Bicycle and pedestrian facilities that offer safe, accessible, contiguous, and direct pathways are most ideal for bicyclists and pedestrians and can take some of the burden off the roadway network.

School Considerations

Schools generate a substantial amount of vehicular traffic when parents drive their children to and from school. Even the children living within close proximity to schools may not walk or bike to school because parents do not feel that the environment is safe. Programs such as Safe Routes to School and the Walking School Bus (which provides chaperoned walks to schools) are effective in providing safe and accessible walking environments. Better coordination between local governments and school districts can also help with selecting sites for new schools that are conducive to walking and bicycling.



5.4.6 Land Use and Urban Design

The types of land uses and development in a region generally fall into the categories of where a person lives, works, or plays. These nodes of activity are oftentimes separated, but are becoming more integrated as people realize the benefits of mixed use. The links connecting the nodes of activity are the highways, roads, and other such pathways in a transportation system. Therefore, promoting smart and integrated land use and transportation development planning policies is vital for the overall health of a region. The MPO will work with stakeholders to promote the integration of transportation improvements and land use development, especially mixed use development.

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CHAPTER 6

Public Transportation

Public transportation is an integral component of the JOHRTS region's multimodal transportation system, offering tangible transportation benefits, including transit service for the elderly, the disabled, and people who either choose to not, or are otherwise unable to, drive. **Public transit also offers additional benefits to society as a whole as increased transit use promotes clean air and decreased fuel consumption.**

This chapter reviews the existing transit systems, facilities, and services; analyzes the transit service gaps; identifies issues, *and suggests strategies and policies to address the overall demand for public transit services* **within the JOHRTS region.**

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6.1 Existing System

Public transportation in the JOHRTS area includes two separate fixed-route systems in Beaumont and Port Arthur and demand response service in the rural areas.

Fixed Route Service



BEAUMONT MUNICIPAL TRANSIT (BMT):

BMT operates nine local bus routes throughout the Beaumont area. The routes converge at the BMT transfer facility in downtown Beaumont to provide easy transfers to other routes. Fares for adults are \$1.25 for all routes, with discounted fares of \$0.75 for senior citizens, disabled, and youth (ages 6 through 18). Transfers are \$0.25. Children under 6 can ride for free, with up to three children per fare-paying adult. Monthly passes allowing unlimited rides each month are also available.

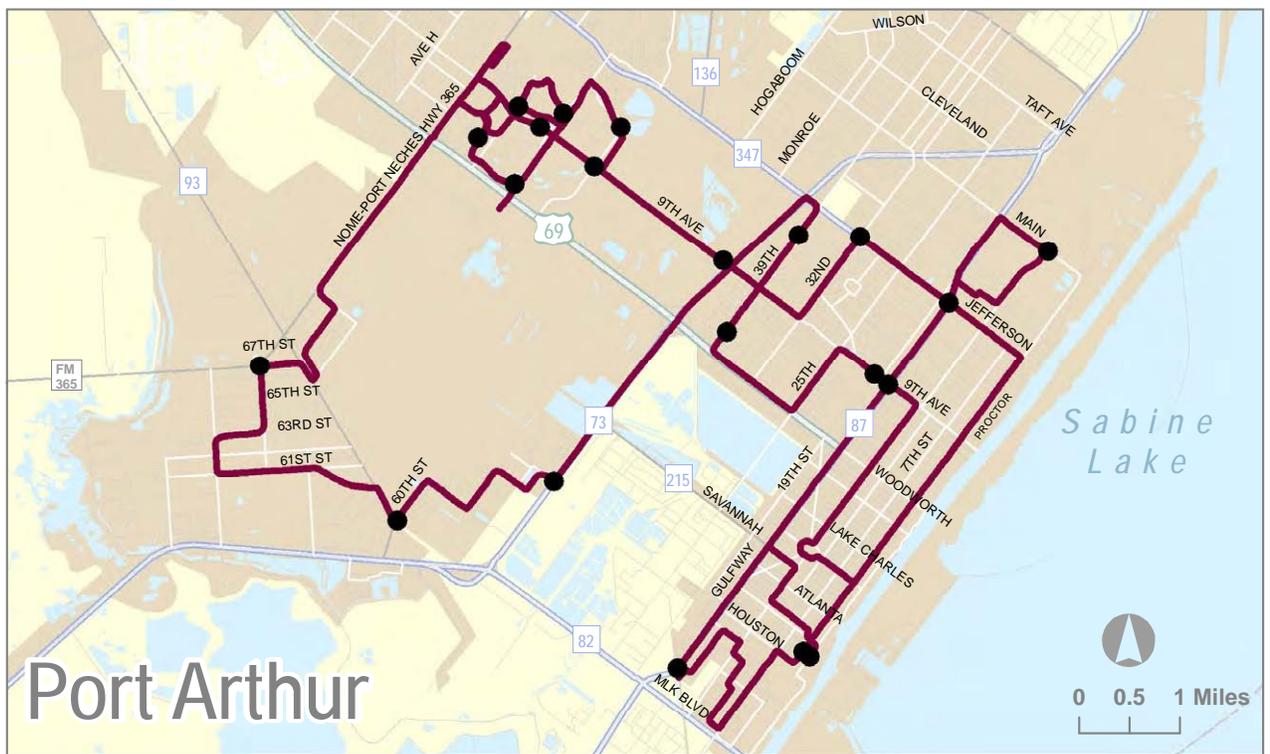


PORT ARTHUR TRANSIT (PAT):

PAT operates eleven local bus routes throughout the Port Arthur area. Transit routes serve most major roadways between FM 365 and the Sabine-Neches Waterway. Fares are \$1.00 for adults, with reduced fares of \$0.50 for senior citizens, children, and handicapped patrons. Transfers are free, with the exception of zone transfers (satellite routes), which have a \$0.50 charge.



Figure 6.1: Existing Transit Routes



Legend

- Beaumont Transit Network
- Port Arthur Transit Network
- Major Stops

Demand Response Service

Both Beaumont Municipal Transit and Port Arthur Transit offer curb-to-curb paratransit service to those individuals within their service areas who are unable to use the fixed route system due to disability. The residents outside the BMT and PAT service areas are served by a variety of agencies.



SOUTH EAST TEXAS TRANSIT (SETT):

A curb-to-curb demand-response system that provides persons residing in non-urbanized areas with transportation to healthcare, shopping, social services, employment, education, and recreational locations.



ORANGE COUNTY TRANSIT (OCT):

A curb-to-curb transportation service for residents of Orange County. Transportation is available anywhere in Orange County and to destinations within the county, Port Arthur, and Beaumont.

NUTRITION AND SERVICES FOR SENIORS (NSS):

A low-cost transit service for residents in North Jefferson and Hardin counties for medical appointments, dialysis, prescriptions, groceries, recreation, work, and other travel needs.

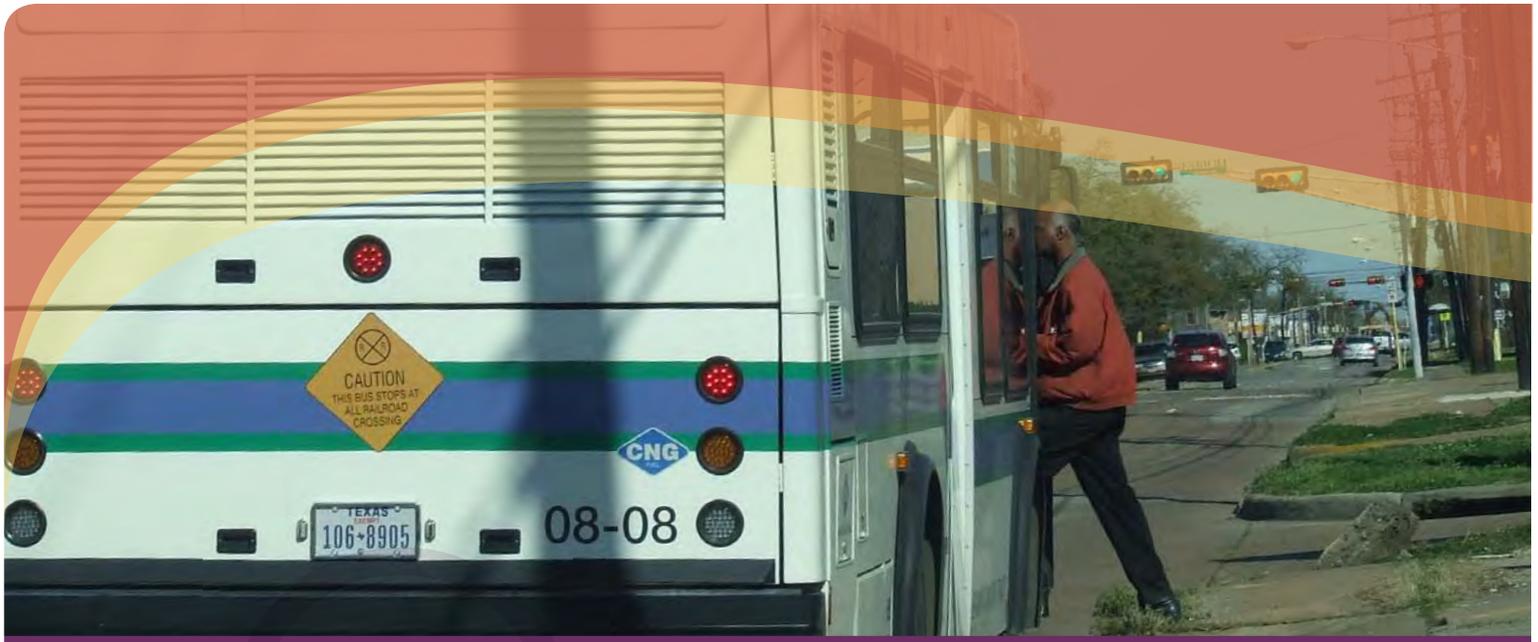
ORANGE COMMUNITY ACTION ASSOCIATION (OCAA):

A private transportation service for all residents within Orange city limits for shopping, medical, work, education, and any other trip purposes.



Table 6.1: Southeast Texas Public Transportation Providers

	Beaumont Municipal Transit	Beaumont Municipal Transit > <i>Special Transit Services</i>	South East Texas Transit (SETT) > <i>NSS</i> > <i>OCAA</i> > <i>Orange County Transportation</i>
Area	Beaumont	Beaumont	Rural Jefferson, Hardin (except Lumberton), and Orange Counties
Hours	Mon-Sat 6am-9:30pm	Mon-Sat 6am-9:30pm	Various
Services	Fixed Route	Demand Response	Demand Response
Eligibility	General Public	Elderly and Disabled	General Public
	Port Arthur Transit > <i>ADA Paratransit Services</i>	Port Arthur Transit	Orange County Transportation
Area	Port Arthur	Port Arthur	Orange, Vidor
Hours	Mon-Fri 6:15am-6:15pm	Mon-Fri 6:15am-6:15pm	Mon-Fri 7am-4pm
Services	Demand Response	Demand Response	Demand Response
Eligibility	Elderly and Disabled	General Public	General Public
	Nutrition and Services for Seniors (NSS)	Orange Community Action Association (OCAA)	
Area	Hardin County, Rural Jefferson County	City of Orange	
Hours	Mon-Fri 8am-4pm	Mon-Fri 8am-5pm	
Services	Demand Response	Demand Response	
Eligibility	Elderly and Disabled	General Public	

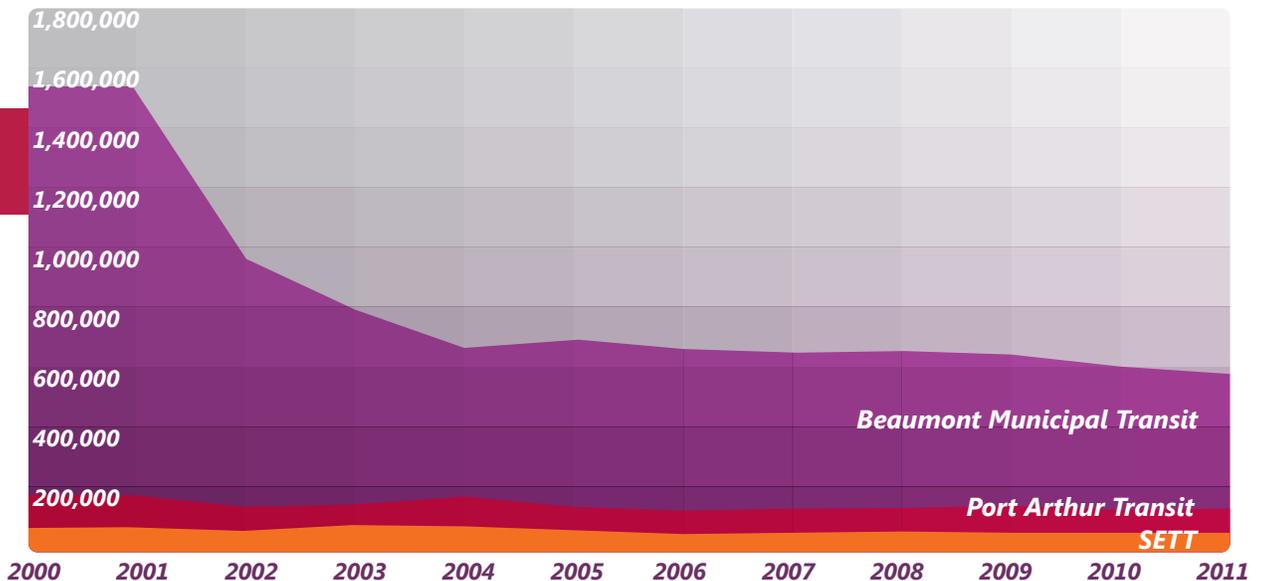


6.2 Ridership

Transit utilization is typically described in terms of the number of passenger trips served. In the JOHRTS region, BMT and PAT report their annual operations summary to the Federal Transit Administration (FTA) and SETT reports their annual operations summary to TxDOT. The ridership data reported is based on number of unlinked passenger trips, which reflect the total number of passengers that board public transit vehicles. In 2002, BMT ridership dropped significantly due to a fare increase and a reduction in service levels. Since that time, overall transit usage has remained relatively constant.

Figure 6.2:
Ridership Trends

Source: National
Transit Database
and TxDOT





6.3 Operating Cost and Funding

According to the National Transit Database, the cost of operating BMT fixed route and paratransit services have remained relatively steady over the last few years, apart from a peak in year 2008. The cost of operating PAT fixed route and transit services has remained relatively steady, as well, with a slight increase from 2010-2011. According to TxDOT's Texas Transit Statistics, the cost of operating SETT showed an improvement in year 2010.

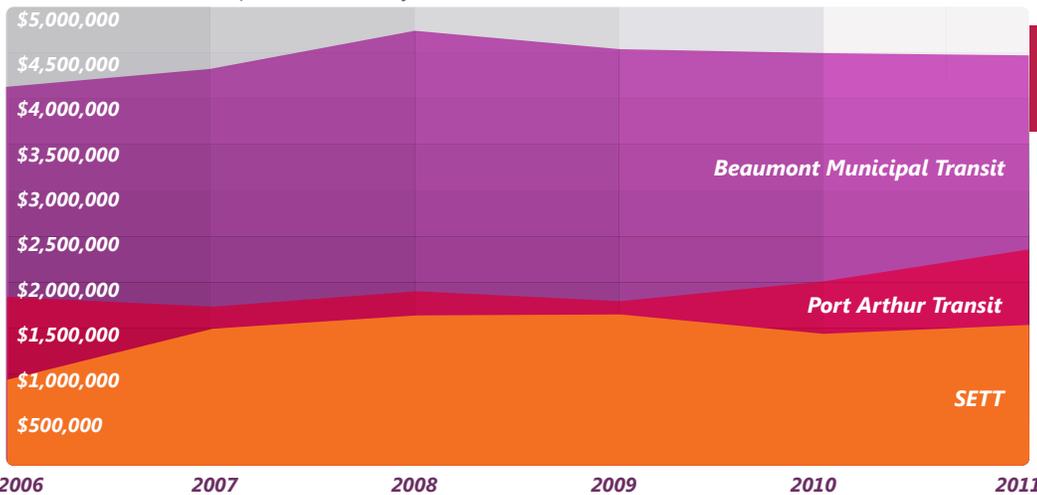
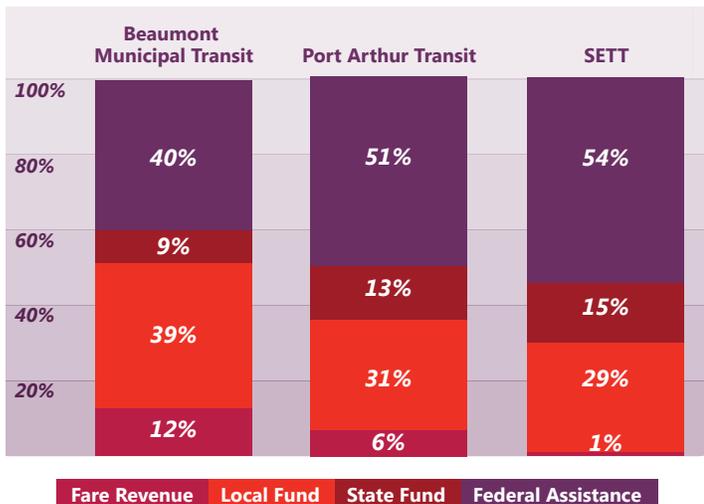


Figure 6.3: Annual Operating Expenses

Source: National Transit Database and TxDOT



BMT, PAT, and SETT are funded mostly through user fees (fares), and local, state, and federal funds. In 2011, PAT and BMT received just under half of their operating expenses through federal assistance, while fare revenues covered only around 10% (on average) of operating expense. In 2010, SETT received more than half of their operating expense through federal assistance, while fare revenue covered only 1% of operating expense.

Figure 6.4: Operating Cost Funding Sources, 2011

Source: National Transit Database and TxDOT



6.4 Performance Measures

Performance measures are useful tools that provide insight into a system’s ability to meet specific goals and objectives. Several performance measures are provided in the annual transit operations reports completed by area transit systems and can be used to make strategic decisions regarding future transit service. More specifically, these performance measures offer planning, budgeting, and cost statistics to monitor and evaluate regional transit services. *In order to monitor the service performance of the three transit providers, the following performance measures are examined.*

PERFORMANCE VARIABLES



Annual Passenger Trips (APT): The number of passengers who board operational revenue vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

Passenger Miles Traveled (PMT): The cumulative sum of the distances travelled by each passenger who boards an operational revenue vehicle.

Vehicle Revenue Miles (VRM): The total number of miles per year that all vehicles travel from the time they pull out to go into revenue service to the time they pull in from revenue service.



Vehicle Revenue Hours (VRH): The total amount of time in hours for a year that all vehicles travel from the time they pull out to go into revenue service to the time they pull in from revenue service.

SERVICE EFFECTIVENESS

Annual Passenger Trips (APT) per vehicle revenue mile (VRM) and vehicle revenue hour (VRH) – the HIGHER the ratio, the BETTER the service effectiveness.



SERVICE EFFICIENCY

Operating expenses per VRH and VRM – the LOWER the ratio the BETTER the service efficiency.



COST EFFECTIVENESS

Operating expenses per APT and passenger mile – the LOWER the ratio the BETTER the cost effectiveness.





SERVICE EFFECTIVENESS

Service effectiveness is simply a measure of transit utilization describing the level of ridership on a system. Increasing the number of riders per mile (or per hour) of service increases the effectiveness of the transit service. In general, the service effectiveness for BMT, PAT, and SETT has mirrored the recent trends in relatively consistent ridership levels.

Year	BMT Fixed Route		BMT Demand		PAT Fixed Route		PAT Demand Response		SETT
	per VRM	per VRH	per VRM	per VRH	per VRM	per VRH	per VRM	per VRH	per VRM
2006	0.85	12.15	0.16	2.13	0.45	7.23	0.21	2.94	0.13
2007	0.87	12.39	0.16	2.24	0.50	8.23	0.20	2.79	0.13
2008	0.94	13.04	0.15	2.03	0.51	8.49	0.22	3.12	0.14
2009	0.87	12.04	0.15	2.05	0.52	8.69	0.21	2.85	0.14
2010	0.81	11.16	0.15	1.78	0.48	7.9	0.21	2.34	0.15
2011	0.78	10.79	0.25	2.69	0.48	8.1	0.18	2.03	0.14

Table 6.2: Service Effectiveness - Annual Passenger Mile

Source: National Transit Database and TxDOT



SERVICE EFFICIENCY

The service efficiency is measured by dividing operating expenses by revenue miles or by revenue hours. Decreasing operating expenses per VRM or VRH indicates increasing efficiency of transit service. In recent years, the operating expense per VRM and VRH of both BMT and PAT has fluctuated. SETT realized an improvement in service efficiency in 2010 over previous years.

Year	BMT Fixed Route		BMT Demand		PAT Fixed Route		PAT Demand Response		SETT
	per VRM	per VRH	per VRM	per VRH	per VRM	per VRH	per VRM	per VRH	per VRM
2006	\$4.66	\$66.34	\$6.18	\$80.08	\$5.85	\$94.65	\$5.62	\$79.61	\$2.35
2007	\$4.74	\$67.07	\$6.15	\$84.79	\$4.98	\$81.42	\$4.87	\$66.38	\$2.82
2008	\$5.56	\$76.96	\$6.94	\$91.45	\$5.80	\$96.03	\$5.26	\$75.83	\$3.76
2009	\$4.87	\$67.24	\$7.00	\$96.62	\$4.99	\$83.10	\$5.07	\$70.06	\$4.32
2010	\$4.79	\$66.21	\$7.14	\$84.44	\$5.58	\$92.03	\$6.18	\$69.96	\$3.34
2011	\$4.81	\$66.51	\$10.75	\$116.37	\$6.41	\$108.68	\$6.23	\$72.03	\$3.42

Table 6.3: Service Efficiency - Operating Expense

Source: National Transit Database and TxDOT



COST EFFECTIVENESS

The cost effectiveness of a transit service is measured by the operating expense of the service per passenger mile or per passenger trip. Decreasing operating expenses per passenger mile or trip reflects an improvement in the cost effectiveness of service. All services, except the BMT demand response and SETT, realized an improvement in cost-effectiveness in 2009.

Year	BMT Fixed Route		BMT Demand		PAT Fixed Route		PAT Demand Response		SETT
	per PMT	per APT	per PMT	per APT	per PMT	per APT	per PMT	per APT	per APT
2006	\$1.26	\$5.46	\$5.72	\$37.65	\$1.93	\$13.10	\$5.64	\$27.05	\$17.99
2007	\$1.25	\$5.42	\$5.75	\$37.88	\$1.41	\$9.89	\$4.17	\$23.79	\$22.01
2008	\$1.28	\$5.90	\$6.29	\$45.11	\$1.62	\$11.31	\$4.27	\$24.34	\$27.18
2009	\$1.21	\$5.58	\$6.59	\$47.05	\$1.12	\$9.56	\$3.93	\$24.55	\$28.38
2010	\$1.29	\$5.93	\$6.63	\$47.48	\$1.37	\$11.65	\$5.02	\$29.95	\$23.88
2011	\$1.66	\$10.82	\$6.17	\$43.32	NA	\$13.42	NA	\$35.41	\$25.03

Table 6.4: Cost Effectiveness - Operating Expense

Source: National Transit Database and TxDOT

6.5 Transit Issues

Each of the area's transit systems must contend with a variety of complexities to meet their goals. A delicate balance between funding, ridership, and service delivery must be achieved in order to operate a successful system. Specifically, these transit systems must receive adequate funding to provide quality service and attract ridership to increase revenue sources. In contrast, if funding is insufficient, service suffers and ridership decreases, which in turn causes revenue to drop. Therefore, balancing these elements are at the heart of most transit issues and challenges.

Land Use and Transportation

Development policies that support all types of transportation modes will also enable transit to operate more efficiently and effectively. Without the proper incentives and supporting land use densities, a fixed route transit system becomes little more than a social service rather than a significant contributor to the overall mobility of the entire population.

Service Boundaries and Coordination

The urban and rural boundaries in the JOHRTS region dictate the extent of public transportation service boundaries. The urban transportation providers cannot go beyond the urbanized area boundaries. While rural transportation providers can transport riders into the urbanized area, the origin of the trip cannot begin within the urbanized area. This lack of connectivity between the rural and urban systems can be improved through coordination between the different transportation providers and frequent assessment of their service area. A transit pass that allows a user to travel throughout the region without being required to coordinate with multiple transportation providers and purchase multiple trips would also benefit riders. The SETRPC recently completed the Regional Public Transportation Coordination Plan, which will help maximize the overall efficiency of transit service throughout the region.

Intercity Riders

An often-repeated message that was heard throughout this plan's public outreach process was the need for an intercity bus route. The previous 2030 MTP also discussed the implementation of such a service by restoring the LINK program. The LINK, a program initiated by SETRPC in August 2001, connected the Beaumont and Port Arthur fixed-route services. The service operated with provider buses and averaged less than 100 rides per month; however, the project was terminated in July 2003 due to low ridership and the unavailability of continued funding. The MPO and its regional transportation planning partners will continue to monitor the need for such service.

Growing Elderly Population

As the baby-boomer population ages, society will need to seriously consider additional transportation options for those individuals who may not be able to operate their own vehicle. Public transit and special mobility services, such as demand-response paratransit services, will enable a growing elderly population to continue to engage in the community and receive needed medical and support services. However, the cost borne by the public for increasing specialized transportation services can be extensive. Therefore, it will become vital to coordinate services and funding through a collaboration of many providers, such as medical, social, human services, and faith-based groups. Recognizing the importance of the transportation of our nation's elderly and disabled population, the Federal Transit Administration (FTA) provided formula-based funding (49 U.S.C. 5310) to states to assist private non-profit organizations in meeting the transportation needs of our senior and physically disabled citizens. The SETT utilizes Section 5310 funds to provide demand response service in portions of the JOHRTS region.

Captive and Choice Riders

Users of public transportation services can be divided into two general types of riders: captive riders and choice riders. Captive riders usually have no other choice but to use public transit and consist of people without access to their own vehicle, persons with disabilities, and individuals who are otherwise unable to transport themselves. In contrast, choice riders have other means of transportation at their disposal. They may use transit for a variety of reasons, including cost savings, convenience, or environmental cognizance. Attracting additional choice riders is a challenge where roadway congestion or parking prices are not a significant problem or where a stigma or negative perception of transit is attached to using the system. In addressing future mobility issues, transit must offer a competitive alternative to the personal automobile.





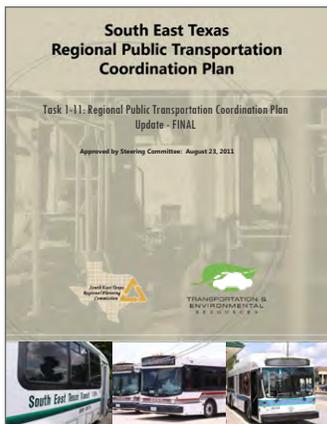
6.6 Proposed Strategies

A variety of strategies and practices exist to support the successful operation of a public transit system. In order to address the transit-related challenges of the JOHRTS region, the following “toolbox” of policies, strategies, and actions are recommended. These strategies should be better integrated into regular planning functions in order to strengthen the role of transit in the regional multimodal transportation environment.

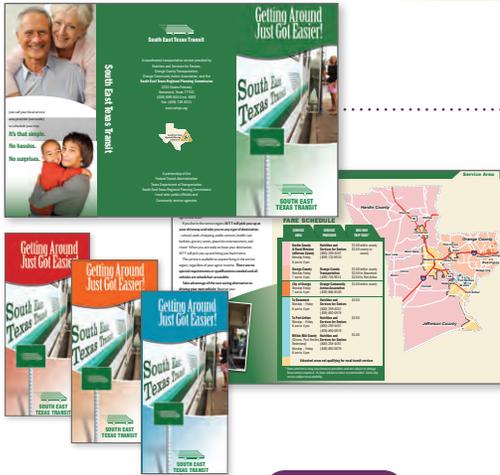


REGIONAL PUBLIC TRANSPORTATION COORDINATION PLAN

Transit service providers within the JOHRTS region should coordinate and collaborate as much as possible to reduce the occurrence of repeated services. In cooperation with TxDOT, under the provision of Chapter 461 of House Bill (HB) 3588, the MPO created the Regional Public Transportation Coordination Plan (RPTCP). The RPTCP is a collaborative product that responds to the requirements laid out in MAP-21 and is focused on eliminating waste in and ensuring efficiency and maximum coverage of the provision of public transportation services. SETRPC’s most recent RPTCP was developed in 2011 through a process that engaged the general public and representatives of public, private, and non-profit transportation and human services providers within the southeast Texas region. The RPTCP identified efforts for regional service coordination, created a transportation coordination plan, and established an action plan for priority projects.



A steering committee provides guidance to the SETRPC on the planning process, oversees transportation coordination planning activities, provides input for each member’s respective agency/organization, and serves as an advocate for the Regional Public Transportation Coordination planning process. The steering committee members are representatives from public transportation providers, health and human services agencies, workforce agencies, interested organizations, local officials, and state agencies.



MARKETING

Transit service providers should develop a comprehensive marketing program to promote transit usage and to attract additional riders. Even though multiple transit providers operate within the JOHRTS region, their service may not be well known among the residents and visitors. Marketing programs should advertise the extent of transit amenities and educate the region on the benefits of using mass transit. The program can target existing or potential rider groups like college students and residents of new developments. The SETRPC will continue to increase awareness of not only its rural transportation program, but also the other types of transit services offered in the region.



SETRPC has recently developed **a series of colorful and informative brochures** that describe the different types of services offered by South East Texas Transit.



CONTINUALLY REEVALUATE TRANSIT OPERATIONS

To maintain a healthy transit system, it is necessary to continually assess overall system and route-level performance. Understanding the tradeoffs involved in changing the location of routes, the frequency of service, and the extent of service hours is important in making strategic decisions about allocating resources. BMT and PAT should also continually evaluate transit coverage as it relates to growth from new development within their respective jurisdictions. As development occurs, BMT and PAT should determine the feasibility of providing coverage to newly developed areas. Expanding system coverage to new areas may attract additional riders, but at the same time may lower the level of service to areas or destinations in higher demand. As such, it is important to continually monitor the location of popular destinations and new residential, commercial, and civic development.

Providing a reliable service can greatly improve system operations and, in turn, increase ridership. Furthermore, simple concepts, such as longer spacing between bus stops and transit priority at signalized intersections, can help improve transit speed. Both BMT and PAT are constantly looking for opportunities to expand and improve their operations. The SETRPC-MPO will continue to work with all regional transit service providers to increase operational efficiency and to maximize services for transit patrons.

SYSTEM PRESERVATION AND MAINTENANCE



Maintenance is an important activity for the operation of a transit system because it extends the useful life of vehicles, equipment, and facilities. Such maintenance is also critical for passenger comfort and transit service reliability. Vehicles in poor condition (e.g., torn seats, broken wheelchair lifts, or poor temperature control) affect the comfort of transit riders. On-street boarding locations that fall into disrepair affect safety and accessibility. Vehicle breakdowns greatly inconvenience transit patrons.

Even with regular, routine maintenance, transit vehicles reach the end of their useful service life. Although BMT and PAT preserve and maintain their bus fleet on a routine basis, they still must invest in new vehicles and equipment. In 2009, BMT received \$2.3 million in ARRA funding to replace existing bus shelters, purchase and install a portable rotary lift system for the maintenance shop, replace electronic fare boxes, purchase service support vehicles, upgrade its bus washer system, purchase an emergency generator, and renovate its administration building. PAT received \$1 million of ARRA funding that was invested in renovations to the Transit Service Center and adding an Administration Building that will provide better access to the community, especially to disabled clients.

TRANSIT AMENITIES



Offering certain amenities to transit users may greatly enhance the transit experience and further promote transit usage. Park-and-ride facilities in strategic locations can act as important anchors to the regional transit system, serving as satellite hubs for local, intercity, and regional transit services. Enhanced transit centers with amenities such as weather protection, passenger information, and vending machines provide additional incentives for regional and local riders. Furthermore, transit stops with bus shelters, signage, and passenger information enhance the attractiveness, comfort, and safety of the transit system. The MPO will work with local jurisdictions on improving existing facilities and identifying opportunities for the construction of new ones.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS) FOR TRANSIT

ITS enhancements should be considered when exploring ways to increase the service efficiency of the transit system. For example, technology that enables signal preemption for buses increases the speed of transit vehicles. Instant traveler information technology informs patrons about when the next bus will arrive. Such investments represent cost effective investment that increases the efficiency and attractiveness of the system. The implementation of an electronic pass is another improvement that can allow passengers to travel more seamlessly throughout the region. Implementation of such a pass is recommended within the Regional Public Transportation Coordination Plan.



ALTERNATE FUEL VEHICLES

By converting transit vehicles to run on alternate fuel, numerous benefits, especially to an air quality maintenance region like JOHRTS, can be realized. Alternate Fuel Vehicles (AFVs) produce lower emissions and fewer toxic contaminants than gasoline and diesel vehicles. Alternate fuels like propane cost significantly less than gasoline or diesel, which helps to reduce vehicle and system operating costs. The MPO actively promotes the use of AFVs.

In 2005, PAT was the first transit agency in the region to convert its fleet to run on propane. However, one of the obstacles to converting to AFV is that vehicles can only be refueled at special service stations that require supporting fueling infrastructure. Recently, the City of Port Arthur opened a propane refueling station in downtown Port Arthur on the southwest side of Dallas Ave, across the street from the Transit Terminal. This \$490,000 project, funded primarily by an FTA grant, replaces a one-pump fueling station that had led to bottlenecks as the city's propane-powered buses and trucks sought to refuel. **The new station features a 6,500-gallon above ground propane tank, storage unit, three covered fueling stations, and a paved alley.**

INTEGRATING TRANSIT CONSIDERATIONS INTO DESIGNING ROADWAY IMPROVEMENTS

In a true multimodal transportation system, the transit system cannot be considered independently. Rather, it must be considered in a larger context and in conjunction with all other transportation modes. For example, a bus requires a roadway upon which to operate; these roadways therefore require adequate surfaces, conditions, and other design features which can accommodate the larger-sized transit vehicles. Furthermore, transit users are also most likely pedestrians at some point during their trip, and therefore must also have adequate sidewalks, transit stops, safe street crossings, and proper lighting to safely and efficiently conduct their travel. The MPO will continue to coordinate with state and local entities to develop transit-friendly roadway improvements that accommodate efficient transit operations and transit amenities.

LAND USE AND DEVELOPMENT STANDARDS

Transit service requires pedestrian connections to and from transit stops, a reasonable density of activities, and applicable development design standards. To achieve transit productivity, all three elements should be provided. Pedestrian connections to transit must be direct and the sidewalk system must have continuity. Street crossings to transit stops must be safe. Productive transit service requires high-density land development patterns which link residential areas and employment, retail, and service centers. Design of new developments needs to be transit friendly by providing convenient access to transit services. Conventional commercial site designs often place barriers such as landscaping and parking lots between the buildings and the sidewalk. Residential development patterns tend to be automobile-oriented and make pedestrian access to bus stops difficult. Discontinuous or poorly maintained sidewalks also contribute to the problem. The MPO will encourage and recommend local entities to develop pedestrian access standards for new development and redevelopment projects that provide better access to transit stops.



6.7 Transit Projects

Based upon current funding projections, fixed route transit service is generally expected to remain at current levels. Over time, the MPO and different transit providers will monitor the changing transit needs of the region and pursue service expansions when economically feasible. **Particular attention will be given to connecting Beaumont and Port Arthur, connecting workers to employment centers, and promoting transit-oriented development.**



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CHAPTER 7

Bicycle and Pedestrian System

To create more effective and efficient multimodal transportation networks, there is a renewed interest in developing underutilized transportation modes. Consequently, states and local communities are implementing bicycle and pedestrian programs to encourage these alternative transportation modes.

Walking and bicycling are valuable modes of transportation that are low cost and environmentally friendly. These activities provide relaxation, recreation, exercise, and the opportunity to enjoy nature, and also serve as an alternative, affordable means of transportation for travel to school, work, and other destinations.

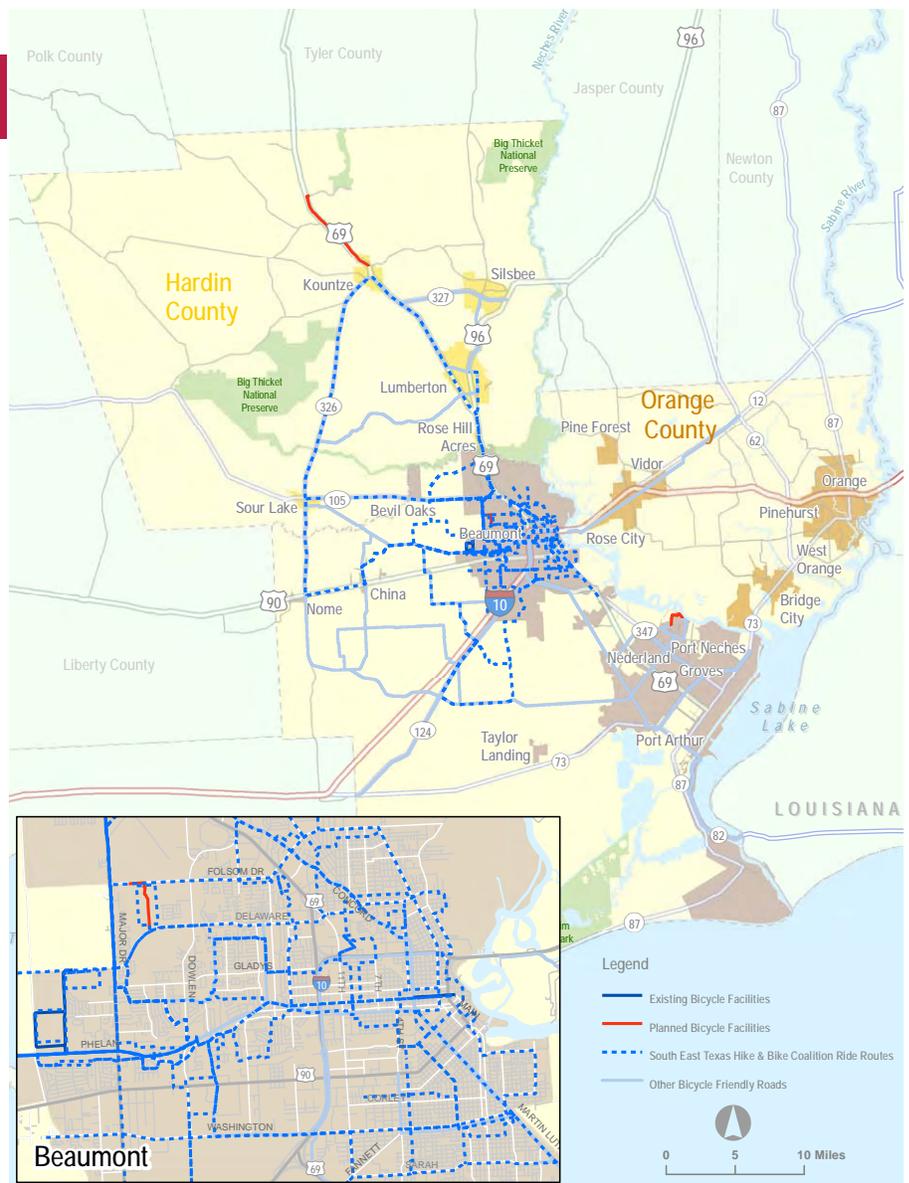
For some portions of the population, these alternative modes of transportation are their *only* means. The SETRPC-MPO is committed to identifying and promoting the regional non-motorized transportation system.

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7.1 Existing System

The JOHRTS region covers a large land area, one in which cars are the primary mode of transportation. As such, bicycle and pedestrian investments have been somewhat limited. However, these modes have recently been given more attention as TxDOT and several cities have committed to constructing new facilities. In general, bicycle facilities include existing off-road trails, existing roadways with special treatment to accommodate bicycles (such as designated lanes or signed routes) as well as roadways that are considered to be “bicycle-friendly” by local cycling interest groups, but have yet to be physically marked as an officially designated bicycle route.

Figure 7.1: Bicycle and Pedestrian Network





7.1.1 Bicycle and Pedestrian Requirements

In Texas, a bicycle is legally recognized as a vehicle, with all the rights and responsibilities for roadway use that are also provided to motor vehicles. Cyclists can legally ride on any roadway in the region, except controlled access highways such as the I-10 and US 69 main lanes. In order to make bicycling and walking more tenable options, the basic needs of pedestrians and bicyclists must be taken into consideration. Environments that are more encouraging to walking are those that include mixed and dense land uses and offer pedestrian-oriented activities. Pedestrian facilities must be safe and ADA-compliant for individuals with disabilities. A quality pedestrian environment should provide direct paths, be continuous and secure, have safe crossings and visual interest, and offer amenities.

The location of pedestrian facilities is very important. Construction of new pedestrian facilities should focus on short walking trips and should be strategically placed along routes that link the community with nearby schools, parks, commercial centers, and other pedestrian networks. Streets that provide visible interest and amenities such as street furniture and trees encourage more people to walk. Also, a sense of safety and security is achieved through such features as street lighting, pedestrian signs, and other visibility-related design features.

Bicyclists’ needs are closely related to those of pedestrians. Bicycle facilities must be able to accommodate the needs of all levels of users, ranging from advanced riders to young children.

The bicycle and pedestrian system can be comprised of both on-street and off-street facilities.



The on-street facilities include bicycle routes that share the roadway as is, designated with signs to make both cyclists and motorists aware of potential bicycle use on the roadway. These facilities can be wide curbside lanes that have autos and bicyclists sharing a lane or they can include a dedicated striped bicycle lane.

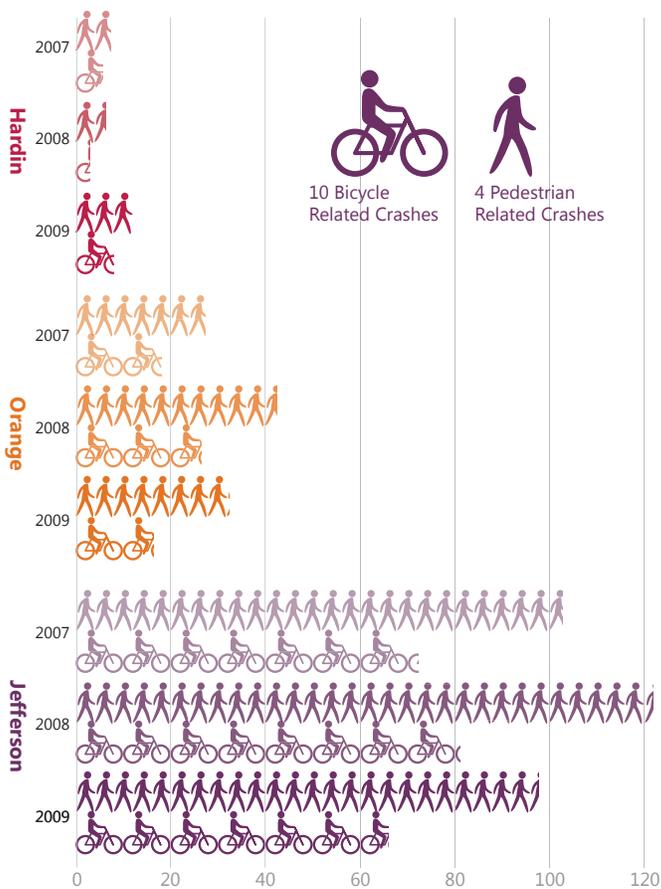


Off-street facilities are pathways, separated from the roadway within the street right of way or on a separate right of way. They are generally for combined bicycle and pedestrian use. These types of facilities are commonly called “hike and bike trails” or “multi-use trails” when on separate rights of way, or may be called “side paths” when adjacent to a roadway.

7.1.2 Bicycle and Pedestrian Crashes

It can be dangerous for bicyclists and pedestrians to use the car-dominant transportation system when roadway designs do not adequately consider these modes. Even in locations where a sidewalk or space on the roadway for a bicyclist exists, certain conditions can make public infrastructure basically unusable. Lack of pedestrian crossing indicators or lack of traffic control at free right turns can expose a pedestrian to danger, particularly if that person has no safer alternative to crossing at that location. Long distances between traffic signals can force pedestrians to make unprotected mid-block crossings. Short crossing times, lack of sidewalks, and other hazards are common occurrences throughout the region. Out of nearly 33,000 total accidents occurring in the JOHRTS region between 2007 and 2009, 302 involved pedestrians and 151 involved bicyclists, 39 of which were fatal.

Figure 7.2: Bicycle and Pedestrian Crashes



Source: TxDOT's CRIS Database, 2007 - 2009

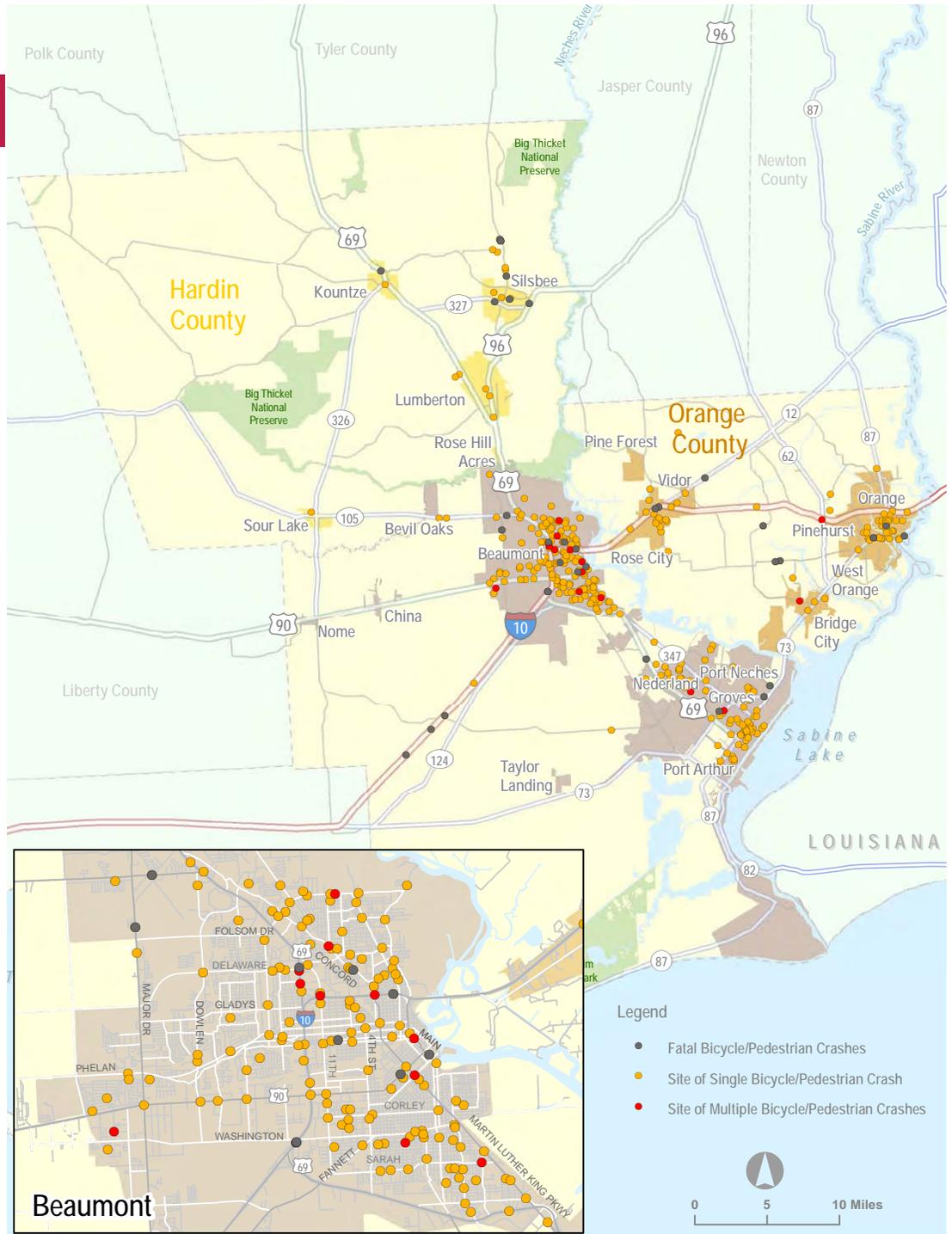
TxDOT develops and implements an annual Highway Safety Performance Plan (HSPP) under the provisions of the 1966 National Highway Safety Act and the Texas Traffic Safety Act of 1967. The purpose of the plan is to reduce crashes and associated deaths, injuries, and property damage, and it includes goals, objectives, and performance measures specific to bicycle and pedestrian safety. *Some strategies outlined in the plan to enhance bicycle and pedestrian safety are:*

- Improve data collection on pedestrian injuries and fatalities
- Improve identification of problem areas for pedestrians
- Improve pedestrian "walkability" of roads and streets
- Improve public education and information on pedestrians and "safe walking"
- Increase awareness for sharing the road between bicyclists and motorists
- Increase enforcement of traffic laws about bicycle right of way
- Increase motorist awareness for sharing the road with bicyclists
- Increase public information and education efforts on the use of bicycle safety and safety equipment



The following three intersections in Beaumont experienced three or more bicycle/pedestrian-related crashes from 2007 to 2009: **I-10 at 11th St, I-10 at MLK Parkway/Gulf St, and MLK Parkway at Franklin Street.**

Figure 7.3: Bicycle and Pedestrian Crashes



7.1.3 Regional Interest

Although congestion and air quality issues in the JOHRTS area contribute to increased public interest for promoting alternative transportation modes such as bicycling, limited funding, and dependency on cars are barriers that hinder efforts for developing and implementing bicycle and pedestrian programs. In the Journey-to-Work data from the 2011 American Community Survey, 2% of the commuters in the region indicated that they either walk or bicycle to work.



SOUTH EAST TEXAS HIKE & BIKE COALITION

The South East Texas Hike & Bike Coalition (SETHBC) was organized for the purpose of supporting the creation of recreational and alternative transportation trails throughout Jefferson, Orange, and Hardin Counties. The Coalition works with and encourages local and county governments to designate shared roads and to create dedicated paths that will appeal to users of bicycles and other alternative forms of transportation.

TxDOT

The Texas Department of Transportation has spent nearly \$2.5 million in the past ten years constructing hike and bike trails within the three-county region. Currently, the state is preparing to build a 7-mile long trail along US 69 from the Big Thicket information center to Villa Road in the City of Kountze, the site of a proposed park.

CITY OF BEAUMONT

The City has an ordinance that requires sidewalks along arterial and collector streets and in areas designated "safe school zones" by the Planning and Zoning Commission. *The following are projects and programs that the City has planned or recently completed:*

- Hike and Bike trail from Dowlen to Major
- Walking trail in Babe Zaharias Park
- Walking trails near the new Event Centre located in downtown Beaumont.
- School sidewalk program that identifies safe routes to schools and the installation of sidewalks



Future planned, but as of yet unfunded, projects include developing bicycle routes along the following roadways:

- Washington Boulevard (from Major Drive to Langham Road)
- Magnolia Street (from Calder Avenue to Jefferson Street)
- Dowlen Road
- 7th Street

CITY OF PORT ARTHUR

The City ordinance states that sidewalks should be located along all major thoroughfares as outlined in its comprehensive plan.



CITY OF ORANGE

The City of Orange also has sidewalk provisions stated in its subdivision regulations that require sidewalks on both sides of the street in new areas.

CITY OF KOUTZE

The City is very interested in pursuing the creation of more hike and bike trails. As a gateway to Big Thicket National Preserve, which attracts 100,000 people annually, the City views these trails as a regional economic development tool.

PORT NECHES

The City has sidewalk provisions within its subdivision regulations and is exploring the possibility of adding bicycle routes along several of its roadways, including: Magnolia Avenue (FM 366), Texas Avenue, Doornbos Street, Park Street, FM 136, West Drive, and Lee Avenue.

During the course of developing this MTP, a significant amount of interest was expressed in providing more bicycle and pedestrian accommodations in the region.

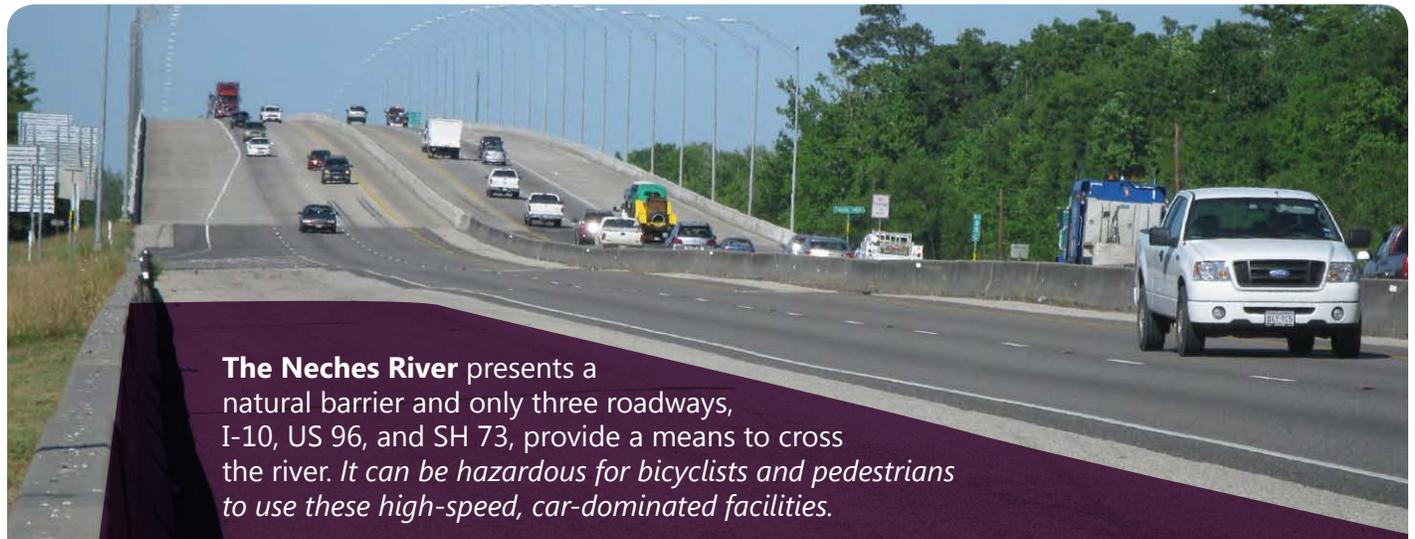


- Reuse portions of the port and other public facilities for a hike and bike trail on the City of Beaumont riverfront
- Extend bicycle lanes along Calder Road
- Create commuter bicycle routes connecting Parkdale Mall and downtown Beaumont
- Convert abandoned railroad tracks to hike and bike trails
- Develop a regional Bicycle Master Plan

Taking these visions and needs into account, the MPO will continue to promote and enhance bicycling and walking as feasible transportation alternatives and recreational options. Based upon community input and an evaluation of the existing pedestrian and bicycle infrastructure, the MPO will pursue projects that are focused on providing both local access and regional connectivity, as well as enhancing downtown streetscapes that add quality and interest to the pedestrian and bicycling environment.



Barriers in the Bicycle and Pedestrian Network:



The Neches River presents a natural barrier and only three roadways, I-10, US 96, and SH 73, provide a means to cross the river. *It can be hazardous for bicyclists and pedestrians to use these high-speed, car-dominated facilities.*

7.1.4 Recommended Strategies

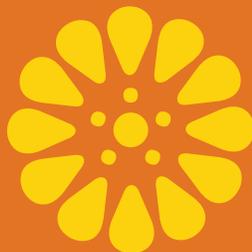
Several best practices exist for the proper planning of bicycle and pedestrian facilities. These strategies can help advance bicycle and pedestrian transportation in the JOHRTS region.

Land Use and Transportation

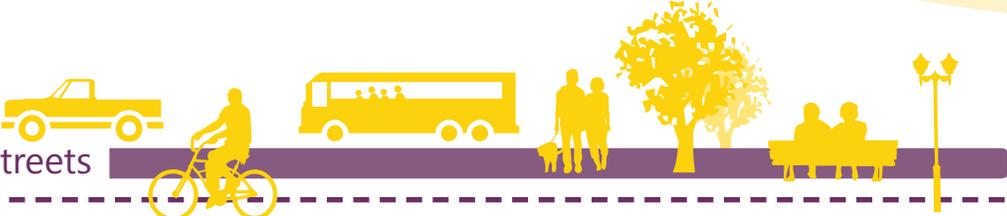
Transportation planning should be integrated with land use planning to make communities livable and attractive for walking and bicycling. Land uses and street configurations most conducive to bicycling and walking are concentrated mixed-use, dense, compact developments with a variety of services and facilities. Specific policies for land use and transportation considerations may include providing clearly defined, separate lanes for bicyclists in order to create a physical division between motorists and bicyclists. This helps elevate the importance of bicycling as a legitimate form of transportation. Other examples include requiring public rights-of-way for the construction of pathways connecting cul-de-sacs between developments, encouraging schools to include pedestrian and bike access issues in new school location decisions, and developing specific requirements for pedestrian and bicycle facilities in town centers, transit corridors, and employment centers.



Governmental entities should develop standards, policies, and guidelines in order to support a safe, walkable, and bicycle-friendly environment. The cities of Beaumont, Port Arthur, and Orange have already created such ordinances. The MPO recommends that other communities in the region consider adopting similar ordinances and policies to encourage the use of non-motorized transportation.



In an effort to revitalize its downtown, to enhance quality of life, and to support alternate modes of travel, the City of Beaumont is creating more mixed use areas, enhanced landscapes, and more walkable environments in which to **“Live, Work, and Play”**.



Complete Streets

Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users. Pedestrians, bicyclists, transit riders, and motorists of all ages and abilities must be able to safely move along and across a complete street. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.

There is no “one solution fits for all” in developing Complete Streets. Each should be unique and designed within the community’s context and developed according to the tenants of Context Sensitive Solutions, a collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its setting. A Complete Street may include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more. Complete Streets could be developed for rural areas as well by designing such roadways in a manner that balances both safety and convenience for everyone using the road.

An ideal Complete Streets policy:

- Includes a vision for how and why the community wants to complete its streets.
- Specifies that ‘all users’ includes pedestrians, bicyclists, and transit passengers of all ages and abilities, as well as trucks, buses, and automobiles.
- Encourages street connectivity and aims to create a comprehensive, integrated, connected network for all modes.
- Is adoptable by all agencies to cover all roads.
- Applies to both new and retrofit projects, including design, planning, maintenance, and operations, for the entire right of way.
- Makes any exceptions specific and sets a clear procedure that requires high-level approval of exceptions.
- Directs the use of the latest and best design criteria and guidelines while recognizing the need for flexibility in balancing user needs.
- Directs that complete streets solutions will complement the context of the community.
- Establishes performance standards with measurable outcomes.
- Includes specific next steps for implementation of the policy.

Source: National Complete Streets Coalition, 2011



Connectivity and Accessibility

Gaps in the pedestrian and bicycle network, similar to the one pictured to the right along MLK Parkway, can serve to discourage bicycling and walking, leaving much of the benefit and use of the existing system unrealized. Bicycle and pedestrian activity can be enhanced by filling in existing gaps and connecting key origins and destinations, such as elementary and middle schools, transit stops, grocery stores, government offices, medical complexes, parks and other recreational facilities, and employment centers.



One specific example of a lack of bicycle connectivity can be found on the campus of Lamar University. While two pedestrian overpass bridges exist over MLK Parkway, there is no other safe path for bicycle riders to cross the busy road. **Improvements such as retrofitting Virginia Avenue to include bicycle lanes can help connect the east and west sides of campus.**

Bicycle parking should be provided at all public buildings that are potential cyclist destinations. Bicycle parking should be encouraged at privately owned facilities that are potential bicyclist destinations. Neighborhood connections by neighborhood bicycle routes can best be accomplished using local and collector streets, and by installing trail connectors and traffic control devices at strategic crossings of major arterial streets that bisect neighborhoods. The MPO will continue work with its planning partners to enhance connectivity and accessibility of the non-motorized transportation system.



Link to Transit



Almost all transit riders have to walk a short distance to start or complete their trip. Pedestrian and transit modes work together to move people throughout urban areas, so efforts to increase linkages between them should be pursued. Special efforts should be made to ensure that sidewalks connect to transit stops whenever possible. The ability to link bicycle trips with bus trips provides significant expansion of the service area for bus routes and increases the utility of bicycles as a travel mode.



If public transit is to serve as a viable transportation option, it is important to ensure that transit facilities are pedestrian friendly, can accommodate bicyclists, and are accessible from adjacent neighborhoods. Both BMT and PAT should consider installing bicycle carrier racks on their buses to enable cyclists to fulfill trips using a combination of bus and bicycle transit modes.

Coordination



Coordinating bicycle and pedestrian planning among entities in the JOHRTS region, including counties, cities, school districts, Lamar University and other educational institutions, is essential in ensuring a well-connected and high-quality bicycle and pedestrian network. Different entities have different jurisdictional authority throughout the region, and a coordinated approach is necessary for improving bicycle and pedestrian infrastructure. Bicycle and pedestrian coordinators employed by local governments or at the regional level can play vital roles in coordinating bicycle and pedestrian issues and projects.





Rail-Trails

Rail-trails are multi-purpose public paths created from former railroad corridors and are ideal for many activities—such as bicycling, walking, inline skating, and horseback riding. According to a report published by the National Conference of State Legislatures, since the 1960s, more than 15,000 miles of rail-trails have been created nationwide. These rail-to-trail conversions can also stimulate local economies in suburban and rural communities by increasing tourism and generating local business. Many rail-trails are established using a federal “railbanking” law that allows a railroad to “bank” a corridor for future rail use, if necessary, but allows it to be used as a trail in the interim.

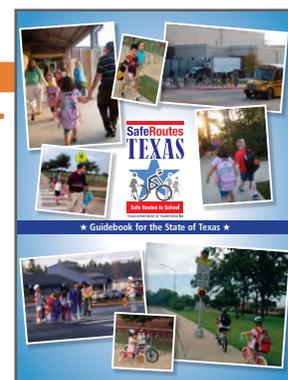
Abandoned rail corridors that could be candidates for rails-to-trails conversion exist in central Hardin County, downtown Port Arthur, and along SH 124 south of FM 365 in western Jefferson County. The MPO will explore the possibility of converting these abandoned rail lines into rail-trails.



Safe Routes to School



Schools can be considerable sources of traffic and congestion, particularly when large numbers of parents drive their children to school. Therefore, cities should work with school districts to ensure that improvements near schools are designed to minimize conflicts between pedestrians, bicyclists, and motorists by directing students along safer routes. Further, school districts should be encouraged to consult with local governments about transportation circulation and to ensure safe and appropriate pedestrian and bicycle access. Safe Routes to School (SRTS) is a federal program that was implemented through SAFETEA-LU to encourage bicycle and pedestrian safety. Unlike the previous legislation, MAP-21 does not provide funding specifically for SRTS. Instead, SRTS activities will be eligible to compete for funding alongside other programs, including the Transportation Enhancements program and Recreational Trails program, as part of a new program called Transportation Alternatives. The MPO will work with local cities and ISDs to pursue the development of Safe Routes to School projects for schools and surrounding neighborhoods that are in need of bicycle and pedestrian infrastructure.



Preservation and Maintenance

Like any asset, bicycle and pedestrian facilities need to be maintained in a state of good repair. Continued maintenance efforts are needed to ensure that the use of pedestrian and bicycle facilities is maximized. Street and path surfaces should be kept in smooth condition and free of debris. TxDOT and local municipalities allocate funds towards routine maintenance of bicycle and pedestrian facilities.

Public Awareness and Safety

Educating motorists, bicyclists and pedestrians about their rights and responsibilities when using the public roadway system can effectively encourage bicycling and walking and promote safe coexistence among all roadway users. Youth can especially benefit from bicycling and safety education since they are likely to walk or bike to school or other destinations. Further, public awareness programs can educate motorists about the importance of sharing the roadway with non-vehicular traffic. The SETHBC conducts a variety of safe cycling events throughout the region, including a Bicycle Safety Rodeo and presentations in local elementary schools.



Marketing

Various marketing campaigns that get people thinking about bicycling and walking can convey reasons to bicycle or walk, and can include safety reminders for drivers, cyclists, and pedestrians. A coordinated approach to public information and awareness programs that promote bicycling and walking yields the best results. Such an approach may include events like bicycle- or walk-to-work days to encourage bicycling or walking trips, which may lead to more frequent use of these modes.



From fund-raising walks and runs to higher-end races and tours through the Big Thicket National Reserve, local events are held to promote pedestrian and bicycling activities in the region. An excellent example of this is the SETHBC's efforts in organizing regular short- and long-distance rides.

Materials such as route maps and websites can be created to promote bicycling and walking and inform people about bicycle-compatible roads, pedestrian-friendly areas, and other bicycle and pedestrian amenities. SETHBC has created a website, www.funtrails.org, to distribute information on regional bicycling activities.



Funding

Funding for proposed bicycle and pedestrian facilities is often the last hurdle to implementation. Federal, state, and local funds are available that are dedicated for improving the non-motorized transportation system.

The major funding programs are

◉ NATIONAL HIGHWAY SYSTEM (NHS) FUNDS:

These funds may be obligated for the construction of bicycle facilities on land adjacent to any highway on the NHS, other than the Interstate system, and are made available at the discretion of the state.

◉ SURFACE TRANSPORTATION PROGRAM (STP) FUNDS:

These funds encompass a much broader range of funds for transportation projects that can be used for bicycle facilities. Specific bicycle projects sponsored by Transportation Enhancement Activities (TEAs) include construction of bicycle facilities and the conversion of abandoned railway corridors to bicycle trails.

◉ CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT (CMAQ) PROGRAM FUNDS:

These funds are available for projects and programs in areas that are nonattainment or maintenance for the national ambient air quality standards according to the 1990 CAAA. Eligible projects must contribute either directly or indirectly towards the attainment of required standards. Bicycle projects eligible for CMAQ funds include bikeway construction projects, public education programs, and bicycle safety initiatives.

◉ THE NATIONAL RECREATIONAL TRAILS FUND:

This fund may be used for a variety of recreational trail programs to benefit bicyclists, pedestrians, and other non-motorized and motorized users. In Texas, this category of funding is administered by the Texas Parks and Wildlife Department.

◉ THE NATIONAL SCENIC BYWAYS PROGRAM:

This program provides for the designation by the Secretary of Transportation of roads that have outstanding scenic, historic, cultural, natural, recreational, and archaeological qualities as All-American Roads or National Scenic Byways

◉ THE SECTION 402 HIGHWAY SAFETY GRANT PROGRAM:

This safety program considers bicycle safety programs a priority and expedites application and funding processes for these and other priority projects.

◉ FEDERAL TRANSIT ENHANCEMENTS:

Funding under this initiative may be used for bicycle access to transit facilities, parking facilities for bicycles in or around transit facilities, and installation of racks or other bicycle storage equipment on transit vehicles.

● **SAFE ROUTES TO SCHOOLS PROGRAM:**

This program provides funds and resources to states to develop and improve pedestrian and bicycle infrastructure and safety programs near elementary and middle schools.

● **STATE BRIDGE PROGRAM:**

Funds used to maintain and rehabilitate bridges in the State can also support the accommodation of bicycle facilities on bridges if such improvements can be provided at a reasonable cost as part of a highway bridge deck replacement or rehabilitation.

● **LOCAL FUNDING SOURCES:**

Depending on the level of commitment, there are various local options available to support the development of bicycle facilities. One such strategy is to require developers to incorporate bicycle facilities as part of their proposed development or contribute towards local bicycle projects as a condition for project development.



The MPO will continue to pursue the variety of funding sources available for trail development. **In the JOHRTS region, the SETHBC has a rich history of participating in charitable fund raisers like the Big Thicket Bike tour.** Similar events could be organized to help raise funds for the construction of bicycle accommodation projects. This type of event could also be used to raise public awareness of the importance of bicycling in the community.



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CHAPTER 8 Airports

Airports constitute an important element of the regional intermodal transportation system. Air transportation provides a global reach for the fast movement of people and goods, *offering significant advantages for long-distance travel and transport.* The increasing importance of service industries in the southeast Texas economy contributes to the demand for air travel and package delivery. This section discusses existing conditions of the airports, issues of concerns and needs, and strategies to improve these needs, so that **the JOHRTS area may fully benefit from demand for airport services.**

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8.1 JACK BROOKS REGIONAL AIRPORT

Jack Brooks Regional Airport (JBRA), formerly the Southeast Texas Regional Airport, located between Beaumont and Port Arthur along US Highway 69/96/287 in unincorporated Jefferson County, serves as the regional commercial airport for the JOHRTS area. JBRA is the only airport in the region that provides passenger transport.

Table 8.1: Existing Conditions of Jack Brooks Regional Airport

CHARACTERISTICS	JACK BROOKS REGIONAL AIRPORT
Location ID	> BPT
Year Established	> 1944
Type of Airport	> Nonhub Primary
Land Area	> 1799 acres
Ownership	> Jefferson County
Facility Use	> Open to the Public
Opening Hours	> 5:00 AM – 11:00 PM daily
Distance from Beaumont Central Business District	> 9 miles
Roadway Access	> Direct Access to US Highway 69/96/287 from Jerry Ware Drive
Commercial Airline	> American Airlines / American Eagle
Daily Operations	> 4 Flights to and from Dallas
FACILITY INFORMATION	
Terminals	> 1 Commercial Terminal - 45,000 square feet > 1 General Aviation Terminal - 20,000 square feet
Aircraft Hangars	> 5 total
Runways	> 2 total
Taxiways	> 8 total
Parking Lots	> 3 lots; 1,250 available parking spaces for both terminals and the general aviation area
OTHER INFORMATION	
Air Traffic Control Tower (FAA operated)	> Flight Instruction, Aircraft Rental
Aircraft Rescue and Fire Fighting (Index A)	> Fueling: 100LL, Jet-A
Customs Landing Rights	> Hangars and Tiedowns
Foreign Trade Zone	> Car Rental Agencies Onsite > 85+ Acres Available for Development



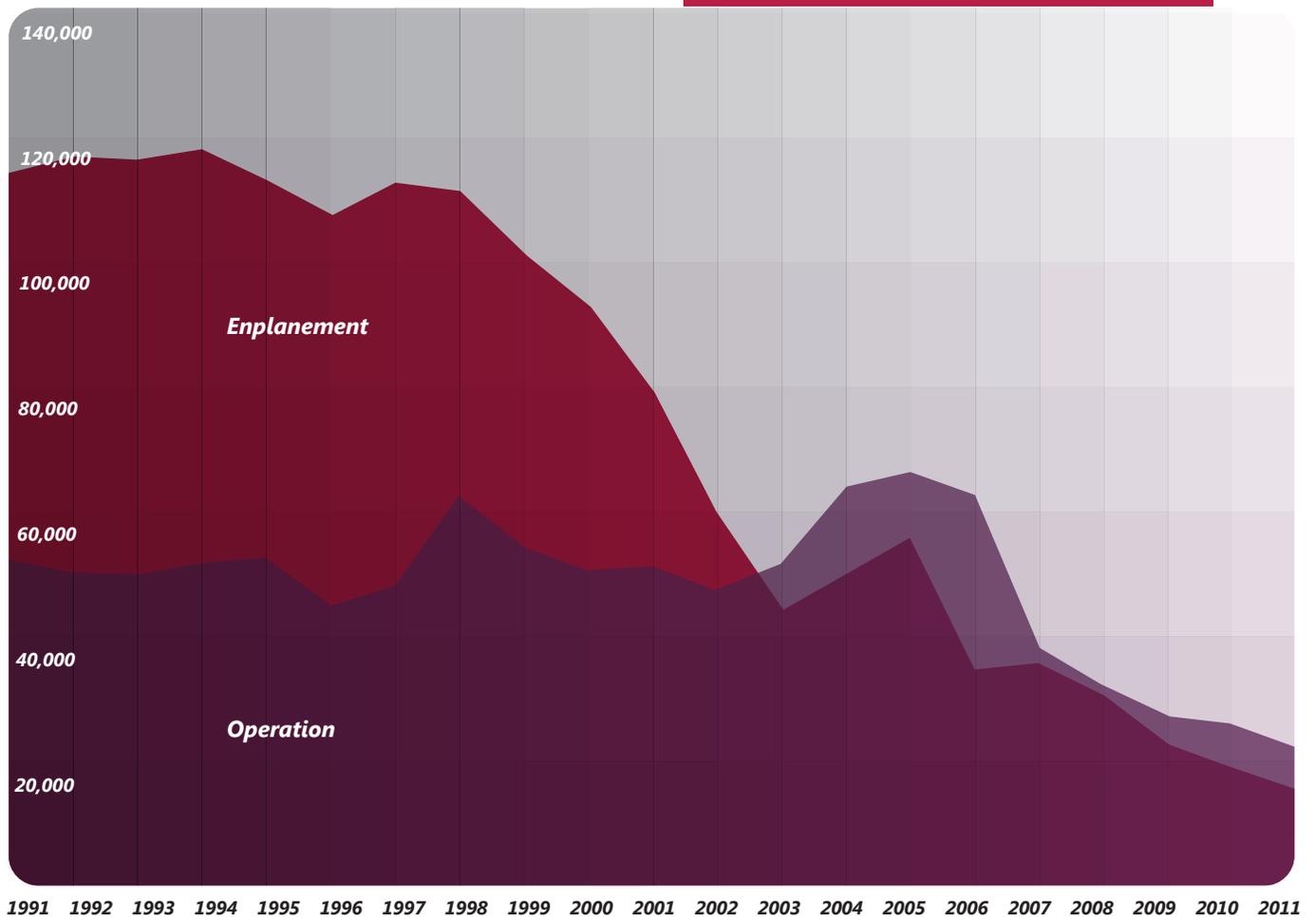
In February 2013, American Eagle began operating four flights daily to Dallas.

The Federal Aviation Administration (FAA) updates its Terminal Area Forecast (TAF) every year to assist in planning, budgeting, and staffing requirements. The TAF data contains both historical and forecast data, which the Aviation Policy and Planning Office (APO) produces every year covering airports in the National Plan of Integrated Airport Systems (NPIAS). For each airport, the data are divided into historical and future enplanements, and local operations. Enplanements are the number of passengers boarding an airplane and are usually related to commercial flights. An operation is either a landing or takeoff at an airport by fixed-wing and rotary aircraft.



Historical enplanements and operations have fluctuated at JBRA, with declining enplanements and operations during the last decade.

Figure 8.2: Jack Brooks Regional Airport Historical Enplanements and Operations



Source: FAA Terminal Area Forecast

8.2 GENERAL AVIATION AIRPORTS

The JOHRTS region has three general aviation airports, which do not offer passenger operations.



The Beaumont Municipal Airport: Owned by the City of Beaumont, the airport is located at 455 Keith Road on the west side of the City of Beaumont, and is bounded by US 90 to the south and Phelan Boulevard to the north.



The Orange County Airport: Owned by Orange County, the airport is located about three miles southwest of the City of Orange along SH 87.



Hawthorne Field: Owned by Hardin County, the airport is located between Kountze and Silsbee at the junction of SH 327 and US 69/287.



Table 8.2: Airport Characteristics

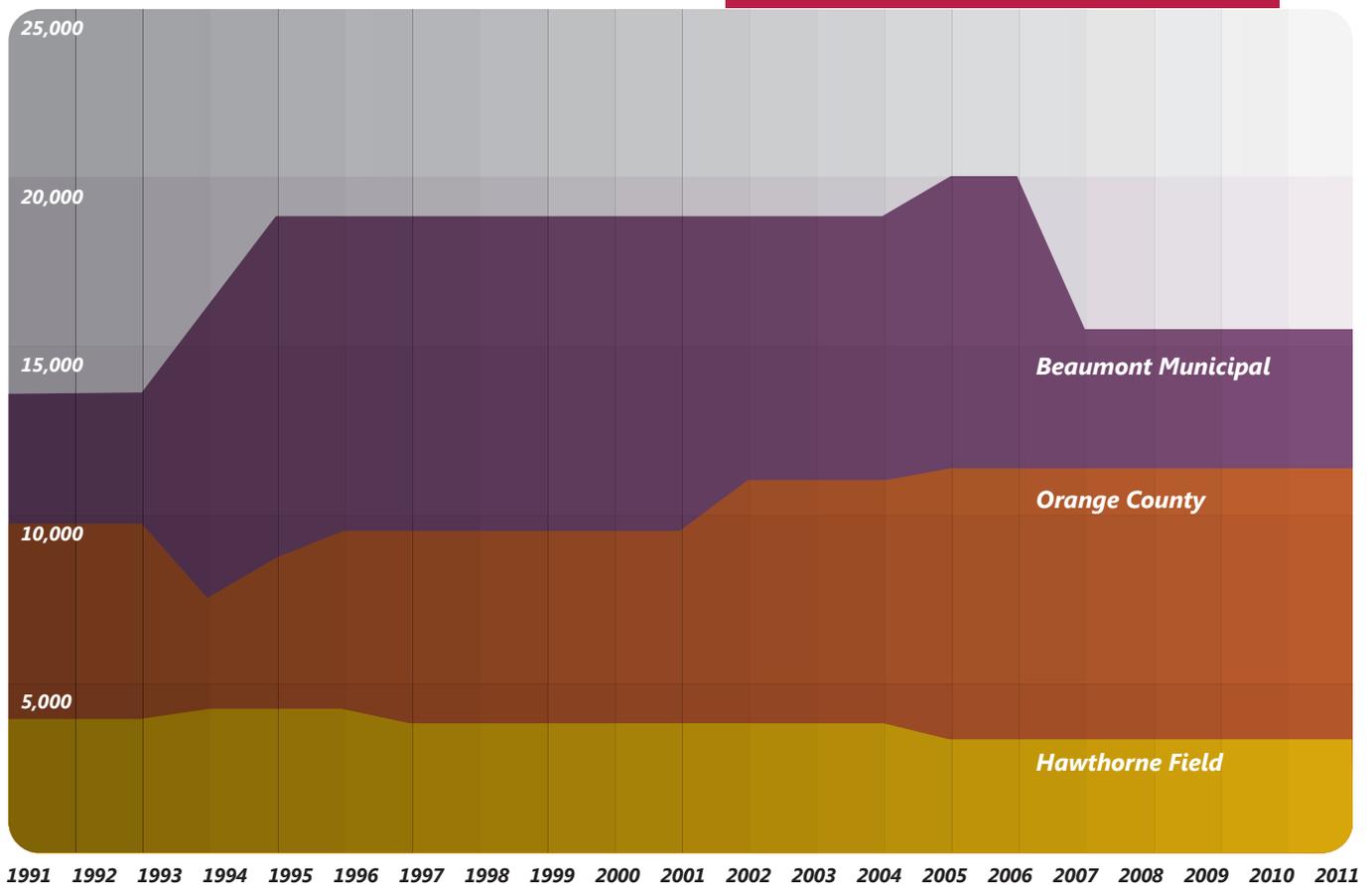
CHARACTERISTICS	BEAUMONT MUNICIPAL AIRPORT	ORANGE COUNTY AIRPORT	HAWTHORNE FIELD
Location ID	> BMT	> ORG	> 45R
Year Established	> 1937	> 1946	> 1966
Land Area (Acres)	> 276	> 820	> 167
Ownership	> City of Beaumont	> Orange County	> Hardin County
Opening Hours	> 8:00am to Sunset Daily	> 7:00am to Sunset Daily	> 8:30am to 5:30pm Daily
Distance from Central Business District	> 6 Miles W of Beaumont	> 3 Miles SW of Orange	> 3 Miles SE of Kountze
Roadway Access	> Located on Keith Road, between Phelan Blvd. to the North and US 90 to the South	> Gravel Roads Provide Access to SH87	> Located at SH 327 and US 69/287; Main Access Road Connects the Airfield to SH 327
Terminals	> 1 General Aviation Terminal	> None, 1 Administration Building	> 1 General Aviation Terminal
Aircraft Hangers	> 2 Larger Hangers > 3 Nest-T Hangers	> 4 Total	> 1 Public and 8 Privately Owned Hangers > 10 T-Hangers
Runways	> 2	> 2	> 1
Taxiways	> 1 Major Taxiway	> 6 Total, 2 have Pavements	- - -
Parking Lots	> 20 Parking Spaces	> Grass Lot with 15 Parking Spaces	> Airfield Provides 3.2 Acres of Parking for the Terminal and Hanger Areas
Other Information	> Fueling: 100 LL, JET-A > 24 Hour Self-Service > Hangers and Tiedowns > Flight Instruction	> Fueling: 100 LL, JET-A	> Fueling: 100 LL, JET-A; > 24 Hour Self-Service > Hangers and Tiedowns

Source: Federal Aviation Administration (FAA)



Operations at these three airports have remained relatively stable over the last two decades.

Figure 8.3: Historical Itinerant Operations



Source: FAA Terminal Area Forecast

8.3 Proposed Strategies

Continued investment in JOHRTS area airports is necessary to maintain and enhance the region's ability to attract businesses and general aviation customers. As such, this plan recommends the continued support, development, and operation of all the airports in the JOHRTS region. Specifically, strategies related to accessibility, safety and security, system preservation, and land use can help enhance the existing airports and help promote economic development.



ACCESSIBILITY

Without safe and efficient ground access to the regional airports, the JOHRTS area will not be able to take full advantage of the demand for air travel. JOHRTS area airports may also grow attractive to the region's air cargo carriers, as the cost and time associated with nearby major airports, such as George Bush Intercontinental and Houston Hobby, increases. Future growth in demand for air cargo services may require roadway improvements to facilitate increased trucking activity to and from the airport. The MPO will continue to work with its regional planning partners to improve access to and from the airport to encourage and enhance passenger and freight movement.



SAFETY AND SECURITY

The Federal Aviation Administration (FAA) is responsible for overseeing and regulating all aspects of civil aviation in the United States, including private and commercial air transportation. The FAA enhances air transportation safety through such programs as their Aviation Safety Reporting System, which is an online database for voluntarily submitting aviation safety incidents, and the FAA Safety Team, which promotes safety principles and practices through training, outreach, and education. Additionally, the FAA works actively with the Transportation Security Administration (TSA), which is responsible for screening passengers, air cargo, and baggage at airports.

As part of the Aviation and Transportation Security Act that was passed after the tragedies of September 11, 2001, the Transportation Security Administration (TSA) was established to secure the nation's transportation system. TSA oversees and coordinates with state, regional, and local organizations to secure highways, railroads, buses, mass transit systems, ports, and airports. In addition to screening passengers, TSA officers must also screen all commercial luggage and packages for explosives and other threats before they can be placed aboard airplanes. Besides the more obvious TSA officers, other layers of security



screening include intelligence gathering and analysis, checking passenger manifests against watch lists, random canine team searches at airports, federal air marshals, federal flight deck officers, as well as additional security measures that are both visible and invisible to the public. The JOHRTS area airports will continue to follow the rules, regulations, and safety measures set forth by the FAA.

SYSTEM PRESERVATION AND MAINTENANCE

Maintaining aviation infrastructure ensures that existing facilities perform at their best for as long as possible. Airports rely on a variety of public and private funding sources to finance their capital development, including airport bonds, federal and state grants, passenger facility charges (PFCs), and airport generated income. Airports in the region receive annual funding from the federal government. Funding through the "Airport Improvement Program" is available for a wide variety of airfield improvements, including preservation and maintenance. The JBRA recently received approval to impose a PFC of \$4.50 per enplaned passenger.

FAA approved the **Passenger Facility Charge** fee for the **eight "Impose and Use" projects** listed here:

- I.** Three planning studies
 1. An Access Road Study
 2. Wildlife Hazard Assessment Study
 3. Airfield Approach/Geometry Study
- II.** North Apron Rehabilitation-Phase I and Phase II
- III.** Airfield Sweeper Truck Purchase (to remove debris and collect Foreign Object Debris (FOD) from the runway per FAA Part 139 requirements.
- IV.** West Ditch Drainage Improvements to improve airfield drainage
- V.** Airfield Pavement Marking
- VI.** AOA Security Improvements, including Four Airport Operations Area (AOA) gates.

The Beaumont Municipal Airport also has a variety of improvements planned including: the rehabilitation of runways, taxiways, and the north apron; reconstruction of the south apron; drainage improvements; and installation of an automated weather observation system, a rotating beacon, and a new landing light system. All these projects will be funded through the FAA and the City of Beaumont's capital improvement funds. In the JOHRTS region, JBRA and the other general aviation airports will continue to follow the system preservation and maintenance procedures set forth by the Federal Aviation Authority.



LAND USE

Airports and the land around them are sensitive and valuable resources. One of the greatest concerns that might arise in the future will be the pressure brought about by inappropriate land use that threatens and limits the operations of an airport. Individually, many incompatible land use decisions may appear to have a negligible impact, but collectively, and over time, poor land use decisions can lead to the restriction of airport activity, thereby reducing or eliminating associated benefits. When preparing future land use plans or planning future growth, it is important that the type and density of land use and its cumulative impacts are given careful consideration so that appropriate decisions are made for the airport, its context, and its environment. The MPO will also work to stay aware of current and proposed land use and zoning near airports to ensure that they are compatible with airport operations.



CHAPTER 9 Goods Movement

Transportation is a vital engine that drives every economy.

Transportation systems link key regional economic centers with national and international markets which, in turn, improves regional economic competitiveness, especially as transportation system efficiencies improve. Improvements in the system can lower the costs of transportation by decreasing the amount of time required for the movement of goods. **Lower transportation costs** can be passed on to consumers *in the form of lower prices, to workers as higher wages, and to business owners in the form of increased profits*. Additionally, convenient commutes for workers can lead to increased labor productivity in the workplace.

*The purpose of this chapter is to **identify and assess trends in freight transportation** and how they may **impact the region in the future**.* Within the context of determining the needs and opportunities for freight transportation in the three-county region, the chapter presents a profile of the regional freight transportation infrastructure, as well as historically observed and projected trends in goods movement. This assessment can be used to formulate a vision for the future of the regional freight transportation system.

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9.1 Freight Infrastructure

The three-county region has a robust freight transportation system that includes highways, railroads, waterways, airports, and pipelines. Increasing the effective utilization of every component in the system will increase the region's economic competitiveness.

9.1.1 Truck Network

While all modes play a key role in moving freight to, from, and through the region, the local flow of goods and services is dominated by the trucking sector. The regional truck network is comprised of one interstate highway, a number of arterials and collectors, and local roads that provide the last mile access to major freight generators. The region also has major truck service facilities along Interstate 10: one at Walden Road in Beaumont and two facilities at SH 62 west of Orange. This regional truck network provides a vital link between nodes of goods production, consumption, interchange, and re-handling such as ports, intermodal facilities, truck/pipeline terminals, industrial parks, warehouse and distribution centers, and manufacturing facilities.



IH-10 is one of the major truck routes on the National Highway System (NHS). Some sections of the interstate within the three-county region carry upwards of 11,000 trucks per day, where every fourth vehicle is a truck.¹ According to the Federal Highway Administration's Freight Analysis Framework 3 (FAF3), daily truck volumes in the region are expected to increase by 24 percent by the year 2015, and then by six percent from 2015 to 2035. This growth in commercial vehicle traffic poses special challenges for the region and requires the identification of strategies and investments to enhance the mobility provided by the regional truck network.



To assist in the assessment of current and future trucking needs, an informal survey of motor carriers serving the region was conducted during the development of this MTP. The survey was distributed to a small number of for-hire and private carriers within the *truckload (TL²)*, *less-than-load (LTL³)*, *express/parcel* and *specialized* sectors. The goal of the survey was to gain insight into the perception of issues faced by the local motor carrier industry and help with the identification of freight projects/initiatives to address these issues.

The top issues identified by respondents were: *inadequate highway capacity; lack of alternate routes; inadequate roadway turning radius; poor highway signage; sites of frequent crashes; and lack of rest areas and truck parking facilities.*

¹ U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations. Freight Analysis Framework, version 3.1,2010

² TL motor carriers generally do not operate across a regular route, but rather deliver shipments directly to a recipient and try to pick up another truckload shipment at or near the first delivery point for a "backhaul" load. TL carriers generally have little need for extensive terminal or warehousing facilities.

³ LTL carriers consolidate many smaller shipments from multiple shippers located in a common area or region, sort them at dock facilities according to common designation, then line-haul trailers to a destination dock for delivery.

Table 9.1: Problematic Conditions Identified by Regional Trucking Companies

Issue	Location	Suggested Project/Initiative
Roadway congestion because of lack of roadway capacity	I-10 and US 69	Add lanes
Lack of alternate routes	I-10 through Beaumont	Construct an alternative river crossing
Inadequate roadway turning radius	Various (e.g., at Exit 843/Smith Rd)	Improve turning radii
Poor or inadequate signage on access routes to terminals	From I-10 to the ports	Add and improve signage; Establish and publicize truck routes
Sites of frequent crashes or near-misses involving trucks	At Old and Lost River bridges	Build new and re-build old bridges
Lack/inadequate rest areas and parking facilities	Throughout the region	Build rest areas and other truck parking facilities in the region

9.1.2 Railroad Infrastructure and Operators

Railroads are a “mode apart” in America’s transportation system, as rail is the only mode that relies almost solely on private funding for both operations and infrastructure. The three-county region is served by the following railroads:

The Surface Transportation Board categorizes all railroads into one of three classes based upon the annual operating revenue. **Class I Railroads** have the highest threshold which is currently set at **\$319m or more**. Currently, there are only eight Class I railroads in the United States. **Class II Railroads** have **less than \$319m** in annual operating revenues, but more than the maximum amount for **Class III Railroads** which is currently set at around **\$25m**.



CLASS I

Three Class I freight railroads, Burlington Northern Santa Fe Railway (*BNSF*), the Kansas City Southern Railway (*KCS*), and the Union Pacific Railroad (*UP*)

CLASS II

No Class II or regional railroad.

CLASS III

One Class III or “short line railroad”, the Sabine River & Northern (*SRN*) railroad which provides connecting service between local shippers and the national Class I railroad system

These lines range from high-frequency, heavy-tonnage main lines to barely-serviced short line operations. Railway operations play a major role in the economy of southeast Texas, especially in the small community of Silsbee, where railroads are one of the major local employers. The reliance on railroads for goods transport to and from the major ports in the area makes an efficient and effective rail freight system invaluable to the continued economic vitality of the region.

Railroad Lines Operating in the Area

○ THE BURLINGTON NORTHERN SANTA FE (BNSF)



railroad travels through the three-county region in both north-south and east-west directions. BNSF rail yards are located in Silsbee and Beaumont and have capacities of 1,200 and 600 railcars, respectively.

○ THE KANSAS CITY SOUTHERN (KCS) RAILROAD



travels from the northeast portion of Orange County to Beaumont where it turns southeast to Port Arthur. The KCS line provides rail access to the Port of Port Arthur and the communities between Beaumont and Port Arthur. The major KCS rail yards are located in Port Arthur and Beaumont and have capacities of 1,790 and 420 railcars, respectively.

○ THE UNION PACIFIC (UP) RAILROAD



travels in an east-west direction from the Louisiana border, through Orange County to Beaumont where it runs parallel to US 90 and splits into two separate railroads through western Jefferson County. UP has another railroad along West Port Arthur Road (Spur 93) that provides access from Beaumont to the refineries and port facilities in the Port Arthur area. Other UP rail lines extend from Orange north through Orange County. UP has three major rail yards in the region: the Beaumont yard with a capacity of 1,700 cars, the Guffie yard between Beaumont and Port Arthur with a capacity of 200 cars, and the yard near Sour Lake with a capacity of 550 cars.

○ THE SABINE RIVER & NORTHERN (SRN) RAILROAD

is the smallest railway company operating in the area. It operates one rail line that runs from the City of Orange to the Inland Paper Company plant in northeast Orange County, and then travels west to Mauriceville to connect with the north branch of the UP rail line. SRN operates a small rail yard near the Inland Paper Company plant.

9.1.3 Ports and Waterways

The region has a comprehensive system of ports and waterways. Port facilities include the Port of Beaumont, Port of Port Arthur, Port of Orange, and the Sabine Pass Port. Vessel access to these ports is provided by the Sabine River, Neches River, Sabine Lake, and Gulf Intracoastal Waterway.



U.S. inland waterways provide a number of benefits to waterway users and to the general public. A recent study commissioned by the U.S. Department of Transportation Maritime Administration (MARAD)⁴ revealed the following:

- One dry cargo barge carried the equivalent of sixteen rail cars or 70 trucks
- A common fifteen-barge tow of dry cargo has the equivalent capacity of 216 rail cars and six locomotives, or 1,050 tractor-trailers
- One barge load of gasoline would require 46 rail cars or 144 trucks to move the same amount to market; in regions that are served by waterway transportation, today's gasoline costs might be even higher, if not for the lower-cost waterway alternative

*“Not only do waterways and associated ports and terminals have **large economic impacts for the nation**, they are also a driver for local business activity. Since the very dawn of human civilization, activity has been concentrated in areas with access to transportation infrastructure; areas that can offer competitive transportation facilities and resources **have a significant advantage in their future prospects.**”*

From: The Impact of Deepening the Sabine-Neches Waterway on Business Activity in Jefferson County, the Surrounding Region, and Texas; The Perryman Group; September 2010

U.S. waterways have excess capacity for growth in bulk commodities and can absorb cargo that has been moving by truck or rail. U.S. waterways carry the equivalent of 58 million truck trips per year, with plenty of room to spare. Because there are only a few bottlenecks in the system (typically where lock and dam projects are currently scheduled for replacement), the waterways within the three-county region are well-positioned to respond to future demands.

⁴ Texas Transportation Institute and the National Waterways Foundation for the U.S. Department of Transportation Maritime Administration, A Modal Comparison of Domestic Freight Transportation Effects on the General Public, November 2007.



PORT OF BEAUMONT



The Port of Beaumont, located 84 miles east of Houston and 270 miles west of New Orleans, is accessible from the Gulf of Mexico and the Intracoastal Waterway via the 40-foot deep federally maintained Sabine-Neches Ship Channel. The Intracoastal Waterway and Mississippi River connect Beaumont with the inland waterway system serving major cities located along the Mississippi River. Ships and barges have free and easy access to the port via Sabine Pass, and the Sabine-Neches Waterway.

All three major rail carriers, BNSF, UP, and KCS, and five major roadways feed into the Port of Beaumont. BNSF serves the port five days a week while UP serves the port three days a week, and KCS two days a week.



The main entrance gate of the port is located at the intersection of Main and Franklin Streets and is accessible from I-10, US 90, US 69/96/287, SH 347, and Spur 380. In 2009, about 7,000 trucks and 22,000 railcars were serviced at the port, with the highest amount of activity taking place on weekday mornings.

The main infrastructure components of the Port of Beaumont include:



- The Main Street wharves (wharves 2 through 7) which offer nearly 3,000 feet of berthing space, 267,000 square feet of covered space, and 121,000 square feet of open storage, as well as rail access along their front aprons
- A bulk terminal with a loading capacity of 10,000 metric tons per day and access to BNSF, UP, and KCS rail carriers
- A grain elevator with a loading capacity of 80,000 bushels per hour and a total capacity of 3.5 million bushels
- The Harbor Island Marine Terminal with nearly 1,900 feet of berthing space and 345,000 square feet of covered and open storage space
- U.S. military office building that houses the U.S. Surface Deployment and Distribution Command's 842nd Transportation Battalion
- A roll on/roll off (RO/RO) ramp with a 40-foot wide roadway
- An open storage area with more than 90 acres on the southern edge of the port
- A 650-foot cargo wharf in Orange County that provides access to approximately 445 acres owned by the port on the east bank of the Sabine-Neches Waterway



In 2011, the U.S. Army Corps of Engineers ranked the Port of Beaumont 6th in the nation by total tonnage. In addition, the Port of Beaumont is considered to be the busiest military port in the country and is the headquarters of the United States Army's 842nd Transportation Battalion, which specializes in port logistical activity. Recently port activity has been significantly impacted by the growth of cargo that consists of items which are too big or too heavy to fit into a container, also known as "project cargo". Wind turbines are a type of project cargo which shows particularly promising growth potential at the Port of Beaumont.

An assessment of the freight mobility and accessibility issues affecting the port's operations indicates the following:

- Rail congestion is a continuous concern at the Port of Beaumont. The port has to carefully coordinate the receipt of rail cars because the rail carriers have a relatively small number of tracks.
- In Jefferson County, rail service reliability is an issue. The three railroads (BNSF, UP and KCS) should provide more frequent service in order to accommodate the many different types of trains and cargoes handled by the port. Also, the communication and coordination of railroad service could be improved.



- The Orange County property's accessibility could be improved. Both short-term projects (such as improving Old US 90) and long-term projects (such as upgrading the I-10 and Old U.S. 90 interchange) would enhance landside access to the wharf. With the recent rail improvements on the Orange County side, there is concern about the accessibility of the port once trains start heavily utilizing the at-grade rail that intersects with the port entry.
- On-street parking on Franklin Street, between Orleans and Main Streets, restricts truck mobility. Franklin Street, which is a designated truck route, has four lanes but its capacity is reduced to two lanes because of the permitted on-street parking. Removing the on-street parking at Franklin Street would enhance truck mobility and landside access to the port.

Current and recently completed capital investments at the port include the following:

- A \$16 million rail expansion project, which will add car storage and operational tracks. The project will create a rail-car holding yard inside the port's property, demolish several tracks in the area, and close the current car holding area behind city hall. The new yard is designed to store about 400 cars, more than tripling the current yard's 120-car capacity. The new tracks will provide the port with a total of about 130,000 feet of railroad track. The project will allow trains to make a turn into the port from the KCS line instead of putting all the cars on the tracks along the riverfront. As a result, it is expected that the blocking that occurs along Pearl, Neches, and Trinity Streets in downtown should be greatly reduced.
- \$3.0 million project improving the access road connecting the new 600-foot-long wharf in Orange County to I-10.
- An \$11 million project to providing rail access to the port's property in Orange County. Includes the installation of new rail access from existing rail lines to serve the Orange County wharf and a spur track to serve open storage lots.





PORT OF PORT ARTHUR



The Port of Port Arthur is strategically located midway on the barge shipping route of the Intracoastal Waterway that extends from St. Marks, Florida, to Brownsville, Texas. Vessel access is provided along the Sabine-Neches Waterway, 19 miles inland from the Gulf of Mexico, which has a minimum width of 400 feet and a 40-foot depth for navigation of large petro-chemical tankers and cargo ships.

The Port of Port Arthur is directly connected to the Kansas City Southern (KCS) Railroad providing direct intermodal service to and from major North American markets. Through reciprocal switching and trackage rights, the port handles cargo connections to the east with the Norfolk Southern (NS) Railroad and to the west and northwest with the Union Pacific (UP) and Burlington Northern Santa Fe (BNSF) Railroads. The Port of Port Arthur has road access via US 69/287/96, SH 73, SH 82, Procter Street and Houston Avenue. The single entrance gate of the port is located on Lakeshore Drive near Houston Avenue.



The main infrastructure components of the Port of Port Arthur are:



- A total of five docks with a total length of approximately 3,100 feet; this includes two berth docks with a length of 1,390 feet and three berth docks with a length of 1,700 feet
- A 100-foot wide front apron
- A roll on/roll off (RO/RO) dock with a roadway 80 feet wide that can handle large pieces of cargo and direct rail transfer
- A shed storage offering over 500,000 square feet of covered space
- Open storage with 17 acres of asphalt surface
- A rail system that includes three wharf tracks with up to 150 car capacity, two shed tracks with up to 80 car capacity, and six track storage yard with up to 140 car capacity



In 2011, the US Army Corps of Engineers ranked the Port of Port Arthur 24th in the nation based on total tonnage. Currently, primary imported commodities include pulp and project cargo. Pulp comes in from South America and is distributed to Texas and adjacent states. Project cargo arrives from Europe (primarily Italy) and the Far East and is destined for the state of Tennessee.

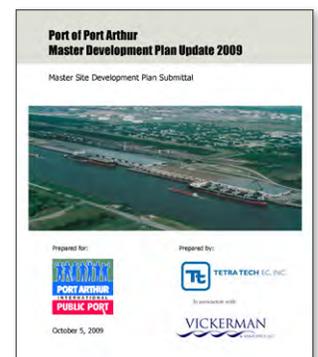
An assessment of the freight mobility and accessibility issues affecting the port's operations indicates the need for the following:

- ⦿ More rail tracks to increase its holding capacity to 1,200 cars, which would more than triple its current 370-car capacity
- ⦿ Additional staging areas, which could be accommodated on existing port property
- ⦿ More rail infrastructure in southeast Hardin County

The master development plan for the Port of Port Arthur was updated in 2009 and identifies the infrastructure investment that is necessary to enhance its operational efficiency and capacity in hopes of making the port more attractive for business growth. The main focus of the master development plan is to provide multimodal capabilities for the 55 acres of waterfront property the Port acquired from KCS railroad in 2009.

Two of the three recommended plan alternatives integrate direct rail, intermodal, truck, and transload services with distribution and warehousing within close proximity of one another. These features create the density needed to build one train, rather than several groups of rail cars. As a result, shippers would benefit from more reliable and consistent service and a reduction in operational costs. Furthermore, cross docking can be applied to a number of circumstances. For distribution, cross-docking can be used to consolidate inbound products from different suppliers which can be delivered when the last inbound shipment is received. For transportation, cross-docking involves the consolidation of shipments from several suppliers (often in LTL batches) in order to achieve economies of scale. Economies of scale can be also achieved with the introduction of value-added logistic services.

This plan provides an excellent opportunity to develop comprehensive functions at or in close proximity to the port that not only include pure logistics services, such as transportation and storage, but also specialize in value-added services, such as bonding service, import clearance, inbound transportation, and quality control. Diversified functions could increase the potential customer base and minimize industrial risks due to economic environment changes. Specializing in value-added services could make the region more competitive.





PORT OF ORANGE

The Port of Orange is located on the western shore of the Sabine River in the southern portion of the City of Orange and within two miles of the Gulf Intracoastal Waterway. The port's main gate is located on Alabama Street which is accessible from I-10 and SH 87 via 8th and Border Streets and from FM 1006 via DuPont Drive. The UP railroad provides rail service to the Port, while the 30-foot Sabine River Channel provides access to the Gulf of Mexico.

The main infrastructure components of the Port of Orange include:



- Four ship berths
- 354,000 square feet of transit sheds alongside a 2,300 foot by 30 foot concrete dock apron
- A 600 linear foot Transmodal Marine Yard (TMY) with open concrete staging area and dock with heavy lift capabilities



The Port of Orange is a landlord port, which means that all wharves are leased to private terminal operators. Currently, about 1,000 trucks and about 10 trains are serviced at the port each month, although prior to the damage to the railroad tracks caused by Hurricane Ike, about 35 trains per month were serviced at the port. According to the U.S. Army Corps of Engineers, the port handled nearly 696,000 tons of exclusively domestic cargo in 2011, which mostly included primary manufactured goods (mainly cement and concrete), crude materials (mainly limestone), petroleum and petroleum products (mainly residual fuel oil), and chemicals.

An assessment of the freight mobility and accessibility issues that affect the port's operations indicates the need for the following:



- Reconstruction of the currently out-of-service railroad tracks that were damaged by Hurricane Ike in September, 2008
- Improvement of the last two miles of the port's access road
- Enhancement of intermodal rail service and movement of containerized cargo

Recently completed and planned capital investments at the port include the following:

- A \$3.5 million recently completed Command Control Center and Access Control System
- A \$7.5 million heavy-lift dock and staging area to allow flexibility for project cargo, containers on barges and bulk transfers
- 20-foot diameter fiberglass storage tanks for loading onto barges for export

Sabine Pass Port

According to the U.S. Army Corps of Engineers, the domestic cargo handled by the Sabine Pass Port in 2008 consisted of nearly 1.2 million tons, which mostly included petroleum and petroleum products and crude materials. More recent data is not available for this facility.



PORT ECONOMIC IMPACTS

The regional ports provide a significant economic benefit to the southeast Texas area. Thousands of direct and indirect jobs are generated from the cargo moving through these marine terminals, representing millions of dollars in direct wages and salaries. In addition, the activities at the ports generate tens of millions of state and local tax dollars annually.

9.1.4 Major Issues Confronting Ports

Dredging and Dredged Material Management: Maintaining adequate navigation channels through regular dredging is a priority at ports to ensure the safe and proper passage of vessels; finding beneficial use of dredged materials can present issues.

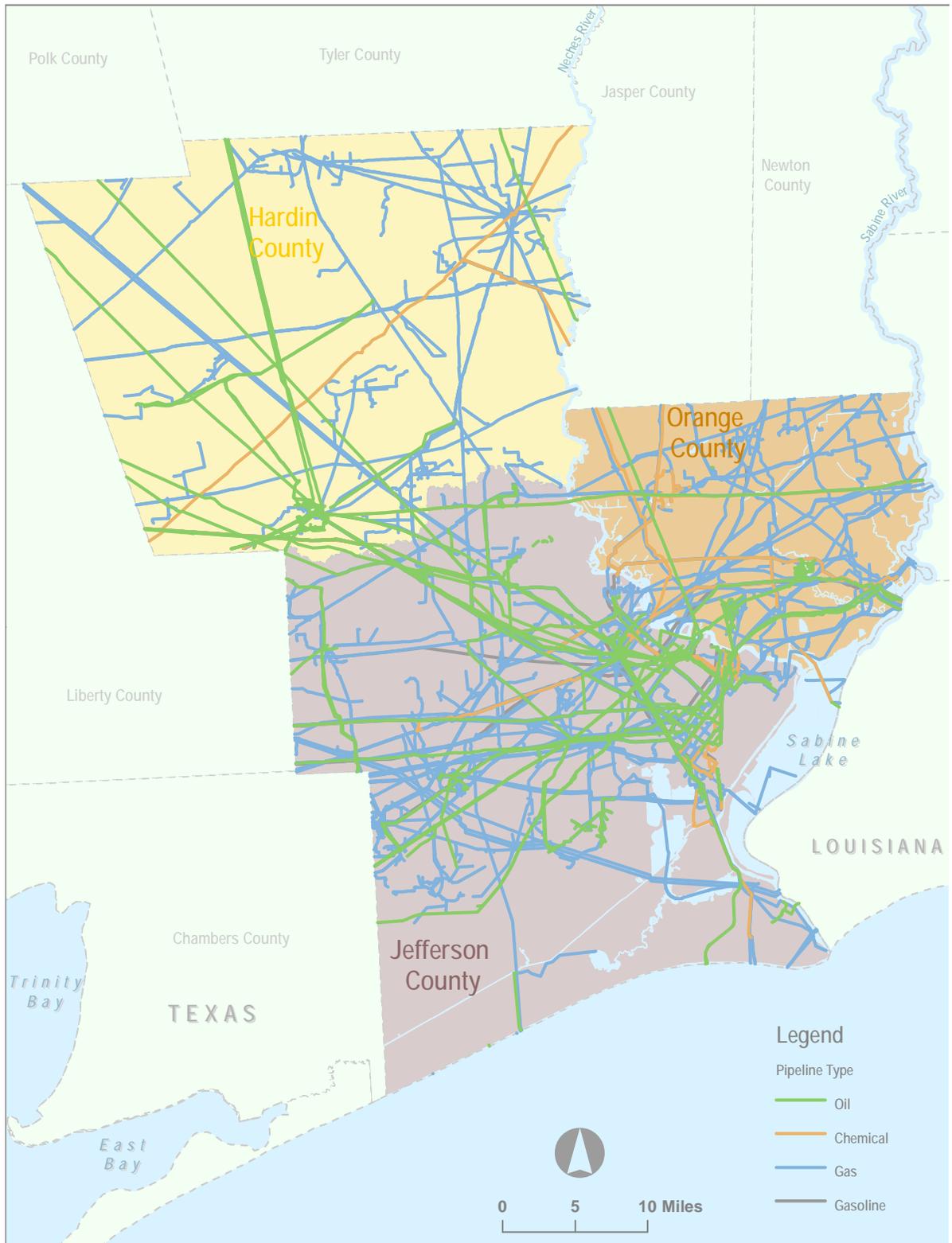
Port Security Funding: Because federally mandated security measures often come at a steep cost, additional grant funding is required to ensure the security of all ports.

Antiquated Cargo-handling Facilities: A combination of improved machinery and advanced technology can significantly improve port operations and enhance trade.

Intermodal Transportation Connections: To increase economic competitiveness, efficient access between ports and inland transportation facilities must be maintained.

Figure 9.1: Pipelines

This often unseen, but nevertheless important, form of transportation in the region is comprised of a vast network of underground transmission lines for natural and refined resources. The region is crisscrossed with thousands of miles of pipelines that transport fuel (oil and gasoline), gas, and other chemicals.



9.1.5 Commercial Airport

Jack Brooks Regional Airport (JBRA) is a public airport located nine miles southeast of the central business district of Beaumont and about 100 miles from Houston. JBRA covers an area of approximately 1,800 acres and has two paved runways. According to the 2007 airport master plan, feeder service by the larger express package carriers such as Federal Express and UPS, represents a viable potential for increasing air cargo at the airport.

9.2 Regional Freight Movement

In many metropolitan areas, freight movements are growing at a faster rate than personal travel. Several factors have spurred this growth. The deregulation of the trucking, rail, and air industry since 1975 has significantly reduced the operating costs of these modes, thus promoting the entry of new carriers, services, and routes. The growth in containerization revolutionized cargo shipping and freight logistics, resulting in the internationalization of supply chains. The liberalization of trade policies, such as the Pacific Rim Trade and the North American Free Trade Agreement (NAFTA), and the use of advanced information and communication technologies have resulted in significant changes in U.S. freight movement patterns.

This section profiles the domestic and international freight flows by direction, transportation mode and type of commodity, and provides insight into the needs and opportunities for freight transportation in the three-county region.

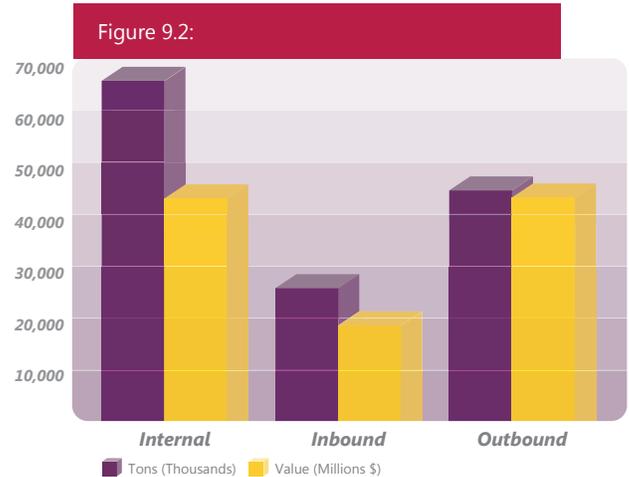
Safety and Security

In 2006, the **Security and Accountability for Every Port Act (SAFE Port)** was signed into law. Its primary purpose was to improve maritime and cargo security through **“enhanced layered defenses.”** In addition to establishing interagency operational centers, establishing a port security grant program, and a container security initiative, SAFE Port also established the **Transportation Worker Identification Credential program, or TWIC.** This program heightens security at all ports by requiring everyone that wishes to access secure areas of port facilities to possess a valid TWIC card, or be escorted by someone that does. Each of the ports within **the three-county area** takes safety and security issues very seriously and will continue to cooperate with federal and state authorities to improve the security of these vital transportation assets.



9.2.1 Domestic Freight Movement

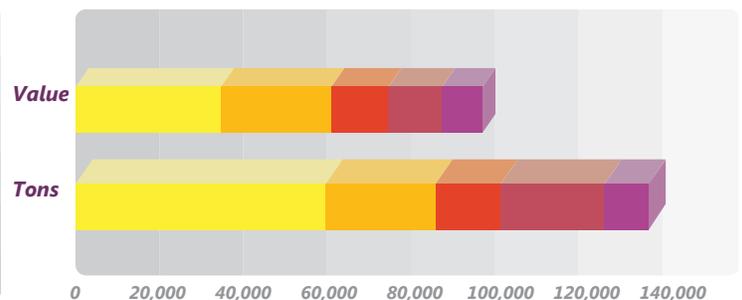
According to Freight Analysis Framework 3 in 2011, nearly 171 million tons of freight valued at \$117 billion moved in, out, and within the three-county region. The exhibit to the right presents the breakdown of the total tonnage and value by direction. Internal movements capture the traffic originating within the region and destined to another point within the region itself. Inbound movements capture the traffic transiting from a point outside the region. Outbound movements correspond to the traffic transiting from a point within the region, with a destination outside the region.



Because of the prevalence of the petro-chemical industry, pipelines move nearly half the weight of all commodities transported in the region. With three very productive ports, it is not surprising that waterways play a very important role in the transportation of freight as well.

	Tons(Thousands)	Value(Millions \$)
PIPELINE	59,911	\$37,295
TRUCK	26,251	\$28,327
RAIL	15,631	\$14,599
WATER	24,869	\$13,816
OTHER	10,517	\$10,268

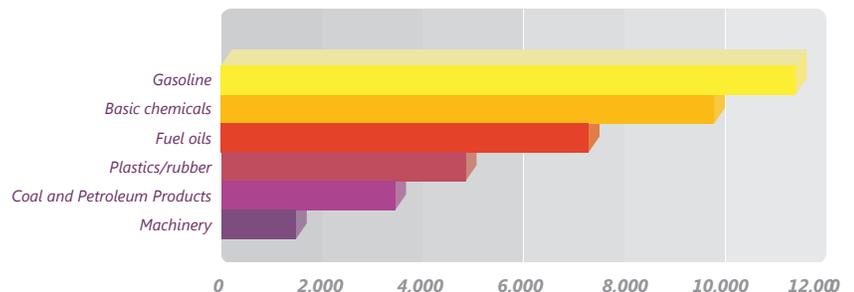
Figure 9.3:



A variety of commodities are transported into, out of, and through the three-county region, but a majority of these goods falls into a small number of major commodity groups. Energy- and petrochemical-based products are the leading commodities that are transported within the region and represent nearly 90 percent of the total value of all internal flows in 2011.

Commodity	Value(Millions \$)
GASOLINE	\$11,410
BASIC CHEMICALS	\$9,789
FUEL OILS	\$7,290
PLASTICS/RUBBER	\$4,846
COAL AND PETROLEUM PRODUCTS	\$3,450
MACHINERY	\$1,482

Figure 9.4:



Based upon projections contained within FAF, by 2035 nearly 129 million tons of freight valued at \$104 billion will be moved into, out of, and within the region, with domestic freight movements expected to realize a decline. Over the next 25 years, pipeline and trucking will continue to be the predominant modes, and energy- and chemical-based commodities are expected to continue to be the leading commodities transported in the region.

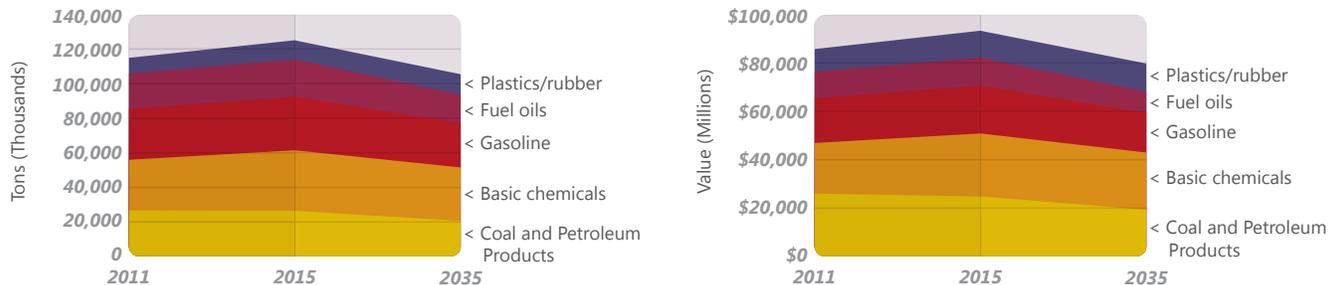
Figure 9.5: Current and Future Tonnage and Value of Regional Freight Flows by Type



Figure 9.6: Current and Future Tonnage and Value of Regional Freight Flows by Mode



Figure 9.7: Current and Future Tonnage and Value of Regional Freight Flows by Commodity



9.2.2 International Freight Movement

Due to easy access to the Gulf of Mexico via Sabine Pass, ports in the three-county region handle vast amounts of international freight. In 2010, export commodities accounted for 16 million tons and \$3.4 billion dollars, while all import commodities represent nearly 48 million tons and \$21 billion. Coal and petroleum products and crude petroleum are by far the leading import and export commodities, respectively. Approximately 60% of foreign imports stay within the region, while most of the remaining imports are distributed to other locations in Texas and its neighboring states. In contrast, less than 10% of the region's exports originate in the region.

Figure 9.8: Top Export Commodities by Value in 2011

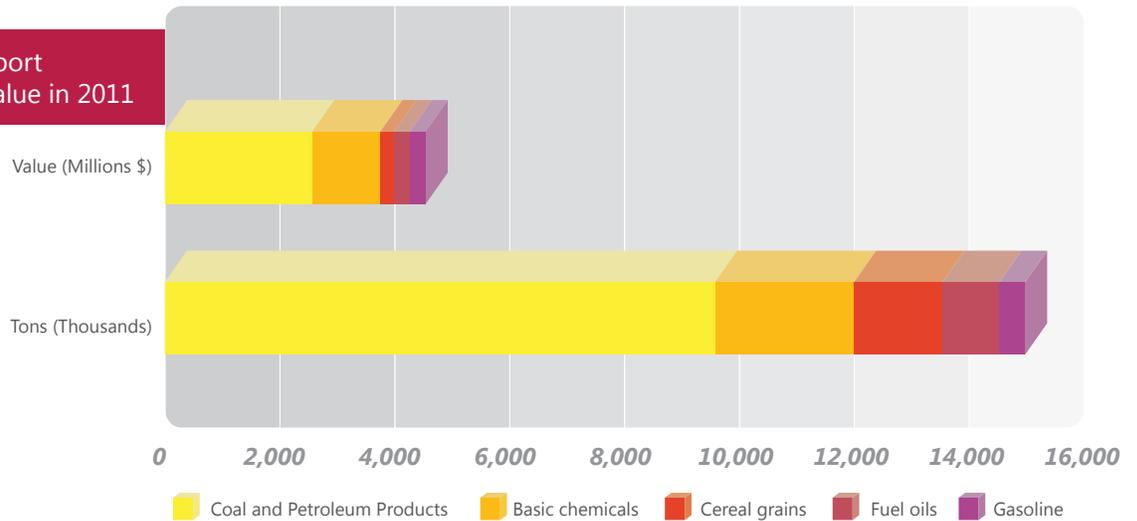
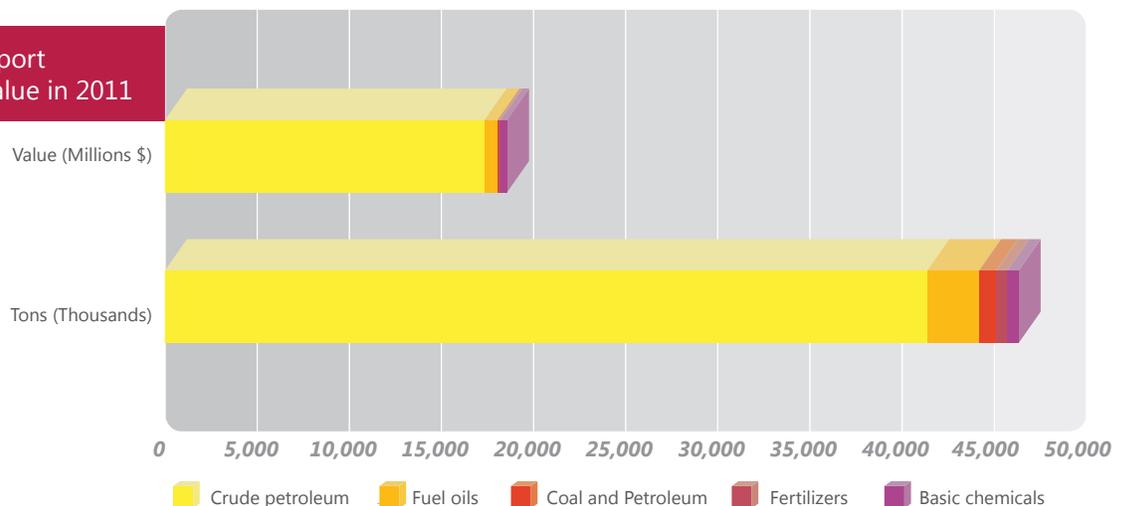


Figure 9.9: Top Import Commodities by Value in 2011



According to FHWA's Freight Analysis Framework 3, coal and petroleum products, fertilizers, basic chemicals, alcoholic beverages, and gasoline are expected to be the leading exports on a value basis. As expected, crude petroleum will be the leading import commodity.

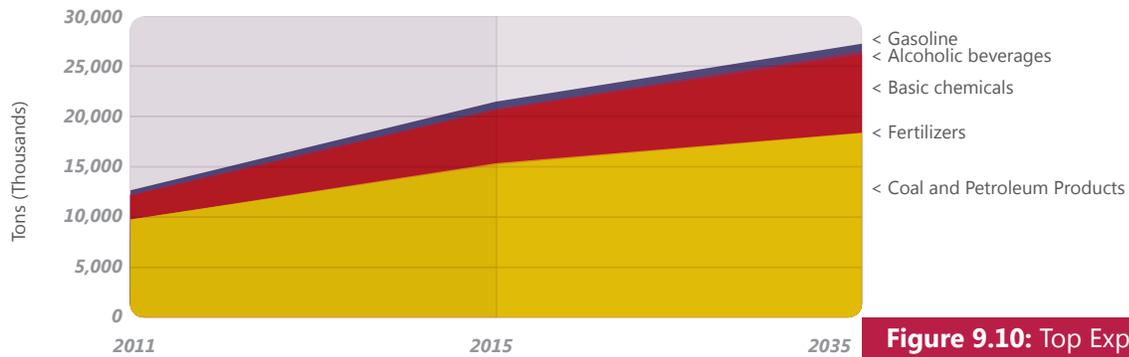


Figure 9.10: Top Export Commodities

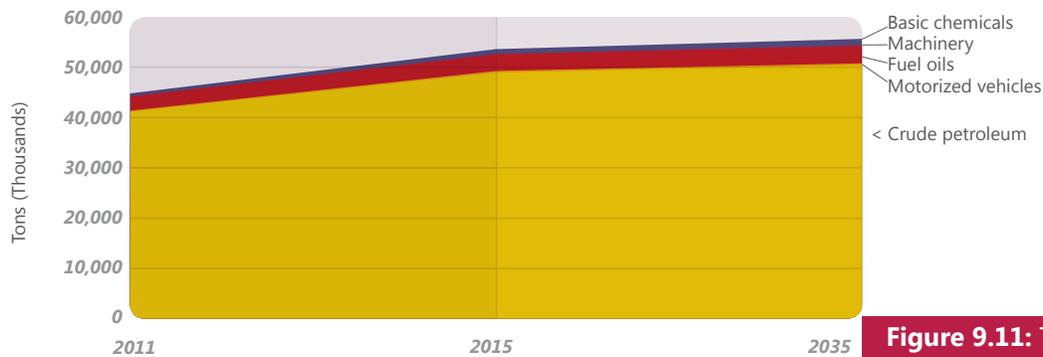
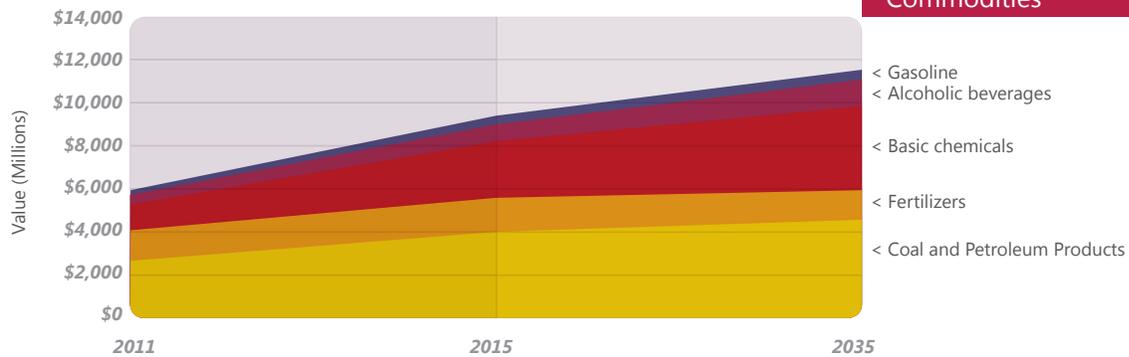
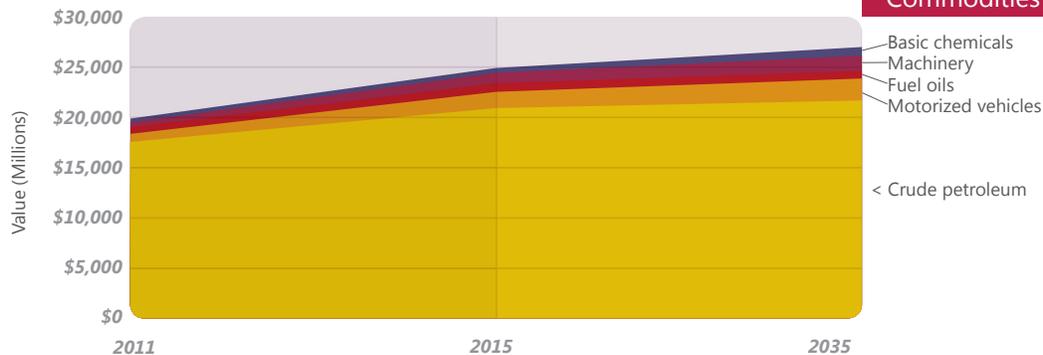


Figure 9.11: Top Import Commodities



9.2.3 Port-Only Freight Movement

According to the US Army Corps of Engineers Waterborne Commerce Statistics of the United States, over 103 million short tons of freight were moved by the Port of Beaumont, Port of Arthur, and Port of Orange in 2010, about 69 million tons of which was foreign trade. While petroleum and chemical-related products are shown as the largest commodity group handled by the ports, the vast majority of this type of freight is handled via pipeline and not directly by port operators.

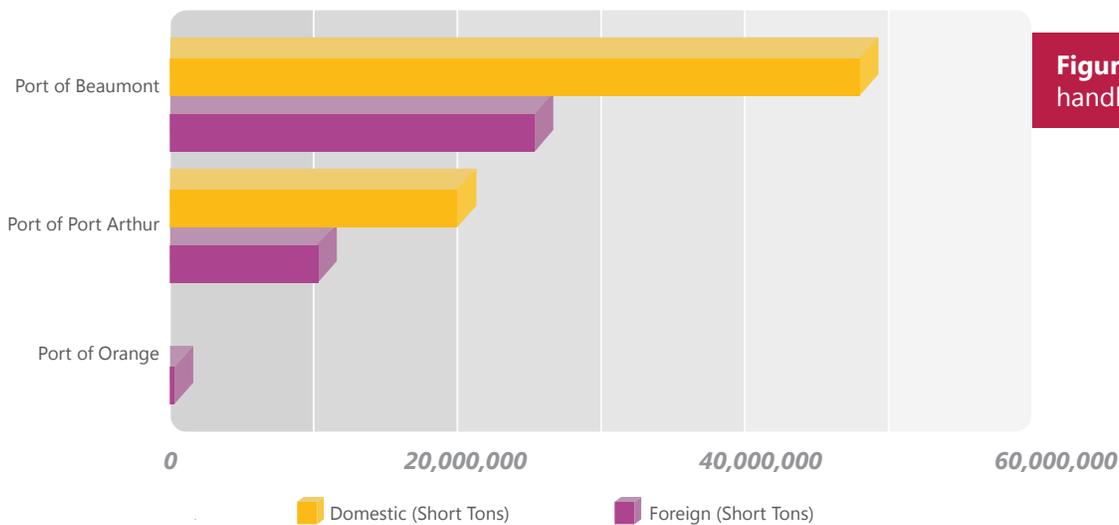


Figure 9.12: Total tonnage handled by Port, 2010

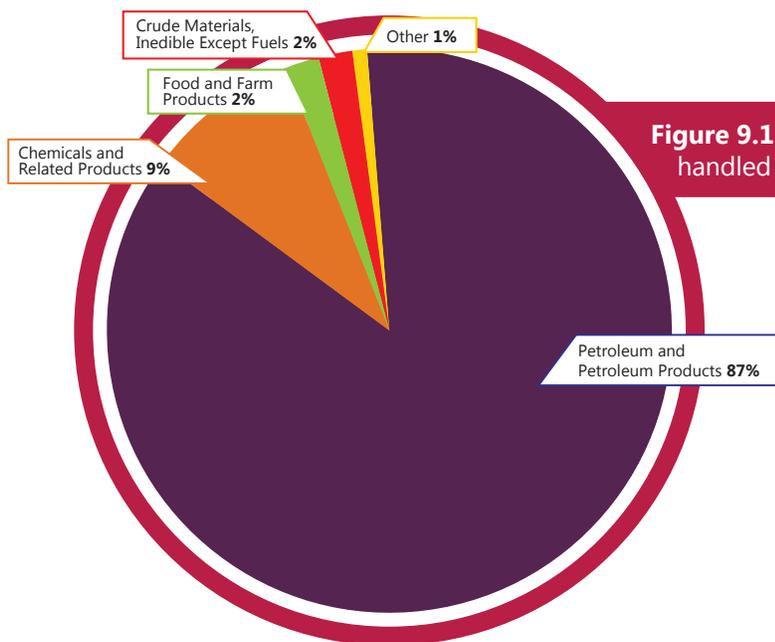


Figure 9.13: Commodities handled by Port, 2010

9.3 Conclusion

With its robust intermodal transportation network anchored by its ports, the three-county region is poised to capture the associated economic growth that comes with the projected increase in demand for goods and commodities. Therefore investments that provide improved access to the JOHRTS area ports are very important. Improvements should target improved traffic flow and increase safety, and their benefits should extend to all vehicles, including trucks. As heavy commercial vehicles cause far more pavement damage than passenger cars, the maintenance and preservation of the region's truck routes are of utmost importance.

Other considerations for commercial vehicles include intelligent transportation systems (ITS) technology and intersection and roadway design standards. Moreover, designated truck and hazardous materials routing is appropriate for separating commercial and non-commercial vehicles. These routes should be updated periodically, especially as land use changes and roadway improvements occur. The MPO recognizes the importance of freight movement in the regional economy and understands how public investments in the regional freight transportation system can help improve the region's economic competitiveness. As such, the MPO will continue to collaborate with its planning partners to maintain and enhance the region's freight transportation infrastructure.



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CHAPTER 10

Environment

The implementation of this transportation plan will advance many of the goals of the region. Improved roadways, safer interchanges, reconstructed bridges, and new bicycle facilities will all serve to improve the regional transportation system. However, the construction of these projects will not be without disruption to some members of the community, nor will they alone guarantee a better quality of life. **Therefore, this chapter attempts to quantify some of this plan's impacts, as well as provide some mitigation strategies for the MPO and its planning partners to pursue as they implement this plan.**

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10.1 Environmental Assessment

As MAP-21 requires a discussion of environmental mitigation strategies within Metropolitan Transportation Plans, a qualitative screening analysis was performed to assess the potential environmental impacts of this plan's roadway projects. The purpose of this initial environmental assessment is to identify projects that may negatively impact the natural and built environment. This assessment is done early in the planning process with the intent of preventing negative impacts on the environment.

It is inevitable that some projects presented in this transportation plan will have an impact on the region's environmental and social features. Roadway projects tend to require land acquisition in order to construct a new facility or widen an existing one. While sidewalks and bicycle facilities involve smaller cross-sections and often occur as part of a larger roadway project, they also have an impact on the environment for which they are designed. Transit improvements — whether they are extensions of an existing bus route or the creation of a new one — can occur on existing or planned roadways and can also impact the natural and social environments of a community. As communities in a region continue to grow, they face increasing challenges concerning the relationship between natural resources and development needs. It will be important to strike an acceptable balance between development, mobility, and commerce and the desire for a high quality of life that includes clean air and water, environmental preservation, and recreational opportunities. In the three-county area, environmental features that may be impacted by transportation programs include wetlands, public parks, wildlife management areas, and historic structures.

10.1.1 Natural Resources

The southeast Texas region is located along the coast of the Gulf of Mexico and includes numerous rivers and streams.

The various natural resources in the area include:



JEFFERSON COUNTY

The Gulf Intracoastal Waterway, the Neches River, and Sabine Lake in lower Jefferson County provide shipping routes for industrial maritime operations and pleasure craft. Numerous bayous, rivers, and lakes in the region also support recreational boating and water sport activities. Extensive tracts of land adjacent to the Gulf of Mexico and the Neches River have also been set aside for use as parks, wetlands, or wildlife refuges.



ORANGE COUNTY

Natural resources include Cow Bayou, Adams Bayou, and Blue Elbow Swamp along the Sabine River. The Blue Elbow Swamp also serves as a wetlands mitigation bank for TxDOT.



HARDIN COUNTY

The County includes recreational areas that are part of the Big Thicket National Preserve, a major environmental resource for the region. The Big Thicket National Preserve protects part of the old thicket, highlighting the area's biological resources. The preserve includes a varied ecology of southwestern desert, piney woods, swamps, and coastal prairies. The preserve also houses diverse plant species including orchids, cactus, cypress, and pine in close proximity to each other. Approximately 65,000 people visit the preserve each year.



Due to its location along the Gulf Coast, the region also includes a large number of flood-prone areas. In order to prevent future damage to property and transportation infrastructure, it is imperative to avoid developing in floodplains.

10.1.2 Cultural Resources

Cultural resources are significant and meaningful assets in a community and encompass a number of places that serve essential, enriching or humanizing functions. For the purposes of this analysis, cultural and community resources are comprised of schools, libraries, museums, historic sites, hospital or medical facilities, parks or recreational facilities, airports, and cemeteries found within the region. They are worthy of preservation and protection, as these locations provide popular destinations for citizens and visitors of all ages, as well as important community landmarks and critical service facilities. Depending on the type of facility, careful consideration and planning for transportation projects and investments should be undertaken so as to not adversely impact the community.



Most cultural resources in the region are located within city boundaries. Schools are comprised of both public and private facilities and higher education facilities including Lamar University, Lamar State College-Orange, and Lamar State College-Port Arthur. Parks or recreational facilities include pocket parks and larger regional parks, as well as community centers, convention or exhibition halls, performing arts centers, country clubs, golf courses, and stadiums. Historic sites include those deemed historically significant at either the local, state, or national level. In particular, it is important for metropolitan transportation planning purposes to identify historical landmarks or sites. Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended in 1976, 1980, and 1992) and Section 4(f) of the Department of Transportation Act of 1966 requires the Federal Highway Administration (FHWA) to identify, evaluate, and protect properties of historical significance. The National Register of Historic Places (NRHP), as administered by the National Park Service, is the official list of the nation's historic landmarks and sites considered historically important and worthy of preservation.



10.1.3 Environmental Impacts

The fiscally constrained projects identified in Chapter 12 were evaluated to determine the impacts on the natural and cultural resources of the region. This analysis consisted of overlaying project alignments and locations onto a series of GIS layers representing sensitive natural and cultural resources. Buffers were assigned to financially constrained projects that have potential environmental impact. The environmental features previously described that fell within the buffers were noted. The buffer size for each project varied depending on its type. Interchange projects were given a buffer of 500 feet from entrance and exit ramps and cross streets. Linear road projects were given a buffer of 250 feet on either side of the road, making a 500 feet wide buffer overall.



Figures 10.1 and **10.2** present and **Table 10.1** summarizes the potential impact the projects may have on environmentally sensitive areas. This analysis does not identify the various levels of potential impacts, but simply denotes an environmental factor's proximity to a proposed transportation project. This inventory of environmental features in no way substitutes for a project sponsor's need to complete a more in-depth environmental assessment.

Figure 10.1: Natural Resource Impacts

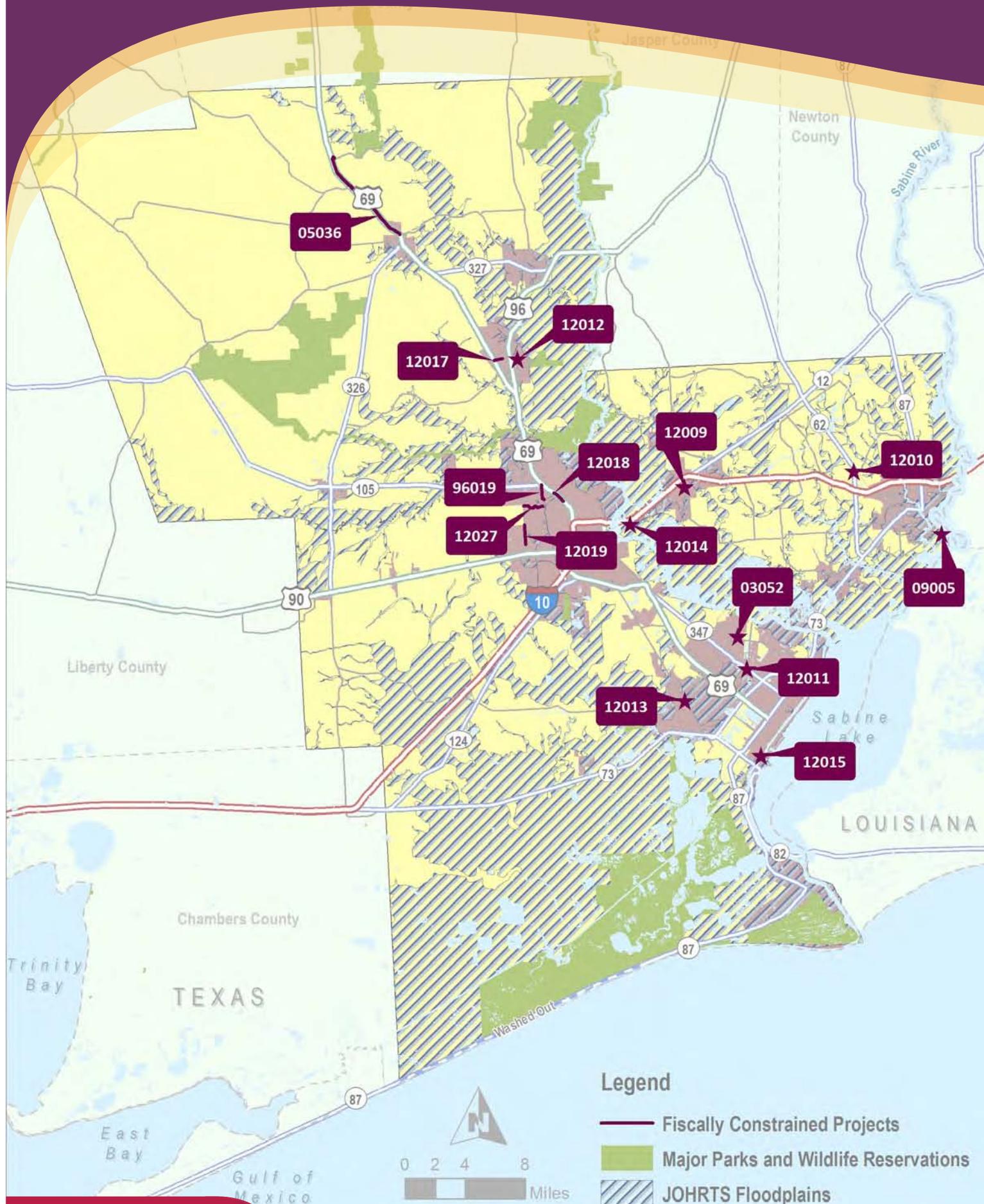


Figure 10.2: Cultural Resource Impacts

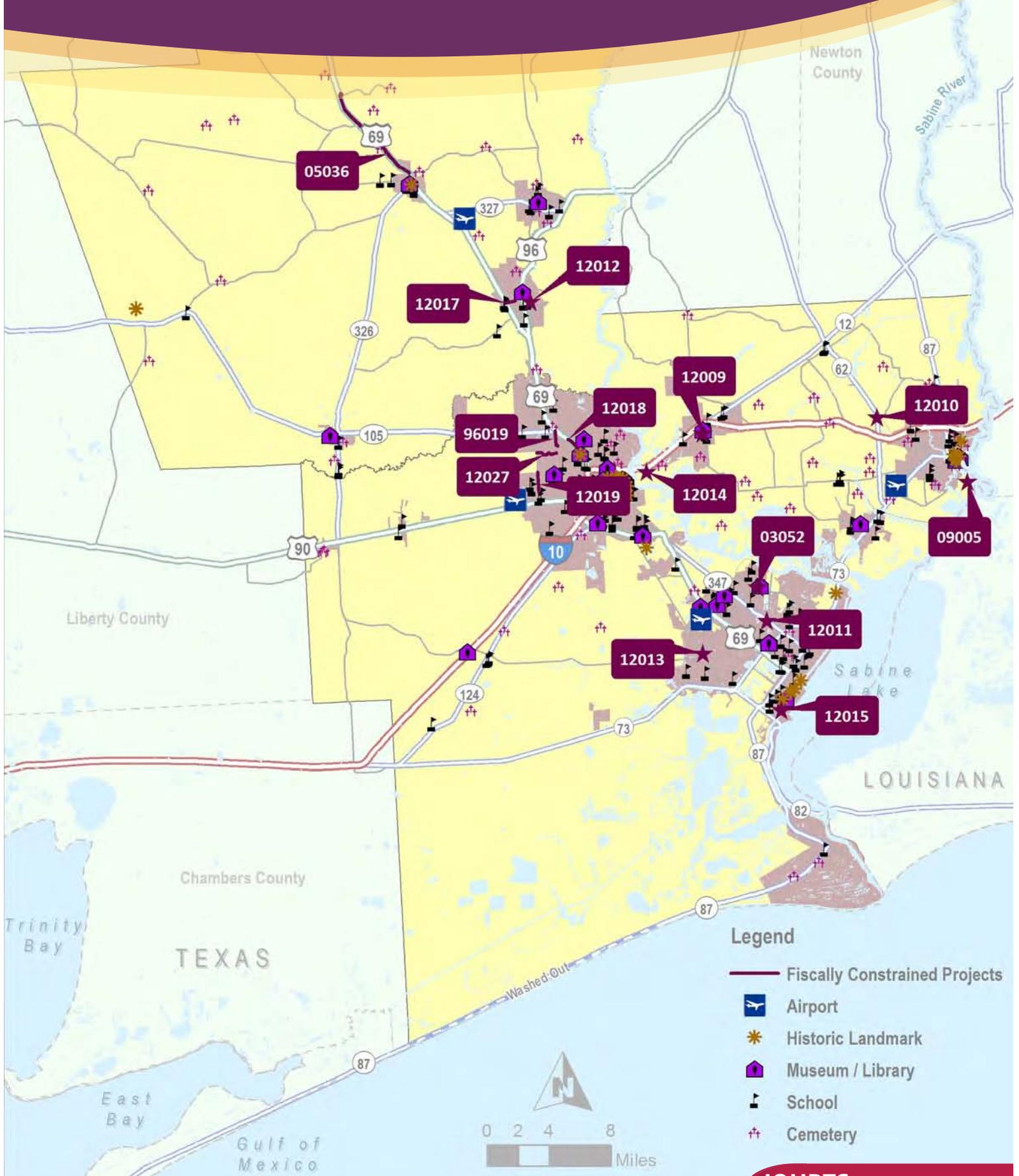


Table 10.1: Natural and Cultural Resource Impacts

ENVIRONMENTAL FEATURES
(within a 500 ft buffer)



100-YR Flood Plain



Historic Site



Water Features



Museum/Library



Airport



Park and Recreational Facilities



Cemetery



School

MAP ID	FACILITY	LIMITS/LOCATION	PROJECT TYPE	
12009	CS	Old US 90 at Stephenson Drive to 0.40 miles northwest of FM 105	Install right turn lane at Vidor Elementary	
12010	SH 62	FM 1078 to 700' south of FM 1078	Install right turn lane	
12011	SP 136	0.65 miles north of HWY 347 to 0.61 miles north on Spur 136	Install right and left turn lanes on Spur 136 at Huntsman Plant	
12012	East Candlestick	From FM 3513 to 240' west of FM 3513	Installation of right turn lane at East Candlestick Drive	
12013	FM 365	Jade Ave, east to Spur 93	Construct railroad overpass	
12014	CR	Old Highway 90, S. of IH-10 access road to East bank of Neches River	Construct railroad grade separation	
12015	VA	Inside the Port of Port Arthur	Install railroad track	
12017	Forest Road	From US 69/287 to West Chance Road	Construct sidewalks on both sides of roadway, including ramps	
12018	US 69	Lucas Street to Dowlen Road	Construct sidewalks on the west side of US 69 right of way	
12019	FM 364	Delaware Street to Phelan Boulevard	Construct sidewalks	
12027	Folsom Drive	From Dowlen Road to FM 364/Major	Construct bike trail	
03052	VA	Port Neches Elem and Middle Schools	Construction of sidewalks and ADA ramps	
09005	VA	Port of Orange	Upgrade the rail within the port	
96019	CS	Old Dowlen Road, from SH 105, south to Dowlen Road	Reconstruct existing roadway and add continuous left turn lane	
05036	VA	Big Thicket Visitor Center, south to City of Kountze	Construct a hike and bike trail	



10.1.4 Mitigation Activities

MAP-21 requires that Metropolitan Transportation Plans include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including those that may have the greatest potential to restore and maintain the environmental functions affected by the plan. In addition, MAP-21 requires that potential environmental mitigation activities be developed in consultation with federal, state, tribal, wildlife, land management, and regulatory (resource) agencies. The MPO is committed to minimizing and mitigating the negative effects of transportation projects on the natural and built environments in order to preserve the region's quality of life. In doing so, the MPO recognizes that not every project will require the same type or level of mitigation. Some projects involve major construction with considerable earth disturbance, while others, like intersection improvements, street lighting, and resurfacing projects, involve minor construction and minimal, if any, earth disturbance. The mitigation efforts used for a project should be dependent upon how severe the impact on environmentally sensitive areas is expected to be.

The National Environmental Policy Act (NEPA) suggests mitigation *in the following five steps*.

-  Avoiding the impact altogether by not taking a certain action or parts of an action.
-  Minimizing impact by limiting the degree or magnitude of the action and its implementation.
-  Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
-  Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
-  Compensating for the impact by replacing or providing substitute resources or environments.

(Source: 40 CFR 1508.20)



An ordered approach to mitigation, known as “sequencing,” involves understanding the affected environment and assessing transportation effects throughout project development.

Effective mitigation starts at the beginning of the environmental process, not at the end. Mitigation must be included as an integral part of the alternatives development and analysis process. The table below details possible mitigation activities and measures that could be considered when dealing with environmental impacts. Many of the measures are considered by the MPO during the project development phase. As described in the previous section, each of these projects will need to be reviewed and the appropriate mitigation strategy applied during the planning and implementation phases.

RESOURCE	MITIGATION MEASURES
Agricultural areas	Avoidance, minimization, compensation (could include preservation, creation, restoration, in-lieu fees, riparian buffers); design exceptions and variances; environmental compliance monitoring ¹ .
Air quality	Transportation control measures; transportation emission reduction measures; adoption of local air quality mitigation fee program; development of energy efficient incentive programs; adoption of air quality enhancing design guidelines.
Cultural resources	Avoidance, minimization; landscaping for historic properties; preservation in place or excavation for archeological sites; design exceptions and variances; environmental compliance monitoring.
Endangered and threatened species	Avoidance, minimization; time of year restrictions; construction sequencing; design exceptions and variances; species research, fact sheets and species management; environmental compliance monitoring.
Forested and other natural areas	Avoidance, minimization; replacement property for open space easements to be of equal fair market value and of equivalent usefulness; design exceptions and variances; environmental compliance monitoring.
Neighborhoods, communities, homes, and businesses	Impact avoidance or minimization; context sensitive solutions for communities (appropriate functional and aesthetic design features).
Parks and recreation areas	Avoidance, minimization, mitigation; design exceptions and variances; environmental compliance monitoring.
Wetlands, flood zones, and water resources	Avoidance, minimization; design exceptions and variances; environmental compliance monitoring.

¹Environmental compliance monitoring is a process of oversight designed to determine conformity with environmental legal mandates, regulations, lease stipulations, and conditions of approval. Conditions of approval include mitigation measures and other requirements imposed on applicants.

10.2 Air Quality

Air quality continues to play a major role in metropolitan transportation planning. The National Ambient Air Quality Standards (NAAQS) are federal standards that set allowable concentrations and exposure limits for certain pollutants. Primary standards are intended to protect public health, while secondary standards protect public welfare. Examples of public welfare include damage to crops, vegetation, and buildings. Air quality standards have been established for the following six criteria pollutants: ozone, carbon monoxide, particulate matter, nitrogen dioxide, lead, and sulfur dioxide. If monitored levels of any of these pollutants violate the NAAQS, then the Environmental Protection Agency (EPA), in cooperation with the State of Texas, will designate the contributing area as being in “nonattainment” of air quality standards.

In the early 1980s, SETRPC formed an Air Quality Advisory Committee (AQAC) to develop an integrated approach to managing the region’s air quality. The AQAC is a diverse, broad-based group composed of local elected officials, private industry, government, chambers of commerce, unions, concerned citizens, and environmental groups. In 1989, the AQAC successfully obtained voluntary funding from area industries and established an on-going Regional Meteorological and Air Quality Monitoring Network. *To help meet the air quality challenges facing the region, the AQAC is continuing its effort to:*

-● Inform citizens about the immediate and long-range air quality concerns that face southeast Texas
-● Advise elected public officials and citizens about the impact of federal clean air legislation
-● Help identify air quality problems that affect economic growth and develop solutions
-● Recommend public programs regarding existing and proposed federal clean air legislation
-● Work with the Texas Commission on Environmental Quality (TCEQ) to develop air quality plans for southeast Texas.



10.2.1 Emissions

Air pollution in the JOHRTS area also includes transported air pollutants that combine with locally produced emissions to produce ozone levels that have previously exceeded the NAAQS. An analysis of air movements reveals that high ozone levels in the JOHRTS area would not have occurred if air pollution from outside the JOHRTS area had not transported into the region. Variations in temperature, wind speeds, and air mass movements also contribute to the frequency and severity of ozone in southeast Texas.

Air quality emissions are broken down into four major categories:

Point Sources



Generated by industrial operations and comprise the majority (59%) of NO_x emissions and 9% of VOC emissions in the JOHRTS area.

Area or Non-road Sources



Produced from engines, trains, planes, boilers, solvents, paints, dry cleaning facilities, and construction equipment and comprise 15% of all NO_x and 5% of all VOC emissions in the JOHRTS area.

On-road or Mobile Sources



Come from cars and trucks and make up 25% and 3% of NO_x and VOC emissions, respectively.

Biogenic Sources



Naturally produced as a result of plant photosynthesis, the amount of which is based on the quantity and type of vegetation in the area. While biogenic emissions only comprise 1% of NO_x emissions, they account for 83% of VOC emissions in the JOHRTS area.

10.2.2 Measuring Air Quality

The JOHRTS area has been supplementing the state agency's ambient monitoring network since 1989. These additional ozone and criteria pollutant monitors have shown that the air quality in 2010 is much better than it was in 1990. Monitored levels of NO_x and VOC are 40-50% lower than they were ten years ago. The graph below illustrates continued reductions in combined NO_x and VOC levels from 1990 - 2011 and projections that predict that ozone levels will remain stable through year 2021.

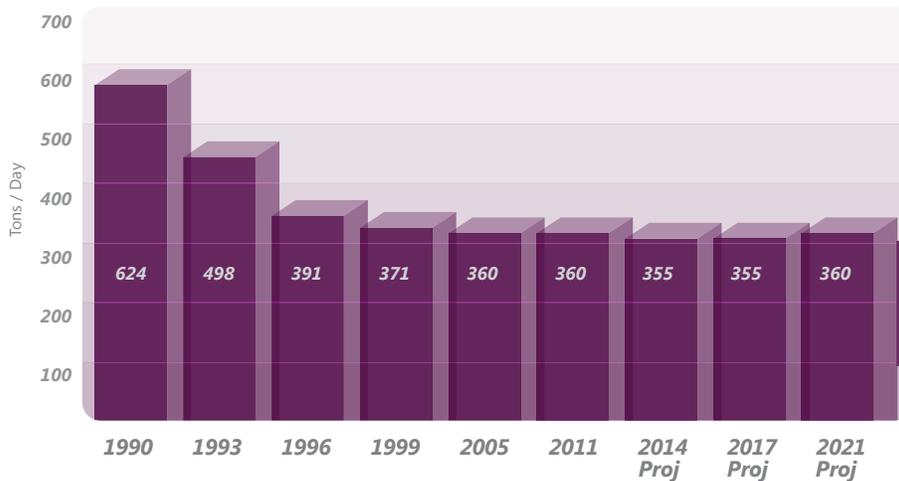


Figure 10.3: Combined NO_x and VOC Emissions

One of the key daily measurements taken from each monitoring site is the maximum rolling eight-hour average ozone level. At the end of each year, the fourth highest daily eight-hour average reading at each monitoring site is documented. If the average of the fourth highest daily eight-hour average readings over three consecutive years from any monitor in the area exceeds the NAAQS, the area is considered to not be in attainment of the eight-hour standard. Figure 10.4 and Table 10.2 show the eight-hour readings from various monitoring sites within the three county-area.

Figure 10.4: JOHRTS 8-Hour Ozone Design Value

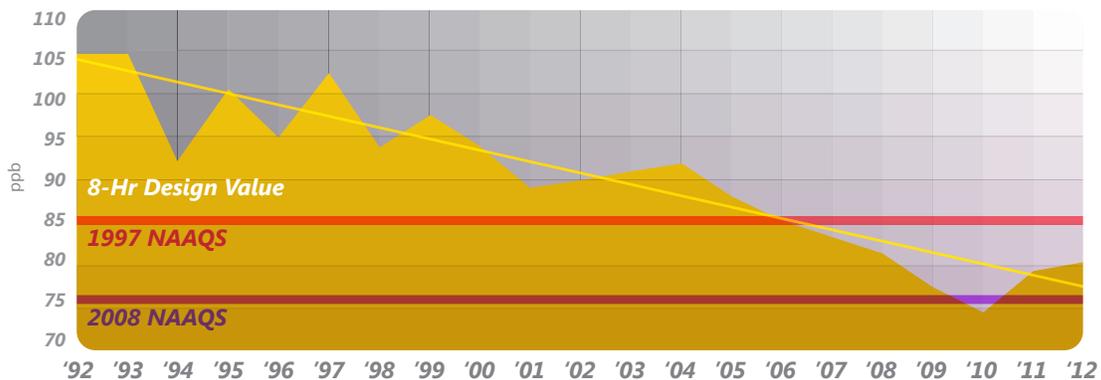


Table 10.2: Average 4th Highest Daily Maximum Eight-Hour Ozone Levels Per Three-Year Period

Years	SETRPC Monitoring Sites (ppb)				TCEQ Monitoring Sites (ppb)				
	Sabine Pass	Mauriceville	Jack Brooks Reg. Airport	Port Arthur	Beaumont	Port Arthur	Hamshire	West Orange	Nederland
97-99	99	88	95	---	88	86	---	76	---
98-00	94	85	92	---	86	87	85	75	---
99-01	89	81	89	---	80	85	83	74	---
00-02	90	76	85	---	80	84	79	81	---
01-03	91	76	86	---	78	78	75	80	---
02-04	92	72	84	---	79	78	76	82	---
03-05	88	74	84	---	81	80	79	79	---
04-06	85	71	83	---	82	81	81	77	---
05-07	81	74	83	78	82	79	79	75	---
06-08	77	71	81	74	79	76	76	71	---
07-09	73	70	77	70	74	72	72	70	72
08-10	74	68	73	68	72	74	70	71	70
09-11	79	69	71	69	73	76	71	75	72
10-12	80	69	71	73	75	74	72	74	72

10.2.3 Attainment Status

The JOHRTS area is currently in attainment of the 2008 NAAQS for ozone, although in the past it has been in nonattainment of the 1997 standard and an attainment-maintenance area for the 1997 standard. Ozone is a harmful gas formed when volatile organic compounds (VOCs) and nitrogen oxides (NOx) react with sunlight. Major sources of these air pollutants are refineries, petrochemical facilities, power plants, trucks, and cars. The following paragraph summarizes the recent history of the NAAQS for ozone in the JOHRTS area.

On April 30, 2004, the EPA designated the Beaumont-Port Arthur (BPA) area as a marginal nonattainment area under the 1997 eight-hour ozone standard. The effective date of the marginal nonattainment designation was set to be July 15, 2005; the attainment date was set as June 15, 2007. However, the area did not monitor attainment of the 1997 eight-hour ozone standard by the June 15, 2007, deadline. As a result, the EPA reclassified the area to moderate nonattainment for the 1997 eight-hour ozone standard, effective April 17, 2008. The new attainment date for the BPA area was set at June 15, 2010. This time the area did monitor attainment by the deadline, and in November of 2010, the Beaumont-Port Arthur region was designated as attainment for the 1997 Ozone Standard, and thus became a maintenance area. On March 27, 2008, the EPA lowered the primary and secondary eight-hour NAAQS for ozone to 0.075 parts per million. Hardin, Jefferson, and Orange Counties were designated attainment/unclassifiable under this 2008 standard effective July 20, 2012.



10.2.4 Conformity

The non-attainment or maintenance designation of a region requires MPOs to revise their MTPs every four years and show conformity on the new MTP to ensure that its programs and projects are consistent with state and local air quality plans for attaining the NAAQS. In order for an area to meet conformity requirements under the eight-hour standard, the planned roadway improvements and programs in the MTP must keep the VOC and NO_x emissions below the approved budget for the ozone NAAQS.

Although the JOHRTS area is now considered to be an attainment area, the MPO is still required to make a transportation conformity determination due to its previous status as an attainment-maintenance area. The MPO has worked continuously in cooperation with transportation conformity consultation partners, including the Federal Highway Administration, Texas Department of Transportation, Environmental Protection Agency, and the Texas Commission on Environmental Quality, but has been unable to make a transportation conformity determination. As such, the area entered a conformity lapse on September 25, 2012. To continue moving projects forward, this exempt MTP has been developed, which contains projects exempt from the air quality conformity process.

10.2.5 Current Initiatives

The conformity process ensures that MPOs carry out their mandate to enforce transportation provisions outlined in the 1990 CAAA. This means that every effort must be made to ensure that transportation plans and programs are consistent with air quality goals. As the JOHRTS area has met its required NAAQS target for the eight-hour standard for ozone, it is currently designated as an attainment area for ozone. *However, the MPO is currently subject to the conformity process. The MPO will continue to monitor and reduce mobile source emissions and maintain the NAAQS through the following programs:*

Air Monitoring Network:

With funding from area industries, the SETRPC operates an air monitoring network made up of numerous air monitoring stations located throughout Hardin, Jefferson, and Orange counties. With real-time data from those sites, the agency maintains a comprehensive database that provides information on the air quality of the region. The Texas Commission on Environmental Quality (TCEQ), through a data marketing agreement with SETRPC, utilizes the real-time data to help forecast Ozone Action Days and to develop air quality plans for southeast Texas.



Ozone Action Day Program:

This voluntary program is designed to increase public awareness by encouraging individuals to reduce ozone producing activities. This program promotes voluntary actions like reducing excess idling in drive-through lanes, refueling vehicles after 6 PM, postponing the use of small gasoline engines like lawnmowers until early evening, combining several trips into one, keeping vehicles properly maintained, and sharing a ride to work or school. The Ozone Action Day program also involves local industries, small businesses, and local governments that all work together to improve air quality in the JOHRTS area.



10.3 Climate Change

Although there is currently no official mandate concerning how climate change should be addressed in the MPO planning process, FHWA's Texas Division office recommends that MPOs include a short discussion on Greenhouse Gases/Climate Change in their MTPs. According to the FHWA report *Integrating Climate Change into the Transportation Planning Process*, there is general scientific consensus that the earth is experiencing a long-term warming trend and that human-induced increases in atmospheric greenhouse gases (GHGs) may be the predominant cause.



In 2007, it was estimated that approximately 28% of GHG emissions in the United States come from transportation, and 82% of the transportation sector's emissions are generated by road use. The transportation sector's adverse contribution to climate change is primarily through greenhouse gas emissions from cars, trucks, buses, trains and ships. The transportation sector can also be a positive force for improving the quality of the air. Investments to expand transit services, to provide bicycle paths, and to introduce cleaner fuels and vehicles that are more fuel efficient all contribute to reducing emissions of mobile source air pollutants and greenhouse gases. Public education regarding the effects of auto-dependant land use and the impact of development patterns that require excessive commuting or other auto travel may also contribute to greater recognition, over time, of the connection between individual lifestyle choices and air pollution. As fuel prices continue to rise, the need to reduce fossil fuels and turn to renewable sources and conservation measures has never been greater.

The JOHRTS region is particularly vulnerable to hurricanes, tropical storms, and flooding, which may be intensified by some presumed results of climate change, such as sea level rise. Other potential impacts of climate change upon the regional transportation system include accelerated deterioration of roadways, flooding and increased storm water issues, bridge damage, rail buckling, and reduced water levels in rivers that could affect the passage of ships.

The following four primary strategies can reduce GHG emissions from transportation:



IMPROVE SYSTEM AND OPERATIONAL EFFICIENCIES

Traffic flow improvements can be achieved through ITS, route optimization, and improved intermodal links and system connectivity. Other system efficiencies could be achieved by switching to more energy-efficient modes. The City of Beaumont recently upgraded existing traffic control equipment and installed fiber optic communications, linking a number of signals to an Advanced Traffic Management System.



REDUCE GROWTH OF VEHICLE MILES TRAVELED (VMT)

Implementing land use strategies that concentrate development can lessen the need to drive. Providing HOV lanes, offering transit options, constructing pedestrian and bicycle facilities, and promoting travel demand management programs and telecommuting can also reduce the number of vehicle trips. Pricing mechanisms such as road pricing, mileage-based car insurance, and gas taxes can motivate people to drive less. The MPO promotes carpooling and rideshare activities.



TRANSITION TO LOWER GHG FUELS

Replacing gasoline and diesel with fuels such as biodiesel and natural gas can reduce the levels of GHG emissions over their lifecycle – from production and refining to distribution and final use. In the JOHRTS region, the MPO promotes the use of alternative fuel vehicles.



IMPROVE VEHICLE TECHNOLOGIES

Promotion of the development of more fuel-efficient vehicles, such as plug-in electric hybrids, via policy decisions such as the stringent Corporate Average Fuel Economy (CAFE) standards, can improve air quality and reduce toxic emissions. Tax credit programs can also encourage the purchase of more fuel-efficient vehicles. BMT and PAT, the fixed route transit agencies in the JOHRTS area, utilize natural gas and propane, respectively, to fuel their fixed route buses.

The MPO is engaged in many activities and programs, and anticipates that these efforts will need to be increased as the climate change issue becomes more defined. Initiatives such as Ozone Action Day, the Regional Public Transportation Coordination Plan, and the Rideshare program will reduce greenhouse gas emissions in the region. As more consistent methods to measure GHG emissions are developed, and as legislative and regulatory mandates emerge, the MPO is poised to address them accordingly. In the meantime, the MPO will continue to work with its regional planning partners to make transportation decisions that conserve and optimize non-renewable resources, promote the use of renewable resources and implement strategies to decrease greenhouse gases and air pollutants.



10.4 Environmental Justice

Title VI of the 1964 Civil Rights Act (42 U.S.C. 2000d-1) states that, “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.”



Title VI bars intentional discrimination as well as disparate impact discrimination (i.e., a neutral policy or practice that has a disparate impact on protected groups). The President’s Executive Order on Environmental Justice amplifies Title VI by providing that *“each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations.”*

The Environmental Justice analysis examined the potentially adverse impacts of the projects contained within this plan. This plan contains only exempt type projects, which were layered in GIS over maps indicating where the JOHRTS environmental justice populations are located. Exempt projects such as the construction of an overpass, turn lanes, or reconstruction of roadways were not considered to create adverse impacts, but were still scrutinized for potential impacts. Alternative mode investments



in transit service and bicycle and pedestrian facilities were considered to provide positive impacts to the minority and low-income populations of the region. Alternative mode services and facilities would provide additional lower-cost transportation options to increase mobility and accessibility to those locations that do not currently have multimodal transportation facilities.

As part of this transportation plan update, Census 2010 data by census tract was used to identify the geographic distribution of minority and low-income populations. The Council on Environmental Quality (CEQ) provides guidelines for determining areas where disproportionate effects to minorities are likely to occur. The CEQ advises identifying areas where the minority and low-income populations (1) exceeds 50 percent or (2) is "meaningfully greater" than the local neighborhood area population. In the JOHRTS region, the concentrations of minority and low-income populations are determined by identifying those census tracts that have a higher percentage of minority or low-income population than the regional average

The following figure presents the locations of Environmental Justice populations and the funded priority projects within this plan, while the following table identifies which projects are located in Environmental Justice areas.

Figure 10.5: Environmental Justice Impacts

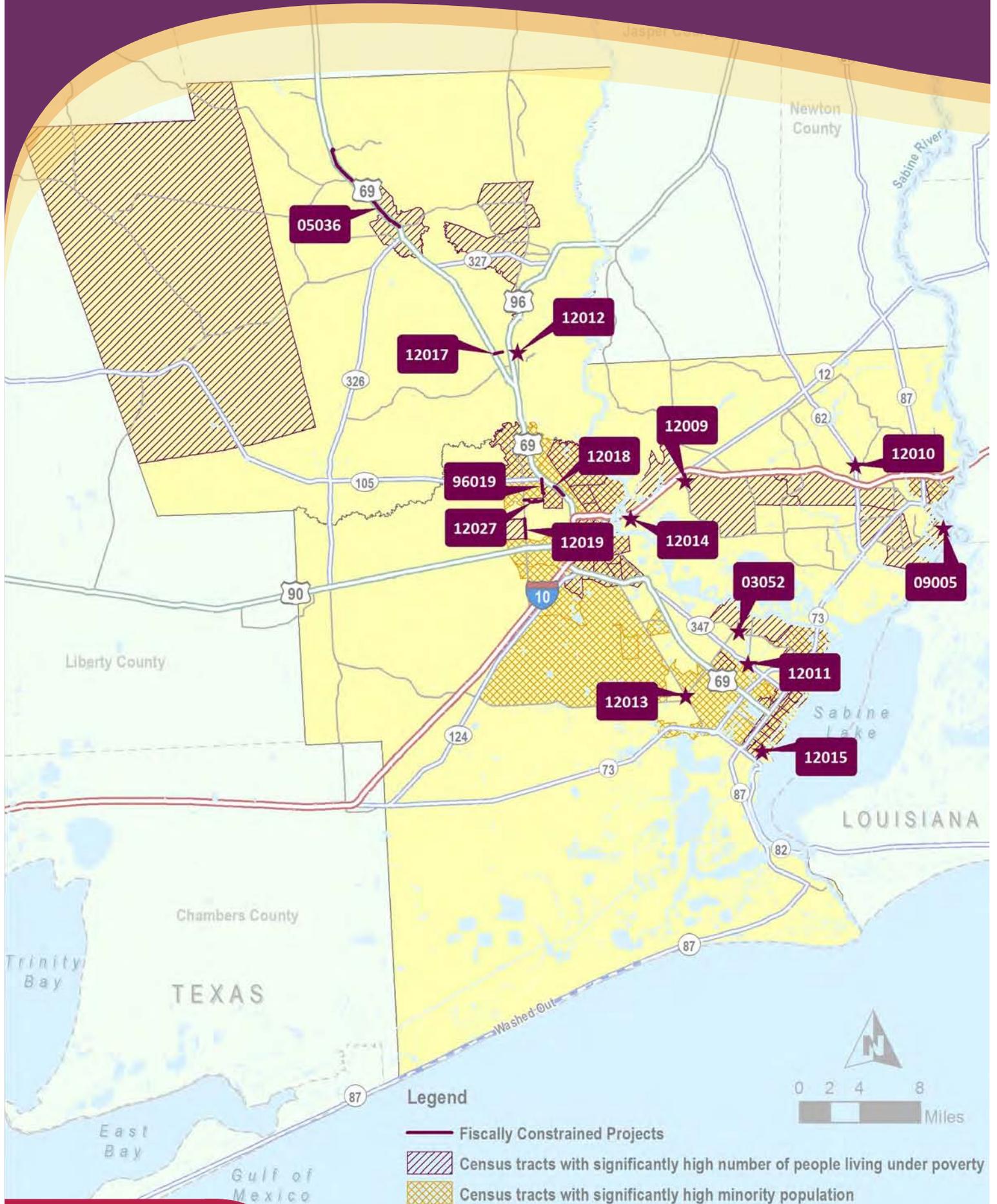


Table 10.3: Environmental Justice Impacts

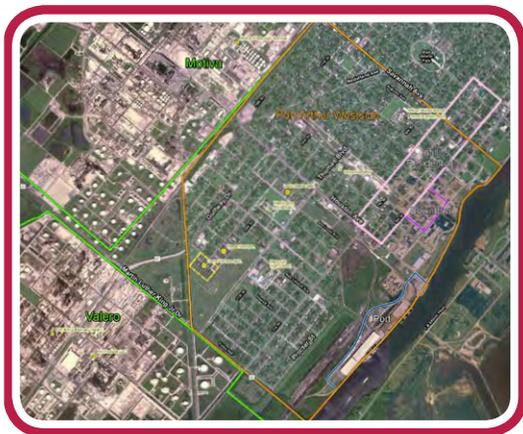
MAP ID	FACILITY	LIMITS/LOCATION	PROJECT TYPE	LOW-INCOME CENSUS TRACT	MINORITY CENSUS TRACT
12009	CS	Old US 90 at Stephenson Drive to 0.40 miles northwest of FM 105	Install right turn lane at Vidor Elementary	○	
12010	SH 62	FM 1078 to 700' south of FM 1078	Install right turn lane		
12011	SP 136	0.65 miles north of HWY 347 to 0.61 miles north on Spur 136	Install right and left turn lanes on Spur 136 at Huntsman Plant		○
12012	East Candlestick	From FM 3513 to 240' west of FM 3513	Installation of right turn lane at East Candlestick Drive		
12013	FM 365	Jade Ave, east to Spur 93	Construct railroad overpass		○
12014	CR	Old Highway 90, S. of IH-10 access road to East bank of Neches River	Construct railroad grade separation		
12015	VA	Inside the Port of Port Arthur	Install railroad track	○	○
12017	Forest Road	From US 69/287 to West Chance Road	Construct sidewalks on both sides of roadway, including ramps		
12018	US 69	Lucas Street to Dowlen Road	Construct sidewalks on the west side of US 69 right of way	○	○
12019	FM 364	Delaware Street to Phelan Boulevard	Construct sidewalks	○	○
12027	Folsom Drive	From Dowlen Road to FM 364/Major	Construct bike trail	○	○
03052	VA	Port Neches Elem and Middle Schools	Construction of sidewalks and ADA ramps	○	
09005	VA	Port of Orange	Upgrade the rail within the port	○	
96019	CS	Old Dowlen Road, from SH 105, south to Dowlen Road	Reconstruct existing roadway and add continuous left turn lane	○	○
05036	VA	Big Thicket Visitor Center, south to City of Kountze	Construct a hike and bike trail	○	



10.4.1 Potential Effects of the Recommended Plan

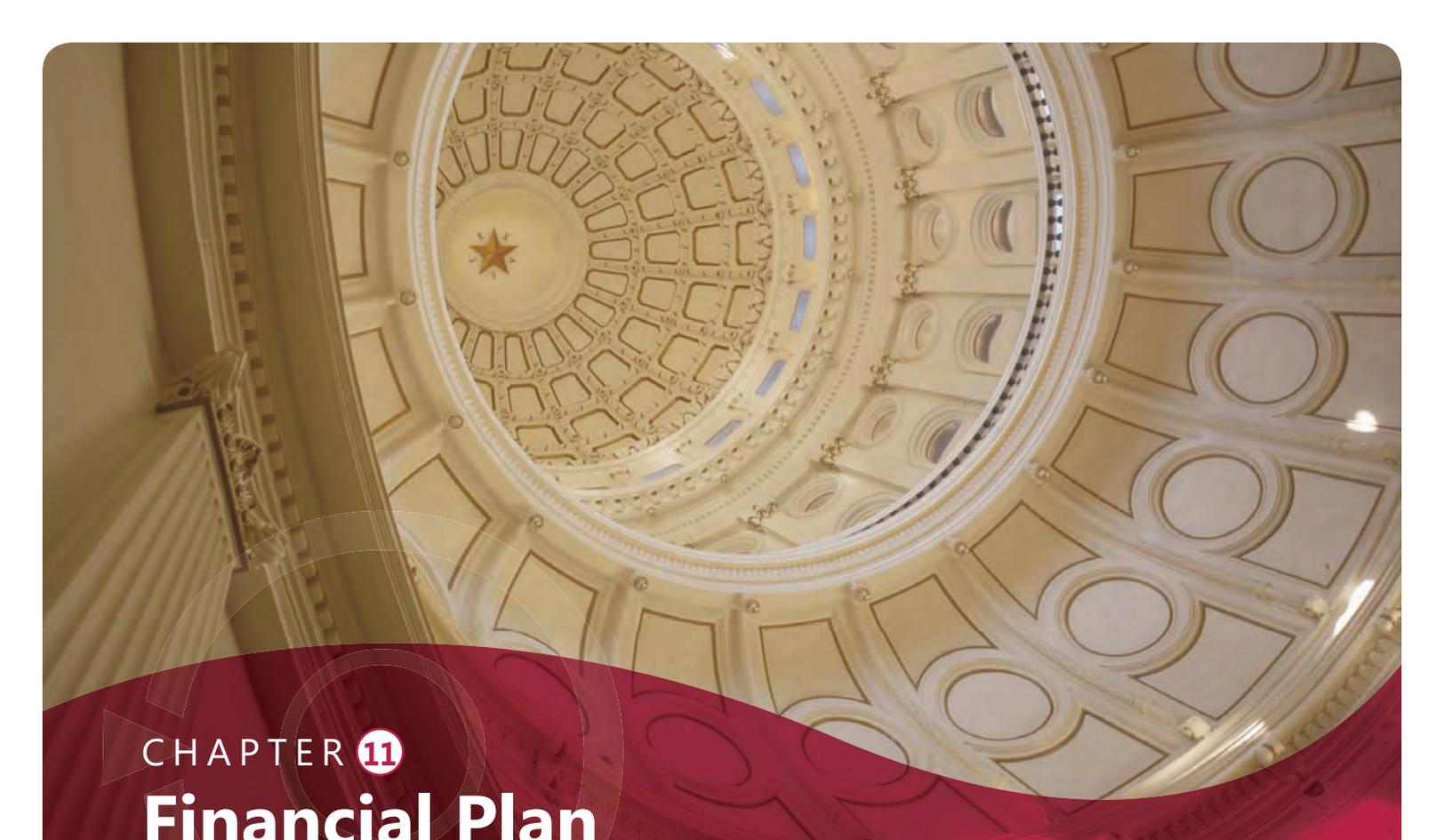
It must be stressed that the Environmental Justice screening conducted for this study is not intended to quantify specific impacts. The critical purpose of this screening is the identification of projects in the MTP that, due to proximity, have the potential to affect communities of special interest. When individual studies begin as part of project implementation, more detailed analyses will be needed to identify and minimize specific community impacts on a project-by-project basis. Proactive efforts should be made to ensure meaningful opportunities for public participation, including specific activities to increase outreach for low-income and minority participation during the project development process for each of the fiscally constrained projects identified in the MTP. This participation will be important to the decision-making process and will help to ensure that transportation needs of the target populations are met to the greatest extent possible.

In summary, all population groups would benefit from the planned transportation improvements in the region. In fact, many of the improvements will have positive impacts to these populations in terms of increased mobility within the community and additional transportation options. Relative to burdens, all segments of the population who live adjacent to roadway construction projects may endure some short-term construction-related impacts related to visual changes, noise, and alterations to access. In general, neither low-income nor minority populations in the region would endure high and disproportionate impacts due to the projects proposed by the 2035 MTP.



On November 17, 2009, the U.S. EPA announced a new national initiative to address Environmental Justice (EJ) challenges in ten communities across the country. The Westside community of the city of Port Arthur, Texas was chosen as one of these ten. More than half of the residents are African American and Hispanic and live in close proximity to chemical plants, refineries, and a hazardous waste incinerator. Through this program, the City of Port Arthur will receive funding to help alleviate environmental and human health challenges facing the community. By using collaborative and community-based approaches, the project hopes to bring together all organizations and stakeholders in order to use their collective resources and knowledge to achieve the best results for everyone. This initiative will act as a demonstration project to help guide future efforts that target EJ concerns and address local environmental challenges in the most effective ways.

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CHAPTER 11 Financial Plan

Federal planning regulations require that the financial plan presented in the MTP be financially constrained, which means that the estimated cost for all transportation improvements presented in the plan cannot exceed the amount of reasonably expected revenues projected from identified funding sources.

This chapter focuses on the long-range financial constraints and opportunities in the JOHRTS area over the 23 fiscal years of this MTP. The MPO, in cooperation with Technical Committee members and TxDOT staff, have conducted a careful analysis of what funds are to be reasonably expected, how those funds may be allocated, and how and when projects will be financed. Without a doubt, actual funding availability over the 23 years of this plan will depend largely upon future actions and public policy directives initiated at the federal and state levels.

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11.1 Funding Sources



Federal and state transportation revenue streams are rapidly losing pace with needed investments. State and federal gas taxes have not changed since the early 1990s and recent increases in oil prices have caused people to adjust their driving habits and buy more fuel-efficient cars. Federal programs have made strides toward rejuvenating the automobile industry and decreasing emissions, but those advances have come at the cost of decreasing federal and state transportation revenue.

Various suggestions have been made to bolster federal and state transportation funding mechanisms, including increasing the gasoline tax and/or indexing it to the consumer price index, increasing local vehicle registration fees, and imposing a local tax dedicated to transportation improvements. However, such tax increases are typically very politically unpopular. Other suggestions include transitioning to a tax based upon miles driven, rather than gasoline consumed. GPS and other technologies to implement this type of solution have been around for years, but concerns over privacy are likely to prevent this type of solution from materializing. At the local level, the Texas State Legislature recently declined the opportunity to allow some counties to impose a local option tax which would allow local officials to put a tax on the ballot which would raise the gas tax as well as auto registration and licensing fees. Nevertheless, MPOs must make some prediction on future revenue funding streams in order to try and keep up with the transportation infrastructure investments that are necessary to keep their regional economies competitive in the global marketplace.



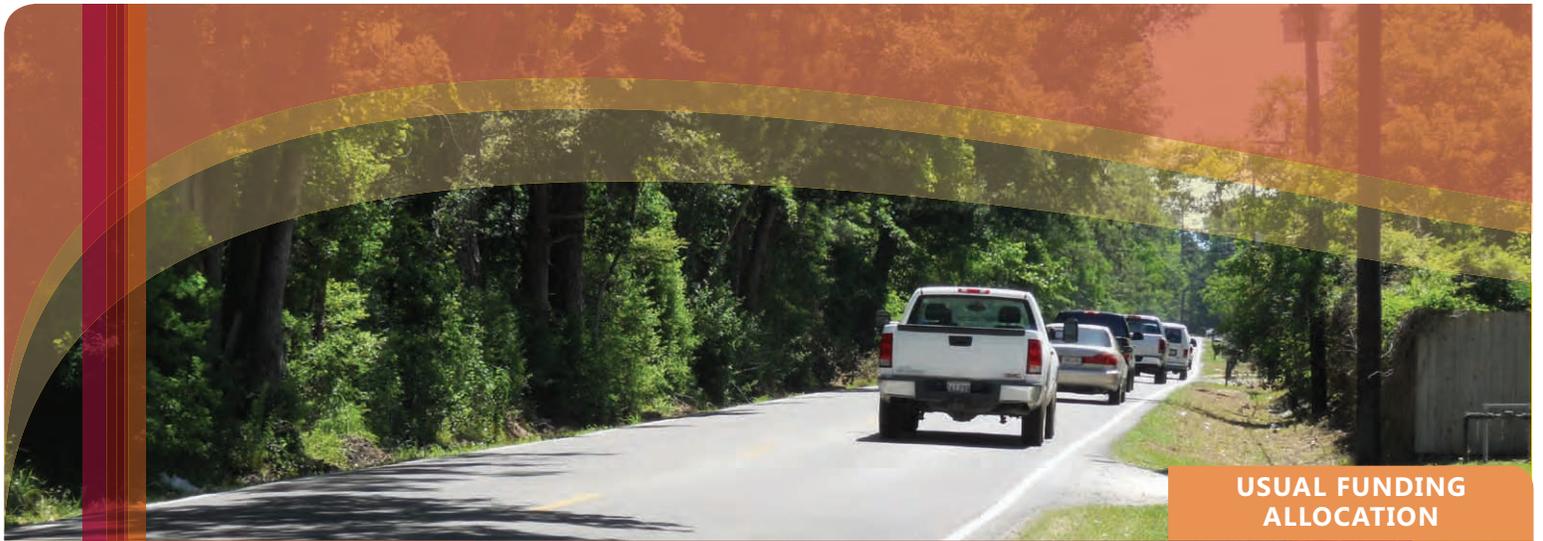
11.1.1 Roadway and Bicycle/Pedestrian Funding Revenue

A description of the various categories of funding available through TxDOT is summarized in **Table 11.1**



Table 11.1: TxDOT Funding Category

	FUNDING CATEGORY	DESCRIPTION	USUAL FUNDING ALLOCATION		
			FED	STATE	LOCAL
1	Preventive Maintenance and Rehabilitation	Provides for preventive maintenance and pavement rehabilitation on the existing state highway system, including installation and rehabilitation of traffic control devices and the rehabilitation and maintenance of operational traffic management systems.	90%	10%	
			80%	20%	
				100%	
2	Metropolitan and Urban Area Corridor Projects	Addresses mobility needs in all metropolitan areas throughout the state.	80%	20%	
				100%	
3	Non-Traditionally Funded Transportation Projects	Addresses mobility needs throughout the state using funding sources not traditionally part of the state highway fund. The projects in this category include Proposition 12, Proposition 14, Pass-through Toll Financing, Texas Mobility Fund, Concession, Regional Toll Revenue, Comprehensive Development Agreement, Local Participation, and unique federal funding.	80%	20%	
				100%	
					100%
			<i>Varies by agreement and rules</i>		
4	Statewide Connectivity Corridor Projects	Addresses mobility and added capacity project needs on major state highway system corridors which provide statewide connectivity between urban areas and corridors which serve mobility needs throughout the state. The highway connectivity network is composed of the: Texas Trunk System; National Highway System (NHS); and connections from Texas Trunk System or NHS to major ports on international borders or Texas water ports.	80%	20%	
				100%	
5	Congestion Mitigation and Air Quality Improvement	Addresses the attainment of national ambient air quality standards in the non-attainment areas of the state. Projects are for congestion mitigation and air quality improvement in the non-attainment areas in the state.	80%	20%	
			80%		20%
			90%	10%	



FUNDING CATEGORY	DESCRIPTION	USUAL FUNDING ALLOCATION		
		FED	STATE	LOCAL
6 Bridges	Addresses the replacement or rehabilitation of deficient existing bridges located on public highways, roads and streets in the state; the construction of grade separations at existing highway-railroad grade crossings; and the rehabilitation of deficient railroad underpasses on the state highway system.	90%	10%	
		80%	20%	
		80%	10%	10%
7 Metropolitan Mobility/ Rehabilitation	Addresses transportation needs within the metropolitan area boundaries of Metropolitan Planning Organizations having urbanized areas with populations of 200,000 or greater.	80%	20%	
		80%		20%
			100%	
8 Safety	Addresses safety needs on and off the state highway system, and includes the Safe Routes to School program, the High Risk Rural Roads program, and the Rail-way-Highway Safety program.	90%	10%	
		90%		10%
		100%		
9 Transportation Enhancements	Addresses projects that are above and beyond what could normally be expected in the way of enhancements to the transportation system, including the cultural, historic, aesthetic, and environmental aspects of transportation infrastructure.		100%	
		80%	20%	
		80%		20%
10 Supplemental Transportation Projects	Addresses projects that do not qualify for funding in other categories, such as state park roads, landscaping, and handicap accessible curb ramps at on-system intersections.		100%	
		80%	20%	
		100%		
11 District Discretionary	Addresses projects selected at the District Engineer's discretion.	80%	20%	
		80%		20%
			100%	
12 Strategic Priority	Addresses needs related to statewide economic development, military deployment routes, and man-made and natural emergencies.	80%	20%	
			100%	



11.1.2 Federal Funding Programs for Transit

A description of each of the FTA programs from which funding is available for the JOHRTS region is provided in **Table 11.2**.

Table 11.2: FTA Funding Category

CATEGORY	PROGRAM	DESCRIPTION	USUAL FUNDING ALLOCATION		
			FED	STATE	LOCAL
5307	Urbanized Area Formula Grant Program	Program subsidizes the operating and/or capital cost of transit services. Eligible expenses include planning, engineering, most administration, preventive maintenance, fuel, parts, and operating costs.	90%		10%
			80%		20%
5309	Capital Investment Program	Divided into three categories: modernization of existing rail systems, new rail systems, and new and replacement buses and facilities. The bus category is the only one from which the JOHRTS region is eligible to receive funds. These funds are used to subsidize the purchase of buses, bus-related equipment and paratransit vehicles, and for the construction of bus-related facilities.	80%		20%
5310	Transportation for Elderly Persons and Persons with Disabilities	Capital expenses that support transportation to meet the special needs of older adults and persons with disabilities.	80%		20%
5311	Rural Transit and Intercity Bus	Capital, planning, and operating expenses for public transit in non-urbanized areas with a population under 50,000 as designated by the Bureau of the Census.	80%		20%
			50%		50%
			90%		10%
5316	Job Access and Reverse Commute Program	Capital, planning, and operating expenses for projects that transport low income individuals to and from jobs and activities related to employment and for reverse commute projects.	80%		20%
			50%		50%
			100%		
5317	New Freedom Program	Capital and operating expenses for new public transportation services and new public transportation alternatives beyond those required by the Americans with Disabilities Act of 1990 (ADA) that are designed to assist individuals with disabilities.	80%		20%
			50%		50%



11.1.3 Other Funding Sources

◎ TEXAS MOBILITY FUND

The Texas State Legislature created the Texas Mobility Fund in order to accelerate completion of TxDOT projects and improvements. The Fund allows the state to issue bonds, which are backed by a dedicated revenue source. HB 3588 authorizes certain transportation related fees such as motor vehicle inspection fees and driver's license fees to be moved from the state's General Revenue Fund to the Texas Mobility Fund.

◎ LOCAL OPTION SALES TAXES FOR TRANSPORTATION

The use of local option sales tax revenues to fund transportation needs in the southeast Texas region represents a significant opportunity. In general, the State of Texas Tax Code authorizes cities and counties to adopt local sales and use taxes for any purpose other than repaying bonds. Provided the sum of all local option taxes in a given area does not exceed 2%, and the local option tax is approved by referendum, each city and/or county in the southeast Texas region could adopt up to a ½% sales tax that could be earmarked to address transportation system needs.

◎ STATE INFRASTRUCTURE BANK

This is a banking system set up by TxDOT with federal and state funds and is designed to encourage local entities to pay a larger share of the cost for highway projects. Local entities may apply for loans, lines of credit, letters of credit, bond insurance, and capital reserves for roadway improvement projects.

◎ TRAFFIC IMPACT FEES ON NEW DEVELOPMENT

Traffic impact fees ensure that new development pays its fair share of the cost to improve the transportation system so as not to exacerbate existing transportation problems.



◎ TOLL FEES

The use of toll revenue financing is attracting increased attention as a means to complete transportation projects when other funding sources may be limited. Issuing bonds secured by toll revenue gives state and local authorities the ability to accelerate transportation projects that might otherwise not be able to be completed using traditional funding sources. HB 3588 allows TxDOT to enter into an agreement with Regional Mobility Authorities (RMAs) to pay a per-vehicle fee as reimbursement for construction and maintenance of state highways or as compensation for the cost of maintaining facilities transferred to an RMA. Based on pre-determined levels of usage, this approach allows TxDOT to effectively pay “tolls” on behalf of motorists using a new facility with revenues being derived from traditional funding sources such as gas tax revenues. The “shadow toll” or “pass through financing” payments received by the RMA from TxDOT can then be used to repay revenue bonds issued by the RMA to advance the project.



◎ STATE TAX ON MOTOR FUELS

States have the option of extending the retail sales tax to gasoline and dedicating the proceeds for transportation or transit. A number of other states, such as New Jersey, Florida, California, and Maryland, use excise taxes on motor fuels for transportation funds.



◎ BOND ISSUES

Funds for roadway and other capital improvements could be generated through the issue of “Certificates of Obligation,” commonly known as bonds. Issuing bonds to fund city improvements largely depends on a favorable bond rating and low interest rates. Funding transportation improvements by issuing bonds remains an attractive option for cities in the JOHRTS area.

11.2 Revenue Projections



The first step in the process of demonstrating financial constraint is to determine what revenues can be reasonably expected over the life of the plan.

11.2.1 Roadway and Bicycle/Pedestrian Funding Revenue

The MPO has worked with the TxDOT-Beaumont District to determine the expected levels of funding for the fiscal years included in this plan. The following table summarizes the estimated funds of the JOHRTS area in the various funding categories. A summary of these amounts is shown in **Table 11.3**.

CATEGORY	ANNUAL AVERAGE AMOUNT	FY 2013 TO 2035 PROJECTED AMOUNTS
1	\$16,657,673	\$383,126,489
2	\$3,469,000	\$79,787,000
3	\$4,933,000	\$113,459,000
4	\$5,688,030	\$130,824,704
5	\$6,427,000	\$147,821,000
6	\$5,737,946	\$131,972,768
7	Not Applicable	Not Applicable
8	\$2,295,682	\$52,800,679
9	\$680,332	\$15,647,632
10	\$680,332	\$15,647,632
11	\$1,493,959	\$34,361,057
12	\$0	\$0

Table 11.3: Roadway and Bicycle/Pedestrian Funding Revenue

11.2.2 Transit Funding Revenue

Table 11.4 contains the annual average amount of funding anticipated for the various FTA funding categories FTA funds, along with the amount projected for all the fiscal years included in this plan.

CATEGORY	ANNUAL AVERAGE AMOUNT	FY 2013 TO 2035 PROJECTED AMOUNTS
5307	\$6,768,467	\$155,674,747
5310	\$228,526	\$5,256,098
5311	\$1,251,263	\$28,779,061

Table 11.4: Transit Funding Revenue

11.3 Estimated Revenue Vs Cost Estimate

Table 11-5 and Table 11-6 demonstrate that the MPO's 2035 long-range MTP is financially constrained. In other words, the revenue anticipated during the life of this plan is adequate to cover the projected costs.



Detailed project cost is included in **CHAPTER 12 – RECOMMENDED PLANNED IMPROVEMENTS**

CATEGORY	FY 2013 TO 2035 PROJECTED AMOUNTS	PROGRAMMED AMOUNT
1	\$383,126,489	\$0
2	\$79,787,000	\$0
3	\$113,459,000	\$2,484,067
4	\$130,824,704	\$0
5	\$147,821,000	\$32,861,264
6	\$131,972,768	\$0
7	Not Applicable	Not Applicable
8	\$52,800,679	\$0
9	\$15,647,632	\$826,418
10	\$15,647,632	\$490,000
11	\$34,361,057	\$5,000,000
12	\$0	\$0

Table 11.5: Roadway and Bicycle/Pedestrian Fiscal Constraint

CATEGORY	FY 2013 TO 2035 PROJECTED AMOUNTS	PROGRAMMED AMOUNT
5307	\$155,674,747	\$27,073,869
5310	\$5,256,098	\$914,104
5311	\$28,779,061	\$5,005,054

Table 11.6: Transit Fiscal Constraint



CHAPTER 12

Recommended Planned Improvements

The 2035 Metropolitan Transportation Plan includes a variety of recommendations. The MPO was not able to make a conformity determination by the applicable deadlines, and thus the transportation conformity determination for the area has lapsed. **During a conformity lapse, FHWA and FTA can only approve projects that are exempt from the conformity process**, such as safety projects and certain public transportation projects, TCMs from an approved SIP, and project phases that were authorized by FHWA and FTA prior to the lapse. As a result, the MPO has composed this plan, which consists of exempt projects.

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12.1 Exempt Projects

As per federal regulation 40 CFR § 93.126, highway and transit projects of the types listed in this section are exempt from the requirement to determine conformity. Such projects may proceed toward implementation even in the absence of a conforming transportation plan and TIP.



SAFETY

- Adding medians
- Emergency relief (23 U.S.C. 125)
- Emergency truck pullovers
- Fencing
- Guardrails, median barriers, crash cushions
- Highway Safety Improvement Program implementation
- Increasing sight distance
- Lighting improvements
- Pavement marking
- Pavement resurfacing and/or rehabilitation
- Projects that correct, improve, or eliminate a hazardous location or feature
- Railroad/highway crossing
- Railroad/highway crossing warning devices
- Safer non-Federal-aid system roads
- Safety roadside rest areas
- Shoulder improvements
- Skid treatments
- Traffic control devices and operating assistance other than signalization projects
- Truck climbing lanes outside the urbanized area
- Widening narrow pavements or reconstructing bridges (no additional travel lanes)

MASS TRANSIT

Construction of new bus or rail storage/maintenance facilities categorically excluded in 23 CFR part 771

Construction of small passenger shelters and information kiosks

Construction or renovation of power, signal, and communications systems

Operating assistance to transit agencies

Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet¹

Purchase of office, shop, and operating equipment for existing facilities

Purchase of operating equipment for vehicles (e.g., radios, fareboxes, lifts, etc.)

Purchase of support vehicles

Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures)

Rehabilitation of transit vehicles¹

Rehabilitation or reconstruction of track structures, tracks, and trackbed in existing rights-of-way



OTHER

Acquisition of scenic easements

Directional and informational signs

Emergency or hardship advance land acquisitions (23 CFR 710.503)

Engineering to assess social, economic, and environmental effects of the proposed action or alternatives to that action

Noise attenuation

Plantings, landscaping, etc

Repair of damage caused by natural disasters, civil unrest, or terrorist acts, except projects involving substantial functional, locational or capacity changes

Sign removal

Specific activities which do not involve or lead directly to construction, such as:

- ⦿ Grants for training and research programs
- ⦿ Planning activities conducted pursuant to Titles 23 and 49 U.S.C.
- ⦿ Federal-aid systems revisions
- ⦿ Planning and technical studies

Transportation enhancement activities (except rehabilitation and operation of historic transportation buildings, structures, or facilities)

AIR QUALITY

Continuation of ride-sharing and van-pooling promotion activities at current levels

Bicycle and pedestrian facilities



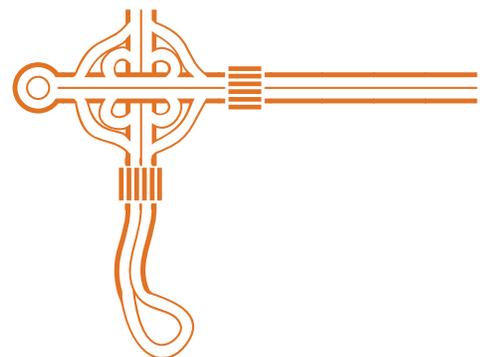
Note:¹ In PM_{10} and $PM_{2.5}$ nonattainment or maintenance areas, such projects are exempt only if they are in compliance with control measures in the applicable implementation plan.

12.2 Projects Exempt from Regional Emissions Analyses

As per **40 CFR § 93.127**, the following highway and transit projects are exempt from regional emissions analysis requirements.

1. Intersection channelization projects
2. Intersection signalization projects at individual intersections
3. Interchange reconfiguration projects
4. Changes in vertical and horizontal alignment
5. Truck size and weight inspection stations
6. Bus terminals and transfer points

The local effects of these projects with respect to CO concentrations must be considered to determine if a hot-spot analysis is required prior to making a project-level conformity determination. The local effects of projects with respect to PM10 and PM2.5 concentrations must be considered and a hot-spot analysis performed prior to making a project-level conformity determination, if a project listed above also meets the criteria in 40 CFR § 93.123(b)(1). These projects may then proceed to the project development process even in the absence of a conforming transportation plan and TIP. A particular action of the type listed above of this section is not exempt from regional emissions analysis if the MPO in consultation with other agencies (see § 93.105(c)(1)(iii)), the EPA, and the FHWA (in the case of a highway project) or the FTA (in the case of a transit project) concur that it has potential regional impacts for any reason.





As per 40 CFR § 93.128, traffic signal synchronization projects may be approved, funded, and implemented without satisfying the requirements of this subpart. However, all subsequent regional emissions analyses required by 40 CFR § 93.118 and 40 CFR § 93.119 for transportation plans, TIPs, or projects not from a conforming plan and TIP must include such regionally significant traffic signal synchronization projects.

12.3 Financially Constrained Projects

The financially constrained projects are illustrated in **Figure 12.1** and summarized in **Table 12.1**

These projects represent the current priorities based upon anticipated needs over the coming years. However, planning for the future always includes revisiting priorities, evaluating new trends, and considering a wide variety of other factors. Therefore, this plan is to be considered a living document and will be revised as events warrant.



Figure 12.1: Planned Improvements

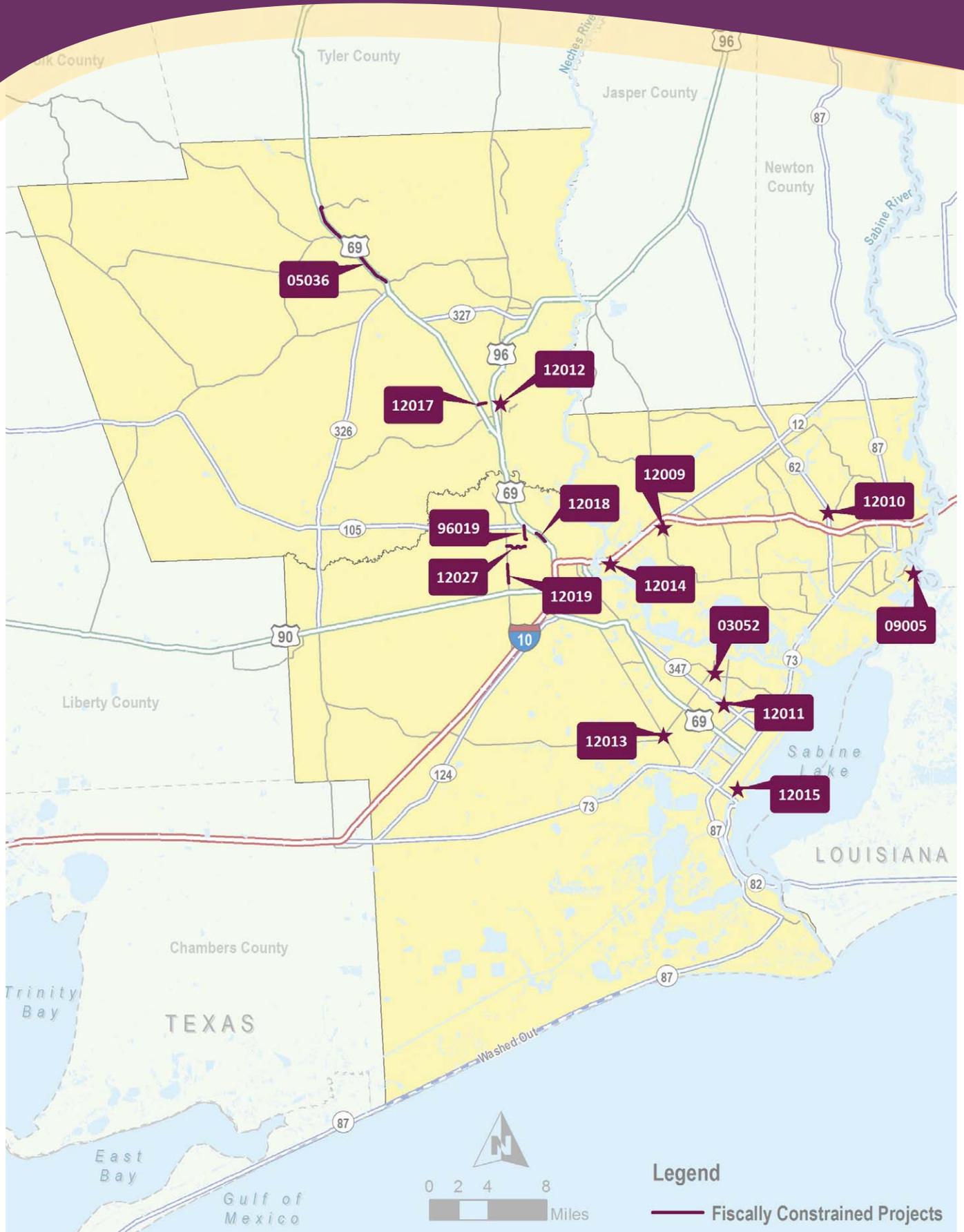


Table 12.1: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST		
BEAUMONT	Jefferson	0920-38-171	VA	C, E	Port Neches	City of Port Neches	\$251,900		
LIMITS FROM	Port Neches Elem and Middle Schools								
LIMITS TO:							MPO PROJECT ID: 03052-FXXE		
DESCRIPTION:	Construction of sidewalks and ADA ramps						FUNDING CATEGORY: 5		
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=0.0045 KG/Day		VOC=0.0037 KG/Day		PROJECT HISTORY:				
PRELIMINARY ENGINEERING:	\$11,603		Authorized Funding by Category/Share:						
ROW PURCHASE:	\$0				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:	\$15,114								
CONSTRUCTION COST:	\$236,786		CMAQ-5	\$201,500	\$0	\$50,400	\$0		\$251,900
CONTINGENCIES:	\$3,055								
INDIRECT COSTS:	\$13,591								
BOND FINANCING:	\$0		FUNDING						
TOTAL PROJECT COST:	\$280,149		BY SHARE:	\$201,500	\$0	\$50,400	\$0		\$251,900
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST		
BEAUMONT	Hardin	0920-03-073	VA	C	Other	TXDOT	\$3,560,000		
LIMITS FROM	Big Thicket Visitor Center, south								
LIMITS TO:	City of Kountze						MPO PROJECT ID: 05036-FXXE		
DESCRIPTION:	Construct a hike and bike trail						FUNDING CATEGORY: 5		
REMARKS:									
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=0.0331 KG/Day		VOC=0.0346 KG/Day		PROJECT HISTORY:				
PRELIMINARY ENGINEERING:	\$174,440		Authorized Funding by Category/Share:						
ROW PURCHASE:	\$0				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:	\$227,128								
CONSTRUCTION COST:	\$3,560,000		CMAQ-5	\$2,848,000	\$712,000	\$0	\$0		\$3,560,000
CONTINGENCIES:	\$45,924								
INDIRECT COSTS:	\$274,120								
BOND FINANCING:	\$0		FUNDING						
TOTAL PROJECT COST:	\$4,487,380		BY SHARE:	\$2,848,000	\$712,000	\$0	\$0		\$3,560,000

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST		
BEAUMONT	Orange	0920-30-080	CS	C, E	Vidor	City of Vidor	\$70,461		
LIMITS FROM	Old US 90 at Stephenson Drive								
LIMITS TO:	.40 miles northwest of FM 105						MPO PROJECT ID:	12009-FXXE	
DESCRIPTION:	Install right turn lane at Vidor Elementary						FUNDING CATEGORY:	5	
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).						PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=0.7240 KG/Day		VOC=0.0650 KG/Day						
PRELIMINARY ENGINEERING:	\$3,246		Authorized Funding by Category/Share:						
ROW PURCHASE:	\$0				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:	\$4,227								
CONSTRUCTION COST:	\$66,234		CMAQ-5	\$56,369	\$0	\$14,092	\$0		\$70,461
CONTINGENCIES:	\$854								
INDIRECT COSTS:	\$3,801								
BOND FINANCING:	\$0		FUNDING						
TOTAL PROJECT COST:	\$78,362		BY SHARE:	\$56,369	\$0	\$14,092	\$0		\$70,461
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST		
BEAUMONT	Orange	0243-03-061	SH 62	C, E	Orange	TXDOT	\$83,488		
LIMITS FROM	FM 1078								
LIMITS TO:	700' south of FM 1078						MPO PROJECT ID:	12010-FXXE	
DESCRIPTION:	Install right turn lane						FUNDING CATEGORY:	5	
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).						PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=3.3770 KG/Day		VOC=1.0050 KG/Day						
PRELIMINARY ENGINEERING:	\$3,846		Authorized Funding by Category/Share:						
ROW PURCHASE:	\$0				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:	\$5,009								
CONSTRUCTION COST:	\$78,479		CMAQ-5	\$66,790	\$16,698	\$0	\$0		\$83,488
CONTINGENCIES:	\$1,012								
INDIRECT COSTS:	\$4,505								
BOND FINANCING:	\$0		FUNDING						
TOTAL PROJECT COST:	\$92,851		BY SHARE:	\$66,790	\$16,698	\$0	\$0		\$83,488

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson	0653-01-013	SP 136	C, E	Port Neches	City of Port Neches	\$414,287	
LIMITS FROM	.65 miles north of HWY 347							
LIMITS TO:	.61 miles north on Spur 136						MPO PROJECT ID:	12011-FXXE
DESCRIPTION:	Install right and left turn lanes on Spur 136 at Huntsman Plant					FUNDING CATEGORY:	5	
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).					PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=3.1410 KG/Day		VOC=0.8840 KG/Day					
PRELIMINARY ENGINEERING:	\$19,082		Authorized Funding by Category/Share:					
ROW PURCHASE:	\$0				Federal	State	Local	FUNDING BY
CONSTRUCTION ENGINEERING:	\$24,857						Contribution	CATEGORY
CONSTRUCTION COST:	\$389,430		CMAQ-5	\$331,430	\$0	\$82,857	\$0	\$414,287
CONTINGENCIES:	\$5,024							
INDIRECT COSTS:	\$22,353							
BOND FINANCING:	\$0		FUNDING					
TOTAL PROJECT COST:	\$460,746		BY SHARE:	\$331,430	\$0	\$82,857	\$0	\$414,287
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Hardin	0920-03-078	CS	C, E	Lumberton	City of Lumberton	\$40,500	
LIMITS FROM	East Candlestick Drive, from FM 3513							
LIMITS TO:	240' west of FM 3513						MPO PROJECT ID:	12012-FXXE
DESCRIPTION:	Installation of right turn lane at East Candlestick Drive					FUNDING CATEGORY:	5	
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).					PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=0.1030 KG/Day		VOC=0.0090 KG/Day					
PRELIMINARY ENGINEERING:	\$1,865		Authorized Funding by Category/Share:					
ROW PURCHASE:	\$0				Federal	State	Local	FUNDING BY
CONSTRUCTION ENGINEERING:	\$2,430						Contribution	CATEGORY
CONSTRUCTION COST:	\$38,070		CMAQ-5	\$32,400	\$0	\$8,100	\$0	\$40,500
CONTINGENCIES:	\$491							
INDIRECT COSTS:	\$2,185							
BOND FINANCING:	\$0		FUNDING					
TOTAL PROJECT COST:	\$45,041		BY SHARE:	\$32,400	\$0	\$8,100	\$0	\$40,500

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson	0932-01-098	FM 365	C, E	Port Arthur	TXDOT	\$12,623,425	
LIMITS FROM:	Jade Ave, east							
LIMITS TO:	Spur 93					MPO PROJECT ID:	12013-FXXE	
DESCRIPTION:	Construct railroad overpass					FUNDING CATEGORY:	5	
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).					PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=19.5470 KG/Day		VOC=5.8700 KG/Day					
PRELIMINARY ENGINEERING:	\$1,205,790		Authorized Funding by Category/Share:					
ROW PURCHASE:	\$3,101,000					Local Contribution	FUNDING BY CATEGORY	
CONSTRUCTION ENGINEERING:	\$565,529			Federal	State	Local		
CONSTRUCTION COST:	\$12,057,896		CMAQ-5	\$10,098,740	\$2,524,685	\$0	\$0	\$12,623,425
CONTINGENCIES:	\$360,531							
INDIRECT COSTS:	\$692,123							
BOND FINANCING:	\$0		FUNDING					
TOTAL PROJECT COST:	\$17,982,869		BY SHARE:	\$10,098,740	\$2,524,685	\$0	\$0	\$12,623,425
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Orange	0920-30-081	CR	C, E	Other	Port of Beaumont	\$9,000,000	
LIMITS FROM:	Old Highway 90, south of IH-10 access road							
LIMITS TO:	East bank of Neches River					MPO PROJECT ID:	12014-FXXE	
DESCRIPTION:	Construct railroad grade separation					FUNDING CATEGORY:	5, 3LC	
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).					PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=1.7610 KG/Day		VOC=0.4960 KG/Day					
PRELIMINARY ENGINEERING:	\$414,540		Authorized Funding by Category/Share:					
ROW PURCHASE:	\$0					Local Contribution	FUNDING BY CATEGORY	
CONSTRUCTION ENGINEERING:	\$540,000			Federal	State	Local		
CONSTRUCTION COST:	\$8,460,000		CMAQ-5	\$5,212,746	\$0	\$1,303,187	\$0	\$6,515,933
CONTINGENCIES:	\$105,750		LCL CONT-3	\$0	\$0	\$0	\$2,484,067	\$2,484,067
INDIRECT COSTS:	\$485,604							
BOND FINANCING:	\$0		FUNDING					
TOTAL PROJECT COST:	\$10,005,894		BY SHARE:	\$5,212,746	\$0	\$1,303,187	\$2,484,067	\$9,000,000

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson	0920-38-250	VA	C, E	Port Arthur	Port of Port Arthur	\$3,324,947	
LIMITS FROM	Inside the Port of Port Arthur							
LIMITS TO:							MPO PROJECT ID: 12015-FXXE	
DESCRIPTION:	Install railroad track				FUNDING CATEGORY:		5	
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).							
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=42.2460 KG/Day		VOC=11.8910 KG/Day		PROJECT HISTORY:			
PRELIMINARY ENGINEERING:	\$153,147		Authorized Funding by Category/Share:					
ROW PURCHASE:	\$0				Federal	State	Local	FUNDING BY
CONSTRUCTION ENGINEERING:	\$199,496						Contribution	CATEGORY
CONSTRUCTION COST:	\$3,125,451		CMAQ-5	\$2,659,958	\$0	\$664,989	\$0	\$3,324,947
CONTINGENCIES:	\$40,318							
INDIRECT COSTS:	\$179,401							
BOND FINANCING:	\$0		FUNDING					
TOTAL PROJECT COST:	\$3,697,813		BY SHARE:	\$2,659,958	\$0	\$664,989	\$0	\$3,324,947
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson	0920-00-112	VA	C, E	Various	TXDOT	\$484,792	
LIMITS FROM	Districtwide							
LIMITS TO:							MPO PROJECT ID: 12016-FXXE	
DESCRIPTION:	Install dynamic message signs				FUNDING CATEGORY:		5	
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).							
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=19.0220 KG/Day		VOC=19.0220 KG/Day		PROJECT HISTORY:			
PRELIMINARY ENGINEERING:	\$22,330		Authorized Funding by Category/Share:					
ROW PURCHASE:	\$0				Federal	State	Local	FUNDING BY
CONSTRUCTION ENGINEERING:	\$29,087						Contribution	CATEGORY
CONSTRUCTION COST:	\$455,705		CMAQ-5	\$387,834	\$96,958	\$0	\$0	\$484,792
CONTINGENCIES:	\$5,879							
INDIRECT COSTS:	\$26,157							
BOND FINANCING:	\$0		FUNDING					
TOTAL PROJECT COST:	\$539,158		BY SHARE:	\$387,834	\$96,958	\$0	\$0	\$484,792

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST		
BEAUMONT	Hardin	0920-03-079	CS	C, E	Lumberton	City of Lumberton	\$315,479		
LIMITS FROM:	Forest Road, from US 69/287								
LIMITS TO:	West Chance Road						MPO PROJECT ID:	12017-FXXE	
DESCRIPTION:	Construct sidewalks on both sides of roadway, including ramps					FUNDING CATEGORY:	5		
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).						PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=0.3600 KG/Day		VOC=0.0440 KG/Day						
PRELIMINARY ENGINEERING:	\$14,531		Authorized Funding by Category/Share:						
ROW PURCHASE:	\$0				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:	\$18,928								
CONSTRUCTION COST:	\$296,551		CMAQ-5	\$252,383	\$0	\$63,096	\$0		\$315,479
CONTINGENCIES:	\$3,826								
INDIRECT COSTS:	\$17,022								
BOND FINANCING:	\$0		FUNDING						
TOTAL PROJECT COST:	\$350,858		BY SHARE:	\$252,383	\$0	\$63,096	\$0		\$315,479
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST		
BEAUMONT	Jefferson	0200-11-103	US 69	C, E	Beaumont	TXDOT	\$342,201		
LIMITS FROM:	Lucas Street								
LIMITS TO:	Dowlen Road						MPO PROJECT ID:	12018-FXXE	
DESCRIPTION:	Construct sidewalks on the west side of US 69 right of way					FUNDING CATEGORY:	5		
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).						PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=0.8160 KG/Day		VOC=0.1000 KG/Day						
PRELIMINARY ENGINEERING:	\$15,761		Authorized Funding by Category/Share:						
ROW PURCHASE:	\$0				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:	\$20,532								
CONSTRUCTION COST:	\$321,669		CMAQ-5	\$273,760	\$68,441	\$0	\$0		\$342,201
CONTINGENCIES:	\$4,150								
INDIRECT COSTS:	\$18,464								
BOND FINANCING:	\$0		FUNDING						
TOTAL PROJECT COST:	\$380,576		BY SHARE:	\$273,760	\$68,441	\$0	\$0		\$342,201

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson	0786-01-080	FM 364	C, E	Beaumont	TXDOT	\$333,851	
LIMITS FROM:	Delaware Street							
LIMITS TO:	Phelan Boulevard					MPO PROJECT ID:	12019-FXXE	
DESCRIPTION:	Construct sidewalks					FUNDING CATEGORY:	5	
REMARKS:	Funding for E phase includes construction engineering only (does not include preliminary engineering).					PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=1.1280 KG/Day		VOC=0.1380 KG/Day					
PRELIMINARY ENGINEERING:	\$15,378		Authorized Funding by Category/Share:					
ROW PURCHASE:	\$0				Federal	State	Local	FUNDING BY
CONSTRUCTION ENGINEERING:	\$20,031						Contribution	CATEGORY
CONSTRUCTION COST:	\$313,820		CMAQ-5	\$267,081	\$66,770	\$0	\$0	\$333,851
CONTINGENCIES:	\$4,048							
INDIRECT COSTS:	\$18,013							
BOND FINANCING:	\$0		FUNDING					
TOTAL PROJECT COST:	\$371,290		BY SHARE:	\$267,081	\$66,770	\$0	\$0	\$333,851
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson	0920-38-251	VA	T	Beaumont	BMT	\$1,875,000	
LIMITS FROM:	Beaumont Municipal Transit							
LIMITS TO:						MPO PROJECT ID:	12020-FXXE	
DESCRIPTION:	Replace 3 diesel buses with compressed natural gas (CNG) buses					FUNDING CATEGORY:	5	
REMARKS:	Transit development credits will be requested for the \$375,000 local match.					PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=0.3630 KG/Day		VOC=0.0360 KG/Day					
PRELIMINARY ENGINEERING:	\$0		Authorized Funding by Category/Share:					
ROW PURCHASE:	\$0				Federal	State	Local	FUNDING BY
CONSTRUCTION ENGINEERING:	\$0						Contribution	CATEGORY
CONSTRUCTION COST:	\$1,875,000		CMAQ-5	\$1,500,000	\$0	\$375,000	\$0	\$1,875,000
CONTINGENCIES:	\$0							
INDIRECT COSTS:	\$0							
BOND FINANCING:	\$0		FUNDING					
TOTAL PROJECT COST:	\$1,875,000		BY SHARE:	\$1,500,000	\$0	\$375,000	\$0	\$1,875,000

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
BEAUMONT	Jefferson	0920-00-114	VA	C	JOHRTS Area	SETRPC	\$1,500,000
LIMITS FROM:	In Jefferson, Orange, and Hardin Counties						
LIMITS TO:							
DESCRIPTION:	Areawide Rideshare Program					MPO PROJECT ID:	12021-FXXE
						FUNDING CATEGORY:	5
REMARKS:							
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=49.5060 KG/Day		VOC=6.4110 KG/Day		PROJECT HISTORY:		
PRELIMINARY ENGINEERING:	\$0		Authorized Funding by Category/Share:				
ROW PURCHASE:	\$0						
CONSTRUCTION ENGINEERING:	\$0						
CONSTRUCTION COST:	\$1,500,000	CMAQ-5	\$1,500,000	\$0	\$0	\$0	\$1,500,000
CONTINGENCIES:	\$0						
INDIRECT COSTS:	\$0						
BOND FINANCING:	\$0		FUNDING				
TOTAL PROJECT COST:	\$1,500,000	BY SHARE:	\$1,500,000	\$0	\$0	\$0	\$1,500,000
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
BEAUMONT	Jefferson	0920-00-113	VA	T	Various	SETT	\$1,125,000
LIMITS FROM:	South East Texas Transit						
LIMITS TO:							
DESCRIPTION:	Replace 15 transit buses with alternatively fueled vehicles					MPO PROJECT ID:	12022-FXXE
						FUNDING CATEGORY:	5
REMARKS:	Transit development credits will be requested for the \$225,000 local match.						
AIR QUALITY BENEFIT EMISSIONS REDUCTION:	NOX=0.3260 KG/Day		VOC=0.219 KG/Day		PROJECT HISTORY:		
PRELIMINARY ENGINEERING:	\$0		Authorized Funding by Category/Share:				
ROW PURCHASE:	\$0						
CONSTRUCTION ENGINEERING:	\$0						
CONSTRUCTION COST:	\$1,125,000	CMAQ-5	\$900,000	\$0	\$225,000	\$0	\$1,125,000
CONTINGENCIES:	\$0						
INDIRECT COSTS:	\$0						
BOND FINANCING:	\$0		FUNDING				
TOTAL PROJECT COST:	\$1,125,000	BY SHARE:	\$900,000	\$0	\$225,000	\$0	\$1,125,000

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson	0920-38-239	CS	C, E	Beaumont	City of Beaumont	\$826,418	
LIMITS FROM	Folsom, from Dowlen							
LIMITS TO:	FM 364/Major					MPO PROJECT ID:	12027-FXXE	
DESCRIPTION:	Construct hike and bike trail					FUNDING CATEGORY:	9	
REMARKS:	Funding for E phase includes preliminary engineering and construction engineering.					PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:								
PRELIMINARY ENGINEERING:	\$36,362	Authorized Funding by Category/Share:						
ROW PURCHASE:	\$0			Federal	State	Local	Local Contribution	
CONSTRUCTION ENGINEERING:	\$49,585						FUNDING BY CATEGORY	
CONSTRUCTION COST:	\$740,471		TRAN EN-9	\$661,134	\$0	\$165,284	\$0	\$826,418
CONTINGENCIES:	\$9,552							
INDIRECT COSTS:	\$42,503							
BOND FINANCING:	\$0		FUNDING					
TOTAL PROJECT COST:	\$878,473		BY SHARE:	\$661,134	\$0	\$165,284	\$0	\$826,418
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Orange	0920-30-067	VA	C	Orange	Port of Orange	\$490,000	
LIMITS FROM	Port of Orange							
LIMITS TO:						MPO PROJECT ID:	09005-FXXE	
DESCRIPTION:	Upgrade the rail within the port					FUNDING CATEGORY:	10	
REMARKS:						PROJECT HISTORY:		
AIR QUALITY BENEFIT EMISSIONS REDUCTION:								
PRELIMINARY ENGINEERING:	\$24,010	Authorized Funding by Category/Share:						
ROW PURCHASE:	\$0			Federal	State	Local	Local Contribution	
CONSTRUCTION ENGINEERING:	\$31,262						FUNDING BY CATEGORY	
CONSTRUCTION COST:	\$490,000		MISC-10	\$490,000	\$0	\$0	\$0	\$490,000
CONTINGENCIES:	\$6,321							
INDIRECT COSTS:	\$28,126							
BOND FINANCING:	\$0		FUNDING					
TOTAL PROJECT COST:	\$579,719		BY SHARE:	\$490,000	\$0	\$0	\$0	\$490,000

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson	0920-38-178	CS	C	Beaumont	City of Beaumont	\$5,000,000	
LIMITS FROM		Old Dowlen Road, from SH 105, south						
LIMITS TO:		Dowlen Road					MPO PROJECT ID:	96019-FXXE
DESCRIPTION:		Reconstruct existing roadway and add continuous left turn lane				FUNDING CATEGORY:	11	
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:					PROJECT HISTORY:			
PRELIMINARY ENGINEERING:		\$500,000	Authorized Funding by Category/Share:					
ROW PURCHASE:		\$0		Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:		\$339,500						
CONSTRUCTION COST:		\$5,000,000	DIST DISC-11	\$4,000,000	\$0	\$1,000,000	\$0	\$5,000,000
CONTINGENCIES:		\$105,000						
INDIRECT COSTS:		\$385,000						
BOND FINANCING:		\$0	FUNDING					
TOTAL PROJECT COST:		\$6,666,500	BY SHARE:	\$4,000,000		\$1,000,000	\$0	\$5,000,000
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson		BMT		Beaumont	BMT	\$4,715,000	
LIMITS FROM								
LIMITS TO:							MPO PROJECT ID:	11003-TXXE
DESCRIPTION:		Operating assistance for FY 2013-Beaumont Municipal Transit				FUNDING CATEGORY:	FTA 5307	
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:					PROJECT HISTORY:			
PRELIMINARY ENGINEERING:			Authorized Funding by Category/Share:					
ROW PURCHASE:				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:								
CONSTRUCTION COST:			FTA 5307	\$1,800,000	\$400,000	\$2,515,000		\$4,715,000
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:			FUNDING					
TOTAL PROJECT COST:		\$4,715,000	BY SHARE:	\$1,800,000	\$400,000	\$2,515,000		\$4,715,000

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson		PAT		Port Arthur	PAT	\$1,956,486	
LIMITS FROM								
LIMITS TO:								
DESCRIPTION: Operating assistance for FY 2013-Port Arthur Transit						MPO PROJECT ID:	11014-TXXE	
						FUNDING CATEGORY:	FTA 5307	
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:								
Authorized Funding by Category/Share:								
ROW PURCHASE:					Federal	State	Local	FUNDING BY
CONSTRUCTION ENGINEERING:							Contribution	CATEGORY
CONSTRUCTION COST:			FTA 5307	\$890,358	\$301,128	\$765,000		\$1,956,486
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:								
TOTAL PROJECT COST:	\$1,956,486		FUNDING	\$890,358	\$301,128	\$765,000		\$1,956,486
			BY SHARE:					
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various		SETT		Various	SETT	\$228,526	
LIMITS FROM								
LIMITS TO:								
DESCRIPTION: Operating assistance for FY 2013-South East Texas Transit						MPO PROJECT ID:	11007-TXXE	
						FUNDING CATEGORY:	FTA 5310	
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:								
Authorized Funding by Category/Share:								
ROW PURCHASE:					Federal	State	Local	FUNDING BY
CONSTRUCTION ENGINEERING:							Contribution	CATEGORY
CONSTRUCTION COST:			FTA 5310	\$182,821		\$45,705		\$228,526
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:								
TOTAL PROJECT COST:	\$228,526		FUNDING	\$182,821		\$45,705		\$228,526
			BY SHARE:					

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST			
BEAUMONT	Various		SETT		Various	SETT	\$1,372,890			
LIMITS FROM										
LIMITS TO:										
DESCRIPTION:	Administration and operation of a rural transportation program (2013)-South East Texas Transit					MPO PROJECT ID:	11018-TXXE			
						FUNDING CATEGORY:	FTA 5311			
REMARKS:										
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:				
PRELIMINARY ENGINEERING:										
Authorized Funding by Category/Share:										
ROW PURCHASE:					Federal	State	Local	Local Contribution	FUNDING BY CATEGORY	
CONSTRUCTION ENGINEERING:										
CONSTRUCTION COST:					FTA 5311	\$411,867	\$381,213	\$579,810	\$1,372,890	
CONTINGENCIES:										
INDIRECT COSTS:										
BOND FINANCING:										
TOTAL PROJECT COST:	\$1,372,890					FUNDING BY SHARE:	\$411,867	\$381,213	\$579,810	\$1,372,890
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST			
BEAUMONT	Jefferson		BMT		Beaumont	BMT	\$4,715,000			
LIMITS FROM										
LIMITS TO:										
DESCRIPTION:	Operating assistance for FY 2014-Beaumont Municipal Transit					MPO PROJECT ID:	11004-TXXE			
						FUNDING CATEGORY:	FTA 5307			
REMARKS:										
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:				
PRELIMINARY ENGINEERING:										
Authorized Funding by Category/Share:										
ROW PURCHASE:					Federal	State	Local	Local Contribution	FUNDING BY CATEGORY	
CONSTRUCTION ENGINEERING:										
CONSTRUCTION COST:					FTA 5307	\$1,800,000	\$400,000	\$2,515,000	\$4,715,000	
CONTINGENCIES:										
INDIRECT COSTS:										
BOND FINANCING:										
TOTAL PROJECT COST:	\$4,715,000					FUNDING BY SHARE:	\$1,800,000	\$400,000	\$2,515,000	\$4,715,000

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson		PAT		Port Arthur	PAT	\$1,995,616	
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	11015-TXXE	
DESCRIPTION: Operating assistance for FY 2014-Port Arthur Transit						FUNDING CATEGORY:	FTA 5307	
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:				Authorized Funding by Category/Share:				
ROW PURCHASE:				Federal	State	Local	Local Contribution	FUNDING BY
CONSTRUCTION ENGINEERING:								CATEGORY
CONSTRUCTION COST:				FTA 5307	\$908,165	\$307,151	\$780,300	\$1,995,616
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:								
TOTAL PROJECT COST:		\$1,995,616	FUNDING	BY SHARE:	\$908,165	\$307,151	\$780,300	\$1,995,616
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various		SETT		Various	SETT	\$228,526	
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	11008-TXXE	
DESCRIPTION: Operating assistance for FY 2014-South East Texas Transit						FUNDING CATEGORY:	FTA 5310	
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:				Authorized Funding by Category/Share:				
ROW PURCHASE:				Federal	State	Local	Local Contribution	FUNDING BY
CONSTRUCTION ENGINEERING:								CATEGORY
CONSTRUCTION COST:				FTA 5310	\$182,821	\$45,705		\$228,526
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:								
TOTAL PROJECT COST:		\$228,526	FUNDING	BY SHARE:	\$182,821	\$45,705		\$228,526

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various		SETT		Various	SETT	\$1,372,890	
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	11019-TXXE	
DESCRIPTION:		Administration and operation of a rural transportation program (2014)-South East Texas Transit				FUNDING CATEGORY:		FTA 5311
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:								
Authorized Funding by Category/Share:								
ROW PURCHASE:				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:				FTA 5311	\$411,867	\$381,213	\$579,810	\$1,372,890
CONSTRUCTION COST:								
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:								
TOTAL PROJECT COST:		\$1,372,890	FUNDING BY SHARE:	\$411,867	\$381,213	\$579,810	\$1,372,890	
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson		BMT		Beaumont	BMT	\$4,765,000	
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	12001-TXXE	
DESCRIPTION:		Operating assistance for FY 2015-Beaumont Municipal Transit				FUNDING CATEGORY:		FTA 5307
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:								
Authorized Funding by Category/Share:								
ROW PURCHASE:				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:				FTA 5307	\$1,850,000	\$400,000	\$2,515,000	\$4,765,000
CONSTRUCTION COST:								
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:								
TOTAL PROJECT COST:		\$4,765,000	FUNDING BY SHARE:	\$1,850,000	\$400,000	\$2,515,000	\$4,765,000	

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST		
BEAUMONT	Jefferson		PAT		Port Arthur	PAT	\$2,035,528		
LIMITS FROM									
LIMITS TO:						MPO PROJECT ID:	12002-TXXE		
DESCRIPTION: Operating assistance for FY 2015-Port Arthur Transit						FUNDING CATEGORY:	FTA 5307		
REMARKS:									
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:			
PRELIMINARY ENGINEERING: Authorized Funding by Category/Share:									
ROW PURCHASE:					Federal	State	Local	Local Contribution	FUNDING BY
CONSTRUCTION ENGINEERING:									CATEGORY
CONSTRUCTION COST:					FTA 5307	\$926,328	\$313,294	\$795,906	\$2,035,528
CONTINGENCIES:									
INDIRECT COSTS:									
BOND FINANCING:									
TOTAL PROJECT COST:		\$2,035,528	FUNDING BY SHARE:		\$926,328	\$313,294	\$795,906	\$2,035,528	
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST		
BEAUMONT	Various		SETT		Various	SETT	\$228,526		
LIMITS FROM									
LIMITS TO:						MPO PROJECT ID:	12003-TXXE		
DESCRIPTION: Operating assistance for FY 2015-South East Texas Transit						FUNDING CATEGORY:	FTA 5310		
REMARKS:									
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:			
PRELIMINARY ENGINEERING: Authorized Funding by Category/Share:									
ROW PURCHASE:					Federal	State	Local	Local Contribution	FUNDING BY
CONSTRUCTION ENGINEERING:									CATEGORY
CONSTRUCTION COST:					FTA 5310	\$182,821	\$45,705		\$228,526
CONTINGENCIES:									
INDIRECT COSTS:									
BOND FINANCING:									
TOTAL PROJECT COST:		\$228,526	FUNDING BY SHARE:		\$182,821	\$45,705		\$228,526	

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST			
BEAUMONT	Various		SETT		Various	SETT	\$1,129,637			
LIMITS FROM										
LIMITS TO:										
DESCRIPTION:	Administration and operation of a rural transportation program (2015)-South East Texas Transit					MPO PROJECT ID:	12004-TXXE			
						FUNDING CATEGORY:	FTA 5311			
REMARKS:										
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:				
PRELIMINARY ENGINEERING:										
Authorized Funding by Category/Share:										
ROW PURCHASE:					Federal	State	Local	Local Contribution	FUNDING BY CATEGORY	
CONSTRUCTION ENGINEERING:					FTA 5311	\$502,153	\$366,672	\$260,812	\$1,129,637	
CONSTRUCTION COST:					FTA 5311	\$502,153	\$366,672	\$260,812	\$1,129,637	
CONTINGENCIES:										
INDIRECT COSTS:										
BOND FINANCING:					FUNDING					
TOTAL PROJECT COST:	\$1,129,637					FUNDING BY SHARE:	\$502,153	\$366,672	\$260,812	\$1,129,637
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST			
BEAUMONT	Jefferson		BMT		Beaumont	BMT	\$4,815,000			
LIMITS FROM										
LIMITS TO:										
DESCRIPTION:	Operating assistance for FY 2016-Beaumont Municipal Transit					MPO PROJECT ID:	12005-TXXE			
						FUNDING CATEGORY:	FTA 5307			
REMARKS:										
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:				
PRELIMINARY ENGINEERING:										
Authorized Funding by Category/Share:										
ROW PURCHASE:					Federal	State	Local	Local Contribution	FUNDING BY CATEGORY	
CONSTRUCTION ENGINEERING:					FTA 5307	\$1,900,000	\$400,000	\$2,515,000	\$4,815,000	
CONSTRUCTION COST:					FTA 5307	\$1,900,000	\$400,000	\$2,515,000	\$4,815,000	
CONTINGENCIES:										
INDIRECT COSTS:										
BOND FINANCING:					FUNDING					
TOTAL PROJECT COST:	\$4,815,000					FUNDING BY SHARE:	\$1,900,000	\$400,000	\$2,515,000	\$4,815,000

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson		PAT		Port Arthur	PAT	\$2,076,239	
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	12006-TXXE	
DESCRIPTION: Operating assistance for FY 2016-Port Arthur Transit						FUNDING CATEGORY:	FTA 5307	
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:								
Authorized Funding by Category/Share:								
ROW PURCHASE:					Federal	State	Local	FUNDING BY
CONSTRUCTION ENGINEERING:							Contribution	CATEGORY
CONSTRUCTION COST:			FTA 5307	\$944,855	\$319,560	\$811,824		\$2,076,239
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:								
TOTAL PROJECT COST:	\$2,076,239		FUNDING BY SHARE:	\$944,855	\$319,560	\$811,824		\$2,076,239
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various		SETT		Various	SETT	\$228,526	
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	12007-TXXE	
DESCRIPTION: Operating assistance for FY 2016-South East Texas Transit						FUNDING CATEGORY:	FTA 5310	
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:								
Authorized Funding by Category/Share:								
ROW PURCHASE:					Federal	State	Local	FUNDING BY
CONSTRUCTION ENGINEERING:							Contribution	CATEGORY
CONSTRUCTION COST:			FTA 5310	\$182,821		\$45,705		\$228,526
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:								
TOTAL PROJECT COST:	\$228,526		FUNDING BY SHARE:	\$182,821		\$45,705		\$228,526

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST			
BEAUMONT	Various		SETT		Various	SETT	\$1,129,637			
LIMITS FROM										
LIMITS TO:										
DESCRIPTION:	Administration and operation of a rural transportation program (2016)-South East Texas Transit					MPO PROJECT ID:	12008-TXXE			
						FUNDING CATEGORY:	FTA 5311			
REMARKS:										
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:				
PRELIMINARY ENGINEERING:										
Authorized Funding by Category/Share:										
ROW PURCHASE:					Federal	State	Local	Local Contribution	FUNDING BY CATEGORY	
CONSTRUCTION ENGINEERING:					FTA 5311	\$502,153	\$366,672	\$260,812	\$1,129,637	
CONSTRUCTION COST:										
CONTINGENCIES:										
INDIRECT COSTS:										
BOND FINANCING:					FUNDING					
TOTAL PROJECT COST:	\$1,129,637					BY SHARE:	\$502,153	\$366,672	\$260,812	\$1,129,637
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST			
BEAUMONT	Various	5000-00-950	VA		Various	TXDOT	Constrained Statewide			
LIMITS FROM: Grouped Project										
LIMITS TO:										
DESCRIPTION:	PE-Preliminary Engineering					MPO PROJECT ID:	11022-FXXE			
						FUNDING CATEGORY:				
REMARKS:										
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:				
PRELIMINARY ENGINEERING:										
Authorized Funding by Category/Share:										
ROW PURCHASE:					Federal	State	Local	Local Contribution	FUNDING BY CATEGORY	
CONSTRUCTION ENGINEERING:										
CONSTRUCTION COST:										
CONTINGENCIES:										
INDIRECT COSTS:										
BOND FINANCING:	Constrained Statewide				FUNDING				Constrained Statewide	
TOTAL PROJECT COST:					BY SHARE:					

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various	5000-00-951	Various		Various		Constrained Statewide	
LIMITS FROM:	Grouped Project							
LIMITS TO:						MPO PROJECT ID:	11023-FXXE	
DESCRIPTION:	Right of way acquisition					FUNDING CATEGORY:		
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							PROJECT HISTORY:	
PRELIMINARY ENGINEERING:							Authorized Funding by Category/Share:	
ROW PURCHASE:							Local	FUNDING BY
CONSTRUCTION ENGINEERING:							Federal State Local Contribution	CATEGORY
CONSTRUCTION COST:								
CONTINGENCIES:								
INDIRECT COSTS:								Constrained
BOND FINANCING:	Constrained		FUNDING					Statewide
TOTAL PROJECT COST:	Statewide		BY SHARE:					
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various	5000-00-952	Various		Various		Constrained Statewide	
LIMITS FROM:	Grouped Project							
LIMITS TO:						MPO PROJECT ID:	11024-FXXE	
DESCRIPTION:	Preventive maintenance and rehabilitation					FUNDING CATEGORY:		
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							PROJECT HISTORY:	
PRELIMINARY ENGINEERING:							Authorized Funding by Category/Share:	
ROW PURCHASE:							Local	FUNDING BY
CONSTRUCTION ENGINEERING:							Federal State Local Contribution	CATEGORY
CONSTRUCTION COST:								
CONTINGENCIES:								
INDIRECT COSTS:								Constrained
BOND FINANCING:	Constrained		FUNDING					Statewide
TOTAL PROJECT COST:	Statewide		BY SHARE:					

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
BEAUMONT	Various	5000-00-957	Various		Various		Constrained Statewide
LIMITS FROM:	Grouped Project						
LIMITS TO:						MPO PROJECT ID:	11025-FXXE
DESCRIPTION:	Preventive maintenance and rehabilitation					FUNDING CATEGORY:	
REMARKS:						PROJECT HISTORY:	
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							
PRELIMINARY ENGINEERING:						Authorized Funding by Category/Share:	
ROW PURCHASE:						Federal	State
CONSTRUCTION ENGINEERING:						Local	Local Contribution
CONSTRUCTION COST:							FUNDING BY CATEGORY
CONTINGENCIES:							
INDIRECT COSTS:							Constrained Statewide
BOND FINANCING:	Constrained		FUNDING				
TOTAL PROJECT COST:	Statewide		BY SHARE:				
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
BEAUMONT	Various	5000-00-958	Various		Various		Constrained Statewide
LIMITS FROM:	Grouped Project						
LIMITS TO:						MPO PROJECT ID:	11026-FXXE
DESCRIPTION:	Preventive maintenance and rehabilitation					FUNDING CATEGORY:	
REMARKS:						PROJECT HISTORY:	
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							
PRELIMINARY ENGINEERING:						Authorized Funding by Category/Share:	
ROW PURCHASE:						Federal	State
CONSTRUCTION ENGINEERING:						Local	Local Contribution
CONSTRUCTION COST:							FUNDING BY CATEGORY
CONTINGENCIES:							
INDIRECT COSTS:							Constrained Statewide
BOND FINANCING:	Constrained		FUNDING				
TOTAL PROJECT COST:	Statewide		BY SHARE:				

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various	5000-00-953	Various		Various		Constrained Statewide	
LIMITS FROM:	Grouped Project							
LIMITS TO:						MPO PROJECT ID:	11027-FXXE	
DESCRIPTION:	Bridge replacement and rehabilitation					FUNDING CATEGORY:		
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							PROJECT HISTORY:	
PRELIMINARY ENGINEERING:							Authorized Funding by Category/Share:	
ROW PURCHASE:							Local	FUNDING BY
CONSTRUCTION ENGINEERING:							Federal	CONTRIBUTION
CONSTRUCTION COST:							State	CATEGORY
CONTINGENCIES:							Local	
INDIRECT COSTS:							Contribution	
BOND FINANCING:								Constrained Statewide
TOTAL PROJECT COST:	Constrained		FUNDING		BY SHARE:			
	Statewide							

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various	5000-00-954	Various		Various		Constrained Statewide	
LIMITS FROM:	Grouped Project							
LIMITS TO:						MPO PROJECT ID:	11028-FXXE	
DESCRIPTION:	Railroad grade separations					FUNDING CATEGORY:		
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							PROJECT HISTORY:	
PRELIMINARY ENGINEERING:							Authorized Funding by Category/Share:	
ROW PURCHASE:							Local	FUNDING BY
CONSTRUCTION ENGINEERING:							Federal	CONTRIBUTION
CONSTRUCTION COST:							State	CATEGORY
CONTINGENCIES:							Local	
INDIRECT COSTS:							Contribution	
BOND FINANCING:								Constrained Statewide
TOTAL PROJECT COST:	Constrained		FUNDING		BY SHARE:			
	Statewide							

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various	5800-00-950	Various		Various		Constrained Statewide	
LIMITS FROM:	Grouped Project							
LIMITS TO:						MPO PROJECT ID:	11029-FXXE	
DESCRIPTION:	Safety					FUNDING CATEGORY:		
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							PROJECT HISTORY:	
PRELIMINARY ENGINEERING:							Authorized Funding by Category/Share:	
ROW PURCHASE:							Federal State Local Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:								
CONSTRUCTION COST:								
CONTINGENCIES:								
INDIRECT COSTS:								Constrained Statewide
BOND FINANCING:	Constrained		FUNDING					
TOTAL PROJECT COST:	Statewide		BY SHARE:					
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various	5000-00-956	Various		Various		Constrained Statewide	
LIMITS FROM:	Grouped Project							
LIMITS TO:						MPO PROJECT ID:	11030-FXXE	
DESCRIPTION:	Landscaping					FUNDING CATEGORY:		
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							PROJECT HISTORY:	
PRELIMINARY ENGINEERING:							Authorized Funding by Category/Share:	
ROW PURCHASE:							Federal State Local Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:								
CONSTRUCTION COST:								
CONTINGENCIES:								
INDIRECT COSTS:								Constrained Statewide
BOND FINANCING:	Constrained		FUNDING					
TOTAL PROJECT COST:	Statewide		BY SHARE:					

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various	5800-00-915	Various		Various		Constrained Statewide	
LIMITS FROM:	Grouped Project							
LIMITS TO:						MPO PROJECT ID:	11031-FXXE	
DESCRIPTION:	Intelligent transportation systems development					FUNDING CATEGORY:		
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							PROJECT HISTORY:	
PRELIMINARY ENGINEERING:							Authorized Funding by Category/Share:	
ROW PURCHASE:							Local	FUNDING BY
CONSTRUCTION ENGINEERING:							Federal	CONTRIBUTION
CONSTRUCTION COST:							State	CATEGORY
CONTINGENCIES:							Local	
INDIRECT COSTS:							Contribution	
BOND FINANCING:								Constrained Statewide
TOTAL PROJECT COST:	Constrained		FUNDING		BY SHARE:			
	Statewide							
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various	5000-00-916	Various		Various		Constrained Statewide	
LIMITS FROM:	Grouped Project							
LIMITS TO:						MPO PROJECT ID:	11032-FXXE	
DESCRIPTION:	Bicycle and pedestrian improvements					FUNDING CATEGORY:		
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							PROJECT HISTORY:	
PRELIMINARY ENGINEERING:							Authorized Funding by Category/Share:	
ROW PURCHASE:							Local	FUNDING BY
CONSTRUCTION ENGINEERING:							Federal	CONTRIBUTION
CONSTRUCTION COST:							State	CATEGORY
CONTINGENCIES:							Local	
INDIRECT COSTS:							Contribution	
BOND FINANCING:								Constrained Statewide
TOTAL PROJECT COST:	Constrained		FUNDING		BY SHARE:			
	Statewide							

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Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
BEAUMONT	Various	5000-00-917	Various		Various		Constrained Statewide
LIMITS FROM:	Grouped Project						
LIMITS TO:						MPO PROJECT ID:	11033-FXXE
DESCRIPTION:	Safety rest areas and truck weigh stations					FUNDING CATEGORY:	
REMARKS:						PROJECT HISTORY:	
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							
PRELIMINARY ENGINEERING:						Authorized Funding by Category/Share:	
ROW PURCHASE:						Federal	State
CONSTRUCTION ENGINEERING:						Local	Local Contribution
CONSTRUCTION COST:							FUNDING BY CATEGORY
CONTINGENCIES:							
INDIRECT COSTS:							Constrained Statewide
BOND FINANCING:	Constrained		FUNDING				
TOTAL PROJECT COST:	Statewide		BY SHARE:				
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
BEAUMONT	Various	5800-00-918	Various		Various		Constrained Statewide
LIMITS FROM:	Grouped Project						
LIMITS TO:						MPO PROJECT ID:	11034-FXXE
DESCRIPTION:	Transit improvements					FUNDING CATEGORY:	
REMARKS:						PROJECT HISTORY:	
AIR QUALITY BENEFIT EMISSIONS REDUCTION:							
PRELIMINARY ENGINEERING:						Authorized Funding by Category/Share:	
ROW PURCHASE:						Federal	State
CONSTRUCTION ENGINEERING:						Local	Local Contribution
CONSTRUCTION COST:							FUNDING BY CATEGORY
CONTINGENCIES:							
INDIRECT COSTS:							Constrained Statewide
BOND FINANCING:	Constrained		FUNDING				
TOTAL PROJECT COST:	Statewide		BY SHARE:				

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various		Various		Various			
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	06060-FXFE	
DESCRIPTION:		Placeholder: Category 1				FUNDING CATEGORY:		1
REMARKS:		Preventive Maintenance and Rehabilitation						
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:								
Authorized Funding by Category/Share:								
ROW PURCHASE:				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:			1	\$306,501,191	\$76,625,298	\$0	\$0	\$383,126,489
CONSTRUCTION COST:								
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:			FUNDING					
TOTAL PROJECT COST:			BY SHARE:	\$306,501,191	\$76,625,298	\$0	\$0	\$383,126,489
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various		Various		Various			
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	12023-FXFE	
DESCRIPTION:		Placeholder: Category 2				FUNDING CATEGORY:		2
REMARKS:		Metropolitan and Urban Area Corridor Projects						
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:								
Authorized Funding by Category/Share:								
ROW PURCHASE:				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:			2	\$63,829,600	\$15,957,400	\$0	\$0	\$79,787,000
CONSTRUCTION COST:								
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:			FUNDING					
TOTAL PROJECT COST:			BY SHARE:	\$63,829,600	\$15,957,400	\$0		\$79,787,000

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST		
BEAUMONT	Various		Various		Various				
LIMITS FROM									
LIMITS TO:							MPO PROJECT ID:	11035-FXXE	
DESCRIPTION:		Placeholder: Category 3				FUNDING CATEGORY:		3	
REMARKS:		Non-Traditionally Funded Transportation Projects							
AIR QUALITY BENEFIT EMISSIONS REDUCTION:					PROJECT HISTORY:				
PRELIMINARY ENGINEERING:					Authorized Funding by Category/Share:				
ROW PURCHASE:					Federal	State	Local	Local Contribution	FUNDING BY
CONSTRUCTION ENGINEERING:									CATEGORY
CONSTRUCTION COST:			3	\$88,779,946	\$22,194,987	\$0	\$0	\$110,974,933	
CONTINGENCIES:									
INDIRECT COSTS:									
BOND FINANCING:					FUNDING				
TOTAL PROJECT COST:				\$88,779,946	\$22,194,987	\$0	\$0	\$110,974,933	
BY SHARE:									
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST		
BEAUMONT	Various		Various		Various				
LIMITS FROM									
LIMITS TO:							MPO PROJECT ID:	06061-FXXE	
DESCRIPTION:		Placeholder: Category 4				FUNDING CATEGORY:		4	
REMARKS:		Statewide Connectivity Corridor Projects							
AIR QUALITY BENEFIT EMISSIONS REDUCTION:					PROJECT HISTORY:				
PRELIMINARY ENGINEERING:					Authorized Funding by Category/Share:				
ROW PURCHASE:					Federal	State	Local	Local Contribution	FUNDING BY
CONSTRUCTION ENGINEERING:									CATEGORY
CONSTRUCTION COST:			4	\$104,659,763	\$26,164,941	\$0	\$0	\$130,824,704	
CONTINGENCIES:									
INDIRECT COSTS:									
BOND FINANCING:					FUNDING				
TOTAL PROJECT COST:				\$104,659,763	\$26,164,941	\$0	\$0	\$130,824,704	
BY SHARE:									

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various		Various		Various			
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	06062-FXXE	
DESCRIPTION:	Placeholder: Category 5					FUNDING CATEGORY:	5	
REMARKS:	Congestion Mitigation and Air Quality Improvement							
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:						Authorized Funding by Category/Share:		
ROW PURCHASE:						Local	FUNDING BY	
CONSTRUCTION ENGINEERING:					Federal	State	Local	
CONSTRUCTION COST:			5		\$91,967,789	\$22,991,947	\$0	
CONTINGENCIES:							\$0	
INDIRECT COSTS:							\$114,959,736	
BOND FINANCING:								
TOTAL PROJECT COST:					FUNDING BY SHARE:	\$91,967,789	\$22,991,947	
						\$0	\$0	
							\$114,959,736	
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various		Various		Various			
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	02042-FXXE	
DESCRIPTION:	Placeholder: Category 6					FUNDING CATEGORY:	6	
REMARKS:	Bridges							
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:						Authorized Funding by Category/Share:		
ROW PURCHASE:						Local	FUNDING BY	
CONSTRUCTION ENGINEERING:					Federal	State	Local	
CONSTRUCTION COST:			6		\$105,578,214	\$26,394,554	\$0	
CONTINGENCIES:							\$0	
INDIRECT COSTS:							\$131,972,768	
BOND FINANCING:								
TOTAL PROJECT COST:					FUNDING BY SHARE:	\$105,578,214	\$26,394,554	
						\$0	\$0	
							\$131,972,768	

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
BEAUMONT	Various		Various		Various		
LIMITS FROM							
LIMITS TO:						MPO PROJECT ID:	06063-FXXE
DESCRIPTION:	Placeholder: Category 8					FUNDING CATEGORY:	8
REMARKS:	Safety						
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:	
PRELIMINARY ENGINEERING:						Authorized Funding by Category/Share:	
ROW PURCHASE:						Local	FUNDING BY
CONSTRUCTION ENGINEERING:					Federal	State	Local
CONSTRUCTION COST:			8		\$42,240,543	\$10,560,136	\$0
CONTRIBUTION							\$52,800,679
CONTINGENCIES:							
INDIRECT COSTS:							
BOND FINANCING:							
TOTAL PROJECT COST:					FUNDING BY SHARE:	\$42,240,543	\$10,560,136
						\$0	\$0
							\$52,800,679
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
BEAUMONT	Various		Various		Various		
LIMITS FROM							
LIMITS TO:						MPO PROJECT ID:	06064-FXXE
DESCRIPTION:	Placeholder: Category 9					FUNDING CATEGORY:	9
REMARKS:	Transportation Enhancements						
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:	
PRELIMINARY ENGINEERING:						Authorized Funding by Category/Share:	
ROW PURCHASE:						Local	FUNDING BY
CONSTRUCTION ENGINEERING:					Federal	State	Local
CONSTRUCTION COST:			9		\$11,856,971	\$2,964,243	\$0
CONTRIBUTION							\$0
CONTINGENCIES:							\$14,821,214
INDIRECT COSTS:							
BOND FINANCING:							
TOTAL PROJECT COST:					FUNDING BY SHARE:	\$11,856,971	\$2,964,243
						\$0	\$0
							\$14,821,214

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various		Various		Various			
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	11036-FXFE	
DESCRIPTION:		Placeholder: Category 10				FUNDING CATEGORY:		10
REMARKS:		Supplemental Transportation Projects						
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:								
Authorized Funding by Category/Share:								
ROW PURCHASE:				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:			10	\$12,126,106	\$3,031,526	\$0	\$0	\$15,157,632
CONSTRUCTION COST:								
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:			FUNDING					
TOTAL PROJECT COST:			BY SHARE:	\$12,126,106	\$3,031,526	\$0	\$0	\$15,157,632
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various		Various		Various			
LIMITS FROM								
LIMITS TO:						MPO PROJECT ID:	02043-FXFE	
DESCRIPTION:		Placeholder: Category 11				FUNDING CATEGORY:		11
REMARKS:		District Discretionary						
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:		
PRELIMINARY ENGINEERING:								
Authorized Funding by Category/Share:								
ROW PURCHASE:				Federal	State	Local	Local Contribution	FUNDING BY CATEGORY
CONSTRUCTION ENGINEERING:			11	\$23,488,846	\$5,872,211	\$0	\$0	\$29,361,057
CONSTRUCTION COST:								
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:			FUNDING					
TOTAL PROJECT COST:			BY SHARE:	\$23,488,846	\$5,872,211	\$0	\$0	\$29,361,057

PHASE: C=CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER

Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Jefferson				Various			
LIMITS FROM								
LIMITS TO:							MPO PROJECT ID:	12024-FXXE
DESCRIPTION:		Placeholder: FTA 5307			FUNDING CATEGORY:		FTA 5307	
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:					PROJECT HISTORY:			
PRELIMINARY ENGINEERING:				Authorized Funding by Category/Share:				
ROW PURCHASE:				Federal	State	Local	Local Contribution	FUNDING BY
CONSTRUCTION ENGINEERING:								CATEGORY
CONSTRUCTION COST:			FTA 5307	\$52,343,603	\$13,495,382	\$62,761,893		\$128,600,878
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:								
TOTAL PROJECT COST:			FUNDING BY SHARE:	\$52,343,603	\$13,495,382	\$62,761,893		\$128,600,878
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST	
BEAUMONT	Various				Various			
LIMITS FROM								
LIMITS TO:							MPO PROJECT ID:	12025-FXXE
DESCRIPTION:		Placeholder: FTA 5310			FUNDING CATEGORY:		FTA 5310	
REMARKS:								
AIR QUALITY BENEFIT EMISSIONS REDUCTION:					PROJECT HISTORY:			
PRELIMINARY ENGINEERING:				Authorized Funding by Category/Share:				
ROW PURCHASE:				Federal	State	Local	Local Contribution	FUNDING BY
CONSTRUCTION ENGINEERING:								CATEGORY
CONSTRUCTION COST:			FTA 5310	\$3,473,599		\$868,395		\$4,341,994
CONTINGENCIES:								
INDIRECT COSTS:								
BOND FINANCING:								
TOTAL PROJECT COST:			FUNDING BY SHARE:	\$3,473,599		\$868,395		\$4,341,994

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Table 12.1 Continued: Planned Improvements

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
BEAUMONT	Various				Various		
LIMITS FROM							
LIMITS TO:						MPO PROJECT ID:	12026-FXXE
DESCRIPTION:	Placeholder: FTA 5311					FUNDING CATEGORY:	FTA 5311
REMARKS:							
AIR QUALITY BENEFIT EMISSIONS REDUCTION:						PROJECT HISTORY:	
PRELIMINARY ENGINEERING:						Authorized Funding by Category/Share:	
ROW PURCHASE:						Local	FUNDING BY
CONSTRUCTION ENGINEERING:					Federal	State	Local
CONSTRUCTION COST:			FTA 5311		\$10,568,163	\$7,716,871	\$5,488,973
CONTRIBUTION							
CONTINGENCIES:							
INDIRECT COSTS:							
BOND FINANCING:							
TOTAL PROJECT COST:			FUNDING BY SHARE:		\$10,568,163	\$7,716,871	\$5,488,973
							\$23,774,007

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Appendix A



Public Involvement Documentation

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In accordance with federal legislation and regulations, and as part of the transportation planning process, the public was invited to review and comment on the Exempt Project Jefferson-Orange-Hardin Regional Transportation Study Metropolitan Transportation Plan-2035 (JOHRTS MTP-2035). The South East Texas Regional Planning Commission-Metropolitan Planning Organization (SETRPC-MPO) made the document available for public review on the SETRPC website (www.setrpc.org/ter) and at the SETRPC office for a 30-day public comment period from March 4, 2013 to April 2, 2013.

The SETRPC-MPO conducted four meetings in March 2013 to allow the public to review and comment on the draft Exempt Project JOHRTS MTP-2035. These meetings were held at the following locations:

- Jefferson County
 - South East Texas Regional Planning Commission-March 18, 2013
 - Port Arthur Public Library-March 20, 2013
- Orange County
 - Orange Public Library-March 19, 2013
- Hardin County
 - Lumberton City Hall-March 21, 2013

Copies of the notices and advertisements for meetings are included in this attachment for informational purposes, along with the sign-in sheets from each meeting.

The SETRPC-MPO did not receive any written public comments during the public meetings.

The SETRPC-MPO received one written comment during the 30-day public comment period:

- The Texas Department of Transportation-Beaumont District requested that a transportation enhancement project be added. The CSJ for this project is 0920-38-239 and it is a project to construct a hike and bike trail within the City of Beaumont from Dowlen to FM 364. This project was added to the MTP with MPO ID 12027-FXXE, and all maps, analyses, and financial information was updated to reflect its addition.

Note:

- Since the availability of this document for the comment period, the SETRPC-MPO staff performed minor revisions to correct typographical errors, provide additional text for understanding, and minor changes to provide more accurate project cost information.

We Value Your Input

Monday, March 18

South East Texas
Regional Planning
Commission
2210 Eastex Freeway
Beaumont, Texas
2:00 PM

Tuesday, March 19

Orange Public Library
220 North 5th Street
Orange, Texas
4:00 PM

Wednesday, March 20

Port Arthur Public
Library
4615 9th Avenue
Port Arthur, Texas
2:00 PM

Thursday, March 21

Lumberton City Hall
836 North Main
Lumberton, Texas
5:00 PM

Please join us for a meeting about Southeast Texas' Metropolitan Transportation Plan and Transportation Improvement Program!

Learn about the road, transit, bicycle, pedestrian, and safety projects that are proposed for the area, how much they will cost, and when they will happen.

Share your opinion on the proposed projects and provide input on what you want to see in the future. The public review and comment period will be held March 4 — April 2, 2013.

The South East Texas Regional Planning Commission— Metropolitan Planning Organization is responsible for planning transportation improvements in Hardin, Jefferson, and Orange Counties, and we hope to hear from you.

Please attend any meeting to provide input or submit written comments by 5:00 PM, April 2, 2013 to: Bob Dickinson, 2210 Eastex Freeway, Beaumont, Texas 77703. All comments received will be addressed and provided to the Transportation Planning Committee for consideration.

For special needs requests, please contact Bob Dickinson at least 48 hours in advance at 409-899-8444 x 7520 or bdickinson@setrpc.org.



South East Texas Regional Planning Commission

www.setrpc.org/ter



South East Texas Regional Planning Commission
2210 Eastex Freeway • Beaumont, Texas • 77703
409-899-8444 (office) • 409-729-6511 (fax)
www.setrpc.org

FOR IMMEDIATE RELEASE

March 5, 2013

CONTACT: Bob Dickinson – Director, Transportation and Environmental Resources
409-899-8444 extension 7520 or email: bdickinson@setrpc.org

Public Encouraged to Provide Comments on Exempt Project Metropolitan Transportation Plan 2035 and revisions to the Exempt Project FY 2013-2016 Transportation Improvement Program

“SETRPC to Host Series of Public Meetings beginning Monday, March 18th”

(Beaumont) --- The South East Texas Regional Planning Commission (SETRPC) will host a series of public meetings beginning **Monday, March 18, 2013**, providing citizens in Jefferson, Orange and Hardin Counties the opportunity to learn about and comment on the **Exempt Project Metropolitan Transportation Plan 2035** and revisions to the **Exempt Project FY 2013-2016 Transportation Improvement Program**. “This is an opportunity for the public to be directly involved in the process and have their voices heard as we make recommendations to address transportation-related issues that are affecting the southeast Texas region. Public input is an essential part of this process and we want to make sure the needs of our region are properly addressed,” says Bob Dickinson, Director of Transportation and Environmental Resources for SETRPC.

The 30-day public comment period is being held March 4 through April 2, 2013. The public is encouraged to attend a meeting or provide written comments by 5:00 PM, Tuesday, April 2, 2013. Four public meetings will be held in **Beaumont, Orange, Port Arthur, and Lumberton** at the following locations:

Monday, March 18, 2013 - 2:00 PM

South East Texas Regional Planning Commission, 2210 Eastex Freeway, Beaumont, TX

Tuesday, March 19, 2013 - 4:00 PM

Orange Public Library, 220 North 5th Street, Orange, TX

Wednesday, March 20, 2013 - 2:00 PM

Port Arthur Public Library, 4615 9th Avenue, Port Arthur, TX

Thursday, March 21, 2013 - 5:00 PM

Lumberton City Hall, 836 North Main, Lumberton, TX

These meetings are designed to solicit the public’s ideas and input on proposed transportation improvement projects planned for the southeast Texas area. All meetings are the same and are not restricted to a specific area. The public is strongly encouraged to be an active part of this process by selecting a meeting day and time that fits their schedule. For more information or for special needs requests (48 hours), please contact **Bob Dickinson** at (409) 899-8444 extension 7520 or bdickinson@setrpc.org.

SETRPC is designated as the Metropolitan Planning Organization (MPO) for the Jefferson-Orange-Hardin Regional Transportation Study (JOHRTS) area. SETRPC, in conjunction with the Texas Department of Transportation, local governments and other interested parties, facilitates the regional multi-modal transportation planning process.



South East Texas Regional Planning Commission

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TRANSPORTATION & ENVIRONMENTAL RESOURCES DIVISION

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- [Transportation](#)
- [Environmental Resources](#)
- [Economic Development](#)
- [Information & Data](#)
- [Get Involved](#)

The Transportation and Environment Resources Division administers federal and state funds for implementation of related programs within the three-county region.

[More About Us >](#)

DRAFT Exempt Project JOHRTS Metropolitan Transportation Plan - 2035 available ([read more...](#))

DRAFT Revisions to the Exempt Project JOHRTS FY 2013-2016 Transportation Improvement Program available ([read more...](#))

Regional Public Transportation Coordination Planning is underway ([read more...](#))

Beaumont-Port Arthur designated attainment for 1997 Ozone Standard ([read more...](#))

[Upcoming Meetings](#)

[Census Data](#)

[Regional Maps](#)

[Transit in Southeast Texas \(Tránsito del Sureste de Texas-En español\)](#)

[Green Waste Disposal Video](#)

Explore

Current Projects

Explore the Division's current projects around the region. [explore >](#)



Find

Meetings & Events



Find out how the Division supports the three-county region by attending a meeting or event. [find >](#)

View

Regional Maps & Data

Data collected and maintained by the Division from a variety of sources, including the Census Bureau, TxDOT, and others. [view >](#)



We Value Your Input!

The **South East Texas Regional Planning Commission (SETRPC)** is the designated Metropolitan Planning Organization (MPO) for the Jefferson-Orange-Hardin Regional Transportation Study (JOHRTS) area, comprised of Jefferson, Orange and Hardin Counties. In conjunction with the **Texas Department of Transportation**, the SETRPC-MPO is responsible for an overall plan that identifies the most desirable and efficient means of meeting transportation needs for the next twenty years.

As part of the continuing, cooperative, and comprehensive transportation planning process, the SETRPC-MPO will be hosting a series of public meetings to provide the public an overview of and an opportunity to comment on the **DRAFT Exempt Project JOHRTS Metropolitan Transportation Plan (MTP) - 2035** and revisions to the **Exempt Project JOHRTS FY 2013-2016 Transportation Improvement Program**. All meetings are the same and are not restricted to a specific area. Please choose a meeting day and time that fits your schedule.

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836 North Main
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PUBLIC NOTICE

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Legal Notices

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TRANSPORTATION &
ENVIRONMENTAL
RESOURCES

REGISTRATION

PLEASE PRINT

MEETING: Public Meeting – MTP/TIP

LOCATION: SETRPC
Beaumont, Texas

DATE: Monday, March 18, 2013 – 2:00 PM

NAME	TITLE	AGENCY	PHONE	EMAIL
1. Bob Dickinson	Director T&E	SETRPC (MPO)	409-899-8444- 9520	bdickinson@setrpc.org
2. Megan Campbell	Transportation Planner/GIS Analyst	SETRPC-MPO	409-899-8444 x6605	mccampbell@setrpc.org
3. Susie Fontenot	Marketing		409-866-4804	
4.				
5.				
6.				
7.				
8.				
9.				
10.				



TRANSPORTATION &
ENVIRONMENTAL
RESOURCES

REGISTRATION

PLEASE PRINT

MEETING: Public Meeting – MTP/TIP

LOCATION: Orange Public Library
Orange, Texas

DATE: Tuesday, March 19, 2013 – 4:00 PM

NAME	TITLE	AGENCY	PHONE	EMAIL
1. Bobo Dickinson	T&E DIRECTOR	SETRPC (MPO)	409-866-5107	bdickinson@setrpc.us
2. Megan Campbell	TRANS. PLANNER GIS ANALYST	SETRPC	409-899-8444 x6665	mcampbell@setrpc.org
3. Dawn Burksteig	Reporter	The Orange leader	409-721-2809	dawn_b@orangeleader.com
4. Karen McQuinn	DISTRICT DESIGN ENGINEER	District for 8114 Gumbertown		Karen.McQuinn@otr.com
5. KENNETH WIFEMERS	DISTRICT DESIGN ENGINEER	TXDOT BMT	409 898 5723	KENNETH.WIFEMERS@TXDOT.GOV
6.				
7.				
8.				
9.				
10.				



TRANSPORTATION &
ENVIRONMENTAL
RESOURCES

REGISTRATION

PLEASE PRINT

MEETING: Public Meeting – MTP/TIP

LOCATION: Port Arthur Public Library
Port Arthur, Texas

DATE: Wednesday, March 20, 2013 – 2:00 PM

	NAME	TITLE	AGENCY	PHONE	EMAIL
1.					
2.	Megan Campbell	Trans. Planner GIS Analyst	SETRPC	409-899-8444 x6605	mcampbell@setrpc.org
3.	Taylor Shelton	P.W. Div.	City of PAW	409-719-4204	tshelton@ci.port-neches.tx.us
4.	Scott Ayres	TXDOT-BMT Planning Eng.	TXDOT-BMT	409-898-5743	scott.ayres@txdot.gov
5.	bob didrison	T&E Director	SETRPC	409-899-8444-9520	bdidrison@setrpc.org
6.					
7.					
8.					
9.					
10.					



TRANSPORTATION &
ENVIRONMENTAL
RESOURCES

REGISTRATION

PLEASE PRINT

MEETING: Public Meeting – MTP/TIP

LOCATION: Lumberton City Hall
Lumberton, Texas

DATE: Thursday, March 21, 2013 – 5:00 PM

NAME	TITLE	AGENCY	PHONE	EMAIL
1. <i>Sherrill Link</i>		<i>Lumberton</i>		
2. <i>Aurita Price</i>		<i>Lumberton</i>		
3. <i>Nicole Lane</i>		<i>Lumberton</i>		
4. <i>SUSAN COLLINS</i>		<i>LUMBERTON</i>		
5. <i>Leanna Shepard</i>	<i>Environmental Specialist</i>	<i>TXDOT Beaumont</i>	<i>(409) 898-5830</i>	<i>leanna.shepard @txdot.gov</i>
6. <i>Gene Wiserhant</i>				
7. <i>Don Shepard</i>	<i>Mayor</i>	<i>Lumberton</i>		
8. <i>Danny Sullins</i>	<i>Chief of Police</i>	<i>Lumberton PD</i>		
9. <i>Megan Campbell</i>	<i>Trans planner/ GIS Analyst</i>	<i>SETRPC-MPO</i>		
10. <i>Bob D. Clinton</i>	<i>TJEDirector</i>	<i>SETRPC-MPO</i>		

Appendix B



Revisions

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South East Texas Regional Planning Commission

2210 Eastex Freeway | Beaumont, Texas 77703

409-899-8444 ext. 6600

www.setrpc.org